Waimea Inlet Management Strategy

He kura taiao e hokia

A treasured home will always be revisited

A collaborative strategy to integrate community values for managing the inlet

Signatories:

Nelson City Council Tasman District Council Department of Conservation Nelson-Marlborough Fish and Game Council

Manawhenua acknowledgement

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Location Map

The Waimea Inlet in this Strategy is the area inside a line connecting the Tasman Bay shoreline of Mapua, Rabbit Island, and Tahunanui Beach.



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1. What This Strategy Is

This strategy brings together the communities of Tasman and Nelson and the many groups who have an interest in and a commitment to the Waimea Inlet and its sustainable future. It is also an inter-agency strategy that includes the Tasman and Nelson councils, statutory agencies, non-statutory groups and organisations, businesses and residents.

The Waimea Inlet Strategy is a support document under the councils' Long Term Council Community Plans (LTCCP). As such it supports the vision and community-sourced outcome statements of those documents, and it guides the councils' decision-making across all departments influencing not only statutory resource management but also provision of infrastructure, services and all areas of council involvement.

The Waimea Inlet has changed dramatically over the past 200 years and requires a long term commitment to protect and enhance the inlet by the community and its councils.

2. Origins of the Strategy

Values of the Waimea Inlet were identified in publications by the Department of Conservation (DoC) in the early 1990s. In 2006, requests for a management strategy for Waimea Inlet were endorsed by a DoC Community Forum meeting (organisations with an interest in the work of the Department). Similar requests were repeated by the Nelson Biodiversity Forum during 2009 and in submissions to both councils' Annual Plans.

The two councils agreed in October 2009 to jointly undertake a Waimea Estuary Management Strategy. The project has been overseen by a steering group that initially comprised Councillors Glenys Glover (Chair), Stuart Bryant, and Judene Edgar from Tasman District Council, and Councillors Ian Barker, Rachel Reese, and Derek Shaw from Nelson City Council, and Moetu Stephens representing Tiakina te Taiao. In May 2010, Councillor Brian Ensor replaced Councillor Bryant.

The project was launched on 17 November 2009, with a brief presentation meeting followed by a series of half-day workshops that week. A "Vulnerability Assessment" of the inlet prepared for Tasman District Council by Wriggle Coastal Management Consultants was the basis for a technical advisory group workshop in April 2010. This was followed by a public symposium in May 2010, where a series of brief presentations provided background information for follow-up discussion groups. Between the April and May workshops, the two mayors hosted a meeting of business leaders to inform them about the project.

Throughout this period, a growing number of people were also engaging in practical projects and initiatives around Waimea Inlet, and making new connections to one another and to the values of the inlet. All stages since the project launch have provided opportunity for feedback to the steering group working on the project. Continuing active participation is invited through the Waimea Inlet Forum proposed in the Strategy.

The issues and proposals of this Strategy reflect strongly the contributions of many members of the community who participated in these processes, including businesses, and technical experts from agencies; as well as the project team. The steering group acknowledges the commitment of these many contributors.

3. Setting the Scene

The Waimea Inlet is the largest enclosed estuary in the South Island, at 3,455 hectares in area. It has an internal coastline of 65 kilometres between Tahunanui and Mapua. In a geological time-frame, it is a recent and changing feature. There are ten islands in the inlet, with Rabbit Island forming an outer barrier that influences river and tide flows and sediment distribution. The Waimea River is the major freshwater inflow to the inlet, and there are numerous small coastal catchments in the east and west.

The inlet is a large open space beside fast-growing urban centres. It is a dominant landscape feature at the head of Tasman Bay, when seen both at the water's edge and from higher ground.

The inlet is of international importance for migratory bird species and is of national significance for other endangered or threatened species. These include birds such as bar-tailed godwit, white heron, Caspian and black-fronted terns, variable oystercatcher, Australasian bittern, and banded rail, and plants such as coastal peppercress and grey salt bush.

The inlet is important to life-cycle stages of fish species, which are dependent on the continuity and sequence of habitats from the streams, through the inlet, and to Tasman Bay, being maintained.

People began to use the inlet some 500 years ago. Permanent occupation was possible through the range of resources available. An ethic of kaitaikitanga, or stewardship, governed the use of fish, shellfish, birds and plants for food; trees and other plants for shelter, waka, and clothing; freshwater; and improving soil productivity.

With the arrival of European settlers the inlet provided the principal access to the Waimea Plains and Moutere Hills, a source of fish and waterfowl, and its margins provided flat land for development.

The inlet is now surrounded by urban and peri-urban development. The urban areas of Nelson and Richmond lie on its eastern side, with a combined population of 55,000 people. On the western side lies Mapua. Between the two is a mixture of productive land and lifestyle blocks with a number of small localities and communities.

The 22 rivers and streams draining into the inlet once passed through freshwater wetlands fringed by indigenous forest. They now drain residential, industrial and rural catchments, and are modified to varying degrees with channel realignments and loss of original vegetation and habitats. They carry nutrients, sediment and contaminants to the inlet and the ocean beyond, without the filtering benefit of the former wetlands in the lower catchment.

The margins of the inlet, once in native wetland, eel grass and other inter-tidal and shoreline vegetation, have been extensively modified. Changes include the

construction of roads, tide banks, and drainage systems. Adjoining land has been cleared for agriculture, and developed for residential and industrial uses. Strategic assets such as roads, power lines, pipelines, airport, and sewage treatment plant, are also located beside or in the inlet.

The scale of the inlet gives places with qualities of peace, quiet and space, which deserve to endure. These provide the opportunity for solitude and contemplation by some, and shared experiences for others.

The inlet and its margins are used for a wide variety of recreation uses ranging from active sports, such as walking, cycling, boating, bird watching, dog walking, game bird hunting, fishing; to picnics and social gatherings. There are potential tensions between some of these uses, but most are compatible if undertaken in appropriate places or at appropriate times.

These qualities, opportunities, and experiences attract visitors, tourists, and residents alike.

The inlet extends across both the Tasman District and Nelson City coastal marine areas and contributing catchments. During recent years the Tasman and Nelson communities have raised concerns about the state of the inlet and conflicting values in and around it. They have asked their Councils to provide for active management of the inlet, particularly for protection and enhancement of its natural values, and for opportunities for the community to participate its management.

4. Inlet Issues and Opportunities

Our understanding of issues and opportunities relating to the inlet is based on technical advice and community feedback received during this project, along with accumulated experience. Matters include:

Loss of Coastal Margin Indigenous Vegetation

Less than 0.25% of native terrestrial forest remains within 700 metres of the inlet, in nine remnant sites totaling less than 10 hectares. While a greater area of wetland and scrub vegetation remains, this is also a fraction of its former extent. Restoration needs long-term commitment, relevant knowledge, and hands-on attention, in the choice, placement and care of plants.

Loss and Importance of Margin and Intertidal Habitats

Ninety percent of estuary saltmarsh has been lost and only 227 hectares of indigenous estuarine vegetation remains in the 3455 hectares of the inlet. Most estuarine or semi-terrestrial wetland habitats were in the upper intertidal zone, especially near stream mouths. Those that remain are important habitat for freshwater fish, birds, and invertebrates. Pearl Creek and Reservoir Creek are examples of restoration activities.

Sedimentation

Land use change has altered the generation of sediment, and removed forest and wetlands that filtered and stored water and sediment. The loss of stream-and shore-marginal wetland has reduced the natural filtering and trapping capacity, and parts of the inlet are probably muddier than in earlier times. In some places there are indicators of a shift from clean well-aerated sand to finer, more compacted, and less aerated mud. Current monitoring has been in place for too short a time to establish present rates of sedimentation.

Bird Disturbance, Predation, and Loss of Habitat

The terrestrial edge, wetlands, and the open intertidal areas, are important habitat for bird species. Birds can be disturbed by people, dogs, vehicles, boats, and activities such as duck-shooting. Reduced area or loss of particular habitat types can affect breeding, feeding and roosting. Re-establishing wildlife corridors connecting habitat areas would benefit some species. Shoreline and wetland birds are vulnerable to predators, especially when nesting. Trapping predators by community volunteers and landowners needs on-going support.

Migratory Species

These birds are particularly at risk from disturbance, which may leave them undernourished for their migratory flights. The proposed walkway/cycleway around the inlet carries major risks of disturbance to birds, particularly near high-tide roost sites. Screening, or alternative routes, are mitigating options.

Contamination

Toxin levels generally are low, but are moderately elevated at urban and industrial stormwater discharge points. Indicator bacteria show the inlet is generally safe for swimming, but shellfish are unsuitable for consumption. Harvest of edible shellfish

in the inlet is a goal for some people. Stormwater outfalls and dogs are major sources of faecal contaminants from urban areas. Stock access to streams, and farm effluent management, are rural sources.

Eutrophication

There are generally few symptoms of excessive nutrients, but localised patches of nuisance macroalgae exist. Nutrient inputs are highest where streams enter the inlet. Nutrient levels are also elevated in the inlet after rainfall, especially from the Waimea River inflow.

Loss of High-Shore Habitat

This results from hardening of coastal margins by tide-banks, roads, and protection works. Some of these may be reversible by negotiation with their owners. Otherwise they will cause further loss of high-shore habitat and ecosystems if sea level rises. Re-establishing high-shore habitat by partial reclamation is a possible response to historical habitat loss, or in response to sea level changes.

Loss of Freshwater Fish Habitat

This has occurred through modifications to streams, including barriers to fish passage, changes to in-stream and stream-side vegetation, channel realignment, and changes to flow rate, water temperature, and light/shade conditions. Some of these are reversible. Protecting spawning areas, and controlling pest species, are important.

Damage to Archaeological Sites

These are vulnerable to loss or damage both from natural processes and from land use or development. While several Maori archaeological sites have been recorded around the inlet, there is little record of European history in the area. There is a need for more investigation, recording, and interpretation of information, and protection of archaeological and cultural sites.

Weed and Pest Species, including Marine

Exotic pest species have potential to displace native species, change ecosystem functioning, and reduce amenity value. Examples are *Spartina*, Pacific oyster, and *Wilsona backhousei*. Weeds, pests and invasive species need surveillance and priority-setting for eradication or control where practical.

Marine Fish

Use of the inlet by marine fish has not been well studied. The inlet is thought to provide habitat for feeding, breeding, and juvenile refuge, for fish that move in and out of it. Its role as part of the wider Tasman Bay fisheries habitat needs to be maintained.

Providing for a Range of Uses

People want to retain a full range of options for use and enjoyment of the inlet and adjoining land, as far as practical. Segregation of activities may be needed, and quiet places need to be retained.

Evaluating New Proposals

Proposals for new development such as walkways, cycleways, bird-watching hides, a rowing course, and others, each bring new opportunities but may also foreclose other opportunities for recreation or restoration. This strategy does not support or oppose any particular development proposal. Instead it provides a framework against which all proposals (current and future) can be evaluated along with processes to facilitate discussion.

Providing for Public Access

Improving the nature, location and extent of physical and legal access to and around the inlet needs to consider the maintenance of habitat conditions for birds, the retention of scarce remnant indigenous vegetation, and adjacent landowner interests. Legislation intends esplanade reserves to be taken when coastal land is subdivided to less than 4 hectares. In other cases, land acquisition, or access to or over land, requires landowner agreement.

Recognition of Existing Assets and Land Use

Utilities, industry, and other economic activities important to the health, functioning, and economy of the region, exist in and around the inlet. The community acknowledges the value of these. It seeks opportunities to avoid or mitigate any adverse effects these activities have on natural values, but does not anticipate having financial resources to facilitate their relocation.

Airport: Reducing the Risk of Bird-Strike

Airport operations highlight a complex relationship between aircraft safety requirements, bird behaviour, and activities that affect bird behaviour on, over, or near the airport. Any changes or enhancement made to bird habitat should endeavour to avoid or reduce the risk of bird-strike to aircraft.

Supporting Planting, Trapping, and Rubbish Removal

The efforts of landowners and others in planting indigenous species, trapping predators, and removing weeds, pest species and rubbish, need recognition and support.

Managing Future Land Use

Rural land use is a potential source of nutrients, sediment, and contaminants in the inlet, if not appropriately managed. Industrial land use is a potential source of contaminants. Increased residential land use, including rural-residential, is a likely source of predators and disturbance to birds. There is community opposition to further infilling of the inlet for land-use purposes.

Landscape, Vistas, Visual Amenity

Landowner decisions about land use, buildings, and planting, will affect visual amenity, vegetation, and habitat types available at the edge of the inlet. The visibility of the night sky can be affected by light-spill from housing, street-lights, and industry. Landscape can be experienced through a mix of open and framed views, and access to different landforms and habitats, around different parts of the inlet. The landscape qualities of the inlet need to be retained, at both the scale of particular localities and for the inlet overall.

5. Where We Want To Be - A Vision for the Future

A vibrant place, richly appreciated by the community for its open space, natural and ecological values; happily remembered by generations for their activities, adventures and discoveries; a place where tangata whenua hold mana as kaitiaki of taonga¹; and a place to be shared with increasing respect.

To achieve this vision we will need to:

- Work together
- Keep the inlet healthy
- Share its opportunities
- Make it better for the future
- Maintain commitment to the inlet

Working Together

- The natural values and functions of the inlet preserved and enhanced through people working together, and through individual contributions and responsibility.
- People sharing their enjoyment of the Inlet, and having a sense of community, belonging, and continuing commitment to the inlet.
- Accessible information for people to understand, appreciate, and care for the inlet.
- People feeling inspired by the inlet, whether just being there or engaging in active pursuits.

Keeping it Healthy

- Healthy and regenerating populations of indigenous vegetation, habitats, and birds; maintained, improved, and extended.
- The natural passage of water and fish maintained in the inlet and its rivers and streams.
- Water quality maintained or improved.
- Over-supply of nutrients or sediment avoided.
- Natural processes continuing to provide the habitats needed for the ecosystems and estuarine species dependent on them, and being able to respond to any future shore-line change.

Sharing its Opportunities

• Existing and potential uses managed in a way that protects the natural functioning of the inlet while maximising use and enjoyment.

¹ Where the resident iwi retain honour and guardianship over the place and matters that they treasure.

- People showing tolerance and seeking to resolve different uses so they can coexist, enhance or augment each other.
- Retaining places for quiet contemplation.
- Generations remembering the inlet for its open spaces, naturalness, and ecological values, with happy memories of activity and adventure.

Making it Better for the future

- Remnants of significant indigenous ecosystem are protected.
- Local indigenous stock is used as a source for expanding these ecosystem remnants and reducing their vulnerability.
- Ecosystem sequences from the inlet into adjoining land re-established.

Maintaining Commitment

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- Achieving change over generations through many actions, big and small, and compounding the gains.
- Promoting awareness of changes, threats, opportunities, and achievements.
- People sharing their knowledge, observations and skills.
- Learning and re-telling the stories that live in the inlet.

6. How Will We Get There?

The five strands of actions for success will involve:

- Working together
- Protection and ecosystem wellbeing
- Cooperation or separation
- Regeneration
- Continuing commitment

Working Together

- Developing collaborative approaches and practices that bring individuals and groups from the community, businesses and the councils together to work in effective ways.
- Recognising and supporting tangata whenua as the kaitiaki of the coastal environment.
- Sharing our knowledge, experience, wisdom, energy, vision and resources.
- Respecting existing uses and users in and around the inlet.
- Signing onto the Waimea Inlet Charter, participating in the Waimea Inlet Forum, and aligning activities and priorities collaboratively.

Protection and Ecosystem Wellbeing

- Protecting, enhancing, and increasing existing remnants of valued habitats for indigenous species. These include habitats in terrestrial, freshwater, intertidal, and subtidal ecosystems.
- Managing catchments, including riparian and coastal margins, to minimise adverse discharge of sediments and contaminants.
- Maintaining the natural functioning of estuary margin habitats, intertidal areas, rivers and streams, to convey and filter water, and to provide habitat and passage for indigenous species.
- Integrating management of the Waimea River and the inlet, especially at the river mouth area, and into Tasman Bay.
- Monitoring and controlling weeds, pests, and invasive species, where practical.
- Protecting the inlet from further infilling for land use purposes.

Cooperation or Separation

- Seeking to understand the different uses and values of the inlet, engaging in active dialogue about them, and seeking ways of working together to find mutual benefits.
- Separating incompatible activities in time or space where necessary and practical.

- Identifying and enhancing public access (such as car-parks, walking and cycling, launching ramps) for recreation, in appropriate locations.
- Providing interpretation opportunities and resources.
- Managing public land.
- When considering proposals for activities with potential adverse impacts, seeking opportunities to offset losses and to achieve the greatest net improvement to the inlet and its margins.
- Seeking locations for activities that need to be separated.
- Ensuring all public information is readily available.

Regeneration

- Seeking and providing opportunities for restoration, enhancement, or extension, of natural ecosystems.
- Using locally sourced stock for restoration planting.
- Retaining and enhancing landforms and land cover that give distinct landscape character to different parts of the inlet and to the whole inlet.
- In the long term, considering any opportunities that arise for alternative locations for activities that are not compatible with inlet values.

Continuing Commitment

- Celebrating, promoting, and increasing awareness about the inlet.
- Improving our capacity (practice, experience and connections) to take initiative and effective action.
- Sharing public information, including obtaining and explaining resource information.
- Making best use of current media and communication channels to ensure people know what information exists and where it is easily accessible.
- Measuring, monitoring, and reporting on actions and outcomes.
- Recognising that achieving this strategy will require commitment and tenacity.
- Making the inlet a renowned feature of the region, and growing pride in it.

7. Moving Forward

This Strategy can be implemented by:

- individuals
- groups of people
- iwi
- landowners
- businesses
- community organisations
- the two councils
- agents such as the Department of Conservation, Nelson-Marlborough Fish and Game Council, Ministry of Fisheries, schools

A Waimea Inlet Forum is proposed as a platform for:

- connecting individuals, groups and agencies
- integrating activities
- setting priorities
- exchanging information and experiences on how to make improvements, including where to get advice and materials
- sharing results about what has been achieved, what has worked well, and how results could be improved

The timing of actions will depend on budgets and work programmes, including:

- the resources of individuals
- the time, energy and enthusiasm of volunteer groups
- annual plans and longer term business plans of the councils, businesses, and other agents

Cooperation, and joint actions, may accomplish results that individuals could not achieve alone.

Some actions may be able to start immediately through re-directing existing budget allocations; others may be delayed until specific funding allocations are in place. Projects may be one-off or repeated; fixed-term or continuing. The availability of suitable stock will affect the rate and scale of restoring plant communities indigenous to the Waimea Inlet locality.

Listed below is a set of "starter" actions, to be referred to the Waimea Inlet Forum for consideration and sequencing. They are able to be taken up at different levels by people or organisations with different capacities.

Working Together

Coordinating activities between the councils, Department of Conservation, and Nelson-Marlborough Fish and Game Council.

- The two councils signing the Charter and giving guidance to how the activities of their various departments can be aligned with the Strategy.
- Recognising the guardianship role of tangata whenua iwi.
- Supporting the signatories to the Waimea Inlet Charter to develop their capacity to work together, to initiate activity, and to expand what they have already begun. This may include agencies contributing staff time, assistance with funding applications, or contributing funds.
- Charter signatories reporting in May 2011 to the Waimea Forum on progress, to ensure that all key actions being taken or proposed are scheduled in a transparent way.
- Having specific regard to Nelson Airport, the Bells Island Sewerage Treatment plant, and roading, to find best outcomes for both inlet values and the continued operation of these facilities.

Protection and Ecosystem Wellbeing

- Establishing an accessible shared knowledge base on those ecosystems, species, and heritage resources, which are vulnerable to loss or damage; including mapping sites of value, and opportunities for enhancement.
- Establishing priorities to fill gaps in the current knowledge base about the inlet, such as the significance of sedimentation rates and the significance of the inlet to Tasman Bay fisheries.
- Making people aware of how their activities affect inlet values, and how to turn around from causing adverse effects to creating benefits. Information boards, bird-viewing hides, reducing effects of light spill on night-sky visibility, are options.
- Encouraging and supporting the control of weeds, pests, and predators, and clean-up initiatives, by individual and group efforts as well as by the councils and other agencies.
- Limiting access by people, vehicles, dogs, or vessels, in areas where significant vegetation and habitat types may be damaged, or where disturbance to birds may be critical, and directing these activities to places where damage of disturbance will be minimal.
- Continuing to research and report on the significance of ecological, heritage, social, and cultural sites and values across the inlet.
- > Encouraging people to minimise contaminants reaching the inlet.

Cooperation or Separation

- > Encouraging approaches to new development proposals that:
 - are cooperative, bringing interested people together with a common level of information about proposals;
 - are informed by the known values of the Strategy;
 - consciously seek win-win outcomes;
 - create opportunities for ecosystem restoration;
 - increase our knowledge, awareness, and appreciation of the inlet, and our long-term commitment to improving it.

Regeneration

- Reviewing opportunities and programmes for restoration of habitat types and planting on council and other public land, including species used and sourcing of plants, to meet the principles of this Strategy.
- Raising public awareness of inlet values through the provision of interpretation material and public events such as planting days.
- Supporting restoration planting by individuals or groups on coastal and riparian land and wetlands, by publicising existing planting guides and advising on sources of appropriate stock.
- > Restoring stream mouths for fish habitat and fish passage.
- Investigating land purchase options for enhancement of vegetation sequences from marine to terrestrial habitats.
- Developing a strategic response to maintain natural functions of the inlet and representative habitats, under changing conditions of sea level.

Commitment

- Reviewing appropriate forms of protection, legal and physical, including ownership, covenants, Reserves Act and Resource Management Act provisions.
- Taking esplanade reserve entitlements, or negotiating alternatives that better meet conservation values or public access needs.
- Monitoring:
 - achievements against targets;
 - state of the environment indicators;
 - compliance with rules, bylaws, and consent conditions;
 - and reporting results to the Waimea Inlet Forum

- Continually reviewing:
 - the appropriateness of indicators;
 - priorities for action.
- Reviewing the effectiveness and enforcement of Resource Management Act plan provisions in relation to riparian and coastal margins.
- > Holding an estuary management good practice workshop.
- Exploring funding options:
 - Envirolink;
 - Biodiversity advice fund;
 - Sponsorship;
 - Joint funding of a part-time advisory position (for example, any combination of the councils, Department of Conservation, industry, utilities, Nelson-Marlborough Fish and Game Council, Royal Forest and Bird Protection Society).
- Making a brief review of the relevance of the strategy prior to the next review of the LTCCPs (eg Charter signatories' annual reports back to the Waimea Forum).
- Generating wider community and Council support for the funding needed in future LTCCPs.

8. Waimea Inlet Charter and Forum

This strategy has been adopted by the two councils, Nelson/Marlborough Fish and Game Council, and the Department of Conservation; and is recognised by iwi as a useful supportive process in their exercise of kaitiakitanga. Its purpose is to support our collective care and stewardship of the inlet and its taonga.

There are more players who are potential positive contributors to a regenerative future for the Waimea Inlet.

A Waimea Inlet Charter is proposed, to which individuals or groups with interest in and a commitment to the inlet, are able to become signatories. The Charter creates a pathway and context for the exercise of shared commitment to the inlet.

The Charter declares a shared recognition of the values of the inlet, the value of working together, and the value of taking a long term, regenerative and integrative approach to sustaining and enhancing the values of the inlet.

Becoming a signatory to the charter is the access to membership of a Waimea Inlet Forum, a community of commitment which acknowledges responsibility for the future of the inlet, a collaborative protocol, and a regenerative intention.

The Forum will pay attention to setting priorities and sequences for actions, sharing progress, monitoring and reporting on results, and maintaining a strategic scan for new issues. It will take a learning-by-doing approach, and will enable participants to choose their contribution.

The Forum will help keep the strategy alive and report its achievements to the community.

Glossary

Annual Plan – the annual review of services, projects, and funding, for each year of a Long Term Council Community Plan

Contaminant - a source of pollution or infection

Ecosystem - a set of interactions between a community of species and their physical environment

Enhancement - augmentation, intensifying, increasing in quality or value

Esplanade reserve – a 20 metre wide strip of land adjoining a river, lake, or the sea, that councils are entitled to take from land being subdivided to less than 4 hectares in area

Habitat – the natural home of plants or animals (including birds and fish)

Indigenous - native to an area

Kaitiaki – guardian

Kaitiakitanga – guardianship

Long Term Council Community Plan – a 10-year programme of council services and projects, and how they will be funded. It includes monitoring and review mechanisms, and is based on community consultation

Mana - includes authority, control, influence, power, prestige

Regeneration - renewing, or bringing back into existence

Restoration – returning to a former condition, bringing back to an original state

Tangata whenua – people belonging to a place

Taonga – anything that is highly prized

Terrestrial – dry land environment

Tiakina te Taiao – a Resource Management Advisory Komiti formed by Ngati Rarua, Te Atiawa, Ngati Tama, Wakatu Inc, and Ngati Rarua Atiawa Trust

Toxin – a harmful or poisonous substance

Vulnerability assessment - an assessment of how uses and values are likely to be affected by changes to sediment, nutrient, disease risk, toxic contamination, and habitat loss

Wetland – an area that is permanently or intermittently wet, and which supports an ecosystem of plants and animals that are naturally adapted to wet conditions

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