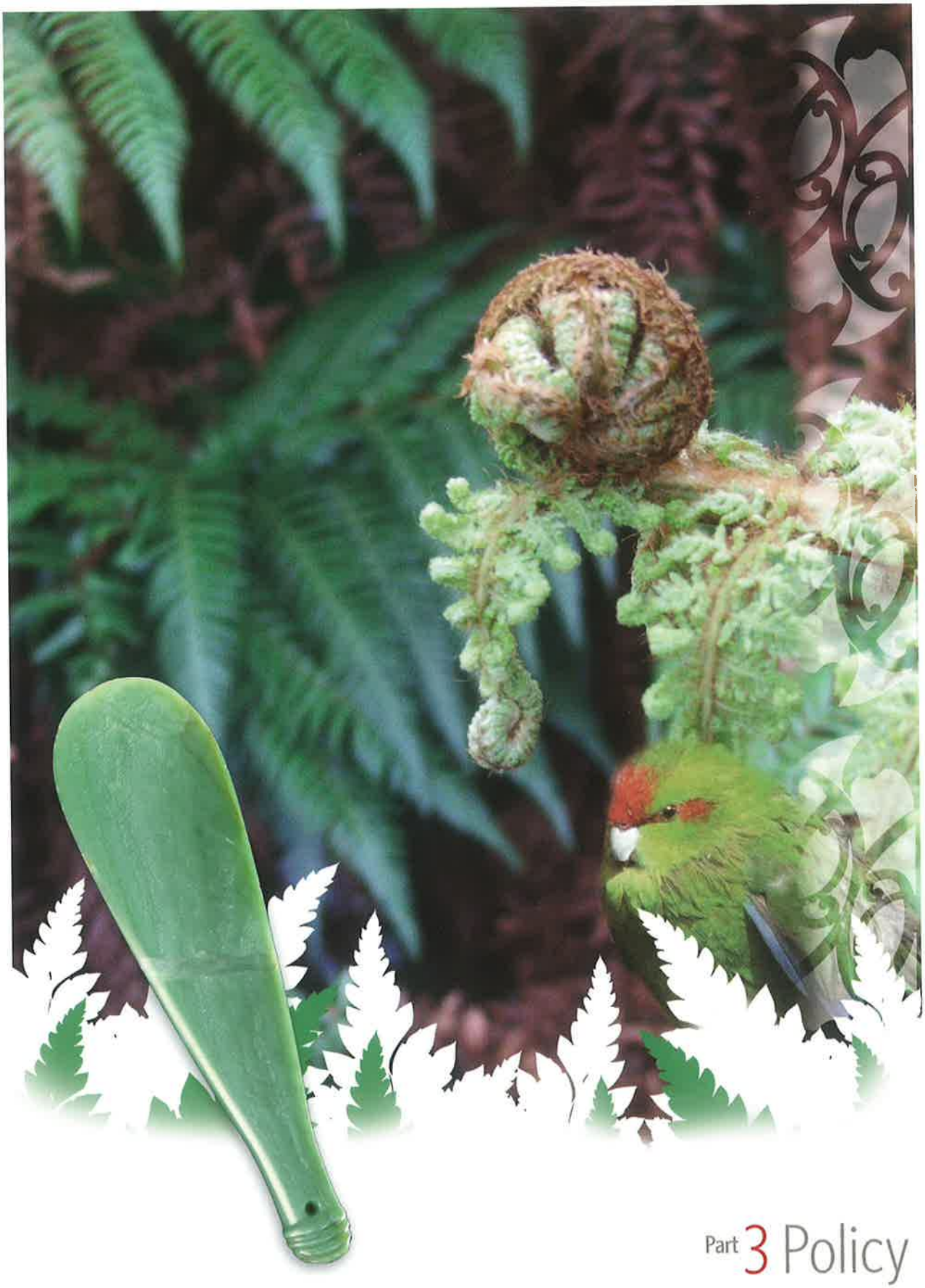


Part 3 Policy

Wāhi Tuatoru - Ngā Kaupapa

Hinga atu he tētē kura, ara mai he tētē kura

As a dead frond falls, a young shoot uncoils

Photo credits for artwork (previous page)

Main Photo
Source: Phaseill.com

Kākāriki (green parakeet)
Source: Venture Southland

Mere (greenstone hand weapon)
Source: Southland Museum / Topi whānau Bluff

Imagery

Like the shoot of the fern uncoiling, ideas progress to meet challenges.
Pounamu taonga such as patu were highly treasured. Policy or Kawa were strictly enforced by the people.

Part 3

Rārangi Upoko Table of Contents

Wāhi Tuatoru - Ngā Kaupapa Policy

Part 3	**Wāhi Tuatoru - Ngā Kaupapa** Policy	63
3.1	**Huringa Ahua o Te Rangi** Climate Change	67
3.1.1	Localised Influences on the Global Environment	68
3.1.2	Economy and Industry	72
3.1.3	Influences of Climate Change on Society and Health	73
3.2	**O Te Pū Hau** Air	77
3.2.1	Discharges to Air	79
3.2.2	Amenity Values	81
3.3	**Te Atawhenua** Fiordland	85
	Vision for Fiordland	86
	O Te Whenua The Land	87
3.3.1	Ngā Maunga - Mountains and Mountain Ranges	87
3.3.2	Mining and Gravel Extraction	89
3.3.3	Pounamu - Access and Management	89
3.3.4	Piopiotahi - Milford Sound	91
3.3.5	Fiordland Future Development	92
3.3.6	Visitor Management	93
3.3.7	Concessions	94
3.3.8	National Park Policy and Planning	95
3.3.9	Cultural Interpretation	96
	O Te Wai The Water	96
3.3.10	General Water Policy	96
3.3.11	Hydro Development/Generation	97
3.3.12	Ngā Roto Waimāori - Lakes	98
3.3.13	Te Mimi o Tū Te Rakiwhānoa - Coastal Fiordland	99
	Mahinga kai - Mahi Ngā Kai and Biodiversity	100
3.3.14	Customary Use	100
3.3.15	Nohoanga	102
3.3.16	Native Forest Ecosystems	103
3.3.17	Plant and Animal Pest Control	104

3.3.18	Species Recovery	105
	Wāhi Tapu Me Te Wāhi Taonga Sacred and Treasured Sites	106
3.3.19	Protecting Sites of Significance in Fiordland National Park	106

3.4	**Takitimu Me Ona Uri** High Country & Foothills	111

3.4.1	Tenure Review	113
3.4.2	High Country Pastoral Farming	115
3.4.3	Energy Generation and Efficiency	117
3.4.4	Mining and Exploration	118
3.4.5	Forestry (Exotic)	118
3.4.6	Ngahere – Indigenous Forestry	120
3.4.7	Vegetation Clearance and Burning	121
3.4.8	Access and Tourism	122
3.4.9	General Water Policy	123
	Mahinga kai, Biodiversity and Biosecurity	125
3.4.10	Plant Pests	125
3.4.11	Animal and Bird Pests	126
3.4.12	Mahinga kai – mahi ngā kai	126
3.4.13	Hazardous Substances and New Organisms	127
	Cultural Landscape, Wāhi Tapu and Wāhi Taonga	128
3.4.14	Protecting Sites of Significance in High Country and Foothill Areas	128
3.4.15	Rock Art	130

3.5	**Te Rā a Takitimu** Southland Plains	135

	O Te Whenua The Land	136
3.5.1	Farm Effluent Management	136
3.5.2	Wastewater Disposal	138
3.5.3	Solid Waste Management	140
3.5.4	Industry	141
3.5.5	Forestry	142
3.5.6	Stock Transport	142
3.5.7	Subdivision and Development	143
3.5.8	Earthworks	145
3.5.9	Mining	146
	O Te Wai The Water	147
3.5.10	General Water Policy	147
3.5.11	Rivers	148

3.5.12	Discharge to Water	157
3.5.13	Water Quality	158
3.5.14	Water Quantity - Abstractions	160
3.5.15	Activities in the Beds and Margins of Rivers	162
	Mahinga kai and Biodiversity	164
3.5.16	Mahinga kai	164
3.5.17	Ngā Pononga a Tāne a Tangaroa - Biodiversity	165
3.5.18	Repo – Wetlands	166
3.5.19	Riparian Zones	166
3.5.20	Freshwater Fisheries	168
	Wāhi Tapu Me Te Wāhi Taonga Sacred and Treasured Sites	169
3.5.21	Protection of Significant Sites	169
3.5.22	Wāhi Ingoa – Place Names	170
3.6	**Te Ākau Tai Tonga** Southland's Coastal Environment	173
3.6.1	General Policy for Southland's Coastal Environment	175
	O Te Whenua The Land	176
3.6.2	Coastal Land Use and Development	176
3.6.3	Structures in the Coastal Marine Area	178
3.6.4	Coastal Access	180
3.6.5	Coastal Mining and Extraction Activities	181
	O Te Wai The Water	182
	Te Moana o Atawhenua Fiordland Marine Area	182
3.6.6	Fiordland Commercial Surface Water Activities	182
3.6.7	Coastal Water Quality	184
3.6.8	Commercial Fishing	185
3.6.9	Recreational Fishing	186
3.6.10	Management Areas	187
3.6.11	Aquaculture and Marine Farms	190
3.6.12	Offshore Petroleum Exploration	192
	Mahinga kai and Biodiversity	193
3.6.13	Coastal Ecosystems	193
3.6.14	Marine Birds	196
	Wāhi Tapu Me Te Wāhi Taonga Sacred and Treasured Sites	197
3.6.15	Protection of Significant Coastal Sites	198
3.6.16	Wāhi Ingoa – Place Names	198

3.7 **Ngā Moutere o Murihiku** Offshore Islands 203

3.7.1 Retention of Natural Vegetation, Habitat and Fauna 205
3.7.2 Species Recovery and Translocation 206
3.7.3 Pest Management 207
3.7.4 Biosecurity 208
3.7.5 Tourism 209
3.7.6 Water Policy 210
3.7.7 Ngāi Tahu Claims Settlement Act 1998 211
3.7.8 Example of an Existing Management Regime 211

PART 3

Wāhi Tuatoru - Ngā Kaupapa
Policy

Wāhi Tuatoru, Part Three of this Plan addresses *Ngā Take* and *Ngā Kaupapa* associated with natural resource and environmental related activities and topics of importance to Ngāi Tahu ki Murihiku.

In this Plan, *Ngā Take* are issues of concern to activities, management approaches or processes that adversely impact on Ngāi Tahu ki Murihiku values. An issue is defined in this Plan, as an existing or potential problem that must be resolved to address adverse effects on Ngāi Tahu ki Murihiku values. *Ngā Kaupapa* are policies. They are a compiled list of Ngāi Tahu ki Murihiku management guidelines in such things as specific activities, species, ecosystems, landscapes or places. *Ngā Kaupapa* may include process, implementation or objective related information. They are intended to provide management guidance, according to Ngāi Tahu ki Murihiku values, in resolving significant environmental management issues and promoting the sustainable management of natural resources.

This Part of the Plan is divided into seven sections:

3.1 **Huringa Ahua o Te Rangi** - Climate Change

3.2 **O Te Pū Hau** - Air

3.3 **Te Atawhenua** - Fiordland

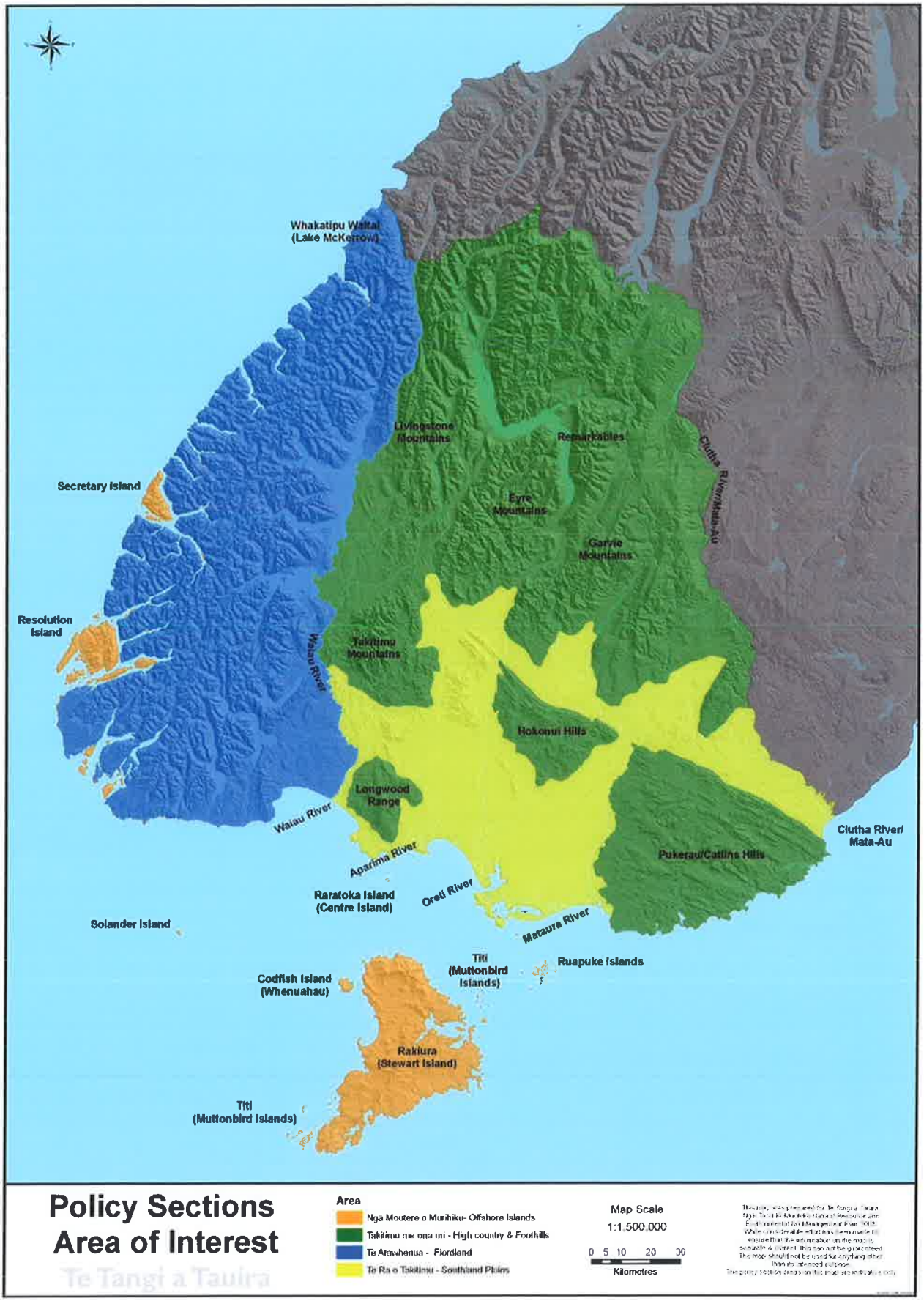
3.4 **Takitimu Me Ona Uri** - High Country and Foothills

3.5 **Te Rā a Takitimu** - Southland Plains

3.6 **Te Ākau Tai Tonga** - The Southern Sea Coast, Southland's Coastal Environment

3.7 **Ngā Moutere o Murihiku** - Offshore Islands

It is important to note that *Ngā Kaupapa* within any section are applicable across the entire plan. Overlap and connections between the sections occur. To aid readers, cross referencing has been provided as a guide to assist transition between the various sections of this plan.


Whakatipu Waitai
(Lake McKerrow)
Livingstone Mountains
Remarkables
Clutha River/Mata-Au
Secretary Island
Eyre Mountains
Garvie Mountains
Resolution Island
Takitimu Mountains
Waiau River
Hokonui Hills
Longwood Range
Waiau River
Clutha River/ Mata-Au
Aparima River
Pukerau/Catlins Hills
Oreti River
Raratoka Island (Centre Island)
Solander Island
Mataura River
Titi (Muttonbird Islands)
Ruapuke Islands
Codfish Island (Whenuahau)
Rakiura (Stewart Island)
Titi (Muttonbird Islands)
Policy Sections
Area of Interest
Te Tangi a Tauira
Area
Ngā Moutere o Murihiku- Offshore Islands
Takitimu me ona uri - High country & Foothills
Te Atawhenua - Fiordland
Te Ra o Takitimu - Southland Plains
Map Scale
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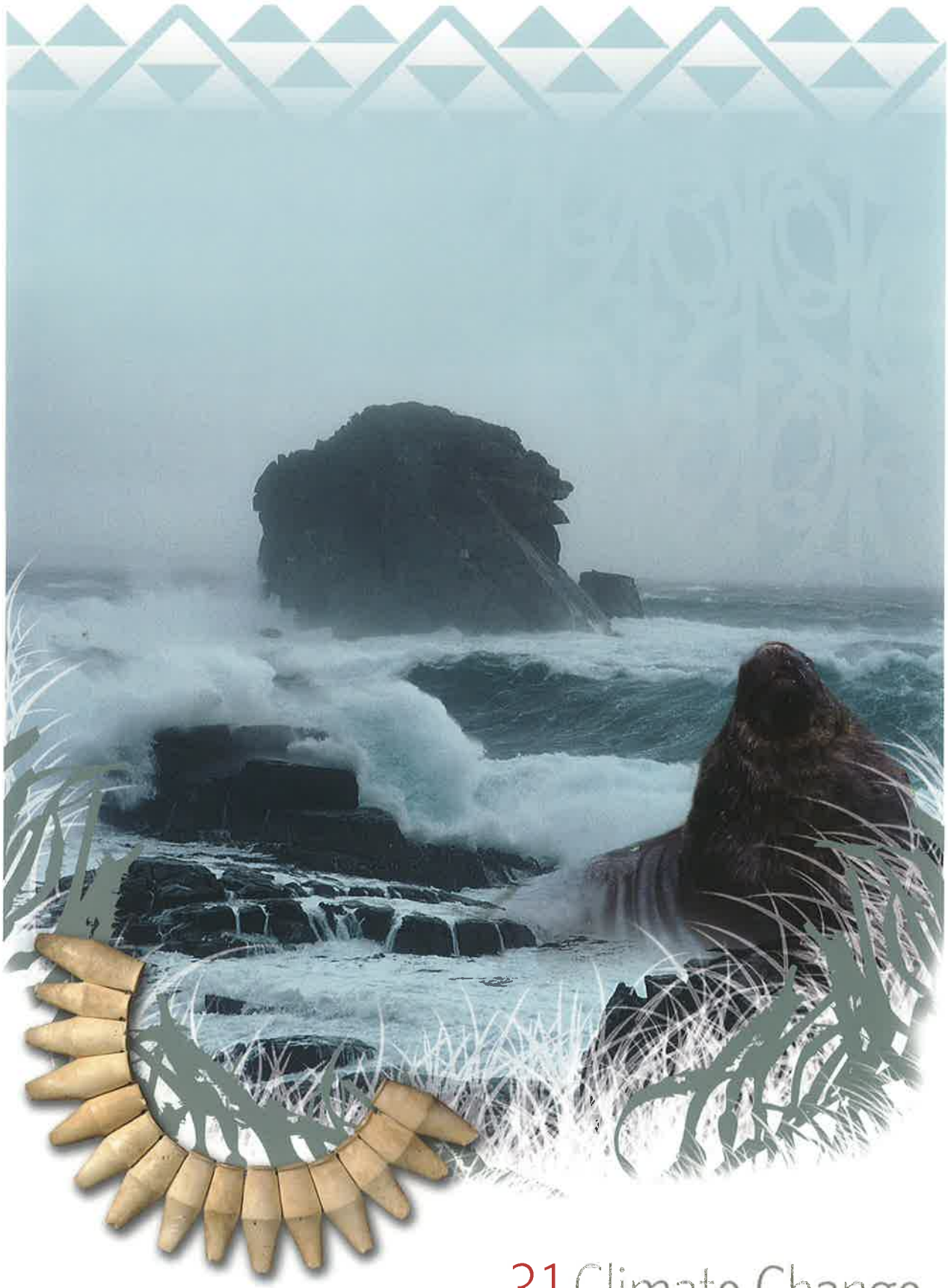
0 5 10 20 30
Kilometres



3.1 Climate Change
Huringa Ahua o Te Rangi

He Tokū Tū Moana, He Akina Na Ngā Tai

Rocks standing in the ocean are lashed from all directions

Photo credits for artwork (previous page)

Main Photo
Source: Department of Conservation

Tāhei (necklace)
Source: Southland Museum

Imagery

Evidence of our Tūpuna and the challenges of the climate have been left behind as archaeological evidence as this necklace taonga uncovered in a coastal dune suggests.

Kekeno (seals) and other animals also cope with change.

3.1

Huringa Ahua o Te Rangi
Climate Change

Climate change is real and it is here to stay. It is caused by the greenhouse gases produced by human activity. If we do not take action now, its consequences may be severe. New Zealanders are already experiencing changing weather patterns and warmer temperatures. If global warming continues unchecked, the negatives will outweigh the positives. There will be more frequent extreme weather events, erosion and saltwater intrusion from rising sea levels (potentially putting much of the most expensive real estate in our major cities and climate-reliant industries at risk). There would also be biosecurity threats from the spread of sub tropical pests and diseases, and increased cancer threat from delay in the recovery of the ozone layer.

Kyoto Protocol- Ensuring our future, New Zealand Climate Change Programme, Oct 2001

From an environmental and spiritual perspective, Māori see the world as a unified whole, where all elements, including tangata whenua, are connected. Emphasis is placed on maintaining the balance of cultural and spiritual values in the environment while using resources for commercial and social purposes. The changes brought on by a warming climate caused by human interference directly affect this balance.[1]

Coastal areas are of traditional importance to Māori. Many areas are significant for cultural, historical, social and economic reasons and are intrinsic to Māori identity. Coastal erosion and changes to the productivity of inshore fisheries could therefore have significant social, cultural and economic impacts on Māori in some regions.

Climate change has the potential to change the indigenous flora and fauna that Māori consider as taonga. An example of changing habitats as a result of climate change is demonstrated in the case study on page 70 of this section, 'Threats to our Tītī and Tio'. Particularly concerning are changes to habitat of indigenous flora and fauna used for traditional customary purposes.

This climate change section is an important feature of this Plan. As yet there are no established tribal policies with respect to climate change and national initiatives are only beginning to recognise indigenous observations with respect to our changing environment. Given this, the changing nature of climate change and the potential unknown threats that these effects may pose, Ngāi Tahu ki Murihiku recognise that climate change will affect communities as a whole, and in some cases damagingly.

The effects of climate change are becoming evident in every day actions. How we choose to manage the balance between use and protection of the environment, and this includes the impacts of climate change, underpin many of the policies throughout this document and are endorsed by Ngāi Tahu ki Murihiku. It is therefore important to read this section alongside other policy sections (many of which are cross referenced).

1 Climate Change Working Paper- Māori Issues, New Zealand Climate Change Working Paper, October 2001, p10

In this section, the following activities are addressed:

Section 3.1:
Huringa Ahua o Te Rangi - Climate Change

- Localised Influences on the Global Environment
- Economy and Industry
- Influences of Climate Change on Society and Health

3.1.1 Localised Influences on the Global Environment

Recurring reports of the effects of global climate change highlight notable changes in seasons, fluctuating weather patterns and the frequency and insurgence of storm-like events.

Although climate change is essentially global in nature, the effects of these changes are felt even more at regional and local levels. With an increase in greenhouse gas discharge at the global scale and the subsequent depletion of the ozone layer, local sources of emissions contribute further to global impacts. The effects of such in turn impact on the Southland environment.

Local sources of emissions include industrial point sources, domestic and agricultural sources, burning and refuse disposal sites. These emission sources are increasingly of concern to Ngāi Tahu ki Murihiku as they essentially affect the mauri of all things, animate or inanimate at local, regional and global scales. Understanding the cumulative effects that localised emissions have on the global environment is integral when promoting the need to prevent further deterioration of our environment.

Ngā Take - Issues

- Activities within Murihiku are contributing to the cumulative effects of greenhouse gas emission.
- Discharges to the atmosphere are affecting amenities and their values through increased odour, dust and reduced visibility.
- Increased exposure to noxious and toxic substances.
- Increased exposure and risk to health as a result of ozone depletion and high levels of solar radiation.
- High levels of deforestation of indigenous vegetation are affecting carbon dioxide levels.

- Increased risk due to an insurgence in storm like events and natural hazards as a result of sea level rise.
- Increased population and urban development contribute to increased levels of vehicle emissions.
- The effects of global climate change and their impacts on the environment may not be well understood by the Murihiku community.
- Effective solutions to address greenhouse emissions need to be managed at all levels.
- Effects on seafood food chains.
- Increased erosion induced by climate change on coastal archaeological and wāhi tapu/taonga sites (including Urupā).

Ngā Kaupapa - Policy

1. Advocate for the development of tribal policy in respect to climate change.
2. Actively engage and work with Te Rūnanga o Ngāi Tahu by contributing local rūnanga principles and views toward the formation of tribal policy in respect to climate change.
3. Actively engage and contribute to appropriate nationally led initiatives, policies, guidelines and programmes around issues affected by climate change. Policies should not limit, remove or restrict future options for development of Ngāi Tahu ki Murihiku assets and resources and the ability to exercise kaitiakitanga.
4. Support Māori ownership of climate change issues through more active involvement of Māori in science, environmental management and policy development.
5. Ensure that sustainable management and climate change policy does not lead to adverse environmental effects on indigenous species and ecosystems. Policy should support the continuation of activities and encourage the restoration and sustainable management of indigenous ecosystems.
6. Support the advancement of research into determining climate change impacts on seafood food chains.
7. Actively understand the vulnerability of Murihiku communities to climate change to ensure communities become more resilient.
8. Support and contribute to the development of regional planning documents which address vehicle emission concerns and sustainable transport initiatives.
9. Support sustainable energy systems (for houses, water and transport) to meet social and cultural needs while minimising environmental impacts.
10. Support local initiatives that promote awareness about the cumulative effects of greenhouse gas emission and the underlying health risks.
11. Actively support the promotion of appropriate disposal of toxic emissions and discharge methods through improved technology.
12. Support further development and improvement of contingency measures to recognise for increased natural hazard risk as a result of sea level rise and unpredictable weather patterns. Ngāi Tahu ki Murihiku will take an active role in the development of contingency measures and education of local communities.
13. Proposed climate change policies, legislation or strategies designed at national, regional and local levels must account for the Māori world view and provide and recognise for Treaty principles with respect to protection of and restoring balance within the environment. Furthermore to ensure policies are effective, they should be supported through monitoring, enforcement and incentives.
14. Recognise that increased coastal erosion induced by climate change can potentially impact on numerous archaeological and other wāhi tapu sites in the coastal environment.

Information source:

Māori and Climate Change, NIWA, 2nd Māori Climate Forum, May 2006, Hongoeka Marae, Plimmerton

Climate Change Consultation Hui, Indigenous Corporate Solutions Limited, March 2007

1st Māori Climate Forum, NIWA Wellington, 27 February 2003

Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

Kai Tahu ki Otago Natural Resource Management Plan 2005

Te Rūnanga o Ngāi Tahu Sustainable Land Management and Climate Change Submission March 2007

He Oranga Mou
He Oranga Mō Mātou
He Oranga Mō Tātou Katoa

A place of well-being for you,
for us,
for all of us

Threats to our Tītī and Tio
Mātauranga Māori, Mahinga kai Indicators
Aku tirohanga ki roto i te taiao
Observations by Michael Skerrett

The parasite *Bonamia ostreae*[2] severely affected the Foveaux Strait Oyster (tio) Fishery from the mid 1980s until 1991. Mortality was first reported in the tio fishery in 1983 and was followed by official closure in 1991.

The Foveaux Strait Oyster Advisory Committee, an advisory committee to the New Zealand Fishing Industry Board, undertook an investigation into the occurrence of this parasite among the oyster fishery in Foveaux Strait. This investigation was led by Ministry of Fisheries scientists, Dr. John Cranfield and Dr. Mike Hine, with the assistance of Dr. Bob Street a renowned scientist in this field for some 30 years. The investigation included detection, bisection and counting the number of parasites in oysters.

For a period of five years during the 1980s, Dr. Hine determined that the fishery was in a state of recovery. The oysters were large and fat and little evidence of the parasite was found among the fishery. On different occasions between 1984-1991 Dr Hine commented that the fishery may have been recovering. However each time the parasite numbers increased, increasing mortality numbers and leading to the eventual closure in 1991.

Dr Hine and Dr Street visited France and America to study the effects of the parasite in the fisheries found in these countries. During their visit they noted that the parasite was perpetually found in the fishery and would flare up at varying times.

Dr Hine and Dr Street determined that the Foveaux Strait Fishery had collapsed several times in the past as a result of this parasite.

Prior to the closure of the fishery in 1991, Dr Street returned to New Zealand and circulated a paper written by scientist Dr Carl Rask who studied the Long Island Sound Oyster Fishery. Several points were made in Dr Rask's paper;

- That the parasite is present in the fishery all the time.
- That the industry 'just lives with it' and works around it
- That the parasite is not a problem unless the tio are stressed, in poor condition, and/or starving as a result in the shortage of plankton.

2 *Bonamia ostreae* is an intercellular parasite affecting the blood cells of the flat oyster. Signs of the parasite are a yellow discolouration with extensive lesions on the gills and mantle of the oyster.

Source: International Council for the Exploration of the Sea - marine research institute www.ices.dk

Tio are filter feeders and they rely on plankton for sustenance. When there is plenty of food available the tio are big and fat and the parasite subsides. When plankton is in short supply and the tio are stressed and in poor condition, the parasite flares up and numbers are reduced.

Plankton, when in short supply, creates a domino effect throughout the food chain. This raises concern for tītī populations as plankton are a major source of sustenance for this population.

A flare up of the parasite was reported in early 1993. When harvesting of tītī began in April, the tītī, were found to be starving. It was considered that there would have been almost zero recruitment to the breeding stock that year.

Dr Tim Flannery, a visiting Australian Palaeontologist, gave a seminar in the early 1990s about the effects of El Nino Southern Oscillation events and explained that when an El Nino event occurs, the production of plankton drops in the waters around New Zealand and Australia. The fisheries during these events become much less productive. Such events explained why the incidence of bonamia had fluctuated in tio populations throughout the late eighties until its eventual closure in 1991. Dr Flannery raised the very grave concern that with global warming the incidence of El Nino would become more frequent and more intense.

Towards the mid 1990s, tio started to recover and the fishery was opened again with a small quota. By 2001 the fishery had steadily improved and the quota was raised a little.

In 1995, Rakiura Māori formed a partnership with the Department of Zoology and University of Otago to study tītī. In February 2001 scientists reported that breeding had been very successful, and there were large numbers of tītī chicks on the nests. Fishermen had reported that the sea was red with krill, and that the adult tītī were not going far to find food. Tītī were also found to be feeding around many of the islands.

In late February 2001 an El Nino event began and the tio fishery was absolutely devastated during that year. When the harvesting of tītī began in April of that year, the tītī chicks were undernourished and starving. This El Nino event continued until February of 2002 with spiralling effects from this event continuing well into 2002.

When the kaiaka (adult tītī) returned to the islands in late September early October 2001, their condition was very poor. Food had been limited throughout their migratory travels.

Upon returning from their migratory travels, tītī normally spend about a month cleaning out their burrows, rebuilding nests, courting and mating. They then spend a month at sea building up condition. If they don't reach an optimum weight then they abort their breeding.

In February 2002 scientists confirmed that tītī chick numbers were well down from what was expected. The El Nino event that had begun in early 2001 had devastated the tītī population. Further investigation during March and April 2002 reported that many chicks were hatching four to five weeks late.

A commonly understood tradition is that normally one year in seven, tītī chick numbers are low. If records had been kept and matched with El Nino events it is almost certain that this tradition would have matched these events.

In December-January 2004-05 and in 2005-06 there were mild El Nino events resulting in varying tītī chick ages. Both years at the end of January the chicks ranged in weight between 160-440 grams. A healthy weight on fledging in late April through May is around 900grms.

The timing of El Nino determines the effect on the success of the tītī season. Sometimes at the start of harvesting the tītī may not be in very good condition, as the adult tītī are struggling to find food. There then may be a change in weather events whereby food sources become more abundant and the adult birds return more frequently to the nests. The harvest season may provide for reasonable chick numbers. Alternatively the harvesting season may start out well but as food depletes the condition of the chicks may deteriorate resulting in a poor season.

The interconnected nature and success of breeding and recruitment of tītī and tio is heavily reliant on the availability of food. It is almost certain that this will be the case for other species. Local iwi are concerned that, with the effect of changes in the interdecadal pacific oscillation, increasing the frequency and intensity of El Nino events, numbers of tītī, the recruitment of breeding stock, tio and other taonga species will steadily decline.

3.1.2 Economy and Industry

The shaping of national climate change policy especially with respect to the economy and industry could have a significant affect on Māori. The choices which Māori make will be based on an ability to respond from an informed understanding of the implications that such policies will have on economic opportunities. The Māori world view requires higher level status in policy making given that it necessitates the need for all aspects of the environment to be considered during any activity. Ngāi Tahu ki Murihiku raise some concerns with respect to the implications on economy and industry from climate change and the associated national policies that are directed to curb such implications.

Ngā Take - Issues

- Climate Change may surmount existing disparities for Māori especially those involved in the primary sector.
- Uncertainty with respect to how climate change policy may affect Māori land use capability and iwi resource management.
- Exporting to non-Kyoto protocol countries.
- Policies which complement economic development.
- Involvement in national policy design and the capacity to make informed contributions.
- Promotion and use of non renewable energy.
- Representation of the Māori world view and Mātauranga (traditional Māori knowledge) in science based analysis.
- Increased involvement in research and development.
- Availability and access to understood information.

Ngā Kaupapa - Policy

1. Advocate for a more coordinated response in the governments response to climate change to ensure that disparities among communities with respect to health, housing and governance for example are not exacerbated as a result of climate change policy.
2. Ensure that Ngāi Tahu ki Murihiku are consulted at all levels to remove uncertainties with respect to the implications of climate change policy.
3. Support improvement of existing technologies to reduce emission and discharge levels and support movement toward new and efficient forms of technology as they develop. Support development of more efficient use of renewable energy sources.
4. Ensure Ngāi Tahu ki Murihiku are consulted with respect to changing technologies and the implications with respect to costs and needs for communities. Furthermore such technologies must be reflective of the changing world environment and recognise the influences of the trade economy particularly with respect to changing environmental ethics.
5. Consider environmental consequences, and international protocols and agreements, in relation to greenhouse gas when exporting product.
6. Ensure:
   a. access to the latest information on climate change to improve community awareness and to assist Ngāi Tahu ki Murihiku in managing their environmental resources;
   b. that information presented to Ngāi Tahu ki Murihiku is in a forum where complexity is removed and the relevance of such information is presented through an accessible and understood medium.
7. Advocate for policies that complement both regulation of activities that pose a threat to the environment but also complement economic development through advanced technology that reduces environmental impacts. Ngāi Tahu ki Murihiku may choose to become involved in such advances and must be provided with opportunities to do so.
8. Participate in planning for climate change and its potential risks to ensure industries and communities are well placed (build resilience) to deal with climate change conditions in the future. Such involvement could include building of partnerships with scientists, sharing of information, enhanced community engagement and education, joint management and co management of resources, and enhanced economic development through changing environments and technologies.
9. Enable Mātauranga, traditional Māori knowledge to be used in collaboration with western based science with respect to formation of climate change policy and response.
10. Endorse capacity building among Ngāi Tāhu ki Murihiku to ensure that representation of the Māori world view and values held, help to drive research and development with respect to climate change mitigation and response.

Information source:

Māori and Climate Change, 2nd Māori Climate Forum, May 2006, Hongoeka Marae, Plimmerton

Climate Change Consultation Hui, Indigenous Corporate Solutions Limited, March 2007

1st Māori Climate Forum, NIWA, Wellington, 27 February 2003

3.1.3 Influences of Climate Change on Society and Health

Ngā Take - Issues

- Ability to absorb additional costs from national commitments that may strive to reduce greenhouse gas emissions.
- Vulnerability of climate change patterns on health.
- Vulnerability to climate change differs regionally.
- Adaptation to changing environments.
- Risk management needs to encapsulate effects on Māori.
- Effects on spiritual heath and well-being.
- Displacement or loss of connection to the natural environment.

Ngā Kaupapa - Policy

1. Ensure that climate change policies do not disproportionately affect Māori with respect to abilities to absorb price increases on basic commodities such as food and energy as a result of commitments to meet reduced emission levels.
2. Ensure that the maintenance of Māori health is secured through policy which reflects the ability to adapt to changing environments. The ability to adapt needs to be taken into account during analysis of risks upon all sectors of the community. The capacity of each group

to adapt will be dependent on differing dimensions and some groups may require expertise and capital assurance.

3. Research undertaken into adaptation must be informed by thorough and ongoing analysis of effects on Māori from climate change, recognising all the inter-linkages between people and the physical environment.

4. Recognise that differing regions will be affected differently by climate change. Ngāi Tahu ki Murihiku wish to endorse this issue and ensure policy formed at a national level reflects regional dimensions and the stresses that climate change may have. Research must be reflective of the issues that face Murihiku communities. Policy should therefore be fully informed to recognise for regional divergence.

5. Ngāi Tahu ki Murihiku must be involved in risk management analysis that deals with climate change issues.

6. Ensure that it is understood that cultural order comes from the natural environment and that lack of respect, honour and protection of this natural order compromises Māori culture, well-being and spiritual health.

Information source:

Māori and Climate Change, 2nd Māori Climate Forum, May 2006, Hongoeka Marae, Plimmerton

Climate Change Consultation Hui, Indigenous Corporate Solutions Limited, March 2007

1st Māori Climate Forum, NIWA, Wellington, 27 February 2003

3.2 Air
O Te Pū Hau

Hokia ki ngā maunga, kia purea ai koe e ngā hau a Tāwhirimātea

Return to your mountain to be cleansed by the winds of Tāwhirimātea

Photo credits for artwork (previous page)

Main Photo
Source: Venture Southland

Kākā (*Nestor meridionalis*, forest parrot)
Source: Venture Southland

Tara (bird spear points)
Source: Southland Museum

Imagery

A boisterous Kākā on Okākā (near the Hump ridge) a wave which is said to have been one of three to have capsised the Takitimu waka

3.2

O Te Pū Hau

Air

O Te Pū Hau

Na te pō, ko te Ao,	*From eternity came the universe*
Tana ko te Ao mārama,	*From the universe the bright clear light*
Tana ko te Aotūroa,	*From the bright light the enduring light*
Tana ko te Kore te Whiwhia,	*From the enduring light the void unattainable*
Tana ko te Kore te Rawea,	*From the void unattainable, the void intangible*
Tana ko te Kore te Tāmaua,	*From the void intangible the void unstable*
Tana ko te Kore Mātua,	*From the void unstable the void endowed with*
Tana ko Māku,	*paternity*
Ka moe i a Mahoranuiatea,	*From which came the moisture*
Ka puta mai a Rangi,	*Which combined with limitless heavens*
Ka moea ki a Pokoharua te Pō,	*Produced the visible heavens*
Ka puta ki waho,	*Which combined with the great abyss of eternity*
Ko Hānui-a-rangi	*To produce the mother of all winds*
Ka puta mai ngā hau o te ao	*From which came the winds of the world*
Ko Te Raki, ko Te Tonga, ko Te Hauāuru, ko	*They are, the North wind, the South wind, the West*
Te Rāwhiti	*wind, the East wind*

This section of the plan describes *ngā take* (issues) and *ngā kaupapa* (policies) associated with the air and its effects on the land, water, coast, mahinga kai, biodiversity and wāhi tapu/wāhi taonga within the Murihiku region. This section focuses on specific issues of relevance to discharges to air, global issues and amenity values.

Whakapapa establishes links that maintain relationships between our people, language and their environment. All things whether animate or inanimate are connected and have Mauri, a life force. Therefore the welfare of any part of our environment determines the welfare of our people.

O Te Pū Hau, the surrounding air and atmosphere supports all things and its continued maintenance and protection contributes to improved global and regional air quality. Such a life force should be respected given its importance in protecting the survival of those and all things connected that will follow in generations to come.

It is important that this section is read alongside Section 1, Climate Change given the interwoven nature of impacts from activities affecting our surrounding air on our changing environment.

General

Air quality in most parts of New Zealand is clean and healthy relative to heavily industrialised countries. As yet we do not have the widespread pollution problems that are so often found linked to large industrial cities worldwide. However, increasingly some historical and more recent activities contributing discharges of contaminants to the air are becoming recognised as affording major effects on ones health and enjoyment of the environment. The air we breathe (part nitrogen, oxygen, water, argon, carbon dioxide and trace elements) and its quality affects our standard of living in all aspects of the living sense.

Historically, the main discharges of contaminants into the air by Māori were smoke from fires either at small scale during activities such as cooking or at the larger scale through bush clearance. High air quality was taken for granted. With time however advances in technology and increased population growth have led to increased discharge of harmful substances. Today, activities contributing to poor air quality stem from industrial, rural and domestic sectors, and include vehicle emissions, aerial spraying, sawmill operation, odour contamination, aerial discharge, and affect visual amenities.

To ignore the detrimental effects is contrary to the concept of kaitiakitanga – the holistic concept of environmental care.

Regionally issues of general concern include;

- the effect of discharges of contaminants into air on the air's quality, the health of people and communities and the environment;
- the release of greenhouse gases or ozone depleting substances into the air;
- the effect of discharges of contaminants to the air which can be noxious, dangerous, offensive and objectionable (i.e. odour, smoke or dust) on the environment or amenity values.

Vision for the Region's Ambient Air

This vision helps to establish the policy and its direction for this section of the plan.

- That it is ensured that Māori cultural and traditional beliefs are recognised and provided for when dealing with discharges of contaminants into air.
- That Ngāi Tahu ki Murihiku shall actively engage in and contribute to a co-ordinated response to the improvement of existing air quality within Southland.
- That the life supporting capacity, mauri, of the global atmosphere will be understood and protected through the principle of kaitiakitanga.
- To understand that the activities in the region are contributing towards the production of greenhouse gases and support necessary change to minimise adverse effects.
- That the impacts of change on resources including air should be seen as part of a whole and not in part.
- That the amenity values of special taonga (landmarks, significant places, wāhi tapu site) will be protected.
- That the quality of our environment will be protected from inappropriate, intrusive and offensive development, change or resource use.

In this section the following issues and activities are addressed:

Section 3.2:
O Te Pū Hau - Air

- Discharges to Air
- Amenity Values

He Tokū Tū Moana, He Akina Na Ngā Tai

Rocks standing in the ocean are lashed from all directions

3.2.1 Discharges to Air

The need to maintain a high quality of ambient air in Southland is of major concern to Ngāi Tahu ki Murihiku. Protection of ecosystem health, cultural well-being and values is paramount. Continued recognition and promotion of the importance of clean air and its life supporting capacity among our people and across all sectors requires a co-ordinated approach. Such an approach will be successful through effective implementation of integrated and understood solutions or management tools.

Ngāi Tahu ki Murihiku believe that increased participation in region wide decision making in respect to air quality and its management will assist in the implementation of effective management tools.

Ngā Take - Issues

Effects from industry and farming

- Discharges to air from industrial and trade premises impact on mahinga kai, taonga species, e.g. tītī, biodiversity and wāhi tapu, wāhi taonga.
- Discharges to air from chemical, fertiliser and other industrial manufacturing.
- The inappropriate storage and use of potentially hazardous chemicals can contribute to increased toxic emissions and have detrimental effects on cultural and environmental health.
- Increased noise pollution from localised industry, e.g. airports, industrial premises and car stereos.
- Spray drift through wind dispersal from toxins, fertiliser and effluent spread during farming operations.

Burning

- Vegetation clearance through burning on or adjacent to wāhi tapu, wāhi taonga sites can impact the tapu of the site and have damaging and corrosive effects.
- Impacts on air quality from localised burning and industrial power generation.

Social/cultural effects and iwi engagement

- Impacts on cultural well-being from poor air quality and airborne diseases.
- Discharges to air can be culturally offensive, e.g. from crematoriums or hospital waste.
- Increased vehicle emissions from increased reliance on motorised vehicles.
- Visual intrusion of light pollution.
- Increased duration and intensity of offensive odours.
- Lack of understanding of effects on cultural well-being, hinengaro (mind), wairua (spirit), mauri (life force), tinana (body) from increased levels of air pollution.
- Poor and reduced visibility of the celestial world (moon, stars) as a result of discharge and increased pollution.
- Use of highly technical information and jargon to explain air quality problems and poor dissemination of readily understood air quality information.

Māori take a holistic view believing that all things are connected e.g. if kai is affected by pollution, the tinana (body) will be affected degrading the mauri (life force), lowering the wairua (spirits), therefore affecting the hinengaro (mind).

Urban and tourism pressures

- Increased impact from urban population growth and increasing tourism sector.
- Emissions from domestic home heating.

Ngā Kaupapa - Policy

Industry and farming

1. Discourage discharges from industrial and trade premises that will have an impact on mahinga kai, taonga species, biodiversity, wāhi tapu and wāhi taonga.
2. Ensure that the processes used during activities that discharge to air are supervised and monitored to ensure that contaminant emissions are minimised.
3. Encourage existing activities that emit contaminants to air to evaluate, and where practical implement new technologies to reduce adverse effects on air quality.
4. Require new discharges to air to provide for periodic review and evaluation in advances of technologies to reduce adverse effects on air quality and to report on implementation of such technologies.
5. Support and advocate for controlled use and appropriate storage of highly toxic and hazardous substances within the region.
6. Participate in the development of industry guidelines or codes of practice to avoid the adverse affects of activities on air quality such as application of chemicals, cleaning methods, and spray painting techniques.
7. Best management methods for the application of fertiliser and effluent spread from farming operations shall be encouraged. Consideration should include factors relating to wind velocity and direction, groundwater and surface water proximity, application rates and topography.

Burning

8. Advocate for use of technical equipment that removes the need for burning of waste material. For example, mulching of organic material.

Social/cultural effects and iwi engagement

9. Discourage and prevent discharges to air that will have impacts on cultural well-being and community health.
10. Ensure that discharges of contaminants into the air such as dust, smoke and odour do not affect the amenity values of areas which are of cultural and historical significance to iwi.
11. Support local initiatives advocating for improved efficiency of motorised vehicles to reduce emissions and congestion.
12. Engage Ngāi Tahu ki Murihiku early in the consenting and permitting process for activities whereby there is discharge to air, particularly agrichemical and aerial spraying/topdressing and activities causing offensive odours. Discharges must not cause objectionable or offensive odour to the extent that is causes adverse effects beyond the boundaries of the consent holder's property.
13. Advocate for robust consent conditions with a maximum twenty-five years. Changes to consent conditions must be notified to affected parties and all consent conditions monitored routinely.
14. Actively engage Ngāi Tahu ki Murihiku early in consultation during the establishment, implementation and monitoring of national and regional air quality guidelines/regulations. Such guidelines shall provide for the Treaty of Waitangi, and Sections 6, 7 and 8 of the Resource Management Act 1991.
15. Encourage techniques to eliminate the effects of light pollution. Techniques should be introduced during planning phases for new suburban and coastal subdivisions and when assessing harbour and port procedures.
16. The duration for making informed decisions must be reflective of the potential risk of such activities.
17. Increase awareness of Mātauranga Māori about the interconnectedness of the environment and the impacts of cumulative effects on air quality.
18. Discourage the establishment of crematoriums near areas of cultural and historical significance.
19. Te Ao Mārama Inc. will continue liaison with local authorities and agencies to advocate for the importance of improved public awareness in respect to air quality.

Urban and tourism pressures

20. Advocate and support improved and clean forms of domestic home heating.

Cross Reference:

Provisions 3.4.8 Access and Tourism and 3.4.2 High Country Pastoral Farming, Section 3.4 *Takitimu me ona Uri* - High Country and Foothills

Provisions 3.1.1 Localised influence on the global environment and 3.1.3 Well being and Health, Section 3.1 *Huringa Ahua o Te Rangi* - Climate Change

3.2.2 Amenity Values

The welfare of any part of our environment determines the welfare of our people. This welfare extends to include those natural and physical characteristics which contribute to and make a place of value, a taonga; and is appreciated for its worth. This may be because of its recreational or cultural characteristics and qualities, its pleasantness, its aesthetic feel, associated smells and sounds or its natural appeal. Protecting these values that make a place, an environment, a moment so special, is pivotal to understanding the links between our people, our language and our environment.

The protection of amenity values with their subsequent qualities and characteristics includes issues that are associated with the protection and maintenance of air quality. It also extends to making informed decisions about future development and inappropriate, intrusive and poorly planned design, change and resource use.

Murihiku is home to many varying and diverse landscapes and amenity qualities.

Na ngā tūpuna I haehaetia te whenua hei oranga Mō ona ake hapū, whānau, iwi hei orokohanga Mō ngā uri a muri atu ka manawapa te hapū, te iwi, ka ora, ka tupu te iwi whānui.

Ka mau ngā karakia Mō te taiao, te ao, te whenua, te moana, ka noho mana motuhake te iwi I runga ena taumata o rātou Mā.

The ancestors worked with the whenua in a sustainable way to provide well-being for Hapū, whānau, iwi, a historical fact for their descendents to follow, ensuring the growth and health of the Nation.

Karakia must be maintained for the world, the environment, the whenua, the moana, so we can live with.

Mai ea te po, ki te ao,
ki te ao mārama
Here tangata here whenua
Ka tū te po, ka tū te ao
Te Tehewa mauri ora
Ko Papatūānuku te whenua

Through the realms of the night, to the day
To the world of light and knowledge

Tied as people tied to the whenua
Let night come, let day come it will always be

Aah such is life

Kaua e kai mokopuna

Do not devour your grandchildren

Ngā Take - Issues

Visual amenity and intrusion

- Visual impediment as a result of air pollution can impact on the qualities and values associated with a place, environment or landmark.
- Activities associated with the emission of dust, unacceptable and intense odour, and smoke can be visually, physically and environmentally intrusive.
- Light pollution can distort celestial darkness.
- Unfinished or deteriorating building or structures will emit corrosive elements and become visually intrusive and offensive.

Effects of development/industry on amenity values

- Increased transportation can alter appreciation for a place, environment or landmark.
- Inappropriately designed, and placement of development can affect visual amenity values.

Ngā Kaupapa – Policy

Visual amenity and intrusion

1. Limit through promotion of improved production and techniques, visual and physical effects from activities associated with exhaust emissions, dust, unacceptable and intense odour, smoke and lighting.
2. Ensure where avoidable that impacts from activities that create effects such as glare, shading, or electrical disturbance do not interfere with the amenity values associated with a place, environment or neighbouring property.

Effects of development/industry on amenity values

3. Ngāi Tahu ki Murihiku shall actively participate in interagency and cross boundary decision making in respect to development, design and placement of structures and where appropriate may provide qualified recommendations for the protection of amenity values.
4. Ngāi Tahu ki Murihiku shall provide qualified recommendations with respect to concerns raised related to odour and offensive discharge, from rural, urban and industrial activities.
5. Encourage those among the community who undertake domestic or farming activities such as burning, agrichemical and effluent spread to adopt best management practices to reduce effects on neighbouring amenity values.
6. Where there may be visual impacts on the natural and cultural landscapes as a result of development, encourage the integration of landscaping techniques which utilise reserve planting or vegetation screens to soften intrusion.

Cross reference:

Provision 3.4.2 High Country Pastoral Farming, Section 3.4 *Takitimu Me Ona Uri* - High Country and Foothills

Section 3.1 *Huringa Ahua o Te Rangi* - Climate Change

3.3 Fiordland
Te Atawhenua

Ko te reoreo a kea ki uta, ko te whakataki mai a toroa ki tai, a, he kōtuku ki te raki, he kākāpō ki te whenua.

The voice of the kea is heard inland and the voice of the albatross is heard at sea, a kōtuku in the sky , a kākāpō on the ground. Everything has its rightful place

Photo credits for artwork (previous page)

Main Photo
Source: Venture Southland

Kākāpō (*Strigops habroptilus,* flightless parrot)
Source: Department of Conservation

Patu Parāoa (short whale-bone fighting weapon)
Source: Southland Museum

Imagery

A once common Kākāpō symbolic of human interference and our desire to change before it may be too late

3.3

Te Atawhenua
Fiordland

Taupara Mō Atawhenua

Tū wātea te Waka o Aoraki
Tū te ngahere a Tāne
Ngā wai keri a Tū Te Rakiwhānoa
Rere mai rere atu wai a Tangaroa
Honoa wai o maunga
Ki te Moana a Tawhaki
Papaki tū Ki te Moana
Tapokapoka a Tawhaki
Ka tū te mana

Te ihi
Te wehi
Te tapu
O Kāi Tahu, Kāti Mamoe, Waitaha
Whano! Whano! haramai te toki
Haumi e,
Hui e,
Taiki e!

The waka of Aoraki lay barren
Then Tāne created the forests
Tū Te Rakiwhānoa sculptured the Fiords allowing
the sea to flow in and out and
mix with the rivers that flow from the mountains to
the seas of the west
The waves of which clash
With those of the Great Southern Ocean

The prestige endures
The strength endures
The awesomeness endures
The sacredness endures
Of Kāi Tahu, Kāti Mamoe, Waitaha
It's alive! It's alive! Bring on the toki
Gather
Bind
All is set

This section of the plan describes *ngā take* (issues) and *ngā kaupapa* (policies) associated with the land, water, coast, mahinga kai, biodiversity and wāhi tapu/wāhi taonga of the Fiordland region, from the Waiau River west, including the lakes and the mountains of south-western Te Waipounamu, between Whakatipu Waitai (Lake McKerrow) and Tawhititarere. For the purposes of this Plan this area is referred to as Atawhenua, however there are several other names for this area.

The Fiordland area represents, in tradition, the raised up sides of Te Waka o Aoraki, after it foundered on a submerged reef and its occupants, Aoraki and his brothers, were turned to stone. The brothers are now manifested in the highest peaks of Ngā Tiritiri o Te Moana (the Southern Alps)[3]. The Fiords at the southern end of the Alps were carved out of the raised side of the wrecked Te Waka o Aoraki (the canoe of Aoraki) by Tū Te Rakiwhānoa, in an effort to make it habitable by humans. The deep gouges and long waterways that make up the Fiords were intended to provide safe havens on the rugged coastline, and stocked with fish, forest and birds to sustain humans.

It was the richness of pounamu (particularly koko-tangiwai) and mahinga kai resources that attracted Ngāi Tahu to Fiordland. Thus the area has a network of coastal settlements, pounamu trails, mineral working areas, kāinga, nohoanga, cultivation areas, and fishing grounds. The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of the lakes, rivers and coast and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

There are numerous trails throughout Fiordland. A sea route around the Fiords links Piopiotahi (Milford Sound) to Murihiku and was the main route by which the koko-takiwai gathered from that end of the Fiords was transported. An important inland route for transporting koko-tangiwai lay over what is now known as the Milford Track, over Omanui (McKinnon Pass), down the Waitawai (Clinton River) to the head of Te Ana-au (Lake Te Anau). From there, the pounamu would be transported by mōkihi to the head of the Waiau River, and down the Waiau to Te Ara a Kiwa (Foveaux Strait).

The lands addressed in this section of the plan are part of Fiordland National Park, the largest national park in New Zealand. The region is part of Te Wahipounamu (the place of pounamu), a UNESCO World Heritage Area established in 1990. World Heritage is a global concept that identifies natural and cultural sites of world significance, places so special that protecting them is of concern for all people.

Key management issues for Ngāi Tahu ki Murihiku in Fiordland are those associated with visitor management (recreation, tourism, and concessions), natural resource use (hydro electric power development), protection of wilderness areas, species recovery, and customary use of culturally important resources on conservation land.

Vision for Fiordland

In developing this Iwi Management Plan (IMP), Ngāi Tahu ki Murihiku articulated a vision for Fiordland. The vision sets the policy direction for this section of the Plan.

- That the lands, waters and biodiversity of Fiordland are managed in a way that is consistent with indigenous concepts of wilderness –whereby humans are a part of nature, as opposed to separate from it, and sustainable customary use is consistent with the protection of this special place.
- That the pristine waters of Fiordland are used as a baseline for water quality policy in other areas of Fiordland.
- That throughout the Fiordland region, we keep up with best practice and new technologies, to minimise the impacts of tourism, development and other human activities.
- That tourism and visitor activities are concentrated in areas where infrastructure already exists (e.g. Milford Sound), as opposed to opening up new areas for development, and that existing areas of development are managed in a co-ordinated, sustainable way.
- That Ngāi Tahu development rights are recognised and given effect to in future development of Fiordland lands, waters and other resources.
- That the "sounds of Fiordland" (e.g. the dawn chorus) are restored, through effective and appropriate pest control operations and species recovery programmes.
- That Ngāi Tahu cultural heritage values associated with Fiordland are protected and enhanced, *mō tātou, ā, mō ngā uri ā muri ake nei,* for all of us and the generations that follow.

3 The name of the Southern Alps reflects how the snowcapped mountains resemble the whitecaps on the sea.

- That the lands, waters, sea, air and natural resources of Fiordland are managed in an integrated way.

In this section, the following activities, issues, ecosystems and places of importance are addressed:

Section 3.3
Te Atawhenua - Fiordland

- Mountains and Mountain Ranges
- Mining and Gravel Extraction
- Pounamu - Access and Management
- Piopiotahi - Milford Sound
- Future Development
- Visitor Management
- Concessions
- National Parks Policy and Planning
- Cultural Interpretation
- General Water Policy
- Hydro Development/Generation
- Ngā Roto Waimāori
- Commercial Surface Water Activities
- Customary Use
- Nohoanga
- Native Forest Ecosystems
- Plant and Animal Pest Control
- Species Recovery
- Protecting Sites of Significance in Fiordland National Park

O TE WHENUA THE LAND

Te whenua te wai ū mō ngā tamariki

Land is the nourishment for the next generation

The land of Fiordland is described by tangata whenua as *whenua-teitei* (lofty country) and *wetai* (remote).

3.3.1 Ngā Maunga - Mountains and Mountain Ranges

Mountains and mountain ranges play an important role in the spiritual and cultural beliefs of Ngāi Tahu Whānui. They are linked in whakapapa to the atua (gods), are considered the most sacred part of the landscape.

There are numerous maunga that tangata whenua have important customary, historical, and cultural associations with, including Tūtoko. Takitimu and Pikirakatahi (Mount Earnslaw). The special importance of Tūtoko, Takitimu and Pikirakatahi are recognised in the Ngāi Tahu Claims Settlement Act 1998 through Statutory Acknowledgement and Tōpuni mechanisms.

Tūtoko is the kaitiaki of Whakatipu Waitai (Lake McKerrow), the westernmost creation of Rakaihautu, and a kāinga and pounamu trail associated with gaining access to koko-tangiwai at Piopiotahi (Milford Sound) and Poison Bay further south. Pikirakatahi stands as a kaitiaki over the pounamu resource; staging camps for the retrieval of pounamu were located at the base of the mountain.

Takitimu is a symbolic reminder of the famous exploits of Tamatea in the South, and a reminder forever locked into the landscape of the tūpuna (ancestral) waka.

Ngā Take - Issues

- Protection of cultural values associated with mountain landscapes.
- Impacts of tourism and recreation activities on mountain landscapes, and the relationship of Ngāi Tahu with such landscapes.
- Interpretation of Ngāi Tahu values associated with maunga.

Ngā Kaupapa - Policy

Landscape and cultural value protection

1. All Ngāi Tahu Whānui, current and future generations, must have the ability to access, use and protect mountain landscapes, and the history and traditions that are part of such landscapes.
2. Protect the mountains of Fiordland, as the headwaters of our rivers and lakes, to ensure continuous healthy flow *ki uta ki tai*, from mountains to the sea.
3. Require that the relationship between the history and identity of Ngāi Tahu ki Murihiku and mountains and mountain ranges is recognised and provided for in all decisions related to such places.
4. Require that concessionaires operating at Tūtoko, Takitimu and Pikirakautahi abide by the Ngāi Tahu Standard Conditions for Concessions (Appendix 5).
5. Require that those mountains where Statutory Acknowledgements apply are recognised for their special associations to Ngāi Tahu irrespective of expiry dates of 20 years contained in the Ngāi Tahu Claims Settlement (Resource Management Consent Notification) Regulations 1999. This means that places identified as Statutory Acknowledgements should continue to be:
   a. identified in relevant district and regional plans and policy statements as notice of their cultural importance to Ngāi Tahu (noting on plans);
   b. considered a trigger for a notice of application to Ngāi Tahu with respect to resource consents relating to, or impacting on, such areas (notice of applications);
   c. given regard to by Councils, the Environment Court and Historic Places Trust when decisions are made about who has the right to comment and be listened to, or to appear in court (Standing);
   d. accepted as evidence of the relationship of Ngāi Tahu with a particular area in any proceedings under the RMA or Historic Places Act, or other existing or future legislation.
6. Require that those mountains subject to Deeds of Recognition are recognised for their special associations to Ngāi Tahu in perpetuity. This means that:
   a. the cultural importance of such places is identified in relevant plans and policy;
   b. the landholding Crown agency (either DOC or LINZ) must have particular regard to the views of Ngāi Tahu ki Murihiku in relation to the management of these areas.

Interpretation and Tourism

7. Encourage respect for Ngāi Tahu's association with culturally significant mountains, including those recognised as Tōpuni, through working with the Department of Conservation to develop educational material to be made available to mountain climbers, the public, concessionaires and users of the area (e.g. encouraging users to remove rubbish and waste).
8. Actively encourage the use of Ngāi Tahu ki Murihiku wāhi ingoa associated with mountains and mountain ranges.
9. The use of any cultural information relating to mountains and mountain ranges, including interpretative material, must involve consultation with, and approval by, the appropriate kaitiaki rūnanga.

Cross Reference:

Section 4.18 Te Whakatau Kaupapa o Murihiku

Provision 3.4.8 Access and Tourism, Section 3.4 *Takitimu Me Ona Uri* - High Country and Foothills

Information Sources:

Statutory Acknowledgement For Tūtoko. Schedule 66 Ngāi Tahu Claims Settlement Act 1998.

Statutory Acknowledgement For Pikirakatahi. Schedule 51 Ngāi Tahu Claims Settlement Act 1998.

Tōpuni for Tūtoko. Schedule 93. Ngāi Tahu Claims Settlement Act 1998.

Tōpuni for Pikirakatahi. Schedule 87. Ngāi Tahu Claims Settlement Act 1998.

Tōpuni for Takitimu, Schedule 89. Ngāi Tahu Claims Settlement Act 1998.

3.3.2 Mining and Gravel Extraction

Currently, there is no mining activity within Fiordland, except for the use of shingle and rock for road and track maintenance and protection in the National Park. Mining activities are controlled by the Crown Minerals Act (CMA) 1991 and the Resource Management Act 1991. Section 61 (1A) of the CMA prohibits the Minister of Conservation from entering into any access arrangement for mining within any national park, effectively prohibiting mining from Fiordland. Furthermore the New Zealand Historical Places Trust also has a statutory responsibility in managing potential impacts on archaeological sites as a result of mining and gravel extraction and are therefore considered an affected party.

While Ngāi Tahu ki Murihiku support keeping Fiordland free of large scale mining, there is concern that such regulation may impede access and removal of pounamu (see Section 3.3.3 Pounamu).

Ngā Take - Issues

- Mining or extraction activities that have significant adverse effects on land, waterways and biodiversity, or the association of tangata whenua to culturally important places.
- Gravel extraction for road maintenance (Transit NZ) and adverse effects related to plant pest spread and river bed disturbance
- Future mining opportunities, and consistency with the Ngāi Tahu vision for the Fiordland landscape
- Protecting culturally important landscapes from mining activity.
- Ensuring Ngāi Tahu access to pounamu resources in Fiordland is not limited by legislation regulating mining on conservation land.

Ngā Kaupapa - Policy

1. Avoid the establishment of large scale commercial mining (not including pounamu) in Fiordland, as it is inconsistent with the values and vision for the region.
2. Consider small scale, low impact mining proposals on a case-by-case basis.
3. Recognise customary rights to access and removal of pounamu in Fiordland as a permitted activity. This must be exercised under the umbrella of Pounamu Management Plans, and sustainable practices.
4. Require that all gravel for road and track maintenance is sourced locally, to minimise the risk of plant pest and seed spread into Fiordland.
5. Require that machinery and trucks used by contractors to build and maintain roads and tracks are steam cleaned before entering Fiordland.
6. Carry out gravel and sediment extraction from riverbeds in a manner that avoids or remedies adverse environmental impacts, including the establishment of weeds as a result of disturbance.
7. Avoid compromising cultural sites of archaeological value as a consequence of excavation activities that disturb older soil deposits, either directly or via unintended collapse of river and stream banks, or by erosion effects.
8. All mining undertaken within lands administered by the Department of Conservation with the potential to affect pounamu shall carry the Mining Access (Pounamu) standard condition (Appendix 5).
9. Require that, in the event of the discovery of pounamu and pounamu bearing rock during any exploration and/or prospecting activity, no samples of pounamu are taken, other than in accordance with the Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan (2002), or other pounamu plans developed by Ngāi Tahu.

Cross-reference:

Provision 3.3.3 Pounamu – Access and Management, Section 3.3 *Te Atawhenua* - Fiordland

3.3.3 Pounamu – Access and Management

Pounamu is the Māori term for both nephrite and bowenite materials, however generally it applies to nephrite. It includes four main types of stone: kawakawa, kahurangi, inanga, and tangiwai. The first three are nephrite, and the fourth – tangiwai – is bowenite.[4] The names of the various types of pounamu reflect the traditions and customs associated with each type, and the whānau and hapū who used and protected them.

The Ngāi Tahu (Pounamu Vesting) Act 1997 formally vested all (natural state) pounamu within the takiwā (including those parts of the territorial sea of New Zealand that are adjacent to the takiwā) in Te Rūnanga o Ngāi Tahu on behalf of Ngāi Tahu Whānui.

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4 Beck, R. & Mason, M. 2002:15

Several important wāhi pounamu (pounamu areas) exist in the takiwā of Ngāi Tahu ki Murihiku, and in areas of shared interest with other Rūnanga Papatipu. The Mararoa/Murihiku (Mavora/Southland) pounamu area centres on Manawapōpōre (north Mavora Lake) and Hikuraki (South Mavora Lake) and including the wider Livingstone Mountains area from Windon Burn to Mossburn, and sits solely in the takiwā of the combined Murihiku Rūnanga.

The combined rūnanga have a shared interest with Te Rūnanga o Makaawhio in the area between Whakatau Waitai to Piopiotahi to the divide. There is also a shared interest (with the combined rūnanga of Otago) in the Whakatipu, or upper Lake Wakatipu pounamu area, which includes the entire upper Lake Wakatipu catchment, including the Dart, Routeburn and Greenstone river valleys.[5]

Ngā Take - Issues

- Customary rights associated with this important cultural resource.
- Ngāi Tahu access to, and removal of, pounamu from conservation land in Fiordland.
- Monitoring of the pounamu resource.
- Accidental discoveries of pounamu artefacts.
- Future sustainable takes and use of pounamu resources.

Ngā Kaupapa - Policy

1. Require that, until such time as Ngāi Tahu ki Murihiku have a regional pounamu plan in place, that all pounamu in Fiordland is managed in accordance with Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan (2002), administered by the Pounamu Protection Officer of Te Rūnanga o Ngāi Tahu.
2. Require that the protection, collection, and extraction of pounamu is consistent with the policies and objectives set out in Te Rūnanga o Ngāi Tahu Pounamu Management Plan (2002).
3. Require that any Department of Conservation plans or policy that may affect wāhi pounamu contain the following provisions:
   a. a standard clause about the Ngāi Tahu (Pounamu Vesting) Act 1997 and the Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan
   b. references to relevant sections of the Ngāi Tahu (Pounamu Vesting) Act 1997 and Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan, relating to mining, customary/cultural use, research and commercial activity/concessions.
4. No member of the public can knowingly disturb, remove or recover pounamu from the lands administered by the Department of Conservation, other than through collection and extraction as outlined in Sections 6 and 7 of the Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan (2002).
5. Require that concessionaires operating in areas containing pounamu abide by the Ngāi Tahu Standard Conditions for Concessions (Appendix 5).
6. All interpretation (both concession and non-concession) relating to pounamu or wāhi pounamu within lands administered by the Department of Conservation is subject to the Ngāi Tahu Pounamu Interpretation standard condition (Appendix 5).
7. Recognise customary rights to access and removal of pounamu in Fiordland as a permitted activity. This must be exercised under the umbrella of Pounamu Management Plans, and sustainable practices.
8. Continue to work with the Department of Conservation with respect to Ngāi Tahu access to pounamu resources within Fiordland National Park, including the right to access pounamu sources within the park for the purposes of cultural and eco-tourism.
9. Advocate that pounamu collection is acknowledged as a recognised customary activity, as a matter of national importance as per Section 6 (e & g) of the Resource Management Act 1991.
10. The accidental discovery of pounamu taonga or artefacts is subject to the Ngāi Tahu ki Murihiku Accidental Discovery Protocol (see Appendix 6). The protocol sets out the processes and procedures relating to the accidental discovery of pounamu taonga, and includes the standard condition that:
    - if pounamu artefacts are discovered during any activity, work shall stop immediately and Te Ao Mārama Inc. will be advised.

Cross Reference:

Provision 3.3.2 Mining and Gravel Extraction, Section 3.3 *Te Atawhenua* - Fiordland.

Information Source:

Te Rūnanga o Ngāi Tahu Pounamu Resource Management Plan 2002.

5 Te Rūnanga o Ngāi Tahu Pounamu Management Plan 2002.

3.3.4 Piopiotahi - Milford Sound

Piopiotahi is an area of immense cultural importance to Ngāi Tahu. It is also one of the icon tourist destinations of New Zealand.

The popularity of Piopiotahi as a tourist destination creates challenges such as overcrowding, congestion, and issues related to the provision of infrastructure and services.

Ngāi Tahu ki Murihiku believe that, without careful planning and management, Piopiotahi may face a scenario of "push and shove, with everyone trying to get the last dollar out the place". Unless creative approaches are implemented, the area, and the cultural values associated with it, will become degraded.

A significant management issue for the Piopiotahi area is whether, as visitor numbers increase, alternative options should be provided for visitors to Fiordland National Park, or whether visitor use should remain concentrated at existing sites where infrastructure already exists.

The position of Ngāi Tahu ki Murihiku is that places like Piopiotahi can cope with increased visitor numbers and infrastructure, if activities and visitors are managed in a coordinated, sustainable way and infrastructure is carefully planned.

> "...to just say Milford Sound lessens the importance of both the place and the name. Piopiotahi refers to the area in its entirety, land and water."

Ngā Take - Issues

Kaitiaki roles and protection of sites

- Protection of wāhi tapu sites and coastal trails in the Piopiotahi area.
- Protection of cultural landscapes from inappropriate use and development.

Tourism

- Planning for, and managing, visitor growth at this place.
- Transport options for managing visitors.
- Accommodation for service industry workers.

Infrastructure and development

- Need for a coordinated approach to infrastructure and services.
- Continuing pressure to open up more of remote Fiordland.
- Adverse effects associated with inappropriate stormwater and sewage disposal.
- Regulation of private developments.

Ngā Kaupapa - Policy

Kaitiaki roles and protection of sites

1. Recognise and provide for the shared kaitiaki responsibility with Te Rūnanga o Makaawhio for the Piopiotahi area.
2. Avoid compromising the cultural, historic, and natural values of Piopiotahi as a result of inappropriate land use, subdivision and development.

Tourism

3. Carefully monitor the nature and number of concession applications for commercial recreation and tourism operations in the Piopiotahi area, to ensure that human activities are not compromising the natural character, beauty or ecology of the region.
4. Ensure that Ngāi Tahu ki Murihiku is proactively involved with the management and future development of Piopiotahi (e.g. future transport options).

Infrastructure and development

5. Encourage appropriate business growth and development that enhances the natural and cultural values of Piopiotahi.
6. Advocate for existing infrastructure to be improved to the highest possible standards, and for the utilisation of new technologies that can enable new growth and development while minimising adverse effects.
7. Advocate for a coordinated, sustainable approach to the provision and management of utilities and services in Piopiotahi.
8. Require that activities related to roading, bridges, sewage facilities, buildings and other infrastructure avoid

discharges of contaminants to the waters of the Sounds. Bunding, riparian areas and other measures must be used to mitigate any adverse effects associated with discharge (e.g. run off of stormwater).

9. Ensure that the scale, siting, design, colour or landscaping of any development (e.g. protection of skylines/ridgelines) does not unreasonably detract from the natural landscape and character of the Piopiotahi area.

10. Ensure, and advocate for, the integrated management of the land, sea and air within the Piopiotahi environment.

Cross-reference:

Provisions 3.3.5 Future Development and 3.3.7 Concessions, Section 3.3 *Te Atawhenua* – Fiordland.

For policies relating to the waters of the Fiords, including commercial surface water activities, see Section 3.6 Southland's Coastal Environment.

3.3.5 Fiordland Future Development

Fiordland is largely an undeveloped area, which has National Park Status under the Conservation Act 1997 and the National Parks Act 1996. However, there are numerous unresolved planning and management issues with respect to future growth development in Fiordland, both industrial (e.g. hydropower) and tourism and infrastructure related. Such activities, if not managed appropriately, have the potential to adversely affect the relationship of Ngāi Tahu ki Murihiku and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taonga.

Generally, Ngāi Tahu ki Murihiku believe that there is room for more growth in Fiordland, if a long-term, co-ordinated approach is taken to better manage visitor growth, tourism, resource use and development and infrastructure.

Ngā Take - Issues

Development pressures

- Increasing pressure to open up new areas for development.
- Future pressures from industry to develop resource hinterlands.
- Potential for future initiatives to export water from Fiordland.
- Role of Ngāi Tahu in development opportunities in Fiordland (recognition of development rights).

Management of cumulative effects

- Managing the cumulative effects of development.
- Inadequacies of the RMA to recognise and provide for cumulative effects.

Ngā Kaupapa - Policy

Development Pressures

1. The relationship of manawhenua with their ancestral lands, water, sites wāhi tapu and other taonga of Fiordland must be recognised and provided for in all decisions relating to development.

2. Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future development and commercial activities in Fiordland, including the export of water.

3. Ensure that the natural character of the Fiordland environment is protected for future generations. The effects of visitors and other tourism development on the environment must be managed in a way that ensures that the values of Fiordland are not compromised.

4. Advocate for keeping future development in areas that are presently modified and that already have infrastructure in place. The preference of Ngāi Tahu ki Murihiku is to leave undeveloped or minimally developed areas of Fiordland in as natural state as possible.

5. Advocate for existing infrastructure to be improved to the highest possible standards, and for the utilisation of new technologies that can enable new growth and development while minimising adverse effects.

Management of cumulative effects

6. Planning for future development must recognise and provide for cumulative effects on the land, water, biodiversity and cultural landscape of Fiordland.

7. Require that all decisions pertaining to new roading and other access ways in Fiordland be carefully considered in terms of the costs and benefits to Fiordland as a "wilderness" region (see Case Study: Indigenous Concepts of Wilderness, page 102).

Cross-reference:

Provision 3.3.4 *Piopiotahi* – Milford Sound, Section 3.3 *Te Atawhenua* - Fiordland

Provision 3.5.2 Wastewater Disposal; 3.5.3 Solid Waste Management; 3.5.7 Subdivision and Development; 3.5.12 Discharge to Water, Section 3.5 *Te Rā a Takitimu* – Southland Plains

> "We have a right to have a reasonable presence in Fiordland, both tribally and locally. Our right to development must be recognised in this region."
>
> Inherent in the Treaty of Waitangi is a right to development. However, despite Treaty of Waitangi references in legislation, little explicit provision has been made to allow Māori to exercise developmental rights. The Crown tends to treat Māori no differently from anybody else in regard to development or commercial activities.

3.3.6 Visitor Management

Tourists often come to Fiordland to experience a pristine natural environment. Yet increasing numbers of tourists have the potential to adversely affect the natural environment, and the ability of visitors to enjoy that environment.

A significant issue for Ngāi Tahu ki Murihiku is increasing numbers of visitors, and the growth and development of visitor services in Fiordland. Such activities, if not managed appropriately, have the potential to compromise the very values that make Fiordland attractive to visitors, developers and residents alike. As such, Ngāi Tahu ki Murihiku look for balance between maintaining Fiordland as a beautiful place to visit, and protecting the natural environment and cultural heritage.

Ngā Take - Issues

Visitor impacts and future planning

- Increased impacts from commercial tourism development with a potential for new activities influencing visitor numbers, marine activities and roading networks.
- Increasing numbers of tourists and potential impact on environment.
- Noise pollution (type and loudness) in areas such as Milford Sound, where the buses, boats, airplanes noise is amplified by mountains.
- Impacts on visitor accommodation and visitor services on the natural environment, and cultural values associated with that environment.
- Perceptions of overcrowding and congestion in some areas.
- Need to plan for and manage future growth in visitor numbers.
- Need for limits on concession operations in certain areas.
- Opportunities to use interpretation to educate and inform visitors.

Cultural impacts

- Interpretation issues: inaccurate interpretation of Ngāi Tahu values, customs, beliefs, and history by tourism operators is disrespectful to the tūpuna who have previously occupied the land.

Ngā Kaupapa - Policy

Visitor Impacts

1. Advocate for the concentration of the majority of visitor activities in areas that are presently modified and that already have infrastructure in place. The preference of Ngāi Tahu ki Murihiku is to leave undeveloped, or minimally developed areas of Fiordland, in as natural state as possible.
2. Require that commercial operators take advantage of new technology, as it becomes available; to better manage the effects of tourism activities on the environment (e.g. waste discharge from boats, noise suppression on aeroplanes).
3. Require that the cultural and natural values of Fiordland are not compromised for recreation or tourism opportunities.
4. Support Department of Conservation upgrades and improvements to huts, toilets and other facilities in order to make use of new technologies and minimise adverse effects on the environment.
5. Encourage noise suppression on all commercial and recreational aircrafts operating in high use areas such as Piopiotahi.

Cultural Impacts

6. Any interpretation and information relating to Ngāi Tahu ki Murihiku history, values, traditions or beliefs associated with areas of significance to Ngāi Tahu ki Murihiku is best prepared and delivered by Ngāi Tahu ki Murihiku. When concessionaires seek to use

cultural history (e.g. pūrākau) in their operations, it is recommended that a kaitiaki Rūnanga representative is employed as part of the concession activity to provide and interpret such information.

7. Encourage respect for Ngāi Tahu's association with culturally significant mountains, including those recognised as Tōpuni, through working with the Department of Conservation to develop educational material to be made available to mountain climbers, the public, concessionaires and users of the area (e.g. encouraging users to remove rubbish and waste).

Cross-reference:

Provision 3.3.9 Cultural Interpretation, Section 3.3 *Te Atawhenua* - Fiordland

3.3.7 Concessions

A concession is a lease, easement, license or permit granted under the Conservation Act 1987, for commercial use of lands managed by the Department of Conservation. Concessions include activities such as recreation/ tourism operations, aircraft landings, commercial filming and resource uses such as grazing, telecommunications, and access easements across conservation land. Such activities cannot compromise natural and historical values, and must be consistent with the values for which the area is managed.

The Department of Conservation consults with Ngāi Tahu on most concession activities as per Section 4 Conservation Act Treaty obligations and Ngāi Tahu Claims Settlement Act 1998 provisions, including partnership and the active protection of Māori interests.

Te Rūnanga o Ngāi Tahu and the Department of Conservation, in consultation with Rūnanga Papatipu, have developed a set of Ngāi Tahu Standard Conditions (NTSC) for concessions (see Appendix 5). The purpose of these conditions is to avoid, remedy and/or mitigate any impact that concession operations may have on the general cultural, spiritual and historical values of Ngāi Tahu. These conditions will be applied automatically where relevant to any concession activity.

Ngā Take - Issues

- Is the concession activity environmentally sustainable at the level that is required to run a commercial operation?
- Cumulative impacts of concession activities (e.g. wood collected for nightly campfires, digging of toilet trenches, leaving established tracks).
- Interpretation issues: inaccurate interpretation of Ngāi Tahu values, customs, beliefs, and history by tourism operators is disrespectful to the tūpuna who have previously occupied the land.
- Use of te reo and Māori symbols/graphics by non-Māori to benefit private tourist ventures.
- Protection of tribal pūrākau (cultural history), as they are taonga.
- Encouragement of Ngāi Tahu held concessions, particularly in areas of immense cultural significance, or with regards to taonga species.
- Potential for positive effects of concessions on the environment.

Ngā Kaupapa - Policy

1. Continue to work proactively and effectively with the Department of Conservation with respect to concession activities in Fiordland, particularly those pertaining to commercial tourism and recreation operations.
2. Where relevant, concession activities on conservation land are subject to Ngāi Tahu Standard Conditions for Concessions (Appendix 5), and any other special conditions requested by Ngāi Tahu ki Murihiku.
3. Encourage concession activities that support and enhance natural, ecological and cultural values, particularly those activities that include education about responsible tourism and reducing impacts on the environment.
4. Encourage Ngāi Tahu held concessions, particularly in areas of immense cultural significance, or with regard to taonga species.
5. Consider the potential effects (positive and adverse) on native birds and other taonga species when assessing any resource consent or concession application in Fiordland.
6. Avoid adverse effects on the environment as a result of a concessions activity through appropriate conditions on permits.

7. Ensure that concession activities do not compromise tangata whenua access to and customary use of mahinga kai and other culturally important resource and materials.
8. Any provision of interpretation material relating to Ngāi Tahu history, culture, traditions or associations with a particular place as part of a concessions activity is subject to Ngāi Tahu ki Murihiku policies on Cultural Interpretation, as per section 3.3.9 of this Plan.
9. Encourage research and/or monitoring as part of concession activities, to ensure that the activity is sustainable. Adverse impacts on the environment should be avoided.
10. Ensure that all marine mammal-watching permits include provisions for adequate monitoring and research, to ensure viewing operations do not adversely affect marine mammals.
11. Ensure that all filming concession applications are notified of the guidelines for filming within the Rohē of Ngāi Tahu (SPADA & Te Rūnanga o Ngāi Tahu 2002).

Cross Reference:

Provision 3.3.9 Cultural Interpretation, Section 3.3 *Te Atawhenua* - Fiordland

3.3.8 National Park Policy and Planning

The Department of Conservation recognises Ngāi Tahu as the iwi with manawhenua over the Fiordland National Park area, and thus pursues an objective of partnership between the Department and Ngāi Tahu ki Murihiku.

Ngā Take - Issues

- Protection of national park status.
- Relationship between iwi and the Department of Conservation.
- Customary use issues on conservation land.
- The ability to apply rāhui over customary resources on conservation land.
- Protection of culturally significance places and associations within park boundaries.
- Implementation of the principles of the Treaty of Waitangi in national park policy and planning.
- Management of customary eel fisheries in national parks.

Ngā Kaupapa – Policy

1. Tangata whenua, as kaitiaki of their cultural heritage, should play a key role in the identification, protection and management of their cultural and historic heritage within National Parks.
2. The Department of Conservation must ensure access to all areas of the Fiordland National Park to enable Ngāi Tahu to exercise their role as kaitiaki.
3. Protect existing customary use rights from erosion by government policy.
4. Require that relevant parts of the Ngāi Tahu (Pounamu Vesting) and Te Rūnanga o Ngāi Tahu Pounamu Management Plan (2002) are given effect to in the administration of the National Park.
5. National parks legislation, policy, management and planning must:
   a. be strongly Treaty of Waitangi based
   b. actively involved tangata whenua in management planning and policy development
   c. recognise and provide for tangata whenua values and historical associations
   d. recognise and provide for customary use interests
   e. empower tangata whenua to fulfil their kaitiaki responsibilities
   f. acknowledge the status of tangata whenua as Treaty partner with the Crown
6. Establish an effective working relationship between Ngāi Tahu ki Murihiku and the Department of Conservation, to address issues such as visitor management, natural resource use and development on conservation land, customary use and pounamu.
7. The management of customary freshwater eel fisheries in national parks is the responsibility of Tangata Tiaki (appointed by Ministry of Fisheries) in consultation with the Department of Conservation, not National Park legislation. This means that, for example, the use of customary area management tools such as rāhui must be separate from national park policy and planning.
8. Ngāi Tahu ki Murihiku should not require a concession or permit to access customary resources on conservation land, however customary authorisation is needed.

Cross Reference:

Provisions 3.3.13 Customary use; 3.3.9 Cultural Interpretation, Section 3.3 *Te Atawhenua* - Fiordland

3.3.9 Cultural Interpretation

Ngā Take - Issues

- Interpretation issues: inaccurate interpretation of Ngāi Tahu values, customs, beliefs, and history by tourism operators is disrespectful to the tūpuna who have previously occupied the lands.
- Use of te reo and Māori symbols/graphics by non-Māori to benefit private tourist ventures.
- Protection of our ancestral pūrākau (cultural history), as they are tribal taonga.
- Resourcing for tangata whenua to provide cultural interpretation material to tourism operations.

Ngā Kaupapa - Policy

1. Interpretation and information relating to Ngāi Tahu ki Murihiku history, values, traditions or beliefs (including place names) is not to be provided to any clients as part of any commercial guiding, filming or interpretation activity unless the interpretation and information is agreed to by the appropriate kaitiaki rūnanga as being appropriate and accurate.
2. Any interpretation and information relating to Ngāi Tahu ki Murihiku ancestors, ancestral places, history, values, traditions or beliefs associated to Ngāi Tahu ki Murihiku is best prepared and delivered by Ngāi Tahu ki Murihiku. When concessionaires seek to use cultural history (e.g. pūrākau) in their operations, it is recommended that a kaitiaki Rūnanga representative is employed as part of the concession activity to provide and/or interpret such information.
3. In some cases, Ngāi Tahu ki Murihiku may request that concessions applicants prepare an interpretation panel, in consultation with Ngāi Tahu ki Murihiku, explaining Māori history and cultural associations with the area.
4. Encourage, where appropriate, respect for Ngāi Tahu's association with culturally significant places, including those with Tōpuni or Deed of Recognition provisions, through working with the Department of Conservation to develop educational and interpretative material (e.g. panels, signs and visitor publications) for users of the area. Such materials should include Ngāi Tahu perspectives and references to the significance of the site or resources to Ngāi Tahu where appropriate, including the use of traditional Ngāi Tahu place names.

Cross Reference:
Provisions 3.3.7 Concessions; 3.3.6 Visitor management, Section 3.3 *Te Atawhenua* - Fiordland

O TE WAI THE WATER

> "What happens on land affects the water..."

Ngāi Tahu ki Murihiku have a spiritual and cultural relationship with the waters of the Fiordland region. This relationship stems from the Māori worldview of creation, the way we understand ourselves and where we come from, the environment we live in and the mysteries of nature. Our beliefs and values act as guidelines by which we live and conduct our relationship with the freshwater resources of our region.

This section of the plan describes ngā take (issues) and ngā kaupapa (policies) associated with the freshwater resources of Fiordland - lakes, rivers, Fiords and wetlands. The coastal marine waters of Fiordland are addressed in Section 3.6 of this Plan - Southland's Coastal Environment.

3.3.10 General Water Policy

The essence of Fiordland is water. Traditionally the waters of Fiordland provided a means of transport, supported mahinga kai, was used for recreation purposes and maintained populations that centred themselves along major waterways. Today, the pristine waters of the region are an example of what we can strive for in other areas of Murihiku.

Ngā Take - Issues

- Management of waters - *ki uta ki tai.*
- Protection of the mauri of all water.

- Recognition of Ngāi Tahu development rights, with respect to future development opportunities involving water, including the export of water from Fiordland.
- Adverse effects on water associated with hydro development.
- Impacts of discharges of contaminants on water resources and the relationship of Ngāi Tahu ki Murihiku to such resources.

Ngā Kaupapa - Policy

1. Require that freshwater management in Fiordland reflects the principles of *ki uta ki tai*, and thus the flow of water from source to sea, including the relationship between rivers, lakes, wetlands, waipuna and the coastal Fiords.
2. Ensure that development and tourism in Fiordland does not compromise the pristine state of Fiordland waters.
3. Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future development and commercial activities in Fiordland, including the export of water.
4. Use the waters of Fiordland as a baseline for water quality standards in other areas of Murihiku.
5. Manage our freshwater resources wisely, *mō tātou, ā, mō ngā uri ā muri ake nei*, for all of us and the generations that follow.

3.3.11 Hydro Development/Generation

There are two large-scale hydroelectric power schemes in Fiordland, on Lakes Manapōuri and Monowai, and three smaller scale schemes (for local purposes), located at Piopiotahi - Milford Sound, Deep Cove, and Te Anau-au Cave.

Hydro development, if managed appropriately, can provide a cleaner source of energy than fossil fuels. However, such projects have the potential to impact significantly on Ngāi Tahu ki Murihiku cultural values and beliefs, including the spiritual value of water, mahinga kai, terrestrial vegetation, aquatic biota, and water quality.

Ngā Take - Issues

- Scale of projects: costs/benefits of large scale vs. small scale hydro development.
- Quality of the consultation process with iwi.
- Potential for hydro development in the future, and impact on river and cultural values.
- Ability of schemes to minimise or avoid environmental, cultural and social effects.
- How well schemes can balance cultural, environmental and economic values.
- Cumulative effects of schemes over the long term.
- Consideration of alternatives.
- Economic and social benefits of hydro electric generation.
- Effects on the ecology of the Fiords as a result of changes to saltwater-freshwater ratios that occur as a result of hydro generation schemes (e.g. freshwater flows into Doubtful Sound via a tunnel under the mountain, and tangata whenua have observed that kelp is not so close to the surface when the volume of freshwater increases).
- Impacts on the Waiau River as a consequence of water takes associated with hydro schemes, including:
  a. a lessened ability of the river to cleanse itself;
  b. an increased risk of threats such as didymo due to longer periods running at minimum flow;
  c. changes to the river mouth environment, such as less depth to the sand and changes to the freshwater saltwater mix;
  d. adverse effects on the Foveaux Straight toheroa beds (changes to productivity of environment).
- Increased reliance on hydroelectricity may have implications for reduced flow levels for Manapōuri and West Arm.
- National significance of long fin eel fishery in Fiordland, and the adverse effects caused by power schemes:
  a. elvers attracted to strong flows of freshwater;
  b. loss of access up and down the river due to dams;
  c. eels may be caught in turbines;
  d. cost of elver transfer.
- Discharge of sediments, and adverse effects on aquatic and terrestrial habitat.

Ngā Kaupapa - Policy

1. Require that hydroelectric development consideration, feasibility studies, and project management in Fiordland recognises and gives effect to the principle of *ki uta ki tai* (mountains to sea).
2. Avoid compromising mahinga kai as a result of damming, diversion or extraction of freshwater resources.
3. Ensure that activities in the upper catchments do not have adverse impacts on mahinga kai resources in the lower catchments.

4. Ensure that all native fish species have uninhibited passage between lakes, rivers and sea, where such passage is a natural occurrence, through ensuring continuity of flow *ki uta ki tai*, and fish passageways within dam structures.
5. Require that adverse effects associated with the discharge of sediments on aquatic and terrestrial ecosystems are avoided.
6. Require the development and implementation of monitoring regimes to ensure that any adverse effects (including existing or potential loss of tuna/eel) on the health of mahinga kai resources and/or their habitats are identified and addressed.
7. Require, if deemed necessary, that companies provide opportunities for iwi representatives to participate in monitoring.
8. Require that monitoring provisions are present in all aspects of hydropower development scheme operations.
9. Ensure that Ngāi Tahu ki Murihiku are involved in the setting of consent conditions (during consultation) associated with any and all resource consents for hydro power development activities.
10. Avoid taking any more water from the Waiau River for the purposes of hydroelectric power generation.
11. Require the active mitigation of tuna/eel loss in the turbines of power generation schemes.
12. Require that the costs of elver transfer are met by the electricity generator where there is a cause-effect link.

Cross Reference:

Provision 3.3.10 General Water Policy, Section 3.3 *Te Atawhenua* - Fiordland

3.3.12 Ngā Roto Waimāori - Lakes

The tradition of Ngā Puna Wai Karikari o Rakaihautu tells how the principal lakes of Fiordland, including Moturau (or Motu-ua Lake Manapōuri), Hauroko and Te Ana-Au (Lake Te Anau) were dug by the rangatira Rakaihautu on his inland journey south with his famous ko. Moturau, Hauroko, and Te Ana-au lakes are the deepest lakes in New Zealand.

Moturau, Hauroko, and Te Ana-au are Statutory Acknowledgement sites under the NTCSA 1998 (Schedules 45, 29, and 58), providing for the special association of Ngāi Tahu with the lakes.

The names of these lakes record Ngāi Tahu history and describe the cultural, historical and physical landscapes associated with them. It was the ancestor Tamatea Ure Pokaiwhenua Pokaimoana that named the Moturau, possibly a woman's name but more likely to relate to the many islands found in the lake. The name Hauroko is strongly associated with urupā in the immediate vicinity, including one on an island in the lake, known today as Mary (Mere) Island. Te Ana-au figures in Ngāi Tahu history as one of the last places where Ngāi Tahu and Ngāti Mamoe came into conflict after the peace established between Rakiihia and Te Hautapunui o Tū. It was also an important mahinga kai in the interior of Fiordland.

Ngā Take - Issues

- Protection of wāhi tapu associated with ngā roto waimāori.
- Recognition of the cultural and spiritual association with ngā roto waimāori.
- Access to lakes and mahinga kai, including customary fishing opportunities.
- Intergenerational transfer of knowledge and traditions associated with ngā roto waimāori, including mahinga kai and pūrākau.
- Impacts on the mauri of ngā roto waimāori.
- Protection of indigenous flora and fauna associated with ngā roto waimāori.
- Tourism and recreational use, and concession activities, and potential impacts on ngā roto waimāori.

Ngā Kaupapa - Policy

1. Require that ngā roto waimāori where Statutory Acknowledgements apply are recognised for their special associations to Ngāi Tahu irrespective of expiry dates of 20 years contained in the Ngāi Tahu Claims Settlement (Resource Management Consent Notification) Regulations 1999. This means that places identified as Statutory Acknowledgements should continue to be:
   a. identified in relevant district and regional plans and policy statements as notice of their cultural importance to Ngāi Tahu (noting on plans);
   b. considered a trigger for a notice of application to Ngāi Tahu with respect to resource consents relating to, or impacting on, such areas (notice of applications);
   c. given regard to by Councils, the Environment Court and Historic Places Trust when decisions are made about who has the right to comment and be listened to, or to appear in court (Standing);

d. accepted as evidence of the relationship of Ngāi Tahu with a particular area in any proceedings under the Resource Management Act or Historic Places Act.

2. Require that ngā roto waimāori subject to Deeds of Recognition are recognised for their special associations to Ngāi Tahu in perpetuity. This means that:
   a. the cultural importance of such places is identified in relevant plans and policy;
   b. the landholding Crown agency (either DOC or LINZ) must have particular regard to the views of Ngāi Tahu ki Murihiku in relation to the management of these areas.
3. Maintain and protect the cultural, spiritual, historic and traditional association of Ngāi Tahu ki Murihiku with ngā roto waimāori in Fiordland.
4. All Ngāi Tahu Whānui, current and future generations, must have the ability to access, use and protect ngā roto waimāori, and the history and traditions that are part of such landscapes.
5. Protect, and where needed enhance, the mauri or life supporting capacity of ngā roto waimāori.
6. Avoid the use of ngā roto waimāori as a receiving environment for the discharge of contaminants (e.g. industrial, residential, recreational or agricultural sources).

Information Sources:

Statutory Acknowledgement For Lake Hauroko, Schedule 29 Ngāi Tahu Claims Settlement Act 1998.

Statutory Acknowledgement for Moturau (Lake Manapōuri), Schedule 45 Ngāi Tahu Claims Settlement Act 1998.

Statutory Acknowledgement For Te Ana-au (Lake Te Anau), Schedule 58 Ngāi Tahu Claims Settlement Act 1998.

"It is a ridiculous situation. They take you out into the Fiords and turn off the boat motors so that you can "hear the silence". They promote the silence as an asset, a value of the area. Yet it shouldn't be this way. You should hear the music and the sounds of the forest. You should hear the birds."

3.3.13 Te Mimi o Tū Te Rakiwhānoa - Coastal Fiordland

The Fiordland Coastal Marine Area is known to Ngāi Tahu as *Te Mimi o Tū Te Rakiwhānoa*. The immense importance of the area historically, culturally and spiritually is captured in the NTCSA 1998 (Schedule 102), as a Statutory Acknowledgement - a recorded statement of the relationship between Ngāi Tahu and the Fiordland coast and sea.

Coastal Fiordland is a unique marine environment. In addition to its inherent biodiversity values, it is also an important economic area. Areas such as Milford Sound can receive in excess of 300 000 visitors annually. Human activities can bring a wide range of risks and challenges to the Fiordland coastal environment, including over fishing, noise pollution, and impacts on water quality.

Coastal Fiordland is also a uniquely managed environment. *The Fiordland Marine Conservation Strategy* provides a framework for collaborative management of the Fiordland (Te Moana o Atawhenua) Marine Area, created by the *Fiordland (Te Moana o Atawhenua) Marine Management Act 2005*. The *Fiordland (Te Moana o Atawhenua) Marine Area* extends from Awarua Point on the West Coast to the Waiau. The Act also gives formal recognition to the *Fiordland Marine Guardians*, a group appointed by the Minister for the Environment to advise central and local government agencies on the management of the Fiordland Marine Area. Ngāi Tahu ki Murihiku have representation within this group.

Ngāi Tahu ki Murihiku policy with respect to the coast and sea is set out in Section 3.6 of this plan, Southland's Coastal Environment. Policy areas of particular relevance to Fiordland include commercial surface water activities.

Note: All policy sections within section 3.6 should be read as including Coastal Fiordland

MAHINGA KAI - MAHI NGĀ KAI AND BIODIVERSITY

Mahinga kai is defined in the Ngāi Tahu Claims Settlement Act 1998 as "the customary gathering of food and natural materials, and the places where those resources are gathered" (s. 167). Furthermore it is about the ways resources are gathered and the work involved in doing so, mahi ngā kai. There are numerous ancient mahinga kai sites in Fiordland, places where specific resources were planted and cultivated specifically for use.

The extensiveness of Ngāi Tahu customary use of Fiordland is evidenced by the numerous trails and nohoanga located throughout the region, as well as by the wāhi ingoa that describe mahinga kai traditions associated with particular places. Many of these wāhi ingoa remain on the landscape today.

> ...it was the koko-tangiwai and kākāpō that primarily attracted Ngāi Tahu to Fiordland. The koko-takiwai is favoured as a softer type of pounamu, sought after the making of ornaments such as hei-tiki. The meat and the feathers of kākāpō was one of the key reasons why Ngāi Tahu Whānui regularly travelled to the areas such as Kahui-te-kākāpō (Doubtful Sound), known as the gathering place of the kākāpō.

3.3.14 Customary Use

Customary use is the on-going access to, and sustainable use of, mahinga kai resources. Following European settlement, there was an enormous loss of mahinga kai resources, and hence a great loss of customary use by tangata whenua. This loss was due to a number of reasons, including the physical destruction of habitats (e.g. clearance of forest and drainage of wetlands), the subsequent decline in species that relied on that habitat, and the introduction of foreign animals, birds, fish and plants had a devastating effect on many native species. The loss was particularly dramatic with regards to native birds.

In an attempt to address the dramatic decline in species, the Government began to impose controls and restrictions over hunting certain species. As early as 1922, harvesting of kererū was outlawed. In 1953 the Wildlife Act was passed, providing absolute protection to most native bird species. The introduction of conservation legislation in the years that followed (e.g. Conservation Act 1987, the National Parks Act 1980, Marine Mammals Protection Act 1978, and the Reserves Act 1977) focused on managing for preservation purposes, and thus gave little recognition to customary use rights.

Fiordland is one of the largest areas of forest remaining in Te Waipounamu, and is thus an extremely important region for species of cultural importance. Ngāi Tahu ki Murihiku is greatly concerned over the loss of our indigenous birds, plants and fish, and is opposed to uncontrolled, unauthorised harvesting or illegal poaching of indigenous species. At the same time, customary use rights, as guaranteed by the Treaty of Waitangi, must be recognised and provided for.

For Ngāi Tahu ki Murihiku, customary use is consistent with conservation of species. The concept of kaitiakitanga is an integral component of resource use. Customary use comes with management responsibilities to care and protect natural resources, which in effect translates into carefully regulated access and sustainable use of those species that are able to sustain a take (now or in the future).

Customary use is not limited to non-commercial. Ngāi Tahu ki Murihiku believe that the sustainable use of native flora and fauna, in and out of the conservation estate, can be the basis of future economic, social, and tribal development.

> "For Ngāi Tahu, customary use is as much about what we don't take as what we take."

Ngā Take -Issues

- The importance of customary use to Ngāi Tahu identity and history.
- Customary use of native birds, plants and other materials on conservation land.
- Customary use of game birds, relationship between iwi and Fish and Game Council.
- Relationship between iwi and the Department of Conservation regarding customary use.
- Ensuring sustainable use: need for appropriate processes and monitoring.
- Protection of customary rights as usufruct rights.
- Access to mahinga kai areas and customary resources on conservation land (e.g. trees for carvings, whare, pou pou, waka).
- Access to places and species that are important to us in terms of customary use.
- Restoration of key mahinga kai areas and species.

Customary rights are usufruct rights (about use and rights to access). Such rights are guaranteed under Article II of the Treaty of Waitangi, and recognised in common law.

Ngā Kaupapa - Policy

1. All Ngāi Tahu Whānui, current and future generations, must have the ability to access, use and protect mahinga kai resources, and the history and traditions that are part of customary use of such resources, as guaranteed by the Treaty of Waitangi.
2. Protect existing customary use rights from erosion by government policy.
3. The cultural, spiritual, historic and traditional association of Ngāi Tahu ki Murihiku with taonga species must be recognised and provided for within all management and/or recovery plans associated with those species. This includes taonga species as per the Ngāi Tahu Claims Settlement Act (Appendix 4), and all other species considered taonga by Ngāi Tahu ki Murihiku.
4. Encourage effective working relationships with the Department of Conservation with regards to customary use of native plants, birds, marine mammals, and other traditional materials on conservation lands.
5. Encourage communication between the Department of Conservation and Ngāi Tahu ki Murihiku, with regards to specific areas on conservation land where specific traditional resources may be found and sustainably harvested.
6. Use the kaitiaki rōpū forum to facilitate access to specific cultural and customary resources (e.g. trees, bone and feathers) held by the Department of Conservation.
7. Work towards the restoration of key mahinga kai areas and species, and the tikanga associated with managing those places and species.
8. Make full use of the knowledge of tangata whenua with regards to native birds, plants and other traditional materials, and its value in understanding how to protect and enhance biodiversity.
9. Promote joint management and co-management of key mahinga kai places and species on conservation land.
10. Encourage collaborative research and monitoring projects between tangata whenua and scientists that address customary use issues using both Mātauranga Māori, or traditional knowledge, and mainstream science.
11. Promote a good working relationship with the Fish and Game Council with regards to customary use and access to game birds (native and non-native) for cultural use.
12. Advocate for the addition of a "Mahinga kai Schedule" to the Wildlife Act, in order to provide iwi with control and management powers, similar to Fish and Game Council, for certain native bird species. Such a schedule would include those species of large population numbers that could sustain a controlled take, outside of a Fish & Game management regime, and provides an opportunity for future generations to exercise customary rights.
13. The management of customary freshwater eel fisheries in national parks is the responsibility of Tangata Tiaki (appointed by Ministry of Fisheries), in consultation with the Department of Conservation, not national park legislation. This means that, for example, the use of customary area management tools such as rāhui must be separate from national park policy and planning.
14. Ngāi Tahu ki Murihiku should not require a concession or permit to access customary resources on conservation land, however customary authorisation is needed.

3.3.15 Nohoanga

"Everyone else is allowed to develop & progress naturally, yet Māori are expected to still use fish hooks and fish from waka. Trade and commercial development of native species are part of customary use".

Nohoanga are seasonal or temporary campsites, established adjacent to lakes and rivers to facilitate customary fishing and the gathering of other natural resources. Nohoanga are included in the Ngāi Tahu Claims Settlement Act 1998, as part of a series of provisions aimed at recognising the mana of Ngāi Tahu on the landscape and restoring the ability of Ngāi Tahu to give practical effect to kaitiaki responsibilities.

Case Study: Indigenous Concepts of Wilderness

"It is quite clear from the evidence of archaeological records, and from the recordings of early European visits to Aotearoa, that Māori in all parts of the country adopted a conservation ethic which would put even the best efforts of modern lobby groups to shame". Section 4.7 Te Whakatau Kaupapa o Murihiku

The European concept of wilderness often infers that humans are separate from nature, and that human use of nature is inconsistent with the protection of wilderness. The cultures of Indigenous peoples, however, have evolved within these wild lands, based on hunting and gathering. Their life-styles and very existence have been dependent upon a sustained harvest of resources from the land without altering nature. Although conservation of wilderness in Fiordland today is a goal of both Ngāi Tahu and the Department of Conservation, increased understanding of culturally based differences in perceptions of wilderness and customary use is necessary if mutually acceptable conservation efforts and management of human activities are to succeed.

Ngāi Tahu ki Murihiku support the concept of wilderness. It is of utmost importance that we protect the natural character of Fiordland as a largely undeveloped land. This is why we have to be so careful about infrastructure and human activities. However, our concepts of protecting wilderness incorporate our role as kaitiaki, which includes use as part of protection and management. We want to restore the forest life of Fiordland, so that future generations of Ngāi Tahu can once again experience the relationship with these lands and waters as expressed through mahinga kai. Our resource management revolves around sustainable use. Our vision is long term.

"If you prune a plant it grows back healthier".

Ngā Take -Issues

- Nohoanga that are inoperative or not being utilised to their fullest extent:
  a. may be impractical in contemporary circumstances even if used in the past;
  b. inappropriate location;
  c. a river has changed course or habitat has shifted;
  d. degraded area;
  e. inaccessibility due to property boundaries or otherwise.
- Traditional nohoanga that are not recognised as nohoanga and thus unable to be used by tangata whenua.
- Ensuring access to nohoanga.
- Restoration of nohoanga and mahinga kai species associated with such places.

Ngā Kaupapa - Policy

1. Ensure the protection of all sites identified as nohoanga (e.g.) under the Ngāi Tahu Claims Settlement Act 1998 and otherwise, as a means of providing tangata whenua with an opportunity to experience the landscape as our tūpuna did, and to promote customary practices associated with mahinga kai.
2. Empower tangata whenua to use nohoanga areas.
3. Review the locations of nohoanga to determine the nature and extent of use, and whether the location is appropriate to fulfilling nohoanga purposes.
4. Consider moving the location of inoperative nohoanga, if such relocation would result in an operative nohoanga or in acquiring a new nohoanga area.
5. To work towards the restoration of key mahinga kai areas and species, and the tikanga associated with managing those places and species.

3.3.16 Native Forest Ecosystems

About two-thirds of Fiordland is forested. Tangata whenua consider the forests of Fiordland as the lungs of the land; the filtration system. The forests are natural capital, providing invaluable ecosystem services for the land, water, air, biodiversity and humans.

Ngā Take – Issues

- The forests of Fiordland are "too silent" (e.g. lack of bird song).
- Impacts on native forests from wilding pines and other weeds. Plantation forests exist on the fringes of Fiordland, and wilding pines from these plantations are an issue.
- Pest control operations.
- Valuing our forests as natural capital.
- Harvesting of native trees.

Ngā Kaupapa - Policy

1. Ngāi Tahu ki Murihiku consider the forests of Fiordland as taonga to be protected and therefore enhanced for future generations.
2. Promote the management of whole ecosystems and landscapes, in addition to single species.
3. Encourage the protection and appropriate valuation of native forest ecosystems as natural capital: the water, soil and biodiversity, and the essential ecosystem services they provide.
4. Promote the integration of biodiversity management across land ownership land use boundaries.
5. Take responsibility for the impacts of human activities on native forest ecosystems.
6. Ensure efforts are directed at identifying solutions for biodiversity decline, not just the problems.
7. Make full use of the knowledge of tangata whenua with regards to indigenous biodiversity, and the value of such knowledge in understanding how to protect and enhance biodiversity.
8. Ensure that the customary rights of tangata whenua to access and use the resources of native forest ecosystems are recognised and provided for.
9. Any selective felling and extraction of indigenous trees should be:
   a. on a sustainable yield basis, under sustainable forest management accord;
   b. include accidental discovery protocol;
   c. protection of waterways.
10. That, where possible, the owners of indigenous forests will be encouraged to enter into protective heritage covenants.
11. Support and promote efforts to control and manage pests (animal and noxious pest plants) in native forest ecosystems.

Cross Reference:
Section 4.7 Te Whakatau Kaupapa o Murihiku

3.3.17 Plant and Animal Pest Control

Pest control is about trying to prevent new pests and diseases arriving in Fiordland, and eradicating or controlling those already present. Effective pest control requires good partnerships between government agencies, non-governmental organisations, tangata whenua and landowners.

Pests such as possums, mustelids and deer are having a marked effect on some areas of Fiordland.

> "Our aim is eradication of pests in Fiordland, but in practice we do pest control."

Ngā Take - Issues

- Impact of unwanted introduced plant and animal species (e.g. wilding pines; noxious weeds; possums) on indigenous flora and fauna.
- Management and use of 1080 to control /eradicate pests.
- Non-target impacts of pest control operations.
- Concerns relating to Animal Health Board programs for tuberculosis. If such programs wind down, will we continue to have resources to continue pest control operations?

Ngā Kaupapa - Policy

1. As a collective, Ngāi Tahu ki Murihiku support the controlled use of 1080, provided that tangata whenua are actively involved in the decision to use it, and that appropriate conditions of consent are in place, particularly monitoring conditions.
2. Continue to work in partnership with the Department of Conservation and the Animal Health Board to ensure that the use of 1080 in Fiordland to control possums and mustelids is managed in a way that avoids or minimises effects on cultural values while providing maximum benefit to native forest ecosystems.
3. Require that Ngāi Tahu ki Murihiku are provided with an opportunity to have input into priority setting for pest control in Fiordland (i.e. where, when, how). For example, ngā rūnanga may want to attach priority to a certain place due to its past and future values, for mahinga kai.
4. Require that best practice techniques are used for all pest control operations, include Global Positioning Systems during aerial applications of 1080, low application rates, and monitoring pre and post operation, to ensure that the adverse effects are as minimal as possible.
5. Continue to support ongoing research into safe and successful methods of pest control in our native forests, including continuing research into alternatives of 1080.
6. Consultation and communication regarding pest control strategies should be in plain language, in addition to highly technical reports, to enable ngā rūnanga (and other community groups) to make informed decisions.
7. Require that monitoring of pest control operations for adverse effects on indigenous species is included in any pest management strategy (e.g. 5 minute birdcall counts of native bird species pre and post bait drop).
8. Require, in assessing strategies for pest control in a given area, that economic values do not take precedence over other values such as environmental, cultural and social values. The most cost-effective means of pest control may not be the most environmentally, culturally or socially acceptable solution.
9. Ensure that pest control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.
10. Promote the compatible management of pest species on lands adjoining any area where comprehensive pest control operations are in place.
11. The use of 1080 for pest control must have long-term focus and ongoing involvement and follow up to consolidate on the gains.

Case Study: Use of 1080 for Pest Control

Ngāi Tahu ki Murihiku take a holistic view when assessing issues such as 1080. As well as assessing the adverse effects, the positive effects other than the control of TB in possums must be assessed. The positive effects include the by-kill of rats, mice, stoats, ferrets and feral cats, and the benefit to the bush and native birds. In the opinion of Ngāi Tahu ki Murihiku, the conservation gains associated with 1080 use far outweigh the minor adverse effects associated with appropriate 1080 use.

For Ngāi Tahu ki Murihiku, the available scientific information, and the need for pest control in places such as Fiordland's native forests, has led to the conclusion that 1080 is the best option at this time, if managed appropriately, and that many of the other available toxins have far greater adverse effects.

As tangata whenua, we take our kaitiakitanga responsibilities very seriously and have the same concerns as any other community/ies in regard to the use of toxins. Because of such concerns, Ngāi Tahu ki Murihiku work closely with the Animal Health Board, Environment Southland, Department of Conservation and research organisations with respect to the use and management of toxins such as 1080.

3.3.18 Species Recovery

Species recovery focuses on enhancing the recovery of threatened native plant and animal species in coastal, land and freshwater ecosystems. This is achieved through such initiatives as habitat enhancement, breeding programmes, species transfer and predator control.

For Ngāi Tahu ki Murihiku, species recovery is about restoring populations of native species that can be sustained in natural habitats. It is also about restoring populations to a level where customary use is an achievable goal.

Ngā Take - Issues

- Restoring the dawn chorus.
- Protection of breeding and feeding areas.
- Need for sanctuaries for species recovery.
- Protection of the association between tangata whenua and birds.
- Protection of long-finned eel in Fiordland National Park. Fiordland is one of the few places where long-fin eel are protected from commercial fishing and habitat loss.

Ngā Kaupapa - Policy

1. The cultural, spiritual, historic and traditional association of Ngāi Tahu ki Murihiku with native species must be recognised and provided for in all management associated with those species.
2. Ensure that taonga species provisions of the Ngāi Tahu Claims Settlement Act 1998 are given effect to within Fiordland National Park boundaries, including taonga species management, recovery plans, and species transfers onto/from the area.
3. Work proactively and effectively with the Department of Conservation, through kaitiaki rōpū, to "restore the dawn chorus" through effective species recovery and habitat enhancement programs for our native bird species.
4. Consider the potential effects (positive and adverse) on native birds when assessing any resource consent or concession application in Fiordland.
5. Avoid compromising the habitat, diversity and abundance of native bird species at risk as a result of inappropriate land use, development or subdivision.
6. Support and encourage scientific research that assists in the conservation and recovery of native birds, particularly those that are at risk.

7. Encourage researchers to consult with and involve local tangata whenua experts as part of any research on culturally important native bird species.
8. Encourage the use of Mātauranga Māori in scientific research and monitoring surveys for species recovery.
9. Protect and enhance the eel population and/or habitat within Fiordland National Park, while recognising the customary use rights of Ngāi Tahu.

Cross Reference:

Provision 3.3.16 Plant and Animal Pest Control, Section 3.3 *Te Atawhenua*, Fiordland.

"There was nowhere that the early Ngāi Tahu tūpuna did not go; they had names for even the smallest puke (hill) or awa (river or stream)".

"It is well to remember the many kāinga (dwelling places) and kāinga nohoanga (permanent or seasonal camps) of our tūpuna."

"It is all about healthy places, healthy resources, and our sustainable use of those places and resources."

WĀHI TAPU ME TE WĀHI TAONGA
SACRED AND TREASURED SITES

3.3.19 Protecting Sites of Significance in Fiordland National Park

The Fiordland region contains an abundance and diversity of culturally significant sites, including: ana (caves), ara tawhito (ancient trails), kāinga nohoanga (occupation sites), māra (gardens), maunga (mountains), tauranga waka (canoe landing sites), tauranga ika (fishing grounds), urupā (burial areas), mahinga kai (resource/food gathering areas), wāhi mahi kohātu (mineral use sites), wāhi pakanga (battle sites), wāhi pounamu (pounamu areas), and other places associated with the history and identity of Ngāi Tahu. Such sites are an important link between past, present and future generations, holding the memories and traditions of the iwi. Part 2, Section 2.22 defines an archaeological site as under Section 2 of the Historic Places Act.

Ngā Take - Issues

- Fossicking.
- Continued access to and protection of significant sites.
- Protection of unknown sites.
- Accidental finds as a consequence of ground disturbance associated with land use.
- Passing on traditions and knowledge of significant sites to our tamariki.
- Ensuring respect for those places that are important to us.
- Inadequate or incomplete registers of sites.

Ngā Kaupapa - Policy

1. Ensure that Ngāi Tahu ki Murihiku are able to effectively exercise their role as kaitiaki over wāhi tapu and wāhi taonga in Fiordland.
2. Actively pass on knowledge of culturally significant sites, and the pūrākau and tikanga that go with them, to our tamariki and mokopuna.
3. Maintain good working relationships with those agencies involved in the protection of historic and cultural resources in Fiordland.
4. Develop and maintain effective working relationships with landowners and the wider community, with regards to the protection of, and access to, cultural and historic resources in the entire takiwā of Ngāi Tahu ki Murihiku.
5. Adopt a precautionary approach with regards to assessing the impacts of activities on wāhi tapu and wāhi taonga.

6. Avoid compromising unidentified, or unknown, sites of cultural significance as a consequence of ground disturbance associated with land use, subdivision and development.
7. Ensure that oral history and customary knowledge is considered equally alongside documented evidence when assessing the Ngāi Tahu cultural heritage values of a region or site.
8. Applications for activities in areas of cultural significance where there are no known sites but the likelihood of finding sites is high, will require one or more of the following (at the cost of the applicant):
   a. site visit;
   b. archaeological survey (walk over/test pitting), by an approved archaeologist;
   c. cultural impact assessment;
   d. cultural monitoring;
   e. accidental discovery protocol agreement;
   f. archaeological authority.
9. Where an archaeological survey is required to assess the cultural heritage values in an area, the archaeologist must have the mandate of the appropriate kaitiaki rūnanga.
10. Any site that fulfils the criteria of the Historic Places Act 1993, whether recorded or not (it just has to be suspected), is protected under the Act. This refers to unexpected sites that may be uncovered during development, even after approval of the overall project has been consented to by tangata whenua.
11. Ensure that resource consent applicants are aware that liaising with iwi on the cultural impacts of a development does not constitute an archaeological assessment.
12. Any interpretation or portrayal of Ngāi Tahu history or associations with wāhi tapu or wāhi taonga is subject to policies for cultural interpretation, as per Section 3.3.9 of this Iwi Management Plan.

Recorded sites in existing registers are sometimes inaccurate or incomplete. In some cases, a general area may be correct, but the specific point identifying a site may be inaccurate. It is important to recognise that sites of significance in such registers are not comprehensive lists, and are often not a true representation of the actual number or distribution of sites or the extent of cultural deposits associated with the listed sites.

The Treaty of Waitangi is the historical basis for indigenous guardianship. It recognises the indigenous people as exercising responsibility for their treasures, monuments and sacred places. This interest extends beyond current legal ownership wherever such heritage exists. Particular knowledge of heritage values is entrusted to chosen guardians. The conservation of places of indigenous cultural heritage value therefore is conditional on decisions made in the indigenous community, and should proceed only in this context.

Source: Indigenous Cultural Heritage Provisions, ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value (adopted by the New Zealand National Committee of the International Council on Monuments and Sites in 1992).

3.4 High Country & Foothills
Takitimu Me Ona Uri

Ko Takitimu te maunga
Ko Takitimu te waka

Takitimu is my Mountain
Takitimu is my canoe (waka)

Photo credits for artwork (previous page)

Main Photo
Source: Venture Southland

Tauihu (waka prow)
Source: Southland Museum

Imagery

The Takitimu Mountains are what remain of the great waka Takitimu wrecked near the Waiau River.

3.4

Takitimu Me Ona Uri
High Country & Foothills

Maunga (mountains) play an important role in the spiritual and cultural beliefs of Ngāi Tahu Whānui, they are the most sacred part of the landscape. Foremost, maunga are the gateways to the atua (gods) and heavens, hence the story of Aoraki and the creation of Te Waipounamu. Maunga are also the gatherers of the tears of Ranginui (Sky Father), whose valleys collect the water and in turn supply the lifeblood of Papatūānuku (Earth Mother). The snow capped mountains are the old men of the landscape.

The mountain and foothills regions are the source of life and nourishment for the plains below. The snow and glacial melt of the mountains is the source of rivers, which flow from the mountains to the sea.

Te Taumutu Rūnanga Natural Resource Management Plan, p 53

This section of the plan describes ngā take and ngā kaupapa associated with the high country and foothills in Murihiku. This includes the lands, waters, mahinga kai and biodiversity of the hills region between Fiordland and the Southland Plains and includes the Takitimu Mountains, which guard the edge of Fiordland on the Southland Plains. They are named after the wreck of Tametea Ure Pokaiwhenua Pokaimoana waka (canoe) – the Takitimu. The high country and foothills are inclusive of the Eyre, Remarkable, Livingstone and Garvie Mountains, and Longwood, Hokonui and inland Pukerau and Catlins foothill regions.

The section further includes the upper Queenstown/Wanaka catchment including lakes and mountains between Whakatipu-Waitai (Lake McKerrow) and extends across to the eastern boundary of the Matau (Clutha) River. Ngāi Tahu ki Murihiku acknowledge the shared nature of some areas with Ōtākou/Otago rūnanga, particularly Te Rūnanga o Moeraki, Kāti Huirapa ki Puketeraki and Te Rūnanga o Ōtākou, in the inland lakes and mountains.

Ngāi Tahu ki Murihiku have chosen to name this section of the plan Takitimu me ona uri. This refers to the Takitimu Mountains and its siblings, descendants and relations which form the mountain and foothill regions within Murihiku and beyond.

Section 3.4
Takitmu me ona Uri – High Country and Foothills

- Tenure Review
- High Country Pastoral Farming
- Energy Generation and Efficiency
- Mining and Exploration
- Forestry (exotic)
- Forestry (indigenous)
- Vegetation Clearance and Burning
- Access and Tourism
- Plant Pests
- Animal and Bird Pests
- Hazardous Substances and New Organisms
- Mahinga kai
- General Water Policy
- Protecting Sites of Significance in High Country and Foothills Areas
- Rock Art

Matamata

The famous Ngāti Mamoe Rangatira, Te Rakitauneke had his own personal taniwha, Matamata who followed him in his journeys from Kaikōura to Murihiku. There are numerous stories relating to Matamata and this is just one of them.

Before travelling South to Murihiku, Te Rakitauneke lived at Wakāri, Otepoti. One day Te Rakitauneke decided to set off for Te Ākau Tai Tonga (the Southern Coast), however, he forgot to tell Matamata who happened to be sleeping at that time. When Matamata awoke and found his rangatira gone he was most upset and confused and immediately set out to follow him.

As Matamata tortuously made his way down the Taieri Plains he gouged out a winding watercourse which was named Rua Taniwha. He made his way up the Waipori eventually arriving at the area now known as the Hokonui Hills. On his arrival he became aware that his rangatira, Te Rakitauneke, had died at Ōmāui. Matamata was so saddened by the loss of Te Rakitauneke that heartbroken, he also died turning in to stone creating the Hokonui Hills. The Hokonui Hills are also known as Matamata.

Another legend says that Matamata could be seen smoking, firing rocks and molten material into the air which, falling to the ground created the hills known as Matamata or Hokonui.

3.4.1 Tenure Review

Tenure review is an outcome of the Crown Pastoral Land Act 1998. The process is administered by Land Information New Zealand (LINZ), in relationship with the Department of Conservation (DOC). The process further involves Ngāi Tahu, Fish and Game and other non-governmental organisations. The review process is intended to make a clear distinction between economically productive land and land of conservation value.

Tenure Review often involves areas of pastoral lands transferred to freehold, and others retired from grazing and turned into conservation lands to be administered by the Department of Conservation.[6] The identification of Ngāi Tahu values associated with areas undergoing the tenure review process and the inclusion of mechanisms to protect cultural values are important to Ngāi Tahu ki Murihiku.

Ngā Take – Issues

- Impacts on water quality as a result of hill country development.
- Impacts on mauri of freshwater lakes and rivers.
- Degradation of waterways by stock, deforestation, siltation etc.
- Reservoirs, dams and diversions on lakes and rivers.
- Discharges to lakes from tourism, industry, agriculture etc.
- Protection of significant inherent cultural values on pastoral lease lands.
- Protection of statutory acknowledgements.
- Recognition of obvious sentimental and cultural values associated with surrounding lands.
- Protection of taonga, endemic species and indigenous flora and fauna.
- Continued access for mahinga kai and other cultural purposes.
- Relationships with lessees.
- Relationships with the Department of Conservation.
- Relationships with Land Information New Zealand.
- Future use and management of lands identified as conservation lands, including grazing and tourism concessions.
- Role of Ngāi Tahu ki Murihiku in determining future use and management.
- Consultation into immediate protective mechanisms to prevent further damage.

Ngā Kaupapa - Policy

Protection

1. The rights of Ngāi Tahu ki Murihiku to be involved in all aspects of the tenure review process must be recognised and provided for by all parties involved.
2. Ensure that access rights for Ngāi Tahu ki Murihiku to high country areas are recognised, provided for and not compromised by the Crown.
3. Recognise Tenure Review Property Reports as written by Te Aō Mārama Inc. or those contracted to Te Aō Mārama Inc. as a part of the tenure review process, to identify cultural values associated with any given area and mechanisms provided to protect such values.
4. Identify and require the recognition of Statutory Acknowledgement sites located in the high country and foothill area.
5. Support recommendations for use of marginal strips, buffer zones, riparian margins or other protection mechanisms adjacent to waterways for protection of mahinga kai, water quality and biological diversity (applies to both freehold and conservation lands).
6. Support, where appropriate, the retirement of land into conservation estate or placement of covenants over forest remnants to protect the habitats of taonga species.
7. Require that protection and access mechanisms are developed for all wāhi tapu and wāhi taonga areas located on pastoral lease lands.
8. Protect the headwaters of rivers for protection of mauri and ensure a continuous healthy flow from the mountains to the sea.
9. Acknowledge that with time natural food supplies have been removed. The adaptive quality of some species now relies on introduced food supplies. Thought must be given to circumstances where retaining introduced species rather than removing them, is in fact in the best interest and longevity of the species. Those involved in the tenure review process must consider effects of the removal of some introduced species on existing populations.

6 *Te Poha o Tohu Raumati* – Te Rūnanga o Kaikōura Environmental Management Plan 2005, p 81

Process of tenure review
An example of poor land use

The process of tenure review has enabled the values that remain in some high country areas to be protected by placement of heritage and vegetative covenants or through the retirement of lands. Ngāi Tahu ki Murihiku support such processes but emphasise that land use practices and the management of such in the high country and foothills should ensure that soil, water, natural and cultural heritage values are conserved and protected before such measures are needed to save what little remains. The following example demonstrates the effects of poor land use and the loss of values as a consequence.

The northern end of the Old Woman Range just south of Bannockburn approximately 16km from Cromwell demonstrates the effects of high country pastoral farming. Past land use practices including constant grazing and burning have left parts of the Station and other Stations in the area in a state of disrepair. Damage, further exacerbated by the spread of rabbits has left areas on the northern slopes, almost desert like. Removal of natural vegetation has led to spread of fire resistant matagouri, briar and spaniard, all of which add little support to succession and habitat growth.

Although undertaken unwittingly, past land use practices have severely compromised what iwi values remain on the property. The tenure review process has involved saving what little value does remain. This, in a sense, is a little too late.

Ngāi Tahu have a strong connection with the natural resources in the area. Traditionally the wetlands and beech forests would have been used as hunting grounds and particularly in areas above the bush line, hunting of moa, as a resource, would have been important. Gathering of harakeke/flax for the purposes of weaving clothing, footwear and containers along with use of the cabbage tree as a source of starch, and taramea for its perfumed resin were important vegetation sources. Pounamu was a highly valued resource used for both decorative and hand held weapons, and the ancient trails established throughout the area, particularly to the Nevis and beyond, were highly important.

What remains today in the way of historical resources is very little. The lower flat lands are well irrigated but there is very little left on the remaining property in respect to iwi values. Duffers Gully has been extensively mined and evidence of Māori presence has been buried and destroyed. There were four pits recorded, at least one was likely to be an oven.

10. Ensure that existing protocols between Te Rūnanga o Ngāi Tahu and the Department of Conservation are adhered to in the management of any given area undergoing tenure review. Monitoring of grazing licences whereby a change from pastoral lease lands to conservation lands has occurred is essential to ensure economic benefits do not out-weigh conservation and cultural values.
11. Advocate for appropriate animal and plant pest control operations over areas becoming conservation estates and duly recognise this in any Department of Conservation grazing licence.
12. Ensure input where immediate protective mechanisms are employed to prevent further damage, i.e. buffer zones.
13. Respect and recognise for sentimental and cultural values associated with surrounding land and advocate for mechanisms to protect these values i.e. Takitimu Mountains and its surrounds.
14. Ensure developers put in place and adhere to an Accidental Find protocol to cover the accidental discovery of Kōiwi tangata, umu, wāhi pakanga or other taonga.

Relationships

15. Promote an effective and constructive working relationship, through consultation, (promoting joint initiatives to improve upon and provide adequate protection over remaining habitats of importance) between the parties involved in the tenure review process. This includes future use and management, particularly in regard to commercial activities undertaken on conservation lands.

Cross-reference:

Provision 3.5.1 Farm Effluent Disposal and Wastewater Disposal – Section 3.5 *Te Rā a Takitimu* - Southland Plains

Information Source:

Tenure Review Property Report prepared by Te Aō Mārama Inc. and Te Rūnanga o Ngāi Tahu, for various tenure review properties.

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

3.4.2 High Country Pastoral Farming

Ngāi Tahu ki Murihiku understands that pastoral farming (sheep, cattle and deer) is an important economic activity in high country areas within Southland. However management of these lands should ensure that soil, water, natural and cultural heritage values are conserved and protected.

Ngā Take - Issues

- Unsustainable land use and impact on soils, vegetation, water quality and quantity.
- Unconsented development or activities as part of pastoral farming.
- Vegetation burning for land management and development purposes.
- Loss of nutrients and carbon through burning.
- Loss of indigenous vegetation and peat bog areas.
- Clearance of indigenous vegetation.
- Access to indigenous vegetation for customary use.
- Water abstraction for irrigation, stock water and production of feed.
- Large scale water abstraction.
- Protection of instream ecosystems by advocating for appropriate minimum flow levels.
- Inefficient discharge to land.
- Protection and conservation of threatened species/ taonga.
- Disturbance of wāhi tapu sites unknown to landowners/ lessees.
- Protection of wāhi tapu and wāhi taonga on private land.
- Access to known wāhi tapu and wāhi taonga sites.
- Animal pest control and spread of plant pests in high country pastoral lease lands.

Ngā Kaupapa - Policy

1. Encourage sustainable pastoral farm land management practices whereby impacts on soil, vegetation and water quality are minimised.
2. Support improvement of soil production levels by maintaining balanced nutrient levels and avoiding soil erosion and loss of organic matter.

3. Develop working relationships with landowners to avoid unconsented development of activities which will adversely effect environmental, cultural and heritage values.
4. Advocate for recognition of burning practices as unsustainable. Such practices have long term impacts on nutrient sequestering.
5. Discourage the draining of peat bog areas for pasture which were in the past and still remain a significant mahinga kai resource source.
6. Advocate for pastoral farm management decisions (including conversion to pasture) to take into account the protection and survival of indigenous species of flora and fauna in their natural habitats, particularly forest remnants.
7. Encourage development of riparian zones and buffer strips along both sides of all watercourses to minimise effluent and nutrient runoff and prevent stock access.
8. Discourage the clearing of indigenous vegetation for boundary fencing. Where unavoidable, clearing of indigenous vegetation for boundary fencing must be kept to a minimum.
9. Recognise Ngāi Tahu Whānui access to areas of indigenous vegetation for customary use practices. For example collection of a specific seed source, young shoots or flax for cultural use. Such collection shall be kept to a minimum so as to not to impede succession and to ensure habitats are retained.
10. Require that all water abstraction activities associated with pastoral farming practice are efficient. This is reflected particularly in respect to sustainable irrigation design, delivery and management. Large scale water abstraction (which has an environmental effect) should be avoided.
11. Prevent direct stock access to waterways and provide for watering of stock using efficient pumping mechanisms to paddock troughs. This is to avoid the damage by stock to lake or river edges and riparian zones.
12. Promote at all times the protection of all native aquatic species.
13. Maintain appropriate minimum flow levels to ensure that native aquatic species have uninhibited passage between high country lakes and rivers and the sea at all times. Any structure must provide for fish passage.
14. Avoid any discharge of contaminants to water as a result of pastoral farming activity, including pest control poisons.
15. Earthworks undertaken as a part of high country pastoral farming shall recognise for potential accidental discovery of kōiwi tangata, umu, wāhi pakanga or other taonga. It is encouraged that such discoveries be reported to Te Aō Mamara Inc and mechanisms for protection be sought.
16. Encourage and develop good working relationships with all private landowners with regards to the protection of, and access to wāhi tapu, archaeological, or other culturally significant sites.
17. Encourage pest management practices to be conducted in a way so as to minimise impacts on non-target species.
18. Consents granted for land management purposes should have in place conditions and monitoring requirements to address pest plant control issues.

Cross-reference

Provisions: 3.5.11 Rivers, 3.5.12 Discharge to Water, 3.5.13 Water Quality and 3.5.14 Water Quantity - Abstractions – Section 3.5 *Te Rā a Takitimu* - Southland Plains

Information Source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Drainage of 200 acre peat bog to convert to pasture

"it is really sad to see those areas still being drained and turned to pasture. These particular bogs were once significant and named mahinga kai of our tūpuna. However, it appears now there is a need and desire to change the ground to make the area financially viable."

George Ryan 2007

3.4.3 Energy Generation and Efficiency

Energy requires consideration from two perspectives:

- the effects of using energy and
- the effects of developing energy resources

Using and developing energy resources can have negative impacts in respect to the environment. Use can be inefficient and unsustainable, enhance inappropriate emission levels and have long term effects on climate change.

Furthermore development of energy resources can also have implications on and may lead to loss of indigenous vegetation, ecosystems, landscapes and culturally significant sites. The management and control of such development is of concern to Ngāi Tahu ki Murihiku including the damming and diversion of waterways. Within Murihiku there is potential for development of renewable energy including wind, biofuels and solar energy. Ngāi Tahu ki Murihiku however recognise that with any form of development there is a potential for adverse effects which when identified should be avoided or remedied. Effects as a result of development include land disturbance, visual and noise impacts, air and water pollution, impacts on communities and existing infrastructure, loss of natural landscapes and biodiversity and health and safety implications.

Ngā Take - Issues

- Localised, damming/diversion of waterways, wind, new types such as solar and nuclear.
- Location of wind farms and their possible impact on migratory birds.
- Earthworks associated with construction and preparation of the site.
- Scale of the wind farms.
- Management and control of environmental effects from use and development of energy resources.
- Efficient use of energy.
- Potential for development of energy resources in Southland.
- Modification of indigenous ecosystems and habitats as a result of development or extension.
- Air and water pollution.
- Protection of cultural landscapes from inappropriate use and development.
- Access to culturally important places.
- Restricted access during construction and once production is underway, because of safety and security reasons.
- Impact on communities and infrastructure.

Ngā Kaupapa - Policy

Energy Generation

1. Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future energy development and commercial operations in the high country and foothill areas.
2. Ensure that Ngāi Tahu ki Murihiku is proactively involved with the management of future energy development within high country and foothill areas. This includes assessing the appropriateness of large and small scale energy development and the localised effects of these developments on communities, natural character, biodiversity, cultural significance and the possible changes in experiences tangata whenua may have when visiting the area or areas adjacent to the development.
3. Protect the natural and cultural landscape and potential loss or irreversible change to landforms from inappropriate energy development.
4. Ensure that the scale and location of any new energy development does not unreasonably detract from the natural landscape and character of the high country and foothill areas, e.g. wind farms. Such development must recognise and provide for cumulative effects on the land, water, possible down stream effects, biodiversity, changes to experiences with the land and visual impacts.
5. Ensure that the scale and location of any new energy development does not impede migratory bird paths.
6. Encourage use of visual representations in the consent and consultation process to enable rūnanga to picture the projects (large or small scale) on the landscape and clearly visualise the effects it may have.

Energy Efficiency

7. Adopt an integrated approach with neighbouring rūnanga with respect to the protection, maintenance and enhancement of cultural landscapes that may be affected by energy development.

8. Development and utilisation of energy resources should be managed to ensure that negative environmental impacts are avoided or remedied. This includes the effects this may have on a community and its infrastructure.

9. Promote and encourage the efficient use of existing energy production and energy infrastructure.

10. Support, where appropriate, alternatives to energy production that have less environmental impacts than traditional energy production methods. This removes potential to concentrate on sources of energy that are more easily accessible despite the high environmental cost associated with these more traditional sources. Furthermore supporting use of alternative methods leads to more efficient energy use.

11. Any earthworks undertaken must recognise for the policies outlined in Provision 3.5.8 Earthworks in Section 3.5 *Te Rā a Takitimu* - Southland Plains of this iwi management plan.

12. All Ngāi Tahu Whānui, current and future generations, must have the capacity to access, use and protect high country landscapes, wāhi tapu and mahinga kai sites and the history and traditions that are linked to these landscapes. During any development the limitations of access (for safety and security reasons) and the implications of such must be identified. Where possible limitations of access which effect the ability of Ngāi Tahu Whānui to recognise for historical and cultural links to the landscape should be avoided, and relationships between the landowners/lessees/developers should be enhanced whereby protocols are put in place to allow continued access.

13. Recognise Ngāi Tahu Whānui access to areas of indigenous vegetation for customary use practices. For example the collection of a specific seed source, young shoots or flax for cultural use. Such a collection shall be kept to a minimum so as to not impede succession and retain habitats.

Cross reference:

Provision 3.5.8 Earthworks – Section 3.5 *Te Rā o Takitimu* - Southland Plains

Provision 3.1.2 Economy and Industry – Section 3.1 *Huringa Ahua o Te Rangi* – Climate Change

Information Source:

Southland District Council District Plan 2001

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Cultural Impact Assessment – Meridian Energy Ltd's Wind Farm, TRONT, Draft May 2006

3.4.4 Mining and Exploration

Ngāi Tahu ki Murihiku believe that mining and exploration activities will continue in Murihiku, particularly lignite mining. We intend to be proactive in terms of ensuring that future mining developments do not compromise the natural environment, particularly water and sites of cultural significance.

Ngāi Tahu ki Murihiku policies on Mining and Exploration are found in Section 3.5: *Te Rā a Takitimu* - Southland Plains, provision 3.5.9.

3.4.5 Forestry (Exotic)

Forestry in this section refers to exotic forestry plantation and harvesting operations. The Southland region including the plains, high country and foothill areas have numerous forestry operations. Ngāi Tahu ki Murihiku recognise that forestry plantations, if not managed appropriately, can have significant adverse effects on the environment. Poorly managed forestry operations can result in displacement of indigenous vegetation and biodiversity, and can change the visual aspect of the landscape, modifying endemic ecosystems. If unchecked they may alter the hydrological system within a catchment causing problems with water yield and water quality. Often communities are faced with ongoing costs of dealing with wilding trees.

Areas once used and occupied by Ngāi Tahu ki Murihiku are becoming areas of intense forestation and in turn compromising the cultural identity that these areas hold. It is important that the values identified by Ngāi Tahu ki Murihiku are considered in policies and management programmes for exotic forestry operations. The relationships between Ngāi Tahu ki Murihiku, Te Rūnanga o Ngāi Tahu, and forestry companies is an important issue when it comes to the protection of land, water and soil resources.

Ngā Take – Issues

- Appropriate management of wastewater and stormwater.
- Impacts on water quality as a result of run-off and sedimentation.
- Impacts on water quantity.
- Impacts on access to mahinga kai.
- Impacts on riparian areas by forestry activities.
- Impacts on drains, springs, wetlands, tarns and aquifers by forestry activities.
- Impacts and management of timber processing plants and sawmills.
- Appropriate location of forestry plantations.
- Smaller woodlot management.
- Management of wilding tree species and the effects of seed dispersal.
- Preparation of land for planting and replanting and the potential to unearth cultural materials.
- Results of clear felling.
- Waterway channel modification and stream crossings.
- Protection of fish passage in waterways.
- Protection of existing remnants of indigenous vegetation.
- The effects of afforestation on water yield.
- The effects of deforestation on soil erosion.
- Protection of sites of cultural and historical significance.
- Visual landscape management.
- Use of poisons for plant and pest control.
- Wild animal control.

Ngā Kaupapa - Policy

Protection

1. Recognise and provide for Ngāi Tahu ki Murihiku kaitiakitanga with the land and mahinga kai. Relationships between forest managers and companies with Ngāi Tahu ki Murihiku are encouraged from forestry development inception.
2. Forest managers must recognise for the accidental discovery of cultural material, and should consult with Ngāi Tahu ki Murihiku to establish Accidental Discovery Protocol agreements. Forest managers are obliged to educate and inform contractors and operational staff of the operating procedure on how to identify accidental discoveries of cultural material during the course of their activities and the procedures that follow.
3. Riparian and buffer zones around waterways must be protected to ensure their ecological function is maintained and that mahinga kai and waterway ecosystems are protected.
4. Vehicle access must ensure that buffer and riparian zones are recognised and observed around all waterways, including drains, springs, wetlands, tarns and aquifers.
5. Protect mahinga kai habitats, wāhi tapu, wāhi taonga or other culturally significant sites through appropriate processes established as part of the management of forestry operations.
6. Ensure that access arrangements are part of forestry operation plans to ensure that local iwi maintain access to cultural sites, materials, and mahinga kai within the forest boundaries.
7. Encourage protection of existing indigenous forest remnants, bush stands or regenerating indigenous vegetation through use of buffer zones.
8. Encourage formal protection by way of covenant for existing areas of indigenous vegetation that have high cultural or conservation value.
9. Maintain uninhibited fish passage within any waterway flowing within and adjacent to the forestry plantation.

Management

10. Forestry operations should be located in appropriate areas where the effects of its activities on the surrounding environment will be minimised. Consultation with Ngāi Tahu ki Murihiku into the significance of a possible site is recommended to assess environmental, cultural and heritage values. This includes wetland areas, mahinga kai sites, wāhi tapu, wāhi taonga and other culturally significant sites.
11. Avoid adverse effects associated with forestry operation activities such as earthworks, increased sedimentation, harvesting, stream crossings, plant and animal pest control, vegetation clearance, channel modification and preparation of the land for new and replanting of trees. Such activities shall form part of a company's environmental management plan and/or standards.
12. Forest managers need to determine the best species of tree to plant in any given environment to minimise adverse effects on the surrounding environment and comply with regional/district planning provisions. Ngāi

Tahu ki Murihiku recommend that such decisions and reasoning should be provided for in the company's environmental management plans and/or standards.

13. Comply with all relevant codes highlighting performance standards and best management practices for commercial forestry development.

14. Forestry operations must observe the need to establish a buffer zone (set backs from roads) around all forestry plantations (regardless of size) to provide for visual considerations, wildlife and native species corridors. This will reduce the levels of sedimentation, runoff and erosion after felling and will control wilding tree spread. Use of native vegetation is encouraged during design of these buffer zones.

15. Require adequate management mechanisms are in place to control wilding trees as part of a routine pest plant control programme. Forestry contractors should be responsible for controlling wilding trees during planting and rotation and after harvest, on the immediate property and neighbouring property, at the company's or landowner's expense. Mechanisms should be regularly assessed to ensure effective and efficient control.

16. Require adequate management mechanisms are in place to control animal and plant pests. Mechanisms should be regularly assessed to ensure effective and efficient control.

17. Encourage the replanting after felling or, where land has been newly converted, as soon as possible to reduce sedimentation and loss of topsoil.

18. Recognise that small woodlot areas on farms can create adverse effects if not consented. Educating farmers in respect to management of such woodlots is encouraged.

Impacts

19. Avoid clear felling operations which can create increased sedimentation loading in waterways.

20. Avoid impacts on water quality within a forest licence by excluding stock access by way of fencing to prevent damage to riparian zones and waterways.

21. Culverts should be built to regional council standards and should be placed in streams and in the streambed to minimise debris build up/sedimentation.

22. Instream values should be protected against negative impacts of water yield.

23. Require that forestry operation plans identify all roading, crossing of waterways and access ways prior to commencement. Such information should be included in environmental management plans and/or standards. Any maintenance or upgrading should also be reported to Ngāi Tahu ki Murihiku.

24. Avoid the draining of wetland areas for forestry planting.

25. Avoid forest planting that would have an adverse effect on a wetland.

Cross reference:

Section 3.1 *Huringa Ahua o Te Rangi* - Climate Change

Information Source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Southland District Council District Plan 2001

3.4.6 Ngahere – Indigenous Forestry

Substantial areas of indigenous forestry are located on Māori Lands within the Southland region. These are concentrated in the southern coastal area, Catlins, Western Southland and on Stewart Island/Rakiura. Areas are also located in the Hokonui area. Some of these lands support significant indigenous forests which are a valuable resource for forest owners. Utilisation of such a resource is at the discretion of the owner. Part IIIA of the Forest Act, as inserted by the Forests Amendment Act 1993 promotes the sustainable forest management of indigenous forest land.

Ngāi Tahu ki Murihiku recognise that the management of ngahere on Māori Lands lies with the trustees and have no desire to dictate how trustees manage the lands on behalf of owners. It is extremely important to recognise and give effect to the purpose for which those lands were set aside for Māori owners. The lands were to provide for the sustenance and economic well-being for the original owners and for the following generations forever and ever and ever.

The Māori version in the Murihiku purchase says:

> *"Mō mātou hei whenua tunau rawa mō mātou, me o mātou tamariki, ake, ake,ake"*

The term *"mō mātou hei whenua tunau rawa"* implies that it is to be a lasting possession for us, whatever the needs are. That may be a place to say karakia before cutting down a tree to build a whare or a waka, or it may be a place to catch birds or fish for food or anything else for

that matter. The term *"mō mātou, me o mātou tamariki, ake, ake,ake"*, implies that it is to be for all us and for our children for all eternity.

Ngāi Tahu ki Murihiku only wish to make comments to advocate for forestry to be carried out in a manner that is in accordance with established sustainable forest management accords, conditions and protocols between parties. Of particular significance is the protection of waterways and potential accidental discovery of culturally significant sites or material.

Ngā Take - Issues

- Selective felling and extraction of indigenous trees.
- Sustainable forest management of indigenous forest land.
- Accidental discovery of culturally significant sites and materials.
- General effects of forestry activities on the waterways.

Ngā Kaupapa - Policy

1. Encourage avoidance of adverse effects associated with the following forestry activities:
   a. earthworks and increased sedimentation;
   b. harvesting;
   c. poor water quality; stream crossings; plant and animal pest control;
   d. vegetation clearance and habitat loss.
2. Advocate for processes to be established to promote sustainable forest management accords, conditions and protocols.
3. Ensure that protocols are established to recognise for accidental discovery of cultural sites and material. Forest managers/trustees are encouraged to educate and inform contractors and operational staff on the operating procedure on how to identify accidental discoveries of cultural material during the course of their activities and the procedures that follow.
4. Encourage protection of specific mahinga kai habitats, wāhi tapu and wāhi taonga sites within forestry boundaries.
5. Encourage the establishment of riparian and buffer zones around waterways to ensure waterway ecosystems and mahinga kai are protected.
6. Encourage stock exclusion by way of fencing from waterways and riparian zones to avoid impacts on water quality.

Cross reference:

Provision 3.3.15 Native Forest Ecosystems, Section 3.3 *Te Atawhenua* - Fiordland

Information Source:

Southland District Council District Plan 2001

3.4.7 Vegetation Clearance and Burning

Vegetation is cleared and burned for land management purposes. Burning destroys nutrient retention and, in the long term, breaks down the structure of the soils unless there is continual over sowing with grasses and application of fertiliser. Often land that is cleared is scrub land and consists of gorse, broom or matagouri. Burning of scrub opens that land for the establishment of pasture. The removal of vegetation cover, particularly on steeper slopes, can have significant effects in terms of topsoil loss, regeneration of natural organic matter, stability, effects on water quality, moisture retention and widespread erosion. Furthermore clearance provides habitat for infestation of exotic pest plants and exacerbation of damage by pest animals such as rabbits.

Ngā Take - Issues

- Clearing and burning of land for pasture conversion in the foothills and high country.
- Loss of organic matter.
- Loss of indigenous plant and animal species as a result of burning and clearing.
- Habitat loss as a result of burning and clearing.
- Disturbance and loss of culturally significant sites and materials as a result of burning and clearing.
- Increased soil erosion and land instability as a result of exposed soils.
- Establishment of undesirable plant and animal pest species as a result of burning and clearing.

Ngā Kaupapa - Policy

1. In areas where large scale burning or vegetation clearance operations are proposed, landowners must provide opportunity for site inspections to ensure that the activity complies with information provided, including maps.
2. Operation plans should outline the purpose for vegetation clearance or burning and the methods used to avoid harming non target species. Methods to enhance

and improve the area once cleared should also be demonstrated, this includes the natural replenishment of organic matter to reduce loss/degradation of topsoil and the use of alternative disposal methods.

3. Operation plans should outline effective methods for plant and animal pest control (including monitoring), following vegetation clearance or burning.
4. Protect indigenous vegetation in areas or adjacent to areas that are to be burned or cleared (e.g. forest remnant, peat bog area).
5. Avoid use of herbicides, prior to burning or vegetation clearance, that persists or is toxic to the environment.
6. In areas where accidental burning (including climate induced) has occurred areas should be replanted to avoid soil exposure and erosion, nutrient loss, and invasion of undesirable plant and animal pest species by the landowner or person responsible for the land.
7. Avoid clearance of land for land management purposes in areas prone to high soil erosion and land instability.
8. Advocate for the restoration of damaged or destroyed areas of vegetation as a result of non compliant or unconsented activity by the landowner or person responsible for the land.

Cross Reference:

Provisions 3.2.1 Discharge to Air; 3.2.2 Visual amenities, Section 3.2 *O Te Pū Hau* – Air

Section 3.1 *Huringa Ahua o Te Rangi* - Climate Change section

3.4.8 Access and Tourism

Many high country areas are conservation lands. Recreation and tourism often dominate use in these areas. Historically Māori used major rivers and ridges as pathways linking coastal settlements to the inland resources of the foothills and high country. Increased public pressure to access these areas affects culturally significant sites, the natural character of the landscape, and the availability and protection of natural resources. The following issues identify Ngāi Tahu ki Murihiku concerns surrounding activities with respect to access, use, and the protection of cultural values within high country landscapes as significant.

Ngā Take – Issues

- Impacts of tourism and recreation on high country and foothill landscapes.
- Increased pressure to improve transport networks (land and air) throughout high country and foothill landscapes for development purposes.
- Access for tangata whenua to culturally important sites (e.g. mahinga kai) in the high country and foothills.
- Protection of mahinga kai sites and resources.
- Access to indigenous vegetation for customary use.
- Recognition and protection of cultural values in the concession application process.
- Recognise for accidental discoveries of cultural sites and material and protection of wāhi tapu and wāhi taonga on conservation land.
- Building activity for tourism development, and potential impact on landscape and cultural values.
- Possible impacts of existing or proposed ski field development and the impacts of sewage discharge onto land, snowfields and into waterways.
- Impacts on water quality and quantity as a result of new development.
- Interpretation of cultural values as part of concession activities on conservation land.
- Use of appropriate Māori interpretation, agreed to by Ngāi Tahu ki Murihiku.

Ngā Kaupapa - Policy

1. Ensure that adequate and timely consultation occurs between tangata whenua and landowners/managers with respect to issues of access in the high country. This includes proposed new development such as transport networks.
2. Development that includes building activity should consider specific landscape and geographical features and the significance of these to Ngāi Tahu Whānui. Activity whereby buildings will protrude above ridgelines or displace sites of cultural significance should be avoided.
3. Recognise and protect culturally significant sites and places associated with high country trails.
4. All Ngāi Tahu Whānui, current and future generations, must have the capacity to access, use and protect high country landscapes, wāhi tapu and mahinga kai sites and the history and traditions that are linked to these landscapes.
5. Encourage consent and concession authorities to consider appropriate locations and durations for activities involving tourism, recreation and access

to the high country. This includes assessing the long term and cumulative effects that the activity may have. Furthermore authorities should provide for the potential availability of improved techniques and processes that will reduce overall effects on high country landscapes.

6. Instream values should be protected against negative impacts of new development, particularly with respect to appropriateness, discharges, abstraction, and effects over time.

7. Encourage education among tourist and other visitors about the cultural importance of mountains and other landforms to Ngāi Tahu Whānui.

8. Deter disrespectful activity by tourists or other visitors within areas designated as culturally significant. This includes education with respect to depositing of food, sewage, or rubbish away from designated sites and defacing of sites.

9. Appropriate and timely consultation must occur for all concession applications (if Ngāi Tahu ki Murihiku deem it necessary). This includes access to culturally significant sites by the general public. Concession activities are subject to Ngāi Tahu Standard Conditions for Concessions (Appendix 5).

10. Encourage respect for Ngāi Tahu association with culturally significant mountains in areas of conservation estate (including those recognised as Tōpuni), through working with the Department of Conservation to develop educational material to be made available to mountain climbers, the public, concessionaires and users of the area.

11. Actively advocate for the use of Ngāi Tahu and Ngāi Tahu ki Murihiku place names associated with mountain and foothill regions, and where promotional material is developed, to ensure that interpretation of historical whakapapa is correct and approved by Ngāi Tahu ki Murihiku. This may involve relationships with the Crown and lessees of high country stations.

12. Recognise Ngāi Tahu Whānui continued access to areas of indigenous vegetation for customary use practices. For example collection of a specific seed source, young shoots or flax for cultural use. Such collection shall be kept to a minimum so as to not to impede succession and ensure habitats are retained.

13. Encourage and develop good working relationships with all private landowners with regards to the protection of, and access to wāhi tapu, wāhi taonga, archaeological, or other culturally significant sites.

14. Ensure that protocols are established to recognise for the accidental discoveries of cultural sites and material.

Cross-reference:

Provisions: 3.3.3 Pounamu – Access and Management, 3.3.7 Concessions, 3.3.9 Cultural Interpretation, 3.3.13 Customary Use – Section 3.3 *Te Atawhenua* – Fiordland

Information Source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Te Taumutu Rūnanga Natural Resource Management Plan 2003

Southland District Council District Plan 2001

Homai to waiora ki au, kia tū pakari

Pass me the health giving waters, that I may stand tall, strong and healthy.

3.4.9 General Water Policy

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.

Ngāi Tahu ki Murihiku General water policy is found in Section 3.5: Southland Plains, provision 3.5.10.

High country lakes and rivers are essential in maintaining continuity in the life cycle of water and the ecosystems that are supported by such. The policies as outlined in Section 3.5 Southland Plains, provisions 3.5.10-3.5.20 and Section 3.3 Fiordland, provision 3.3.12 are applicable and should be read in the context of activities occurring in, around, on or affecting high country waterways.

Eyre Mountains/Taka Rā Haka Conservation Park

The combining of four separate conservation areas to the South West of Lake Wakatipu has formed Southland's newest Conservation Park, Eyre Mountains/Taka Rā Haka Conservation Park covering 65,160 hectares. The area has long attracted Māori, European, pastoralists and the preservationist and is rich in history. The geomorphology of the region rests between the granite mountains of Fiordland and the drier schist landscape of Central Otago. The area is rich in flora and fauna, some of which are very rare. The landscape is a blend of ridges, high peaks and long narrow river valleys, and includes the headwaters of the Upper Matāura and Ōreti Rivers which flow into Foveaux Strait.

Māori named the area Taka Rā Haka in reference to the sun setting or dancing on the mountain tops at the end of the day. The Eyre Mountains were named by Captain J.L Stokes of the Acheron survey (1848-51) after the explorer Edward John Eyre, Lieutenant Governor of the lower North Island and whole of the South Island from 1848-53.

The Ōreti and Matāura rivers were of great importance to Māori. Southern Māori travelled into the Eyre mountains following the Ōreti River from its mouth at Ōmāui, to its upper reaches on route to Lake Wakatipu and South Westland. The Upper Matāura River was also followed as part of a trail from the south through to Central Otago and beyond.

Māori moved through the area in search of food and to locate sources of stone such as Pounamu and Argillite. Māori have held cultural and spiritual connections to the Eyre Mountains landscape, from the earliest ventures of the Waitaha and Kāti Mamoe people, through many generations to the present day Ngāi Tahu.

The rugged landscape did not deter sheep farmers. Stations such as Fairlight, Cainard and Mt. Nicholas have strong historical links to this environment. A number of old mustering huts remain that provide trampers with shelter steeped in history.

Values have been protected in the Eyre Mountains for numbers of years. The Department of Land and Surveys, (now Department of Conservation) have for many years carried out wild animal control programmes and a number of huts and tracks have been established as a result. Areas of the high country have since been retired from pastoral farming and a number of areas protected to ensure values are maintained.

Establishing such a park which is steeped in so much history raises issues of access, use, and the protection of cultural values.

During the formation of the park Ngāi Tahu provided valuable feedback with respect to the significance of such an area. Although the Park is very remote and isolated, it can be accessed from a number of points along major southern highways 6 and 94 intersecting Kingston, Five Rivers and Mossburn. Main entry points are in major river catchments.

Ngāi Tahu ki Murihiku recognise that through establishment of such a Park, and its management as a cohesive unit, there is potential for increased pressure to access the area. In turn such access has implications for the natural character of the Park. Ngāi Tahu ki Murihiku recognise that the area is highly valued by recreationalists undertaking various activities such as trout fishing on the Ōreti and Matāura Rivers, hunting of red deer and feral pigs, mountain biking, four wheel driving on formed tracks in the south of the Park, horse riding in Eyre Creek and Upper Matāura and picnicking within the various catchments and road ends.

Given the Park is Southlands newest Conservation Park, Ngāi Tahu ki Murihiku advocate for continued consultation in respect to management programmes, concession activities, use of interpretive panels and Te Reo Māori and development undertaken within the area. Furthermore formation of any further Conservation or National Parks has the potential to affect resources of importance to tangata whenua therefore policy and planning with respect to these areas must ensure and recognise for cultural values and historical associations.

www.doc.govt.nz/*southland 16/05/2007*

MAHINGA KAI, BIODIVERSITY AND BIOSECURITY

High country lakes and rivers provide important habitat for freshwater fish species and other mahinga kai. River mouths, delta and tributaries all provide habitat for indigenous fish recruitment. Securing the health of these fisheries is of great importance to Ngāi Tahu ki Murihiku. Health not only includes maintaining a burgeoning fish population and balanced ecosystem but includes protection of the environment and people's health from pests and diseases. Furthermore recognising for cumulative effects from upstream activities ensures the ongoing health of ecosystems downstream.

Biosecurity is about the protection of the environment and people's health from pests and diseases. It includes trying to prevent new pests and diseases arriving in New Zealand, and eradicating or controlling those already present.

3.4.10 Plant Pests

The high country and foothill areas are significant habitats for varying vegetation types. These vegetation types are influenced by altitude, precipitation and temperature and historical land use patterns. Introduction of exotic species, forest plantations, plant pests, and introduced pasture species further influence the vegetation types.

Ngā Take - Issues

- Impact of unwanted introduced plant species on indigenous flora and fauna (e.g. wilding trees and noxious plant pests).
- Consultation processes associated with biosecurity and pest plant control.
- Non target impacts of pest control.
- Protection of the mauri of waterways.
- Impacts of habitat loss on recruitment.
- Protection of river confluence.
- Maintaining fish passage, impacts of culverts, weirs and dams.

Ngā Kaupapa - Policy

1. Ensure protection and enhancement of the mauri or life supporting capacity of all high country and foothill waterways.
2. Advocate that all management decisions shall take into account the protection and survival of indigenous species of flora and fauna (rare and not rare, and including taonga species contained in the Ngāi Tahu Claims Settlement Act 1998) in their natural habitats and ecosystems.
3. Require monitoring of plant pest control operations, for adverse effects on indigenous species, to be included in any pest management strategy.
4. Encourage all plant pest management operations, to be conducted in a way that minimises impact on non-target species.
5. In assessing strategies for pest plant control in any given area, require that economic values do not take precedence over other values such as environmental, social and cultural.
6. Require adequate management mechanisms are in place to control wilding trees as part of a routine pest plant control programme. Forestry contractors should be responsible for controlling wilding trees during planting and rotation and after harvest, on the immediate and neighbouring property, at the company's or landowner's expense. Mechanisms should be regularly assessed to ensure effective and efficient control.
7. Ensure that pest plant control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.
8. Encourage long-term solutions to aquatic plant pest problems, such as riparian shading and reduction of nutrients flowing into waterways and drains.
9. Advocate for landowner and neighbouring adjoining properties to establish compatible pest management programmes to ensure comprehensive control and eradication.
10. Activities involving gravel extraction, soil transport, and machinery movement should take precautions to ensure that machinery and movement of spoil/material avoid transportation of noxious plant pests and where possible avoids ground disturbance.
11. Discourage planting of noxious plant pests or exotic plants that are prone to spread.
12. Promote the use of native species in new developments as a means of reducing the risk of plant pest spread.

13. That all research linked to biosecurity within Murihiku that relates to significant flora, fauna, resources and places should include consultation provisions with Ngāi Tahu ki Murihiku.

Cross-reference:

Provision 3.3.16 Plant and Animal Pest Control - Section 3.3 *Te Atawhenua* - Fiordland

3.4.11 Animal and Bird Pests

The high country and foothills areas are also home to a number of bird species. Introduced wildlife to these areas has a visible impact not only on the landscape and indigenous vegetation but on the habitats of these bird species. Mustelids, cats, possums and deer represent a risk to these bird species.

In addition to animal pests, some species of introduced birds pose a risk to indigenous bird species through displacement and competition. Such birds include rooks and magpies.

Ngā Take - Issues

- Impact of unwanted introduced bird and animal species on indigenous flora and fauna (e.g. rabbits, possums, rooks).
- Consultation processes associated with biosecurity and animal/bird pest control.
- Non target impacts of animal/bird pest control.

Ngā Kaupapa - Policy

1. Advocate that all management decisions shall take into account the protection and survival of indigenous species of flora and fauna (rare and not rare, and including taonga species contained in the Ngāi Tahu Claims Settlement Act 1998) in their natural habitats and ecosystems.
2. Ensure that animal/bird pest control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.
3. Advocate for land owner and neighbouring adjoining properties to establish compatible pest management programmes to ensure comprehensive control and eradication.
4. That all research linked to biosecurity within Murihiku that relates to significant flora, fauna, resources and places should include consultation provisions with Ngāi Tahu ki Murihiku.

Cross-reference:

Provision 3.3.16 Plant and Animal Pest Control - Section 3.3 *Te Atawhenua* - Fiordland

3.4.12 Mahinga kai - mahi ngā kai

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 contributing to the overall well-being of Ngāi Tahu Whānui. Tangata whenua aspirations and expectations for mahinga kai are a common kaupapa throughout this iwi management plan.

Mahinga kai is about mahi *ngā kai* - it is about places, ways of doings things, and resources that sustain the people. It includes the work that is done (and the fuel that is used) in the gathering of all natural resources (plants, animals, water, sea life, pounamu) to sustain well-being. This includes the ability to clothe, feed and provide shelter. The loss of mahinga kai is attributed to habitat degradation, resource depletion, legislative barriers that impede access, changes in land tenure that affect ability to access resources and the introduction of predators that have severely reduced the traditional foods of Ngāi Tahu.

Ngā Take - Issues

- Protection of the collection and processing of natural resources which contribute to the well-being of Ngāi Tahu Whānui.
- Protection of the mahi/tools that are used to obtain natural resources.
- Adverse impacts of sedimentation and discharges on mahinga kai resources and places.
- Inability to use mahinga kai or wāhi taonga sites due to pollution of waterways.
- Access and customary use to mahinga kai.
- Impacts of habitat loss on recruitment.
- Protection of river confluence.
- Maintaining fish passage, impacts of culverts, weirs and dams.

- Recovery plans for species of freshwater fish that are threatened or at risk.

Ngā Kaupapa - Policy

1. Acknowledge the link between the overall well-being of Ngāi Tahu Whānui and the work associated with the collection of natural resources. The tools and methods used to obtain natural resources should be protected. Furthermore continued protection of natural resources ensures that such tools and methods contributing to well-being can be implemented.
2. Advocate for timely and appropriate consultation with Ngāi Tahu ki Murihiku with respect to areas that are considered particularly significant in terms of mahinga kai. All endeavours should be taken to protect areas and avoid inappropriate use and development. Furthermore management plans should recognise for taonga species as listed in the Ngāi Tahu Claims Settlement Act 1998 and all other species considered taonga by Ngāi Tahu ki Murihiku.
3. All Ngāi Tahu Whānui, current and future generations, must have the capacity to access, use and protect high country landscapes, wāhi tapu and mahinga kai sites and the history and traditions that are linked to these landscapes.
4. Promote the protection, restoration and enhancement of indigenous biodiversity.
5. Advocate for the protection, restoration and enhancement of waterways, riparian margins, wetlands, and tarns as a means of protecting and enhancing indigenous biodiversity.
6. Maintain uninhibited fish passage within any waterway linking the high country lakes and rivers to the coast.
7. Avoid compromising native aquatic species by building dams, culverts and weirs or through any other water abstraction methods.
8. Ensure that plant pest and animal/bird control programmes avoid adverse impacts on mahinga kai species or to areas of cultural significance.

Cross-reference:

Provisions: 3.3.16 Plant and Animal Pest Control - Section 3.3 *Te Atawhenua* - Fiordland and 3.5.10 General Water Policy, 3.5.16 Mahinga kai - Section 3.5 *Te Rā a Takitimu* - Southland Plains

3.4.13 Hazardous Substances and New Organisms

A hazardous substance is a substance that can harm people and/or the environment. Such substances include explosives, flammables, corrosives or poisons used in cosmetics, dyes, solvents, cleaners, fuels, poisons and other chemicals used in industry, construction and development. The adverse effects of these substances can have direct impact on environmental and human health and can impact the cultural integrity of mahinga kai, wāhi tapu, wāhi taonga and cultural landscapes.

New organisms (plant, animal, or micro organism), whether introduced intentionally or unintentionally, or developed through genetic manipulation, have the potential to affect mahinga kai species and habitats. Such organisms may compete with, attack, breed with or harm existing species present in these habitats. Under the Hazardous Substances and New Organisms Act (HSNO) 1996, introduction, use, manufacture, importing, exporting, developing, or release of hazardous substances and new organisms is managed by way of application and approval by the Environmental Risk Management Authority (ERMA).

Regular consultation with respect to HSNO applications occur with Te Rūnanga O Ngāi Tahu. Ngāi Tahu ki Murihiku seek further strengthening of this consultation. Consultation includes applications that seek approval for a number of purposes such as weed and pest control, genetic manipulation, development of new medicines, food and crops or when general research is undertaken.[7]

Ngā Take - Issues

- Involvement of Ngāi Tahu in decision making processes.
- Effects of hazardous substances on human health.
- Effects on the environment as a result of contamination and pollution of hazardous substances.
- Effects on indigenous biodiversity and mahinga kai.
- Effects on or damage to significant sites.
- Adverse impacts of sedimentation and discharges on mahinga kai from hazardous substances.
- Monitoring of potential effects from introduced new organisms or hazardous substances.

7 *Te Poha o Tohu Raumati* - Te Rūnanga o Kaikōura Iwi Management Plan 2005, p 73

- Consultation and communication of highly technical information to rūnanga.
- Transport (and associated spill risk) of hazardous substances

Ngā Kaupapa - Policy

1. Require appropriate consultation with regards to Hazardous Substances or New Organisms applications. Pre application, site visits, and presentation of findings are encouraged. Continued liaison with Te Rūnanga o Ngāi Tahu is essential.
2. Consultation and communication of highly technical information should in addition be presented in plain language, to enable rūnanga (and other community groups) to make informed decisions.
3. Consider any application for Hazardous Substances or New Organisms in terms of the potential effects, both positive and adverse, on indigenous biodiversity.
4. Advocate for use of Cultural Impact Assessments when considering applications for Hazardous Substances and New Organisms to appropriately assess the environmental impacts on cultural values held by Ngāi Tahu ki Murihiku.
5. Oppose the use of any hazardous substances where it is likely that such use will have an affect on water quality and land, influencing the life supporting and productive capacity of both.
6. Generally support the introduction of biological agents over alternative use of toxic or residual herbicides for plant pest control. However such introduction of biological control agents should be assessed with respect to the degree of risk to indigenous vegetation, the degree of risk of the pest plant to indigenous vegetation, and the benefits that introducing such an agent would have to indigenous species and ecosystems.
7. Become involved in the ongoing monitoring and assessment of continued use of approved biological control agents.
8. Support best practice for the transportation of hazardous substances on terrain where there is a high degree of spill risk. This is in coastal, river/lake edge and mountainous areas. Approved containers in which substances are carried are required.
9. Advocate for appropriate consultation over the introduction of any genetically modified organism. Ngāi Tahu ki Murihiku shall have time to assess any social or cultural concerns associated with such introduction and the impacts this will have on aspects of rangatiratanga and kaitiakitanga.
10. Ensure the appropriateness of approved field trials with respect to land use, construction and placement. Field trials must be established using robust scientific information. Ongoing monitoring of the trials with respect to safety and site security is essential.

Information Source:
Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

CULTURAL LANDSCAPE, WĀHI TAPU AND WĀHI TAONGA

Protection of cultural heritage for Ngāi Tahu ki Murihiku is about maintaining continuity between the past, the present and the future.

Ngāi Tahu ki Murihiku policies on Wāhi Ingoa/place names are found in Section 3.5: Te Rā a Takitimu, Southland Plains, provision 3.5.21.

Part 2 of this Plan, Section 2.22 recognises the protection given to archaeological sites by the Historic Places Act.

3.4.14 Protecting Sites of Significance in High Country and Foothill Areas

Ngā Take - Issues

- Recognition and protection of significant cultural landscapes (e.g. Takitimu Mountains).
- Fossicking.
- Continued access to and protection of significant sites.
- Destruction and modification of wāhi tapu through the direct and indirect effects of development and resource use.
- Recognition of urupā.
- Recognition of wāhi tapu, wāhi taonga, mahinga kai and the customary use of water.
- Protection of unidentified sites and accidental finds.

The term wāhi tapu refers to places held in reverence according to tribal custom and tradition. These places are sacred to Māori in the traditional, religious, ritual or mythological sense. Some wāhi tapu are important to the iwi, while others are important to individual hapū or whānau. Wāhi tapu are of importance because it protects the mana of not only ancestors of Māori, but of the people to their land and their past.

Wāhi tapu include (but not exclusive to): Urupā (burial places), Rua Kōiwi (places where skeletal remains are kept i.e. caves, hollow trees, rock overhangs), places where baptisms occurred, burial places of placenta, Tūāhu (places where rites were performed), Wāhi Pakanga (battle grounds), Wawhakaheke Tupapaku (underwater burial places), Waiora Springs (sources of water for healing), Waitohi (sources of ceremonial water) and Ara Purahourua (sacred pathways for messengers).

The term wāhi taonga means all resources that sustain life and are culturally significant to Ngāi Tahu. Taonga signifies the whakapapa (genealogical) tree of the Māori world, wāhi taonga are the various parts of it, the branches of that tree. In some cases , both wāhi tapu and wāhi taonga will be similar.

Wāhi taonga include (but not exclusive to): Wai (water), Noho Kāinga (pā sites), Tauranga Waka (canoe landing sites), Mahinga kai (food and resource gatherings areas), Maunga (mountains), Awa (rivers), Tauranga Ika (historic tribal fishing grounds), Tetoi Aka (middens), Tuhituhi Neherā (rock drawings) and Kōhanga (nesting areas).

Sources: *New Zealand Historic Places Trust website www.historic.org.nz*
Southland District Plan Section 3
Regional Policy Statement for Southland Section 5.1.5

- Recognition of wāhi taonga as places of cultural, traditional and spiritual importance.
- Passing on traditions and knowledge of significant sites to tamariki/children.
- Understanding of environmental perspectives and values held by tangata whenua.
- Ensuring respect for those places that are important to us.
- Appropriate consultation with rūnanga where there may be an effect on wāhi tapu or wāhi taonga.
- Recognition of Ngāi Tahu ki Murihiku expertise, knowledge and oral traditions in resource management planning.
- Agency and landowner relationships in respect to protection of cultural and historic resources.
- Inappropriate and inaccurate recording of wāhi tapu and wāhi taonga sites and the use of this information.

Ngā Kaupapa - Policy

1. Ensure that Ngāi Tahu ki Murihiku are able to effectively exercise their role as kaitiaki over wāhi tapu and wāhi taonga in Murihiku.
2. Actively pass on knowledge of culturally significant sites, and the pūrākau/myths and tikanga that go with them, to our tamariki and mokopuna.
3. Work with local authorities and other statutory agencies involved in the protection of cultural heritage to ensure that Ngāi Tahu perspectives and policies are reflected in statutory plans, best practice guidelines and strategies, and in resource consent processes (e.g. prohibited activity status for wāhi tapu areas).
4. Maintain good working relationships with those agencies involved in the protection of historic and cultural resources in Murihiku.
5. Develop and maintain effective working relationships with landowners and the wider community, with regards to the protection of, and access to, cultural and historic resources in the entire takiwā of Ngāi Tahu ki Murihiku.

6. Avoid compromising unidentified, or unknown, sites of cultural significance as a consequence of ground disturbance associated with land use, subdivision and development.
7. Ensure that oral history and customary knowledge is considered equally alongside documented evidence when determining the cultural heritage values of significant and cultural landscapes of a region or site.
8. Work with local authorities and agencies to improve and update information related to wāhi tapu and wāhi taonga sites contained in existing information registers.
9. Applications for activities in areas of cultural significance where there are no known sites but the likelihood of finding sites is high, may require one or more of the following (at the cost of the applicant):
   a. site visit;
   b. archaeological survey (walk over/test pitting), or a full archaeological description, by an archaeologist approved by Ngāi Tahu Ki Murihiku;
   c. cultural impact assessment;
   d. cultural monitoring;
   e. accidental discovery protocol agreement;
   f. archaeological authority;
   g. other (e.g. consent conditions).
10. Where an archaeological survey is required to assess the cultural heritage values in an area, the archaeologist must have the mandate of the appropriate kaitiaki rūnanga.
11. Any archaeological site that fulfils the criteria of the Historic Places Act 1993, whether recorded or not (it just has to be suspected), is protected under the Act. This refers to unexpected sites that may be uncovered during development, even after approval of the overall project has been consented to by tangata whenua.
12. Ensure that resource consent applicants are aware that liaising with iwi on the cultural impacts of a development does not constitute an archaeological assessment or iwi approval for a given proposal. An archaeological assessment requires follow up in respect to consultation.
13. Any interpretation or portrayal of Ngāi Tahu history or associations with wāhi tapu or wāhi taonga is subject to policies for cultural interpretation, as per Section 3.3.9 of this Iwi Management Plan.

Cross-reference:

Provision 3.3.18 Protecting Sites of Significance in Fiordland National Park- Section 3.3 *Te Atawhenua* - Fiordland

3.4.15 Rock Art

The rock on which art is drawn exists in, and is part of, a fragile micro environment. This environment is susceptible to damage from changing conditions - such as the increase of wind-borne dust. The dust factor is perhaps the major concern, in that it potentially threatens all of the taonga. Distance from the dust source is no guarantee of safety, and the effects are indiscriminate.

Future of Aotearoa rock art is fragile

Rock may appear to be one of the most durable surfaces on which to apply rock art, yet drawings of charcoal and ochre are perhaps the most vulnerable in existence.

They are vulnerable because the material used to create the art are perishable and few other art work is required to stand the punishment of the elements, wind borne, dust, animal rubbing, changes to the environment and, indeed, time.

Despite its seeming durability, limestone, the favoured rock surface on which the art was produced , is notoriously unstable and easily eroded. Aotearoa's rock art heritage included the earliest records created by the country's first inhabitants, and they are provided with very little protection against damage, either by natural forces or vandalism.

Ngāi Tahu Māori Rock Art Trust
www.ngaitahu.iwi.nz/rockart

Place note above:

NB: Ngāi Tahu ki Murihiku differ in the translation of Aotearoa. Aotearoa is the North Island while Te Waipounamu is the South Island.

The reference to Aotearoa in the quote above is thought to reflect all of New Zealand not just the North Island.

Ngā Take - Issues

- Lack of public awareness of the existence and significance of rock art sites.
- Lack of public awareness of the role of Ngāi Tahu ki Murihiku as the kaitiaki of the rock art sites within their rūnanga.
- Human and indirect interference affecting rock art.
- Insufficient resources to protect areas of rock art.
- Accurate information in respect to the exact location of rock art and its availability to public.
- Activity and development near rock art sites.

Ngā Kaupapa - Policy

1. Increase the ability of Ngāi Tahu ki Murihiku to participate in the development of management plans for rock art sites. This includes involvement in proactive management plans to deal with issues of indirect and climatic interference.
2. Protect rock art sites and the cultural landscape in which they are found from inappropriate subdivision, use and development.
3. Promote the recognition of the cultural significance of rock art among the community and the role of local rūnanga as kaitiaki of the sites within their takiwā.
4. Encourage the use of culturally appropriate interpretation and educational tools as a means of recognising and promoting the importance of rock art sites.
5. Encourage intergenerational transfer of knowledge of culturally important rock art sites and the landscapes in which they are found.
6. Adopt an integrated approach with neighbouring rūnanga with respect to the protection, maintenance and enhancement of rock art sites and cultural landscapes.
7. Encourage the ongoing surveying, recording and monitoring of rock art sites.

Information Source:
Te Whakatau Kaupapa o Murihiku Section 4.16
Ngāi Tahu Rock Art Trust **www.ngaitahu.iwi.nz/rockart**

3.5 Southland Plains
Te Rā a Takitimu

Te Hao te kai a Te Aitaka a Tapuiti

Tuna was one of the food sources of Waitaha

Photo credits for artwork (previous page)

Main Photo
Source: Venture Southland

Hīnaki (eel net)
Source: Southland Museum

Imagery

The plains were an abundant source of food and resources.

3.5

Te Rā a Takitimu
Southland Plains

This section of the plan describes *ngā take* and *ngā kaupapa* associated with the Southland Plains. This includes the lands, waters, mahinga kai and biodiversity from the Waiau River east, to the Matāura River and the foothills that separate the Waimea Plains from the mountain ranges. This section includes several important river catchments, including the Waiau, Aparima, Ōreti, and Matāura and Matau -au/Clutha.

Ngāi Tahu ki Murihiku have chosen to name this section of the plan *Te Rā a Takitimu*, in reference to the sails of the Takitimu, the waka of *Tamatea Pokaiwhenua Pokaimoana*. The Takitimu Mountains, named after the wreck of the Tamatea Ure Haea, guard the edge of Fiordland on the Southland Plains.

The Southland Plains were formed when the canoe of Aoraki capsised, and Aoraki and his brothers were forced to climb onto the back of it to avoid drowning. It was this canoe that became the South Island *(Te Waka o Aoraki)*. The stern of the waka, being broad and flat, formed the Southland Plains, culminating the tip of the stern being *Motu Pōhue* (Bluff Hill). The bodies of Aoraki and his brothers were changed into mountains.[8]

8 Te Whakatau Kaupapa o Murihiku: pp46–7

The ability of freshwater and soil resources of the Southland Plains to meet current and future demands is an important kaupapa for Ngāi Tahu ki Murihiku. Protecting the productive capability and life supporting capacity of these resources, and the relationship of tangata whenua to them, is the basis of the policies described here.

The coastal area of the Southland Plains is of particular significance to Ngāi Tahu ki Murihiku. Ngā take and ngā kaupapa relating to the activities in, and the relationship of tangata whenua to such areas are described in Section 3.6 (Southland's Coastal Environment) of this plan.

In this section, the following activities, issues, ecosystems and places of importance are addressed:

Section 3.5
Te Rā a Takitimu - Southland Plains

- Farm Effluent Management
- Wastewater Disposal
- Solid Waste Management
- Industry
- Forestry
- Stock Transport
- Subdivision and Development
- Earthworks
- Mining
- General Water Policy
- Rivers
- Discharge to Water
- Water Quality
- Water Quantity - Abstractions
- Activities in the Beds and Margins of Rivers
- Mahinga kai
- Ngā Pononga a Tāne a Tangaroa
- Wetlands
- Riparian Areas
- Freshwater Fisheries
- Protection of Sites of Significance
- Wāhi Ingoa/Customary Place Names

O TE WHENUA THE LAND

Te whenua to wai ū mō ngā tamariki

Land is the nourishment for the next generation

Much of the natural landscape of the Southland Plains is modified through farming activity. For tangata whenua, an important kaupapa for land use in Southland 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.

Ngāi Tahu ki Murihiku believe that there is an opportunity for Southland farms to take the lead in environmentally sustainable agriculture, through adopting the principles of *ki uta ki tai* (from mountains to sea) and *mō tātou, ā, mō ngā uri ā muri ake nei* (for all of us and the generations to follow).

3.5.1 Farm Effluent Management

Te Ao Mārama Inc. receives a large number of resource consent applications for discharge to land of washdown water and animal effluent from dairy operations. Consent applications for such activities may include applications to take water. In some cases, applications are associated with increasing herd sizes, and thus the volume of effluent discharge.

Dairying is one of the major land uses on the Southland Plains, and lends to unique challenges associated with managing the environmental effects of such operations, particularly given the extensive tile drain networks that exist across the region.

The application of dairy shed effluent to land by travelling irrigators can cause pollution to waterways and groundwater. When effluent irrigators have water application rates higher than soils can cope with, the

excess effluent either runs off the paddock, or goes through cracks in the soil and into mole and tile drains, and into waterways.

Ngā Take - Issues

- Adverse effects on soils and water resources as a result of spray irrigation of dairy effluent to land (e.g. nitrogen loading, over saturation, leaching, bypass flow, ponding, run off).
- Effluent entering waterways either by overland flow or via drainage through mole/tile drains.
- Discharge to land in areas with soils that are high risk (e.g. peat and Waikoikoi clay).
- Compaction of soils as a result of high stocking rates, and impacts on the ability of land to absorb effluent.
- Appropriate maximum loading rate of nitrogen onto any land area (kg/ ha) as a result of both effluent and fertiliser combined.
- Appropriate monitoring and review of discharge activities.
- Impact on downstream users as a result of upstream discharge to land activities.
- Spray drift across property boundaries.
- Lack of knowledge of locations of tile drains.
- Cumulative effects of farm effluent discharges on the Murihiku environment.

Ngā Kaupapa - Policy

1. Promote the inclusion of Ngāi Tahu ki Murihiku issues and policies in statutory plan provisions, best practice guidelines, and industry standards for managing dairy farm effluent.
2. Ensure that Ngāi Tahu ki Murihiku are provided with the opportunity to participate through pre hearing meetings or other processes in the development of appropriate consent conditions for discharge consents, including monitoring conditions.
3. Discharge of farm effluent to land must always require resource consent.
4. Sustain and safeguard the life supporting capacity of soils for future generations.
5. Avoid using high-risk soils of high permeability, including Waikoikoi clay and peat, for spray irrigation of effluent.
6. Oppose the discharge of dairy farm effluent to water.
7. Require soil risk assessments (type and percolation of the soils) prior to consent for discharge to land, to assess the suitability and capability of the receiving environment. Effluent should be applied at rates that match the ability of land to absorb it.
8. Require best practice for land application of managing farm effluent, in order to minimise adverse effects on the environment. This includes:
   a. application rates that are specific to region and soil type;
   b. use of low rate effluent irrigation technology;
   c. use of appropriate irrigation technology to avoid irrigating over tile drains (e.g. K-line);
   d. storing effluent when the soil is too wet or heavy to irrigate;
   e. storing effluent when heaving pugging by stock has occurred;
   f. sealed storage ponds to avoid leaching of nutrients to groundwater;
   g. avoiding ponding of effluent on paddocks;
   h. monitoring of soils and groundwater (see Policy 16);
   i. developing contingency plans (e.g. for exceptionally wet years).
9. Require that farm management plans include the location and extent of tile drains on the farm, in order to ensure that farm workers know where drains are when they irrigate.
10. Advocate for the re-evaluation of existing discharge to land consents to develop better systems where needed.
11. Avoid any surface run off/overland flow, ponding or contamination of water resulting from the application of dairy shed effluent to pasture.
12. Require that farm management plans include provisions for the establishment and maintenance of riparian areas, to mitigate the effects of discharge.
13. Require the establishment of appropriate buffer zones between discharge activities and waterways (including ephemeral and waterways <3 m). The size of buffer zones should reflect local geography (e.g. size of the waterway, nature and extent of existing riparian area, boundary fences).
14. Require the establishment of buffer zones of at least 100m between discharge activities and bores.
15. All spray drift, as a product of spray irrigation of effluent, must be managed and contained within the boundaries of the consent area.

16. Require monitoring provisions as a condition of consent on any discharge to land. This should include monitoring water quality (e.g. representative water samples upstream and downstream), and soil nitrogen loads.
17. Advocate for duration not exceeding 25 years for discharge of farm effluent to land consent applications, with opportunities for review within that time. The duration of consents must reflect potential risk to soils and water.

Cross reference:

Provision 3.5.19 Riparian Zones, Section 3.5 *Te Rā a Takitimu* – Southland Plains

3.5.2 Wastewater Disposal

Wastewater disposal is a resource management issue arising from community sewage schemes, new subdivision and residential development proposals, and industrial operations such as freezing works and fish processing plants.

For Ngāi Tahu ki Murihiku, discharge to land is considered a better option than discharge to water, as discharging to land allows Papatūānuku to filter and cleanse contaminants from the discharge in a natural way, before the discharge enters the hydraulic system.

Ngā Take - Issues

- Physical and spiritual contamination of water as a result of wastewater disposal to water.
- Discharge to land activities that contaminate or over saturate soils.
- Need to ensure that economics alone do not determine whether disposal is to land or water.
- Sewage and stormwater disposal provisions for new subdivision applications.
- Stormwater run-off from roads or industrial sites, and potential for contaminants to enter water or contaminate soils.
- Poorly designed or operated effluent and sludge disposal schemes, and potential for contaminants to enter water.
- Impacts of wastewater disposal on culturally significant sites and places.
- Long term consent durations that prevent the consideration and adoption of improvements in technology over time.

> "...it is extremely important to us that sewage is not discharged on the bones of our ancestors."

Ngā Kaupapa - Policy

1. Promote the inclusion of Ngāi Tahu ki Murihiku issues and policies in statutory plan provisions and best practice guidelines for managing wastewater disposal.
2. Ensure that Ngāi Tahu ki Murihiku are provided with the opportunity to participate through pre hearing meetings or other processes in the development of appropriate consent conditions for discharge consents, including monitoring conditions.
3. Require that sufficient and appropriate information is provided with applications to allow tangata whenua to assess cultural effects (e.g. nature of the discharge, treatment provisions, assessment of alternatives, actual and potential effects).
4. Promote education and awareness of Ngāi Tahu ki Murihiku values associated with water, and how those values can be adversely affected by activities involving the discharge of contaminants to water.
5. Assess proposed wastewater discharge activities in terms of:
   a. type/ nature of the discharge;
   b. location and sensitivity of the receiving environment;
   c. cultural associations with location of operations;
   d. actual and potential effects on cultural values;
   e. available best practice technology;
   f. mitigation that can occur (e.g. using plants to filter waste, discharging at specific times to minimise impact, treatment options)
   g. community acceptability;
   h. cost.
6. Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Even if the discharge is treated and therefore considered "clean", it may still be culturally unacceptable. Generally, all discharge must first be to land.

7. Assess waste disposal proposals on a case by case basis, with a focus on local circumstances and finding local solutions.
8. Wastewater disposal options that propose the direct discharge of treated or untreated effluent to water need to be assessed by the kaitiaki rūnanga on a case by case, individual waterway, basis. The appropriateness of any proposal will depend on the nature of the proposal, and what waterway is involved. Individual waterways possess their individual mauri and values, and kaitiaki rūnanga are in the best position to assess the potential impacts of a proposal on such values.
9. Encourage creative, innovative and sustainable approaches to wastewater disposal that make use of the best technology available, and that adopt principles of waste reduction and cleaner production (e.g. recycling grey water for use on gardens, collecting stormwater for a pond that can then be used for recreation in a new subdivision).
10. Require that the highest environmental standards are applied to consent applications involving the discharge of contaminants to land or water (e.g. standards of treatment of sewage).
11. Require soil risk assessments (type and percolation of the soils) prior to consent for discharge to land, to assess the suitability and capability of the receiving environment. Wastewater loading rates (mm/day) must reflect effluent quality and soil properties.
12. Encourage the establishment of wetland areas, where practical, to improve discharge to land activities, through allowing Papatūānuku the opportunity to filter and clean any impurities.
13. Require the use of buffer zones, bunds and other mechanisms to prevent wastewater from entering waterways.
14. Promote the use of high uptake vegetation (e.g. commercial/production forest plantations) for wastewater disposal, and to ensure that Ngāi Tahu ki Murihiku are involved in decisions relating to such disposal.
15. Any discharge activity must include a robust monitoring programme that includes regular monitoring of the discharge and the potential effects on the receiving environment. Monitoring can confirm system performance, and identify and remedy any system failures.
16. Require that large scale wastewater disposal operations (e.g. town sewage schemes, industry) develop environmental management plans, including contingency plans to cope with any faults, breakdowns, natural disasters, or extreme weather events (e.g. cash bonds for liability).
17. Duration of consent for wastewater disposal must recognise and provide for the future growth and development of the industry or community, and the ability of the existing operations to accommodate such growth or development.
18. Recommend a duration not exceeding 25 years, for discharge consents relating to wastewater disposal, with an assumption that upon expiry (if not before), the quality of the system will be improved as technological improvements become available. In some instances, a lesser term may be appropriate, with a condition requiring the system is upgraded within a specified time period.
19. Require conditions of consent that allow for a 5-year review of wastewater disposal activities. During review, consent holders should be required to consider technological improvements. If improvements are available, but not adopted, the consent holder should provide reasons why.
20. Encourage developers and consent applicants to provide site visits for tangata whenua representatives to observe proposed wastewater treatment systems. Site visits enable ngā rūnanga representatives to see what is proposed "on the ground".

Note: Part 2 of this Plan explains the cultural values and principles that guide the policies on wastewater disposal.

Consent durations:

Ngāi Tahu ki Murihiku do not believe we should be granting consents for activities where we do not know what the effects may be over the long term. Anything over 25 years is essentially making decisions for the next generation.

We also need to ensure that consent duration recognises and provides for changes in technology, thus allowing us to continually improve the way we do things.

Our bottom line is to avoid discharge of wastewater (e.g. sewage and stormwater) to water, as such activities have adverse effects on cultural values such as mauri, wairua, mahinga kai and wāhi tapu. Our preference is for wastewater to be treated to remove contaminants, and then discharged to land via wetlands and riparian areas, to allow Papatūānuku to provide a natural filter for waste. Where this is not practical or feasible, and discharge to water is proposed, then adverse effects must be mitigated through treatment to a very high standard and robust monitoring programs. Ngāi Tahu ki Murihiku will always look for the most culturally, environmentally, socially and economically appropriate option for a particular site.

3.5.3 Solid Waste Management

Solid waste disposal is a significant environmental management issue for Ngāi Tahu ki Murihiku. Solid waste can be domestic (e.g. household rubbish), commercial and industrial waste (e.g. mine tailings), and is essentially those materials that are not longer wanted or needed, so are thrown away or disposed of in a landfill or similar land based site.

Inappropriate solid waste disposal can have adverse effects on the mauri of water, sites of significance and taonga, such as food and weaving resources.

Ngā Take - Issues

- Poor siting, construction and/or management of landfills, resulting in adverse effects on land, water and air.
- Historical/closed landfill contamination.
- Contamination of surface and ground waters from leachate, storm water or direct contact with waste.
- Contamination of soil with hazardous substances.
- Release of odour, dust, greenhouse gases and ozone-depleting substances to the atmosphere.
- Cultural safety and health risks associated with solid waste management.
- Limitations on recycling in our communities.

Ngā Kaupapa - Policy

1. Use Resource Management Act planning processes, including input into statutory plans, best practice guidelines, hearing panels and resource consent conditions, to ensure that solid waste disposal does not adversely affect tangata whenua values.
2. Contribute to, via consultation hui, submissions or otherwise, central government initiatives, strategies and programs for waste reduction.
3. Ngāi Tahu ki Murihiku is committed to the development of tools and techniques to reduce waste generation and maximise re-use, recycling and recovery, and to raise awareness throughout Murihiku of this important issue.
4. Work towards achieving zero waste at our marae, through the overall reduction of waste, and the use of composting and recycling programs.
5. Promote community based recycling schemes.
6. The highest environmental standards should be applied to any consent application involving the management and disposal of solid waste.
7. Minimise the risk of adverse effects from waste disposal activities through promoting community awareness of good waste management practices and the environmental costs and benefits of waste disposal.
8. Encourage zero waste, including reduce, re-use and recycle programs, in both commercial and residential contexts.
9. Support economic incentives to change wasteful behaviour.
10. The duration of the solid waste consents must not exceed the lifetime of the disposal or treatment system. All consents must be considered in terms of cumulative and long-term impacts.
11. Require landowner responsibility for historical, closed or disused landfill sites. Contamination of waterways, offensive release of odours and effects on soil quality must be monitored (by the landowner) beyond the life of these sites to ensure minimal adverse environmental effects.
12. Encourage the communication of good ideas between communities, to continually improve management of solid waste in Murihiku.
13. Require that the establishment of any new landfill site for solid waste disposal include provisions for

leachate collection, impermeable liners and landfill gas management systems, in order to minimise adverse effects on the environment.

14. Require that solid waste disposal does not occur near groundwater bores, waterways, wāhi tapu or wāhi taonga sites.

Information Source:

Ministry for the Environment: 2002. *The New Zealand Waste Strategy: Towards Zero Waste and a Sustainable New Zealand.*

3.5.4 Industry

A range of industrial activity occurs on the Southland Plains, including wood processing sites, sawmills (e.g. Otautau), dairy factories, and fish processing plants. The Tiwai Aluminium Smelter operation is one of the largest industries in the region.

Ngāi Tahu ki Murihiku have an expectation that Southland industry will achieve high levels of innovation and overall excellence with respect to the environment and protection of cultural and community values. When industry is managed in a good way it gives both iwi and the wider community confidence.

Ngā Take - Issues

- Potential for direct and indirect impacts of industrial operations on flora and fauna, air, water, soil, mahinga kai species and places.
- Emissions/discharge of contaminants to air and impacts on the mauri of the air, and on human health.
- Stormwater management on industrial sites, potential for effects on soils and water.
- Contaminated run off (stormwater) entering waterways.
- Discharge of wastewater to water (e.g. fish processing plant), and the risk of exotic species entering a waterway, when the fish or eels are sourced outside of Murihiku.

Ngā Kaupapa - Policy

1. Encourage industry to set an example through demonstrating a commitment to best practice, new technology, environment, community and public health. The use of resources in industrial operations must be balanced with investments in the community and the environment.
2. Capital expenditure for better environmental results should not be an adverse consideration, but rather an investment in the industry's future.
3. Address adverse effects on cultural values as a result of industrial activity via the following order of priority:
   a. avoiding adverse effects;
   b. on site mitigation;
   c. off site mitigation (e.g. Kākāpō recovery programmes);
   d. compensation.
4. Require a management plan for the disposal of hazardous and solid waste disposal at hazardous sites. For example saw mills.
5. Focus on finding ways to avoid adverse effects on cultural values as a result of industrial activities.
6. Promote the adoption of creative and innovative strategies for waste reduction, recycling, reducing emissions, and community involvement.
7. Support industry led initiatives that are working to address climate change issues.
8. Require industry to develop and maintain, where required, working relationships with iwi, through mechanisms such as yearly site visits, progress reports, or monitoring results.
9. Monitoring programmes for industrial operations should include on-site and downstream monitoring (e.g. air quality on site, kaimoana downstream).
10. Require that monitoring programs have a degree of independence with respect to methods, and interpretation of results.
11. Require that monitoring programs monitor for effects, but also include clear provisions for effective responses to the detection of adverse effects.
12. Where industry is likely to have adverse effects on cultural values that are more than minor consideration of alternatives and use of new technology is required where practical and available.
13. Advocate for consent durations of 25 years or less for industrial operations. Consent conditions should require operators to periodically review available technology, and provide a report indicating if better technology is available. Reports should highlight the use or otherwise of new or better technologies.
14. The water quality of any surface waterbody or groundwater resource must not be deteriorated to any extent (following a zone of reasonable mixing) due to industrial activity. The size of a zone of reasonable

mixing needs to be determined on a case-by-case basis of which Ngāi Tahu ki Murihiku must be consulted. Factors influencing zone size includes;

- effluent flow rate and concentration;
- design of the outfall;
- depth, velocity and rate of turbulent mixing of the receiving water; and
- ambient concentrations in the receiving water.

15. Apply Ngāi Tahu ki Murihiku policies on wastewater disposal (Section 3.5.2) and solid waste management (Section 3.5.3) to discharge consent applications for industrial activities.

16. Require that industry develop environmental management plans, including contingency plans to cope with any faults, breakdowns, natural disasters, or extreme weather events, and avoid any serious environmental effects.

Cross-reference:

Provisions 3.5.2 Wastewater Disposal; 3.5.3 Solid Waste Management; 3.5.12 Discharge to Water, Section 3.5 *Te Rā a Takitimu* – Southland Plains

"Monitoring conditions are only as effective as the response to the results"

The Tiwai Aluminium Smelter is located in a very fragile environment, and today may not be permitted to be located in such a place. However, they have done well to minimise any adverse effects on the environment, and to ensure that investment in the community and the environment are part of operations.

3.5.5 Forestry

Forestry plantations occur over many areas of the Southland Plains. Key issues associated with such activities are the topsoils, erosion, draining of wetlands, and wilding pines.

Ngāi Tahu ki Murihiku policies on Forestry are found in Section 3.4: High Country and Foothills.

3.5.6 Stock Transport

Farming is a predominant land use in Southland. Most farming activity centres on beef, sheep, and dairy. Due to the intensity of farming activities in the region, stock transport is a significant resource management issue for Ngāi Tahu ki Murihiku.

Ngā Take - Issues

- Effluent and sludge from washing down stock transport trucks on land adversely affecting water quality.
- Washing down stock transport trucks in waterways and contaminants entering the water.
- Need for monitoring of stock transport activities.
- Adverse effects on the environment associated with stock effluent disposal and spillage on roads from stock transport trucks.
- Location of stock effluent disposal sites.
- Industry standards.
- Stock movement on roads, where such movement results in discharge of effluent into waterways or drains.

Ngā Kaupapa – Policy

1. Promote an integrated approach to stock transport issues, one that involves local authorities, farmers, transport companies, industry and tangata whenua.
2. Require that washdown of stock transport occur in designated areas, well away from surface waterways.
3. Encourage farmers to stand their stock to allow them to empty out prior to pick up by stock transport trucks, to reduce volume of effluent in trucks.
4. Require that stock transport companies adopt best practice for containment/storage of stock discharges in transport, for truck washdown. Companies should also encourage standing of stock prior to stock pick up.

5. Reduce the amount and likelihood of stock effluent spillage on roads through advocating for stock effluent disposal facilities.
6. Require tangata whenua involvement in the selection of new stock effluent disposal sites in Murihiku.
7. When applicable, include as a consent condition the use of native plantings and the enhancement of indigenous biodiversity as a means to remove adverse impacts on the environment and cultural values as a result of the construction of stock effluent disposal facilities.
8. Stock effluent, as with all hazardous substances, is to be transported in a manner that is designed to avoid unintentional releases occurring and avoids and remedies the effects of releases when they do occur.
9. Discourage the regular and intensive use of roads for moving stock, and promote the use of underpasses, overpasses and similar facilities to reduce the need for such activities.

3.5.7 Subdivision and Development

Subdivision of land provides for the changing of property boundaries and creation of new allotments. For Ngāi Tahu ki Murihiku, the potential effects of subdivision on cultural values have little to do with the "lines on the map", and more to do with how to manage the effects of associated land use activities. Generally land will be used more intensively following subdivision.

Ngāi Tahu ki Murihiku policies on subdivision and development focus on encouraging developers to strive to achieve positive community outcomes, conservation outcomes, and cultural outcomes alongside economic gain.

Part 2 of this Plan, Section 2.22 recognises the protection given to archaeological sites by the Historic Places Act

Note: Coastal subdivision is addressed in Section 3.6 Southland's Coastal Environment.

Ngā Take – Issues

- The appropriateness of place for subdivision (e.g. what are the community values associated with this place, are there natural hazards that should be considered).
- Minimum allotment sizes that are appropriate to specific places.
- Displacement of local residents; effects on the ability of tangata whenua to live on ancestral land.
- Modification of the landscape character of an area as a result of subdivision (e.g. limited pastoral farming to residential uses, or from a natural coastal landscape to residential development).
- Visual effects of building design and landscaping.
- Pressure on community infrastructure from increased residential development.
- Adverse effects on unrecorded and unknown significant sites.
- Loss of access to waterways when subdivision occurs adjacent waterways
- Loss and/or degradation of riparian margins.
- Loss of native bush remnants.
- Direct and indirect drainage of wetlands (e.g. draining wetlands on site, and also drainage of surrounding area which then drains on site wetlands).
- Sedimentation from land clearing, and impact on waterbodies.
- Inadequate sewage and stormwater disposal provisions.
- Rainwater storage facilities.
- Ensuring that oral history and customary knowledge of sites is taken into account when assessing subdivision applications.
- Inadequacy of Resource Management Act in terms of ensuring cumulative effects are recognised.
- Provisions for papakainga housing on Māori land.

Ngā Kaupapa - Policy

1. Require iwi involvement in local authority planning processes that establish zoning provisions, including decisions pertaining to where subdivision and development is considered appropriate or inappropriate.
2. Encourage developers to be proactive, and to seek views of iwi in the early stages of project development, particularly when the proposed subdivision is located in an area of cultural significance.
3. Require that subdivision proposals that may have significant adverse effects on cultural values, including archaeological values, include provisions for one or more of the following, pre resource consent (at the cost of the applicant):
   a. site visit;

b. archaeological assessment (walk over/test pitting), or a full archaeological description, by an archaeologist approved by Ngāi Tahu ki Murihiku;
c. cultural impact assessment;
d. cultural monitoring;
e. an authority from Historic Places Trust;
f. accidental discovery protocol;
g. recommended consent notices/conditions.

4. Assess subdivision applications in terms of the current subdividing activity, and in terms of future uses of the land, including associated building, stormwater, sewage, and water supply consent applications.

5. Require that subdivision proposals provide evidence of long term planning and cumulative effects assessments.

6. Encourage appropriate subdivision activities that protect and even enhance natural, ecological and cultural values.

7. Avoid adverse effects on the natural environment as a consequence of increased demands placed upon land, water and community infrastructure resulting from the granting of new subdivision consents for residential or commercial development.

8. Advocate for the use of esplanade reserves, strips and other similar provisions on those waterways where such provisions are deemed necessary to protect and provide for waterway health and access values.

9. Encourage installation of rainwater storage facilities for external water use (e.g. on gardens) by residential or commercial development.

10. When applicable, include as a condition of consent the use of native plantings and the enhancement of indigenous biodiversity as a means to remove adverse impacts on cultural values as a result of subdivision activities.

11. Promote the use of restrictive covenants and consent notices on certificates of title on new lots created by subdivision applications, to prevent the use of plants considered pest species in landscaping and gardens.

12. Subdivision activities along waterways of cultural importance to tangata whenua should maintain and enhance access to and along those waterways.

13. Require subdivision developments to establish new, or where possible use existing, means of disposing of sewage and other solid waste in a manner that is consistent with maintaining human health and where adverse effects on the environment are avoided.

14. Require that the disposal of stormwater occurs in a manner that avoids inundation of land within or adjoining the subdivision, and does not adversely affect the quality of surface and groundwater.

15. Any proposed activity that may affect an archaeological site must obtain an archaeological authority from the New Zealand Historic Places Trust.

16. In areas of cultural importance, any purchasers of new lots must be made aware of the high archaeological and cultural values of the surrounding area, and thus the legal requirements under the Historic Places Act 1993 with regard to destroying, damaging or modifying archaeological sites. In some cases, consent conditions or consent notices may need to be placed on titles, identifying the area as containing a high likelihood of uncovering archaeological sites, and outlining procedures and processes associated with such an occurrence (see text box below, (page 145).

17. Subdivision applicants may be required to enter into Accidental Discovery Protocol and monitoring agreements with Ngā Rūnanga o Murihiku, stating that any earthworks, fencing, landscaping or other such activity that has the potential to uncover archaeological sites, and outlining procedures and processes associated with such an occurrence.

18. Recommend that developers consult with Ngāi Tahu ki Murihiku with regard to providing Ngāi Tahu names for new roads and areas created by subdivision.

Cross reference:

Provisions 3.6.2 Coastal Land Use and Development, Section 3.6 *Te Ākau Tai Tonga* – Southland's Coastal Environment.

Provisions 3.5.2 Wastewater Disposal; 3.5.3 Solid Waste Management; 3.5.8 Earthworks;3.5.17 Ngā Pononga a Tāne a Tangaroa – Biodiversity; 3.5.18 Repo – Wetlands; 3.5.19 Riparian Zones; 3.5.21 Protection of significant sites, Section 3.5 *Te Rā a Takitimu* – Southland Plains

In areas of cultural importance, it is extremely important that new owners of the subdivided property are made aware of the importance of this area to Ngāi Tahu. There are these sites and others that are archaeology/culturally important to use, all with the potential to discover new finds as well. An assurance is needed that the new owners are party to these plans. Consent notices and other means should ensure that purchasers are aware that there is a strong probability that their land may hold midden/artefacts/kōiwi and that they know of proper procedures and to act accordingly if there is a discovery.

3.5.8 Earthworks

Earthworks (ground disturbance) is a component of a range of activities, including subdivision, building, drainage works, the construction of farm tracks, tree removals, roadworks, and the laying of underground cables.

Given the long history of Ngāi Tahu land use and occupancy in Murihiku, earthworks and other ground disturbance activities have the potential to unearth cultural materials or disturb urupā. Such activities also have potential to damage or destroy culturally important sites or places associated with particular mahinga kai resources or valued indigenous vegetation.

Ngā Take - Issues

- Protection of wāhi tapu and archaeological values from disturbance as a result of earthworks.
- Impact on cultural landscape values, including indigenous vegetation, as a result of earthworks.
- Cultural monitoring of earthworks activities.
- Appropriate processes associated with the accidental discovery of cultural materials.
- Compliance with Accidental Discovery Protocols (ADPs).
- Uncertainty on the part of contractors with regards to what an archaeological or cultural site looks like.

Ngā Kaupapa - Policy

1. Consent applicants who are undertaking earthworks may be required to enter into Accidental Discovery Protocol and monitoring agreements with Ngāi Tahu ki Murihiku, stating that any earthworks, fencing, landscaping or other such activity has the potential to uncover archaeological sites. Procedures and processes associated with such an occurrence should also be outlined.
2. Any activity involving earthworks that has the potential to modify, damage or destroy a wāhi tapu or archaeological site will require one or more of the following, pre resource consent (at the cost of the applicant):
   a. site visit;
   b. archaeological assessment (walk over/test pitting), or a full archaeological description, by an archaeologist approved by Ngāi Tahu ki Murihiku;
   c. cultural impact assessment;
   d. cultural monitoring;
   e. an authority from Historic Places Trust;
   f. recommended consent notices/conditions.
3. In areas considered high risk, Ngāi Tahu ki Murihiku may require that a Rūnanga cultural monitor or archaeologist is present, at the cost of the applicant, to monitor all surface clearing or sub-surface excavation, and to record sites or information that may be revealed.
4. Consider the use of archaeological wānanga, as a forum to provide education and training for companies and contractors about protecting sites of significance during earthworks activities.
5. Any understandings or agreements between companies/applicants and Ngāi Tahu ki Murihiku must also be reflected in the contractors who are working on the ground.
6. Oppose any earthworks activity application whereby the adverse effects on cultural values are considered too significant.
7. Where practical, indigenous vegetation that is removed or damaged as a result of earthworks activity should be recovered and returned, or replaced.
8. Recommend the planting of indigenous species as an appropriate mitigation measure for any adverse impacts as a result of earthworks activity.
9. Any earthworks or roadworks near rivers must have appropriate measures in place to avoid contaminants (including dust, sediment run-off from stockpiles or any hazardous substance) from entering waterways that may cause contamination, discolouration, or siltation in such waterways.

The removal of taonga species during construction or earthworks activities is an important issue for Ngāi Tahu ki Murihiku. For example, when safety improvement works to a footpath were undertaken, the community removed a large number of amenity plantings before the work commenced. However, the removal of two mature tī kōuka was very concerning for Oraka Aparima Runaka.

"...while most of the amenity plantings were removed by the community before work commenced, for us it was the removal of two very mature tī kōuka that was most senseless. At least if we were notified seed could have been gathered plus young shoots would have been saved. These trees were excellent seed sources and closely watched by us!"

3.5.9 Mining

There are extensive deposits of coal on the Murihiku plains, accessed via opencast mining (e.g. Ōhai opencast mine in Central Southland). Opencast mining involves removing overburden to access coal deposits from the surface, as opposed to underground.

Mining also occurs in Murihiku to access limestone, a sedimentary rock used as an agricultural fertiliser, and also in road and building construction.

Ngāi Tahu ki Murihiku believe that mining will continue to be an important activity in Murihiku, particularly lignite mining. We intend to be proactive in terms of ensuring future mining developments do not compromise the natural environment, particularly water.

Ngā Take - Issues

- Cumulative and historical effects of mining (e.g. sometimes we may not see the effects on groundwater until five years after the mine has opened).
- Impacts on natural landscape values; 'scars' on the landscape.
- Proximity of mining activity to culturally important sites (e.g. the nature of limestone areas means that there is a high risk for accidental finds).
- The nature of limestone areas means that there is always a potential for operators to discover accidental finds. Need to be educated and informed.
- Run off of heavy metals and other contaminants into water and impacts on waterway health and instream life.
- Unknowns about future effects e.g. mining activities can trigger dormant effects such as the release of arsenic.
- Discharge contaminants to air.
- Loss of indigenous vegetation through clearance or damage.
- Location and design of mine waste (e.g. tailings and waste rock) disposal facilities.
- Restoration of mining sites.

Ngā Kaupapa - Policy

1. Avoid the establishment of commercial mining in areas and landscapes that are of cultural significance, particularly areas associated with wāhi tapu values.
2. Require that the impacts on surface and groundwater are fully recognised and provided for in mining applications.
3. Require that, as a condition of consent, mine development plans include provisions for:
   a. site beautification, including landscaping with native plants;
   b. restoration of mining site to pre-mining states, or, where appropriate, an improved or enhanced state;
   c. opportunities to enhance cultural values (e.g. rehabilitation of quarry floor as wetland waterfowl habitat);
   d. continued monitoring of mine site post rehabilitation (e.g. leachate).
4. Require that the responsibility of a mining company in avoiding and managing adverse effects on a mining site extends beyond the life of the mine. Monitoring of mine sites is required for at least 5 years after mine closure, to ensure that all adverse effects associated with mine operation are addressed by the company.
5. Promote the use of environmental contingency funds or bonds, established prior to mine development, to ensure that funds are available to address environmental issues on mine sites post mine closure.
6. Require that the location and design of mine waste disposal facilities is such that adverse effects on the environment are avoided.

7. Avoid adverse effects on land, water, mahinga kai resources and places and biodiversity as a result of mining.
8. Require that the highest environmental standards are applied to any consent application involving mining.
9. Avoid any discharge of contaminated water (e.g. stormwater) to surface or groundwater as a result of mining activity.
10. Require robust monitoring of any consent activity relating to mining, to detect non-compliance with consent conditions and best practice. Non-compliance must result in appropriate enforcement action to discourage further non-compliance.

O TE WAI THE WATER

> "We believe our values are not only good for Ngāi Tahu, but also manifestly good for the wider society, we seek innovative and responsible management for our precious resource, water."

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.

Water is often seen as a commodity, and is thus subject to competing use demands. An understanding of the significance and value of water to Ngāi Tahu ki Murihiku and other stakeholders, is necessary to ensure that cultural and ecological values associated with water are recognised and provided for alongside consumptive uses.

3.5.10 General Water Policy

NB: Provisions 3.5.10- 3.5.20 are applicable to High Country Lakes and Waterways.

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".

Ngā Take - Issues

- Participation of iwi in freshwater management.
- Access to freshwater resources for cultural and customary use.
- Maintenance of water quality and water quantity.
- Protection of the mauri and wairua of rivers, lakes and wetlands.
- Protection, maintenance and enhancement of mahinga kai.
- Protection of wāhi tapu and wāhi taonga associated with rivers, lakes and wetlands.
- Recognition of the special significance of particular water bodies to Ngāi Tahu ki Murihiku.
- The aspirations of iwi to develop, use and protect water resources.
- Enhancing waterways, in addition to ensuring no adverse effects.
- Lack of knowledge as to the nature and extent of the sustainable water resource.
- Relationship between what happens on land and what happens to the water.
- Direct and indirect discharges to water.

Ngā Kaupapa - Policy

1. The role of Ngāi Tahu ki Murihiku as kaitiaki of freshwater must be given effect to in freshwater policy, planning and management.
2. Work with local authorities and other statutory agencies involved in freshwater management to ensure that cultural values and perspectives associated with freshwater management are reflected in statutory water plans, best practice guidelines and strategies, and in resource consent processes for activities involving water.

3. Protect and enhance the mauri, or life supporting capacity, of freshwater resources throughout Murihiku.
4. Manage our freshwater resources wisely, *mō tātou, ā, mō ngā uri ā muri ake nei*, for all of us and the generations that follow.
5. Promote the management of freshwater according to the principle of *ki uta ki tai*, and thus the flow of water from source to sea.
6. Promote catchment management planning *(ki uta ki tai)*, as a means to recognise and provide for the relationship between land and water.
7. Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to future development and commercial activities in Fiordland, including the export of water.
8. Protect and enhance the customary relationship of Ngāi Tahu ki Murihiku with freshwater resources.

3.5.11 Rivers

Ki ngā korero o ngā Tūpuna ko ngā awaawa ngā uaua a Papatūānuku

In the words of our ancestors, the rivers are the veins of the Earth Mother

Several major river catchments are located on the Southland Plains, including the Aparima, Ōreti, Matāura, and Waiau. These rivers flow from *ki uta ki tai*, from mountain to sea, and are connected to numerous tributaries, wetlands and waipuna, as well as the groundwater that nourishes the catchment from below. They are part of Ngāi Tahu ki Murihiku history and identity. While the last 165 years have resulted in significant changes to these rivers, their importance has not diminished.

Many of the waterways of the Southland plains have specific cultural associations. They are known for an abundance of mahinga kai, used for a specific purpose, or associated with a specific ceremony or ritual. Waterways may be considered wāhi tapu (i.e. associated with urupā or with an activity or occurrence considered tapu), or wāhi taonga (general site of cultural significance). The Ōreti, Waiau, Aparima, Matāura, Pomahaka and Mata-au/Clutha are Statutory Acknowledgement areas under the NTCSA 1998 (Schedules 50, 69, 15, 42, 52 and 40), providing for the special association of Ngāi Tahu with the rivers.

The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Southland rivers, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu ki Murihiku today.

Ngāi Tahu ki Murihiku associations with the main river catchments of Murihiku are described in Table 2, alongside significant resource management issues for each catchment.

A priority for Ngāi Tahu ki Murihiku is on-going advocacy, through resource consent and other processes, for the protection and enhancement of Murihiku waterways.

Ngā Take - Issues

- Stock grazing adjacent to and in the beds of waterways.
- Discharge to land activities (e.g. farm effluent) and potential for run off into waterways.
- Ensuring that water is valued as a taonga for all of New Zealand.
- Effects on the mauri of Murihiku Rivers due to land use and discharge activities, and water abstractions.
- Poor water quality in some Murihiku Rivers: our children are not able to swim in some rivers.
- Impacts of tourism (e.g. commercial jet boating) and recreational fishing activities on river health, particularly in terms of the risk of didymo spread.

- Impacts of hydro development on river health and natural character.
- Tangata whenua involvement in the management of freshwater resources in Murihiku.
- Ngāi Tahu development rights pertaining to water resources.
- Pressure on waterways from increasing dairy farming in Murihiku, and thus increased demands for water, and increased risk of run off and leaching.
- Biosecurity risks.

> "Our people rely on rivers such as the Matāura River for mahinga kai. There is too much water being applied for and allocated from aquifers and if this is allowed to continue the mauri, or life force, of our streams and the Matāura river will be put at risk."

Ngā Kaupapa - Policy

1. Promote catchment management planning *(ki uta ki tai)*, as a means to recognise and provide for the relationship between land and water.
2. Promote river management that adopts the priorities established in the Te Rūnanga o Ngāi Tahu Freshwater Policy 1997. The priorities are:

   Priority 1: Sustain the mauri of the waterbodies within the catchment.

   Priority 2: Meet the basic health and safety needs of humans (drinking water).

   Priority 3: Protect cultural values and uses.

   Priority 4: Protect other instream values (indigenous flora and fauna).

   Priority 5: Meet the health and safety needs of humans (sanitation).

   Priority 6: Provide water for stock.

   Priority 7: Provide for economic activities including abstractive uses.

   Priority 8: Provide for other uses.

3. Continue to work with the Regional Councils to ensure that cultural values and perspectives associated with freshwater management are reflected in statutory water plans, best practice guidelines and strategies, and in resource consent processes for activities involving water.
4. Management of our rivers must take into account that each waterway has its own mauri, guarded by separate spiritual guardians, its own mana, and its own set of associated values and uses.
5. Adopt a precautionary approach for any activity involving a waterway where there is an absence of detailed knowledge of that waterway (ecology, flow regimes, species, etc).
6. Require that rivers recognised as Statutory Acknowledgements be recognised for their special associations to Ngāi Tahu beyond the expiry date of 20 years. This means that places identified as Statutory Acknowledgements should continue to be:
   - Identified in relevant district and regional plans and policy statements as notice of their cultural importance to Ngāi Tahu (noting on plans).
   - Considered a trigger for a notice of application to Ngāi Tahu with respect to resource consents relating to, or impacting on, such areas (notice of applications).
   - Given regard to by Councils, the Environment Court and Historic Places Trust when decisions are made about who has the right to comment and be listened to, or to appear in court (Standing).
   - Accepted as evidence of the relationship of Ngāi Tahu with a particular area in any proceedings under the RMA or Historic Places Act.
7. The cultural importance of particular rivers (e.g. Statutory Acknowledgements, rivers associated with whakapapa and identity) must be reflected in the weighting of Ngāi Tahu responses and submissions on consents associated with these rivers.
8. The establishment of river flow regimes (e.g. minimum flows) must reflect the principles of *ki uta ki tai*, and thus river flow requirements from source to sea, including the wetlands, tributaries and waipuna that are associated with that river flow.
9. The establishment of environmental flow regimes must recognise and provide for a diversity of values, including the protection of tangata whenua values,
10. Ensure that all native fish species have uninhibited passage from the river to the sea at all times, through ensuring continuity of flow *ki uta ki tai*.

11. Promote, where appropriate, the use of Freshwater Mātaitai[9], Water Conservation Orders (WCO), rāhui, and similar tools to protect the rivers of Murihiku, where those rivers are under threat from competing water uses, and/or when there are outstanding cultural, amenity or intrinsic values that require protection.
12. Promote the use of State of the Takiwā environmental monitoring for Murihiku river catchments (see case study below page 151).
13. Promote the use of the Cultural Health Index (CHI)[10] as a tool to facilitate monitoring of stream health, and to provide long term data that can be used to assess river health over time.
14. Use riparian enhancement, buffer zones, fencing, and related streamside management tools as conditions of consent to ensure that human use of rivers and their water does not compromise river health.
15. Avoid the use of rivers as a receiving environment for the discharge of contaminants (e.g. industrial, residential, recreational or agricultural sources).
16. Prioritise the restoration of those waterbodies of high cultural value, both in terms of ecological restoration and in terms of restoring cultural landscapes.
17. Ensure that activities in upper catchments have no adverse effect on mahinga kai, water quality and water quantity in lower catchments.
18. Promote environmental education programmes that raise awareness about appropriate land management practices adjacent to our rivers, including riparian management. This includes education about avoiding adverse effects of livestock on riparian areas and waterways.
19. Oppose any activity that may result in the spread of any exotic alga from contaminated rivers to uncontaminated rivers, for example Didymosphenia geminata (didymo).

Cross reference:

Provisions 3.3.11 Hydro Development, Section 3.3 *Te Atawhenua* - Fiordland.

Provisions 3.5.10 General Water Policy; 3.5.12 Discharge to Water; 3.5.13 Water Quality; 3.5.14 Water Quantity; 3.5.15 Activities in the Beds and Margins of Rivers; 3.5.17 Ngā Pononga a Tāne a Tangaroa - Biodiversity; 3.5.18 Repo - Wetlands; 3.5.19 Riparian Areas; 3.5.20 Freshwater Fisheries, Section 3.5 *Te Rā a Takitimu*, Southland Plains

Information Sources:

Statutory Acknowledgement for Ōreti, Schedule 50, NTCSA 1998. Statutory Acknowledgement for the Waiau River, Schedule 69, NTCSA 1998. Statutory Acknowledgement for the Aparima River, Schedule 15, NTCSA 1998, Statutory Acknowledgement for the Matāura River, Schedule 42, NTCSA 1998. Statutory Acknowledgement for the Pomahaka River, Schedule 52, NTCSA 1998. Statutory Acknowledgement for the Mata-au / Clutha River, Schedule 40, NTCSA 1998.

Indicators used by tangata whenua to assess stream health:

- Shape of the river
- Sediment in the water
- Water quality in the catchment
- Flow characteristics
- Flow variations
- Flood flows
- Sound of flow
- Movement of water
- Fish are safe to eat
- Uses of the river
- Safe to gather plants
- Indigenous vs. exotic species
- Natural river mouth environment
- Water quality
- Abundance and diversity of species
- Natural and extent of riparian vegetation
- Use of river margin
- Temperature
- Catchment land use
- Riverbank condition
- Water is safe to drink
- Clarity of the water
- Is the name of the river an indicator?

9 The Matāura River is the first Freshwater Mātaitai in New Zealand, established in September 2005

10 The Cultural Health Index Assessment is a tool developed to help Rūnanga quantitatively assess the health of waterways, and participate in the management of water resources. See Tipa, G. and Teirney, L. 2003.

Case Study: **Te Āhuatanga O Te Waiau** – State Of The Takiwā

State of the Takiwā (SoT) is an environmental monitoring approach developed by Te Rūnanga o Ngāi Tahu as part of the '*Ki uta ki tai* – Mountains to the Sea Natural Resource Management' framework, first outlined in Ngāi Tahu 2025. It is aimed at assisting tangata whenua to gather information, assess and report on the cultural health of significant sites, natural resources and the environment within their particular takiwā, and to thus understand changes over time and make good management decisions. SoT monitoring uses both Māori cultural values and western science measures.

Te Āhuatanga o Te Waiau, the Waiau River Catchment Cultural Health Baseline Report 2005, is the first State of the Takiwā report to be prepared by Ngāi Tahu. The report is the outcome of a Sustainable Management Fund project "State of the Takiwā – Cultural Monitoring and Reporting on the Health of our Environment". The project assessed the cultural health of 12 sites in the Waiau river catchment, thus capturing critical baseline information about catchment health.

Overall, the Waiau River assessment found that the catchment was in a state of good cultural health. The results showed that the upper catchment, around Te Anau, the tributary sites in the Jericho Block, and sites at the river mouth overlooking Te Waewae Bay, were in a healthier state than those sites in the mid catchment or near settlements.

High scoring sites were of a relatively unmodified nature, with an abundance of native vegetation, and good access to mahinga kai. Lower scoring sites were associated with the negative impacts of settlement, agriculture, pests, weeds and areas of low flow due to abstractions related to hydro generation.

Source: Te Āhuatanga o Te Waiau: Cultural Health Baseline Report 2005. Te Rūnanga o Ngāi Tahu.

"The Waiau River was named for its strong, turbulent flow. There is still good water flowing most of the time, but it is definitely not the mighty river it once was."

Table 3: **Major river catchments of the Southland Plains:** Ngāi Tahu ki Murihiku cultural associations and significant resource management issues

Source: NTCSA 1998; Customary knowledge of Ngāi Tahu ki Murihiku.

River Catchment Description	Ngāi Tahu ki Murihiku Cultural Associations	Significant Resource Management Issues
Ōreti (SA) • Drains the Southland plains	• The river formed one of the main trails from inland Murihiku to the coast, with an important pounamu trade route continuing northward from the headwaters of the Ōreti and travelling, via the Mavora Lakes system, or Von River Valley, to the edge of Wakatipu and onto the Dart and Routeburn pounamu sources. • There are numerous archaeological sites in the upper catchment, including sites related to stone resources that are considered to be among the oldest in New Zealand. • The kai resources of the Ōreti supported numerous parties venturing into the interior, and returning by mōkihi, laden with pounamu and mahinga kai. Nohoanga along the river supported such travel by providing bases from which the travellers could obtain waterfowl, eels and inanga. [11]	*Water quality and river health* • River as source of drinking water for Invercargill • Indirect discharges from town sewage schemes and industry • Discharges to land and run off to water • Intensive stocking in lower catchment areas - stock access to river and run off of contaminants from land to water *Water quantity* • Water abstractions • Relationship between surface water and groundwater *Dams and diversions* • Protection of upper catchment from damming and diversions • Flooding of upper catchment areas due to damming and diverting flow would mean we would lose an immensely significant trail that was used by our ancestors *Gravel extraction* • Gravel extraction, and potential impacts on nesting birds *Mahinga kai and biodiversity* • Riparian management • River as habitat for tuna – this river should produce good tuna *Wāhi tapu* • Protection of culturally significant sites in catchment • Upper catchment area considered high risk in terms of activities impacting on unknown archaeological sites

11 Te Ao Mārama Inc. Submission: Ōreti River Water Conservation Order Application. November 2006.

River Catchment Description	Ngāi Tahu ki Murihiku Cultural Associations	Significant Resource Management Issues
Waiau (SA) • Drains the Southland plains	• Named during the southern voyages of Tamatea Ure Haea, and his waka Takitimu. Takitimu was wrecked near the mouth of the river (Te Waewae Bay) and the survivors who landed named the river Waiau due to the swirling nature of its waters. • The river was a major travel route connected Murihiku and Te Ara a Kiwa (Foveaux Strait) to Te Tai Poutini. Summer expeditions to Manapōuri for mahinga kai, and access to pounamu, were the main motivations for movement up and down the Waiau. • Numerous archaeological sites and wāhi taonga attest to the history of occupation and use of the river by Ngāi Tahu and Ngāti Māmoe. An important nohoanga site at the mouth of the river was called Te Tua a Hatu, The rangatira Te Waewae had his Kāinga nohoanga on the left bank of the river mouth. • The river was a major source of mahinga kai for Ngāi Tahu, with some 200 species of plants and animals harvested in and near the river. Rauri (reserves) were applied to the mahinga kai resources so that people from one hapū or whānau never gathered kai from areas of another hapū or whānau. • Wāhi ingoa associated with the Waiau are indicators of the range of resources the river provided: Waiharakeke (flax), Papatōtara (tōtara logs or bark), Kirirua (a type of eel found in the lagoon), Te Rua o te Kaiamio (a rock shelter that was a designated meeting place, similar to a marae) and Ka Kerehu o Tamatea (charcoal from the fire of Tamatea).[12]	*Water quality* • The river has reasonable water quality due to large, fast flow – need to protect water quality *Water quantity* • Reductions in flow and impacts on river as habitat • Maintaining appropriate minimum flow • Flow levels too low at times *Dams and diversions* • Water takes for hydroelectric generation, and effects on overall river health, flow and natural character • Changes to the river mouth environment due to changes in flow *Gravel extraction* • Gravels don't get transported down the river as well as they should because of the Mararoa Weir *Mahinga kai and biodiversity* • Commercial jet boating is popular on this river – risk of introducing pests such as didymo *Wāhi tapu* • Protection of culturally significant sites in the catchment

12 NTCSA 1998: Schedule 69

River Catchment Description	Ngāi Tahu ki Murihiku Cultural Associations	Significant Resource Management Issues
Aparima (SA) • Drains the Southland plains • Slow flowing, lowland river • Drains Takitimu Mountains	• The mouth of the river was a permanent settlement, with associated urupā nearby. The was also an important tauranga waka located here, from which sea voyages were launched to and from Te Ara a Kiwa, Rakiura and the tītī islands. A carved tauihu (canoe prow) has been found in the estuary of the river. • The river was an important source of mahinga kai, particularly shellfish, mussels, paua, tuna and inanga. An eel weir was constructed at the narrows where the Pourakino River enters the Aparima. • The relationship of the Aparima to the Takitimu Hills is an important part of the relationship of Ngāi Tahu to the river • There are numerous archaeological sites at the river mouth	*Water quality* • Impacts of intensive land use activities, particular run off of contaminants from land to water • Need to improve water quality *Gravel extraction* • Gravel extraction and effects on habitat for birds (e.g. gulls) *Mahinga kai and Biodiversity* • Whitebait stands at mouth of the river *Wāhi tapu* • Protection of culturally significant sites in the catchment

River Catchment Description	Ngāi Tahu ki Murihiku Cultural Associations	Significant Resource Management Issues
Matāura (SA) • Drains Waimea Plains •	• Several important Ngāti Māmoe and Ngāi Tahu tūpuna are associated with the Matāura River, including the Ngāti Māmoe rangatira Parapara Te Whenua, whose descendents traditionally used the resources of the river, and Kiritekateka, daughter of Parapara Te Whenua, who was captured by Ngāi Tahu at Te Anau. • Tuturau, once a Ngāi Tahu fishing village, was the site of the last inter tribal Māori war, in 1836. Ngāi Tahu (under Tuhawaiki) repelled the challenge and threat from northern invaders thus the south was kept from passing into the hands of the northern tribes. • The Matāura was noted for its customary native fishery. Te Apa Nui (Matāura Falls) were particularly associated with the taking of kanakana. Inanga remains an important resource on the river. The estuary (known as Toetoe) is a particularly important customary food gathering location. • Matāura Falls are an important feature of the cultural landscape of this river • There is a freshwater mātaitai reserve on the Matāura River (first in New Zealand), recognising the importance of the river in terms of customary food gathering	*Water quantity and quality* • Water abstractions and discharge: Use of the river as a water source and a point of discharge for past and current industrial activities (e.g. historical - freezing works; pulp and paper) • Changes to the natural character of the Mātaura Falls *Mahinga kai and Biodiversity* • Impacts on fish passage at Mātaura Falls. Elvers and kanakana are having difficultly getting upstream from the falls • Protection of the mātaitai on the Mātaura • The river is an important brown trout fishery – need to ensure that the customary native fishery is not compromised by the trout fishery *Tourism* • Pressures on the river from tourism activities *Wāhi tapu* • Protection of culturally significant sites in the catchment
Pomahaka (SA) • Upper catchment is considered reasonably pristine – runs through high country areas	• important mahinga kai for Ngāti Mamoe and Ngāi Tahu kāinga in the Catlins and Tautuku areas • Particularly noted for kanakana fishery, but also associated with weka and other manu	*Water quantity and quality* • Impacts of intensive land use activities on river health *Wāhi tapu* • Protection of culturally significant sites in the catchment

River Catchment Description	Ngāi Tahu ki Murihiku Cultural Associations	Significant Resource Management Issues
Mata-au/Clutha (SA)	• The river takes its name from a Ngāi Tahu whakapapa that traces the genealogy of water. On that basis, Mata-au is seen as a descendent of the creation traditions • The Mata-au was part of a mahinga kai trail that led inland and was used by Ōtākou hapū • The river was used for the transportation of pounamu from inland areas down to the settlements on the coast. There were numerous tauranga waka along the river, as well as areas known for camping overnight and gathering kai. • The Mata-au is where Ngāi Tahu's leader, Te Hautapunui o Tū, established the boundary line between Ngāi Tahu and Ngāti Mamoe. However, eventually unions between the iwi overcame these boundaries. • Urupā and battle grounds located along the river • Battleground known as Te Kauae Whakatoro (downstream of Tuapeka) recalls a confrontation between Ngāti Māmoe and Ngāi Tahu that led to the armistice established by Te Hautapunui o Tū. • Cultural importance of three large lakes at the headwaters of the Mata-au: Lake Wakātipu, Lake Wānaka and Lake Hāwea	*Water quality* • Impacts on water quality from land use intensification *Dams and Diversions* • Dams on the river for power generation (e.g. Roxburgh Dam, Clyde Dam) – impacts on river health and disruption of continuity of flow *(ki uta ki tai)* • Impacts of hydro infrastructure on fish passage • Build up of gravels above the dam • Protection of natural variability and character of flow, and the habitats created by such flow • Flooding *Gravel extraction* • Gravel extractions in lower catchment areas – cumulative effects *Wāhi tapu* • Protection of culturally significant sites in the catchment

3.5.12 Discharge to Water

Discharges to water may be point source discharge (e.g. actual discharges to water), or non-point source discharge (e.g. from land to water). Activities that may involve the discharge to water include sewage or industrial waste disposal. Such discharges may result in increased nutrient and contaminant loads, and thus degraded water quality. Indirect discharges such as contaminated stormwater run-off, agricultural run-off, and sedimentation also have the potential to adversely affect water quality.

Ngā Take - Issues

- General impacts on water quality from discharge activities.
- Using dilution of pollution as a form of mitigation - this may not be culturally acceptable.
- The disposal of treated or untreated sewage to water.
- Local solutions for discharge issues.
- Agricultural runoff and nitrogen loading in waterways.
- Discharge of stormwater from roads into open drains.
- Impacts on the mauri of the receiving environment as a result of discharge activities.
- Impacts on mahinga kai and biodiversity as a result of discharge activities.
- Impacts on cultural use of waterways as a result of discharge activities.
- Appropriate discharge to land activities, to prevent soil and groundwater contamination.

Traditionally, to Europeans, water has been seen as a versatile transport medium and, because of its ability to break down and assimilate waste, it has been intimately linked to waste disposal. Such use directly conflicted with Māori beliefs, and illustrates the cultural differences in relation to natural resources. Whilst Māori saw themselves as part of nature, Europeans saw themselves as ascendant to nature. Although such views persist, developing environmental awareness has shifted the balance towards recognition of the natural environment's intrinsic value. This shift is consistent with Māori beliefs in regards to resource management, with the protection of mauri being a fundamental principle.

Source: Te Ao Mārama Inc. Submission on the Ōreti Water Conservation Order application, November 2006.

Ngā Kaupapa - Policy

1. Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Even if the discharge is treated and therefore considered "clean", it may still be culturally unacceptable. Generally, all discharge must first be to land. This general policy is a baseline or starting point. From this point, the Rūnanga can assess applications on a case by case basis.
2. Assess discharge to water proposals on a case by case basis, with a focus on local circumstances and finding local solutions.
3. Consider any proposed discharge activity in terms of the nature of the discharge, and the sensitivity of the receiving environment.
4. When existing rights to discharge to water come up for renewal, they must be considered in terms of alternative discharge options.
5. When assessing the alternatives to discharge to water, a range of values, including environmental, cultural and social, must be considered in addition to economic values.

6. Encourage the establishment of wetland areas, where practical, as an alternative to the direct discharge to water. Discharge to a wetland area allows Papatūānuku the opportunity to filter and clean any impurities.
7. Any discharge activity must include a robust monitoring programme that includes regular monitoring of the discharge and the potential effects on the receiving environment.
8. Require robust monitoring of discharge permits, to detect non-compliance with consent conditions. Non-compliance must result in appropriate enforcement action to discourage further non-compliance.
9. Promote the use of the Cultural Health Index (CHI) [13] as a tool to facilitate monitoring of stream health, and to provide long term data that can be used to assess river health over time.
10. Ngāi Tahu ki Murihiku consider activities involving the discharge of contaminants to water a community issue. For this reason, ngā rūnanga may, where seen as appropriate, recommend that a consent application be notified.

Cross reference:

Provisions 3.5.1 Farm Effluent Management; 3.5.2 Wastewater Disposal; 3.5.10 General Water Policy; 3.5.13 Water Quality, Section 3.5 *Te Rā a Takitimu* – Southland Plains

3.5.13 Water Quality

Water is held in the highest esteem because the welfare of the life that it contains determines the welfare of the people reliant on those resources. Ensuring that water that is meant for drinking is of drinking water quality, and that water where mahinga kai is harvested is safe to eat from, and the water where our kids swim is safe for them to swim in, is our kaitiaki responsibly as Ngāi Tahu ki Murihiku.

Water quality policies in this iwi management plan focus on improving water quality across the Rohē, and striving for the highest possible standards, whilst still being effective and practical.

13 The Cultural Health Index Assessment is a tool developed to help Rūnanga quantitatively assess the health of waterways, and participate in the management of water resources. See Tipa, G. and Teirney, L. 2003.

> "One of the reasons that I am inhibited to exercise my kaitiaki responsibilities is that I do not have enough influence over water quality."

Ngā Take - Issues

- Adverse effects of point source discharges on water quality, surface and ground.
- Adverse effects of non-point source discharges on water quality, surface and ground.
- Lack of influence over water quality and the setting of water quality standards, and impact on ability to exercise kaitiaki responsibilities.
- Run-off of agricultural chemicals, and the entry of nitrates and phosphates in water bodies through accelerated soil erosion are seriously affecting water quality in waterways on the Southland Plains.
- Impacts on water quality in lower catchment areas as a result of hill country developments.
- Poor water quality in some Murihiku Rivers: our children are not able to swim in some rivers.
- Adverse effects on catchment water quality as a result of degraded, or absent, riparian areas, and drained wetlands.
- Adverse effects of abstraction, damming and diversion on water quality of Southland rivers.
- Insufficient recognition of the relationship between water quantity and water quality in consent applications.
- Cumulative effects over time of land use and discharge activities on water quality, and difficultly of addressing such effects within RMA framework.

Ngā Kaupapa - Policy

1. The role of Ngāi Tahu ki Murihiku as tangata whenua and kaitiaki of water must be recognised and provided for in all water quality management.
2. Strive for the highest possible standard of water quality that is characteristic of a particular place/waterway, recognising principles of achievability. This means that we strive for drinking water quality in water we once

drank from, contact recreation in water we once used for bathing or swimming, water quality capable of sustaining healthy mahinga kai in waters we use for providing kai.

3. Require cumulative effects assessments for any activity that may have adverse effects of water quality.
4. Avoid compromising water quality as a result of water abstractions.
5. Avoid the use of water as a receiving environment for the direct, or point source, discharge of contaminants. Generally, all discharge must first be to land.
6. Avoid impacts on water as a result of inappropriate discharge to land activities.
7. When assessing the effects of an activity on water quality, where the water source is in a degraded state, the effects should be measured against the condition that the water source should be, and not the existing condition of the water source (see text box on this page).
8. Promote the restoration of wetlands and riparian areas as part of maintaining and improving water quality, due to the natural pollution abatement functions of such ecosystems.
9. Require the use of buffer zones, riparian areas, bunds and other mechanisms to prevent stormwater and other wastewater from entering waterways.
10. Water quality definitions, categories, and standards must be determined, measured, and assessed with cultural values and indicators alongside scientific information. Such indicators and values centre on the ability of the waterway to support life, and the fitness of water for cultural uses.
11. Require robust monitoring of discharge permits, to detect non-compliance with consent conditions. Non-compliance must result in appropriate enforcement action to discourage further non-compliance.

Cross-reference:

Provisions 3.5.1 Farm Effluent Management; 3.5.2 Wastewater Disposal; 3.5.10 General Water Policy 3.5.12 Water Abstractions; 3.5.10 General Water Policy, Section 3.5 *Te Rā a Takitimu* – Southland Plains

Improving water quality can be absolutely simple. Promote riparian areas and wetlands restoration, build proper bridges to avoid run off. It is about investing in day-to-day management and doing things in the right way.

In assessing a resource consent application for discharge to water, Te Ao Mārama Inc. received a letter stating that: "because the stream is a minor watercourse with reduced water quality due to surrounding land uses, the impact of this discharge on the environment should be minor".

For Ngāi Tahu ki Murihiku, it is not enough to say that a proposed activity will not have adverse effects on the current condition of a waterway. Many of our waterways need to be improved, and human use (e.g. abstractions, discharge) should be conditional on improving the current state of waterways where needed.

We need to be requiring improvements and enhancements to river health and water quality. An activity should do more than ensure it won't degrade a river any further.

3.5.14 Water Quantity - Abstractions

"Sustainable water use is about using what we need, not what we have."

Irrigation is a large consumptive use of water resources on the Southland Plains, and most water take resource consent applications that tangata whenua are consulted on are to provide water for farming operations (e.g. irrigation). Abstractions for such operations are largely groundwater sourced.

Water is also abstracted and returned for hydropower generation, from rivers such as the Matāura, Matau-au/ Clutha and Waiau.

While over allocation of water is generally not an issue in Southland, Ngāi Tahu ki Murihiku believe that a precautionary approach is needed regarding the cumulative impact of takes, and the sustainability of water supply. Uncontrolled abstractions from both surface and groundwater sources can have adverse effects on water quality and quantity, and on the mauri of the water source. In areas such as Riversdale, kaitiaki rūnanga have already identified a risk to the groundwater resources as a result of the cumulative effects of groundwater takes in the area.

In terms of water quantity, Ngāi Tahu ki Murihiku consider that in most areas, drainage is more of an issue than abstractions. At one time, the Southland Plains were characterised by an abundance of *repo* (wetlands). Such areas were rich in biodiversity, and an important natural and cultural resource to Ngāi Tahu. The drainage of such areas has had an effect on the ability of the land to store and replenish water resources.

Ngā Take - Issues

- Unregulated water abstractions.
- Impacts on river health from damming and diversions of rivers.
- Impacts on the relationship between tangata whenua and waterways as a result of damming, diversions and abstractions from rivers (e.g. effects on mahinga kai; whakapapa).
- Increasing demands on water resources as a result of land conversion to dairy.
- Extent of existing knowledge about water resources, particularly aquifers.
- Insufficient recognition of the relationship between water quantity and water quality in consent applications.
- Water users using what they are allocated, rather than what they need.
- Deterioration of water quality in rivers such as the Ōreti as a result of a reduction in water quantity.
- Cumulative effects of water abstractions on surface and groundwater quantity and quality, and difficultly of addressing such effects within the Resource Management Act framework.

Ngā Kaupapa - Policy

1. Adopt the precautionary principle when making decisions on water abstraction resource consent applications, with respect to the nature and extent of knowledge and understanding of the resource.
2. Support and encourage catchment management plans, based on the principle of *ki uta ki tai*, to manage the cumulative impacts of water abstractions in a given area.
3. Require that scientifically sound, understandable, and culturally relevant information is provided with resource consent applications for water abstractions, to allow Ngāi Tahu ki Murihiku to fully and effectively assess cultural effects.
4. In the Southland Plains region, the preference of Ngāi Tahu ki Murihiku is for water takes from bores, as opposed to surface water abstractions.
5. Recommend, as a condition of consent, that any application for irrigation puts in on-farm rainwater holding facilities, to help with dairy washdown and irrigation.

Rain is our most reliable water resource on the Southland Plains.

6. Encourage water users to be proactive and use water wisely. To encourage best practice and efficient use of water, particularly in terms of:
   - sustainable irrigation design, delivery and management;
   - making best use of available water before water levels get too low;
   - reducing the amount of water lost through evaporation by avoiding irrigating on hot windy days.
7. Consideration of consent applications for water abstractions should have particular regard to questions of:
   a. how well do we understand the nature and extent of the water resource;
   b. how well can we monitor the amount of water abstracted;
   c. whether land capability (e.g. soil type, vulnerability of underlying groundwater resources) matches the land use enabled by irrigation;
   d. what might happen in the future (e.g. rainfall and recharge of aquifers, climate change).
8. Applications for water abstractions may be required to undergo isotope/chemistry analysis determining where the water came from, and its age. This information will assist in the assessment of potential adverse effects on the water resource.
9. Applications for water abstractions may be required to justify the quantities of water requested. Information may need to be provided to Te Ao Mārama Inc. regarding the proposed water use per hectare, estimated water losses, stocking rates, and the level of efficiency for the scheme. This will enable iwi to put the quantity of water sought in context, and ensure that a test of reasonableness can be applied to consents.
10. Require catchment based cumulative effects assessments for activities involving the abstraction of water.
11. Avoid excessive drawdown of aquifer levels as a result of groundwater abstractions, and to ensure that abstractions do not compromise the recovery of groundwater levels between irrigation seasons.
12. The establishment of environmental flow regimes must recognise and provide for a diversity of values, including the protection of tangata whenua values.
13. Ensure that environmental flow allocation and water management regimes for rivers recognise and provide for the relationship between water quality and quantity.
14. Avoid compromising fisheries and biodiversity values associated with spring fed creeks and rivers for the purposes of water abstractions.
15. Avoid compromising river health as a result of water abstractions for hydro power generation.
16. Encourage the installation of appropriate measuring devices (e.g. water meters) on all existing and future water abstractions, to accurately measure, report, and monitor volumes of water being abstracted, and enable better management of water resources.
17. Advocate for durations not exceeding 25 years on resource consents related to water abstractions.
18. Require, where necessary, a consent condition providing for a review of the volumes able to be abstracted from the bores on the basis of the observed seasonable recovery of groundwater levels. Also include a provision for review of both the annual recovery between individual irrigation seasons and the cumulative effects on longer-term water level recovery.
19. Require that Ngāi Tahu are provided with the opportunity to participate through pre hearing meetings or other processes in the development of appropriate consent conditions including monitoring conditions to address our concerns.
20. Avoid adverse effects on the base flow of any waterway, and thus on the mauri of that waterway and on mahinga kai or taonga species.
21. Oppose any further abstractions/diversions of water from the Waiau River for hydroelectric generation, as current levels of abstractions are having adverse effects on cultural values associated with the river.
22. Ngāi Tahu's right to development, as per the Treaty of Waitangi, must be recognised and provided for with respect to water allocation from freshwater resources.

Cross-reference:

Provision 3.3.11 Hydro Development, Section 3.3 *Te Atawhenua* - Fiordland;

Provisions 3.5.10 General Water Policy; 3.5.11 Rivers; 3.5.13 Water Quality, Section 3.5 *Te Rā a Takitimu* - Southland Plains

3.5.15 Activities in the Beds and Margins of Rivers

Section 13 of the Resource Management Act 1991 requires consent for activities in the beds of rivers. Such activities include using, placing, altering or removing any structures (e.g. culverts), extraction of gravel, or reclaiming or draining part of the river or lakebed.

Ngāi Tahu ki Murihiku policies on gravel extraction and other activities in the beds and margins of rivers focus on balancing the protection of river environments, and the cultural values associated with such environments, while recognising the need to ensure a supply of gravels/aggregate and undertake flood works.

Ngā Take - Issues

- Pressure for taking gravel from beaches where those beaches are perceived to be aggrading and leading to lateral erosion.
- Potential effects of beach skimming on rivers – e.g. can destroy bird nesting sites.
- Changes to the natural character of rivers.
- Installation of culverts into the beds of streams and adverse effects on the waterway via sedimentation, weed establishment and habitat damage.
- Effects of instream excavation and dredging activities on fisheries values.
- Stream bed degradation, and bank erosion.
- Impacts on nesting or roosting birds.
- Loss or degradation of riparian areas.
- Culverts and bridges for stock crossings – impacts on bird nesting sites and fish habitat by making rivers wider, flatter, shallower and increasing temperature.
- Loss of habitat for native flora and fauna.

Ngā Kaupapa - Policy

Gravel extraction

1. Assess applications for gravel extraction in terms of the following considerations:
   a. cultural values associated with the river (e.g. mahinga kai or taonga species habitat);
   b. amount of material extracted;
   c. design of extraction operations;
   d. times of year that extraction will occur;
   e. number of existing consents associated with the location;
   f. how any adverse effects are being mitigated;
   g. monitoring provisions;
   h. cumulative effects assessment.
2. Land use consents to carry out activities in the beds and margins of rivers should include information about ecological, cultural, natural and community values associated with the surrounding areas (e.g. adjacent wetlands, bird nesting sites, instream life, community use of the area; inanga/whitebait habitat).
3. Require that a Ngāi Tahu ki Murihiku Accidental Discovery Protocol (see Appendix 6) is a condition on resource consents.
4. Require consent conditions for gravel extraction activities stipulating the use of "work windows" and other methods to ensure that such activities do not:
   a. disturb roosting and/or nesting sites of birds during the operation/activity;
   b. adversely effect native fish species (e.g. interrupt spawning);
   c. cross flowing water with heavy vehicles;
   d. extract gravel where there is, or there is the potential to be, running water;
   e. Damage native vegetation on the river bed or riparian area.
5. Discourage gravel extraction via beach skimming, except where it is demonstrated that beach areas are aggrading and lateral erosion is a concern.
6. Where gravel extraction occurs on beaches that are aggrading, monitoring of streambed elevation must be a condition of consent. The goal must be to maintain bed height.
7. Advocate for the creation of habitat ponds to facilitate gravel extraction activities, whereby such activities incorporate restoration of riverine habitat, primarily on inactive reaches of the river system (see Case Study box, page 163).
8. Require that the design, construction and maintenance of habitat ponds are such that habitat is created, and not just 'holes' on floodplains or in riverbeds.
9. Support and encourage programmes to monitor the effectiveness of habitat ponds as a fishery and waterfowl habitat.
10. Work collaboratively with Regional Councils, the Department of Conservation, Fish and Game and the MFish with respect to gravel extraction activities and applications, for information sharing and discussion of issues.

Case Study: **Habitat Ponds for Gravel Extraction**

Historically, the Southland region has obtained the bulk of its river sourced aggregate through the skimming of gravel beaches and bars, and in-stream dredging. Such activities have resulted in adverse effects on some rivers, including bed degradation, bank erosion, changes to river channel structure and riverine ecology (e.g. fishery values).

Today, river restoration and rehabilitation has become part of managed gravel extraction activities on the Southland plains. Floodway ponds, oxbow lakes and backwaters are examples of habitat that is being restored in conjunction with gravel extractions away from the active river channel. Effectively, gravel is extracted from a site, which then fills with water creating habitat for fish and waterfowl. Habitat ponds can offset some of the habitat loss that has occurred over time.

The location and design of habitat ponds is important to ensuring that such activities do not have adverse effects on cultural and ecology values. For example, old oxbows can be deepened and developed to create a backwater, as opposed to creating a "hole" in an area less suitable for habitat. Further, sites should be located in areas where birds are not trying to nest. Rather, they should be located in areas that are infested with gorse or broom. Finally, ponds must be deep enough to hit groundwater, as groundwater gives fish relief during hot periods.

For Ngāi Tahu ki Murihiku, gravel extraction via habitat ponds can be a win win situation if managed sustainably and monitored carefully.

Culverts and flood works

11. Require that placement of culverts and other flood works activities in the beds or margins of waterways is such that the passage of native fish and other stream life is not impeded.
12. Recommend that culvert pipes are buried in the streambed, so that gravel can lie in the bottom third of the pipe, thus providing natural habitat in the culvert so that fish can migrate through them.
13. Require that the placement of culverts and other flood works activities in the beds or margins of waterways occurs in a manner that minimises disturbance to the streambed.
14. Recommend that tracks leading to culverts are designed (e.g. contoured) so that stormwater run off and any effluent on the track is directed away from the stream. Such discharges should be to land and not directly to water.
15. Require that that placement of culverts and other flood works activities in the beds or margins of waterways occur at times of low or no flow.
16. Require that short term effects on water quality and appearance are mitigated during culvert or flood works construction, and for a settling period following. For example, straw bales may be used to minimise turbidity, and contain discolouration and sedimentation.

MAHINGA KAI AND BIODIVERSITY

3.5.16 Mahinga kai

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 a common kaupapa throughout this plan.

Mahinga kai is about mahi ngā kai – it is about places, ways of doings 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 ability to access resources and the introduction of predators that have severely reduced the traditional foods of Ngāi Tahu.

Ngā Take - Issues

- Habitat degradation and destruction.
- Legislative barriers to accessing resources.
- Resource depletion.
- Impact of predators on mahinga kai species.
- The role of tangata whenua in managing key mahinga kai species.
- Intergenerational knowledge transfer of mahinga kai practices.
- Impacts of human activities on mahinga kai places and species.

Ngā Kaupapa - Policy

1. Work with local authorities and other statutory agencies to ensure that cultural values and perspectives associated with those species and places valued as mahinga kai are reflected in statutory water plans, best practice guidelines and strategies, and in concession and resource consent processes.
2. Work towards the restoration of key mahinga kai areas and species, and the tikanga associated with managing those places and species.
3. Support the concept of Mahinga kai Cultural Parks[14], as a means of protecting and using specific cultural landscapes within the takiwā that have important mahinga kai associations.
4. Consider the actual and potential effects of proposed activities on mahinga kai places, species and activities when assessing applications for resource consent.
5. Use the enhancement of mahinga kai places, species and activities to offset or mitigate the adverse effects of development and human activity on the land, water and biodiversity of Murihiku.
6. Support mechanisms that enable tangata whenua to access mahinga kai species and resources, such as esplanade provisions and marginal strips adjacent to waterways.

Cross-reference:

Provisions 3.3.14 Nohoanga, Section 3.3 *Te Atawhenua* – Fiordland;

Provision 3.5.17 Ngā Pononga a Tāne a Tangaroa, Section 3.5 *Te Rā a Takitimu* – Southland Plains

If we want to build a mōhiki to float down the river to gather mānuka or tuna, then can I do this? Are we able to....

Get the materials to build the mōhiki? Find the tuna in the waterway?

Be confident that the tuna are safe to eat? Have enough water to float downstream? Find a riparian area with mānuka? Have access to the land that I find it on?

And the question we have to ask ourselves is: "If those things aren't there, then why not?"

14 Mahinga kai Cultural Parks are proposed by Te Rūnanga o Ngāi Tahu as a management tool that provides a framework for Ngāi Tahu management and use within a specific area according to Ngāi Tahu tikanga. Management within a Mahinga kai Cultural Park can enhance specific areas for customary use.

3.5.17 Ngā Pononga a Tāne a Tangaroa - Biodiversity

Tāne and Tangaroa are the two atua who are responsible for all living things in the environment, or biodiversity. The protection of indigenous biodiversity is an important value for Ngāi Tahu ki Murihiku. Indigenous species, and the habitats that support them, must be protected for future generations. In many parts of the takiwā, where land use is dominated by agriculture and forestry, the impact of human activity on indigenous species has been significant.

An important focus for Ngāi Tahu ki Murihiku is finding ways to protect, maintain and improve habitat for all biodiversity, be it in water, riparian margins, native bush or wetlands.

Ngā Pononga a Tāne a Tangaroa

Tāne created trees and all living things that breathe air.
Manu, ngata, ngārara, rākau, tohorā, kekeno, aihe, tuna, tangata, kararehe
Birds, Snails, Insects and lizards, trees, whales, seals, dolphins, people, animals

Tangaroa is responsible for all fish
Ikanui, ikaroa, ikaiti, tuna
Big Fish, long fish, small fish, tuna

Ngā Take – Issues

- Protection of iwi and hapū interests in native biodiversity.
- Loss of species, particularly endemic.
- Customary use of indigenous species.
- Impact of exotic forestry activities on indigenous bush remnants and indigenous species in general.
- Impact of unsustainable farming activities on indigenous bush remnants and indigenous species in general.
- Conservation of genetic resources of indigenous biodiversity.
- Species recovery.
- Reintroduction of indigenous species.
- Habitat protection.
- Protecting threatened and endangered species.
- Impact of unwanted introduced plant and animal species on indigenous biodiversity.
- Support for landowners who are protecting indigenous bush remnants and other areas of indigenous vegetation.
- Recognising that some native birds rely on non-native plants for food, because traditional food sources have been displaced (e.g. kererū and tree lucerne).

Ngā Kaupapa – Policy

1. Use planning, policy and resource consent processes to promote the protection and, where necessary, enhancement, of native biodiversity of Murihiku, specifically:
   a. enhancement and restoration of degraded areas;
   b. planting of native species to offset or mitigate adverse effects associated with land use activities;
   c. the incorporation of biodiversity objectives into development proposals;
   d. prohibiting the use of pest plant species in landscaping
2. Advocate for the establishment of indigenous vegetation corridors *ki uta ki tai*, from mountains to the sea.
3. For Ngāi Tahu ki Murihiku, all species are taonga, whether weta, snail or kiwi, and the effects of an activity on species must consider all species equally.
4. Where practical, indigenous vegetation that is removed or damaged as a result of land use activity should be replaced.
5. Use as a consent condition, when applicable, the enhancement of indigenous biodiversity as a means to remove adverse impacts of proposed activities.
6. Recommend the planting of indigenous species as an appropriate mitigation measure for any adverse impacts as a result of land use activity.
7. The cultural, spiritual, historic and traditional association of Ngāi Tahu ki Murihiku with taonga species must be recognised and provided for within all management and/or recovery plans associated with those species. This includes taonga species as per the Ngāi Tahu Claims Settlement Act (Appendix 4), and all other species identified as taonga by Ngāi Tahu ki Murihiku.
8. Promote the sustainable harvesting of any indigenous vegetation.

9. Promote the management of whole ecosystems and landscapes, in addition to single species.
10. Promote the integration of biodiversity management across land ownership land use boundaries.
11. Ensure efforts are directed at identifying solutions for biodiversity decline, not just the problems.
12. Make full use of the knowledge of tangata whenua with regards to indigenous biodiversity, and the value of such knowledge in understanding how to protect and enhance biodiversity.

Cross-reference:

Provision 3.5.16 Mahinga kai, Section 3.5 *Te Rā a Takitimu* - Southland Plains

3.5.18 Repo - Wetlands

At one time, Murihiku had an abundance of wetlands. These ecosystems were an important natural and cultural resource to Ngāi Tahu ki Murihiku, as they were (and are) rich in biodiversity and important sources of mahinga kai, and provided important ecosystem services such as filtering of contaminants from water and soils.

Over time, the majority of Murihiku wetlands have been drained, largely to provide land for farming and agriculture. The drainage of such areas has had an effect on the ability of the land to store and replenish water resources.

Ngā Take - Issues

- Continued drainage and modification of wetland areas.
- Loss of valuable ecosystem services provided by wetlands.
- Discharge of contaminants into wetland areas.
- Changes over time in the relationship with, and use of, wetlands by tangata whenua, due to drainage.
- The need to protect existing wetland areas from drainage.
- Use of wetland restoration or establishment as mitigation for land use and discharge activities.
- Indirect drainage of wetlands, via drainage of surrounding land.
- Impacts of stock on wetland areas.

Ngā Kaupapa - Policy

1. Avoid the direct or indirect drainage or modification of any existing wetland area.
2. Encourage the establishment of wetland areas, where practical, to improve discharge to land activities, through allowing Papatūānuku the opportunity to filter and clean any impurities.
3. Advocate for the restoration and enhancement of wetland areas, as part of any consent application where it is deemed feasible to include such conditions.
4. Require that wetlands are fenced in any area where they may be at risk from stock damage.

Cross-reference:

Provisions 3.5.16 Mahinga kai; 3.5.17 Ngā Pononga a Tāne a Tangaroa, Section 3.5 *Te Rā a Takitimu* - Southland Plains

3.5.19 Riparian Zones

Riparian areas are the transition zone between water and land. Such areas are often associated with mahinga kai and other customary use activities (mahinga parenga). Riparian areas contain a range of important plant species; some of which may be used for wāhi Rāranga (sources of weaving materials), or rongoā (traditional medicines) (See Table 3).

Riparian areas are also associated with their role in maintaining or improving ecological functioning of streams. They reduce bank erosion, provide habitat, regulate temperature, provide shading, and enhance water quality by filtering contaminants and sediment from flow, thus reducing nutrient and bacteria inputs into a waterway. Healthily riparian areas can also reduce weed growth along a waterway or drain.

Along many waterways, riparian zones have been highly modified and degraded as a result of poor land management, weed invasion, stock access, and land use activities such as forestry and agriculture.

Ngā Take - Issues

- Relationship between water quality and healthy riparian zones.
- Degradation of riparian areas as a result of stock access (e.g. stock watering).
- Need for a stronger focus on riparian management.

- Adjacent land uses and impact on riparian areas.
- Agricultural discharges and runoff, and impact on riparian vegetation.
- Spread of plant pest species such as willow in riparian areas: impacts on indigenous species, and weakening of natural functions of riparian areas.
- Erosion of river banks from lack of vegetation.
- High water temperatures from lack of riparian areas, and impacts on fish.
- Loss of habitat for waterfowl as a result of riparian degradation.

Ngā Kaupapa - Policy

1. Promote riparian zone establishment and management in Resource Management Act policy, planning and consent processes, as a tool to mitigate adverse effects of land use activities on streams.
2. Prioritise the restoration of riparian areas throughout the takiwā.
3. Promote riparian zone establishment and management as a tool to improve water quality in the waterways of Murihiku.
4. Require that riparian restoration or establishment, when used as a condition of consent or otherwise, uses plant species that are appropriate to the area in which they will be established.
5. Protect and enhance taonga Rāranga (plants which produce material used for weaving) associated with riparian areas.
6. Avoid stock access to riparian zones and streambeds, except when required for intermittent vegetation control.
7. Encourage fencing of streams to protect riparian vegetation, and promote healthy riparian establishment.
8. Avoid or remedy any adverse effects of river works activities, culverts, bridges and stock crossings on riparian areas.
9. Prevent the use of willows and other exotic species in bank edge planting along waterways.
10. Control and, where appropriate, eradicate willow and other noxious weeds and exotic species in riparian areas.

The way that a riparian area is managed has a significant effect on the extent to which intensive agriculture will affect a waterway.

Riparian zone management should be a basic requirement for the protection and restoration of water quality in intensively farmed catchments.

Table 4: **Ngā Rākau parenga** Important riparian plants

Source: Riparian Planting and Management Guidelines for Tangata whenua 2003.

Māori Name	English Name	Traditional Use
Harakeke	New Zealand Flax	Weaving
Mānuka	Tea Tree	Leaves, gum, bark and sap used in rongoā; wood used for kō (digging sticks), hoe tokotoko, taiaha, spears and construction.
Kānuka	Tea Tree	Leaves, gum, bark and sap used in rongoā; wood used for kō (digging sticks), hoe tokotoko, taiaha, spears and construction.
Tī Kōuka	Cabbage Tree	Food source; weaving.
Raupō	Swamp Reed	Production of mōkihi (reed canoes) and construction, and insulation of whare (houses).
Kōkōmuka Koromiko	Hebe sp.	Leaves and buds used in rongoā
Karamū	Coprosma sp.	Barks and shoots used in rongoā; bark also used for dying and leaves used at Tangihanga and other ceremonies.

3.5.20 Freshwater Fisheries

Fish are of great cultural, social and economic significance to Ngāi Tahu ki Murihiku. Fish from Murihiku rivers formed an essential part of the Ngāi Tahu economy prior to the Treaty. The importance of such fisheries remains today. However, issues such as poor waterway health and private land ownership often impede the ability of tangata whenua to access and use customary fisheries.

Culturally important species found in Murihiku rivers include tuna, inanga, kanakana, kōura, kōkopu and parakaki.

Ngā Take – Issues

- Effects of poor water quality and degraded habitat on customary fisheries.
- Activities on land that upset the natural balance of habitat and breeding activities (e.g. reduced shade, increased nutrients, reduced organic matter, channel modification, increased suspended sediments, and changes to flow).
- Introduction of exotics (e.g. trout) into waterways; predation of native fish by trout.
- Increased water temperature from degraded riparian areas, and impacts on fish.
- Fish passage: culverts, weirs and dams that interfere with fish passage upstream and downstream.
- River straightening creating a loss of habitat.

Ngā Kaupapa - Policy

1. All Ngāi Tahu Whānui, current and future generations, must have the capacity to access, use and protect native fisheries, and the history and traditions that are part of customary use of such fisheries, as guaranteed by the Treaty of Waitangi.
2. Advocate for the protection, restoration and enhancement of waterways, riparian margins, and wetlands as a means of protecting and enhancing freshwater fishery values.
3. Avoid stock access to riparian zones and streambeds, except when required for intermittent vegetation control.
4. Require fencing of streams to promote healthy riparian establishment and fisheries values.
5. Avoid compromising freshwater fishery values as a result of diversion, extraction, or other competing use for water, or as a result of any activity in the bed or margin of a lake or river.
6. Ensure that all native fish species have uninhibited passage from the river to the sea at all times, through ensuring continuity of flow *ki uta ki tai*.
7. Require that Fish and Game New Zealand and DOC consult with Ngāi Tahu ki Murihiku with regards to any proposal to release exotic fish species into lakes or rivers (and their tributaries) of Murihiku.
8. Ensure the protection of all sites identified as Nohoanga under the Ngāi Tahu Claims Settlement Act 1998, as a means of providing tangata whenua with an opportunity to experience the landscape as our tūpuna once did, and to promote customary practices associated with mahinga kai.

Cross-reference:

Provisions 3.5.11 Rivers; 3.5.16 Mahinga kai; 3.5.18 Riparian areas, Section 3.5 *Te Rā a Takitimu* – Southland Plains

Provisions 3.6.9 Recreational Fishing; 3.6.10- Management Areas, Section 3.6 *Te Ākau Tai Tonga* – The Southern Sea Coast

WĀHI TAPU ME TE WĀHI TAONGA
SACRED AND TREASURED SITES

Part 2 of this Plan, Section 2.22 recognises the protection given to archaeological sites by the Historic Places Act.

3.5.21 Protection of Significant Sites

Ngā Take - Issues

- Fossicking.
- Continued access to and protection of significant sites.
- Protection of cultural landscapes from inappropriate use and development.
- Protection of unknown sites.
- Accidental finds as a consequence of ground disturbance associated with land use.
- Passing on traditions and knowledge of significant sites to our tamariki.
- Ensuring respect for those places that are important to us.
- Inadequate or incomplete registers of sites.

Ngā Kaupapa - Policy

1. Ensure that Ngāi Tahu ki Murihiku are able to effectively exercise their role as kaitiaki over wāhi tapu and wāhi taonga in Murihiku.
2. Work with local authorities and other statutory agencies involved in the protection of cultural heritage to ensure that Ngāi Tahu perspectives and policies are reflected in statutory plans, best practice guidelines and strategies, and in resource consent processes (e.g. prohibited activity status for wāhi tapu areas).
3. Maintain good working relationships with those agencies involved in the protection of historic and cultural resources in Murihiku.
4. Develop and maintain effective working relationships with landowners and the wider community, with regards to the protection of, and access to, cultural and historic resources in the entire takiwā of Ngāi Tahu ki Murihiku.
5. Avoid compromising unidentified, or unknown, sites of cultural significance as a consequence of ground disturbance associated with land use, subdivision and development.
6. Ensure that oral history and customary knowledge is considered equally alongside documented evidence when determining the cultural heritage values of a region or site.
7. Applications for activities in areas of cultural significance where there are no known sites but the likelihood of finding sites is high, will require one or more of the following (at the cost of the applicant):
   a. site visit;
   b. archaeological survey (walk over/test pitting), or a full archaeological description, by an archaeologist approved by Ngāi Tahu ki Murihiku
   c. archaeological authority;
   d. cultural impact assessment;
   e. cultural monitoring;
   f. accidental discovery protocol agreement.
8. Where an archaeological survey is required to assess the cultural heritage values in an area, the archaeologist must have the mandate of the appropriate kaitiaki rūnanga.
9. Any site that fulfils the criteria of the Historic Places Act 1993, whether recorded or not (it just has to be suspected), is protected under the Act. This refers to unexpected sites that may be uncovered during development, even after approval of the overall project has been consented to by tangata whenua.
10. Ensure that resource consent applicants are aware that liaising with iwi on the cultural impacts of a development does not constitute an archaeological assessment.
11. Any interpretation or portrayal of Ngāi Tahu history or associations with wāhi tapu or wāhi taonga is subject to policies for cultural interpretation, as per Section 3.3.9 of this Iwi Management Plan.

3.5.22 Wāhi Ingoa – Place Names

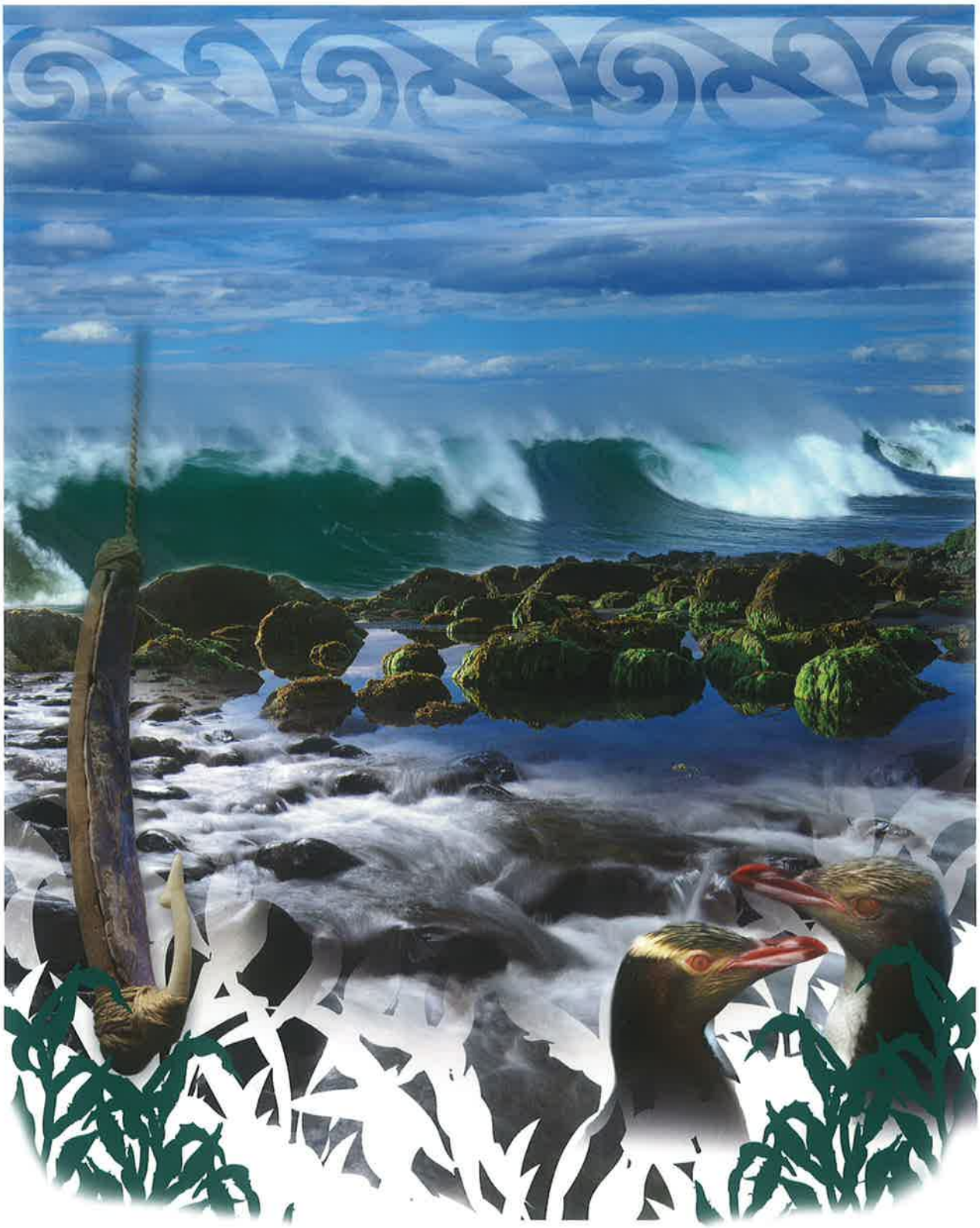
The strong Ngāi Tahu presence in Murihiku is evidenced in the wāhi ingoa, or place names, that remain on the landscape. These names record Ngāi Tahu history, and point to the landscape features that were significant to people for a range of reasons. Some of the names are visible on the landscape today; others remain only in customary knowledge base of tangata whenua.

Ngā Take – Issues

- Intergenerational knowledge transfer.
- Use of ancestral wāhi ingoa on the landscape.
- Incorrect spelling or use of wāhi ingoa.
- Inappropriate "shortening" of Ngāi Tahu place names (e.g. Takitimu Mountains as "Takis").

Ngā Kaupapa - Policy

1. Promote the use of Ngāi Tahu ki Murihiku ancestral wāhi ingoa on the landscape.
2. Keep our ancestral wāhi ingoa alive, through ensuring that we pass these names on to our children, and actively promote their use as tangible reminders of Ngāi Tahu history on the landscape.
3. Advocate for the correction of wāhi ingoa (name, meaning, spelling), at those places or sites where they are incorrect.
4. Encourage dual signage throughout Murihiku, using both Ngāi Tahu and English place names.
5. To encourage, where identified by Ngāi Tahu ki Murihiku as culturally appropriate, the use of Ngāi Tahu wāhi ingoa for new developments (e.g. street or road names).



3.6 Southland's Coastal Environment
Te Ākau Tai Tonga

Toitū te marae o Tāne, toitu te marae o Tangaroa, toitū te Iwi

Protect and strengthen the realms of the land and sea and they will protect and strengthen the people

Photo credits for artwork (previous page)

Main Photo
Source: Venture Southland

Matau (fish hook)
Source: Southland Museum

Imagery

Hōiho sharing in the abundance of the Southern coast.

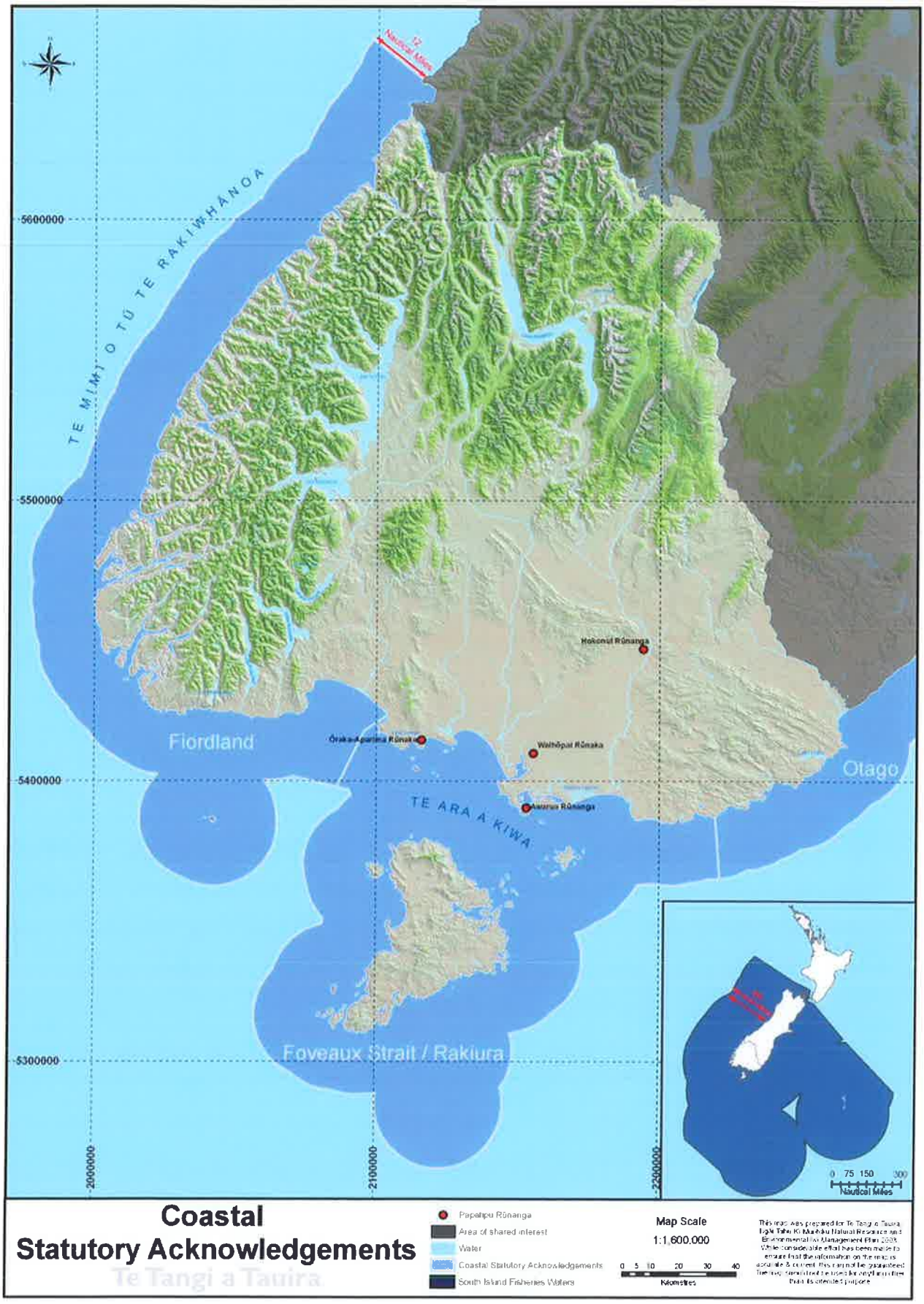
3.6

Te Ākau Tai Tonga
Southland's Coastal Environment

This section of the plan describes ngā take and ngā kaupapa associated with Southland's coastal environment. The coastal environment as recognised by Ngāi Tahu ki Murihiku covers a wide area incorporating;

- the coastal marine area (the legal definition includes the foreshore, seabed, waters and airspace between the mean highwater springs (MHWS) out to 12 nautical miles from this point);
- coastal waters to at least 200 nautical miles from shore; and
- landward features that are normally within 1 km of the mean high water springs.

The Southland coastline is over 3,000 km long; this is one seventh of the New Zealand total. It extends from Atawhenua/Fiordland in the west (Awarua Point) round the south coast to Te Ākau Tai Tonga /Catlins and includes the coast of Rakiura /Stewart Island and Islands nearby. Ngāi Tahu ki Murihiku have chosen to name this section of the plan Te Ākau Tai Tonga, the Southern Sea Coast, Southland's Coastal Environment.



Coastal Statutory Acknowledgements

Papatipu Rūnanga
Area of shared interest
Water
Coastal Statutory Acknowledgements
South Island Fisheries Waters

Map Scale
1:1,600,000
0 5 10 20 30 40
Kilometres

This map was prepared for Te Tangi a Tauira, Ngāi Tahu Ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008. While considerable effort has been made to ensure that the information on the map is accurate & current, this can not be guaranteed. The map should not be used for any purpose than its intended purpose.

Te Tangi a Tauira

The coastal environment intersects many judicial boundaries and in some case coastal processes extend much further inland. Ngāi Tahu ki Murihiku recognise that management issues do not stop at administrative boundaries and the concept of *Ki Uta ki Tai* interlinks all components of the natural environment. Especially significant is how people relate to the natural environment and how it is managed.

He taura whiri kotahi mai ano te kopunga tai no i te Pū au

From the source to the mouth of the river all things are joined
together as one

Te Taumutu Rūnanga Natural Resource Management Plan

The landforms of Southland's coast are varied - including steep cliffs, deep-sided Fiords, sandy beaches, rocky headlands and tidal flats (SOE - Coastal Marine Environment 2005). The shape of the land is influenced by geology, tidal processes and sediment types.
The topography of Southland can be divided into four main areas, Atawhenua/Fiordland coast, Toetoe/ south-eastern Southland coast, Te Ākau Tai Tonga/ Catlins coast and Rakiura/Stewart Island coast.

Te Mimi o Tū Te Rakiwhānoa (Fiordland Coastal Marine Area) and Rakiura/ Te Ara a Kiwa (Stewart Island/Foveaux Strait Coastal Marine Area) represent areas of historical and cultural identity for Ngāi Tahu. The importance of these areas is recognised in the Ngāi Tahu Claims Settlement Act (1998) as Statutory Acknowledgements recording the relationship between Ngāi Tahu and the Southern coast and seas. Ngāi Tahu ki Murihiku promote consultation for any activities that may be undertaken within, adjacent to or may impact on Te Mimi o Tū Te Rakiwhānoa and Rakiura/ Te Ara a Kiwa.

In this section, the following activities, issues, ecosystems and places of importance are addressed:

Section 3.6
Te Ākau Tai Tonga - Southland's Coastal Environment

- General Policy Objective for Southland's Coastal Environment
- Coastal Land Use and Development
- Structures in the Coastal Marine Area
- Coastal Access
- Coastal Mining and Extraction Activities
- Fiordland Commercial Surface Water Activities
- Coastal Water Quality
- Commercial Fishing
- Recreational Fishing
- Management Areas
- Aquaculture and Marine Farms
- Offshore Petroleum Exploration
- Coastal Ecosystems
- Marine Birds
- Protection of Significant Coastal Sites
- Wāhi Ingoa- Place Names

3.6.1 General Policy for Southland's Coastal Environment

1. Ensure the land, water and biodiversity at the interface of Southland's coastal environment are managed in an integrated way through careful planning and policy instruments which avoid compartmentalising the natural environment.
2. Recognise that the degree of connection between the coastal and inland environments is inherent when developing robust systems to address areas of degradation and mitigate for future and potential environmental effects.
3. Promote communication and collaboration between groups with an interest in or have links with the coastal environment and its management.

4. Understand that the impacts of mismanagement, such as poor urban development, land use intensification and diversion of water affect the cultural health of the coastal environment.
5. Understand that the mixing of waters may have adverse effects on river mouth environments as a result in changes of flow, amount and type. Therefore the quality and quantity of freshwater entering lowland catchments of the coastal environment may affect current and future generations from exercising customary rights. The impacts of such activities should be avoided.
6. Respect, protect and enhance coastal areas of importance where possible.
7. Protect and enhance kaimoana and kaimataitai for future generations.
8. Support continued research into coastal erosion processes.

O TE WHENUA THE LAND

This section addresses the coastal land areas of Te Ākau Tai Tonga, the Southern Sea Coast, Southland's Coastal Environment. Inherent in this section is a need to understand the interconnectedness of the coastal environment and inland environments and the subsequent effects that human activity may have on the life supporting capacity of the coastal environment.

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.

Interdependence of all humans on the environment is therefore central. The vulnerability of our environment and in this case the coastal environment and the dependence in which we as a people depend on and are drawn to it, necessitates a careful consideration of the type, extent and possible impacts any development may have on the coastal environments carrying capacity.

Activities in our coastal area must balance growth and development with the protection of cultural landscapes (and the values placed on these), the suitability of areas (especially those requiring protection), the associated hazards linked to both the environment and the development itself and the impacts on the natural environment.

Ngāi Tahu ki Murihiku recognise the pressures that face Southland's coastal environment. The following issues and policies recognise the impacts of land based activities and promote the values in which Ngāi Tahu ki Murihiku deem necessary to protect.

3.6.2 Coastal Land Use and Development

Ngā Take – Issues

- Adverse effects on cultural landscapes regardless of whether areas are significant.
- Management of cumulative effects on natural character.
- Inappropriate land use and development, including subdivision and density.
- Input into coastal resource management planning.
- Hazards associated with coastal environments and the potential risks to development.
- Natural and human induced coastal erosion.
- Protection of natural dune systems.
- Protection of visual and amenity values and character of coastal areas from inappropriate growth and development.
- Protection and recognition of customary rights.
- Protection of known and unknown wāhi tapu sites.
- Protection of coastal wetland ecosystems.
- Promotion and protection of coastal indigenous biodiversity.
- Protection of marine mammals.
- Coastal protection works.
- Dredging and reclamation.
- The impact of recreational vehicles on coastline, foreshore, coastal dunes and wāhi tapu sites.
- Breaches of navigation safety by recreational coastal users.
- Continued access to beaches and coastlines for customary use.
- Gravel and sand extraction exacerbating coastal erosion.

- Risk to kaimoana and kaimātaitai in estuarine area from upstream discharges.
- Deterioration of estuarine health.
- Cumulative effects of upstream discharges on the coast and sea environment.
- Cumulative effects of upstream damming and diversion.
- Increased sediment loading from land clearance activities associated with land use and development and the impacts of such on coastal waters.
- Development of Māori owned lands.

Ngā Kaupapa - Policy

1. Require that all decisions related to coastal land use and development activities within Southland's coastal environment recognise and give effect to the spiritual and historical association of Ngāi Tahu ki Murihiku within the coastal environment. Any activity within, adjacent to or that may potentially impact on Statutory Acknowledgment areas, including Te Mimi o Tū Te Rakiwhānoa (Fiordland Coastal Marine Area) and Rakiura/ Te Ara a Kiwa (Stewart Island/Foveaux Strait Coastal Marine Area), will require consultation with both Te Rūnanga o Ngāi Tahu, Ngāi Tahu ki Murihiku and Tangata Tiaki gazetted under the South Island Customary Fishing Regulations 1998.
2. Ensure consistency with the policies as outlined in the New Zealand Coastal Policy Statement, with respect to protection, development and use of Southland's Coastal Environment.
3. Encourage positive community, conservation and cultural outcomes by working with developers throughout project development. This is especially significant where developments are located in areas of cultural significance affecting tikanga and rangatiratanga.
4. Ensure that Ngāi Tahu ki Murihiku retain the right to be involved in, and contribute to, resource allocation and management decisions which impact on coastal resources and ensure that the principles of the Treaty are upheld.
5. Promote respect for development of Māori owned lands and respect reasons for why land was allocated to Māori.
6. Promote education and awareness of Ngāi Tahu ki Murihiku values associated with water, and how those values can be adversely affected by activities involving the discharge of contaminants to water.
7. Promote input into resource management coastal planning processes including issues surrounding zoning and development of policies and rules.
8. Require that an Assessment of Environmental Effects includes an assessment of cultural effects and potential cumulative effects on the natural character of the coastal environment.
9. Avoid adverse effects on the natural environment as a consequence of increased demands placed upon land, water and community infrastructure resulting from the granting of new subdivision consents for residential or commercial development.
10. Encourage the planting of native plants (especially those hardy to coastal environments such as coastal estuarine areas, wetlands, river mouths and lakes) to enhance indigenous biodiversity and discourage use of plants considered pest species in landscaping and gardens.
11. Promote the use of protection tools such as buffer zones or covenants (placed on titles) to ensure preservation of areas of indigenous vegetation and other culturally important features and places.
12. Encourage use of colours and design which are in harmony with the surrounding coastal environment.
13. Require that each application for coastal land use or development is assessed on a case by case basis and includes managing for potential cumulative effects.
14. Require that coastal land use and development proposals ensure the appropriate sewage and stormwater reticulation systems are in place to avoid compromising the coastal environment.
15. Avoid adverse effects on mahinga kai resources and places and other areas of high cultural significance as a result of coastal protection works.
16. Recognise for adverse effects on cultural landscapes regardless of whether areas are significant.
17. Ngāi Tahu ki Murihiku advocate for involvement in any monitoring of the extent of development along the coastline and the subsequent effects that may arise.
18. Avoid where practicable natural hazards in the coastal environment caused by the interaction of coastal process and development of activities by:
    a. managing the use of land;
    b. managing subdivision and the actual and potential effects of the use, development, or protection of land;
    c. managing use and development within the coastal environment to avoid interference with coastal processes.

19. Avoid potential development in known erosion areas where accelerated erosion processes may occur, this includes any mining or extraction of gravel and/or sand.
20. Advocate for the protection of coastal dune systems and enhance and restore these areas as riparian margins between the coast and sea.
21. Require that dredging and reclamation works avoid damage to mahinga kai, kaimoana and kaimātaitai sites, and coastal and seabed ecosystems.
22. Support the protection and restoration of coastal wetland ecosystems.
23. Avoid large scale and imposing development that intrudes on the natural character and visual amenities associated with the coastal environment.
24. Require continued access to coastal environments where mahinga kai is gathered for customary use.
25. Recognise for Ngāi Tahu history and use of the coastal environment and the identification and protection of wāhi tapu and wāhi taonga sites when new land use development occurs.
26. Ensure that protocols are established between stakeholders and developers to recognise for the accidental discoveries of cultural sites and material within the coastal environment.
27. Recommend that developers consult with Ngāi Tahu ki Murihiku with regard to providing Ngāi Tahu names for roads and areas created by subdivision or land use developments.
28. Advocate for limited or no use of recreational vehicles within coastal dunes systems.
29. Support recommendations for use of marginal strips, buffer zones, riparian margins or other protection mechanisms adjacent to waterways, including areas of coastal development, for protection of mahinga kai resources and places, water quality and biological diversity.
30. Require that all water abstraction activities associated with all upper catchment practices are efficient and consider down stream effects, including impacts on estuarine environments. This is reflected particularly in respect to sustainable irrigation design, delivery and management. Large scale water abstraction should be avoided. (This policy is applicable to Section 3.5.14 Water Quantity- abstractions)
31. Prevent direct stock access to waterways. This is to avoid discharge and damage by stock to lake, river edges, riparian species, indigenous plants and coastal environments.
32. Maintain appropriate minimum flow levels to ensure that mahinga kai have uninhibited passage between high country lakes and rivers and the sea at all times. Any structure must provide for fish passage.
33. Avoid any discharge of contaminants to water as a result of pastoral farming activity, including pest control poisons.
34. Promote best practice for drain clearing for the purposes of maintenance and diversion of channels in upstream river areas.
35. Encourage and participate in cultural monitoring of the health of estuarine and coastal river mouth areas.
36. Support local agencies who have a direct role in promoting navigation and public safety and appropriate use of coastal waters for recreational activities.
37. Ensure that processes are in place in dealing with beached marine mammals. Interim guidelines for the initial notification and contact between the Department of Conservation and Ngāi Tahu over beached marine mammals are appended. (See Appendix 7 edited version applicable to Ngāi Tahu ki Murihiku)

Cross reference:

Provision 3.3.1, policy 8 Mountains and Mountain Ranges, Section 3.3 *Te Atawhenua* – Fiordland

Provisions 3.5.7 Subdivision and Development; 3.5.2 Wastewater Disposal; 3.5.3 Solid Waste Disposal; 3.5.8 Earthworks; 3.5.21 Protection of Sites of Significance, Section 3.5 *Te Rā a Takitimu* – Southland Plains

Section 3.2 *Huringa Atua o Te Rangi* – Climate Change

3.6.3 Structures in the Coastal Marine Area

Facilitating access to the coastal environment may include the development of coastal structures such as marinas, slipways, wharves, piers, boat ramps, jetties, groynes or moorings.

While some structures are necessary and desirable in the coastal marine area to provide for its use and development and for measures of safety, for example navigation aids, in some areas structures may be inappropriate. These structures can give rise to reduced visual amenity, loss of public access, loss of habitat; have impacts on the surrounding landscape, the foreshore and seabed, coastal waters and coastal ecosystems. Furthermore the presence of structures may restrict the use of the area or limit space for other activities that may necessitate a need for a coastal locality.

The following issues and policies highlight concerns held by Ngāi Tahu ki Murihiku and address areas where such threats can be lessened.

Ngā Take - Issues

- Access to the coastal area.
- Impacts of development on kaimoana e.g. port or marina development.
- Obstruction of view.
- Loss of natural and landscape character values.
- Protection of wāhi tapu and archaeological values from disturbance as a result of earthworks.
- Aspects of safety on structures.
- The location and density of coastal structures.
- Visual intrusion of light pollution and the effects of such on migratory birds.
- The correct use and placement of anchorages and moorings.
- Sound construction of structures.
- Relationships with Maritime New Zealand and the Harbourmaster.
- Placement of warning signs.

Ngā Kaupapa - Policy

1. Any activity within, adjacent to or that may potentially impact on Statutory Acknowledgment areas, including Te Mimi o Tū Te Rakiwhānoa (Fiordland Coastal Marine Area) and Rakiura/ Te Ara a Kiwa (Stewart Island/ Foveaux Strait Coastal Marine Area), will require consultation with both Te Rūnanga o Ngāi Tahu, Ngāi Tahu ki Murihiku and Tangata Tiaki gazetted under the South Island Customary Fishing Regulations.
2. Promote awareness among coastal users that the coastal marine area is a finite resource and the number of suitable sites for some structures is limited, therefore the utilisation of coastal space must be efficient and sustainable.
3. Promote a precautionary approach toward new proposals. Where the activities and the effects of new proposals are not known or understood. Further information will be required to determine how such activities may affect, or be affected by coastal processes.
4. Avoid the placement of structures in the coastal marine environment that will have significant affects on the foreshore and seabed, coastal water quality, mahinga kai, kaimoana, and will not be compatible with the coastal environment of adjacent lands.
5. Ensure that structures in the coastal environment are soundly constructed, are compatible with the natural character of the surrounding coastal environment and adjacent lands and do not have adverse effects on other people using the coast area. This includes appropriate placement of moorings and anchorages.
6. Ensure that structures located in the coastal marine area justify the functional necessity for that location and do not impact on the coastal environment when an alternative location may be more readily suited for that type of development.
7. Promote concentration of structures within the existing Port Zones (e.g. Bluff, Aparima/Riverton, Waikaiwa) to minimise the risks caused by dispersal on the surrounding coastal environment. Where possible utilise existing facilities within the zones for ship activities.
8. Ensure that Ngāi Tahu ki Murihiku are involved in any formation of access ways to facilitate access to coastal areas.
9. Avoid visual intrusion or obstruction of views as a result of built structures. The location of structures and buildings that may protrude above skylines and ridgelines may be inappropriate in some cases.
10. Avoid the erection of structures near or on offshore pest free islands to ensure the values of these islands are not compromised.
11. Ensure that the erection of lights on coastal structures does not adversely affect the natural character, amenity and navigation safety of the coastal marine area, nor restrict amenity and traffic safety on land adjacent.
12. Encourage techniques to eliminate the effects of light pollution. Techniques should be introduced during the planning phase of development and when assessing harbour and port procedures.
13. Ensure that protocol are established between stakeholders and developers to recognise for the accidental discoveries of cultural sites and material within the coastal environment during development.
14. Avoid development on known tauranga waka, cultural, archaeological and mahinga kai sites.
15. Ensure any coastal structure development does not impact on public health and safety.
16. Encourage owners and other stakeholders to maintain existing coastal structures in a reasonable and safe condition.

17. Maintain close working relationships with Maritime New Zealand and the Harbourmasters, and be actively engaged in assessments undertaken with respect to the development of new structures that may have an impact on aspects of navigation and public safety. This is particularly important when discussing the provision and maintenance of safe anchorages for extreme weather events in areas remote from ports.
18. Support the placement of warning signs with respect to navigation safety or hazard mitigation in areas where such placement does not overly detract from natural character and landscape values.

Cross reference:

Provision 3.2.2 Amenity Values, Section 3.2 O *Te Pū Hau* - Air

Information source:

Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

Regional Coastal Plan for Southland - July 2005

Fiordland Marine Guardians website - **www.fmg.org.nz**

3.6.4 Coastal Access

Public access to coastal areas can, in some situations, potentially raise issues for Ngāi Tahu ki Murihiku. Existing activities within coastal areas such as established recreational areas, campgrounds or scenic reserves facilitate access. Increased public pressure to access these areas has the potential to affect culturally significant sites, the natural character of the landscape and the availability and protection of resources. The challenge for those managing and whom have an interest in the coastal environment is seeking a balance between maintaining access for customary use, tourism, enhancement and protection and development.

Ngā Take - Issues

- Ensuring coastal values are understood, sustained and protected for all to enjoy.
- Impacts of tourism and recreation on the coastal marine area.
- Access for tangata whenua to culturally important sites (e.g. mahinga kai areas) in the coastal marine area.
- Protection of mahinga kai sites and resources.
- Impacts of uncontrolled access to areas of sensitivity or vulnerability.
- Building activity for tourism development, and potential impact on landscape and cultural values as a result of changing access.
- Increased infrastructure pressure especially with respect to public toilets.
- Increased risk of sewage discharge.

Ngā Kaupapa - Policy

1. Ensure that all coastal regions are sustained and protected in perpetuity for all New Zealanders and visitors to enjoy.
2. Ensure that access across any private land to coastal areas is in consultation with the landowner.
3. Encourage education among tourists and other visitors about the cultural importance of the coastal environment and its links to inland river, lakes and lands.
4. Work with stakeholders, local government agencies and others whom have an interest in the coastal environment to promote and provide information relating to values associated with the area and the need to respect the environment through promotion of responsible tourism.
5. All Ngāi Tahu Whānui, current and future generations, must have the capacity to access, use and protect coastal environment landscapes, wāhi tapu and mahinga kai sites and the history and traditions that are linked to these landscapes.
6. Advocate limits to coastal areas (which may include camping sites, reserves, parks) that are considered under pressure or susceptible to increased demand and do not have adequate facilities to meet pressures.
7. Ensure robust consultation with Ngāi Tahu ki Murihiku in respect to aspects of improved access to the coastal environment. This includes the development of structures to facilitate access such as public toilets, upgrading of existing structures, and waste disposal and discharge methods.

Cross reference:

Provision 3.4.8 Access and Tourism- Section 3.4 *Takitimu me ona uri* - High Country & Foothills.

Provision 3.3.7 Concessions and Provision 3.3.9 Cultural Interpretation - Section 3.3- *Te Atawhenua* - Fiordland

Information source:

Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

3.6.5 Coastal Mining and Extraction Activities

Mining and quarrying of sands, rocks and gravel in the coastal environment has potential to impact seriously on the life supporting capacity function of ecosystems. At times the location of such activities has the potential to be incompatible and have impacts on landscape, cultural and amenity values. Ngāi Tahu ki Murihiku recognise that any existing and future mining operations within and adjacent to the coastal environment should not compromise the natural environment, and particularly the mauri of water.

Ngā Take – Issues

- Cumulative and unknown future effects of mining.
- Run off of heavy metals and other contaminants into coastal waters, and the impacts on estuarine and coastal ecosystems.
- Extraction of sand, rock, gravels or stones for commercial and roading purposes.
- Increased erosion and lack of coastal stability as a result of extraction.
- Loss of coastal vegetation through clearance and damage.
- Impacts on coastal bivalue ecosystems including nursery and spawning areas.
- Protection of wāhi tapu sites and other sites of cultural significance to Ngāi Tahu ki Murihiku.
- Pest plant transfer as a result of machinery movement.
- Access for tangata whenua to culturally important sites (e.g. mahinga kai areas) in the coastal marine area.
- Disposal of human waste during mining activities.

Ngā Kaupapa – Policy

1. Any coastal mining or extraction activity within, adjacent to or that may potentially impact on Statutory Acknowledgment areas, including Te Mimi o Tū Te Rakiwhānoa (Fiordland Coastal Marine Area) and Rakiura/ Te Ara a Kiwa (Stewart Island/Foveaux Strait Coastal Marine Area), will require consultation with both Te Rūnanga o Ngāi Tahu and Ngāi Tahu ki Murihiku.
2. Require consultation with Ngāi Tahu ki Murihiku in respect to removal of any sand, rock, gravels or stones from coastal areas for commercial purposes.
3. Avoid the establishment of commercial mining or extraction activities in coastal areas and landscapes of cultural significance.
4. Advocate for continued access to areas of cultural significance in coastal areas by Ngāi Tahu ki Murihiku.
5. Avoid adverse affects on coastal land, water, mahinga kai and biodiversity as result of coastal mining and extraction activities.
6. Ensure protection of nursery and spawning areas within coastal environments from mining and extraction activities.
7. Avoid any direct discharge of contaminated waters to any waterways or waters adjacent to or flowing into coastal estuaries or waters as a result of mining and extraction activities.
8. Avoid any discharge of human or other associated waste water during mining and excavation activities.
9. Require that the highest environmental standards are applied to any consent application involving mining or extraction activities within coastal waters. This is particularly important when recognising for cumulative and potential unknown effects of such activities.
10. That Accidental Discovery Protocol are established and included as a standard condition on any mining or extraction consent in coastal waters.
11. Advocate against unnecessary removal of sand or stones for non commercial use in coastal areas of cultural significance.
12. Ensure that machinery used in mining and extraction activities is free of plant pests and that the methods used during extraction reduce disturbance and the likelihood of plant pests establishing.

Cross reference:

Provision 3.3.1 Mountains and Mountain Ranges, Section 3.3 *Te Atawhenua* – Fiordland

Provision 3.5.9 Mining – Section 3.5 *Te Rā a Takitimu* – Southland Plains

Information source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

O TE WAI THE WATER

The intrinsic values of Southland's coastal environment provide a strong spiritual and cultural connection for Ngāi Tahu ki Murihiku. O Te Wai not only includes the freshwater elements of water but extends to include O Te Moana – the sea, and the inherent connection between these two waters. Upstream effects in our river catchments influence the life supporting capacity of our estuarine systems and waters of our seaward coastal environment. From the mountains to the sea, the ocean waters are the end of the line and the upstream cumulative effects of upstream activities is reflected in the health of the waterway when it reaches the sea.

Ngāi Tahu hold water in the highest esteem because the welfare of the life that it contains determines the welfare of the people reliant on that resource (Te Whakatau Kaupapa o Murihiku 1997, p.36). The knowledge gained by local Māori in respect to harvesting methods and the understanding of breeding cycles, migration times and feeding habits of species are imperative in understanding how to manage, enhance and protect our coastal resources.

This section identifies the connection between freshwater and seawater and extends to include issues relating to management of the seaward coastal environment. Such issues include the cumulative effects of upstream and upper catchment land use, discharge, and water diversions. Furthermore seaward issues extend to impacts from commercial and recreational fishing, other commercial surface water activities, customary fishing and fish stock numbers, marine health, marine reserves, offshore exploration and pollution levels.

Although all issues and policies within this section are reflective of activities occurring in the entire Southland coastal environment (including Fiordland) this section also specifically identifies the importance of the coastal waters of Fiordland to Ngāi Tahu ki Murihiku and the effects of commercial surface water activity.

TE MOANA O ATAWHENUA FIORDLAND MARINE AREA

The Fiordland Coastal Marine Area is known to Ngāi Tahu as Te Mimi o Tū Te Rakiwhānoa. The immense importance of the area historically, culturally and spiritually is captured in the Ngāi Tahu Claims Settlement Act 1998 (Schedule 102).

Coastal Fiordland is a unique marine environment. In addition to its inherent biodiversity values, it is also an important economic area. Areas such as Milford Sound/ Piopiotahi can receive in excess of 300 000 visitors annually. Human activities can bring a wide range of risks and challenges to the Fiordland coastal environment, including over fishing, noise pollution, and impacts on water quality.

Coastal Fiordland is also a uniquely managed environment. The Fiordland Marine Conservation Strategy provides a framework for collaborative management of the Fiordland (Te Moana o Atawhenua) Marine Area, created by the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005. The Fiordland (Te Moana o Atawhenua) Marine Area extends from Awarua Point on the West Coast to Sandhill Point, Te Waewae Bay. The Act also gives formal recognition to the Fiordland Marine Guardians, a group appointed by the Minister for the Environment to advise central and local government agencies on the management of the Fiordland Marine Area. Ngāi Tahu ki Murihiku have statutory representation within this group.

3.6.6 Fiordland Commercial Surface Water Activities

Operation of commercial surface water activities (e.g. taking visitors out into the Fiords on a vessel) requires a coastal permit. Such activities include marine mammal watching, scenic tours, bird watching, guided tours to special places, or fishing expeditions.

A challenge in managing commercial surface water activities is finding a balance between providing an enjoyable experience to Fiordland visitors and avoiding creating an atmosphere of "commercial busyness".

Ngā Take - Issues

- Noise pollution – noise from motors, loudspeakers, people, vessel horns.
- Impacts on coastal water quality: discharge of sewage from boats (currently 500 m offshore), and grey water containing contaminants (e.g. cleaners, soap).
- Carrying capacity of areas such as Patea (Doubtful Sound) and Piopiotahi (Milford Sound) with respect to numbers of boats on the water.
- Pressure on fisheries from an increasing number of charter boats.
- Adverse effects associated with marine mammal watching e.g. disturbance of dolphin nursery habitat areas
- Cumulative effects on the remoteness, wilderness, intrinsic values, natural character and amenity values of the Fiordland coast arising from the increase in numbers of vessels (increased surface water activities) operating in Fiordland.
- Interpretation of Māori history associated with archaeological and historical site visits.
- Potential of the vessel to spread introduced pests when anchoring/mooring within Fiords, particularly offshore islands.
- Mitigation measures for fouling organisms.
- Anchoring damage to sensitive habitats.

Ngā Kaupapa – Policy

1. Strongly discourage discharges of human sewage and ballast water into coastal waters from commercial vessels and ships.
2. Encourage adherence to avoidance measures (existing or developed) by vessel or ship operators to ensure the protection of coastal waters from the introduction of exotic vegetation and fauna through fouling.
3. Advocate for removal of contaminated effluent to designated land based sewage and grey water discharge facilities in all areas where commercial vessels operate (e.g. Patea), or where appropriate, the use of technology that avoids discharge of effluent to water.
4. Ensure that sewage tanks on the commercial boats have 24 hours of storage capability.
5. Encourage all vessel operators to invest in the overall health of coastal Fiordland, through using only environmentally friendly products on board (e.g. soaps and detergents).
6. Carefully monitor the nature and number of concession applications for commercial recreation and tourism operations, to ensure that such activities are not compromising the natural character, beauty or ecology of the region.
7. Concession holders and/or staff shall not discuss Ngāi Tahu history, traditions, culture and spirituality with clients without first consulting with and obtaining the approval of Ngāi Tahu ki Murihiku to ensure that information is both appropriate and accurate. Any interpretation or portrayal of Ngāi Tahu history or associations is subject to policies for cultural interpretation, as per Section 3.3.9 (Cultural Interpretation) of this Iwi Management Plan.
8. Concession holders operating commercial surface water activities must ensure that clients do not remove any pounamu.
9. Encourage operators to take advantage of new technologies to better manage the effects of commercial tourism development on the environment (e.g. waste discharge from boats).
10. All concession activities with commercial surface water activities are subject to Ngāi Tahu Standard Conditions for Concessions (Appendix 5), and any other special conditions required by Ngā Rūnanga o Murihiku.
11. Require that, where possible, commercial boat operators use existing moorings to avoid setting the anchor as this is better for the seabed environment.
12. Concession applicants must demonstrate a full understanding of the regulations pertaining to the Fiordland Marine Area, including but not restricted to; daily fishing limits within areas, accumulation limits, and the locations and boundaries of the marine reserves.

3.6.7 Coastal Water Quality

Section 3.3 – *Te Atawhenua* Fiordland, recognises that water is the essence of Fiordland. The principles of *Ki uta ki Tai* and the flow of water from the source to the sea, includes the relationship between rivers, lakes, wetlands, waipuna and the coastal Fiords. These waters therefore, should be managed wisely for today's people and generations that follow, *mō tātou, ā, mō ngā uri ā muri ake nei.*

Upstream discharges to water whether from point or non point sources lead to increased nutrient and contaminant loads which in turn degrade downstream water quality.

Ngā Take - Issues

- Cumulative effects of runoff by the time it reaches the ocean - lower catchment impacts.
- Point source discharges into the ocean in the form of agricultural chemicals and pesticides, sewage and industrial waste.
- Non point discharges into the ocean from contaminated upstream and coastal stormwater run-off, agricultural run-off and sedimentation.
- Impacts on the life supporting capacity of estuarine and seaward areas.
- Impacts on kaimoana, kaimataitai and mahinga kai as a result of discharge activities.
- Impacts on cultural use of estuaries and the ocean as a result of discharge activities.
- Impacts on the ocean as a result of sediment loading.
- Impacts of ocean outfalls.
- Adverse effects of upstream abstraction, damming and diversion on downstream water quality.
- Impacts on coastal water quality as a result of discharges (sewage, grey and ballast water) from commercial and recreational vessels.
- Dumping of rubbish overboard.
- Rubbish within our coastal beaches/Fiords.
- Impacts on coastal water quality from oil and diesel spills.
- Increased discharge from coastal development and coastal protection maintenance works.

Ngā Kaupapa – Policy

1. Ensure that it is clearly understood by all land and coastal users that upstream activities and the impacts these have on water quality have a cumulative downstream effect. Given this, provisions 3.5.10-3.5.14 as outlined in Section 3.5 – Te Rā a Takitimu, Southland Plains of this Plan, should be read in conjunction with the following policies.
2. Ensure that commercial and recreational vessels recognise for impacts of discharge on coastal water quality. Policies 1-4 under provision 3.6.7 above should also be recognised by all coastal water commercial and recreational vessel users within Southland.
3. Encourage protection and enhancement of the mauri of coastal waters, to ensure the ability to support cultural and customary usage.
4. Avoid impacts on coastal waters as a result of inappropriate discharge from activities occurring upstream and in areas adjacent to coastal waters.
5. Avoid the use of upstream waters as a receiving environment for point source discharge of contaminants
6. Promote the establishment and restoration of coastal wetland and riparian areas to help address non-point source pollution in coastal areas.
7. Avoid the use of coastal waters and the ocean as a receiving environment for the direct discharge of contaminants.
8. Ensure Ngāi Tahu ki Murihiku have an active role in promoting the relationship recognised between land use activities in the upper catchment and the health of coastal ecosystems.
9. Ensure the quality of water in all waterways is improved to support biodiversity in estuarine and coastal waters
10. Ensure that all fish species have uninhibited access between inland and coastal waters.
11. Ensure that there is no sewage or grey water discharged directly into our oceans from coastal activities or vessels/ structures. Any removal of sewage or grey water should be undertaken where appropriate discharges facilities are located to avoid any unwarranted discharge into coastal waters.
12. Educate coastal water users about the effects of hull cleaning and the impacts that toxic and noxious substances may have on the sustainability of resources located within Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas.

13. Advocate for the development of collection facilities to be installed in all port areas for the collection of shipboard sewage.
14. Avoid the use, disposal and transportation of hazardous substances. In cases where transportation does occur, provision of secondary containment systems to reduce the risk of spillage is supported.
15. Advocate for the adoption of improved treatment systems for the discharge of water and contaminants to reduce the likelihood of effects on the coastal environment from both upstream and coastal water activities. This includes investigations and improvements to existing coastal sewage infrastructure and management and treatment of ballast water.
16. Become actively involved and support development and review of contingency plans to respond to marine emergencies such as oil or diesel spills. This includes active involvement in remediation and risk assessment following a spillage or discharge into coastal waters.
17. Actively support programmes which educate coastal users in respect to the coastal environment's vulnerability, especially in respect to disposal of rubbish in coastal waters and from vessels. Such dumping of rubbish has a negative effect on water quality and ecosystem health.
18. Avoid inappropriate location and design of infrastructure e.g. outfalls and pipelines which may pose a threat to water quality. Encourage agencies and developers to adopt best practice when undertaking coastal protection so as to avoid any unnecessary discharge to coastal waters.

Cross reference:

Provisions 3.5.10-3.5.14 Section 3.5 – *Te Rā a Takitimu* – Southland Plains

Provision 3.6.2 Coastal Land Use Development, Section 3.6 – *Te Ākau Tai Tonga* – Southland's Coastal Environment

Information source:

Te Poha o Tohu Raumati – *Te Rūnanga o Kaikōura* Environmental Management Plan 2005

Regional Policy Statement for Southland December 1997

Te Taumutu Rūnanga Natural Resource Management Plan 2003

State of Southland's Coastal Marine Environment **www.ara.org.nz**

3.6.8 Commercial Fishing

Commercial fishing in New Zealand is controlled by a series of checks and balances which aim to ensure that our fisheries are sustainably harvested. Rules exist about who can fish, what commercial fishers can take, the methods they use, and the amount of fish able to be taken. The majority of fish and shellfish in New Zealand that are of importance to commercial fishers are managed under the quota management system (the QMS). The QMS was introduced in 1986 to manage and conserve the major commercial fisheries.

Each year, the government sets a commercial catch limit for each QMS species. For that year quota owners receive an annual catch entitlement (ACE), which is a proportion of the catch limit set for the species. The proportion of the catch limit that each quota owner receives is determined by their quota shares for that species.

A variety of other management controls are imposed on commercial fishers. The purpose of these controls is to ensure that fishing is sustainable, both in terms of the fish that is taken as well as the effects of fishing on the aquatic environment.

The management controls commonly imposed are:

- closed areas;
- closed seasons;
- size limits;
- gear restrictions;
- prohibited species.

Ngā Take – Issues

- Distribution of quota.
- Recognition of customary rights.
- Management of the commercial fishery.
- Effects of fishing on seabirds and marine mammals.
- Participation in decision making processes.
- Fisheries (South Island Customary fishing) Regulations 1999.
- Coastal tendering provisions of Ngāi Tahu Claims Settlement Act 1998 (s.315-320).

Ngā Kaupapa – Policy

1. Ensure that when the government sets the total catch limits for fisheries each year that these levels are controlled so they do not compromise customary fishery resources and provide for South Island Customary Fishing Regulations.
2. Ensure that Ngāi Tahu is provided with the opportunity for effective input and participation into the Ministry of Fisheries processes. This includes aspects of research, planning and stock assessment, methods of sustainable harvest, biosecurity and compliance issues and review of quota management systems.
3. Advocate for continued improvement in commercial fishing technologies to further reduce the number of seabird and marine mammal mortalities.
4. Advocate for continued partnership between agencies such as the Ministry of Fisheries, the Department of Conservation, environmental interest groups, fishing companies and tangata whenua to ensure sustainable harvest practices.
5. Ensure Ngāi Tahu involvement in research undertaken into the effects of bottom fishing on seafloor habitats and set in place measures to avoid such effects.
6. Reinforce and promote, among the public, that land use activities have the potential to seriously affect continued commercial activity unless managed appropriately.
7. Recognise possible threats to the marine environment through the introduction and spread of marine pests and the potential risk to commercial fisheries, for example undaria and sea squirt.

Information source:

Te Poha o Tohu Raumati – *Te Rūnanga o Kaikōura* Environmental Management Plan 2005

Ministry of Fisheries website **www.fish.govt.nz**

3.6.9 Recreational Fishing

Marine resources found in our coastal waters remain a fundamental feature of Ngāi Tahu mahinga kai. Fishing is one of New Zealand's most popular recreational activities. Every year a large number of finfish, rock lobster and shellfish are taken by recreational fishers, which can seriously affect local fisheries. This means it is important for all fishers to act responsibly and help conserve the resource.

The restrictions on recreational fishers are relatively simple. The three main things to remember are:

- don't take more than the daily limit;
- don't take undersized fish;
- don't sell or trade your catch.

Ngā Take – Issues

- Over fishing has led to depleted fish stocks.
- Protection and recognition of customary rights.
- Access to abundant supplies of healthy fisheries resources.
- Potential impacts on the sustainability of kaimoana.
- Fisheries (South Island Customary fishing) Regulations 1999.
- Customary Fisheries provisions of Ngāi Tahu Claims Settlement Act 1998 (s.297-311).

Ngā Kaupapa – Policy

1. Promote education and understanding among recreational fishers about the need to comply with amateur fishing regulations to ensure fishery resources remain abundant.
2. Ensure that recreational fishing does not compromise the ability of Ngāi Tahu to fulfil customary rights.
3. Advocate for continued research into recreational fishing takes to ensure the sustainability of the resource for all fishers including commercial, customary and recreational.
4. Support the Ministry of Fisheries in seeking compliance by local recreational fishers in respect to limits on take, the size of the fish and illegal trading of catch.

Information source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Ministry of Fisheries website **www.fish.govt.nz**

3.6.10 Management Areas

Taiāpure, Mātaitai and Marine Reserves (management areas) are methods to manage local fisheries. Mātaitai, Taiāpure and Tauranga Ika are methods of localised management which aim to meet the needs of tangata whenua, the environment and the community.

Taiāpure are local fishery areas, in estuarine or coastal and shore regions. These areas are of special significance to iwi as a source of kaimoana or for spiritual or cultural reasons. Taiāpure are provided for in Part IX of the Fisheries Act 1996. This provides tangata whenua with an opportunity to partake in management decisions within these areas through the provision for management committees to be established to give advice and recommendations to the Minister responsible for fisheries in that area. Members of the management committee comprise 50% tangata whenua and other are nominated fisheries stakeholders by (including commercial), of which can also include other tangata whenua not already a member.

Mātaitai reserves are areas of traditional importance to tangata whenua. A Mātaitai area gives tangata whenua authorisation to manage and control non-commercial harvest of seafood. Tangata tiaki are appointed by tangata whenua to manage the reserve through the making of bylaws. These bylaws must be approved by the Minister responsible for fisheries and the laws must apply to all individuals. A Mātaitai reserve prohibits commercial fishing within its boundaries, unless otherwise authorised by the Minister of Fisheries and of which those appointed as tangata tiaki indicate that such an activity within the Mātaitai is desirable. Mātaitai bylaws make specific rules relating to fishing activities. A species to which a restriction or prohibition relates must be to those managed under the Fisheries Acts. A bylaw cannot be passed for species which are managed under differing Acts.

Tauranga ika are specific fishing grounds within the marine environment. These areas are generally located over or around such things as ākau and motu but could equally be places where the ocean currents would converge into an eddy. Fishing "holes" also make up the network of tauranga ika, as do sea trenches and seamounts.

Äkau (reefs) were an important resource that provided important habitat for specific species of fish that could not be caught from shore, hence their association with tauranga ika (fishing grounds). Equally, these places were important tohu (markers) that guided fishers to other fishing grounds.

Likewise for ākau (reefs), islands are also important tohu (markers) for fishing grounds. These equally support localised fish species as well as shelter for waka and those gathering kai from the elements of the open waters. Some islands equally have wāhi tapu status with the presence of urupā and tūāhu.[15]

Marine Reserves are specified areas of the sea and foreshore that are managed to preserve marine life in their natural habitat for scientific study. Marine Reserves may be established in areas that contain underwater scenery, natural features, or marine life of such distinctive quality, or so typical, beautiful or unique that their continued preservation is in the national interest.

Within a Marine Reserve, all marine life is protected and fishing and the removal or disturbance of any living or non-living marine resource is prohibited, except as necessary for permitted monitoring or research, (of which a permit is required). This includes the dredging, dumping or discharging of any matter or the building of structures.

Te Moana o Atawhenua, Fiordland has ten marine reserves from Piopiotahi (Milford Sound) to Preservation Inlet (see page 188, Figure 3 - DOC Dec 2005). The reserves range in size from 93 to 3.672 hectares, and in total include over 10,000 hectares of the Fiords marine habitat. A description of the ten marine reserves is located under Appendix 8 (this information is sourced from the Department of Conservation website).

Te Moana o Atawhwneua, Fiordland has always held spiritual significance and been a rich hunting ground for tangata whenua. The importance of resources and the values held by Ngāi Tahu over these areas remain today.

15 Defining Aquaculture Management Areas from a Ngāi Tahu Perspective, Oct 2002

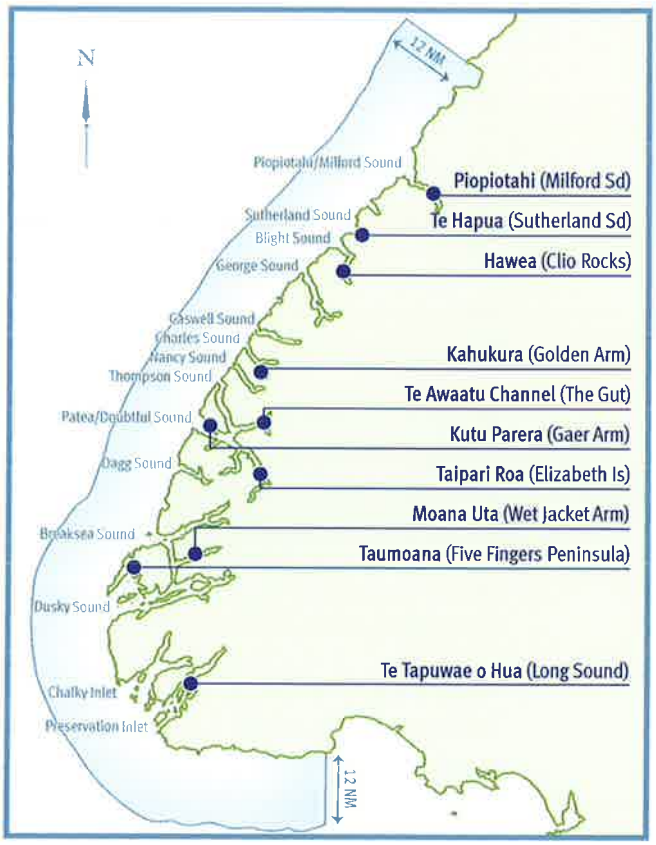


Figure 3: **Fiordland (Te Moana o Atawhenua) Marine Reserves**
Department of Conservation Dec 2005

> "Tangata tiaki are the nearest the Crown has ever come to allowing rangatira, whānau, and hapū to exercise tino rangatiratanga as specifically promised by the Treaty"
>
> *Michael Skerrett, 2007*

A further marine reserve is located in Paterson Inlet near Te Wharawhara- Ulva Island, Stewart Island/Rakiura

The types of bylaws that can be introduced under a Mātaitai include:

- the species of fish, aquatic life, or seaweed that may be taken;
- the quantity of each species that may be taken;
- that dates or seasons that each species may be taken;
- size limits relating to each species to be taken;
- the method by which each species may be taken;
- the areas or areas in which each species may be taken;
- any matters the tangata tiaki consider necessary for the sustainable management of fisheries resources in the Mātaitai.

Te Whaka a Te Wera, Paterson Inlet Mātaitai was formally established in December 2004.

(above map outlines the Mātaitai reserve area - Te Whaka a Te Wera Mātaitai Management Plan - May 2007)

Ngā Take - Issues

- Adverse impacts as a result of inappropriate fishing methods or activity (including impacts in spawning or nursery areas), inappropriate placement of structures and moorings, inappropriate marine farming activity, overfishing leading to depleted stocks, seabird bycatch and impacts on marine mammals and migratory birds as a result of inefficient fishing techniques.
- Disregard for established bylaws, regulations and rules.
- Discharge of effluent from vessels within management areas.
- Point and non-point source discharges from land use activities.
- Discharge of waste products from processed fisheries.

Figure 4: **Mātaitai Boundaries**

- Dumping of rubbish and debris from vessels and from coastal activities.
- Disposal of waste material from processing of marine species.
- Oil and chemical spills.
- Hull cleaning where toxic or noxious substances enter the marine environment.
- Biosecurity risks including impacts from discharge of ballast water, hull cleaning where foreign and unwanted organisms may enter the marine environment, and introduction of foreign organisms through marine farming activities.
- Research and monitoring undertaken within the management areas.
- Understanding roles and responsibilities of those groups involved in the management of the areas.
- Recognition of the relationship of tangata whenua with all management areas.

Ngā Kaupapa – Policy

1. Recognise and provide for the relationship of Ngāi Tahu ki Murihiku within Taiāpure, Mātaitai and Tauranga Ika areas, and provide for the exercise of customary fishing rights under the South Island Customary Fishing fishing regulations.
2. Support identification of marine areas of significance for customary fishing and other values within Southland's marine environment and be actively involved in the development of Taiāpure and Mātaitai areas to ensure Ngāi Tahu ki Murihiku have an opportunity to manage areas of special significance.
3. Have active involvement in the development of further marine reserves within Southland's marine environment to ensure that such development does not occur in areas of significance for customary fishing, wāhi tapu or where it may inhibit the development of Taiāpure or Mātaitai.
4. Prevent further degradation of the mauri of Taiāpure, Mātaitai, Tauranga Ika, Marine Reserves and areas of significance.

5. Establish working relationships with all agencies (such as Biosecurity New Zealand, Ministry of Fisheries, Fiordland Marine Guardians, Department of Conservation, Environment Southland and environmental groups) that have roles and responsibilities over the management of Taiāpure, Mātaitai and Marine Reserves to support local iwi capacity building and ensure promotion of best practice among public and discourage activities that will have a detrimental effect on the life supporting capacity of these areas.
6. Ensure that areas that are gazetted as Taiāpure, Mātaitai, Tauranga Ika or Marine Reserves are protected from biosecurity risks through the education of marine users and the provision of adequate resources for surveillance, monitoring and eradication operations.
7. Promote integrated interagency co operation in the management and protection of coastal areas adjacent to Taiāpure, Mātaitai, Tauranga Ika or Marine Reserves.
8. Support agencies with a compliance and enforcement role against those committing offences under established legislation and bylaws.
9. Engage with communities in the protection and purpose of Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas through effective education, communications and participation.
10. Support and remain consistent with existing management plans for Taiāpure, Mātaitai and Marine Reserve areas, and the rules and regulations within.
11. Actively engage with and discourage management area users from the deliberate disposal and discharge of waste materials including rubbish from vessels.
12. Discourage the discharge of waste products from processed marine species to the waters within Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas and especially within spawning and nursery areas.
13. Avoid oil and chemical spills within Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas and set in place contingency measures with lead agencies should such an event occur.
14. Educate coastal water users about the effects of hull cleaning and the impacts that toxic and noxious substances may have on the sustainability of resources located within Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas.
15. Take an active role in any research or monitoring undertaken within Taiāpure, Mātaitai, Tauranga Ika and Marine Reserve areas. Of particular importance are spawning and nursery areas and important mahinga kai sites. Furthermore Ngāi Tahu ki Murihiku wish to be consulted on and receive a copy of any research undertaken (and its results) within these areas and have an ability to object if applicable.

Information source:

Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

Ministry of Fisheries website **www.fish.govt.nz**

Department of Conservation website **www.doc.govt.nz**

Te Whaka a Te Wera Mātaitai Management Plan - May 2007

Akaroa Taiāpure Management Plan - Draft May 2007

Kai Tahu Ki Otago Natural Resource Management Plan 2005

3.6.11 Aquaculture and Marine Farms

The growth of aquaculture within New Zealand waters is burgeoning. The effects of such if managed inappropriately raise concerns in respect to occupation of space, impacts on mahinga kai, biosecurity risks and customary rights.

The Aquaculture Reform Act 2004 was established to:

> "Enable the sustainable growth of aquaculture and ensure the cumulative environmental effects are properly managed while not undermining the fisheries regime or Treaty of Waitangi Settlements."

The reform allows for greater certainty about how aquaculture is managed in New Zealand. The Marine Reserves Act 1971 has been repealed and the Resource Management Act now governs the bulk of aquaculture management, some aspects are covered by other legislation. There are clearer responsibilities for Regional Council and the Ministry of Fisheries.

The new regime has the following features:

- there is a single process for aquaculture planning and consents through the Resource Management Act 1991;
- regional and unitary councils have clear roles and responsibilities for managing the environmental effects of marine farming, including any effects on fisheries and other marine resources;
- new marine farms can only occur in areas specifically zoned for aquaculture, these zones are known as Aquaculture Management Areas (AMAs);

- a new AMA can be initiated by regional and unitary councils, or privately through a plan change;
- when an AMA is proposed, their effect on fishing (commercial, recreational and customary) activity will be assessed using the undue adverse effects test by the Ministry of Fisheries under the Fisheries Act 1996;
- existing marine farm leases and licences are being eased into the new regime by transitional provisions;
- the reform has also provided for the full and final settlement to Māori for commercial aquaculture since 1992.

The Māori Commercial Aquaculture Claims Settlement Act 2004 was established through this reform. This act provides a full and final settlement of Māori commercial aquaculture interests since 21 September 1992. It allows the marine farming industry to continue to grow without the risk of litigation relating to contemporary Treaty grievances and ensures iwi access to coastal marine space to develop their marine farming interests.

There are two sets of obligations to the settlement:

1. commits the Crown to providing the Māori Commercial Aquaculture Settlement Trust with the equivalent of 20 percent of existing aquaculture space in the coastal marine area, issued on or after the 21 September 1992. If space is not available for the 1992-2004 (existing) marine farming space for allocation to iwi, the Crown has two options. Firstly buying the required space on a willing buyer-willing seller basis or by the crown making a financial equivalent to iwi. The Ministry of Fisheries will review progress towards providing iwi with 20 percent of all space allocated since 1992;
2. require 20 percent of all new aquaculture space in the coastal marine area (new space is any marine farming space that becomes available under the new aquaculture regime that came into effect on 1 January 2005).[16]

Ngā Take – Issues

- Impacts on the character of the coastal landscape.
- Impacts from a non-integrated management framework for land, resources, coastal waters and the activities that occur.
- Potential introduction of organisms from other places impacting coastal waters.
- Unknown effects from increased marine farming activities.
- Waste and by-products from the farmed fishery.
- Changes in coastal nutrient levels as a result of increased filter feeding.
- Impacts on local biodiversity from introduced species.
- Interference with customary access to traditional mahinga kai resources.
- Degradation of existing natural fish and shellfish populations through habitat competition and displacement as a result of marine farms.
- Effects on the seabed habitats under and around farms.
- Ineffective and inaccurate fulfilment of duties under the Reform Act.
- Coastal space and occupation.
- Coastal tendering provisions of the Ngāi Tahu Claims Settlement Act 1998 (s.315-320).

Ngā Kaupapa – Policy

1. Ensure that aquaculture activities recognise and provide for pre-existing customary rights and commercial fishing rights provided by the Māori Fisheries Settlement in 1992.
2. Establish a process with local government agencies to identify suitable areas for aquaculture and the allocation of coastal space to ensure Ngāi Tahu ki Murihiku rights are protected. This includes involvement in the development of programmes that assess the ecological health, carrying capacity and cumulative effects from all coastal users within Southland's coastal waters.
3. Have active involvement in the consent process for aquaculture and marine farming. Operations should include information on waste disposal and provisions for reducing effects on existing local species.
4. Recognise and be involved in the development of programmes that recognise for protection of ecological, heritage, wāhi tapu and wāhi taonga values. This includes involvement in ongoing management, setting of consent conditions and monitoring and compliance programmes.
5. Ensure participation into research of the impacts of marine farms on natural character and visual amenities.
6. Ensure participation into research that investigates increased sediment dispersal, and the effects of such on seabed habitats under and around marine farms.

16 www.fish.govt.nz/en-nz/Commercial/Aquaculture

7. Ensure that aquaculture does not have adverse effects on customary fishing and practices, fishing resources or fisheries. This includes maintaining access to sources of abundant local kaimoana, kaimātaitai and mahinga kai populations.
8. To ensure participation into research on the potential changes to nutrient supplies in coastal waters as a result of increased demand and the possible degradation and displacement of existing natural fish and shellfish populations.
9. To ensure that the potential introduction of unwanted organisms is monitored to ensure impacts on existing biodiversity is limited.

Information source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Ministry of Fisheries website **www.fish.govt.nz**

Department of Conservation website **www.doc.govt.nz**

Te Whaka a Te Wera Mātaitai Management Plan – May 2007

Akaroa Taiāpure Management Plan – Draft May 2007

Akaroa Harbour Marine Farms Cultural Assessment

Kai Tahu Ki Otago Natural Resource Management Plan 2005

3.6.12 Offshore Petroleum Exploration

Recent changes in the New Zealand energy scene have directed significant focus to Southland's oil, gas and mineral resources.

Renewed interest in oil and gas exploration, both on-shore and off the coast of Southland has been stimulated by current government initiatives for exploration outside the Taranaki Basin. International interest in the Great South Basin has reignited further exploration.

Ngāi Tahu ki Murihiku have raised concerns in respect to the impacts that such exploration may have on Southland's coastal environment and the further potential risks from actual drilling.

Ngā Take – Issues

- Prospecting, exploration, drilling and mining activities in areas of cultural importance, offshore and in coastal waters.
- Potential impacts on sites of cultural significance and established mātaitai areas.
- Potential impacts of increased waste and the requirement to dispose of this.
- Potential impacts from accidental oil spills/leakages on migratory birds while feeding.
- Potential infrastructure overload from increased servicing as a result of prospecting, exploration and drilling activities.
- Potential impacts from seismic surveys from prospecting activities on migratory bird populations.
- Exclusion areas, this includes Mātaitai, Taiāpure, Tauranga Ika and marine reserves.
- Contingency measures.
- Balancing economic benefits with environmental impacts.
- Relationships between stakeholders and Ngāi Tahu ki Murihiku.
- Treaty and Crown Mineral responsibilities.

Ngā Kaupapa – Policy

1. Any activity within, adjacent to or that may potentially impact on Statutory Acknowledgment area, including Rakiura/ Te Ara a Kiwa (Stewart Island/Foveaux Strait Coastal Marine Area), will require consultation with both Te Rūnanga o Ngāi Tahu, Ngāi Tahu ki Murihiku and Tangata Tiaki gazetted under the SI Customary Fishing Regulations.
2. Require that information is provided to Ngāi Tahu ki Murihiku with regard to activities including prospecting, exploration, drilling and mining activities within Southland's coastal environment.
3. Ensure compliance and recognition of Treaty requirements under the Crown Minerals Act 1991. This includes consultation with respect to issues surrounding permitting in respect to prospecting, exploration, drilling and mining activities.
4. Avoid disturbance of areas of cultural significance (including Mātaitai and Taiāpure) by any prospecting, exploration, drilling and mining activities.
5. Ensure early Ngāi Tahu ki Murihiku involvement in Cultural Impact Assessments to ascertain issues and impacts on values from prospecting, exploration, drilling and mining activities. This includes potential impacts from seismic surveys from prospecting activities on migratory bird populations.

6. Ensure Ngāi Tahu ki Murihiku involvement in decision making processes when determining exclusion areas, particularly in respect to location of culturally significant sites and mātaitai areas.
7. Ensure that risk assessment and contingency measures are put in place prior to any exploration activities to reduce the likelihood of spills or leaks and the effects this may have on existing ecosystems, migratory birds, and marine mammals while present in coastal waters.
8. Recognise that any prospecting, exploration, drilling and mining activities will have an increased demand on onshore infrastructure and facilities and to ensure that the potential impacts of any new development or upgrading of existing facilities recognise for environmental sustainability.
9. Promote best mining practices and their adherence during any prospecting, exploration, drilling and mining activities.
10. Promote efficient waste disposal mechanisms during any prospecting, exploration, drilling and mining activities.

Cross reference:

Provisions 3.6.2 Coastal Land Use and Development, 3.6.3 Structures in the Coastal Marine Environment, 3.6.4 Coastal Access, 3.6.5 Coastal Water Quality – *Te Ākau Tai Tonga* – Southland's Coastal Environment

Information source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Venture Southland website – **www.venture.southlandnz.com**

Ministry of Fisheries website **www.fish.govt.nz**

Kai Tahu Ki Otago Natural Resource Management Plan 2005

MAHINGA KAI AND BIODIVERSITY

'Ahakoa kia pā to upoko o Te Maoana-Tāpokopoko-a-Tāwhaki ki ngā takutai o Te waka-o-Aoraki, Engari, I tākekea te kupenga a Tahu kia oioi I roto I te nekeneke o te tai"

"Although the shores of Te Waiponamu may be buffeted by the turbulent currents of the great waves of the southern oceans the fishing net of Tahu has been made flexible so as to move at one with the tides"

Importance of fishing to Ngāi Tahu – Whakataukī, Te Whakatau Kaupapa o Murihiku 1997, page 43

For Ngāi Tahu, fish were and continue to be of great cultural, social and economic significance. The collection and processing of mahinga kai includes the places, ways of doing things and the resources that sustain cultural well-being. Traditional foods and their maintenance are essential to continued health and well-being.

The following issues and policies should be read in conjunction with provisions 3.5.16 Mahinga kai and 3.5.17 Ngā Pononga a Tāne a Tangaroa -Biodiversity 3.5.18 Repo – Wetlands in Section 3.5 Te Rā a Takitimu- Southland Plains.

3.6.13 Coastal Ecosystems

Ngā Take - Issues

- The potential loss of areas of significant indigenous vegetation and habitats found within the coastal environment.
- Protection of intrinsic values of ecosystems.
- The potential loss of natural and unique estuarine values.
- Past use of estuarine areas.
- Changes in coastal landscape and biodiversity may affect cultural relationships with ancestral lands, waters, wāhi tapu and wāhi taonga.

- Enhancement of wetland areas.
- Restocking of coastal lagoons and waterways.
- Establishment of coastal reserves.
- Establishment of marine protected areas.
- The importance of wetland areas as a source of mahinga kai.
- Continued access to coastal mahinga kai and customary use sites.
- Protection of threatened species.
- Maintaining healthy kaimoana.
- Coastal dune damage and disturbance of wāhi tapu.
- Protection of bird nesting areas.
- Threats to indigenous marine biodiversity from exotic species.
- New bioinvasions and biosecurity risks, and the need to stay informed.
- Fouled hull vessels.

Ngā Kaupapa - Policy

1. Avoid coastal activities that may disturb, and have a direct or indirect detrimental impact, on areas of significant vegetation and habitats. Direct impacts may be physical damage while indirect impacts may include effects arising from siltation, deposition or displacement over time.
2. Advocate protection of species located in the coastal environments that are of cultural importance to ensure continued cultural well-being.
3. Have active involvement in promoting the understanding of ecosystem interactions within the coastal environment and the impacts that changes to water quality and levels of deposition and disturbance may have on each organism and their subsequent role in maintaining ecosystem health.
4. Promote the uniqueness of estuarine ecosystems through maintenance and enhancement of their productive nature.
5. Provide and recognise for the strong cultural links with coastal landscapes and biodiversity held by Ngāi Tahu ki Murihiku.
6. Avoid changes to coastal landscapes and biodiversity which have detrimental impacts on Ngāi Tahu ki Murihiku relationships and associations with coastal land, water, wāhi tapu and wāhi taonga areas.
7. Recognise for the importance of coastal wetland areas as mahinga kai communities and, where appropriate, expand or create new coastal wetland areas.
8. Advocate and support initiatives for restocking of lagoon and other coastal waterways with indigenous fish species and be actively involved in maintaining these areas as a suitable fishery habitat.
9. Ensure Ngāi Tahu ki Murihiku participation in the development of new coastal reserves and/or marine protected areas to ensure an assessment is undertaken with respect to effects of such on areas of cultural importance and continued access.
10. Advocate for protection and methods of enhancement of threatened coastal species, particularly those of cultural significance.
11. Promote the importance of the health of kaimoana in coastal waters.
12. Ensure continued access to coastal areas for customary use and to promote continued support among local authorities to ensure such access is maintained.
13. Avoid adverse impacts on vulnerable coastal dune environments as a result of subdivision, residential development, forestry, farming, mineral extraction, tourism and general pubic access.
14. Encourage and support projects for the re-establishment and restoration of indigenous plants in coastal dune environments.
15. Discourage use of recreational vehicles or coastal activities whereby dune environments may be damaged and bird nesting areas threatened.
16. Support and encourage information sharing between agencies with respect to coastal biosecurity risks.
17. Support effective communication among coastal users with respect to risks posed by entry of unwanted organisms to New Zealand marine environments.
18. Avoid cleaning of hulls or "lay-ups" whereby indigenous marine biodiversity will be compromised. Agencies should form best practice protocol for such activities and actively implement these among coastal users.

Information Source:

Te Poha o Tohu Raumati - Te Rūnanga o Kaikōura Environmental Management Plan 2005

Regional Coastal Plan for Southland - July 2005

New River Estuary – Waihōpai

The Regional Coastal Plan for Southland (July 2005) recognises that estuaries are important for breeding and feeding of migratory species as well as areas for maintaining indigenous flora and fauna. Estuaries are unique environments that are vulnerable to modification.

Past use of New River Estuary, Invercargill's main estuary has resulted in reduction of biodiversity and amenity values. Through agency interaction it has been determined that the natural and cultural values that do remain should be maintained and enhanced and the estuary should become an asset to our city.

To maintain and enhance values that contribute to the mauri of the estuary the estuary should be:

- A city playground- a family environment, allow for varied water sports
- A symbol of Invercargill - an estuary on display
- A significant habitat – native species exist along side humanity, a refuge for freshwater and marine species, a spawning ground, a feeding and roosting area
- A retreat- an opportunity to experience a natural setting, where the estuary predominates as an ecosystem and human influences are unobtrusive
- A place of learning – where people can discover the heritage of Southland, where people can gain an understanding of a natural unique ecosystem, the interface of land, sea and freshwater, where through research a programme for restoration of the estuary can be developed
- A food basket – where there are no health risks from consuming the products of recreational fishing and shellfish gathering
- An opportunity for commercial use – allowing for commercial uses which are in harmony with nature and other uses.
- A place with historical and geological values

Agency interaction to maintain and enhance the values associated with New River Estuary is paramount. It is an ideal example of a modified ecosystem that still retains a diverse range of values. Past degradation of natural character now requires continued enhancement to ensure the benefits of the estuary can be enjoyed by future generations and visitors to our region.

Regional Coastal Plan for Southland – July 2005 Section 6, pp3-5

3.6.14 Marine Birds

A number of marine birds are found within the coastal regions of Southland and sub-Antarctic waters. Many of these birds are taonga species and some of these represent an important source of mahinga kai.

Many marine birds are subject to external factors which influence population numbers. The effects can either be direct or consequential of changing climatic patterns. Certain fishing practices cause many seabird deaths and fluctuations in global weather patterns and ocean warming seems to indicate a link between population numbers and food chain supplies. Pollution events present a risk to marine birds. Everyday pollution such as discharge and dumping of waste are becoming ever present and plastics often mistaken as food and fed to young.

One important migratory marine bird for Ngāi Tahu ki Murihiku is the Tītī (sooty shearwater or muttonbird). The main breeding colonies are located on the Snares, Chatham Islands and the Tītī Islands adjacent to Rakiura, Stewart Island. Most tītī return to these Islands in late September, early October to prepare for the new breeding season. While feeding young, adult tītī feed on squid, fish crustacean and salps in the southern waters. It is estimated that tītī spend 90-95% of their life at sea coming ashore only for breeding. At sea tītī are prone to changes in weather patterns, changes to the biodiversity found within coastal water, pollution and fishing practices.

Ngā Take – Issues

- Protection of nesting and feeding areas.
- Protection of tītī in Southland's coastal environment.
- Development of coastal structures.
- Effects of light pollution.
- Seabird by-catch from inappropriate fishing techniques.
- The potential loss of areas of significant indigenous vegetation and habitats found with in the coastal environment.

Ngā Kaupapa – Policy

1. Recognise for Ngāi Tahu ki Murihiku cultural, historical and spiritual association with taonga species. Such associations must be provided for within all management planning documents (Taonga Species as listed under the Ngāi Tahu Claims Settlement Act 1998 are found in Appendix 4)
2. Protect coastal environments in which marine birds nest and feed, particularly tītī populations.
3. Continue working with local authorities to ensure the protection and education of the public of important marine bird populations.
4. Avoid compromising marine bird habitats as a result of inappropriate coastal land use, subdivision or development.
5. Become actively involved in research and investigation programmes that will enhance marine bird populations and habitats.
6. Encourage techniques to eliminate the effects of light pollution from coastal structures on migratory marine birds.
7. Promote appropriate fishing techniques among fishers to avoid sea bird by-catch.

Cross reference:

Provision 3.6.12 Offshore Petroleum Exploration, Section 3.6 *Te Ākau Tai Tonga* – Southland's Coastal Environment

Information Source:

Te Poha o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan 2005

Rakiura Tītī Islands Management Plan Draft – March 2007

WĀHI TAPU ME TE WĀHI TAONGA
SACRED AND TREASURED SITES

The importance of Awarua, Bluff Harbour

Extract taken from Te Whakakau Kaupapa o Murihiku 1997, p60

Bluff Harbour is an expanse of water almost totally enclosed by land. As it is affected by tidal flow it is kept clean and the water clear, supporting a wide variety of fish, shellfish and edible seaweeds. Because of this it has always been an important source of kaimoana for the local Māori people.

There was always an abundance of seafood to be gathered in and around Bluff Harbour by the tūpuna (ancestors), namely Pipi (cockles), Kūtai (mussels), Roro (similar in shape to the toheroa), Pāua, Kina (sea eggs), Pātiki (flounders), and many other fin fish, and these are still in demand today. There are also Inanga (whitebait) and Tuna (eels) in all the creeks which run into the harbour.

The tangata whenua of this area have always been able to live well from the sea, and to treat manuhiri (visitors) to these delicacies, thus becoming known near and far for their hospitality.

The type of kelp found at the entrance to the harbour is suitable for making pōhā, (a kelp bag in which muttonbirds were preserved and stored), and is still used by some for this purpose today. Many archaeological sites are situated in and around the Bluff harbour area. There are sites on Tiwai where stone used for weapons, tools and ornaments, was quarried, and taken to sites elsewhere for working and finishing.

There were also a number of burial sites around Tiwai and the Ōmāui area, which must be protected and undisturbed. For these reasons it is unacceptable to the tangata whenua to have the harbour or its surrounds polluted in any way. Oil spills from ships berthed at the wharves or from shore installations, burst sewage pipes, contamination from the smelter, or from shore line industries, are all potential sources of pollution and we must be continually aware of this.

Te Whakatau Kaupapa o Murihiku, p 60

The Significance of Ōmāui/Ōue

Mokomoko/Ōmāui/Ōue are considered some of the oldest sites of Māori settlement in New Zealand, dating back as far as 800 AD.

Manawhenua maintain strong ancestral connections with the area. Oral traditions of this coastal area indicate that there are numerous Māori burials in the area and associated taonga. The Ōmāui Green Hills near Bluff were a very important area for Māori and although it did not support a large population, it was occupied over a very long period of time. The principle settlements were at Ōmāui and Te Kaika a Te Wera, slightly west of the once Ocean Beach Freezing Works. Disturbance or development within these areas has potential to unearth unrecorded archaeological sites of significance to Māori.

Whalers Bay submission points- Te Ao Mārama Inc

3.6.15 Protection of Significant Coastal Sites

Ngā Take – Issues

- Fossicking.
- Continued access to and protection of significant sites.
- Protection of unknown sites.
- Accidental finds as a consequence of ground disturbance from coastal land use.
- Passing on traditions and knowledge of significant sites to our tamariki.
- Ensuring respect for those places that are important to us.
- Inadequate or incomplete registers of sites.

Ngā Kaupapa – Policy

1. Ensure that Ngāi Tahu ki Murihiku are able to effectively exercise their role as kaitaiki over wāhi tapu and wāhi taonga within Southland's coastal environment.
2. Maintain good working relationships with those agencies involved in the protection of historic and cultural resources within Southland's coastal environment.
3. That coastal urupā be guaranteed full protection and access by Ngāi Tahu kaitiaki and whānau through working with landowners and the wider community to develop working relationships and an understanding of the importance of these areas.
4. Ensure protection over, and recognition of, Ngāi Tahu ki Murihiku ancestral relationships with tauranga waka sites within Southland's coastal environment. Any development that may potentially disturb these sites may only occur following formal approval from Ngāi Tahu ki Murihiku.
5. Maintain good working relationships with those agencies involved in the protection of historic and cultural resources to ensure support for the protection and acknowledgment of Ngāi Tahu ki Murihiku association with these resources.
6. Avoid compromising unidentified, or unknown, sites of cultural significance as a consequence of ground disturbance associated with coastal land use, subdivisions and development.
7. Ensure that coastal archaeological sites of interest to Ngāi Tahu Whānui are protected and that any modification of these sites are approved by Ngāi Tahu ki Murihiku.
8. Applications for activities in areas of cultural significance where there are no known sites but the likelihood of finding sites is high, may require one or more of the following (at the cost o the applicant):
   a. site visit;
   b. archaeological survey (walk over/test pitting), or a full archaeological description, by an archaeologist approved by Ngāi Tahu ki Murihiku;
   c. archaeological authority;
   d. cultural impact assessment;
   e. cultural monitoring;
   f. accidental discovery protocol agreement.
9. Where an archaeological site survey is required to assess the cultural heritage values in an area, the archaeologist must have the mandate of the appropriate kaitiaki rūnanga.
10. Any site that fulfils the criteria of the Historic Places Act 1993, whether recorded or not (it just has to be suspected) is protected under the Act. This refers to unexpected sites that may be uncovered during development, even after approval of the overall project has been consented by Ngāi Tahu ki Murihiku.
11. To ensure that resource consent applicants are aware that liaising with iwi on the cultural impacts of a development does not constitute an archaeological assessment.
12. Any interpretation or portrayal of Ngāi Tahu history or association with wāhi tapu or wāhi taonga is subject to policies for cultural interpretation, as per provision 3.3.9 of this Iwi Management Plan.

Information Source:

Southland Coastal Marine State of the Environment website **www.ara.org.nz**

Te Whakatau Kaupapa o Murihiku 1997

3.6.16 Wāhi Ingoa – Place Names

The Ngāi Tahu ki Murihiku policy guide with respect to wāhi ingoa, place names is set out in Section 3.5 *Te Rā a Takitimu* – Southland Plains, provision 3.5.22. Please refer to these policies as a guide for activity with Southland's coastal environment.

Demonstrating Cultural Association with Tumu Toka, Curio Bay

Extracts from a Cultural Impact Assessment for a development proposal at Tumu Toka, Curio Bay Reserve, Awarua Rūnanga June 2004

Background material

Tumu Toka, Curio Bay is situated on the South Eastern Coast of Murihiku. The Islands of Rakiura and Ruapuke are visible from the bay on clear days and Te Ara a Kiwa, Foveaux Strait runs past its shores.

Tumu Toka and its surrounding bays and estuaries were traditionally and still are an important mahinga kai area. The whole area offered a bounty of mahinga kai including a range of kaimoana, sea fishing, egg gathering of sea birds and marine mammal hunting. The mauri of the area represents the essence that binds the physical and spiritual elements of all living things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu with the Tumu Toka coastal area.

Areas of significant cultural value affected by the development proposal

Terehu, Cooks Creek

The fresh water from the creek combined with the saltwater provide dolphins with a significant food source. The creek is also a feeding ground for Pātiki (Flounder). The quality of the water and how it impacts on dolphins and traditional food sources is of huge significance to Ngāi Tahu Whānui.

Wāhi Tohu

Fishing marks are still used today by local whānau. They are landmarks taken from the sea on to the land. These may be destroyed by development, obscured by the profiles of buildings, or their landscape context compromised.

Wāhi Tapu

Sites of occupation are evident throughout the Tumu Toka reserve area. Urupā are the resting places of Ngāi Tahu tūpuna and as such are the focus for Whānau traditions. These places hold the memories, traditions, victories and defeats of Ngāi Tahu tūpuna. These areas should be respected at all times.

Tumu Toka, Curio Bay

Tumu Toka means stumps of rock and wood.
This area is Petrified Forest and has been utilised for many generations a kōhanga (nursery) for fish and also a place to gather rimurapa a type of bull kelp used to make poha for tītī bird storage.

Whaling Station

Eight generations of the Wybrow whānau fished from Waikawa harbour. Evidence remains today at the mouth of the Waikawa of whaling activity. This area is still a traditional fishing ground for many Ngāi Tahu Whānui.

Mahinga kai

From the Tumu Toka Bay the tide flows up into the harbour at Waikawa, and makes its way to the Waikawa River. This area was sought after for the numerous mahinga kai found and utilised in season. Ngāi Tahu Whānui travelled to gather their kai in the Tumu Toka area and the Waikawa River. Some of the mahinga kai gathered was: Kana Kana (Lamprey), Inanga (whitebait), Tuna (eel), Pātiki (Flounder), karenga (seaweed) tuaki, tio, paua, kina, mullet, rāwaru (blue cod) and hoka (red cod), mako shark, kōura, kōkopu (native trout), Tī kōuka (cabbage tree), hāpuka (groper) and koroama (sardines).

Tītī (mutton birds)
The tītī always have had a brief stop over at Tumu Toka and settle in the bay for a time on their long journey. Koroama (sardines) are normally in the bay at this time for the tītī to feed on.

Te Ara a Kiwa-Foveaux Strait
Foveaux Strait holds great legends of Kewa the whale.
Kiwa is an ancestor of Māori who traversed this coastline and became tired of crossing the isthumus which then joined Rakiura and Murihiku. Kiwa requested the obedient Kewa (whale) to chew his way through the land separating Rakiura and Murihiku. The crumbs that fell from his teeth while chewing are the islands of Ruapuke, Rakiura and the Tītī Islands. This area is of huge cultural significance to Ngāi Tahu whānau, while Rakiura is viewable on a clear day from Tumu Toka. These places are where battles were won and lost for Ngāi Tahu Whānui. Ruapuke was the most southern place the Treaty of Waitangi was signed by the great southern chief Tuhawaiki.

Āra Hikoi
An ancient tract (ara) is evident from Waikawa that travels the coastline through to Curio Bay. This track was made by early Māori to frequent the area for gathering food and other resources, such as stone and wood. Ngāi tahu whānau also traversed this area for trade, while hapū also lived and died in the areas of Waikawa and Tumu Toka.

Ngahere (forest)
Black mud for dying clothing was sought after in this area. Stone was also used from this area for tool making due to its strength and durability. Many types of native trees and berries were utilised for dyes and medicinal purposes as well as clothing.

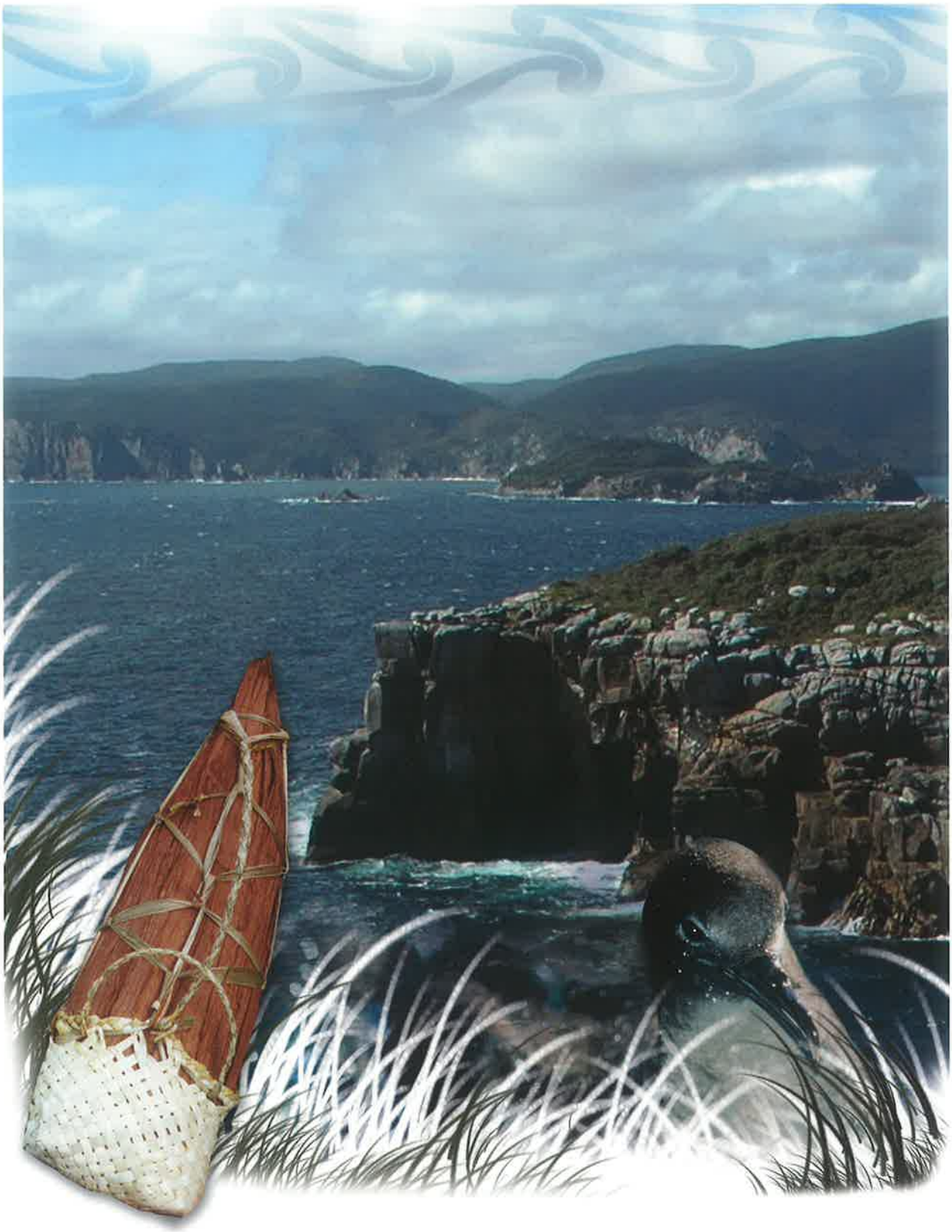
Brothers Point named Turimokomoko

This is a significant site to the whānau for its name is about a lizard within Māori legend and guidance that it incorporates for the whānau. This point is still used today for guidance for fishing and weather conditions going and coming from the area of Tumu Toka. The condition or state of the sea is often gauged from this point.

Concerns raised with respect to development by Awarua Rūnanga
Tourism within the area needs to be developed in a way that does not conflict with Ngāi Tahu cultural values both historically and within a modern context, to enable Ngāi Tahu whānau to maintain their relationship with the traditions embodied in the landscape and to enable continuity of customary use of the area.

In respect to use of the ancient Ara (track) from Waikawa through to Curio Bay, a large number of people using this pass will cause an impact on the environment and diminish the traditional experience.

Brothers Point could be destroyed by the proposed development as it would be obscured by buildings and structures.



3.7 Offshore Islands
Ngā Moutere o Murihiku

Ka tangi te tītī
Ka tangi te kākā
Ka tangi hoki ko au

The tītī calls
The kākā calls
I also call
the people

Photo credits for artwork (previous page)

Main Photo
Source: Zoology Department Otago University

Pōhā (kelp bag)
Source: Metzger Whānau, Bluff

Tītī (muttonbird)
Source: Zoology Department Otago University

Imagery

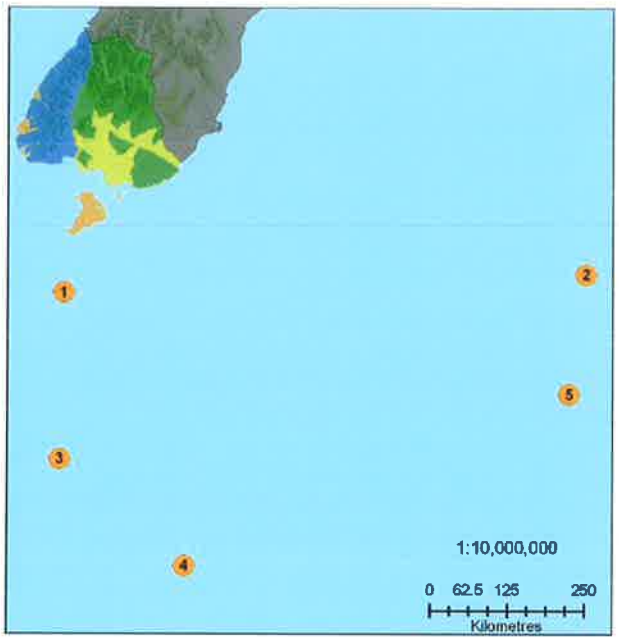
The Offshore Islands were an abundant source of food especially the tītī.

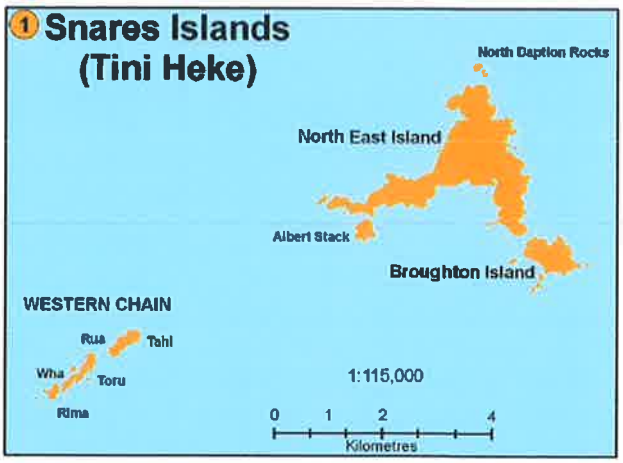
3.7

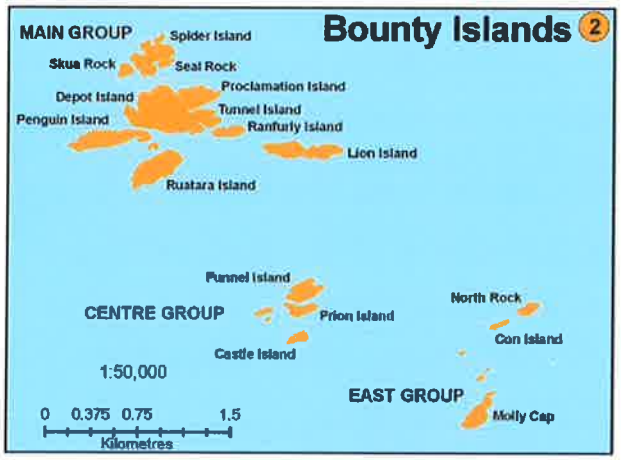
Ngā Moutere o Murihiku
Offshore Islands

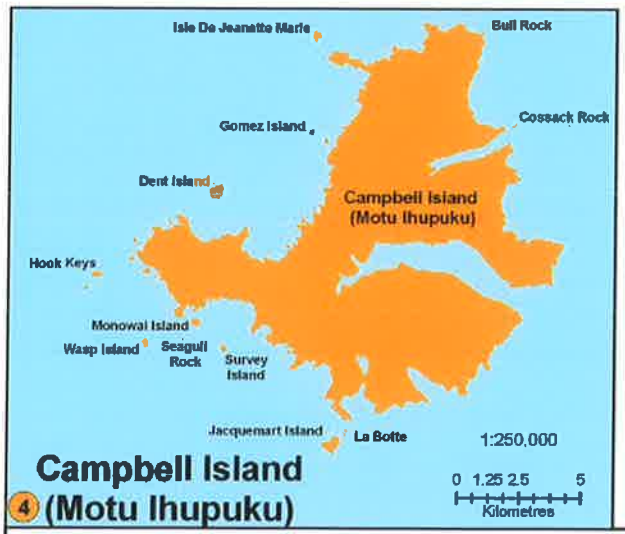
This section of the plan describes ngā take and ngā kaupapa associated with Offshore Islands within Murihiku. For the purposes of this section Offshore Islands includes the lands of islands located off the Murihiku coast (including Rakiura, the Subantarctic Islands (see map on page 204) and Fiordland), and islands found in rivers and in lakes.

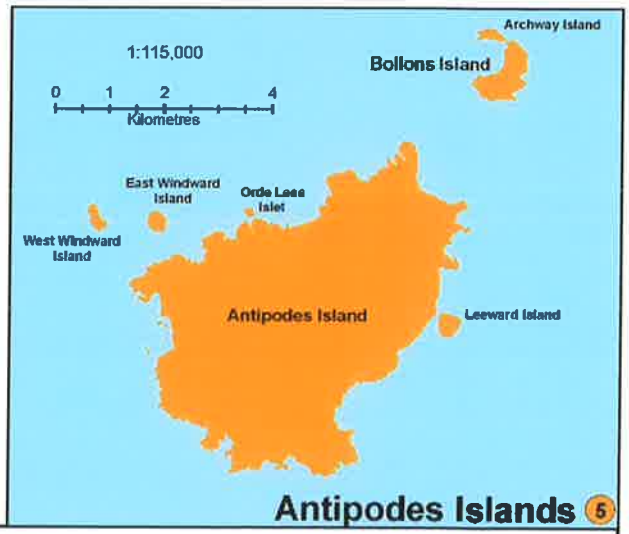
A point of difference in which Ngāi Tahu ki Murihiku wish to acknowledge with respect to this section as opposed to other sections prior, is that the policies have been formed at a higher more general level rather than being specific to individual Offshore Islands. Ngāi Tahu ki Murihiku recognise and acknowledge that the management of Offshore Islands in many cases lies with many and in many ways varying management agencies, administering bodies, other agencies and/or groups.











Sub-Antarctic Islands

Te Tangi a Tauira

Area

- Ngā Moutere o Murihiku - Offshore Islands
- Takitimu me ona uri - High country & Foothills
- Te Ātawhenua - Fiordland
- Te Ra o Takitimu - Southland Plains

This map was prepared for Te Tangi a Tauira, Ngā Tahu Ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008. While considerable effort has been made to ensure that the information on the map is accurate & current, this can not be guaranteed. The map should not be used for anything other than its intended purpose.

Ngāi Tahu ki Murihiku support existing management regimes in so much as these regimes determine some form of protection and enhancement of Offshore Islands within their natural state. Ngāi Tahu ki Murihiku have no desire to impose or dictate regulations or restrictions over those managing Offshore Islands but instead wish to highlight issues that affect all Offshore Islands and promote a general consensus among bodies/persons of the issues and need for protection or enhancement in some way.

The policies outlined in this section advocates for many of the existing programmes in place and further emphasise the existing and continuing nature of joint management programmes, consultation and participation with tangata whenua. Ngāi Tahu ki Murihiku acknowledge and support the various persons (bodies, trusts, committees, landowners and individuals) in their efforts to sustainably manage Offshore Islands in Murihiku.

This section of the plan places emphasis on issues affecting all Offshore Islands and advocate for continued collaboration among all groups managing such environments. Of particular importance is policy outlining retention of natural vegetation and fauna, species recovery and translocation, pest management including advocating for pest free islands where possible, issues of biosecurity and tourism and protection of surface/ground waters.

In addition this section outlines an example of existing management regimes on some Offshore Islands which Ngāi Tahu ki Murihiku acknowledge.

Section 3.7
Ngā Moutere o Murihiku - Offshore Islands

- Retention of Natural Vegetation Habitat and Fauna
- Species Recovery and Translocation
- Pest Management
- Biosecurity
- Tourism
- Water Policy
- An Example of an Existing Management Regime

General issues and Policy Affecting Offshore Islands

3.7.1 Retention of Natural Vegetation, Habitat and Fauna

Offshore Islands which form part of the Murihiku natural environment represent resources of significant natural and cultural values for Ngāi Tahu ki Murihiku. Values associated with Offshore Islands include landscape features, indigenous vegetation, habitats of fauna and cultural and spiritual values. Retention of such values including the protection of customary rights is a key focus for Ngāi Tahu ki Murihiku.

Ngā Take - Issues

- Retention of indigenous vegetation and habitats of fauna.
- Activities that damage, threaten or detract from the natural and cultural values or ecosystems.
- The ability to exercise rangatiratanga with respect to managing Offshore Islands in accordance with cultural preferences and customary rights.
- Maintenance and restoration of mahinga kai areas and species.
- Customary use of native birds, plants and other materials on conservation land.
- Relationship between iwi and the Department of Conservation, *Te Papa Atawhai* regarding customary use.
- Protection of taonga species and indigenous flora and fauna.
- Continued access for mahinga kai and other cultural purposes.
- Ensuring sustainable harvest of mahinga kai (flora and fauna).
- Future use and management of all lands on Offshore Islands including conservation lands.
- Role of Ngāi Tahu ki Murihiku in determining future use and management.
- Consultation into immediate protective mechanisms to prevent further damage.

Ngā Kaupapa – Policy

1. Activities on Offshore Islands should not damage, threaten or detract from the natural and cultural values and ecosystems given the inherent attributes and values linked to these Islands.
2. Advocate for the maintenance of natural vegetation on Offshore Islands.
3. Advocate for the restoration, maintenance and enhancement of natural vegetation and ecosystems.
4. Advocate for the harvesting of unique biodiversity to assist with restoration projects on similar Offshore Islands or areas.
5. Educate Offshore Island users of the importance of taonga species and the links to ecosystem enhancement.
6. Support, where appropriate, the retirement of land into conservation estate or placement of covenants over forest remnants and/or vegetative bush to protect habitats of taonga species.
7. Encourage continued joint management arrangements and programmes between Ngāi Tahu ki Murihiku and the Department of Conservation, *Te Papa Atawhai* with respect to vegetation clearance, restoration and enhancement.
8. Ensure that existing protocols between Ngāi Tahu, Ngāi Tahu ki Murihiku, the Department of Conservation, *Te Papa Atawhai* and other agencies (or their successors) are adhered to in the management of Offshore Islands. These protocols should be appropriately implemented in accordance with legislation (e.g. Ngāi Tahu Claims Settlement 1998 protocol and Ngāi Tahu Deed of Settlement Act 1997)
9. Ensure access rights for Ngāi Tahu ki Murihiku to Offshore Islands are recognised, provided for and not compromised by the Crown.
10. Identify cultural values associated with Offshore Islands and the mechanisms provided to protect such values.
11. Support management plans, efforts and strategies prepared by owners of, or administrators of, Offshore Islands which recognise for historical and cultural association and expertise and promote sustainable management.

Information Source:

Assessment of Cultural Effects- Proposed Rakiura National Park- October 2000

Fiordland National Park Management Plan – June 2007 Part Two and Part Four

Department of Conservation, *Te Papa Atawhai* website – Southern Islands Area **www.doc.govt.nz**

Draft Rakiura Tītī Islands Management Plan – March 2007

3.7.2 Species Recovery and Translocation

Many of the Offshore Islands support fragile environments and are home to a number of taonga species. Many of these species are threatened and in some cases have been lost as a result of predation. A number of the Offshore Islands including a number of tītī islands, Fiordland and Subantarctic Islands have supported successful eradication programmes and now provide pest free havens for many endangered species for example, the tīeke South Island saddleback and kākāpō.

Ngāi Tahu ki Murihiku advocate for species recovery and translocation provided provisions within the Ngāi Tahu Claims Settlement Act 1998 are recognised and provided for and other established protocol with management agencies adhered to. Species translocation includes, between areas, from wild into captivity and from captivity into wild.

Ngā Take – Issues

- Recognition of Ngāi Tahu ki Murihiku as kaitiaki of taonga and endemic species, including aquatic.
- Ecological appropriateness of the translocation.
- Emergency translocation situations.
- Consultation with Ngāi Tahu ki Murihiku.
- Source populations and release locations.
- Opportunities for Ngāi Tahu ki Murihiku participation.
- Risks of potential pathogen and disease spread through translocation.
- Monitoring species recovery.
- Research that is culturally appropriate.

Ngā Kaupapa – Policy

1. Promote that all species endemic to New Zealand are taonga.
2. Recognise and promote management of taonga species listed (including aquatic) in accordance with the Ngāi Tahu Claims Settlement Act 1998.
3. Ensure management agencies, administering bodies, other agencies and/or groups recognise the function of customary duty by Ngāi Tahu ki Murihiku as kaitiaki over natural and historic taonga according to tikanga.
4. Management agencies, administering bodies, other agencies and/or groups must advise (in advance) Te Rūnanga o Ngāi Tahu and Ngāi Tahu ki Murihiku of any relevant conservation strategies, reviews, policies or documents including species recovery and translocation proposals relating to taonga and endemic species on Offshore Islands.
5. Management agencies, administrating bodies, other agencies, and/or groups should provide sufficient time for Ngāi Tahu ki Murihiku to consider methods of transfer, source populations, release locations, control and protection of the species after the fact on Offshore Islands.
6. Encourage management agencies, administering bodies, other agencies, and/or groups to present Offshore Island activity proposals with a balanced delivery offering both audio visual and oral delivery of the kaupapa/work.
7. Ngāi Tahu ki Murihiku advocate for continued involvement and identification of participation throughout translocation and species recovery programmes by local rūnanga papatipu members on Offshore Islands. Such involvement will benefit local knowledge, assist sustainability, build capacity, share responsibility, accelerate change, build trust and work within economies of scale.
8. Encourage management agencies, administering bodes, other agencies, and/or groups in the planning process to identify key audiences, messages and risks to reduce levels of conflict, increase awareness and generate informed media coverage.
9. Recognise and provide contingency methods for potential risks associated with spread of disease and potential pathogen transfer to endemic and already present indigenous fauna on Offshore Islands.
10. In circumstances where an unexpected major threat to a species or population has been identified and insufficient time does not allow for consultation of the translocation proposal to occur prior to transfer; management agencies administering bodies, other agencies and/or groups should assess situations based on past experiences, knowledge passed from local iwi and established emergency procedures. Actions must demonstrate and uphold the good faith established between themselves and Ngāi Tahu ki Murihiku. Ngāi Tahu ki Murihiku advise that in such situations a full debrief and outline of further protection methods of the species post action are essential.

Information Source:

Translocation of New Zealand's Indigenous Flora and Fauna Standard Operating Procedure, Aug 2004, Department of Conservation

3.7.3 Pest Management

Many of the Offshore Islands support fragile environments of which many are unmodified and home to the last remnants of endemic wildlife species in New Zealand. A number of the Offshore Islands have been subject to restoration projects whereby natural biodiversity has been restored and wildlife species reintroduced. Maintaining Offshore Islands in their natural beauty rests on the ability to implement pest management and quarantine programmes.

Examples of such programmes have occurred on Stewart Island where local residents have carried out and continue to carry out extensive trapping of predators to encourage the return of a diverse birdlife; Ulva Island is a pest free sanctuary; and Campbell Island boasts the world's largest rat eradication project and reintroduction of the teal population. The Bounty Islands, the Antipodes Islands, the Snares Islands, the Auckland Islands and Campbell Island represent our most southern of Offshore Islands located in the Southern Ocean. All five sets of Islands are nature reserves in which the Department of Conservation, *Te Papa Atawhai* has been charged with protecting and preserving these islands in perpetuity in collaboration with Ngāi Tahu ki Murihiku. Entry to these Islands is by permit only and is undertaken through a thorough consultation process. Admittance to these Islands is strictly bound by adherence to the minimum impact code which the Department of Conservation, *Te Papa Atawhai* administers.

These Islands represent the most untouched and unexploited areas of New Zealand. Ngāi Tahu ki Murihuku support the protection and enhancement of all Offshore Islands to ensure ecosystems remain intact and where appropriate eradication of pests and

reintroduction of indigenous species are advocated and undertaken in accordance with the principles of the Treaty of Waitangi.

The following issues outline concerns raised by Ngāi Tahu ki Murihiku in respect to predation and eradication of pest species. Many of the policies are supported by provisions elsewhere in the plan, particularly in Section 3.3 Fiordland and Section 3.4 High Country and Foothills. Polices within this section "Offshore Islands" should be read in conjunction with similar policies.

Ngā Take - Issues

- Impact of unwanted introduced plant, bird and animal species on indigenous flora and fauna.
- Consultation processes associated with biosecurity and quarantine issues.
- Protection of mauri of waterways.
- Non target impacts of pest control.
- Reporting of loss or harm to indigenous species due to predation.
- Participation and management of the environment as kaitiaki.
- Capacity building with respect to local rūnanga papatipu involvement with eradication and research programmes.

Ngā Kaupapa - Policy

1. Advocate that all management decisions shall take into account the protection and survival of indigenous species of flora and fauna (rare and not rare) in their natural habitats and ecosystems.
2. Require that monitoring of plant and animal pest control operations for adverse effects on indigenous species is included in any pest management operation.
3. Encourage that all pest management operations are conducted in a way that minimises impact on non-target species.
4. Protect and enhance the mauri or life supporting capacity of all Offshore Island waterways.
5. Encourage those entering Offshore Islands for specific purposes to be aware and report any loss of indigenous biodiversity as a result of predation or browsing activity.
6. Advocate for active participation by Ngāi Tahu ki Murihiku in research, planning and priority setting for eradication or population control actions that are administered by management agencies, administering bodies, other agencies and/or groups on Offshore Islands.
7. Advocate for active involvement of Ngāi Tahu ki Murihiku in population control or eradication objectives established on Offshore Islands.
8. Advocate capacity building among management agencies and administering bodies (i.e. local government, committees, crown entities) for involvement and provision of resources for Ngāi Tahu ki Murihiku in research, eradication and population control programmes.

Cross-reference:

Provision 3.3.16 Plant and Animal Pest Control - Section 3.3 *Te Atawhenua* - Fiordland Provisions 3.4.10-3.4.11 Plant Pest and Animal/Bird Pests - Section 3.4 *Takitimu me ona uri* - High Country and Foothills

Information Source:

Assessment of Cultural Effects - Proposed Rakiura National Park- October 2000

Fiordland National Park Management Plan - June 2007 Part Two and Part Four

Department of Conservation, *Te Papa Atawhai* website- Southern Islands Area **www.doc.govt.nz**

3.7.4 Biosecurity

Increasing levels of human interaction with Offshore Islands leads to the potential introduction of unwanted organisms which may have a considerable impact on indigenous biodiversity. Unwanted organisms can include pest plants and animals, exotic diseases, fungi, and algae. The introduction of such organisms can be deliberate or inadvertent.

Given the unknowns surrounding "when" and "if" such introductions will occur, recognition of the risks such organisms present to Offshore Islands by both those managing and visiting the areas is paramount. Introducing systems to monitor for such risks and taking action to eradicate or contain further spread is of concern to Ngāi Tahu ki Murihiku. Ngāi Tahu ki Murihiku strongly endorse involvement in any decision making process affecting such areas.

The promotion, (through awareness) of risks associated with the introduction of unwanted organisms among users and managers is essential. Awareness of these

risks emphasises the value of the Offshore Island areas as ecological and cultural landscapes, and encourages avoidance of actions that might damage those values.

Ngā Take – Issues

- Involvement of Ngāi Tahu ki Murihiku in decision making processes.
- Effects on indigenous biodiversity and mahinga kai.
- Protection of taonga and endemic species.
- Impacts on inland waterways.
- Public access and quarantine.
- Inadvertent introduction of unwanted organism.
- Monitoring of biosecurity risks.
- Eradication, containment and control programmes.
- Appropriate management to reduce risks.

Ngā Kaupapa – Policy

1. Prevent the introduction, reintroduction and establishment of unwanted organisms on Offshore Islands.
2. That all research linked to biosecurity within Murihiku and particularly on Offshore Islands that relates to significant flora, fauna, resources and places should include consultation provisions with Ngāi Tahu ki Murihiku.
3. Encourage monitoring of Offshore Islands by management agencies, administering bodies, other agencies, groups and/or users for biosecurity risks. Any action undertaken to eradicate, contain or control the spread of unwanted organisms should involve consultation with Ngāi Tahu ki Murihiku prior to the action.
4. Ensure that control programmes avoid adverse impacts on mahinga kai, taonga and endemic species or to areas of cultural significance.
5. Ensure that taonga species provisions in the Ngāi Tahu Claims Settlement Act 1998 are given effect to with respect to any biosecurity risks or control programmes by consulting with Te Rūnanga o Ngāi Tahu and Ngāi Tahu ki Murihiku.
6. Encourage sound partnerships between government agencies, non-governmental organisations, tangata whenua and landowners when identifying, establishing contingency plans or controlling unwanted organisms and biosecurity risks.
7. Recognise Ngāi Tahu ki Murihiku in the development and implementation of sound education programmes to avoid inadvertent introduction of unwanted organisms. Such education should be aimed at both Offshore Island users and management agencies/administering bodies.
8. Support existing permitting systems or quarantine measures on some Offshore Islands to ensure strict adherence to developed "impact codes", by-laws or protocol.
9. Minimise disturbance and possible introduction of unwanted organisms caused by transportation modes e.g. helicopters or boats.
10. Support adherence to permitting systems whereby conditions of access are restricted to ensure quarantine measures are taken into account.

Information Source:

Assessment of Cultural Effects- Proposed Rakiura National Park- October 2000

Fiordland National Park Management Plan – June 2007 Part Two and Part Four

Department of Conservation, *Te Papa Atawhai* website- Southern Islands Area **www.doc.govt.nz**

Draft Rakiura Tītī Islands Management Plan – March 2007

3.7.5 Tourism

Increased visitor demand on some Offshore Islands will result in increased pressures on those administering the areas to provide more visitor facilities, including tracks, huts, and rubbish facilities. This results in ecological effects and reduction in the wilderness values on the Islands. Such increases in visitor levels also raise concerns with respect to introduction of water bound disease such as giardia and contamination by human activity. Ngāi Tahu ki Murihiku advocate that the potential of such problems will need to be promoted through education material for visitors. This material will need to emphasise the value of the island areas as ecological and cultural landscapes and encourage avoidance of actions that might damage those values. This includes responsible waste and rubbish removal practices and respect for waterways.

Ngā Take - Issues

- Increasing numbers of tourists and impact on the environment.
- Increased pressure on infrastructure and facilities.
- Access to private property (Māori land).
- Impacts on waterways from tourism.
- Coastal camping impacts.
- Waste and rubbish removal practices.
- Location and upkeep of access tracks.
- Impacts on sites of cultural significance.

Ngā Kaupapa - Policy

1. Avoid compromising environmental and other cultural values, as a result of tourism activities.
2. Educate tourists with respect to the vulnerability of the coastal island areas and the adverse effects that inappropriate disposal of waste can have on waterways and sensitive environments.
3. Deter disrespectful activity by tourists or other visitors within areas designated as culturally significant. This includes education with respect to depositing of food, sewage, or rubbish away from designated sites and the defacing of sites.
4. Ensure that tourist activities do not compromise tangata whenua access to and customary use of mahinga kai and other culturally important resource and materials.
5. Ensure consultation with respect to access within areas of interest, (including conservation estate) occurs with local rūnanga.
6. Consultation with Ngāi Tahu ki Murihiku into the significance of a site when undertaking possible structure or infrastructure development or upgrade is recommended to ensure such development is located in culturally appropriate places.
7. Encourage consent and concession authorities to consider appropriate locations and durations for activities involving tourism. This includes assessing the long term cumulative effects that the activity may have.
8. Encourage development of access tracks away from areas of sensitivity or cultural significance. This includes wetlands and breeding areas, wāhi tapu and wāhi taonga sites, important mahinga kai areas, canoe landing sites/ tauranga waka and pā settlement sites.
9. Any interpretation or portrayal of Ngāi Tahu history or associations with wāhi tapu or wāhi taonga is subject to policies for cultural interpretation, as per Section 3.3.9 of this Iwi Management Plan.

Cross-reference:

Provision 3.4.8 Access and Tourism - Section 3.4 *Takitimu me ona uri* - High Country and Foothills

Provision 3.3.7 Concessions, Section 3.3 *Te Atawhenua* - Fiordland

Information Source:

Assessment of Cultural Effects - Proposed Rakiura National Park- October 2000

> "I can comfortably dip my hand in the waters and drink. This is the environment that my ancestors once knew on the mainland. The Islands are our benchmark for how the environment should be."
>
> *Stewart Bull 2007*

3.7.6 Water Policy

Many of the Offshore Islands act as a benchmark for how the environment should be. These Islands provide thick canopies with no nuisance growth and natural succession, uncontaminated by any human activity. Like Fiordland the pristine waters on Offshore Islands are an example or goal in which other areas in Murihiku can strive toward.

Ngāi Tahu ki Murihiku General water policy is found in Section 3.5: Southland Plains, provision 3.5.10. In addition many of the general policies associated with the freshwater resources of Fiordland are comparative to how water should be treated and respected on Offshore Islands (Section 3.3 Fiordland, provision 3.3.10).

3.7.7 Ngāi Tahu Claims Settlement Act 1998

A significant component of the Ngāi Tahu Settlement is the cultural redress elements, which seek to restore the ability of Ngāi Tahu to give practical effect to its kaitiaki responsibilities. Offshore Islands are of specific relevance and are particularly highlighted as important in many of the Acts provisions.

Relevant "cultural redress" elements of the Ngāi Tahu Settlement include ownership and control [including Rarotoka/Centre Island, Whenua Hou/Codfish Island, former Crown Tītī Islands] Schedule 106 of the NTCS Act 1889 recognises this redress.

3.7.8 Example of an Existing Management Regime

In recognition of the varying management agencies, administrative bodies, other agencies, landowners, persons, and/or groups that manage, protect or administer activities on many of the Offshore Islands, Ngāi Tahu ki Murihiku acknowledge and support appropriate and existing management regimes that strive to enhance and maintain the natural landscape, promote kaitiakitanga and provide access for sustainable customary use. Ngāi Tahu ki Murihiku wish to promote existing regimes or programmes which have occurred and are currently underway with respect to pest eradication, bird transfer, plantation enhancement, reintroduction of indigenous plant and animal species, and water quality protection and enhancement as a way of protecting the pristine environments found on many of the Offshore Islands.

Furthermore Ngāi Tahu ki Murihiku wish to further recognise for the importance of ongoing and future relationships to ensure their views are heard and carefully considered. Consultation from the early stage of any proposed undertaking on Offshore Islands which may have an affect on Ngāi Tahu values or interests is supported and endorsed by Ngāi Tahu ki Murihiku.

Some of the management agencies or administering bodies have statutory functions which require ongoing relationships with other agencies. Activity undertaken on any Offshore Island may require discussion with other agencies/persons as appropriate and may include:

- Te Rūnanga o Ngāi Tahu;
- *Te Papa Atawhai*, Department of Conservation;
- *Manatau Mō te taiao*, Ministry for the Environment;
- *Te Tautiaki i ngā tini a tangaroa*, Ministry of Fisheries;
- Rakiura Tītī Islands Administering Body;
- Rakiura Tītī Island Committee;
- Te Ao Mārama Inc.;
- Whenua Hou Committee;
- Any research institution e.g. University of Otago undertaking research in partnership;
- Environment Southland;
- Southland District Council;
- Kaitiaki Roopu o Murihiku;
- Rakiura Māori Land Trust;
- *Pouhere Taonga*, New Zealand Historic Places Trust.

On the following page is an example of a management structures in which some of these islands are administered and of which Ngāi Tahu ki Murihiku acknowledge.

Rakiura Tītī (Mutton Bird) Islands

The facilitation of customary harvest for the eighteen Rakiura Tītī (former Crown) Islands are administered by way of a permitting system whereby entry to these Islands each year occurs between March 15th and May 31st for the purposes of exercising customary rights to harvest tītī.

The Rakiura Tītī Administering Body was established to control and manage the Rakiura Tītī (former Crown) Islands (18 in total) in accordance with the provisions of the Deed of Settlement 1997 and Ngāi Tahu Claims Settlement Act 1998. The Administering Body has the same powers and functions of an ordinary Administering Body appointed under the Reserves Act 1977. These powers and functions include the power to issue permits to enter the islands, ensuring compliance with the bylaws for the islands, consulting with Rakiura Māori on matters relating to the islands, working with DOC and others on work programs and preparing a management plan for the Islands. The Rakiura Tītī (former Crown) Islands are lands held in freehold title. They are to be managed "as if they were a nature reserve" subject to the customary rights of Rakiura Māori to take tītī on a sustainable basis so that those rights are not to be in any way adversely affected by this management regime. The Administering Body therefore recognises that in protecting the customary rights of Rakiura Māori and their general status as if they were a nature reserve these Islands will be managed as follows:

- they are preserved as far as possible in their natural state;
- except where the Minister of Conservation and the Administering Body otherwise agree, the indigenous flora and fauna, ecological associations and natural environment shall as far as possible be preserved and the exotic flora and fauna as far as possible be exterminated;
- for the better protection and preservation of the flora and fauna in its natural state, no person shall enter the islands, except under the authority of a permit;
- the expression "enter the islands" includes any physical contact with the land by boat; and for the purpose any physical contact with the land shall be deemed to include the attaching (by rope or otherwise) of a boat to an island or to a wharf constructed on or partly on an island;
- where scenic, historic, archaeological, biological, geological, or other scientific features are present on the islands, those features shall be managed and protected to the extent compatible with the principal or primary purpose for the islands; and
- to the extent compatible with the principal or primary purpose of the islands, their value as soil, water and forest conservation areas shall be maintained.

Overall all of the permitted activities to facilitate the harvest of tītī are to be carried out in a manner which causes minimal impact to existing flora and fauna on the islands. Use of sprays for the purposes to control vegetation and to clear tracks is not permitted unless it is part of an approved work program to control exotic weeds. Entry to the islands for the purposes of building for those Rakiura Māori not skilled in the harvesting of tītī will be given once mentoring from experienced Whānau has occurred.

Source: *Draft Rakiura Tītī Islands Management Plan – March 2007*