

NATIONAL POLICY STATEMENT

for Freshwater Management 2014

*Updated August 2017 to incorporate amendments from the
National Policy Statement for Freshwater Amendment Order 2017*

Contents

Preamble	4
Review	6
Title	7
Commencement	7
National significance of fresh water and Te Mana o te Wai	7
Interpretation	8
AA. Te Mana o te Wai	11
Objective AA1	11
B. Water quality	12
Objective A1	12
Objective A2	12
Objective A3	12
Objective A4	12
B. Water quantity	15
Objective B1	15
Objective B2	15
Objective B3	15
Objective B4	15
Objective B5	15
C. Integrated management	17
Objective C1	17
CA. National Objectives Framework	18
Objective CA1	18
CB. Monitoring Plans	21
Objective CB1	21
CC. Accounting for freshwater takes and contaminants	23
Objective CC1	23
D. Tangata whenua roles and interests	24
Objective D1	24
E. Progressive implementation programme	25
Appendix 1: National values and uses for fresh water	26
Appendix 2: Attribute tables	30

Appendix 3: Existing infrastructure for the purposes of Policy CA3(b)	42
Appendix 4: Freshwater management units and periods of time for transition for the purposes of Policy CA4	43
Appendix 5: Surveillance monitoring of <i>E. coli</i> at primary contact sites	44
Appendix 6: National target for water quality improvement	45
Reprint notes	47

Preamble

Fresh water is essential to New Zealand's economic, environmental, cultural and social well-being. Fresh water gives our primary production, tourism, and energy generation sectors their competitive advantage in the global economy. Fresh water is highly valued for its recreational aspects and it underpins important parts of New Zealand's biodiversity and natural heritage. Fresh water has deep cultural meaning to all New Zealanders. Many of New Zealand's lakes, rivers and wetlands are iconic and well known globally for their natural beauty and intrinsic values.

The Treaty of Waitangi/Te Tiriti o Waitangi is the underlying foundation of the Crown-iwi/hapū relationship with regard to freshwater resources. Addressing tangata whenua values and interests across all of the well-beings, and including the involvement of iwi and hapū in the overall management of fresh water, are key to giving effect to the Treaty of Waitangi.

All New Zealanders have a common interest in ensuring the country's freshwater lakes, rivers, aquifers and wetlands are managed wisely.

New Zealand faces challenges in managing our fresh water to provide for all of the values that are important to New Zealanders. The quality, health, availability and economic value of our fresh waters are under threat. These challenges are likely to increase over time due to the impacts of climate change.

To respond effectively to these challenges and issues, we need to have a good understanding of our freshwater resources, the threats to them, and provide a management framework that enables water to contribute both to New Zealand's economic growth and environmental integrity and provides for the values that are important to New Zealanders.

Given the vital importance of freshwater resources to New Zealand and New Zealanders, and in order to achieve the purpose of the Resource Management Act 1991 (the Act), there is a particular need for clear central government policy to set a national direction, though the management of the resource needs to reflect the catchment-level variation and different demands on the resource across regions. This includes managing land use and development activities that affect fresh water so that growth is achieved with a lower environmental footprint.

This national policy statement recognises Te Mana o te Wai and sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. The national policy statement is a first step to improve freshwater management at a national level.

As demand for fresh water increases, it is vital to account for all freshwater takes and sources of relevant contaminants. The freshwater accounting requirements of this national policy statement will provide information for councils to use in establishing freshwater objectives and limits and in targeting their management of fresh water.

This national policy statement provides a National Objectives Framework to assist regional councils and communities to more consistently and transparently plan for freshwater objectives. Te Mana o te Wai is an integral part of the framework that forms the platform for community discussions about the desired state of fresh water relative to the current state. New Zealanders generally aspire to high standards for our waterways and outcomes that are better than those achieved under the status quo. Freshwater planning will require an iterative approach that tests a range of possible objectives, limits and methods for their achievement, including different timeframes for achieving objectives. This ensures that the implications of proposed freshwater objectives are clear for councils and communities.

The national policy statement recognises iwi/hapū and community interests in fresh water,

including their environmental, social, economic, and cultural values. There are two compulsory values that must be managed for – ecosystem health and human health.

National bottom lines in the national policy statement are not standards to aim for. Where freshwater management units are below national bottom lines they must be improved to at least the national bottom line, or better, over time. It is up to communities and iwi/hapū, through councils, to determine the pathway and timeframe for ensuring freshwater management units meet the national bottom lines. Where changes in the way communities use fresh water are required, the pace of those changes should take into account impacts on economic well-being. Improvements in freshwater quality may take generations depending on the characteristics of each freshwater management unit.

Iwi and hapū have a kinship relationship with the natural environment, including fresh water, through shared whakapapa. Iwi and hapū recognise the importance of fresh water in supporting a healthy ecosystem, including human health, and have a reciprocal obligation as kaitiaki to protect freshwater quality.

New Zealand's rivers and lakes should be safe for primary contact as often as possible. The Government has set a national target of 90% of specified rivers and lakes to be safe for primary contact by 2040. The expectation is that more of these rivers and lakes will be safe for primary contact more of the time. The risks to human health from contact with fresh water must be reduced. There is an interim target of 80% of these rivers and lakes to be safe for primary contact by 2030. By the end of 2018, councils need to set regional targets to improve water quality for primary contact, so that it is clear how each region will contribute to achieving the national target.

The national policy statement requires freshwater quality within a freshwater management unit to be maintained at its current level (where community values are currently supported) or improved (where community values are not currently supported). For the human health value, water quality in fresh water management units must be improved unless regional targets have been achieved or naturally occurring processes mean further improvement is not possible. This national policy statement allows some variability in terms of freshwater quality, as long as the overall freshwater quality is maintained within a freshwater management unit.

Monitoring plans are intended to be practical and affordable. It is not possible for regional councils to monitor every drop of fresh water, nor every possible indicator of freshwater health. Monitoring freshwater objectives need only be undertaken at representative sites within a freshwater management unit as identified by regional councils, and must use the Macroinvertebrate Community Index, as well as measures of indigenous flora and fauna and Mātauranga Māori. Monitoring plans are also intended to recognise the importance of long term trends in data.

Setting enforceable quality and quantity limits is a key purpose of this national policy statement. This is a fundamental step to achieving environmental outcomes and creating the necessary incentives to use fresh water efficiently, while providing certainty for investment. Water quality and quantity limits must reflect local and national values. The process for setting limits should be informed by the best available information and scientific and socio-economic knowledge.

Once limits are set, freshwater resources need to be allocated to users, while providing the ability to transfer entitlements between users so that we maximise the value we get from water. Where water resources are over-allocated (in terms of quality and quantity) to the point that national and local values are not met, over-allocation must be reduced over agreed timeframes.

The New Zealand Coastal Policy Statement 2010 addresses issues with water quality in the coastal environment. The management of coastal water and fresh water requires an integrated and consistent approach.

This preamble may assist the interpretation of the national policy statement.

Review

The Minister for the Environment intends to seek an independent review of the implementation and effectiveness of this national policy statement in achieving all its objectives and policies and in achieving the purpose of the Act, no later than 1 July 2020. The Minister shall then consider the need to review, change or revoke this national policy statement.

Title

This national policy statement is the National Policy Statement for Freshwater Management 2014.

Commencement

This national policy statement will take effect 28 days after the date of its issue by notice in the New Zealand Gazette.

National significance of fresh water and Te Mana o te Wai

The matter of national significance to which this national policy statement applies is the management of fresh water through a framework that considers and recognises Te Mana o te Wai as an integral part of freshwater management.

The health and well-being of our freshwater bodies is vital for the health and well-being of our land, our resources (including fisheries, flora and fauna) and our communities.

Te Mana o te Wai is the integrated and holistic well-being of a freshwater body.

Upholding Te Mana o te Wai acknowledges and protects the mauri of the water. This requires that in using water you must also provide for Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people).

Te Mana o te Wai incorporates the values of tangata whenua and the wider community in relation to each water body.

The engagement promoted by Te Mana o te Wai will help the community, including tangata whenua, and regional councils develop tailored responses to freshwater management that work within their region.

By recognising Te Mana o te Wai as an integral part of the freshwater management framework it is intended that the health and well-being of freshwater bodies is at the forefront of all discussions and decisions about fresh water, including the identification of freshwater values and objectives, setting limits and the development of policies and rules. This is intended to ensure that water is available for the use and enjoyment of all New Zealanders, including tangata whenua, now and for future generations.

Interpretation

In this national policy statement:

“**Attribute**” is a measurable characteristic of fresh water, including physical, chemical and biological properties, which supports particular values.

“**Attribute state**” is the level to which an attribute is to be managed for those attributes specified in Appendix 2.

“**Compulsory values**” mean the national values relating to ecosystem health and to human health for recreation included in Appendix 1 and for which a non-exhaustive list of attributes is provided in Appendix 2.

“**Efficient allocation**” includes economic, technical and dynamic efficiency.

“**Environmental flows and/or levels**” are a type of limit which describes the amount of water in a freshwater management unit (except ponds and naturally ephemeral water bodies) which is required to meet freshwater objectives. Environmental flows for rivers and streams must include an allocation limit and a minimum flow (or other flow/s). Environmental levels for other freshwater management units must include an allocation limit and a minimum water level (or other level/s).

“**Existing freshwater quality**” means the quality of the fresh water at the time the regional council commences the process of setting or reviewing freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4.

“**Freshwater management unit**” is the water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management purposes.

“**Freshwater objective**” describes an intended environmental outcome in a freshwater management unit.

“**Freshwater quality accounting system**” means a system that, for each freshwater management unit, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:

- a) loads and/or concentrations of relevant contaminants;
- b) sources of relevant contaminants;
- c) amount of each contaminant attributable to each source; and
- d) where limits have been set, proportion of the limit that is being used.

“**Freshwater quantity accounting system**” means a system that, for each freshwater management unit, records, aggregates and keeps regularly updated, information on the measured, modelled or estimated:

- a) total freshwater take;
- b) proportion of freshwater taken by each major category of use; and
- c) where limits have been set, proportion of the limit that has been taken.

“**Freshwater take**” is a take of ground or surface fresh water whether authorised or not.

“**Limit**” is the maximum amount of resource use available, which allows a freshwater objective to be met.

“Minimum acceptable state” means, where specified in Appendix 2, the minimum level at which a freshwater objective may be set in a regional plan in order to provide for the associated national value.

“National bottom line” means, where specified, the minimum acceptable state for the compulsory values as specified in Appendix 2.

“National target” means the national target for water quality improvement in Appendix 6.

“National value” means any value described in Appendix 1.

“Naturally occurring processes” means processes that could have occurred in New Zealand prior to the arrival of humans.

“Outstanding freshwater bodies” are those water bodies identified in a regional policy statement or regional plan as having outstanding values, including ecological, landscape, recreational and spiritual values.

“Over-allocation” is the situation where the resource:

- a) has been allocated to users beyond a limit; or
- b) is being used to a point where a freshwater objective is no longer being met.

This applies to both water quantity and quality.

“Pest” means a pest as defined in the Biosecurity Act 1993.

“Primary contact” means people’s contact with fresh water that involves immersion in water, including swimming.

“Primary contact site” means:

- a) any part of a specified river or lake that a regional council considers is used, or would be used but for existing freshwater quality, for primary contact; and
- b) any other site in any other river or lake that a regional council has determined should be managed for primary contact.

“Regional target” means a regional target established under Policy A6.

“Specified rivers and lakes” means:

- a) rivers that are fourth order or above using the methods outlined in the River Environment Classification system, National Institute of Water and Atmospheric Research, Version 1; and
- b) lakes with a perimeter of 1.5 kilometres or more.

“Suitable for primary contact more often” means reducing the percentage and magnitude of *E. coli* exceedences for rivers and lakes, and cyanobacteria - planktonic biovolume for lakes, according to the attribute tables in Appendix 2.

“Target” is a limit which must be met at a defined time in the future. This meaning only applies in the context of over-allocation.

“**Unwanted organism**“ means an unwanted organism as defined in the Biosecurity Act 1993.

“**Value**” means:

- a) any national value; and
- b) includes any value in relation to fresh water, that is not a national value, which a regional council identifies as appropriate for regional or local circumstances (including any use value).

Terms given meaning in the Act have the meanings so given.

AA. Te Mana o te Wai

Objective AA1

To consider and recognise Te Mana o te Wai in the management of fresh water.

Policy AA1

By every regional council making or changing regional policy statements and plans to consider and recognise Te Mana o te Wai, noting that:

- a) te Mana o te Wai recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people); and
- b) values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of freshwater objectives and limits.

A. Water quality

Objective A1

To safeguard:

- a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; and
- b) the health of people and communities, as affected by contact with fresh water;

in sustainably managing the use and development of land, and of discharges of contaminants.

Objective A2

The overall quality of fresh water within a freshwater management unit is maintained or improved while:

- a) protecting the significant values of outstanding freshwater bodies;
- b) protecting the significant values of wetlands; and
- c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.

Objective A3

The quality of fresh water within a freshwater management unit is improved so it is suitable for primary contact more often, unless:

- a) regional targets established under Policy A6(b) have been achieved; or
- b) naturally occurring processes mean further improvement is not possible.

Objective A4

To enable communities to provide for their economic well-being, including productive economic opportunities, in sustainably managing freshwater quality, within limits.

Policy A1

By every regional council making or changing regional plans to the extent needed to ensure the plans:

- a) establish freshwater objectives in accordance with Policies CA1-CA4 and set freshwater quality limits for all freshwater management units in their regions to give effect to the objectives in this national policy statement, having regard to at least the following:
 - i. the reasonably foreseeable impacts of climate change;
 - ii. the connection between water bodies; and
 - iii. the connections between freshwater bodies and coastal water; and
- b) establish methods (including rules) to avoid over-allocation.

Policy A2

Where freshwater management units do not meet the freshwater objectives made pursuant to Policy A1, every regional council is to specify targets and implement methods (either or both regulatory and non-regulatory), in a way that considers the sources of relevant contaminants recorded under Policy CC1, to assist the improvement of water quality in the freshwater management units, to meet those targets, and within a defined timeframe.

Policy A3

By regional councils:

- a) imposing conditions on discharge permits to ensure the limits and targets specified pursuant to Policy A1 and Policy A2 can be met; and
- b) where permissible, making rules requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

Policy A4 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy A1 and Policy A2 (freshwater quality limits and targets) have become operative:

1. *“When considering any application for a discharge the consent authority must have regard to the following matters:*
 - a. *the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and*
 - b. *the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.*
2. *When considering any application for a discharge the consent authority must have regard to the following matters:*
 - a. *the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their contact with fresh water; and*
 - b. *the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their contact with fresh water resulting from the discharge would be avoided.*
3. *This policy applies to the following discharges (including a diffuse discharge by any person or animal):*
 - a. *a new discharge or*
 - b. *a change or increase in any discharge – of any contaminant into fresh water, or onto*

or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

4. *Paragraph 1 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.*
5. *Paragraph 2 of this policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 takes effect.”*

Policy A5

By every regional council making or changing regional plans to the extent needed to ensure the plans:

- a) identify specified rivers and lakes, and primary contact sites; and
- b) state what improvements will be made, and over what timeframes, to specified rivers and lakes, and primary contact sites, so they are suitable for primary contact more often; or
- c) state how specified rivers and lakes, and primary contact sites, will be maintained if regional targets established under Policy A6(b) have been achieved.

Improvements to specified rivers and lakes in (b) must make a contribution to achieving regional targets established under Policy A6(b).

Policy A6

By every regional council developing regional targets to improve the quality of fresh water in specified rivers and lakes and contribute to achieving the national target in Appendix 6, and ensuring:

- a) draft regional targets are available to the public by 31 March 2018; and
- b) final regional targets are available to the public by 31 December 2018.

Policy A7

By every regional council considering, when giving effect to this national policy statement, how to enable communities to provide for their economic well-being, including productive economic opportunities, while managing within limits.

B. Water quantity

Objective B1

To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water.

Objective B2

To avoid any further over-allocation of fresh water and phase out existing over-allocation.

Objective B3

To improve and maximise the efficient allocation and efficient use of water.

Objective B4

To protect significant values of wetlands and of outstanding freshwater bodies.

Objective B5

To enable communities to provide for their economic well-being, including productive economic opportunities, in sustainably managing fresh water quantity, within limits.

Policy B1

By every regional council making or changing regional plans to the extent needed to ensure the plans establish freshwater objectives in accordance with Policies CA1-CA4 and set environmental flows and/or levels for all freshwater management units in its region (except ponds and naturally ephemeral water bodies) to give effect to the objectives in this national policy statement, having regard to at least the following:

- a) the reasonably foreseeable impacts of climate change;
- b) the connection between water bodies; and
- c) the connections between freshwater bodies and coastal water.

Policy B2

By every regional council making or changing regional plans to the extent needed to provide for the efficient allocation of fresh water to activities, within the limits set to give effect to Policy B1.

Policy B3

By every regional council making or changing regional plans to the extent needed to ensure the plans state criteria by which applications for approval of transfers of water take permits are to be decided, including to improve and maximise the efficient allocation of water.

Policy B4

By every regional council identifying methods in regional plans to encourage the efficient use of water.

Policy B5

By every regional council ensuring that no decision will likely result in future over-allocation – including managing fresh water so that the aggregate of all amounts of fresh water in a freshwater management unit that are authorised to be taken, used, dammed or diverted does not over-allocate the water in the freshwater management unit.

Policy B6

By every regional council setting a defined timeframe and methods in regional plans by which over-allocation must be phased out, including by reviewing water permits and consents to help ensure the total amount of water allocated in the freshwater management unit is reduced to the level set to give effect to Policy B1.

Policy B7 and direction (under section 55) to regional councils

By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy B1 (allocation limits), Policy B2 (allocation), and Policy B6 (over-allocation) have become operative:

1. *When considering any application the consent authority must have regard to the following matters:*
 - a. *the extent to which the change would adversely affect safeguarding the life-supporting capacity of fresh water and of any associated ecosystem and*
 - b. *the extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.*
2. *This policy applies to:*
 - a. *any new activity and*
 - b. *change in the character, intensity or scale of any established activity – that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).*
3. *This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.”*

Policy B8

By every regional council considering, when giving effect to this national policy statement, how to enable communities to provide for their economic well-being, including productive economic opportunities, while managing within limits.

C. Integrated management

Objective C1

To improve integrated management of fresh water and the use and development of land in whole catchments, including the interactions between fresh water, land, associated ecosystems and the coastal environment.

Policy C1

By every regional council:

- a) recognising the interactions, ki uta ki tai (from the mountains to the sea) between fresh water, land, associated ecosystems and the coastal environment; and
- b) managing fresh water and land use and development in catchments in an integrated and sustainable way to avoid, remedy or mitigate adverse effects, including cumulative effects.

Policy C2

By every regional council making or changing regional policy statements to the extent needed to provide for the integrated management of the effects of the use and development of:

- a) land on fresh water, including encouraging the co-ordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure; and
- b) land and fresh water on coastal water.

CA. National Objectives Framework

Objective CA1

To provide an approach to establish freshwater objectives for national values, and any other values, that:

- a) is nationally consistent; and
- b) recognises regional and local circumstances.

Policy CA1

By every regional council identifying freshwater management units that include all freshwater bodies within its region.

Policy CA2

By every regional council, through discussion with communities, including tangata whenua, applying the following processes in developing freshwater objectives for all freshwater management units:

- a) considering all national values and how they apply to local and regional circumstances;
- b) identifying the values for each freshwater management unit, which
 - i. must include the compulsory values; and
 - ii. may include any other national values or other values that the regional council considers appropriate (in either case having regard to local and regional circumstances); and
- c) identifying:
 - i. for the compulsory values or any other national value for which relevant attributes are provided in **Appendix 2**:
 - A. the attributes listed in Appendix 2 that are applicable to each value identified under Policy CA2(b) for the freshwater body type; and
 - B. any other attributes that the regional council considers appropriate for each value identified under Policy CA2(b) for the freshwater body type; and
 - iii. for any national value for which relevant attributes are not provided in **Appendix 2** or any other value, the attributes that the regional council considers appropriate for each value identified under Policy CA2(b) for the freshwater body type;
- d) for those attributes specified in Appendix 2, assigning an attribute state at or above the minimum acceptable state for that attribute;
- e) formulating freshwater objectives:
 - i. in those cases where an applicable numeric attribute state is specified in Appendix 2, in numeric terms by reference to that specified numeric attribute state; or
 - ii. in those cases where the attribute is not listed in Appendix 2, in numeric terms where practicable, otherwise in narrative terms;

Policy CA3

By every regional council ensuring that freshwater objectives for the compulsory values are set at or above the national bottom lines for all freshwater management units, unless the existing freshwater quality of the freshwater management unit is already below the national bottom line for an attribute or attributes and the regional council considers it appropriate to set the freshwater objective below the national bottom line for an attribute or attributes because:

- a) the existing freshwater quality is caused by naturally occurring processes; or
- b) any of the existing significant infrastructure (that was operational on 1 August 2014) listed in Appendix 3 contributes to the existing freshwater quality; and
 - i) it is necessary to realise the benefits provided by the listed infrastructure; and
 - ii) it applies only to the waterbody, water bodies or any part of a waterbody, where the listed infrastructure contributes to the existing water quality.

Policy CA4

A regional council may set a freshwater objective below a national bottom line on a transitional basis for the freshwater management units and for the periods of time specified in Appendix 4.

CB. Monitoring plans

Objective CB1

To provide for an approach to the monitoring of progress towards, and the achievement of, freshwater objectives and the values identified under Policy CA2(b).

Policy CB1

By every regional council developing a monitoring plan that:

- a) establishes methods for monitoring progress towards, and the achievement of, freshwater objectives established under Policies CA1-CA4;
- aa) establishes methods for monitoring the extent to which the values identified under Policy CA2(b) are being provided for in a freshwater management unit. These methods must at least include:
 - i. surveillance monitoring of microbial health risks to people at primary contact sites in accordance with Appendix 5;
 - ii. the monitoring of macroinvertebrate communities;
 - iii. measures of the health of indigenous flora and fauna;
 - iv. information obtained under Policy CB1(a) and Policy CC1; and
 - v. Mātauranga Māori.
- b) identifies a site or sites at which monitoring will be undertaken that are representative for each freshwater management unit; and
- c) recognises the importance of long-term trends in monitoring results and the relationship between results and the overall state of fresh water in a freshwater management unit.

Policy CB2

By every regional council establishing methods, for example, action plans, for responding to monitoring that indicates freshwater objectives will not be met and/or values will not be provided for in a freshwater management unit.

Policy CB3

By every regional council:

- a) using the Macroinvertebrate Community Index;
- b) establishing methods under Policy CB2 to respond to a Macroinvertebrate Community Index score below 80, or a declining trend; and
- c) ensuring that methods:
 - i. investigate the causes of declining trends or the Macroinvertebrate Community Index score below 80;
 - ii. seek to halt declining trends; and
 - iii. seek to improve on a Macroinvertebrate Community Index score if it is below 80, unless this is caused by naturally occurring processes, pest or unwanted organism, or by infrastructure listed in Appendix 3.

Policy CB4

By every regional council taking reasonable steps to ensure that information gathered in accordance with Policy CB1 is available to the public regularly and in a suitable form.

CC. Accounting for freshwater takes and contaminants

Objective CC1

To improve information on freshwater takes and sources of freshwater contaminants, in order to:

- a) ensure the necessary information is available for freshwater objective and limit setting and freshwater management under this national policy statement; and
- b) ensure information on resource availability is available for current and potential resource users.

Policy CC1

By every regional council:

- a) establishing and operating a freshwater quality accounting system and a freshwater quantity accounting system for those freshwater management units where they are setting or reviewing freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4; and
- b) maintaining a freshwater quality accounting system and a freshwater quantity accounting system at levels of detail that are commensurate with the significance of the freshwater quality and freshwater quantity issues, respectively, in each freshwater management unit.

Policy CC2

By every regional council taking reasonable steps to ensure that information gathered in accordance with Policy CC1 is available to the public, regularly and in a suitable form, for the freshwater management units where they are setting or reviewing, and where they have set or reviewed, freshwater objectives and limits in accordance with Policy A1, Policy B1, and Policies CA1-CA4.

Objective CC1 and Policies CC1 and CC2 will take effect 24 months from the date of entry into effect of the National Policy Statement for Freshwater Management 2014.

D. Tangata whenua roles and interests

Objective D1

To provide for the involvement of iwi and hapū, and to ensure that tangata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.

Policy D1

Local authorities shall take reasonable steps to:

- a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region;
- b) work with iwi and hapū to identify tangata whenua values and interests in fresh water and freshwater ecosystems in the region; and
- c) reflect tangata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region.

E. Progressive implementation programme

Policy E1

- a) This policy applies to the implementation by a regional council of a policy of this national policy statement.
- b) Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2025.
- ba) A regional council may extend the date in Policy E1(b) to 31 December 2030 if it considers that:
 - i. meeting that date would result in lower quality planning; or
 - ii. it would be impracticable for it to complete implementation of a policy by that date.
- c) Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2015, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2025 or 31 December 2030 if Policy E1(ba) applies.
- d) Any programme of time-limited stages is to be formally adopted by the council by 31 December 2015 and publicly notified.
- e) Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.
- f) Any programme adopted under Policy E1 (c) of the National Policy Statement for Freshwater Management 2011 or under E1(c) of the National Policy Statement for Freshwater Management 2014 by a regional council is to be reviewed, revised if necessary, and formally adopted by the regional council by 31 December 2018, and publicly notified.
- g) Every regional council must, at intervals of not more than five years, compile and make available to the public a review of the improvements to specified rivers and lakes, and primary contact sites, made in giving effect to Policy A5.

Appendix 1: National values and uses for fresh water

COMPULSORY NATIONAL VALUES

Ecosystem health – The freshwater management unit supports a healthy ecosystem appropriate to that freshwater body type (river, lake, wetland, or aquifer).

In a healthy freshwater ecosystem ecological processes are maintained, there is a range and diversity of indigenous flora and fauna, and there is resilience to change.

Matters to take into account for a healthy freshwater ecosystem include the management of adverse effects on flora and fauna of contaminants, changes in freshwater chemistry, excessive nutrients, algal blooms, high sediment levels, high temperatures, low oxygen, invasive species, and changes in flow regime. Other matters to take into account include the essential habitat needs of flora and fauna and the connections between water bodies.

Human health for recreation – In a healthy waterbody, people are able to connect with the water through a range of activities such as swimming, waka, boating, fishing, mahinga kai and water-skiing, in a range of different flows.

Matters to take into account for a healthy waterbody for human use include pathogens, clarity, deposited sediment, plant growth (from macrophytes to periphyton to phytoplankton), cyanobacteria and other toxicants.

OTHER NATIONAL VALUES

Natural form and character – Where people value particular natural qualities of the freshwater management unit.

Matters contributing to the natural form and character of a freshwater management unit are its biological, visual and physical characteristics that are valued by the community, including:

- i. its biophysical, ecological, geological, geomorphological and morphological aspects;
- ii. the natural movement of water and sediment including hydrological and fluvial processes;
- iii. the location of the water body relative to its natural course;
- iv. the relative dominance of indigenous flora and fauna;
- v. the presence of culturally significant species;
- vi. the colour of the water; and
- vii. the clarity of the water.

They may be freshwater management units with exceptional, natural, and iconic aesthetic features.

Mahinga kai – Kai are safe to harvest and eat.

Mahinga kai generally refers to indigenous freshwater species that have traditionally been used as food, tools, or other resources. It also refers to the places those species are found and to the act of catching them. Mahinga kai provide food for the people of the rohe and these sites give an indication of the overall health of the water.

For this value, kai would be safe to harvest and eat. Transfer of knowledge would occur about the preparation, storage and cooking of kai. In freshwater management units that are used for providing mahinga kai, the desired species are plentiful enough for long-term harvest and the range of desired species is present across all life stages.

Mahinga kai – Kei te ora te mauri (the mauri of the place is intact).

For this value, freshwater resources would be available and able to be used for customary use. In freshwater management units that are valued for providing mahinga kai, resources would be available for use, customary practices able to be exercised to the extent desired, and tikanga and preferred methods are able to be practised.

Fishing – The freshwater management unit supports fisheries of species allowed to be caught and eaten.

For freshwater management units valued for fishing, the numbers of fish would be sufficient and suitable for human consumption. In some areas, fish abundance and diversity would provide a range in species and size of fish, and algal growth, water clarity and safety would be satisfactory for fishers. Attributes will need to be specific to fish species such as salmon, trout, eels, lamprey, or whitebait.

Irrigation, cultivation and food production – The freshwater management unit meets irrigation needs for any purpose.

Water quality and quantity would be suitable for irrigation needs, including supporting the cultivation of food crops, the production of food from domesticated animals, non-food crops such as fibre and timber, pasture, sports fields and recreational areas. Attributes will need to be specific to irrigation and food production requirements.

Animal drinking water – The freshwater management unit meets the needs of stock.

Water quality and quantity would meet the needs of stock, including whether it is palatable and safe.

Wai tapu – Wai tapu represent the places where rituals and ceremonies are performed, or where there is special significance to iwi/hapū.

Rituals and ceremonies include, but are not limited to, tohi (baptism), karakia (prayer), waerea (protective incantation), whakatapu (placing of raahui), whakanoa (removal of raahui), and tuku iho (gifting of knowledge and resources for future generations).

In providing for this value, the wai tapu would be free from human and animal waste, contaminants and excess sediment, with valued features and unique properties of the wai protected. Other matters that may be important are that there is no artificial mixing of the wai tapu and identified taonga in the wai are protected.

Water supply – The freshwater management unit can meet people's potable water needs.

Water quality and quantity would enable domestic water supply to be safe for drinking with, or in some areas without, treatment.

Commercial and industrial use – The freshwater management unit provides economic opportunities to people, businesses and industries.

Water quality and quantity can provide for commercial and industrial activities. Attributes will need to be specific to commercial or industrial requirements.

Hydro-electric power generation – The freshwater management unit is suitable for hydro electric power generation.

Water quality and quantity and the physical qualities of the freshwater management unit, including hydraulic gradient and flow rate, can provide for hydro-electric power generation.

Transport and tauranga waka – The freshwater management unit is navigable for identified means of transport.

Transport and tauranga waka generally refers to places to launch waka and water craft, and appropriate places for waka to land (tauranga waka).

Water quality and quantity in the freshwater management unit would provide for navigation. The freshwater management unit may also connect places and people including for traditional trails and rites of passage, and allow the use of various craft.

Appendix 2: Attribute tables

Value	Ecosystem health		
Freshwater Body Type	Lakes		
Attribute	Phytoplankton (Trophic state)		
Attribute Unit	mg/m ³ (milligrams chlorophyll-a per cubic metre)		
Attribute State	Numeric Attribute State		Narrative Attribute State
	Annual Median	Annual Maximum	
A	≤2	≤10	Lake ecological communities are healthy and resilient, similar to natural reference conditions.
B	>2 and ≤5	>10 and ≤25	Lake ecological communities are slightly impacted by additional algal and/or plant growth arising from nutrient levels that are elevated above natural reference conditions.
C	>5 and ≤12	>25 and ≤60	Lake ecological communities are moderately impacted by additional algal and plant growth arising from nutrient levels that are elevated well above natural reference conditions. Reduced water clarity is likely to affect habitat available for native macrophytes.
National Bottom Line	12	60	

D	>12	>60	Lake ecological communities have undergone or are at high risk of a regime shift to a persistent, degraded state (without native macrophyte/seagrass cover), due to impacts of elevated nutrients leading to excessive algal and/or plant growth, as well as from losing oxygen in bottom waters of deep lakes.
----------	-----	-----	---

Note: For lakes and lagoons that are intermittently open to the sea, monitoring data should be analysed separately for closed periods and open periods.

Value	Ecosystem health		
Freshwater Body Type	Lakes		
Attribute	Total Nitrogen (Trophic state)		
Attribute Unit	mg/m ³ (milligrams per cubic metre)		
Attribute State	Numeric Attribute State		Narrative Attribute State
	Annual Median	Annual Median	
	Seasonally Stratified and Brackish	Polymictic	
A	≤160	≤300	Lake ecological communities are healthy and resilient, similar to natural reference conditions.
B	>160 and ≤350	>300 and ≤500	Lake ecological communities are slightly impacted by additional algal and/or plant growth arising from nutrient levels that are elevated above natural reference conditions.

C	>350 and ≤750	>500 and ≤800	Lake ecological communities are moderately impacted by additional algal and plant growth arising from nutrient levels that are elevated well above natural reference conditions.
National Bottom Line	750	800	
D	>750	>800	Lake ecological communities have undergone or are at high risk of a regime shift to a persistent, degraded state, (without native macrophyte/seagrass cover) due to impacts of elevated nutrients leading to excessive algal and/or plant growth, as well as from losing oxygen in bottom waters of deep lakes.

Note: For lakes and lagoons that are intermittently open to the sea, monitoring data should be analysed separately for closed periods and open periods.

Value	Ecosystem health	
Freshwater Body Type	Lakes	
Attribute	Total Phosphorus (Trophic state)	
Attribute Unit	mg/m ³ (milligrams per cubic metre)	
Attribute State	Numeric Attribute State	Narrative Attribute State
	Annual Median	
A	≤10	Lake ecological communities are healthy and resilient, similar to natural reference conditions.
B	>10 and ≤20	Lake ecological communities are slightly impacted by additional algal and plant growth arising from nutrient levels that are elevated above natural reference conditions.

C	>20 and ≤50	Lake ecological communities are moderately impacted by additional algal and plant growth arising from nutrient levels that are elevated well above natural reference conditions.
National Bottom Line	50	
D	>50	Lake ecological communities have undergone or are at high risk of a regime shift to a persistent, degraded state (without native macrophyte/seagrass cover), due to impacts of elevated nutrients leading to excessive algal and/or plant growth, as well as from losing oxygen in bottom waters of deep lakes.

Note: For lakes and lagoons that are intermittently open to the sea, monitoring data should be analysed separately for closed periods and open periods.

Value	Ecosystem health		
Freshwater Body Type	Rivers		
Attribute	Periphyton (Trophic state)		
Attribute Unit	mg chl-a/m ² (milligrams chlorophyll-a per square metre)		
Attribute State	Numeric Attribute State (Default Class)	Numeric Attribute State (Productive Class)¹	Narrative Attribute State
	Exceeded no more than 8% of samples²	Exceeded no more than 17% of samples²	
A	≤50	≤50	Rare blooms reflecting negligible nutrient enrichment and/or alteration of the natural flow regime or habitat.
B	>50 and ≤120	>50 and ≤120	Occasional blooms reflecting low nutrient enrichment and/or alteration of the natural flow regime or habitat.
C	>120 and ≤200	>120 and ≤200	Periodic short-duration nuisance blooms reflecting moderate nutrient enrichment and/or alteration of the natural flow regime or habitat.
National Bottom Line	200	200	

D	>200	>200	Regular and/or extended-duration nuisance blooms reflecting high nutrient enrichment and/or significant alteration of the natural flow regime or habitat.
----------	------	------	---

1. Classes are streams and rivers defined according to types in the River Environment Classification (REC). The Productive periphyton class is defined by the combination of REC “Dry” Climate categories (i.e. Warm-Dry (WD) and Cool-Dry (CD)) and REC Geology categories that have naturally high levels of nutrient enrichment due to their catchment geology (i.e. Soft-Sedimentary (SS), Volcanic Acidic (VA) and Volcanic Basic (VB)). Therefore the productive category is defined by the following REC defined types: WD/SS, WD/VB, WD/VA, CD/SS, CD/VB, CD/VA. The Default class includes all REC types not in the Productive class.

2. Based on a monthly monitoring regime. The minimum record length for grading a site based on periphyton (chl-a) is 3 years.

Note: To achieve a freshwater objective for periphyton within a freshwater management unit, regional councils must at least set appropriate instream concentrations and exceedance criteria for dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP). Where there are nutrient sensitive downstream receiving environments, criteria for nitrogen and phosphorus will also need to be set to achieve the outcomes sought for those environments.

Regional councils must use the following process, in the following order, to determine instream nitrogen and phosphorus criteria in a freshwater management unit:

- a) either –
 - i) if the freshwater management unit supports, or could support, conspicuous periphyton, derive instream concentrations and exceedance criteria for DIN and DRP to achieve a periphyton objective for the freshwater management unit; or
 - ii) if the freshwater management unit does not support, and could not support, conspicuous periphyton, consider the nitrogen and phosphorus criteria (instream concentrations or instream loads) needed to achieve any other freshwater objectives:
- b) if there are nutrient sensitive downstream environments, for example, a lake and/or estuary, derive relevant nitrogen and phosphorus criteria (instream concentrations or instream loads) needed to achieve the outcomes sought for those sensitive downstream environments:
- c) compare all nitrogen and phosphorus criteria derived in steps (a) – (b) and adopt those necessary to achieve the freshwater objectives for the freshwater management unit and outcomes sought for the nutrient sensitive downstream environments.

Value	Ecosystem health		
Freshwater Body Type	Rivers		
Attribute	Nitrate (Toxicity)		
Attribute Unit	mg NO ₃ -N/L (milligrams nitrate-nitrogen per litre)		
Attribute State	Numeric Attribute State		Narrative Attribute State
	Annual Median	Annual 95th Percentile	
A	≤1.0	≤1.5	High conservation value system. Unlikely to be effects even on sensitive species.
B	>1.0 and ≤2.4	>1.5 and ≤3.5	Some growth effect on up to 5% of species.
C	>2.4 and ≤6.9	>3.5 and ≤9.8	Growth effects on up to 20% of species (mainly sensitive species such as fish). No acute effects.
National Bottom Line	6.9	9.8	
D	>6.9	>9.8	Impacts on growth of multiple species, and starts approaching acute impact level (ie risk of death) for sensitive species at higher concentrations (>20 mg/L).

Note: This attribute measures the toxic effects of nitrate, not the trophic state. Where other attributes measure trophic state, for example periphyton, freshwater objectives, limits and/or methods for those attributes will be more stringent.

Value	Ecosystem health		
Freshwater Body Type	Lakes and rivers		
Attribute	Ammonia (Toxicity)		
Attribute Unit	mg NH ₄ -N/L (milligrams ammoniacal-nitrogen per litre)		
Attribute State	Numeric Attribute State		Narrative Attribute State
	Annual Median*	Annual Maximum*	
A	≤0.03	≤0.05	99% species protection level: No observed effect on any species tested
B	>0.03 and ≤0.24	>0.05 and ≤0.40	95% species protection level: Starts impacting occasionally on the 5% most sensitive species
C	>0.24 and ≤1.30	>0.40 and ≤2.20	80% species protection level: Starts impacting regularly on the 20% most sensitive species (reduced survival of most sensitive species)
National Bottom Line	1.30	2.20	
D	>1.30	>2.20	Starts approaching acute impact level (ie risk of death) for sensitive species

* Based on pH 8 and temperature of 20°C.

Compliance with the numeric attribute states should be undertaken after pH adjustment.

Value	Ecosystem health		
Freshwater Body Type	Rivers (below point sources)		
Attribute	Dissolved Oxygen		
Attribute Unit	mg/L (milligrams per litre)		
Attribute State	Numeric Attribute State		Narrative Attribute State
	7-day mean minimum ¹ (Summer Period: 1 November to 30th April)	1-day minimum ² (Summer Period: 1 November to 30th April)	
A	≥8.0	≥7.5	No stress caused by low dissolved oxygen on any aquatic organisms that are present at matched reference (near-pristine) sites.
B	≥7.0 and <8.0	≥5.0 and <7.5	Occasional minor stress on sensitive organisms caused by short periods (a few hours each day) of lower dissolved oxygen. Risk of reduced abundance of sensitive fish and macroinvertebrate species.
C	≥5.0 and <7.0	≥4.0 and <5.0	Moderate stress on a number of aquatic organisms caused by dissolved oxygen levels exceeding preference levels for periods of several hours each day. Risk of sensitive fish and macroinvertebrate species being lost.
National Bottom Line	5.0	4.0	

D	<5.0	<4.0	Significant, persistent stress on a range of aquatic organisms caused by dissolved oxygen exceeding tolerance levels. Likelihood of local extinctions of keystone species and loss of ecological integrity.
----------	------	------	---

1. The mean value of 7 consecutive daily minimum values.
2. The lowest daily minimum across the whole summer period.

Value	Human health for recreation				
Freshwater Body Type	Lakes and rivers				
Attribute	<i>Escherichia coli</i> (<i>E. coli</i>)				
Attribute Unit	<i>E. coli</i> /100 mL (number of <i>E. coli</i> per hundred millilitres)				
Attribute State^{1,2}	Numeric Attribute State				Narrative Attribute State
	% exceedances over 540 cfu/100 mL	% exceedances over 260 cfu/100 mL	Median concentration (cfu/100 mL)	95th percentile of <i>E. coli</i> /100 mL	Description of risk of Campylobacter infection (based on <i>E. coli</i> indicator)
A (Blue)	<5%	<20%	≤130	≤540	For at least half the time, the estimated risk is <1 in 1000 (0.1% risk) The predicted average infection risk is 1%*
B (Green)	5-10%	20-30%	≤130	≤1000	For at least half the time, the estimated risk is <1 in 1000 (0.1% risk) The predicted average infection risk is 2%*
C (Yellow)	10-20%	20-34%	≤130	≤1200	For at least half the time, the estimated risk is <1 in 1000 (0.1% risk) The predicted average infection risk is 3%*
D (Orange)	20-30%	>34%	>130	>1200	20-30% of the time the estimated risk is ≥50 in 1000 (>5% risk) The predicted average infection risk is >3%*

<p>E (Red)</p>	<p>>30%</p>	<p>>50%</p>	<p>>260</p>	<p>>1200</p>	<p>For more than 30% of the time the estimated risk is ≥ 50 in 1000 (>5% risk) The predicted average infection risk is >7%*</p>
----------------------------------	----------------	----------------	----------------	-----------------	--

* The predicted average infection risk is the overall average infection to swimmers based on a random exposure on a random day, ignoring any possibility of not swimming during high flows or when a surveillance advisory is in place (assuming that the *E. coli* concentration follows a lognormal distribution). Actual risk will generally be less if a person does not swim during high flows.

¹ Attribute state should be determined by using a minimum of 60 samples over a maximum of 5 years, collected on a regular basis regardless of weather and flow conditions. However, where a sample has been missed due to adverse weather or error, attribute state may be determined using samples over a longer timeframe.

² Attribute state must be determined by satisfying all numeric attribute states.

Value	Human health for recreation	
Freshwater Body Type	Lakes and lake fed rivers	
Attribute	<i>Cyanobacteria – Planktonic</i>	
Attribute Unit	<i>Biovolume - mm³/L (cubic millimetres per litre)</i>	
Attribute State	Numeric Attribute State	Narrative Attribute State
	80th percentile*	
A (Blue)	≤0.5 mm ³ /L biovolume equivalent for the combined total of all cyanobacteria	Risk exposure from cyanobacteria is no different to that in natural conditions (from any contact with fresh water).
B (Green)	>0.5 and ≤1.0 mm ³ /L biovolume equivalent for the combined total of all cyanobacteria	Low risk of health effects from exposure to cyanobacteria (from any contact with fresh water).
C (Yellow)	>1.0 and ≤1.8 mm ³ /L biovolume equivalent of potentially toxic cyanobacteria OR >1.0 and ≤10 mm ³ /L total biovolume of all cyanobacteria	Moderate risk of health effects from exposure to cyanobacteria (from any contact with fresh water).
National Bottom Line	1.8 mm ³ /L biovolume equivalent of potentially toxic cyanobacteria OR 10 mm ³ /L total biovolume of all cyanobacteria	
D (Orange/Red)	>1.8 mm ³ /L biovolume equivalent of potentially toxic cyanobacteria OR >10 mm ³ /L total biovolume of all cyanobacteria	High health risks (eg. respiratory, irritation and allergy symptoms) exist from exposure to cyanobacteria (from any contact with fresh water).

* The 80th percentile must be calculated using a minimum of 12 samples collected over 3 years. 30 samples collected over 3 years is recommended.

Appendix 3: Existing infrastructure for the purposes of Policy CA3(b) and Policy CB3(c)

[Editor's note: This appendix is currently empty.]

Appendix 4: Freshwater management units and periods of time for transition under Policy CA4

[Editor's note: This appendix is currently empty.]

Appendix 5: Surveillance monitoring of *E. coli* at primary contact sites

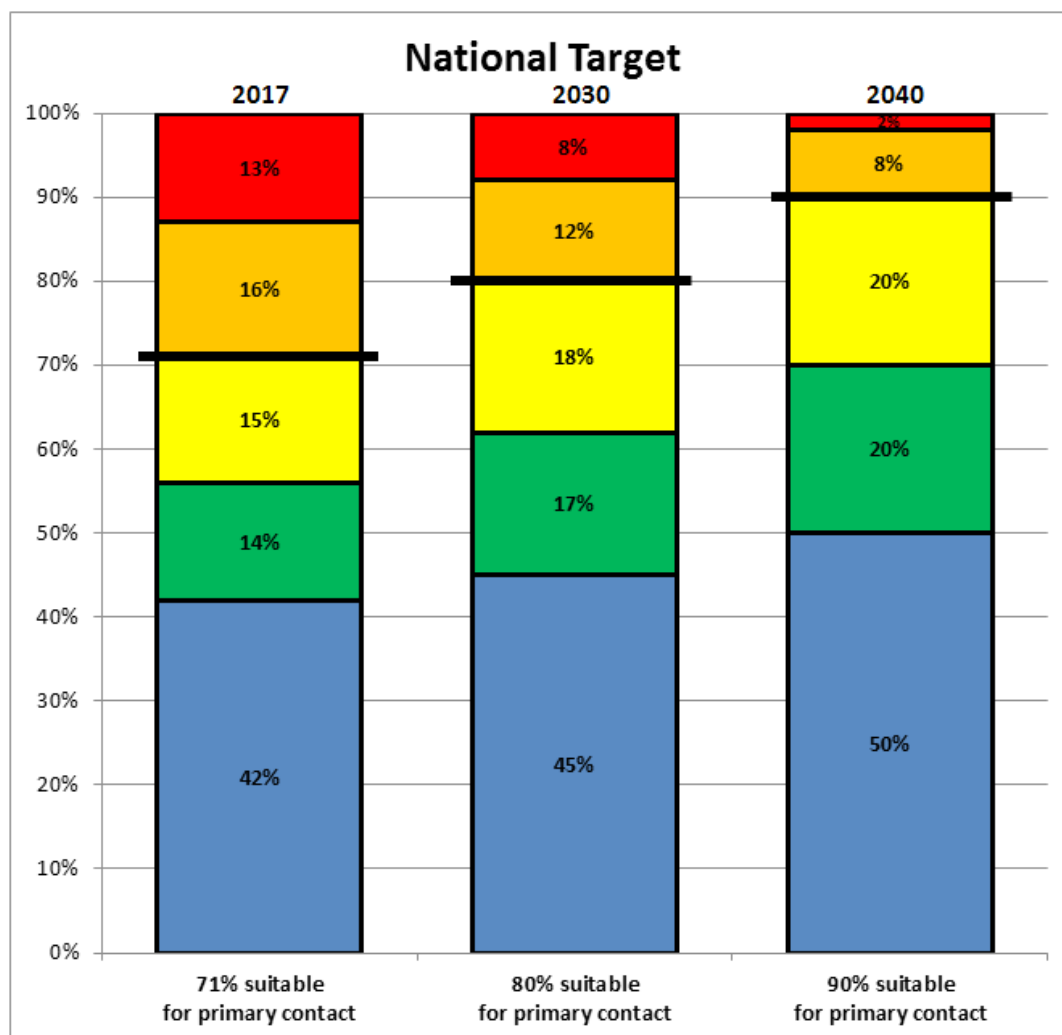
Surveillance monitoring requirements for *E. coli*

Where a regional plan has identified primary contact sites, the regional council will:

- a) For each identified primary contact site, identify the date range or date ranges and flow conditions within which it is or would be used for primary contact;
- b) Identify a sampling site (or sites) that is representative of the primary contact site (or primary contact sites); and
- c) For each sampling site, and within the date range or date ranges identified in (a) undertake weekly sampling for *E. coli*, unless;
 - i. a single sample from a sampling site is greater than 260 *E. coli* per 100 mL, in which case, increase sampling frequency to daily where practicable, and take all reasonable steps to identify potential causes of microbiological contamination; and
 - ii. a single sample is greater than 540 *E. coli* per 100 mL, in which case take all reasonable steps to notify, and keep the public informed, that the site is unsuitable for recreation until further sampling shows a result of 540 *E. coli* per 100 mL or less.

APPENDIX 6: National target for water quality improvement

The national target is to increase proportions of specified rivers and lakes that are suitable for primary contact (those that are in the **blue**, **green** and **yellow** categories) to at least 80% by 2030, and 90% no later than 2040, but also to improve water quality across all categories.



The categories above represent combined improvements in all regions. For each region, this means reducing the length of specified rivers and lakes in the **red** and **orange** categories, and increasing the length of specified rivers and lakes in the **yellow**, **green** and **blue** categories.

The categories are based on water quality in terms of the two human health attributes, *E. coli* and cyanobacteria – planktonic in Appendix 2 of this national policy statement.

For rivers and lakes, the target categories are same as the *E. coli* table attribute states. However, the categories do not include the 95th percentile of *E. coli*/100 mL numeric attribute state if there is insufficient monitoring data to establish the 95th percentile.

For lakes, the categories are also based on the cyanobacteria – planktonic attribute states, however, to provide additional granularity for tracking improvements over time, the D band has been split into two categories (**orange** and **red**) as follows:

- a. **orange** means the lake has between 1.8 and 3.0 mm³/L biovolume of cyanobacteria – planktonic, using an 80th percentile; and
- b. **red** means the lake has more than 3.0 mm³/L biovolume of cyanobacteria – planktonic, using an 80th percentile.

For lakes, the lowest category for either *E. coli* or cyanobacteria – planktonic applies.

Reprint notes

1 General

This is a reprint of the National Policy Statement for Freshwater Management 2014 that incorporates all the amendments to the National Policy Statement as at the date of the last amendment to it.

2 Amendments incorporated in this reprint

National Policy Statement for Freshwater Management Amendment Order 2017, as published in the *New Zealand Gazette*, 10 August 2017, Editon 81, page 1.

Partially Operative Otago Regional Policy Statement 2019



Mō tātou, ā, mō kā uri ā muri ake nei

**For us and for the generations
that come after us**

Amended March 15 2021

Partially Operative Otago Regional Policy Statement 2019

Approval

The Otago Regional Council by resolution dated 24 February 2021, approved and made operative the Partially Operative Otago Regional Policy Statement 2019 contained herein*, pursuant to the powers and authorities vested in it by the First Schedule of the Resource Management Act 1991.

This Partially Operative
Regional Policy Statement
becomes operative
on 15 March 2021.

The common seal of the
Otago Regional Council was
hereto affixed in the presence of:



A handwritten signature in blue ink, appearing to read "A. Noone", written over a horizontal line.

Andrew Noone
Chairperson

A handwritten signature in blue ink, written over a horizontal line. The signature is stylized and difficult to decipher.

Councillor

**The following provisions are the subject of court proceedings and are not made operative. Note that some of the following were proposed during mediation, and were not part of the original decisions version of the Regional Policy Statement:*

- Policy 4.3.7
- Method 3.1.6
- Method 3.1.10
- Method 3.1.18
- Method 4.1.3
- Method 4.1.22
- Method 5.1.2

Contents

PART A Introduction.....	1
Overview	1
The Otago Region	1
Statutory Framework Diagram	2
Map of Otago.....	3
Kai Tahu – The Treaty Partner	4
Principles of the Treaty.....	4
Partnership	4
Expression of Te Tiriti o Waitangi	4
Kai Tahu	5
Mana Whenua in Otago.....	7
RPS Framework.....	8
Part A: Introduction	9
Part B: Objectives and Policies	9
Part C: Implementation	9
Part D: Schedules and Appendices	9
Part B Chapter 1 Resource management in Otago is integrated.....	10
Chapter overview.....	10
Objective 1.1 Otago’s resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities	11
Issue	11
Policy 1.1.1 Economic Wellbeing.....	11
Policy 1.1.2 Social and cultural wellbeing and health and safety.....	11
Principal Reasons and Explanation	12
Objective 1.2 Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago	13
Issue	13
Policy 1.2.1 Integrated resource management	13
Principal Reasons and Explanation	14
Part B Chapter 2 Kāi Tahu Values and interests are recognised and Kaitiakitaka is expressed	15
Chapter Overview	15
Objective 2.1 The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions	16
Issue	16
Policy 2.1.1 Treaty Obligations	16
Policy 2.1.2 Treaty Principles.....	16
Principal Reasons and Explanation	17
Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for.....	18
Issue	18
Policy 2.2.1 Kāi Tahu wellbeing	18

Policy 2.2.2 Recognising sites of cultural significance	18
Policy 2.2.3 Wāhi tūpuna and associated sites.....	19
Policy 2.2.4 Sustainable use of Māori land.....	19
Principal Reasons and Explanation	20
Part B Chapter 3 Otago has high quality natural resources and ecosystems.....	21
Chapter Overview	21
Objective 3.1 The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.....	23
Issue	23
Policy 3.1.1 Fresh water.....	23
Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins.....	24
Policy 3.1.3 Water allocation and use	24
Policy 3.1.4 Water shortage	25
Policy 3.1.5 Coastal Water.....	25
Policy 3.1.6 Air Quality.....	26
Policy 3.1.7 Soil values	26
Policy 3.1.8 Soil erosion.....	27
Policy 3.1.9 Ecosystems and indigenous biological diversity	27
Policy 3.1.10 Biodiversity in the coastal environment	28
Policy 3.1.11 Natural features, landscapes, and seascapes	29
Policy 3.1.12 Natural character in the coastal environment.....	29
Policy 3.1.13 Environmental enhancement.....	30
Principal Reasons and Explanation.....	31
Objective 3.2 Otago's significant and highly-valued natural resources are identified, and protected or enhanced where degraded	32
Issue	32
Policy 3.2.1 Identifying significant indigenous vegetation and habitats	32
Policy 3.2.2 Managing significant indigenous vegetation and habitats	32
Policy 3.2.3 Identifying outstanding natural features, landscapes and seascapes	33
Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes.....	34
Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes	34
Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes.....	35
Policy 3.2.7 Landward extent of the coastal environment.....	35
Policy 3.2.8 Identifying high and outstanding natural character in the coastal environment ...	36
Policy 3.2.9 Managing the outstanding natural character of the coastal environment.....	36
Policy 3.2.10 Managing the high natural character of the coastal environment.....	37
Policy 3.2.11 Identifying surf breaks of national importance.....	38
Policy 3.2.12 Managing surf breaks of national importance	38
Policy 3.2.13 Identifying outstanding freshwater bodies	38
Policy 3.2.14 Managing outstanding freshwater bodies	39
Policy 3.2.15 Identifying the significant values of wetlands.....	39
Policy 3.2.16 Managing the values of wetlands	40
Policy 3.2.17 Identifying significant soil.....	40

Policy 3.2.18 Managing significant soil	40
Principal Reasons and Explanation	41
Part B Chapter 4 Communities in Otago are resilient, safe and healthy	42
Chapter Overview	42
Objective 4.1 Risks that natural hazards pose to Otago’s communities are minimised	45
Issue	45
Policy 4.1.1 Identifying natural hazards.....	45
Policy 4.1.2 Natural hazard likelihood	45
Policy 4.1.3 Natural hazard consequence.....	46
Policy 4.1.4 Assessing activities for natural hazard risk.....	46
Policy 4.1.5 Natural hazard risk	47
Policy 4.1.6 Minimising increase in natural hazard risk.....	48
Policy 4.1.7 Reducing existing natural hazard risk.....	48
Policy 4.1.8 Precautionary approach to natural hazard risk.....	49
Policy 4.1.9 Protecting features and systems that provide hazard mitigation.....	49
Policy 4.1.10 Mitigating natural hazards	50
Policy 4.1.11 Hard protection structures.....	50
Policy 4.1.12 Lifeline utilities and facilities for essential or emergency services	51
Policy 4.1.13 Hazard mitigation measures, lifeline utilities, and essential and emergency services	51
Principal Reasons and Explanation	52
Objective 4.2 Otago’s communities are prepared for and able to adapt to the effects of climate change.....	53
Issue	53
Policy 4.2.1 Sea level rise.....	53
Policy 4.2.2 Climate change	53
Principal Reasons and Explanation	54
Objective 4.3 Infrastructure is managed and developed in a sustainable way	55
Issue	55
Policy 4.3.1 Managing infrastructure activities	55
Policy 4.3.2 Nationally and regionally significant infrastructure	55
Policy 4.3.3 Functional needs of infrastructure that has national or regional significance	56
Policy 4.3.4 Adverse effects of nationally and regionally significant infrastructure	56
Policy 4.3.5 Protecting infrastructure with national or regional significance	57
Policy 4.3.6 The National Grid	58
Principal Reasons and Explanation	59
Objective 4.4 Energy resources and supplies are secure, reliable and sustainable	60
Issue	60
Policy 4.4.1 Renewable electricity generation	60
Policy 4.4.2 Small and community scale renewable electricity generation	60
Policy 4.4.3 Protecting existing renewable electricity generation	61
Policy 4.4.4 Efficient transport of electricity	61
Policy 4.4.5 Electricity distribution infrastructure.....	61

Policy 4.4.6 Energy efficient transport	62
Policy 4.4.7 Fuels	63
Principal Reasons and Explanation	63
Objective 4.5 Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments.....	64
Issue	64
Policy 4.5.1 Providing for urban growth and development	64
Policy 4.5.2 Integrating infrastructure with land use	65
Policy 4.5.3 Urban design	66
Policy 4.5.4 Low impact design.....	66
Policy 4.5.5 Warmer buildings.....	66
Policy 4.5.6 Designing for public access	67
Principal Reasons and Explanation.....	67
Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago	68
Issue	68
Policy 4.6.1 Hazardous substances.....	68
Policy 4.6.2 Use, storage and disposal of hazardous substances	68
Policy 4.6.3 Hazardous substance collection, disposal and recycling.....	69
Policy 4.6.4 Identifying contaminated land	69
Policy 4.6.5 Managing contaminated land	69
Policy 4.6.6 Waste management	70
Policy 4.6.7 Waste minimisation responses	70
Policy 4.6.8 Waste storage, recycling, recovery, treatment and disposal.....	70
Policy 4.6.9 New Contaminated land.....	71
Principal Reasons and Explanation.....	71
Part B Chapter 5 People are able to use and enjoy Otago’s natural and built environment	72
Chapter Overview	72
Objective 5.1 Public access to areas of value to the community is maintained or enhanced	74
Issue	74
Policy 5.1.1 Public Access	74
Principal Reasons and Explanation	75
Objective 5.2 Historic heritage resources are recognised and contribute to the region’s character and sense of identity.....	76
Issue	76
Policy 5.2.1 Recognising historic heritage	76
Policy 5.2.2 Identifying historic heritage	76
Policy 5.2.3 Managing historic heritage	77
Principal Reasons and Explanation	77
Objective 5.3 Sufficient land is managed and protected for economic production.....	78
Issue	78
Policy 5.3.1 Rural activities	78
Policy 5.3.2 Distribution of commercial activities	78

Policy 5.3.3 Industrial land.....	79
Policy 5.3.4 Mineral and petroleum exploration, extraction and processing	79
Policy 5.3.5 Tourism and outdoor recreation.....	79
Principal Reasons and Explanation	79
Objective 5.4 Adverse effects of using and enjoying Otago’s natural and physical resources are minimised	80
Issue	80
Policy 5.4.1 Offensive or objectionable discharges	80
Policy 5.4.2 Adaptive management approach.....	80
Policy 5.4.3 Precautionary approach to adverse effects	81
Policy 5.4.4 Emission standards.....	81
Policy 5.4.5 Pest plants and animals.....	81
Policy 5.4.6 Offsetting for indigenous biological diversity	82
Policy 5.4.6A Biological Diversity Compensation.....	83
Policy 5.4.7 Offsetting for air quality.....	83
Policy 5.4.8 Adverse effects from mineral and petroleum exploration, extraction and processing.....	84
Policy 5.4.9 Activities in the Coastal Marine Area	85
Policy 5.4.10 Managing land use change in dry catchments.....	86
Principal Reasons and Explanation	86
Part C Implementation	87
Roles and Responsibilities.....	87
Methods.....	88
Method 1: Kāi Tahu Relationships	88
Method 2: Regional, City and District Council Relationships	88
Method 3: Regional Plans.....	89
Method 4: City and District Plans	91
Method 5: Research, Monitoring and Reporting.....	94
Method 6: Non-RMA Strategies and Plans	96
Method 7: Education and Information.....	98
Method 8: Funding	99
Method 9: Advocacy and Facilitation	99
Monitoring Procedures and Anticipated Environmental Results	103
Monitoring procedures.....	103
Anticipated Environmental Results	103
Part D Schedules and Appendices.....	106
Schedule 1 Kāi Tahu values & interests	106
Schedule 1A Kāi Tahu values	106
Schedule 1B Interests specific to particular papatipu rūnaka	109
Schedule 1C Wāhi tupuna.....	112
Schedule 1D Māori land reserves	115
Schedule 2 Statutory acknowledgement areas	120

Schedule 3 Criteria for the identification of outstanding natural features, landscapes and seascapes, and highly valued natural features, landscapes and seascapes 121

Schedule 4 Criteria for the identification of areas of significant indigenous vegetation and habitat of indigenous fauna 122

Schedule 5 Criteria for the identification of historic heritage values..... 124

Schedule 6 Housing capacity 126

Appendix 1 Te Tiriti o Waitangi..... 127

Glossary 129

User Index 139

Abbreviations	
AER	Anticipated Environmental Result
ORC	Otago Regional Council
RMA	Resource Management Act 1991
RPS	Regional Policy Statement
Treaty	Te Tiriti o Waitangi

PART A Introduction

Overview

Continued prosperity and wellbeing is essential to ensuring the community is equipped to face the environmental, economic, cultural and social changes of the 21st century, and to provide opportunities for all people to realise their aspirations. A thriving and healthy natural environment is vital to sustaining our wellbeing.

The RPS is a high level policy framework for the sustainable integrated management of resources, identifying regionally significant issues, the objectives and policies that direct how natural and physical resources are to be managed and setting out how this will be implemented by the region's local authorities.

The RPS gives effect to the RMA and higher order planning documents, and takes into account relevant iwi authority planning documents. Regional and district plans must give effect to the RPS, as illustrated in the Statutory Framework Diagram.

The RPS has been developed to identify the best of the distinct life-style Otago has to offer: outstanding and wild environments, prosperity, abundant recreational opportunities, a sense of rich local history, and community pride. It provides for the values of all resources, people and communities. The RPS guides how these values are to be balanced in the sustainable management of natural and physical resources.

The Otago Region

Otago is 12% of New Zealand's land area and at about 32,000 km² is the second largest region in New Zealand. It stretches 480 km along the South Island's eastern coast, from the Waitaki River in the north to The Brothers Point in the south. It reaches inland to the alpine lakes Wakatipu, Wanaka and Hawea, encompassing the Clutha Mata-au, and Taieri catchments.

Otago covers a wide range of geography and ecosystems: tussock and tor covered block mountains and dry inland basins, glacial lakes and their mountain settings, broad grassy valleys fringed with beech forests extending well into the Southern Alps and dramatic coastlines around the Otago Peninsula and the Catlins. The vegetation is similarly diverse, from the lowland podocarp forests of the Catlins, through the dry grassland ecosystems of Central Otago to the high rainfall beech and alpine areas of Mount Aspiring/Tititea National Park.

Human activity has left its mark on the landscape. Māori archaeological sites, hydro lakes, tailings and bridges from the gold rush era, pastoral landscapes, and historical architecture all provide evidence of long, rich and varied human occupation.

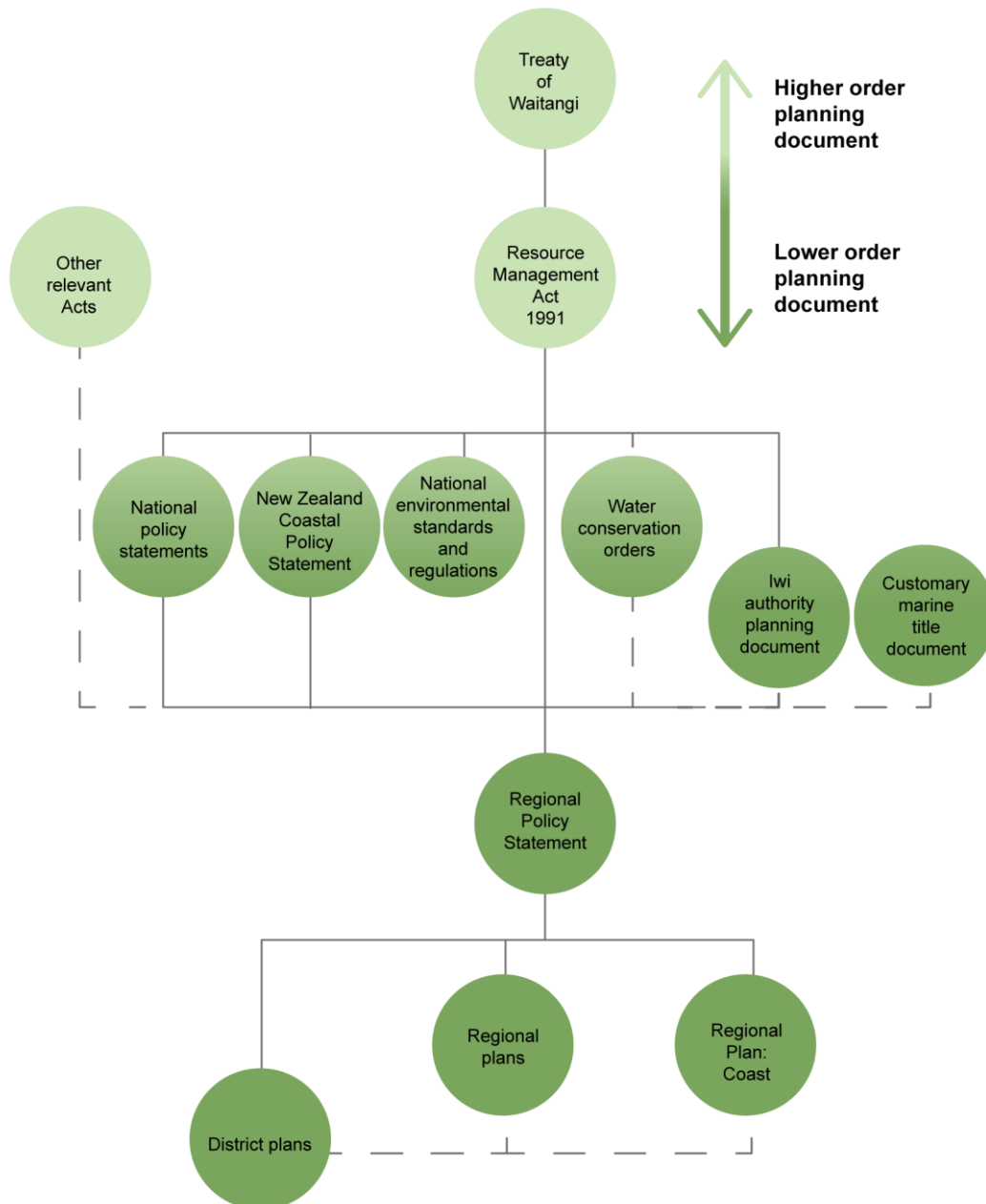
Introduced species have become a valued part of the environment in some cases, and troublesome pests in others.

Agriculture is the basis of Otago's economic development and continues to be a major source of revenue, as does mining for gold and other minerals and education. Tourism now provides more

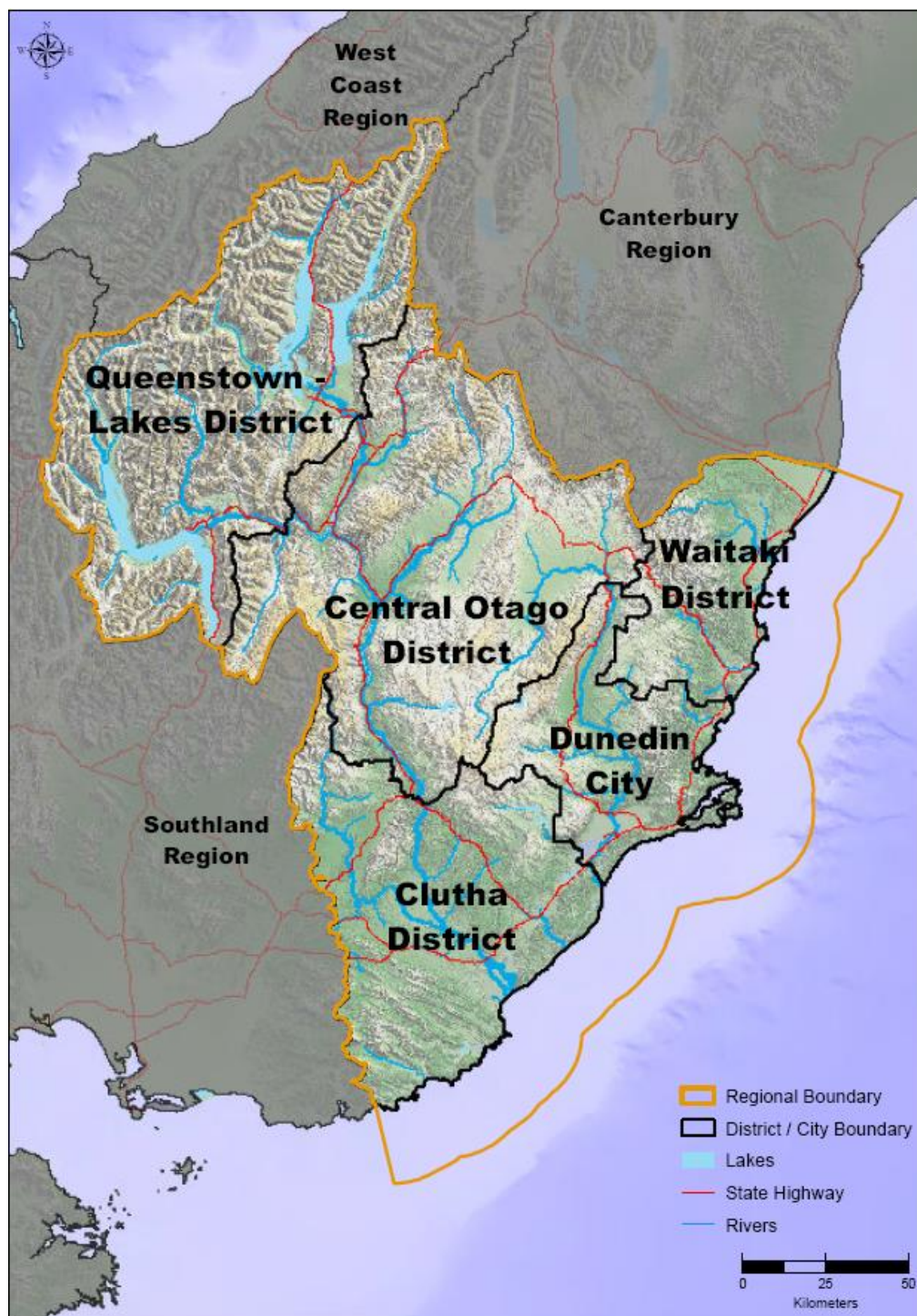
than a quarter of Otago’s Gross Domestic Product which is the highest proportion for any region in New Zealand.

At the 2013 census, Otago’s population of 202,467 was the seventh largest of New Zealand’s 16 regions and is about 4.8% of New Zealand's total population. The Queenstown Lakes District was the second fastest growing territorial authority area in New Zealand.

Statutory Framework Diagram



Map of Otago



Otago comprises five territorial authorities: Dunedin City Council, and Clutha, Central Otago, Queenstown Lakes and Waitaki District Councils. Waitaki District straddles both the Otago and Canterbury regions. The region includes the coastal environment offshore to 12 nautical miles.

Kāi Tahu¹ – The Treaty Partner

Te Tiriti o Waitangi, the Treaty of Waitangi, is the founding document for New Zealand, the basis upon which the partnership between Māori and the Crown was established. The Kāi Tahu raketira Karetai and Korako signed the Treaty at Pukekura, Taiaroa Head, on 13 June 1840. The Treaty was also signed by Kāi Tahu at Akaroa, Ruapuke and Cloudy Bay. Kāi Tahu considered that the Treaty bound the tribe and the Crown irrevocably to a mutual agreement which imposed responsibilities on both signatories.

Principles of the Treaty

In drafting legislation, Parliament has chosen to refer to the principles of the Treaty, rather than its explicit terms. The principles of the Treaty, as enunciated by the Waitangi Tribunal and the courts, include:

- The principle of tribal raketirataka/self-regulation. Recognising the right of Kāi Tahu to manage resources and exercise kaitiakitaka over their ancestral lands, waters, and other taoka.
- The principle of partnership. Mutual obligations to act reasonably and in good faith.
- The principle of active participation in decision making.
- The principle of active protection of Kāi Tahu interests.
- The principle of development. The Treaty principles are not confined to customary uses or the state of knowledge as at 1840 but are to be adapted to modern, changing circumstances.

There are two versions of the Treaty of Waitangi, the English version and the Māori version. See Appendix 2. The Māori language text, as the version signed by the Kāi Tahu raketira, should prevail if there is ambiguity.

Partnership

The ORC has an established relationship with Kāi Tahu based on the Treaty partnership. Kāi Tahu values the relationship with the ORC and is committed to working with the wider community towards a positive future for all people. Partnership between the ORC and Kāi Tahu embodies the principles of the Treaty of Waitangi in decision making and local environmental management.

Expression of Te Tiriti o Waitangi

The RPS has been developed in consultation with Kāi Tahu. It identifies the matters that have the potential to affect cultural values and wellbeing, and enables Kāi Tahu to participate in resource management processes.

Matters of particular interest to Kāi Tahu include:

¹ In the south of the South Island, the local Māori dialect uses a 'k' interchangeably with 'ng'. The preference is to use a 'k' so southern Māori are known as Kāi Tahu, rather than Ngāi Tahu. In this document, the "ng" is used for the iwi in general, and the "k" for southern Māori in particular. See the glossary for a complete definition.

- Recognising the rights and interests of Kāi Tahu to be involved in natural and resource management processes.
- Identifying and protecting important natural and physical resources, including the coast, waterways, lakes, wetlands and indigenous flora and fauna.
- Protecting traditional food gathering sites from any use or development which may threaten the values of these areas.
- Protecting mahika kai and restoring access to mahika kai areas;
- Protecting wāhi tūpuna and urupā.
- Enabling development of land and resources within native reserves, including papakāika housing.

Kāi Tahu

Kāi Tahu are takata whenua of the Otago region. Waitaha were the first people of Te Waipounamu, the South Island. Led by Rākaihautū, they explored and settled Te Waipounamu, and their exploits are reflected in enduring place names and histories across the motu. Waitaha were followed by the arrival of Kāti Māmoe and finally Kāi Tahu. Through warfare, intermarriage and political alliances a common allegiance to Kāi Tahu was forged. Kāi Tahu means the ‘people of Tahu’, linking them by name to their common ancestor Tahu Pōtiki.

The Kāi Tahu tribal area extends from the sub Antarctic islands in the south to Te Parinuiowhiti (White Cliffs, Blenheim) in the north and to Kahurangi Point on Te Tai o Poutini (the West Coast).

Te Rūnanga o Ngāi Tahu (the iwi authority) is made up of 18 papatipu rūnaka, of which four are in Otago.

Located predominantly in traditional coastal settlements, papatipu rūnaka are a focus for whānau and hapū (extended family groups) who have takata whenua status within their area. Takata whenua hold traditional customary authority and maintain contemporary relationships within an area determined by whakapapa (genealogical ties), resource use and ahi-kā-roa (the long burning fires of occupation).

Te Rūnanga o Ngāi Tahu encourages consultation with the papatipu rūnaka and takes into account the views of nga rūnaka when determining its own position. The four Otago rūnaka are Te Rūnanga o Moeraki, Kati Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Otakou, and Hokonui Rūnanga.

The interests of these rūnaka are given in more detail in Schedule 1B. They share an interest in South Otago and the inland lakes and mountains with the Southland papatipu rimaka.

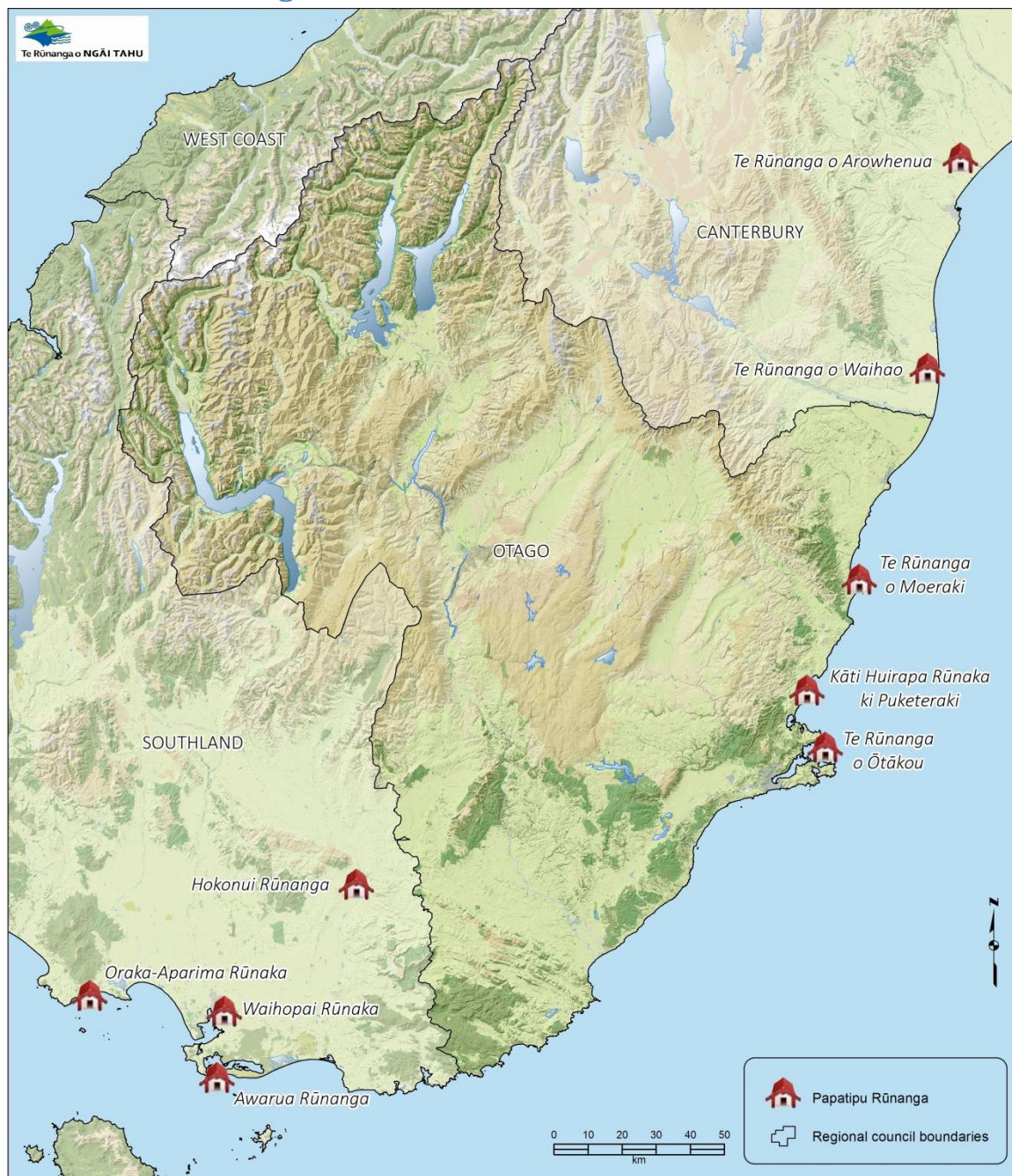
The areas of shared interest originate from the seasonal hunting and gathering economy that was a distinctive feature of the southern Kāi Tahu lifestyle. Seasonal mobility was an important means by which hapū and whānau maintained customary rights to the resources of the interior and ahi kā.

Otago is also home to Māori from other iwi, hapū, and mātāwaka. The Araiteuru marae in Dunedin and Te Whare Koa in Oamaru are important pan-tribal cultural centres for mātāwaka and sit within the manaakitanga of takata whenua.

In 1998, the Ngāi Tahu Claims Settlement Act 1998 was enacted to settle historical Ngāi Tahu claims against the Crown. This Act identifies some taoka species, establishes tōpuni, statutory acknowledgements, dual place names and nohoaka sites. These recognise the special association of Ngāi Tahu with these areas and resources and assist with Ngāi Tahu participation in processes under the Resource Management Act 1991 and the Local Government Act 2002.

The papatipu rūnaka consultancy services, Kāi Tahu Ki Otago Ltd, representing the Otago rūnaka, and Te Ao Marama Inc, representing the Southland rūnaka, provide a first point of contact and facilitate Kāi Tahu engagement in resource management processes.

Mana whenua in Otago

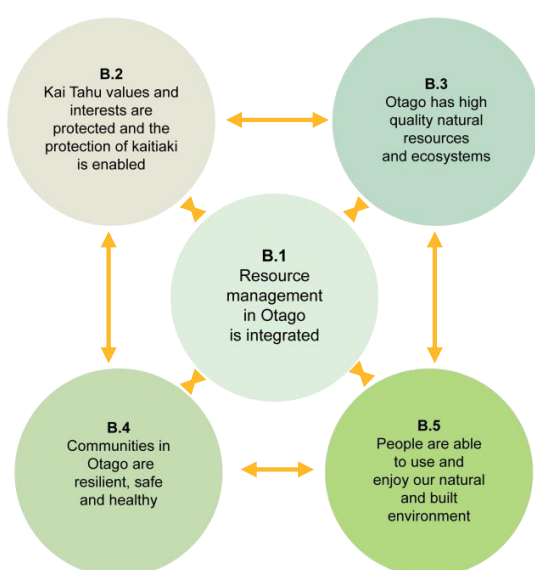


RPS Framework

Part A: Introduction

Overview
The Otago Region
Kāi Tahu – The Treaty Partner
RPS Framework

Part B: Objectives and Policies



Each chapter is ordered as follows:

Introduction
Objective
Related issue
Policies
Methods
Principal Reasons and Explanations

Part C: Implementation

Roles and responsibilities
Methods
Anticipated Environmental Results

Part D: Schedules and Appendices

Schedules 1 – 6
Appendix
Glossary
User Index

Five outcomes are sought in managing the region's natural and physical resources.

All provisions of the RPS must be considered together. The outcomes inter-relate, and no hierarchy exists between them.

These outcomes provide the framework for sustainable, integrated management of resource use for us and for the generations that come after us - *Mō tātou, ā, mō kā uri ā muri ake nei*.

These outcomes form the chapters of Part B, which contain the inter-related objectives and policies. The focus of each chapter is outlined below.

Part A: Introduction

This explains the RPS context and purpose.

Part B: Objectives and Policies

The five outcomes form the chapter headings of Part B: Objectives and Policies.

Objectives and policies are set out under each chapter, together with the relevant regionally significant issues being addressed and general implementation methods. Schedules provide further detail for specific policies.

The five outcomes are:

1. Resource management in Otago is integrated
2. Kāi Tahu values, and interests are recognised and kaitiakitaka is expressed
3. Otago has high quality natural resources and ecosystems
4. Communities in Otago are resilient, safe and healthy
5. People are able to use and enjoy our natural and built environment

Part C: Implementation

Part C: Implementation details the methods and procedures that will be used by local authorities to give effect to the objectives and policies of the RPS. This includes identifying the division of roles and responsibilities under the RMA, as well as monitoring, reporting and other methods to achieve the objectives of the RPS.

This section also contains the anticipated environmental results from implementing the RPS policies and methods.

Part D: Schedules and Appendices

The schedules provide additional detail supporting RPS policies. The Appendix provides the wording of Te Tiriti o Waitangi in Te Reo and English. A glossary and user index are provided for ease of use.

PART B Chapter 1 Resource management in Otago is integrated

This first chapter recognises that the different parts of the natural and physical environment are interconnected. The integrated management of natural and physical resources and human values is essential to safeguard the life-supporting capacity of the environment and enable the social, cultural, and economic wellbeing of all people and communities.

Chapter overview:

Objective 1.1

Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities Page

Policy 1.1.1 Economic wellbeing 11

Policy 1.1.2 Social and cultural wellbeing and health and safety 11

Objective 1.2

Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago. Page

Policy 1.2.1 Integrated resource management 13

Objective 1.1 Otago’s resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities

Issue

The social and economic wellbeing of Otago’s communities depends on use and development of natural and physical resources.

Loss or degradation of resources can diminish their intrinsic values and constrains opportunities for use and development now and into the future.

Some of Otago’s resources are nationally or regionally important for their natural values and economic potential and so warrant careful management.

Policy 1.1.1 Economic wellbeing

Provide for the economic wellbeing of Otago’s people and communities by enabling the resilient and sustainable use and development of natural and physical resources.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Policy 1.1.2 Social and cultural wellbeing and health and safety

Provide for the social and cultural wellbeing and health and safety of Otago’s people and communities when undertaking the subdivision, use, development and protection of natural and physical resources by all of the following:

- a) Recognising and providing for Kāi Tahu values;
- b) Taking into account the values of other cultures;
- c) Taking into account the diverse needs of Otago’s people and communities;
- d) Avoiding significant adverse effects of activities on human health;
- e) Promoting community resilience and the need to secure resources for the reasonable needs for human wellbeing;
- f) Promoting good quality and accessible infrastructure and public services.

Method 1: Kāi Tahu Relationships

Method 1.1, Method 1.2

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 9: Advocacy and Facilitation
Method 9.1.2 g

Principal Reasons and Explanation

Sustainable management under the RMA includes enabling social, economic and cultural wellbeing for present and future generations. Resource management decisions need to recognise that individual and community wellbeing depends on use, development and protection of natural and physical resources.

Objective 1.2 Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago

Issue:

Natural and physical resources are interconnected, complex and should be managed in an integrated, sustainable, consistent and effective way because the use of one resource may adversely affect another. Inefficient and ineffective responses or unexpected adverse effects can occur when activities affecting a resource are undertaken by different resource users, governed by different legislation, or administered by different local authorities. Plans need to address diverse and conflicting interests.

Policy 1.2.1 Integrated resource management

Achieve integrated management of Otago's natural and physical resources, by all of the following:

- a) Coordinating the management of interconnected natural and physical resources;
- b) Taking into account the impacts of management of one natural or physical resource on the values of another, or on the environment;
- c) Recognising that the value and function of a natural or physical resource may extend beyond the immediate, or directly adjacent, area of interest;
- d) Ensuring that resource management approaches across administrative boundaries are consistent and complementary;
- e) Ensuring that effects of activities on the whole of a natural or physical resource are considered when that resource is managed as subunits.
- f) Managing adverse effects of activities to give effect to the objectives and policies of the Regional Policy Statement.
- g) Promoting healthy ecosystems and ecosystem services;
- h) Promoting methods that reduce or negate the risk of exceeding sustainable resource limits.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Method 9: Advocacy and Facilitation

Method 9.2

Principal Reasons and Explanation:

The RMA requires that resources are managed in an integrated way.

The management of natural and physical resources needs to be integrated to ensure that resource management decisions are consistent, take account of the linkages between all parts of the environment and recognise and provide for the diversity of different interests and values associated with resources.

PART B Chapter 2 Kāi Tahu values and interests are recognised and kaitiakitaka is expressed

He taura whiri kotahi mai anō te kopunga tai nō ī te pu au

“From the source to the mouth of the sea, all things are joined together as one”.

Te Tiriti o Waitangi establishes a partnership between Kāi Tahu and the Crown. The RMA requires that the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga, is recognised and provided for and that the principles of the Treaty of Waitangi are taken into account. In the spirit of this partnership, and the Treaty principles, the RPS seeks to create the terms for engaging with Kāi Tahu closely in resource management.

This chapter incorporates the principles of Te Tiriti o Waitangi and sets out general considerations for the incorporation of Kāi Tahu values and interests into resource management planning, consenting, and implementation processes. Kāi Tahu themes are integrated throughout this document, and this chapter serves to tie these strands together. It reflects the Kāi Tahu philosophy of holistic resource management, *ki uta ki tai* – “from the mountains to the sea”.

Chapter overview:

Objective 2.1		
The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions.		Page
Policy 2.1.1	Treaty obligations	16
Policy 2.1.2	Treaty principles	16
Objective 2.2		
Kāi Tahu values, interests and customary resources are recognised and provided for.		Page
Policy 2.2.1	Kāi Tahu wellbeing	18
Policy 2.2.2	Recognising sites of cultural significance	18
Policy 2.2.3	Wāhi tūpuna and associated sites	19
Policy 2.2.4	Sustainable use of Māori land	19

Objective 2.1 The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions

Issue:

The principles of Te Tiriti o Waitangi are broad concepts that need further exploration when applied to specific circumstances.

Effective planning tools and processes are required to give effect to the Treaty relationship between Kāi Tahu and local authorities in accordance with Part 2 of the RMA

Policy 2.1.1 Treaty obligations

Promote awareness and understanding of the obligations of local authorities in regard to the principles of Te Tiriti o Waitangi, tikaka Māori and kaupapa Māori.

Method 1: Kāi Tahu Relationships

Method 1.1, Method 1.2, Method 1.3, Method 1.4

Policy 2.1.2 Treaty principles

Ensure that local authorities exercise their functions and powers, by:

- a) Recognising Kāi Tahu's status as a Treaty partner; and
- b) Involving Kāi Tahu in resource management processes implementation;
- c) Taking into account Kāi Tahu values in resource management decision-making processes and implementation;
- d) Recognising and providing for the relationship of Kāi Tahu's culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka;
- e) Ensuring Kāi Tahu have the ability to:
 - i. Identify their relationship with their ancestral lands, water, sites, wāhi tapu, and other taoka;
 - ii. Determine how best to express that relationship;
- f) Having particular regard to the exercise of kaitiakitaka;
- g) Ensuring that district and regional plans:
 - i. Give effect to the Ngāi Tahu Claims Settlement Act 1998;
 - ii. Recognise and provide for statutory acknowledgement areas in Schedule 2;
 - iii. Provide for other areas in Otago that are recognised as significant to Kāi Tahu;
- h) Taking into account iwi management plans.

Method 1: Kāi Tahu Relationships

Method 1.1, Method 1.2, Method 1.3, Method 1.4

Method 2: Regional, City and District Council Relationships

Method 2.2.4

Method 3:	Regional Plans Method 3.1.1, Method 3.1.2
Method 4:	City and District Plans Method 4.1.11, Method 4.1.12, Method 4.1.14, Method 4.2.3, Method 4.2.5, Method 4.2.9
Method 5:	Research, Monitoring and Reporting Method 5.1.4
Method 8:	Funding Method 8.1

Principal Reasons and Explanation:

Te Tiriti o Waitangi creates a special relationship between takata whenua and the Crown. The RMA requires local authorities to take the principles of Te Tiriti o Waitangi into account, with particular regard to kaitiakitaka.

Local authorities need to incorporate these principles into their decision making to ensure they are properly applied, and to account for the effects of resource management decisions on Kāi Tahu values, including those described in iwi resource management plans.

Section 8 of the RMA requires local authorities to take into account the principles of Te Tiriti o Waitangi. Deliberate measures need to be taken to ensure the principles are properly understood and taken into account. The principles are broadly expressed, so a measure of flexibility is needed.

In particular exercising kaitiakitaka requires the ability to participate in resource management processes and implementation.

A partnership approach which involves Kāi Tahu and considers their values and interests in decision making processes, enables the principles, including kaitiakitaka, to be taken into account in an appropriately flexible way.

Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for

Issue:

The mauri and wairua of some places, sites, resources and the values of cultural, spiritual or historic significance to Kāi Tahu have often been destroyed or degraded.

In some instances it has been difficult for Kāi Tahu to use and develop Māori land for the purposes for which it was originally granted.

Policy 2.2.1 Kāi Tahu wellbeing

Manage the natural environment to support Kāi Tahu wellbeing by all of the following:

- a) Recognising and providing for their customary uses and cultural values in Schedules 1A and B; and,
- b) Safeguarding the life-supporting capacity of natural resources.

Method 1: Kāi Tahu Relationships
Method 1.1, Method 1.2, Method 1.3, Method 1.4

Method 2: Regional, City and District Council Relationships
Method 2.2.4

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1, Method 4.2

Policy 2.2.2 Recognising sites of cultural significance

Recognise and provide for the protection of wāhi tūpuna, by all of the following:

- a) Avoiding significant adverse effects on those values that contribute to the identified wāhi tūpuna being significant;
- b) Avoiding, remedying, or mitigating other adverse effects on the identified wāhi tūpuna;
- c) Managing the identified wāhi tūpuna sites in a culturally appropriate manner.

Method 1: Kāi Tahu Relationships
Method 1.1, Method 1.2, Method 1.2.1, Method 1.3, Method 1.4

Method 2: Regional, City and District Council Relationships
Method 2.2.4, Method 2.2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans
Method 4.1, Method 4.2

Method 5: Research, Monitoring and Reporting
Method 5.1.4

Policy 2.2.3 Wāhi tūpuna and associated sites

Enable Kāi Tahu relationships with wāhi tūpuna by all of the following:

- a) Recognising that relationships between sites of cultural significance are an important element of wāhi tūpuna;
- b) Recognising and using traditional place names.

Method 2: Regional, City and District Council Relationships
Method 2.2.4

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1, Method 4.2

Method 9: Advocacy and Facilitation
Method 9.2.8 b.

Policy 2.2.4 Sustainable use of Māori land

Enable Kāi Tahu to protect, develop and use land and resources within native reserves in a way consistent with their culture and traditions and economic, cultural and social aspirations, including for papakāika, marae and marae related activities, while:

- a) Avoiding adverse effects on the health and safety of people; and
- b) Avoiding significant adverse effects on matters of national importance; and
- c) Avoiding, remedying or mitigating other adverse effects.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1.12

Principal Reasons and Explanation:

In managing natural and physical resources, local authorities need to recognise Kāi Tahu values, take into account Kāi Tahu plans, and the exercise of their customary rights.

Kāi Tahu's traditions, culture and practices are intricately linked with their ancestral lands, water, sites, wāhi tapu, and other taoka. The RMA requires that these values are recognised and provided for as a matter of national importance.

The exercise of kaitiakitaka requires a healthy, functioning natural environment, and recognition of values and sites of significance.

PART B Chapter 3 Otago has high quality natural resources and ecosystems

People and communities need to sustainably manage the environment. Safeguarding the life-supporting capacity of natural resources and recognising the intrinsic values of ecosystems are essential to provide for the current and future wellbeing of people and communities.

The economy, particularly primary production, tourism, and mineral and petroleum exploration and extraction, strongly relies on the quantity and quality of natural resources and the ecosystem services they provide.

This chapter begins with the recognition and maintenance of all natural resources. The second part focuses on the identification, protection, and enhancement of natural resources that are nationally or regionally important. This chapter is not concerned with sustaining mineral resources for future generations.

Chapter overview:

Objective 3.1

The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded. Page

Policy 3.1.1	Fresh water	23
Policy 3.1.2	Beds of rivers, lakes, wetlands and their margins	24
Policy 3.1.3	Water allocation and use	24
Policy 3.1.4	Water shortage	25
Policy 3.1.5	Coastal water	25
Policy 3.1.6	Air quality	26
Policy 3.1.7	Soil values	26
Policy 3.1.8	Soil erosion	27
Policy 3.1.9	Ecosystems and indigenous biological diversity	27
Policy 3.1.10	Biodiversity in the coastal environment	28
Policy 3.1.11	Natural features, landscapes, and seascapes	29
Policy 3.1.12	Natural character in the coastal environment	29
Policy 3.1.13	Environmental enhancement	30

Objective 3.2

Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded. Page

Policy 3.2.1	Identifying significant indigenous vegetation and habitats	32
Policy 3.2.2	Managing significant indigenous vegetation and habitats	32
Policy 3.2.3	Identifying outstanding natural features, landscapes and seascapes	33
Policy 3.2.4	Managing outstanding natural features, landscapes and seascapes	34

Policy 3.2.5	Identifying highly valued natural features, landscapes and seascapes	34
Policy 3.2.6	Managing highly valued natural features, landscapes and seascapes	35
Policy 3.2.7	Landward extent of the coastal environment	35
Policy 3.2.8	Identifying high and outstanding natural character in the coastal environment	36
Policy 3.2.9	Managing the outstanding natural character of the coastal environment	36
Policy 3.2.10	Managing the high natural character of the coastal environment	37
Policy 3.2.11	Identifying surf breaks of national importance	38
Policy 3.2.12	Managing surf breaks of national importance	38
Policy 3.2.13	Identifying outstanding freshwater bodies	38
Policy 3.2.14	Managing outstanding freshwater bodies	39
Policy 3.2.15	Identifying the significant values of wetlands	39
Policy 3.2.16	Managing the values of wetlands	40
Policy 3.2.17	Identifying significant soil	40
Policy 3.2.18	Managing significant soil	40

Objective 3.1 The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded

Issue:

Degradation of natural values and natural systems compromises the life-supporting capacity of the environment, the intrinsic values of ecosystems and the ecosystem services they provide.

Knowledge of these systems and their interdependencies is often imperfect.

Cumulative effects of human activities on the natural environment may be difficult to pinpoint initially but over time can result in serious damage.

Policy 3.1.1 Fresh water

Safeguard the life-supporting capacity of fresh water and manage fresh water to:

- a) Maintain good quality water and enhance water quality where it is degraded, including for:
 - i. Important recreation values, including contact recreation; and,
 - ii. Existing drinking and stock water supplies;
- b) Maintain or enhance aquatic:
 - i. Ecosystem health;
 - ii. Indigenous habitats; and,
 - iii. Indigenous species and their migratory patterns.
- c) Avoid aquifer compaction and seawater intrusion;
- d) Maintain or enhance, as far as practicable:
 - i. Natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers;
 - ii. Coastal values supported by fresh water;
 - iii. The habitat of trout and salmon unless detrimental to indigenous biological diversity; and
 - iv. Amenity and landscape values of rivers, lakes, and wetlands;
- e) Control the adverse effects of pest species, prevent their introduction and reduce their spread;
- f) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and,
- g) Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water.

Method 3: Regional Plans
Method 3.1.3

Method 5: Research, Monitoring and Reporting
Method 5.2.1

Method 6: Non RMA Strategies and Plans
Method 6.7

Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins

Manage the beds of rivers, lakes, wetlands, their margins, and riparian vegetation to:

- a) Safeguard the life supporting capacity of fresh water;
- b) Maintain good quality water, or enhance it where it has been degraded;
- c) Maintain or enhance bank stability;
- d) Maintain or enhance ecosystem health and indigenous biological diversity;
- e) Maintain or enhance, as far as practicable:
 - i. Their natural functioning and character; and
 - ii. Amenity values;
- f) Control the adverse effects of pest species, prevent their introduction and reduce their spread; and,
- g) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion.

Method 3: Regional Plans
Method 3.1.3, Method 3.1.14

Method 4: City and District Plans
Method 4.1.4, Method 4.1.15

Method 6: Non RMA Strategies and Plans
Method 6.7

Policy 3.1.3 Water allocation and use

Manage the allocation and use of fresh water by undertaking all of the following:

- a) Recognising and providing for the social and economic benefits of sustainable water use;
- b) Avoiding over-allocation, and phasing out existing over-allocation, resulting from takes and discharges;
- c) Ensuring the efficient allocation and use of water by:
 - i. Requiring that the water allocated does not exceed what is necessary for its efficient use;
 - ii. Encouraging the development or upgrade of infrastructure that increases efficiency;
 - iii. Providing for temporary dewatering activities necessary for construction or maintenance.

Method 3: Regional Plans
Method 3.1

Method 9: Advocacy and Facilitation
Method 9.2.8

Policy 3.1.4 Water shortage

Manage for water shortage by undertaking all of the following:

- a) Encouraging land management that improves moisture capture, infiltration, and soil moisture holding capacity.
- b) Encouraging collective coordination and rationing of the take and use of water when river flows or aquifer levels are lowering, to avoid breaching any minimum flow or aquifer level restriction to optimise use of water available for taking;
- c) Providing for water harvesting and storage, subject to allocation limits and flow management, to reduce demand on water bodies during periods of low flows.

Method 3: Regional Plans
Method 3.1

Method 9: Advocacy and Facilitation
Method 9.2.7

Policy 3.1.5 Coastal water

Manage coastal water to:

- a) Maintain coastal water quality or enhance it where it has been degraded;
- b) Maintain healthy coastal ecosystems, the range of indigenous habitats provided by the coastal marine area, and the migratory patterns of indigenous coastal water species or enhance these values where they have been degraded;
- c) Maintain or enhance important recreation values;
- d) Maintain or enhance, as far as practicable:
 - i. Coastal values; and
 - ii. The habitats provided by the coastal marine area for trout and salmon unless detrimental to indigenous biological diversity.
- e) Control the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 3: Regional Plans
Method 3.1.3

Method 5: Research, Monitoring and Reporting
Method 5.2.1, Method 5.2.2

Method 9: Advocacy and Facilitation
Method 9.2.3, Method 9.2.5

Policy 3.1.6 Air quality

Manage air quality to achieve the following:

- a) Maintain good ambient air quality that supports human health, or enhance air quality where it has been degraded;
- b) Maintain or enhance amenity values.

Method 3: Regional Plans

Method 3.1.9

Method 5: Research, Monitoring and Reporting

Method 5.2.1c, Method 5.2.3b.

Method 6: Non RMA Strategies and Plans

Method 6.2

Method 7: Education and Information

Method 7.1.2 g.

Policy 3.1.7 Soil values

Safeguard the life-supporting capacity of soil and manage soil to:

- a) Maintain or enhance as far as practicable
 - i. Soil biological diversity;
 - ii. Biological activity in soils;
 - iii. Soil function in the storage and cycling of water, nutrients, and other elements through the biosphere;
 - iv. Soil function as a buffer or filter for contaminants resulting from human activities, including aquifers at risk of leachate contamination;
 - v. Soil fertility where soil is used for primary production;
- b) Where a) is not practicable, minimise adverse effects;
- c) Recognise that urban and infrastructure development may result in loss of soil values.
- d) Control the adverse effects of pest species, prevent their introduction and reduce their spread;
- e) Retain the soil mantle where it acts as a repository of historic heritage objects unless an archaeological authority has been obtained.

Method 3: Regional Plans

Method 3.1.4

Method 4: City and District Plans

Method 4.1.5, Method 4.1.6

Method 5: Research, Monitoring and Reporting

Method 5.2.1

Method 7: Education and Information
Method 7.1.2f.

Policy 3.1.8 Soil erosion

Minimise soil erosion resulting from activities, by undertaking all of the following:

- a) Using appropriate erosion controls and soil conservation methods;
- b) Maintaining vegetative cover on erosion prone land;
- c) Remediating land where significant soil erosion has occurred;
- d) Encouraging activities that enhance soil retention.

Method 4: City and District Plans
Method 4.1.5

Method 5: Research, Monitoring and Reporting
Method 5.2.1, Method 5.2.2

Method 7: Education and Information
Method 7.1.2

Method 9: Advocacy and Facilitation
Method 9.2.2

Policy 3.1.9 Ecosystems and indigenous biological diversity

Manage ecosystems and indigenous biological diversity in terrestrial, freshwater and marine environments to:

- a) Maintain or enhance:
 - i. Ecosystem health and indigenous biological diversity including habitats of indigenous fauna;
 - ii. Biological diversity where the presence of exotic flora and fauna supports indigenous biological diversity;
- b) Maintain or enhance as far as practicable:
 - i. Areas of predominantly indigenous vegetation;
 - ii. Habitats of trout and salmon unless detrimental to indigenous biological diversity;
 - iii. Areas buffering or linking ecosystems;
- c) Recognise and provide for:
 - i. Hydrological services, including the services provided by tall tussock grassland;
 - ii. Natural resources and processes that support indigenous biological diversity;
- d) Control the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 3: Regional Plans
Method 3.1

- Method 4: City and District Plans**
Method 4.1.4
- Method 5: Research, Monitoring and Reporting**
Method 5.2.1
- Method 6: Non RMA Strategies and Plans**
Method 6.4
- Method 7: Education and Information**
Method 7.1
- Method 9: Advocacy and Facilitation**
Method 9.2

Policy 3.1.10 Biodiversity in the coastal environment

Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:

- a) Areas of predominantly indigenous vegetation in the coastal environment;
- b) Habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;
- c) Indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;
- d) Habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;
- e) Habitats, including areas and routes, important to migratory species; and
- f) Ecological corridors, and areas important for linking or maintaining biological values identified under this policy.

- Method 3: Regional Plans**
Method 3.1
- Method 4: City and District Plans**
Method 4.1.4
- Method 5: Research, Monitoring and Reporting**
Method 5.2.1
- Method 6: Non RMA Strategies and Plans**
Method 6.4
- Method 7: Education and Information**
Method 7.1

Method 9: Advocacy and Facilitation
Method 9.2

Policy 3.1.11 Natural features, landscapes, and seascapes

Recognise the values of natural features, landscapes and seascapes are derived from the biophysical, sensory and associative attributes in Schedule 3.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.2

Policy 3.1.12 Natural character in the coastal environment

Recognise the values of natural character in the coastal environment are derived from one or more of the following attributes:

- a) Natural elements, processes and patterns;
- b) Biophysical, ecological, geological and geomorphological aspects;
- c) Natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, estuaries, reefs, freshwater springs and surf breaks;
- d) The natural movement of water and sediment;
- e) The natural darkness of the night sky;
- f) Places or areas that are wild or scenic;
- g) A range of natural character from pristine to modified;
- h) Experiential attributes, including the sounds and smell of the sea; and their context or setting.

Method 3: Regional Plans
Method 3.1.6

Method 4: City and District Plans
Method 4.1

Method 5: Research, Monitoring and Reporting
Method 5.1.2

Policy 3.1.13 Environmental enhancement

Encourage, facilitate and support activities that contribute to the resilience and enhancement of the natural environment, by where applicable:

- a) Improving water quality and quantity;
- b) Protecting or restoring habitat for indigenous species;
- c) Regenerating indigenous species;
- d) Mitigating natural hazards;
- e) Protecting or restoring wetlands;
- f) Improving the health and resilience of:
 - i. Ecosystems supporting indigenous biological diversity;
 - ii. Important ecosystem services, including pollination;
- g) Improving access to rivers, lakes, wetlands and their margins, and the coast;
- h) Buffering or linking ecosystems, habitats and areas of significance that contribute to ecological corridors;
- i) Controlling pest species.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Method 6: Non RMA Strategies and Plans

Method 6.1 – Method 6.9

Method 7: Education and Information

Method 7.1

Method 8: Funding

Method 8.1

Method 9: Advocacy and Facilitation

Method 9.1, Method 9.2

Principal Reasons and Explanation:

Understanding the many values and characteristics of natural resources and their ecosystem services is essential, in adequately managing the adverse effects of human activities on the environment's life supporting capacity.

There is often conflict between the many values of natural resources and human use of those resources.

These policies address the values attached to natural resources, and how all natural resources should be managed.

Objective 3.2 Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded

Issue:

Otago has significant and highly-valued natural resources. These include outstanding natural features, landscapes, seascapes, indigenous biological diversity, water bodies and soil, which all have intrinsic value and help to create the region's identity and support the region's wellbeing.

These highly valued resources can become degraded if they are not adequately protected from inappropriate subdivision, use and development, and so deserve a greater degree of recognition.

Resource degradation can adversely affect the social, cultural and economic wellbeing of people and communities.

Policy 3.2.1 Identifying significant indigenous vegetation and habitats

Identify areas and values of significant indigenous vegetation and significant habitats of indigenous fauna, using the attributes detailed in Schedule 4.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.2

Policy 3.2.2 Managing significant indigenous vegetation and habitats

Protect and enhance areas of significant indigenous vegetation and significant habitats of indigenous fauna, by all of the following:

- a) In the coastal environment, avoiding adverse effects on:
 - i. The values that contribute to the area or habitat being significant;
 - ii. Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;
 - iii. Taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;
 - iv. Indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;
 - v. Habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;
 - vi. Areas containing nationally significant examples of indigenous community types; and

- vii. Areas set aside for full or partial protection of indigenous biological diversity under other legislation;
- b) Beyond the coastal environment, and in the coastal environment in significant areas not captured by a) above, maintaining those values that contribute to the area or habitat being significant;
- c) Avoiding significant adverse effects on other values of the area or habitat;
- d) Remedying when other adverse effects cannot be avoided;
- e) Mitigating when other adverse effects cannot be avoided or remedied;
- f) Encouraging enhancement of those areas and values that contribute to the area or habitat being significant;
- g) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1.4

Method 5: Research, Monitoring and Reporting
Method 5.1.2

Method 6: Non RMA Strategies and Plans
Method 6.4, Method 6.5

Policy 3.2.3 Identifying outstanding natural features, landscapes and seascapes

Identify areas and values of outstanding natural features, landscapes and seascapes, using the attributes in Schedule 3.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.2 c.

Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes

Protect, enhance or restore outstanding natural features, landscapes and seascapes, by all of the following:

- a) In the coastal environment, avoiding adverse effects on the values (even if those values are not themselves outstanding) that contribute to the natural feature, landscape or seascape being outstanding;
- b) Beyond the coastal environment, maintaining the values (even if those values are not themselves outstanding) that contribute to the natural feature, landscape or seascape being outstanding;
- c) Avoiding, remedying or mitigating other adverse effects;
- d) Encouraging enhancement of those areas and values that contribute to the significance of the natural feature, landscape or seascape.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 5: Research, Monitoring and Reporting
Method 5.1.2 c.

Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes

Identify natural features, landscapes and seascapes, which are highly valued for their contribution to the amenity or quality of the environment but which are not outstanding, using the attributes in Schedule 3.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1, 4.2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.2 d.

Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes

Maintain or enhance highly valued natural features, landscapes and seascapes by all of the following:

- a) Avoiding significant adverse effects on those values that contribute to the high value of the natural feature, landscape or seascape;
- b) Avoiding, remedying or mitigating other adverse effects;
- c) Encouraging enhancement of those values that contribute to the high value of the natural feature, landscape or seascape.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 5: Research, Monitoring and Reporting
Method 5.1.2 d.

Policy 3.2.7 Landward extent of the coastal environment

Identify the landward extent of the coastal environment, recognising that the coastal environment includes:

- a) The coastal marine area;
- b) Islands within the coastal marine area;
- c) Areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these;
- d) Areas at risk from coastal hazards;
- e) Coastal vegetation and the habitat of indigenous coastal species including migratory birds;
- f) Elements and features that contribute to the natural character, landscape, visual qualities or amenity values;
- g) Items of cultural and historic heritage in the coastal marine area or on the coast;
- h) Inter-related coastal marine and terrestrial systems, including the intertidal zone; and
- i) Physical resources and built facilities, including infrastructure, that have modified the coastal environment.

Method 1: Kāi Tahu Relationships
Method 1.2

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.1

Policy 3.2.8 Identifying high and outstanding natural character in the coastal environment

Identify areas and values of high and outstanding natural character in the coastal environment, which may include matters such as:

- a) Natural elements, processes and patterns;
- b) Biophysical, ecological, geological and geomorphological aspects;
- c) Natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, estuaries, reefs, freshwater springs and surf breaks;
- d) The natural movement of water and sediment;
- e) The natural darkness of the night sky;
- f) Places or areas that are wild or scenic;
- g) A range of natural character from pristine to modified;
- h) Experiential attributes, including the sounds and smell of the sea; and their context or setting.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1.6

Method 4: City and District Plans
Method 4.1.3, Method 4.2.2

Method 5: Research, Monitoring and Reporting
Method 5.1.2 b.

Policy 3.2.9 Managing the outstanding natural character of the coastal environment

Preserve or enhance the outstanding natural character of the coastal environment, by all of the following:

- a) Avoiding adverse effects on those values that contribute to the outstanding natural character of an area;
- b) Avoiding, remedying or mitigating other adverse effects;
- c) Recognising and providing for the contribution of existing introduced species to the natural character of the coastal environment;
- d) Encouraging enhancement of those values that contribute to the outstanding natural character of an area;
- e) Controlling the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1.6

Method 4: City and District Plans
Method 4.1.3

Method 5: Research, Monitoring and Reporting
Method 5.1.2 b., Method 5.2.2

Method 9: Advocacy and Facilitation
Method 9.2.3

Policy 3.2.10 Managing the high natural character of the coastal environment

Preserve or enhance the high natural character of the coastal environment, by all of the following:

- a) Avoiding significant adverse effects on those values that contribute to the high natural character of an area;
- b) Avoiding, remedying or mitigating other adverse effects;
- c) Recognising and providing for the contribution of existing introduced species to the natural character of the coastal environment;
- d) Encouraging enhancement of those values that contribute to the high natural character of an area;
- e) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1.6

Method 4: City and District Plans
Method 4.1.3

Method 5: Research, Monitoring and Reporting
Method 5.2.2

Method 9: Advocacy and Facilitation
Method 9.2.3

Policy 3.2.11 Identifying surf breaks of national importance

Recognise the surf breaks of national importance at:

- a) Karitane;
- b) Papatowai;
- c) The Spit;
- d) Whareakeake.

Method 3: Regional Plans
Method 3.1.7

Policy 3.2.12 Managing surf breaks of national importance

Protect surf breaks of national importance, by all of the following:

- a) Avoiding adverse effects on the natural and physical processes contributing to their existence;
- b) Avoiding adverse effects of other activities on access to, and use and enjoyment of, those surf breaks.

Method 3: Regional Plans
Method 3.1.7

Method 4: City and District Plans
Method 4.1.8

Method 5: Research, Monitoring and Reporting
Method 5.1.3 d.

Policy 3.2.13 Identifying outstanding freshwater bodies

Identify freshwater bodies where any one or more of the following significant values are outstanding:

- a) Naturalness;
- b) Amenity or landscape values;
- c) Kāi Tahu cultural values;
- d) Recreational values;
- e) Ecological values;
- f) Hydrological values.

Method 3: Regional Plans
Method 3.1.8

Method 5: Research, Monitoring and Reporting
Method 5.1.2 e.

Policy 3.2.14 Managing outstanding freshwater bodies

Protect outstanding freshwater bodies by all of the following:

- a) Maintaining the values that contribute to the water body being outstanding;
- b) Avoiding, remedying or mitigating other adverse effects on the water body;
- c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread;
- d) Encouraging enhancement of those values that contribute to the water body being outstanding.

Method 3: Regional Plans
Method 3.1.8

Method 4: City and District Plans
Method 4.1

Method 5: Research, Monitoring and Reporting
Method 5.2.2

Method 9: Advocacy and Facilitation
Method 9.2.2, Method 9.2.5

Policy 3.2.15 Identifying the significant values of wetlands

Identify the significant values of wetlands, having regard to all of the following:

- a) Degree of naturalness;
- b) Amenity or landscape values;
- c) Kāi Tahu cultural values;
- d) Recreational values;
- e) Ecological function and values;
- f) Hydrological function and values;
- g) Geomorphological features and values.

Method 3: Regional Plans
Method 3.1.8

Method 4: City and District Plans
Method 4.1

Method 5: Research, Monitoring and Reporting
Method 5.1.2 g, 5.2.2

Method 9: Advocacy and Facilitation
Method 9.2.1, Method 9.2.2, Method 9.2.3, Method 9.2.5

Policy 3.2.16 Managing the values of wetlands

Protect the function and values of wetlands by all of the following:

- a) Maintaining the significant values of wetlands;
- b) Avoiding, remedying or mitigating other adverse effects;
- c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread;
- d) Encouraging enhancement that contributes to the values of the wetland;
- e) Encouraging the rehabilitation of degraded wetlands.

Method 3: Regional Plans

Method 3.1. 8

Method 4: City and District Plans

Method 4.1

Method 5: Research, Monitoring and Reporting

Method 5.1.2 g, 5.2.2

Method 9: Advocacy and Facilitation

Method 9.2.1, Method 9.2.2, Method 9.2.3, Method 9.2.5

Policy 3.2.17 Identifying significant soil

Identify areas of soil that are significant using the following criteria:

- a) Land classified as land use capability I, II and IIIe in accordance with the New Zealand Land Resource Inventory;
- b) Degree of significance for primary production;
- c) Significance for providing contaminant buffering or filtering services;
- d) Significance for providing water storage or flow retention services;
- e) Degree of rarity.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 5: Research, Monitoring and Reporting

Method 5.1.3 c, Method 5.2.1 d.

Policy 3.2.18 Managing significant soil

Manage areas of significant soil, by all of the following:

- a) Maintaining those values that make the soil significant;
- b) Recognising that loss of significant soil to urban development may occur in accordance with any future development strategy;
- c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread.

- Method 2:** **Regional, City and District Council Relationships**
Method 2.1, Method 2.2
- Method 3:** **Regional Plans**
Method 3.1.4
- Method 4:** **City and District Plans**
Method 4.1.6
- Method 7:** **Education and Information**
Method 7.1.2 f.

Principal Reasons and Explanation:

Otago has many significant and highly valued landscapes, natural features and areas of indigenous biological diversity which are nationally or regionally important. These policies guide the identification, protection and enhancement of these resources. This higher level of protection recognises the importance of these resources to the cultural, environmental, social and economic wellbeing of people and communities.

PART B Chapter 4 Communities in Otago are resilient, safe and healthy

Otago is at risk of expected and unexpected shocks and changes, from natural hazards, climate change and reliance on energy, imported goods and fossil fuels. These disruptions have the potential to affect economic, social, cultural, and environmental wellbeing.

Ensuring communities develop in a way which helps to prepare for, respond, recover, and adapt to disruptions will help make communities resilient. The sustainable management of renewable energy sources, the use of hazardous substances, and management of waste materials will, in the long term, also help ensure communities' resilience.

This chapter deals with the response and ability to be resilient to resource limitations or constraints, shock events, system disruptions, natural hazards, and climate change.

Chapter overview:

Objective 4.1		
Risk that natural hazards pose to Otago's communities are minimised.		Page
Policy 4.1.1	Identifying natural hazards	45
Policy 4.1.2	Natural hazard likelihood	45
Policy 4.1.3	Natural hazard consequence	46
Policy 4.1.4	Assessing activities for natural hazard risk	46
Policy 4.1.5	Natural hazard risk	47
Policy 4.1.6	Minimising increase in natural hazard risk	48
Policy 4.1.7	Reducing existing natural hazard risk	48
Policy 4.1.8	Precautionary approach to natural hazard risk	49
Policy 4.1.9	Protecting features and systems that provide hazard mitigation	49
Policy 4.1.10	Mitigating natural hazards	50
Policy 4.1.11	Hard protection structures	50
Policy 4.1.12	Lifeline utilities and facilities for essential or emergency services	51
Policy 4.1.13	Hazard mitigation measures, lifeline utilities, and essential and emergency services	51
Objective 4.2		
Otago's communities are prepared for and able to adapt to the effects of climate change.		Page
Policy 4.2.1	Sea level rise	53

Policy 4.2.2	Climate change	53
Objective 4.3		
Infrastructure is managed and developed in a sustainable way.		Page
Policy 4.3.1	Managing infrastructure activities	55
Policy 4.3.2	Nationally and regionally significant infrastructure	55
Policy 4.3.3	Functional needs of infrastructure that has national or regional significance	56
Policy 4.3.4	Adverse effects of nationally and regionally significant infrastructure	56
Policy 4.3.5	Protecting infrastructure with national or regional significance	57
Policy 4.3.6	The National Grid	58
Objective 4.4		
Energy resources and supplies are secure, reliable and sustainable.		Page
Policy 4.4.1	Renewable electricity generation	60
Policy 4.4.2	Small and community scale renewable electricity generation	60
Policy 4.4.3	Protecting existing renewable electricity generation	61
Policy 4.4.4	Efficient transport of electricity	61
Policy 4.4.5	Electricity distribution infrastructure	61
Policy 4.4.6	Energy efficient transport	62
Policy 4.4.7	Fuels	63
Objective 4.5		
Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments.		Page
Policy 4.5.1	Providing for urban growth and development	64
Policy 4.5.2	Integrating infrastructure with land use	65
Policy 4.5.3	Urban design	66
Policy 4.5.4	Low impact design	66
Policy 4.5.5	Warmer buildings	66
Policy 4.5.6	Designing for public access	67
Objective 4.6		
Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago.		Page
Policy 4.6.1	Hazardous substances	68

Policy 4.6.2	Use, storage and disposal of hazardous substances	68
Policy 4.6.3	Hazardous substance collection, disposal and recycling	69
Policy 4.6.4	Identifying contaminated land	69
Policy 4.6.5	Managing contaminated land	69
Policy 4.6.6	Waste management	70
Policy 4.6.7	Waste minimisation responses	70
Policy 4.6.8	Waste storage, recycling, recovery, treatment and disposal	70
Policy 4.6.9	New Contaminated land	71

Objective 4.1 Risks that natural hazards pose to Otago's communities are minimised

Issue:

Natural hazard events, such as flooding and earthquakes, have the potential to injure people and damage property. Natural hazards may be exacerbated by the effects of climate change, which include sea level rise, and greater frequency and intensity of extreme weather events.

It is sometimes difficult and costly for a community to recover from a hazard event.

Policy 4.1.1 Identifying natural hazards

Identify natural hazards that may adversely affect Otago's communities, including hazards of low likelihood and high consequence by considering all of the following:

- a) Hazard type and characteristics;
- b) Multiple and cascading hazards;
- c) Cumulative effects, including from multiple hazards with different risks;
- d) Effects of climate change;
- e) Using the best available information for calculating likelihood;
- f) Exacerbating factors.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2, Method 2.3

Method 4: City and District Plans
Method 4.1.2, Method 4.2.8

Method 5: Research, Monitoring and Reporting
Method 5.2.1, Method 5.2.2

Method 7: Education and Information
Method 7.1.1, Method 7.1.2, Method 7.1.3

Policy 4.1.2 Natural hazard likelihood

Using the best available information, assess the likelihood of natural hazard events occurring, over no less than 100 years.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2, Method 2.3

Method 3: Regional Plans
Method 3.1.13, Method 3.2.1

Method 4: City and District Plans
Method 4.1.2, Method 4.2.1, Method 4.2.8

Method 5: Research, Monitoring and Reporting
Method 5.2.1, Method 5.2.2

Policy 4.1.3 Natural hazard consequence

Assess the consequences of natural hazard events, by considering all of the following:

- a) The nature of activities in the area;
- b) Individual and community vulnerability;
- c) Impacts on individual and community health and safety;
- d) Impacts on social, cultural and economic wellbeing;
- e) Impacts on infrastructure and property, including access and services;
- f) Risk reduction and hazard mitigation measures;
- g) Lifeline utilities, essential and emergency services, and their co-dependence;
- h) Implications for civil defence agencies and emergency services;
- i) Cumulative effects;
- j) Factors that may exacerbate a hazard event.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2, Method 2.3

Method 3: Regional Plans
Method 3.1.13, Method 3.2.1

Method 4: City and District Plans
Method 4.1.2, Method 4.2.1, Method 4.2.8

Method 5: Research, Monitoring and Reporting
Method 5.2.1, Method 5.2.2

Policy 4.1.4 Assessing activities for natural hazard risk

Assess activities for natural hazard risk to people, property and communities, by considering all of the following:

- a) The natural hazard risk identified, including residual risk;
- b) Any measures to avoid, remedy or mitigate those risks, including relocation and recovery methods;
- c) The long-term viability and affordability of those measures;
- d) Flow-on effects of the risk to other activities, individuals and communities;
- e) The availability of, and ability to provide, lifeline utilities, and essential and emergency services, during and after a natural hazard event.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2, Method 2.3

- Method 3: Regional Plans**
Method 3.1
- Method 4: City and District Plans**
Method 4.1.2, Method 4.2.8
- Method 5: Research, Monitoring and Reporting**
Method 5.2.1, Method 5.2.2
- Method 6: Non RMA Strategies and Plans**
Method 6.1.1
- Method 7: Education and Information**
Method 7.1.1, Method 7.1.2, Method 7.1.3

Policy 4.1.5 Natural hazard risk

Manage natural hazard risk to people, property and communities, with particular regard to all of the following:

- a) The risk posed, considering the likelihood and consequences of natural hazard events;
- b) The implications of residual risk;
- c) The community's tolerance of that risk, now and in the future, including the community's ability and willingness to prepare for and adapt to that risk, and respond to an event;
- d) Sensitivity of activities to risk;
- e) The need to encourage system resilience;
- f) The social costs of recovery.

- Method 2: Regional, City and District Council Relationships**
Method 2.1, Method 2.2, Method 2.3
- Method 3: Regional Plans**
Method 3.1
- Method 4: City and District Plans**
Method 4.1.2, Method 4.2.8
- Method 6: Non RMA Strategies and Plans**
Method 6.1.1
- Method 7: Education and Information**
Method 7.1.1, Method 7.1.2, Method 7.1.3
- Method 9: Advocacy and Facilitation**
Method 9.1.2, Method 9.1.3, Method 9.2.1

Policy 4.1.6 Minimising increase in natural hazard risk

Minimise natural hazard risk to people, communities, property and other aspects of the environment by:

- a) Avoiding activities that result in significant risk from natural hazard;
- b) Enabling activities that result in no or low residual risk from natural hazard;
- c) Avoiding activities that increase risk in areas potentially affected by coastal hazards over at least the next 100 years;
- d) Encouraging the location of infrastructure away from areas of hazard risk where practicable;
- e) Minimising any other risk from natural hazard.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2, Method 2.3

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2, Method 4.2.8

Method 6: Non RMA Strategies and Plans

Method 6.1.1

Method 7: Education and Information

Method 7.1.1, Method 7.1.2, Method 7.1.3

Method 9: Advocacy and Facilitation

Method 9.1.2, Method 9.1.3, Method 9.2.1

Policy 4.1.7 Reducing existing natural hazard risk

Reduce existing natural hazard risk to people and communities, including by all of the following:

- a) Encouraging activities that:
 - i. Reduce risk; or
 - ii. Reduce community vulnerability;
- b) Discouraging activities that:
 - i. Increase risk; or
 - ii. Increase community vulnerability;
- c) Considering the use of exit strategies for areas of significant risk to people and communities;
- d) Encouraging design that facilitates:
 - i. Recovery from natural hazard events; or
 - ii. Relocation to areas of lower risk; or
 - iii. Mitigation of risk;
- e) Relocating lifeline utilities, and facilities for essential and emergency service, to areas of reduced risk, where appropriate and practicable;

- f) Enabling development, upgrade, maintenance and operation of lifeline utilities and facilities for essential and emergency services;
- g) Reassessing natural hazard risk to people and communities, and community tolerance of that risk, following significant natural hazard events.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2

Method 6: Non RMA Strategies and Plans

Method 6.1.1

Method 7: Education and Information

Method 7.1.1, Method 7.1.2, Method 7.1.3

Method 9: Advocacy and Facilitation

Method 9.1.2, Method 9.1.3, Method 9.2.1

Policy 4.1.8 Precautionary approach to natural hazard risk

Where natural hazard risk to people and communities is uncertain or unknown, but potentially significant or irreversible, apply a precautionary approach to identifying, assessing and managing that risk.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2

Policy 4.1.9 Protecting features and systems that provide hazard mitigation

Avoid, remedy or mitigate adverse effects on natural or modified features and systems, that contribute to mitigating the effects of both natural hazards and climate change.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2

Policy 4.1.10 Mitigating natural hazards

Give preference to risk management approaches that reduce the need for hard protection structures or similar engineering interventions, and provide for hard protection structures only when all of the following apply:

- a) Those measures are essential to reduce risk to a level the community is able to tolerate;
- b) There are no reasonable alternatives that result in reducing the risk exposure;
- c) It would not result in an increase in risk to people and communities, including displacement of risk off-site;
- d) The adverse effects can be adequately managed;
- e) The mitigation is viable in the reasonably foreseeable long term.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2

Method 7: Education and Information

Method 7.1.1, Method 7.1.2

Method 9: Advocacy and Facilitation

Method 9.1.2, Method 9.1.3, Method 9.2.1

Policy 4.1.11 Hard protection structures

Enable the location of hard protection structures or similar engineering interventions on public land only when either or both of the following apply:

- a) There is significant public or environmental benefit in doing so;
- b) The work relates to the functioning ability of a lifeline utility, or a facility for essential or emergency services.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.2

Method 7: Education and Information

Method 7.1.1, Method 7.1.2

Policy 4.1.12 Lifeline utilities and facilities for essential or emergency services

Locate and design lifeline utilities and facilities for essential or emergency services to:

- a) Maintain their ability to function to the fullest extent possible, during and after natural hazard events; and
- b) Take into account their operational co-dependence with other lifeline utilities and essential services to ensure their effective operation.

Method 9: Advocacy and Facilitation
Method 9.2.3, Method 9.2.4

Policy 4.1.13 Hazard mitigation measures, lifeline utilities, and essential and emergency services

Protect the functional needs of hazard mitigation measures, lifeline utilities, and essential or emergency services, including by all of the following:

- a) Restricting the establishment of other activities that may result in reverse sensitivity effects on those measures, utilities or services;
- b) Avoiding significant adverse effects on those measures, utilities or services;
- c) Avoiding, remedying or mitigating other adverse effects on those measures, utilities or services;
- d) Maintaining access to those measures, utilities or services for maintenance and operational purposes;
- e) Managing other activities in a way that does not restrict the ability of those mitigation measures, utilities or services to continue functioning.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2, Method 2.3

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1.2, Method 4.2.8

Method 6: Non RMA Strategies and Plans
Method 6.1.1

Method 9: Advocacy and Facilitation
Method 9.2.3, Method 9.2.4

Principal Reasons and Explanation:

While many of these events are beyond the control of people and communities, there is a need to reduce their potential impacts on people's safety, health and wellbeing.

Natural hazards can injure or kill people, damage property, create stress and fear, affect the operation of infrastructure and impact on the economy.

Natural hazard risks can also be exacerbated by inappropriate subdivision, use and development. Natural hazards should be identified and managed appropriately, so the risk of avoidable social and economic harm to communities is reduced as much as possible.

Objective 4.2 Otago's communities are prepared for and able to adapt to the effects of climate change

Issue:

Climate change is creating environmental and economic outcomes that negatively affect the sustainability of natural and physical resources. These include higher sea levels, increased frequency of natural hazard events, and changing distribution of plants and animals. There is significant uncertainty over the rate and scale of change.

National and international policy frameworks have set objectives and guidance for New Zealand to proactively work toward reducing the rate of global warming.

Policy 4.2.1 Sea level rise

Ensure Otago's people and communities are able to adapt to, or mitigate the effects of sea level rise, over no less than 100 years, by using:

- a) A sea level rise of at least 1 metre by 2115, relative to 1990 mean sea level (Otago Metric Datum); and
- b) Adding an additional 10mm per year beyond 2115, or the most up-to-date national or regional guidance on likely sea level rise.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 4.2.2 Climate change

Ensure Otago's people and communities are able to mitigate and adapt to the effects of climate change, over no less than 100 years, by all of the following:

- a) Taking into account the effects of climate change, including by using the best relevant climate change data;
- b) Applying a precautionary approach when assessing and managing the effects of climate change where there is scientific uncertainty and potentially significant or irreversible effects;
- c) Encouraging activities that assist to reduce or mitigate the effects of climate change.
- d) Encouraging system resilience.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

- Method 3: Regional Plans**
Method 3.1
- Method 4: City and District Plans**
Method 4.1
- Method 5: Research, Monitoring and Reporting**
Method 5.2.1 g. and j.
- Method 6: Non RMA Strategies and Plans**
Method 6.1.1
- Method 7: Education and Information**
Method 7.1.1, Method 7.1.2
- Method 9: Advocacy and Facilitation**
Method 9.1.2, Method 9.1.3

Principal Reasons and Explanation:

Communities need consistent guidance on sea level rise, extreme weather events, and all other adverse effects of climate change to manage those effects.

Climate change is bringing higher sea levels and is increasing the frequency and severity of climate related natural hazards including flooding, landslips, erosion and drought. Stormwater systems may not be able to cope with heavier rainfall. Other effects of climate change include changing distributions of plants and animals, and consequential effects, such as the risk of saltwater intrusion into groundwater as a result of rising sea levels. There may be other adverse effects from climate change that are not yet known. A precautionary approach is required where there is scientific uncertainty.

The effects of climate change will result in social, environmental and economic costs, and in some circumstances benefits. It is prudent that these changes be planned for now, so that the impacts can be reduced.

Objective 4.3 Infrastructure is managed and developed in a sustainable way

Issue:

Social and economic wellbeing depends on having adequate infrastructure. Failing to provide for its functional needs can result in adverse effects.

Aging and sub-standard infrastructure can present a risk to the community by threatening community resilience and can constrain new infrastructure solutions.

Activities locating in proximity to infrastructure may lead to reverse sensitivity effects on that infrastructure.

Infrastructure may adversely affect other lawfully established activities.

Infrastructure of regional and national significance may result in localised adverse environmental impacts, or adversely affect other nationally important values.

Some infrastructure can only locate in particular areas, and it may not always be possible to avoid significant adverse effects.

Policy 4.3.1 Managing infrastructure activities

Recognise and provide for infrastructure by all of the following:

- a) Protecting and providing for the functional needs of lifeline utilities and essential or emergency services;
- b) Increasing the ability of communities to respond and adapt to emergencies, and disruptive or natural hazard events;
- c) Improving efficiency of natural and physical resource use;
- d) Minimising adverse effects on existing land uses, and natural and physical resources;
- e) Managing other activities to ensure the functional needs of infrastructure are not compromised.

Policies 4.3.2 – 4.3.6 regarding infrastructure that has regional or national significance prevail where there is a conflict with policy 4.3.1.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Policy 4.3.2 Nationally and regionally significant infrastructure

Recognise the national and regional significance of all of the following infrastructure:

- a) Renewable electricity generation activities, where they supply the National Grid or local distribution network;
- b) National Grid;
- c) Electricity sub-transmission infrastructure;

- d) Telecommunication and radiocommunication facilities;
- e) Roads classified as being of national or regional importance;
- f) Ports and airports and associated navigation infrastructure;
- g) Defence facilities;
- h) Rail infrastructure;
- i) Municipal infrastructure.

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1, Method 4.1.17, 4.1.18

Method 6: Non RMA Strategies and Plans

Method 6.3.1

Policy 4.3.3 Functional needs of infrastructure that has national or regional significance

Provide for the functional needs of infrastructure that has regional or national significance, including safety.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Policy 4.3.4 Adverse effects of nationally and regionally significant infrastructure

Manage adverse effects of infrastructure that has national or regional significance, by:

- a) Giving preference to avoiding its location in all of the following:
 - i. Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the coastal environment;
 - ii. Outstanding natural character in the coastal environment;
 - iii. Outstanding natural features and natural landscapes, including seascapes, in the coastal environment;
 - iv. Areas of significant indigenous vegetation and significant habitats of indigenous fauna beyond the coastal environment;
 - v. Outstanding natural character in areas beyond the coastal environment;
 - vi. Outstanding natural features and landscapes beyond the coastal environment;
 - vii. Outstanding water bodies or wetlands;
 - viii. Places or areas containing historic heritage of regional or national significance;

- b) Where it is not practicable to avoid locating in the areas listed in a) above because of the functional needs of that infrastructure:
 - i. Avoid adverse effects on the values that contribute to the significant or outstanding nature of a) i-iii;
 - ii. Avoid significant adverse effects on natural character and natural landscapes in all other areas of the coastal environment
 - iii. Avoid, remedy or mitigate, as necessary, adverse effects in order to maintain the outstanding or significant nature of a) iv-viii;
- c) Avoid, remedy or mitigate, as necessary, adverse effects on highly valued natural features, landscapes and seascape. in order to maintain their high values;
- d) Avoiding, remedying or mitigating other adverse effects;
- e) Considering offsetting for residual adverse effects on indigenous biological diversity.

Where there is a conflict, Policy 4.3.4 prevails over the policies under Objectives 3.2 (except for policy 3.2.12), 5.2 and Policy 4.3.1.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 6: Non RMA Strategies and Plans
Method 6.3.1

Method 9: Advocacy and Facilitation
Method 9.1.2

Policy 4.3.5 Protecting infrastructure with national or regional significance

Protect infrastructure with national or regional significance, by all of the following:

- a) Restricting the establishment of activities that may result in reverse sensitivity effects;
- b) Avoiding significant adverse effects on the functional needs of such infrastructure;
- c) Avoiding, remedying or mitigating other adverse effects on the functional needs of such infrastructure;
- d) Protecting infrastructure corridors from activities that are incompatible with the anticipated effects of that infrastructure, now and for the future.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1, Method 4.1.18

Policy 4.3.6 The National Grid

Provide for the National Grid by:

- a) Managing activities to the extent reasonably possible to avoid reverse sensitivity effects on the National Grid; and
- b) Identifying corridors for the existing National Grid within which activities and development will be managed to the extent reasonably possible to ensure that the functional needs of the National Grid are not compromised; and
- c) Not allowing existing activities in the identified corridors to intensify in a way that increases their incompatibility with existing National Grid infrastructure.
- d) Manage the adverse effects of new National Grid infrastructure by all of the following:
 - i. recognising there may be some areas in the coastal environment where avoidance of adverse effects is required to protect the identified special values of those areas.
 - ii. seeking to avoid adverse effects on the values of the following:
 - a. Areas of significant indigenous vegetation and significant habitats of indigenous fauna;
 - b. Outstanding natural features, landscapes and seascapes;
 - c. Areas of outstanding natural character;
 - d. Outstanding water bodies or wetlands;
 - e. Places or areas containing historic heritage of regional or national significance.
 - iii. Where it is not practicable to avoid adverse effects on the values of the areas listed in d) ii. above because of the functional needs of the National Grid, remedy or mitigate adverse effects on those values;
 - iv. Avoiding, remedying or mitigating other adverse effects;
 - v. Consider offsetting for residual adverse effects on indigenous biological diversity.

Where there is a conflict, Policy 4.3.6 prevails over the policies under Objectives 3.1, 3.2, 4.3 and 5.2, and over policy 5.4.9.

Method 3: **Regional Plans**
Method 3.1

Method 4: **City and District Plans**
Method 4.1

Principal Reasons and Explanation:

It is essential for the economy and the wellbeing and health and safety of communities, that people are serviced by the right infrastructure at the right time and that infrastructure operates efficiently and effectively.

Some infrastructure such as roads, water supply, waste water and storm water is provided by local authorities. Other infrastructure such as energy generation and network utility operation is managed by state owned enterprises, requiring authorities and private companies.

Infrastructure of national and regional significance, including roads, rail, electricity generation and transmission, radiocommunication and telecommunication, are part of a national network, and contribute to the economic and social wellbeing of the region and nation.

It is important to recognise the benefits of this infrastructure to the economy and to community resilience, in addition to managing any adverse effects on natural resources.

Local authorities have a role to play, to ensure that local, regional and national infrastructure needs are being met now and for the future.

Objective 4.4 Energy resources and supplies are secure, reliable and sustainable

Issue:

Although Otago is rich in renewable energy sources it is also an importer of fossil fuels. Any constraints on energy and fuel supply could affect the way we live and are able to respond to disruptive events.

Policy 4.4.1 Renewable electricity generation

Provide for renewable electricity generation activities, by all of the following:

- a) Recognising the benefits associated with those activities;
- b) Recognising the functional needs of those activities;
- c) Recognising the importance of the resource needs of those activities;
- d) Promoting the efficient use of existing structures or facilities; and
- e) Providing for activities associated with the investigation, identification, and development of potential renewable electricity generation sites and sources.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 7: Education and Information
Method 7.1.4

Method 9: Advocacy and Facilitation
Method 9.2.3

Policy 4.4.2 Small and community scale renewable electricity generation

Promote small and community scale renewable electricity generation activities that both:

- a) Increase the local community's resilience and security of energy supply; and
- b) Avoid, remedy or mitigate adverse effects from that activity.

Method 7: Education and Information
Method 7.1.4

Method 9: Advocacy and Facilitation
Method 9.2.3

Policy 4.4.3 Protecting existing renewable electricity generation

Protect the generation output of existing nationally or regionally significant renewable electricity generation activities, by all of the following:

- a) Recognising their functional needs, including resource needs;
- b) Avoiding, to the extent reasonably practicable, reverse sensitivity effects on their functional needs;
- c) Avoiding, remedying or mitigating adverse effects from other activities on them; except when sub-clause d) applies;
- d) Having particular regard to avoiding, remedying or mitigating adverse effects from new water takes on those which do not have a specified water allocation volume.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 4.4.4 Efficient transport of electricity

Enable electricity transmission and distribution infrastructure activities that achieve all of the following:

- a) Maintenance or improvement of the security and reliability of electricity supply;
- b) Enhancement of the safety, efficiency and effectiveness of the infrastructure; and
- c) Avoidance, remediation or mitigation of adverse effects from that activity.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 4.4.5 Electricity distribution infrastructure

Recognise and provide for electricity distribution infrastructure, by all of the following:

- a) Recognising the functional needs of electricity distribution activities;
- b) Restricting the establishment of activities that may result in reverse sensitivity effects;
- c) Avoiding, remedying or mitigating adverse effects from other activities on the functional needs of that infrastructure;
- d) Minimising adverse effects of new and upgraded electricity distribution infrastructure on existing land uses;
- e) Identifying significant electricity distribution infrastructure and managing effects of potentially incompatible activities through methods such as corridors.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1, 4.1.19

Method 9: Advocacy and Facilitation
Method 9.1

Policy 4.4.6 Energy efficient transport

Enable energy efficient and sustainable transport for Otago’s communities, by all of the following:

- a) Encouraging the development of compact and well integrated urban areas, to reduce travel needs within those areas;
- b) Ensuring that transport infrastructure in urban areas has good connectivity, both within new urban areas and between new and existing urban areas, by all of the following:
 - i. Placing a high priority on walking, cycling, and public transport, where appropriate;
 - ii. Maximising pedestrian and cycling networks connectivity, and integration with public transport;
 - iii. Having high design standards for pedestrian and cyclist safety and amenity;
- c) Enabling the development or upgrade of transport infrastructure and associated facilities that both:
 - i. Increase freight efficiency; and
 - ii. Foster the uptake of new technologies for more efficient energy uses, and renewable or lower emission transport fuels.
- d) Fostering uptake of public transportation through provision of safe, reliable and well sheltered alternatives to private transport.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 6: Non RMA Strategies and Plans
Method 6.3

Method 9: Advocacy and Facilitation
Method 9.1, Method 9.2.2

Policy 4.4.7 Fuels

Recognise and provide for reliable and resilient fuel supply chain infrastructure to meet community fuel needs, including facilities for the transition to a lower-carbon future.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Principal Reasons and Explanation:

There is a need to encourage renewable energy generation, encourage sustainable energy use and improve energy resilience.

People's social and economic wellbeing, and their health and safety, is dependent on their energy needs being met by a sustainable, reliable and secure supply of energy. Communities rely on a range of renewable energy sources such as hydro, wind and solar generation and non-renewable sources such as oil, gas and coal.

More efficient energy uses, and a greater diversity of energy sources have the potential to increase community resilience while increasing the ability to sustain economic development.

In particular, more efficient or alternative transport fuels, in addition to better planning for access and public transport will provide for a more sustainable and resilient transport system.

Objective 4.5 Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments

Issue:

Unplanned urban growth and development risks exceeding the carrying capacity of existing infrastructure and services, adversely affecting community resilience.

Unanticipated growth places pressure on adjoining productive land, and risks losing connectivity with adjoining urban areas.

Urban development has not always had regard for the local environment or the needs of the community.

Policy 4.5.1 Providing for urban growth and development

Provide for urban growth and development in a strategic and co-ordinated way, including by:

- a) Ensuring future urban growth areas are in accordance with any future development strategy for that district.
- b) Monitoring supply and demand of residential, commercial and industrial zoned land;
- c) Ensuring that there is sufficient housing and business land development capacity available in Otago;
- d) Setting minimum targets for sufficient, feasible capacity for housing in high growth urban areas in Schedule 6
- e) Coordinating the development and the extension of urban areas with infrastructure development programmes, to provide infrastructure in an efficient and effective way.
- f) Having particular regard to:
 - i. Providing for rural production activities by minimising adverse effects on significant soils and activities which sustain food production;
 - ii. Minimising competing demands for natural resources;
 - iii. Maintaining high and outstanding natural character in the coastal environment; outstanding natural features, landscapes, and seascapes; and areas of significant indigenous vegetation and significant habitats of indigenous fauna;
 - iv. Maintaining important cultural or historic heritage values;
 - v. Avoiding land with significant risk from natural hazards;
- g) Ensuring efficient use of land;
- h) Restricting urban growth and development to areas that avoid reverse sensitivity effects unless those effects can be adequately managed;
- i) Requiring the use of low or no emission heating systems where ambient air quality is:
 - i. Below standards for human health; or
 - ii. Vulnerable to degradation given the local climatic and geographical context;
- j) Consolidating existing coastal settlements and coastal urban areas where this will contribute to avoiding or mitigating sprawling or sporadic patterns of settlement and urban growth.

- Method 2: Regional, City and District Council Relationships**
Method 2.1, Method 2.2
- Method 4: City and District Plans**
Method 4.1.6, Method 4.1.13, Method 4.2.4, Method 4.2.7, Method 4.2.10
- Method 5: Research, Monitoring and Reporting**
Method 5.2.3
- Method 6: Non RMA Strategies and Plans**
Method 6.2

Policy 4.5.2 Integrating infrastructure with land use

Achieve the strategic integration of infrastructure with land use, by undertaking all of the following:

- a) Recognising and providing for the functional needs of infrastructure;
- b) Locating and designing infrastructure to take into account all of the following:
 - i. Actual and reasonably foreseeable land use change;
 - ii. The current population and projected demographic changes;
 - iii. Actual and reasonably foreseeable change in supply of, and demand for, infrastructure services;
 - iv. Natural and physical resource constraints;
 - v. Effects on the values of natural and physical resources;
 - vi. Co-dependence with other infrastructure;
 - vii. The effects of climate change on the long-term viability of that infrastructure;
 - viii. Natural hazard risk.
- c) Coordinating the design and development of infrastructure with land use change in growth and redevelopment planning.

- Method 2: Regional, City and District Council Relationships**
Method 2.1, Method 2.2
- Method 3: Regional Plans**
Method 3.1
- Method 4: City and District Plans**
Method 4.1, Method 4.2.4
- Method 6: Non RMA Strategies and Plans**
Method 6.3.1
- Method 7: Education and Information**
Method 7.1.4
- Method 9: Advocacy and Facilitation**
Method 9.1.2

Policy 4.5.3 Urban design

Design new urban development with regard to:

- a) A resilient, safe and healthy community;
- b) A built form that relates well to its surrounding environment;
- c) Reducing risk from natural hazards;
- d) Good access and connectivity within and between communities;
- e) A sense of cohesion and recognition of community values;
- f) Recognition and celebration of physical and cultural identity, and the historic heritage values of a place;
- g) Areas where people can live, work and play;
- h) A diverse range of housing, commercial, industrial and service activities;
- i) A diverse range of social and cultural opportunities.

Method 4 City and District Plans
Method 4.1

Policy 4.5.4 Low impact design

Encourage the use of low impact design techniques in subdivision and development to reduce demand on stormwater, water and wastewater infrastructure and reduce potential adverse environmental effects.

Method 4: City and District Plans
Method 4.1

Method 7: Education and Information
Method 7.1.4

Method 9: Advocacy and Facilitation
Method 9.1.2, Method 9.1.5

Policy 4.5.5 Warmer buildings

Encourage the design of subdivision and development to reduce the adverse effects of the region's colder climate, and higher demand and costs for energy, including maximising passive solar gain.

Method 4: City and District Plans
Method 4.1

Method 7: Education and Information
Method 7.1.4

Method 9: Advocacy and Facilitation
Method 9.1.2, Method 9.1.5 c.

Policy 4.5.6 Designing for public access

Design and maintain public spaces, including streets and open spaces, to meet the reasonable access and mobility needs of all sectors.

Method 4: City and District Plans
Method 4.1.7**Principal Reasons and Explanation:**

Well-designed and integrated urban growth, achieves effective and affordable infrastructure, and improves resilience. The best use of the natural and physical resources will reduce the effects of unanticipated growth.

Well planned urban growth and development can achieve multiple benefits, including economic, social and environmental benefits. Concentrating activities in urban areas creates economies of scale for the development and maintenance of infrastructure and supports community facilities such as health care and educational facilities. This can also reduce pressure on the surrounding productive and natural environment.

Urban areas that are well designed will improve quality of life, resilience and create more attractive opportunities for business investment.

The quality of the urban environment can affect quality of life and community viability. Built environments that relate well to their surroundings, have easy connectivity access to key services and reflect the distinctive character of their locality make a positive contribution to the community. Poor quality or badly co-ordinated development presents social, environmental, and economic risks.

Integrating the natural environment into urban areas has been shown to achieve multiple benefits. Urban design choices can allow natural processes to continue through and around everyday activities with minimal adverse impact to either.

Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago

Issue:

Waste materials, hazardous substances and contaminated land may adversely affect the environment and community health and safety.

Policy 4.6.1 Hazardous substances

Promote an integrated approach to the management of hazardous substances in Otago.

Method 6: Non RMA Strategies and Plans
Method 6.9

Method 7: Education and Information
Method 7.1.6

Method 9: Advocacy and Facilitation
Method 9.1.2, Method 9.1.4

Policy 4.6.2 Use, storage and disposal of hazardous substances

Manage the use, storage and disposal of hazardous substances, by all of the following:

- a) Providing secure containment for the storage of hazardous substances;
- b) Minimising risk associated with natural hazard events;
- c) Ensuring the health and safety of people;
- d) Avoiding, remedying or mitigating adverse effects on the environment;
- e) Providing for the development of facilities to safely store, transfer, process, handle and dispose of hazardous substances;
- f) Ensuring hazardous substances are treated or disposed of in accordance with the relevant regulatory requirements;
- g) Restricting the location and intensification of activities that may result in reverse sensitivity effects near authorised facilities for hazardous substance bulk storage, treatment or disposal;
- h) Encouraging the use of best management practices.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

- Method 4:** **City and District Plans**
Method 4.1.9
- Method 6:** **Non RMA Strategies and Plans**
Method 6.9
- Method 7:** **Education and Information**
Method 7.1.6
- Method 9:** **Advocacy and Facilitation**
Method 9.1.2, Method 9.1.4

Policy 4.6.3 Hazardous substance collection, disposal and recycling

Promote and facilitate the establishment of hazardous substance collection, disposal and recycling services across the region.

- Method 9:** **Advocacy and Facilitation**
Method 9.1.2

Policy 4.6.4 Identifying contaminated land

Identify sites of known or potentially contaminated land in Otago.

- Method 5:** **Research, Monitoring and Reporting**
Method 5.2.1 e, Method 5.2.1 k.
- Method 7:** **Education and Information**
Method 7.1.3 b.

Policy 4.6.5 Managing contaminated land

Ensure contaminated or potentially contaminated land does not pose an unacceptable risk to people and the environment, by:

- a) Assessing and, if required, monitoring contaminant levels and environmental risks;
- b) Protecting human health in accordance with regulatory requirements;
- c) Minimising adverse effects of the contaminants on the environment.

- Method 2:** **Regional, City and District Council Relationships**
Method 2.1, Method 2.2
- Method 3:** **Regional Plans**
Method 3.1.11

Method 4: City and District Plans
Method 4.2.6

Policy 4.6.6 Waste management

Promote an integrated approach to the management of the use, storage and disposal of waste materials.

Method 6: Non RMA Strategies and Plans
Method 6.9

Method 9: Advocacy and Facilitation
Method 9.1.2 c.

Policy 4.6.7 Waste minimisation responses

Encourage activities to give effect to the waste minimisation hierarchy of responses, by:

- a) Giving preference to reducing waste generated; then
- b) Reusing waste; then
- c) Recycling waste; then
- d) Recovering resources from waste; then
- e) Treatment; then
- f) Disposing residual waste to a disposal facility.

Method 6: Non RMA Strategies and Plans
Method 6.8

Method 9: Advocacy and Facilitation
Method 9.1.2 c.

Policy 4.6.8 Waste storage, recycling, recovery, treatment and disposal

Manage the storage, recycling, recovery, treatment and disposal of waste materials by undertaking all of the following:

- a) Providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste materials;
- b) Ensuring the health and safety of people;
- c) Minimising adverse effects on the environment;
- d) Minimising risk associated with natural hazard events;
- e) Restricting the location of activities that may result in reverse sensitivity effects near waste management facilities and services.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1.12

- Method 4:** **City and District Plans**
Method 4.1.10
- Method 5:** **Research, Monitoring and Reporting**
Method 5.2.1 f.
- Method 6:** **Non RMA Strategies and Plans**
Method 6.8, Method 6.9
- Method 7:** **Education and Information**
Method 7.1.5
- Method 9:** **Advocacy and Facilitation**
Method 9.1.5

Policy 4.6.9 New Contaminated land

Avoid the creation of new contaminated land or, where this is not practicable, minimise adverse effects on the environment.

- Method 3:** **Regional Plans**
Method 3.1
- Method 4:** **City and District Plans**
Method 4.1

Principal Reasons and Explanation:

Resources need to be carefully used to minimise the material disposed of as waste.

Waste materials and hazardous substances need to be carefully managed to avoid creating environmental problems or adversely affecting human health.

Hazardous substances can be dangerous when not managed appropriately but are essential components of some activities. Hazardous substances and their waste should also be managed to avoid creating environmental problems or adversely affecting human health, in accordance with regulatory requirements.

PART B Chapter 5 People are able to use and enjoy Otago's natural and built environment

The use of natural and physical resources underpins community, cultural, and economic wellbeing. Due to the importance of natural resources to wellbeing and the dynamic and interconnected nature of the environment, the sustainable management of resources requires consideration of the adverse effects of resource use on the environment and on other resource users.

This fifth chapter builds on the previous ones by enabling the use of the natural and physical environment for enjoyment and making a living, while ensuring that resources are sustainably managed for conflicting or incompatible uses.

Chapter overview:

Objective 5.1		
Public access to areas of value to the community is maintained or enhanced.		Page
Policy 5.1.1	Public access	74
Objective 5.2		
Historic heritage resources are recognised and contribute to the region's character and sense of identity.		Page
Policy 5.2.1	Recognising historic heritage	76
Policy 5.2.2	Identifying historic heritage	76
Policy 5.2.3	Managing historic heritage	77
Objective 5.3		
Sufficient land is managed and protected for economic production.		Page
Policy 5.3.1	Rural activities	78
Policy 5.3.2	Distribution of commercial activities	78
Policy 5.3.3	Industrial land	79
Policy 5.3.4	Mineral and petroleum exploration, extraction and processing	79
Policy 5.3.5	Tourism and outdoor recreation	79
Objective 5.4		
Adverse effects of using and enjoying Otago's natural and physical resources are minimised.		Page
Policy 5.4.1	Offensive or objectionable discharges	80
Policy 5.4.2	Adaptive management approach	80
Policy 5.4.3	Precautionary approach to adverse effects	81
Policy 5.4.4	Emission standards	81

Policy 5.4.5	Pest plants and animals	81
Policy 5.4.6	Offsetting for indigenous biological diversity	82
Policy 5.4.6A	Biological Diversity Compensation	83
Policy 5.4.7	Offsetting for air quality	83
Policy 5.4.8	Adverse effects from mineral and petroleum exploration, extraction and processing	84
Policy 5.4.9	Activities in the Coastal Marine Area	85
Policy 5.4.10	Managing land use change in dry catchments	86

Objective 5.1 Public access to areas of value to the community is maintained or enhanced

Issue:

Public access to areas of value to the community is sometimes limited or inappropriate.

Policy 5.1.1 Public access

Maintain or enhance public access to the natural environment, including to the coast, lakes, rivers and their margins and where possible areas of cultural or historic significance, unless restricting access is necessary for one or more of the following:

- a) Protecting public health and safety;
- b) Protecting the natural heritage and ecosystem values of sensitive natural areas or habitats;
- c) Protecting identified sites and values associated with historic heritage or cultural significance to Kāi Tahu;
- d) Ensuring a level of security consistent with the operational requirements of a lawfully established activity.

Method 1: Kāi Tahu Relationships

Method 1.2

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.14, Method 4.2.9

Method 8: Funding

Method 8.1.1

Method 9: Advocacy and Facilitation

Method 9.2.2 e, 9.2.8 b.

Principal Reasons and Explanation:

Access to the natural environment and areas of cultural and historic significance is highly valued by residents and visitors.

The opportunities subdivision and development create to improve access to the natural environment or to limit access to more sensitive places should be utilised.

The ability to access the natural environment and areas of cultural and historic significance is highly valued by the community and contributes significantly to the tourism economy. The RMA identifies the maintenance or enhancement of public access to and along the coastal marine area, lakes, and rivers as a matter of national importance.

Improving access to the natural environment or sites of cultural and historic significance can contribute to recreational, cultural, spiritual and economic wellbeing and should be maintained or enhanced unless it would be detrimental to the protection of the values of these areas, or the health and safety of the community.

Objective 5.2 Historic heritage resources are recognised and contribute to the region's character and sense of identity

Issue:

Subdivision, use, and development may risk damage to Otago's rich historic heritage.

Policy 5.2.1 Recognising historic heritage

Recognise all the following elements as characteristic or important to Otago's historic heritage:

- a) Residential and commercial buildings;
- b) Māori cultural and historic heritage values;
- c) 19th and early 20th century pastoral sites;
- d) Early surveying, communications and transport, including roads, bridges and routes;
- e) Early industrial historic heritage, including mills and brickworks;
- f) Gold and other mining systems and settlements;
- g) Dredge and ship wrecks;
- h) Coastal historic heritage, particularly Kāi Tahu occupation sites and those associated with early European activity such as whaling;
- i) Memorials;
- j) Trees and vegetation.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 5.2.2 Identifying historic heritage

Identify historic heritage places and areas of regional or national significance, using the attributes in Schedule 5.

Method 3: Regional Plans
Method 3.1.10

Method 4: City and District Plans
Method 4.1.11

Method 5: Research, Monitoring and Reporting
Method 5.1.4

Method 9: Advocacy and Facilitation
Method 9.1.3 e.

Policy 5.2.3 Managing historic heritage

Protect and enhance places and areas of historic heritage, by all of the following:

- a) Recognising that some places or areas are known or may contain archaeological sites, wāhi tapu or wāhi taoka which could be of significant historic or cultural value;
- b) Applying these provisions immediately upon discovery of such previously unidentified archaeological sites or areas, wāhi tapu or wāhi taoka;
- c) Avoiding adverse effects on those values that contribute to the area or place being of regional or national significance;
- d) Minimising significant adverse effects on other values of areas and places of historic heritage;
- e) Remedying when adverse effects on other values cannot be avoided;
- f) Mitigating when adverse effects on other values cannot be avoided or remedied;
- g) Encouraging the integration of historic heritage values into new activities;
- h) Enabling adaptive reuse or upgrade of historic heritage places and areas where historic heritage values can be maintained.

Method 1: Kāi Tahu Relationships

Method 1.2

Method 2: Regional, City and District Council Relationships

Method 2.1, Method 2.2

Method 3: Regional Plans

Method 3.1.10

Method 4: City and District Plans

Method 4.1.11, Method 4.2.3, Method 4.2.5

Method 8: Funding

Method 8.1.1

Method 9: Advocacy and Facilitation

Method 9.1.5 b

Principal Reasons and Explanation:

In the RMA, protection of historic heritage from inappropriate activities is a matter of national importance.

Otago is a region rich in historic heritage which includes historic heritage places and areas that are recognised as nationally, regionally and locally important. Historic heritage resources make significant contributions to the regional identity and tourism economy.

The use of common criteria identifying historic heritage provides a more efficient and consistent approach across the region, while allowing local variation.

Objective 5.3 Sufficient land is managed and protected for economic production

Issue:

Providing for economic production can create adverse effects. Existing economic activities are susceptible to reverse sensitivity effects, particularly when adjoining land use changes.

Policy 5.3.1 Rural activities

Manage activities in rural areas, to support the region's economy and communities, by:

- a) Enabling primary production and other rural activities that support that production;
- b) Providing for mineral exploration, extraction and processing;
- c) Minimising the loss of significant soils;
- d) Restricting the establishment of incompatible activities in rural areas that are likely to lead to reverse sensitivity effects;
- e) Minimising the subdivision of productive rural land into smaller lots that may result in a loss of its productive capacity or productive efficiency;
- f) Providing for other activities that have a functional need to locate in rural areas.

Method 4: City and District Plans
Method 4.1.6, Method 4.2.4

Method 5: Research, Monitoring and Reporting
Method 5.1.3 c, Method 5.2.1 d

Method 7: Education and Information
Method 7.1.2 f

Policy 5.3.2 Distribution of commercial activities

Manage the distribution of commercial activities by:

- a) Enabling a wide variety of commercial, social and cultural activities in central business districts, and town and commercial centres;
- b) Enabling smaller commercial centres to service local community needs;
- c) Restricting commercial activities outside of a) and b) when such activities are likely to undermine the vibrancy and viability of those centres;
- d) Encouraging the adaptive reuse of existing buildings.

Method 4: City and District Plans
Method 4.1

Method 9: Advocacy and Facilitation
Method 9.1.5

Policy 5.3.3 Industrial land

Manage the finite nature of land suitable and available for industrial activities, by all of the following:

- a) Providing specific areas to accommodate the effects of industrial activities;
- b) Providing a range of land suitable for different industrial activities, including land-extensive activities;
- c) Restricting the establishment of activities in industrial areas that are likely to result in:
 - i. Reverse sensitivity effects; or
 - ii. Inefficient use of industrial land or infrastructure.

Method 4: City and District Plans

Method 4.1

Policy 5.3.4 Mineral and petroleum exploration, extraction and processing

Recognise the functional needs of mineral exploration, extraction and processing activities to locate where the resource exists.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Policy 5.3.5 Tourism and outdoor recreation

Recognise the social and economic value of some forms of outdoor recreation and tourism having access to, and being located within, outstanding natural features and landscapes.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Principal Reasons and Explanation:

Some degree of spatial separation of incompatible activities and control over land use change is needed to ensure efficient use of land and continuing economic viability.

The use of land for productive activity underpins the economy of the region. Opportunities for economic growth and development need to be provided for by recognising and managing the effects of activities. Managing the efficient use of land may also require the management of other land use activities where significant historical investment or future productive potential may be adversely affected by competing or conflicting activities.

Objective 5.4 Adverse effects of using and enjoying Otago's natural and physical resources are minimised

Issue:

Resource use can create adverse effects on other resources, their values and for other resource users and the wider community.

Ecosystems, significant areas of biological diversity and outstanding landscapes are under pressure from the direct effects of human activities, as well as indirect effects, including the spread of multiple pest species.

Policy 5.4.1 Offensive or objectionable discharges

Manage offensive or objectionable discharges to land, water and air by:

- a) Avoiding significant adverse effects of those discharges;
- b) Avoiding significant adverse effects of discharges of human or animal waste directly, or in close proximity, to water or mahika kai sites;
- c) Avoiding, remedying or mitigating other adverse effects of those discharges.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1.5

Method 7: Education and Information

Method 7.1.2

Policy 5.4.2 Adaptive management approach

Apply an adaptive management approach, to avoid, remedy or mitigate actual and potential adverse effects that might arise and that can be remedied before they become irreversible, by both:

- a) Setting appropriate indicators for effective monitoring of those adverse effects; and
- b) Setting thresholds to trigger remedial action before the effects result in irreversible damage.

Method 3: Regional Plans

Method 3.1

Method 4: City and District Plans

Method 4.1

Policy 5.4.3 Precautionary approach to adverse effects

Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be determined, or poorly understood but are potentially significant or irreversible.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 5.4.4 Emission standards

Apply emission standards within airsheds, to achieve ambient air quality that supports good human health.

Method 3: Regional Plans
Method 3.1.9

Method 5: Research, Monitoring and Reporting
Method 5.1.3 a

Method 6: Non RMA Strategies and Plans
Method 6.2

Policy 5.4.5 Pest plants and animals

Control the adverse effects of pest species, prevent their introduction, reduce their spread and enable the removal and destruction of material for biosecurity purposes, to safeguard all of the following:

- a) The viability of indigenous species and habitats for indigenous species;
- b) Ecosystem services that support economic activities;
- c) Water quality and water quantity;
- d) Soil quality;
- e) Human and animal health;
- f) Recreation values;
- g) Landscapes, seascapes and natural character;
- h) Primary production.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Method 6: Non RMA Strategies and Plans
Method 6.5, Method 6.6

Method 7: Education and Information
Method 7.1.1 e

Method 8: Funding
Method 8.1

Method 9: Advocacy and Facilitation
Method 9.2.6

Policy 5.4.6 Offsetting for indigenous biological diversity

Consider indigenous biological diversity offsetting, when:

- a) Residual adverse effects of activities cannot be avoided, remedied or mitigated;
- b) The offset achieves no net loss and preferably a net gain in indigenous biological diversity;
- c) The offset ensures there is no loss of individuals of Threatened taxa other than kānuka (*Kunzea robusta* and *Kunzea serotina*), and no reasonably measurable loss within the ecological district to an At Risk-Declining taxon, other than mānuka (*Leptospermum scoparium*), under the New Zealand Threat Classification System ("NZTCS");
- d) The offset is undertaken where it will result in the best ecological outcome, preferably;
 - i. Close to the location of development; or
 - ii. Within the same ecological district or coastal marine biogeographic region;
- e) The offset is applied so that the ecological values being achieved are the same or similar to those being lost;
- f) The positive ecological outcomes of the offset last at least as long as the impact of the activity, preferably in perpetuity;
- g) The offset will achieve biological diversity outcomes beyond results that would have occurred if the offset was not proposed;
- h) The delay between the loss of biological diversity through the proposal and the gain or maturation of the offset's biological diversity outcomes is minimised.

Method 3: Regional Plans
Method 3.1.15

Method 4: City and District Plans
Method 4.1.20

Policy 5.4.6A Biological Diversity Compensation

Consider the use of biological diversity compensation:

- a) When:
 - i. Adverse effects of activities cannot be avoided, remedied, mitigated or offset; and
 - ii. The residual adverse effects will not result in
 1. The loss of an indigenous taxon (excluding freshwater fauna and flora) or of any ecosystem type from an ecological district or coastal marine biogeographic region;
 2. Removal or loss of viability of habitat of a threatened or at risk indigenous species of fauna or flora under the New Zealand Threat Classification System ("NZTCS");
 3. Removal or loss of viability of an originally rare or uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna;
 4. Worsening of the NZTCS conservation status of any threatened or at risk indigenous freshwater fauna.
- b) By applying the following criteria:
 - i. The compensation is proportionate to the adverse effect;
 - ii. The compensation is undertaken where it will result in the best practicable ecological outcome, preferably;
 1. Close to the location of development;
 2. Within the same ecological district or coastal marine biogeographic region;
 - iii. The compensation will achieve positive biological diversity outcomes that would not have occurred without that compensation;
 - iv. The positive ecological outcomes of the compensation last for at least as long as the adverse effects of the activity; and
 - v. The delay between the loss of biological diversity through the proposal and the gain or maturation of the compensation's biological diversity outcomes is minimised.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 5.4.7 Offsetting for air quality

Provide for the offsetting of adverse effects of discharges to air on ambient air quality, only when all of the following are met:

- a) The ambient air quality of the relevant airshed breaches air quality standards for human health;
- b) Offsetting will reduce the cumulative effect of discharges to air in the relevant airshed by the same, or greater amount, than the proposed discharge;
- c) Offsetting improves access to reliable and affordable domestic heating in the relevant airshed.

Method 3: Regional Plans

Method 3.1

Method 6: Non RMA Strategies and Plans

Method 6.2

Policy 5.4.8 Adverse effects from mineral and petroleum exploration, extraction and processing

Manage adverse effects from the exploration, extraction and processing of minerals and petroleum, by:

- a) Giving preference to avoiding their location in all of the following:
 - i. Areas of significant indigenous vegetation and significant habitats of indigenous fauna in the coastal environment;
 - ii. Outstanding natural character in the coastal environment;
 - iii. Outstanding natural features and natural landscapes, including seascapes, in the coastal environment;
 - iv. Areas of significant indigenous vegetation and significant habitats of indigenous fauna beyond the coastal environment;
 - v. Outstanding natural character in areas beyond the coastal environment;
 - vi. Outstanding natural features and landscapes beyond the coastal environment;
 - vii. Outstanding water bodies or wetlands;
 - viii. Places or areas containing historic heritage of regional or national significance;
 - ix. Areas subject to significant natural hazard risk;
- b) Where it is not practicable to avoid locating in the areas listed in a) above because of the functional needs of that activity:
 - i. Avoid adverse effects on the values that contribute to the significant or outstanding nature of a) i-iii;
 - ii. Avoid, remedy or mitigate, as necessary, adverse effects on values in order to maintain the outstanding or significant nature of a)iv-viii;
 - iii. Consider first biological diversity offsetting, and then biological diversity compensation, if adverse effects described in b)ii. on indigenous biological diversity cannot be practicably remedied or mitigated;
 - iv. Minimise any increase in natural hazard risk through mitigation measures;
 - v. Consider environmental compensation if adverse effects described in b) ii, other than on indigenous biological diversity, cannot practically be avoided, remedied or mitigated;
- ba) Avoid significant adverse effects on natural character in all other areas of the coastal environment;
- c) Avoiding adverse effects on the health and safety of the community;
- d) Avoiding, remedying, or mitigating adverse effects on other values including highly valued natural features, landscapes and seascapes in order to maintain their high values;
- e) Considering biological diversity offsetting or compensating for residual adverse effects on other values;
- f) Reducing unavoidable adverse effects by:
 - i. Staging development for longer term activities; and
 - ii. Progressively rehabilitating the site, where possible;

- g) Applying a precautionary approach (including adaptive management where appropriate) to assessing the effects of the activity, where there is scientific uncertainty, and potentially significant or irreversible adverse effects.

Where there is a conflict, Policy 5.4.8 prevails over policies under Objective 3.2, (except for policy 3.2.12) Policy 4.3.1 and Policy 5.2.3.

Method 3: Regional Plans
Method 3.1

Method 4: City and District Plans
Method 4.1

Policy 5.4.9 Activities in the Coastal Marine Area

In the coastal marine area minimise adverse effects from activities by all of the following:

- a) Avoiding activities that do not have a functional need to locate in the coastal marine area;
- b) When an activity has a functional need to locate in the coastal marine area, giving preference to avoiding its location in:
 - i. Areas of significant indigenous vegetation and significant habitats of indigenous fauna;
 - ii. Outstanding natural features, landscapes and seascapes;
 - iii. Areas of outstanding natural character;
 - iv. Places or areas containing historic heritage of regional or national significance;
 - v. Areas subject to significant natural hazard risk;
- c) Where it is not practicable to avoid locating in the areas listed in b) above, because of the functional needs of that activity:
 - i. Avoid adverse effects on the values that contribute to the significant or outstanding nature of b)i.-iii;
 - ii. Avoid significant adverse effects on natural character in all other areas of the coastal environment;
 - iii. Avoid, remedy or mitigate adverse effects on values as necessary to preserve historic heritage of regional or national significance;
 - iv. Minimise any increase in natural hazard risk through mitigation measures;
 - v. Avoiding, remedying, or mitigating adverse effects on other values;
- d) Providing for the efficient use of space by requiring structures be made available for public or multiple use wherever reasonable and practicable;
- e) Applying a precautionary approach to assessing the effects of the activity, where there is scientific uncertainty, and potentially significant or irreversible adverse effects;

Method 3: Regional Plans
Method 3.1

Policy 5.4.10 Managing land use change in dry catchments

Manage land use change in dry catchments, to avoid any significant reduction in water yield, by:

- a) Controlling any extension of forestry activities within those catchments that would result in a significant reduction in water yield, including cumulative reductions; and
- b) Minimising the conversion of tall tussock grasslands to species which are less able to capture and hold precipitation.

Method 2: Regional, City and District Council Relationships
Method 2.1, Method 2.2

Method 3: Regional Plans
Method 3.1.16

Method 5: Research, Monitoring and Reporting
Method 5.1.3 b

Principal Reasons and Explanation:

Any use of natural or physical resources has the potential to generate adverse effects. Resource use significantly contributes to the economic and wider wellbeing of communities. It is important to manage activities to avoid, remedy or mitigate individual or cumulative adverse effects on the quality of the natural environment. This requires the proactive management of natural resources, and can only be achieved through the integrated management of natural resources, and by giving due consideration to both managing adverse effects and maintaining and enhancing environmental values. Resource use can also have adverse effects on other uses or prevent the normal operation of existing uses.

Resource management decisions often involve balancing values or uses. Section 3.2 of this document identifies resources which are so significant that adverse effects on their values should be avoided. Some activities, such as mineral extraction or infrastructure development, may have to locate in areas with significant values. To provide for those activities, it is important to outline how their adverse effects should be managed.

PART C Implementation

Roles and Responsibilities

Sections 62(1)(h) and (i) of the RMA requires the RPS identify the regional, city and district councils' responsibilities for the control of land use in regard to natural hazards, hazardous substances and the maintenance of indigenous biological diversity. These roles and responsibilities are provided for as follows:

Regional council will:

Specify objectives, policies and methods in regional plans for the control of the use of land for:

- a. The management of natural hazards in the beds of rivers, lakes and wetlands, and the coastal marine area;
- b. The management of hazardous substances to:
 - i. Avoid, remedy, or mitigate the actual or potential adverse effects of discharges of hazardous substances to water, land and air;
 - ii. Control the use, storage, disposal or transportation of hazardous substances in the beds of rivers, lakes and wetlands and the coastal marine area;
- c. The maintenance of indigenous biological diversity in the coastal marine area, in beds of rivers and lakes, and wetlands.

City and district councils will:

Specify objectives, policies and methods in district plans for the control of the use of land for:

- a. The management of natural hazards outside of the beds of rivers, lakes and wetlands or the coastal marine area;
- b. Avoiding, remedying or mitigating the adverse effects of the storage, use, transport or disposal of hazardous substances on the environment outside of the beds of rivers, lakes and wetlands or the coastal marine area;
- c. The maintenance of indigenous biological diversity on all land outside of the coastal marine area and the beds of rivers, wetlands and lakes.

Regional, city and district councils will:

Share responsibility for specifying objectives, policies and methods for the purpose of the maintenance of indigenous biological diversity through the management of the margins of the coastal marine area, beds of rivers and lakes, and wetlands.

Methods

Method 1: Kāi Tahu Relationships

- 1.1 Regional, city and district councils will develop processes to:
 - 1.1.1 Establish and maintain effective resource management relationships with Kāi Tahu based on a mutual obligation to act reasonably and in good faith;
 - 1.1.2 Take Iwi Management Plans into account;
 - 1.1.3 Consult Kāi Tahu at an early stage in resource management processes and implementation.
 - 1.1.4 Facilitate efficient and effective processes for applicants to consult Kāi Tahu on resource consent applications and private plan change requests.

- 1.2 Regional, city and district councils will collaborate with Kāi Tahu to:
 - 1.2.1 Identify and protect places, areas or landscapes of cultural, spiritual or traditional significance to them, in accordance with Policy 2.2.2, 3.1.11, 3.2.3 and Schedule 3;
 - 1.2.2 Identify and protect the values that contribute to their significance;
 - 1.2.3 Identify areas or values that may contribute to the importance of outstanding natural features, landscapes and seascapes, and highly valued natural features, landscapes and seascapes;
 - 1.2.4 Determine appropriate naming for places of significance in Otago.
 - 1.2.5 Share information relevant to Kāi Tahu interests.

- 1.3 Regional, city and district councils will:
 - 1.3.1 Promote awareness and improve knowledge of tikaka and the principles of Te Tiriti o Waitangi among staff and stakeholders.
 - 1.3.2 Include statutory acknowledgement areas in district and regional plans.

- 1.4 Regional, city and district councils may:
 - 1.4.1 Delegate and transfer any one or more of their functions, powers or duties to an iwi authority in accordance with section 33 of the RMA and where this provides an effective service.

Method 2: Regional, City and District Council Relationships

- 2.1 Regional, city and district councils together will:
 - 2.1.1 Share information on matters of common interest;
 - 2.1.2 Work together to ensure RMA plan provisions are complementary for overlapping or abutting responsibilities.
 - 2.1.3 Apply an integrated management approach to address the relationship between land use and both fresh and coastal water.
 - 2.1.4 Policy 4.5.1, by applying an integrated management approach to achieving air quality standards, including through advising district plan users on regional rules and building consent requirements.

- 2.2 Regional, city and district councils may:
- 2.2.1 Establish processes for working together on common resource management matters or cross boundary issues, such as:
 - a. Committees;
 - b. Working groups;
 - c. Project management;
 - d. Combined hearings;
 - 2.2.2 Prepare combined regional and district documents;
 - 2.2.3 Delegate or transfer any one or more of their functions, powers or duties from one local authority to another in accordance with section 33 of the RMA and where this provides an effective service;
 - 2.2.4 Establish management agreements with another statutory body;
 - 2.2.5 Establish protocols and processes for resolving cross boundary issues through the Local Government Act 2002 triennial agreement.
- 2.3 Regional council may, at the request of city or district councils:
- 2.3.1 Make a regional rule for the purpose of extinguishing existing use rights under Section 10 of the RMA to address natural hazard risk;
 - 2.3.2 Delegate the administration of that regional rule to the city or district council.

Method 3: Regional Plans

- 3.1 Regional Plans will set objectives, policies and methods to implement policies in the RPS as they relate to Regional Council areas of responsibility. All objectives and policies of the RPS must be considered and given effect to when preparing Regional Plans. Matters in the methods can also be taken into account when considering resource consent applications.

More specific direction is provided in the following areas.

Objectives, policies and methods to implement the following policies:

- 3.1.1 Policy 2.2.2: by including in regional plans encompassing wāhi tupuna sites:
 - a) provisions to recognise wāhi tupuna and to protect the values that contribute to wāhi tupuna being significant;
 - b) the location on plans of the wāhi tupuna to be protected and the values that contribute to their significance, using the guide in schedule 1C to assist;
- 3.1.2 Policy 2.1.2: by having regard to the Te Rūnunga o Ngāi Tahu, Hazardous Substances and New Organisms Policy Statement 2008 when developing objectives, policies and methods for the management of hazardous substances and new organisms;
- 3.1.3 Policies 3.1.1 to 3.1.5, and Policies 4.3.3, 4.4.1 and 4.4.3:
 - a. Manage land use and vegetation removal within the beds of lakes and rivers, wetlands, riparian areas, and in the coastal environment;
 - b. In appropriate circumstances, provide for activities that have a functional need to be located in the beds of rivers, lakes, wetlands, and their margins.

- c. Manage change in river morphology;
 - d. Encourage restoration of water margins;
 - e. Managing noise in the coastal marine area;
 - f. Identify freshwater management units that include all freshwater bodies in Otago in accordance with the National Policy Statement for Freshwater Management 2014;
 - g. Maintain good water quality and improve it where it is degraded.
 - h. Provide for resource users, people and communities that rely on fresh water within environmental limits;
 - i. Set limits and targets to give effect to the National Policy Statement for Freshwater Management 2014;
- 3.1.4 Policies 3.1.7 and 3.2.18: by including provisions to manage adverse effects of land use on soil and protect significant soil.
- 3.1.5 Policy 4.3.1: by providing controls adjacent to infrastructure, where necessary to ensure the functional needs of infrastructure are not compromised.
- 3.1.7 Policies 3.2.11 and 3.2.12: by protecting surf breaks of national importance.
- 3.1.8 Policies 3.2.13 – 3.2.16: by protecting the values of wetlands and outstanding freshwater bodies.
- 3.1.9 Policy 3.1.6 and 5.4.4: by applying emission standards within airsheds to achieve ambient air quality that supports good human health;
- 3.1.11 Policy 4.6.5: by managing the effects of the use of contaminated land:
- a. On the quality of air, water or land;
 - b. In the coastal marine area, and the beds of rivers, lakes and other waterbodies;
- 3.1.12 Policy 4.6.8: by requiring waste disposal facilities to monitor, record and report on the quantity and composition of waste being deposited to landfill;
- 3.1.13 Policy 4.1.3: by using the criteria when undertaking natural hazard assessments;
- 3.1.14 Policy 3.1.2: by developing river management strategies, including:
- a. The management of riparian margins along rivers and lakes;
 - b. The management of bed alterations.
- 3.1.15 Policy 5.4.6: by providing for offsetting for indigenous biological diversity.
- 3.1.16 Policy 5.4.10: by including provisions managing land use change in dry catchments where this will impact on water yield.
- 3.1.17 Policy 5.4.5: by including provisions managing removal and disposal of material for biosecurity purposes.
- 3.2 Implementing Regional Plans:
- 3.2.1 Regional council will implement Policies 4.1.2 and 4.1.3 when undertaking natural hazard assessments;
- 3.3 Monitoring and reviewing Regional Plans:
- 3.3.1 Regional Council will monitor and review regional plans to give effect to their responsibilities under the RMA.

Method 4: City and District Plans

4.1 City and district plans will set objectives, policies and methods to implement policies in the RPS as they relate to the City or District Council areas of responsibility. All objectives and policies of the RPS must be considered and given effect to when preparing city and district plans. Matters in the methods can also be taken into account when considering resource consent applications.

More specific direction is provided in the following areas.

Objectives, policies and methods to implement the following policies:

- 4.1.1 Policy 2.2.2 by:
- a. including provisions to recognise the wahi tupuna and to protect the values that contribute to wahi tupuna being significant;
 - b. Identifying the location on plans of the wahi tapuna to be protected and the values that contribute to their significance, using the guide in Schedule 1C to assist.
- 4.1.2 Policies 4.1.1 to 4.1.11 by determining the appropriate level of regulatory response to natural hazard risk by:
- a. Identifying areas subject to natural hazards in plans and/or natural hazard registers and databases;
 - b. Applying the plan principles to the management of natural hazards;
 - c. Considering the use of adaptive management techniques;
- 4.1.4 Policies 3.1.2, 3.1.9 and 3.2.2: by including provisions to:
- a. Maintain or enhance ecosystems and biological diversity;
 - b. Protect significant indigenous vegetation and significant habitats of indigenous fauna;
 - c. Control the clearance or modification of indigenous vegetation and habitats of indigenous fauna;
- 4.1.5 Policies 3.1.7, 3.1.8 and 5.4.1: by including provisions to manage the discharge of dust, and silt and sediment associated with earthworks and land use;
- 4.1.6 Policies 3.1.7, 3.2.18, 4.5.1, and 5.3.1: by managing urban growth and development and the subdivision of land to protect significant soils
- 4.1.7 Policy 4.5.6: include subdivision and infrastructure design standards to recognise the access needs of different sections of the community, including the mobility impaired, the elderly and children;
- 4.1.8 Policy 3.2.12: by maintaining and where possible enhancing access to surf breaks of national importance;
- 4.1.9 Policy 4.6.2: including by managing the actual or potential adverse effects of the use or storage of hazardous substances, including on:
- a. Other land use activities;
 - b. The health and safety of the community;
 - c. Groundwater , or community water supplies;
 - d. Amenity values, and community and takata whenua resources, cultural and spiritual values;
 - e. Other activities or environmental values as a result of location in hazard prone areas;

- 4.1.10 Policy 4.6.8: by providing for and managing adverse effects associated with the establishment of waste management activities and facilities including but not limited to;
- a. Providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste so that adverse effects on health and safety are avoided and adverse effects on the environment are avoided, remedied or mitigated;
 - b. Minimising risk associated with natural hazard events; and
 - c. Restricting the location of activities that may result in reverse sensitivity effects.
- 4.1.11 Policy 5.2.2 and 5.2.3 by:
- a. Including accidental discovery protocols as advice notes on consents for earthworks or other activities that may unearth archaeological features
 - b. Providing for activities that contribute to the retention of historic heritage places, areas or landscapes, including maintenance and seismic strengthening;
 - c. Providing for the recording of information culturally sensitive to Kāi Tahu and the protection of culturally sensitive areas through the use of silent files, heritage alert layers or other methods satisfactory to them;
 - d. Identifying and protecting significant historic heritage resources located within the authority's district;
 - e. Including heritage alert layers in plans to inform the public about areas where there is a high probability of the presence of heritage values, particularly archaeological values.
- 4.1.12 Policy 2.2.4: by making allowance for native reserves to be used in the manner intended by the Crown at the time of their establishment, including Papakāika and marae related activities;
- 4.1.13 Policy 4.5.1 and 4.5.2 by:
- a. Establishing urban growth boundaries where required to manage pressure for urban development;
 - b. Ensuring urban growth boundaries contain sufficient capacity, when measured district wide, to accommodate 20 years urban growth based on demographic growth projections;
- 4.1.14 Policy 5.1.1: by providing for the maintenance and enhancement of public access to the natural environment, including the coast, lakes, rivers and their margins, and where possible areas of cultural and historic significance.
- 4.1.15 Policy 3.1.2, 4.3.3, 4.4.1 and 4.4.3: by providing, in appropriate circumstances, for activities that have a functional need to be located in the beds of rivers, lakes, wetlands, and their margins.
- 4.1.16 Policy 4.3.1: by providing controls adjacent to infrastructure where necessary to ensure the functional needs of infrastructure are not compromised.
- 4.1.17 Policy 4.3.6: by:
- a. Identifying National Grid transmission lines and corridors on planning maps for managing sensitive and non-sensitive activities and development that can compromise the Grid;

- b. Providing controls to avoid reverse sensitivity effects on the National Grid;
 - c. Providing controls on activities as necessary to ensure that the functional needs of the National Grid are not compromised.
- 4.1.18 Policies 4.3.2 and 4.3.5: by:
- a. Identifying nationally or regionally significant infrastructure on planning maps, including corridors where appropriate;
 - b. Including provisions managing land use activities within or adjacent to this regionally or nationally significant infrastructure to address potential reverse sensitivity issues;
 - c. When considering provisions to manage activities within or adjacent to electricity infrastructure, having regard to NZECP34:2001 Electrical Code of Practice for Electrical Safe Distances and the Electricity (Hazards from Trees) Regulations 2003 (prepared under the Electricity Act 1992).
- 4.1.19 Policy 4.4.5: by:
- a. Where necessary, providing controls for buildings, structures and other activities adjacent to electricity infrastructure, to ensure the functional needs of that infrastructure are not compromised based on NZECP34:2001 Electrical Code of Practice for Electrical Safe Distances and the Electricity (Hazards from Trees) Regulations 2003 (prepared under the Electricity Act 1992);
 - b. Identifying significant electricity distribution infrastructure on planning maps;
 - c. Where necessary, providing controls on activities to ensure that the functional needs of the significant electricity distribution infrastructure are not compromised.
- 4.1.20 Policies 4.3.6 and 5.4.6: by providing for offsetting for indigenous biological diversity.
- 4.1.21 Policy 5.4.5: by including provisions managing removal and disposal of material for biosecurity purposes.
- 4.2 Implementing district plans.
- City and District Councils will implement the following policies:
- 4.2.1 Policies 4.1.2 and 4.1.3: when undertaking natural hazard assessments;
 - 4.2.2 Policies 3.1.11, 3.2.1, 3.2.3, 3.2.5 and 3.2.8: to assess the values of places of potential significance to inform the decision making process;
 - 4.2.3 Policy 5.2.3: by including accidental discovery protocols as advice notes on consents for earthworks or other activities that may unearth archaeological features;
 - 4.2.4 Policies 4.5.1, 4.5.2, and 5.3.1: by preparing or requiring structure plans for large scale land use changes, including subdivision;
 - 4.2.5 Policies 2.2.2 and 5.2.3: by ensuring methods for protecting culturally important sites are culturally appropriate;
 - 4.2.6 Policy 4.6.5 by managing adverse effects from the subdivision, development or use of contaminated land, in accordance with that policy and giving effect to the NES for Assessing and Managing Contaminants in Soil to Protect Human Health

- 4.2.7 Policy 4.5.1: For high growth areas, as defined under the NPS Urban Development Capacity, by developing a future development strategy.

City and District Councils may implement the following policies by:

- 4.2.8 Policies 4.1.1 to 4.1.6, and 4.1.13:
- a. Requiring site specific investigation where there is limited information available on natural hazard or climate change risk or effects;
 - b. Requesting the regional council develop a regional rule for the purpose of extinguishing existing use rights under Section 10 of the RMA to address specific natural hazard risk;
- 4.2.9 Policy 5.1.1: by including conditions to maintain or enhance access to the natural environment or sites of cultural significance.
- 4.2.10 Policy 4.5.1: For medium growth areas, as defined under the NPS Urban Development Capacity, by developing a future development strategy.
- 4.3 Monitoring and reviewing city and district plans:
- 4.3.1 City and district councils will monitor and review district plans to give effect to their responsibilities under the RMA.

Method 5 Research, Monitoring and Reporting

- 5.1 Identification of important resources
- 5.1.1 Regional, city and district councils will:
- a. Work collaboratively to identify the landward extent of the coastal environment
- 5.1.3 Regional council will:
- a. Identify airsheds based on geographical and physical boundaries, for the management of air quality;
 - b. Identify dry catchments where rules are required by regional council to manage water quantity;
 - c. Identify significant soils;
 - d. Identify the spatial extent of the nationally important surf breaks.
- 5.1.4 Regional council will engage with Kāi Tahu to identify the cultural values of resources and requirements for customary uses.
- 5.2 Research
- 5.2.1 The regional council will:
- a. Undertake investigation for the identification of catchment values and the resources and processes those values depend on, including:
 - i. The interconnections between water bodies, including coastal water;
 - ii. The role of river and catchment morphology and natural functioning in supporting those values;
 - iii. The maintenance and enhancement of indigenous biological diversity and ecosystem health;
 - iv. Erosion risk mitigation;
 - v. Providing for the natural functioning of rivers and lakes;

- b. Identify the values of the coast, and the processes and resources those values are dependent on;
- c. Identify airsheds based on geographical and physical boundaries, for the management of air quality;
- d. Investigate and provide guidance on:
 - i. The inventory and mapping of soil resources;
 - ii. The location and extent of significant soil;
 - iii. Identification of threats to the life-supporting capacity of soil resources;
- e. Develop, maintain and monitor a register of sites of known or potentially contaminated land in Otago. Share information regarding Otago's soil resources and contaminated land with city and district councils;
- f. Provide city and district councils with regional data on the quantity and composition of waste being deposited to landfill for waste assessments;
- g. Undertake research in collaboration with local authorities and other stakeholders as appropriate, into natural hazards and climate change in Otago;
- h. Supply city and district councils with information on natural hazards for:
 - i. The preparation of district plan reviews or changes;
 - ii. Inclusion in Land and Project Information Memoranda;
- i. Collect and share information on erosion-prone land;
- j. Collect and make available information on the expected effects of climate change.
- k. Investigate land for the purpose of identifying contaminated or potentially contaminated sites.

5.2.2 Regional, city and district councils together will:

- a. Research and share information relevant to the effects of land use on water, including:
 - i. The values supported by the catchment;
 - ii. Riparian vegetation cover or any land cover that contributes to supporting freshwater values, such as tussock grasslands;
 - iii. Land use changes which might have significant effects on freshwater values;
 - iv. Areas particularly sensitive to land use changes, such as sensitive aquifers and water short catchments;
 - v. The effects of land use on erosion;
- b. Research and share information relevant to the effects of land use on:
 - i. Coastal network infrastructure;
 - ii. Coastal values;
 - iii. Coastal hazards;
 - iv. Riparian vegetation cover or any land cover that contributes to supporting coastal values, or mitigating coastal hazards;
 - v. Areas particularly sensitive to land use changes.

5.2.3 City and district councils will:

- a. Research demographic changes including the relationship between housing demand and population growth and residential capacity within existing urban areas.
- b. When considering land use, development or subdivision by consent, share information with the regional council on any identified breaches to relevant regional rules, including:
 - i. Discharges to water, or to land, in circumstances which may result in contaminant entering water;
 - ii. Discharges to air;
 - iii. Discharges to land.

5.3 State of Environment reporting

5.3.1 Regional, city and district councils will:

- a. Carry out state of the environment reporting in accordance with s35 of the RMA.

5.4 RMA plan effectiveness reporting

5.4.1 Regional council will develop appropriate indicators and measures for the RPS within 12 months, report on the efficiency and effectiveness of the RPS based on those indicators and measures, and review those indicators and measures every five years.

5.4.2 Regional, city and district councils will:

- a. Include indicators for determining plan effectiveness in all plans developed under the RMA;
- b. Report on the efficiency and effectiveness of plans based on those indicators.

5.5 Plan implementation reporting

5.5.1 Regional, city and district councils will:

- a. Monitor and report publicly on the achievement of regional and district plan objectives, policies and methods.

Method 6 Non-RMA Strategies and Plans

6.1 Natural hazard strategies

6.1.1 Regional, city and district councils may:

- a. Prepare strategies or other similar documents to assist in the management and reduction of natural hazard risk and adaptation to, and mitigation of, climate change;
- b. Develop community relevant responses to the impacts of natural hazards and climate change, in collaboration with the relevant local authority, key stakeholders and affected community.

6.2 Air strategy

6.2.1 Regional, city and district councils may develop and implement, in collaboration with other key stakeholders, a strategy for:

- a. The upgrading of housing stock and their thermal envelopment;
- b. The reduction of domestic emissions to air.

6.3 Regional Land Transport Plan

6.3.1 Regional council will set objectives, policies and activities to assist in the implementation of policy 4.4.6, 4.5.2, 4.3.1, 4.3.2, with a particular focus on:

- a. Enhancing road safety;
- b. Ensuring travel needs in Otago are met;
- c. Enabling increased freight efficiency;
- d. Managing Otago's public transport services;
- e. Ensuring transport networks are resilient, efficient and sustainably managed.

6.4 Regional Biological Diversity Strategy

6.4.1 The regional council will develop and implement, with other key stakeholders, a Biological Diversity Strategy.

6.5 Pest management strategy

6.5.1 The regional council will:

- a. Develop and implement a Pest Management Strategy for the control of pest species including those which:
 - i. Have adverse effects on the natural character of the coastal environment;
 - ii. Have adverse effects on significant indigenous biological diversity;
 - iii. Have significant adverse effects on indigenous biological diversity;
 - iv. Have adverse effects on outstanding natural features, landscapes, seascapes and highly valued natural features, landscapes and seascapes;
 - v. Have propensity for spread, including wilding trees;
- b. Have regard to indigenous biological diversity when preparing any Regional Pest Management Strategy and prioritising pest management activities, including:
 - i. Any areas of significant indigenous vegetation and significant habitats of indigenous fauna;
 - ii. Any local indigenous biological diversity strategies.

6.6 Pan-regional pest management strategy

6.6.1 The regional council may develop a pest management strategy with neighbouring regions.

- 6.7 Urban stream plans
- 6.7.1 District and city councils may develop and implement urban stream restoration plans, for the restoration of the natural character and natural functioning of urban streams.
- 6.8 Waste Management and Minimisation Plans
- 6.8.1 City and District Councils will develop Waste Management and Minimisation Plans in accordance with the Waste Minimisation Act 2008 and any regional strategy.
- 6.9 Waste and hazardous substances:
- 6.9.1 Regional, city and district councils may develop strategies or similar documents to:
- a. Provide an integrated approach to waste management under the NZ Waste Strategy 2010, the RMA, the Waste Minimisation Act 2008; the Hazardous Substances and New Organisms Act 1996, the Climate Change Response Act 2002 and the Local Government Act 2002;
 - b. Provide an integrated approach to hazardous substances management under the RMA, the Hazardous Substances and New Organisms Act 1996, the Climate Change Response Act 2002 and the Local Government Act 2002.

Method 7 Education and Information

- 7.1 Providing public information
- 7.1.1 Regional, district and city councils may provide information and guidance on:
- a. The maintenance, restoration and enhancement of indigenous ecosystems and habitats;
 - b. Natural hazard risk responses;
 - c. Ways to adapt to and mitigate the effects of climate change;
 - d. The benefits of natural features and systems in mitigating natural hazards;
 - e. The control of pest species.
- 7.1.2 Regional council will provide information and guidance on:
- a. Natural hazards;
 - b. Rainfall and river flow;
 - c. Climate change;
 - d. Measures to mitigate erosion risks resulting from land uses;
 - e. Riparian margin management, especially on flooding and erosion risks;
 - f. Measures to maintain or enhance soil quality;
 - g. Discharge management, including on reducing domestic discharges to air;
 - h. The management of diffuse discharges to water;
 - i. The ecosystem services derived from indigenous biological diversity;
 - j. On the benefits of riparian margin management, especially on flooding and erosion risks.

- 7.1.3 City and district councils will:
 - a. Provide available natural hazard information through the Land (LIM) and Property Information Memorandum (PIM) process;
 - b. Provide available information on known or potentially contaminated sites through the LIM and PIM process;
- 7.1.4 City and district councils may provide information and guidance on:
 - a. Crime prevention through environmental design and urban design principles to inform local development proposals;
 - b. Urban design techniques to respond to the different access requirements or needs of the community;
 - c. Design techniques to enable adaptive reuse of buildings;
 - d. Water conservation and the efficient domestic use of water;
 - e. Measures for increased energy efficiency and energy conservation;
 - f. Opportunities for the development of small-scale renewable electricity generation.
 - g. The projected demographic changes to local communities.
- 7.1.5 Regional, city and district councils will provide information and guidance on waste minimisation and management.
- 7.1.6 Regional Council may facilitate and support a regional response to hazardous substances collection, disposal and recycling services.

Method 8: Funding

- 8.1 Providing financial support
 - 8.1.1 Regional, city and district councils may:
 - a. Establish and administer funds to provide public access or services to sites of significance on privately owned land;
 - b. Fund community groups and projects with aims that complement RPS objectives and policies.

Method 9: Advocacy and Facilitation

- 9.1 Promotion
 - 9.1.1 Regional, city and district councils will work with stakeholders, including central government agencies and other interested parties, on resource management matters;
 - 9.1.2 Regional, city and district councils may advocate for:
 - a. Initiatives and proposals which support or complement the goals of the RMA, RPS and supporting documents;
 - b. Subdivision and building design that increases passive solar gain and uses higher levels of insulation in buildings to improve energy efficiency;
 - c. The implementation of the waste hierarchy throughout the region;
 - d. National guidance on managing natural hazards, and mitigating and adapting to climate change;

- e. Legislative change to improve resilience and reduce the risk of natural hazards and climate change to individuals and communities;
 - f. The development of infrastructure and services to provide for hazardous substance collection, disposal and recycling services across the region;
 - g. The development, upgrade or maintenance of infrastructure, when it will enhance Otago's communities' well-being or health and safety;
- 9.1.3 Enhance individual and community resilience by encouraging activities and actions that:
- a. Promote interactions and partnerships within and between communities, businesses and organisations;
 - b. Support self-sufficiency;
 - c. Improve disaster readiness, response and recovery;
 - d. Enable opportunities for improvements to be made following a disaster event;
 - e. Contribute to the retention of historic heritage places, areas or landscapes, including maintenance and seismic strengthening;
 - f. Encourage an approach to resource management that assists in reducing individual and community natural hazard risk and in reducing the effects of climate change.
- 9.1.4 Regional, city and district councils may promote:
- a. Subdivision and urban development that responds to and anticipates the changing demographic needs of the local community;
 - b. The development and adoption of best practice guidelines for the use and management of hazardous substances, and a reduction in hazardous substance use.
- 9.1.5 City and district councils will:
- a. Promote the integration of new development with existing areas through the use of elements that reflect local character;
 - b. Encourage the adaptive reuse of buildings;
 - c. Ensure consideration of orientation and design for solar gain in subdivision and building design;
 - d. Advocate for the establishment of solid waste management and disposal facilities.
- 9.2 Facilitation
- 9.2.1 Regional, city and district councils may facilitate the restoration of natural wetlands or construction of artificial wetlands, particularly when it contributes to the:
- a. Management of diffuse discharges to water;
 - b. Protection or restoration of indigenous species;
 - c. Mitigation of natural hazards;
 - d. Restoration of the natural character of wetlands.
- 9.2.2 Regional, city and district councils may facilitate the restoration or enhancement of riparian margins, particularly when they:

- a. Improve the health and resilience of ecosystems supporting indigenous biological diversity;
 - b. Restore or rehabilitate indigenous biological diversity and natural character;
 - c. Encourage the natural regeneration of habitats, including habitats for indigenous species.
 - d. Contribute to a safe network of active transport infrastructure;
 - e. Improve access to rivers, lakes, wetlands and their margins;
 - f. Mitigate risks of erosion.
- 9.2.3 Regional, city and district councils may facilitate initiatives that support:
- a. Community-based development of strategies and plans to maximise community, ecosystem and natural resource resilience at a scale sufficient for those natural and physical resources;
 - b. The conservation of indigenous vegetation;
 - c. Conservation of biological diversity;
 - d. Maintenance or enhancement of coastal values, including restoration or rehabilitation of the natural character;
 - e. The protection or restoration of the significant values of wetlands;
 - f. Co-ordination of the services provided by operators of lifeline utilities, essential and emergency services across and beyond Otago;
 - g. Energy conservation and efficiency, at a community or individual scale;
 - h. Small scale renewable electricity generation;
- 9.2.4 Regional, city and district councils may facilitate coordination between lifeline utilities for emergency management, including by:
- a. Recognising the interconnections between lifeline utilities;
 - b. Encouraging any development or upgrade of infrastructure which would resolve potential weaknesses in emergency management.
- 9.2.5 Regional council will facilitate the restoration, rehabilitation or creation of freshwater and coastal habitats, particularly when it:
- a. Encourages the natural regeneration of indigenous species;
 - b. Buffers or links ecosystems, habitats and areas of significance that contribute to ecological corridors;
 - c. Maintains or enhances the provision of indigenous ecosystem services.
- 9.2.6 Regional council will facilitate the control of pest species, including wilding pines, particularly when it contributes to the protection or restoration of:
- a. Outstanding or highly valued landscapes;
 - b. Indigenous species.
- 9.2.7 Regional council will facilitate the establishment of:
- a. Water management groups that co-ordinate the exercise of water-related consents;
 - b. Water allocation committees for the management of water allocation in case of drought.

- 9.2.8 Regional, city and district councils may facilitate:
- a. The planning for community infrastructure, when it would increase the efficiency of water use;
 - b. Negotiations with landowners for public or Kāi Tahu access to sites of significance that do not have suitable access.

Monitoring Procedures and Anticipated Environmental Results

Monitoring Procedures

This section describes the procedures that will be used to monitor the efficiency and effectiveness of PRPS provisions, as required by the section 62(1)(j) of the RMA.

Within 12 months of the PRPS becoming operative, the Regional Council will develop specific indicators and measures to monitor the RPS against its anticipated environmental results.

The Regional Council will report on the efficiency and effectiveness of the PRPS based on those indicators and measures, and review those indicators and measures every five years. This work will be in accordance with Section 35 of the RMA, and integrated with the other significant monitoring work that the ORC carries out, such as state of the environment reporting and compliance with resource consents.

These procedures are set out in Method 5 Research, Monitoring and Reporting.

The following section identifies environmental results anticipated from implementing the policies and methods of the PRPS.

Anticipated Environmental Results

1. Resource management in Otago is integrated

Objective 1.1

Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities

AER 1.1

The economic, social, and cultural wellbeing of Otago's people and communities is enabled through sustainable use, development and protection of natural and physical resources

Objective 1.2

Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago

AER 1.2

Natural and physical resources are managed in an integrated way

2. Kāi Tahu values and interests are recognised and kaitiakitaka is expressed.

Objective 2.1

The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions

AER 2.1

Te Tiriti o Waitangi principles are adhered to

Objective 2.2

Kāi Tahu values, interests and customary resources are recognised and provided for

AER 2.2

Kāi Tahu values and culture are respected and able to be expressed

3. Otago has high quality natural resources and ecosystems

Objective 3.1

The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded

AER 3.1

Water bodies support healthy ecosystems, are safe for swimming, and maintain their natural form and character

AER 3.2

The quality of coastal environment is maintained or enhanced

AER 3.3

The quality of soils is maintained or enhanced

AER 3.4

The health and diversity of ecosystems is maintained or enhanced

AER 3.5

Ambient air quality is maintained or enhanced

Objective 3.2

Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded

AER 3.6

The extent of, and values of, significant and highly valued natural resources and are protected or enhanced

4. Communities in Otago are resilient, safe and healthy

Objective 4.1

Risk that natural hazards pose to Otago's communities are minimised

AER 4.1

The location and design of new developments and natural resource uses reduce community exposure to the adverse effects of multiple, large, and diverse shock events and processes.

Objective 4.2

Otago's communities are prepared for and able to adapt to the effects of climate change

AER 4.2

The impact on life, property, lifeline utilities, and essential services from climate change is reduced

Objective 4.3

Infrastructure is managed and developed in a sustainable way

AER 4.3

Infrastructure is safe, and efficient and the adverse effects of infrastructure on outstanding and highly-valued natural and physical resource values are avoided, remedied or mitigated.

Objective 4.4

Energy supplies to Otago's communities are secure and sustainable

Objective 4.5

Urban growth and development is well designed, reflects local character and integrates effectively with adjoining urban and rural environments

Objective 4.6

Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago

AER 4.4

The use of local renewable energy sources increases and reliance on fossil fuels decreases

AER 4.5

Urban areas are compact, maximise the use of existing services and infrastructure and are able to adapt to evolving standards and to the changing requirements of its inhabitants and surrounding natural and physical environment

AER 4.6

Hazardous substances, contaminants and waste materials are not harmful to the environment, people and communities.

AER 4.7

The waste hierarchy is implemented, resulting in less waste requiring disposal and a reduction of the environmental effects generated from waste.

5. People are able to use and enjoy Otago's natural and built environment

Objective 5.1

Public access to areas of value to the community is maintained or enhanced

Objective 5.2

Historic heritage resources are recognised and contribute to the region's character and sense of identity

Objective 5.3

Sufficient land is managed and protected for economic production

Objective 5.4

Adverse effects of using and enjoying Otago's natural and physical resources are minimised

AER 5.1

The coast, lakes and rivers can be accessed by the public

AER 5.2

Significant historic heritage is identified, protected, and integrated into current and future uses

AER 5.3

The effects of land management do not preclude future economic uses of land

AER 5.4

The number and severity of environmental issues is reduced

PART D Schedules and Appendices

Schedule 1 Kāi Tahu values & interests

The following Kāi Tahu values and interests must be considered in planning and consenting decisions. Some interests are specific to particular papatipu rūnaka, and others are more generally applicable.

Schedule 1A Kāi Tahu values

This schedule is a guide to assist in identifying Kāi Tahu values. It is not a complete list of all values Kāi Tahu have.

Kāi Tahu do not see their existence as separate from Te Ao Tūroa, the natural world, but as an integral part of it. Through whakapapa, genealogy, all people and life forms descend from a common source. Whakapapa binds Kāi Tahu to the mountains, forests and waters and the life supported by them, and this is reflected in traditional attitudes towards the natural world and resource management.

Whakawhanaukataka, the process of maintaining relationships, embraces whakapapa, through the relationship between people, and between people and the environment. The nature of these relationships defines people's rights and responsibilities in relation to the use and management of resources in.

All things have the qualities of wairua, spiritual dimension, and mauri, life force or life supporting capacity, and have a genealogical relationship with each other.

Mauri provides the common centre between the natural resources, taoka, the people or guardians who care for the taoka, the kaitiaki, and the management framework, tikaka, of how taoka are to be managed by the kaitiaki. It is through kawa, protocol, that the relationship between taoka, tikaka and kaitiakitaka is realised.

Each papatipu rūnaka has its own takiwā determined by natural boundaries such as headlands, mountain ranges and rivers, see Schedule 1B. This political and operational authority over an area is undertaken by takata whenua and encompasses kaitiakitaka and rakatirataka. An integral element of the concepts of kaitiakitaka and rakatirataka is the recognition that Kāi Tahu have their own traditional means of managing and maintaining resources and the environment. This system of rights and responsibilities is inherited from previous generations and has evolved over time.

The resources in any given area are a point of prestige for the people who reside there and are a statement of identity. Traditionally, the abundance or lack of resources directly determines the welfare of every tribal group, and so affects their mana.

Ki Uta Ki Tai

Ki uta ki tai is a Kāi Tahu term that has become synonymous with the way Kāi Tahu think about natural resource management. Ki uta ki tai, from the mountains to the sea, is the concept used to describe holistic natural resource management.

Ki uta ki tai is the Kāi Tahu way of understanding the natural environment, including how it functions, how people relate to it and how it can be looked after appropriately.

Rakatirataka

Rakatirataka is about having the mana or authority to give effect to Kāi Tahu culture and traditions in the management of the natural world. Recognition of the relationship of Kāi Tahu and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka are embedded in the RMA and the Treaty.

Kaitiakitaka

Kaitiakitaka means the exercise of guardianship by Kāi Tahu of an area in accordance with tikaka Māori in relation to natural and physical resources and includes the ethic of stewardship. This statutory definition of kaitiakitaka is, however, a starting point only for Kāi Tahu, as kaitiakitaka is a much wider cultural concept than guardianship. Kaitiakitaka entails the active protection and responsibility for natural and physical resources by Kāi Tahu.

Kaitiakitaka is fundamental to the relationship between Kāi Tahu and the environment. The objectives of kaitiakitaka are to protect the life supporting capacity of the environment and to pass the environment on to future generations in an enhanced state. For Kāi Tahu, kaitiakitaka is not passive custodianship, nor is it simply the exercise of traditional property rights, but it entails an active exercise of responsibility in a manner beneficial to the resource.

Tikaka

Tikaka Māori encompasses the beliefs, values, practices and procedures that guide appropriate codes of conduct, or ways of behaving. In the context of natural resource management, observing tikaka is part of the ethic and exercise of kaitiakitaka. It is underpinned by a body of Mātauraka Māori, Māori knowledge, and is based on a general understanding that people belong to the land and have a responsibility to care for and manage the land. It incorporates forms of social control to manage the relationship of people and the environment, including concepts such as tapu, noa and rāhui.

Tikaka is based on traditional practices, but is dynamic and continues to evolve in response to different situations.

Taoka

All natural resources, air, land, water, and indigenous biological diversity, are taoka. Taoka are treasured resources that are highly valued by Kāi Tahu, derived from the atua, gods, and left by the tūpuna, ancestors, to provide and sustain life. In the management of natural resources, it is important that the habitats and wider needs of taoka species are sustainably managed and enhanced.

Mahika Kai

Mahika kai is one of the cornerstones of Kāi Tahu cultural identity. Mahika kai is a term that literally means "food workings" and refers to the customary gathering of food and natural materials and the

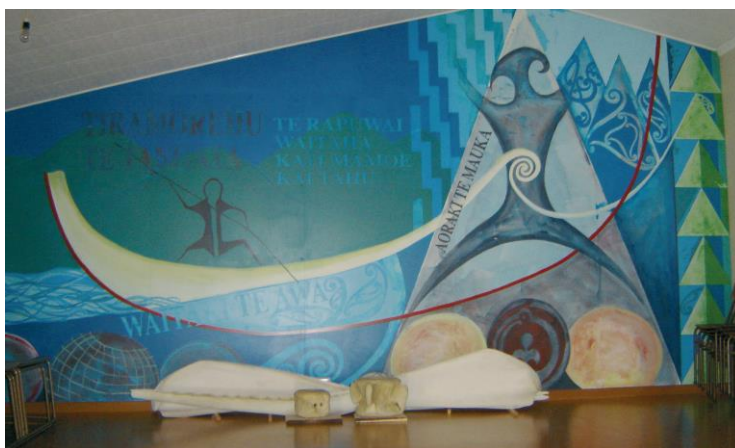
places where those resources are gathered or produced. The term also embodies the traditions, customs and collection methods, and the gathering of natural resources for cultural use, including raraka, weaving, and rokoā, traditional medicines. Maintaining mahika kai sites, gathering resources, and continuing to practice the tikaka that governs each resource, is an important means of passing on cultural values and mātauraka Māori, traditional knowledge, to the next generation.

Schedule 1B Interests specific to particular papatipu rūnaka

This schedule is a guide to assist in identifying Kāi Tahu interests. It is not a complete list of all interests Kāi Tahu have.

Te Rūnanga o Moeraki

The takiwā of Te Rūnanga o Moeraki is centred on Moeraki and extends from the Waitaki River to the Waihemo, Shag, River and inland to the Main Divide. The coastal interests of Te Rūnanga o Moeraki are concentrated in the Moeraki Peninsula area and surrounds, including Te Raka-a-Hine-atea Pā, Koekohe, Hampden Beach, and Te Kai Hinaki, the Boulders Beach, with its boulders.



Te Rūnanga o Moeraki Marae, Moeraki

Kāti Huirapa Rūnaka ki Puketeraki

The takiwā of Kāti Huirapa Rūnaka ki Puketeraki centres on Karitāne and extends from the Waihemo, Shag, River to Purehurehu, Heyward Point, and includes an interest in Ōtepoti and the greater harbour of Ōtākou. The takiwā extends inland to the Main Divide sharing an interest in the lakes and mountains to Wakatipu Waitai with rūnaka to the south. The kaimoana resources of the coast from Karitāne to Okahau/Blueskin Bay and Pūrākaunui, and the kai awa of the Waikouaiti River and estuary are treasured and well-utilised mahika kai for Kāti Huirapa Rūnaka ki Puketeraki.



Puketeraki Marae

Te Rūnanga o Ōtākou

The takiwā of Te Rūnanga o Ōtākou centres on Muaūpoko, Otago Peninsula, and extends from Purehurehu, Heyward Point, to Te Mata-Au, Clutha River, and inland, sharing an interest in the lakes and mountains to the western coast with rūnaka to the north and south. The Otago Harbour has a pivotal role in the well-being of Ōtākou people. The harbour is a source of identity, a bountiful provider of kaimoana, and it is the pathway to the fishing grounds beyond. Traditionally it was the mode for other hapū to visit, and in today's world it is the lifeline to the international trade that benefits the region. The ebb and flow of the harbour tides is a valued certainty in a world of change, a taoka to be treasured and protected for the benefit of current and future generations.



Ōtākou Marae, Otago Peninsula

Hokonui Rūnanga

The takiwā of Hokonui Rūnaka centres on the Hokonui region and includes a shared interest in the lakes and mountains between Whakatipu-Waitai and Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards. Although Hokonui Rūnanga is based in Gore, their interests in the Otago area, especially South Otago, are significant. They hold this in common with other Otago Rūnaka through whakapapa, history and tradition.



Hokonui Marae

Whānau Rōpū

Moturata Taieri Whānau and Waikoau Ngāi Tahu Rūnaka, South Otago, are whānau rōpū that have an interest in the coastal area from the Catlins south to Bruces Rocks.

Whānau rōpū are located in areas that hold a strong tradition of Kāi Tahu presence close to the Papatipu lands reserved from the 1840s land sales. The whānau rōpū are associated with the Papatipu Rūnaka.

Schedule 1C Wāhi tupuna

This schedule is a guide to assist in identifying wāhi tūpuna. It is not a complete list of all wāhi tūpuna in Otago.

Kāi Tahu use the term 'wāhi tūpuna' to describe landscapes that embody the customary and contemporary relationship of Kāi Tahu and their culture and traditions with Otago. It is important to understand this concept in the context of the distinctive seasonal lifestyle that Kāi Tahu evolved in the south. The sites and resources used by Kāi Tahu are spread throughout Otago. These places did not function in isolation from one another but were part of a wider cultural setting and pattern of seasonal resource use. The different elements of these sites of significance include:

Site of Significance	Explanation
Ara Tawhito	Ancient trails. A network of trails crossed the region linking the permanent villages with seasonal inland campsites and along the coast, providing access to a range of mahika kai resources and inland stone resources, including pounamu and silcrete.
Kāika	Permanent settlements or occupation sites. These occurred throughout Otago, particularly in coastal areas.
Nohoaka	These were a network of seasonal settlements. Kāi Tahu were based largely on the coast in permanent settlements, and ranged inland on a seasonal basis. Iwi history shows, through place names and whakapapa, continuous occupation of a network of seasonal settlements, which were distributed along the main river systems from the source lakes to the sea.
Wāhi Mahika kai	The places where the customary gathering of food or natural materials occurs. Mahika kai is one of the cornerstones of Kāi Tahu culture.
Mauka	Important mountains. Mountains are of great cultural importance to Kāi Tahu. Many are places of spiritual presence, and prominent peaks in the district are linked to Kāi Tahu creation stories, identity and mana.
Marae	The marae atea and the buildings around it, including the wharenuī, wharekai, church and urupā. The sheltering havens of Kāi Tahu cultural expression, a place to gather, kōrero and to welcome visitors. Marae are expressions of Kāi Tahu past and present.

Repo raupo	Wetlands or swamps. These provide valued habitat for taoka species and mahika kai resources.
Tauraka waka	Canoe mooring sites. These were important for transport and gathering kai.
Tūāhu	Places of importance to Māori identity. These are generally sacred ground and marked by an object, or a place used for purposes of divination.
Taumanu	Fishing sites. These are traditional fishing easements which have been gazetted by the South Island Māori Land Court.
Umu, Umu-tī	Earth ovens. Used for cooking tī-kōuka (cabbage tree), are found in a diversity of areas, including old stream banks and ancient river terraces, on low spurs or ridges, and in association with other features, such as kāika nohoaka.
Urupā	Human burial sites. These include historic burial sites associated with kāika, and contemporary sites, such as the urupā at Ōtākou and Puketeraki marae.
Wāhi kōhatu	Rock outcrops. Rocky outcrops provided excellent shelters and were intensively occupied by Māori from the moa-hunter period into early European settlement during seasonal hikoī. Tuhituhi neherā (rock art) may be present due to the occupation of such places by the tūpuna.
Wāhi pakaka	Battle sites. Historic battle sites occur throughout Otago, such as that at Ohinepouwera (Waikouaiti sandspit) where Taoka's warriors camped for six months while they laid siege on Te Wera on the Huriawa Peninsula.
Wāhi paripari	Cliff areas.
Wāhi taoka	Resources, places and sites treasured by manawhenua. These valued places reflect the long history and association of Kāi Tahu with Otago.
Wāhi tapu	Places sacred to Kāi Tahu. These occur throughout Otago and include urupā (human burial sites).
Wāhi tohu	Features used as location markers within the landscape. Prominent landforms formed part of the network of trails along the coast and inland.

These acted as fixed point locators in the landscape for travellers and are imbued with history.

Wai Māori

Freshwater areas important to Māori, including wai puna (springs), roto (lakes) and awa (rivers).

Schedule 1D Māori land reserves

A Native Reserve is any property or site that is a:

- Native Reserve excluded from the Ōtākou Land Purchases (1844)
- Native Reserve excluded from the Kemps Land Purchases (1848)
- Reserve granted by the Native Land Court (1868)
- Half Caste Reserve (1881)
- Landless Native Reserve (1896)
- Other reserve (1890 and 1900)

A number of Māori reserves exist that were excluded from the land sales of the 1840s. These reserves are steeped in history and association and are places of belonging. Remaining reserves are located at Moeraki, Waikouaiti, Ōtākou, Onumia, Taieri Mouth, and Te Karoro, Kaka Point. Other categories of Māori land exist at Koputai, Port Chalmers, and Ōtepoti, Dunedin, where tauraka waka, landing sites, were recognised. In addition, land was held at Manuhaea, Lake Hawea, Aramoana, Clarendon, Taieri Mouth, Tautuku-Waikawa and Glenomaru amongst others. Landing reserves were allocated at Matainaka, Waikouaiti, and the former Lake Tatawai on the Taieri Plains.

The following table lists the reserves in Otago. Many of the sections within these Native Reserves now have the status of general land. While some of this general land is still in Māori ownership, many of the general titled sections have been sold to non-Māori or taken under various pieces of legislation such as the Public Works Act. Although these sections are no longer in whānau ownership, descendants of the original owners retain an ancestral relationship with these lands.

Native Reserves located within the Otago region

Location	Comments	Reserve Type
Tautuku	Southern block of Tautuku sections Northern sections are Reserved lands	South Island Landless Natives Act Native Reserve
Glenomaru	Located south of Kaka Point	South Island Landless Natives Act
Maranuku	Granted in 1844 as part of the Otakou Purchase. Originally called Te Karoro, split into two reserves	Native Reserve
Clarendon	Located inland from Taieri Mouth	Clarendon Half Caste Reserve
Taieri	Granted in 1844 as part of the Otakou Purchase Deed. Split into three reserves; A, B and C	Native Reserve

Lake Tatawai	Located on the Taieri Plain, south of the Dunedin City Airport	Native Reserve
Lake Tatawai	Lake that is now drained	Landing Reserve
Otago Heads Native Reserve	Granted in 1844 as part of the Otakou Purchase Deed. Split into four reserves	Native Reserve
Port Chalmers	Granted in 1848 as part of the Otakou Purchase Deed. A further grant adjacent to the Reserve was made in approximately 1888	Native Reserve
Aramoana	This reserve resulted from the Purakaunui Half Caste grant	Half Caste Reserve
Purakaunui	Granted in 1848 as part of Kemp's Purchase Deed. Further allocations were made in 1868 at Wharauwerawera	Native Reserve
Brinns Point	Granted in the latter part of the nineteenth century	Half Caste Reserve
Karitane (Waikouaiti Native Reserve)	Granted in 1848 as part of Kemp's Purchase Deed	Native Reserve
Matainaka and Hawksbury Fishing Easement	Two fishing easements fall under this reserve, Matainaka, located at Hawksbury Lagoon at Waikouaiti and the Forks Reserve located inland from Karitane. The legal description for the latter reserve is Section 1N Town of Hawksbury	Fishing Easement
Hawksbury	Located north of Waikouaiti, in the vicinity of Goodwood	Hawksbury Half Caste Reserve
Moeraki	Granted in 1848 as part of Kemp's Purchase Deed. Further awards were made in 1868	Native Reserve
Kuri Bush	10 acre reserve of timber	Native Reserve
Kakanui	Granted in 1848 as part of Kemp's Purchase Deed. By 1853, this Reserve was noted as being abandoned and the 75 acre allocation was added	Native Reserve

	to the southern edge of the Moeraki Native Reserve.	
Korotuaheka	Located south of the Waitaki River mouth. Now Reserved as an urupa. It appears this originated as an occupational reserve and Fishing Easement	Partitioned in 1895. Possibly awarded as part of the 1868 awards.
Punaomaru	376 acre reserve located approximately 14 miles from the Waitaki River mouth on the south bank of the river	Native Reserve
Lake Hawea	Reserve of 100 acres situated in the western extremity of the middle arm of Lake Hawea near a Lagoon. Part of the Reserve was taken for power development in 1962 and the balance of the land was alienated by the Māori Trustee in 1970	Fishing Easement



Native reserves in Otago

Applicable legislation:

In 2019, all Māori land is governed by Te Ture Whenua Māori Act 1993. Some lands, such as those at Port Chalmers also fall under the Māori Reserve Land Act 1955.

Explanatory notes:

Since approximately the mid 1890's, ancillary claim blocks have been awarded for various reasons. Ancillary claim blocks are Māori freehold land granted under the South Island Landless Natives Act 1906 to those who were left landless when the original reserves were granted. There are a number located throughout Otago. The ownership lists for these blocks are incomplete and information for these blocks is not readily available. As ancillary claim blocks do not form part of the original reservations, they are not included in the RPS. Māori Reservations that have been created in recent times and fall outside the boundaries of the Native Reserves are not included, such as land at Arai te Uru Marae in Shetland Street, Wakari, Dunedin and Whare Koa, located in Oamaru.

Schedule 2 Statutory acknowledgement areas

Statutory acknowledgements are recorded in the Ngāi Tahu Claims Settlement Act 1998 for several water bodies, mountains and coastal features in the Otago Region.

These acknowledgements comprise a statement made by Te Rūnanga o Ngāi Tahu of the particular cultural, spiritual, historic and traditional association of Kāi Tahu with these areas.

Part 12 of the Ngāi Tahu Claims Settlement Act 1998 provides details of statutory acknowledgements, and the responsibilities relating to them. Section 208 of the NTSCA requires that local authorities have regard to these statutory acknowledgements in resource consent processing under Sections 95 of the RMA in deciding whether Te Rūnanga o Ngāi Tahu is a person who may be adversely affected by the granting of a resource consent for activities within, adjacent to or impacting directly on the statutory area.

The statutory acknowledgements provide a prototype for the approach to mapping wāhi tūpuna.

Statutory Acknowledgement areas	Ngāi Tahu Claims Settlement Act 1998 Schedule Number
Ka Moana Haehae (Lake Roxburgh)	22
Kakaunui River	23
Kuramea (Lake Catlins)	28
Lake Hawea	30
Lake Wanaka	36
Mata-Au (Clutha River)	40
Matakaea (Shag Point)	41
Pikirakatahi (Mount Earnslaw)	51
Pomahaka River	52
Te Tauraka Poti (Merton Tidal Arm)	60
Te Wairere (Lake Dunstan)	61
Tititea (Mount Aspiring)	62
Tokatā (The Nuggets)	64
Waihola/Waipori Wetland	70
Whakatipu Wai Māori (Lake Wakatipu)	75
Te Tai O Arai Te Uru (Otago Coastal Marine Area)	103

Schedule 3 Criteria for the identification of outstanding natural features, landscapes and seascapes, and highly valued natural features, landscapes and seascapes

The identification of natural features, landscapes and seascapes will have regard to the following criteria:

1. Biophysical attributes
 - a. Natural science factors, including geological, topographical, ecological and dynamic components
 - b. The presence of water including in seas, lakes, rivers and streams
 - c. Vegetation (native and exotic)
2. Sensory attributes
 - a. Legibility or expressiveness—how obviously the feature or landscape demonstrates its formative processes
 - b. Aesthetic values including memorability and naturalness
 - c. Transient values including presence of wildlife or other values at certain times of the day or year
 - d. Wild or scenic values
3. Associative attributes
 - a. Whether the values are shared and recognised
 - b. Cultural and spiritual values for Kāi Tahu, identified by working, as far as practicable, in accordance with tikanga Māori; including their expression as cultural landscapes and features
 - c. Historical and heritage associations

Schedule 4 **Criteria for the identification of areas of significant indigenous vegetation and habitat of indigenous fauna**

The identification of areas of significant indigenous vegetation and habitat of indigenous fauna are assessed against all of the following criteria. Areas will be considered significant where they meet one or more of the following criteria.

1. **Representativeness** An area that is an example of an indigenous vegetation type or habitat that is typical or characteristic of the natural diversity of the relevant ecological district or coastal marine biogeographic region. This may include degraded examples of their type or represent all that remains of indigenous vegetation and habitats of indigenous fauna in some areas.
2. **Rarity** An area that supports:
 - a. An indigenous species that is threatened, at risk, or uncommon, nationally or within an ecological district or coastal marine biogeographic region;
 - b. Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent nationally, regionally or within a relevant land environment, ecological district, coastal marine biogeographic region or freshwater environment including wetlands;
 - c. Indigenous vegetation and habitats within originally rare ecosystems.
3. **Diversity** An area that supports a high diversity of indigenous ecosystem types, indigenous taxa or has changes in species composition reflecting the existence of diverse natural features or gradients.
4. **Distinctiveness** An area that supports or provides habitat for:
 - a. Indigenous species at their distributional limit within Otago or nationally;
 - b. Indigenous species that are endemic to the Otago region;
 - c. Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, or has developed as a result of an unusual environmental factor or combinations of factors.
5. **Ecological Context** The relationship of the area with its surroundings, including:
 - a. An area that has important connectivity value allowing dispersal of indigenous vegetation and fauna between different areas;
 - b. An important buffering function that helps to protect the values of an adjacent area or feature;
 - c. An area that is important for indigenous fauna during some part of their life cycle, either regularly or on an irregular basis, e.g. for feeding, nesting, breeding, or refuges from predation.
6. **Coastal Environment** An area identified in accordance with Policy 11 of the NZCPS.

This schedule applies to indigenous vegetation and habitat of indigenous fauna in the terrestrial, coastal and marine environments.

The Regional Council holds additional information to inform decision making on these criteria including the rationale for criteria and examples of areas representing these criteria.

Schedule 5 Criteria for the identification of historic heritage values

The identification of items, places and areas of historic heritage value will be based on but not limited to the following criteria:

-
1. The extent to which the item, place or area reflects important or representative aspects of Otago or New Zealand history.

 2. The association of the item, place or area with events, persons, or ideas of importance in Otago or New Zealand history.

 3. The potential of the item, place or area to provide knowledge of Otago or New Zealand history.

 4. The importance of the item, place or area to tangata whenua.

 5. The community association with, or public esteem for, the item, place or area.

 6. The potential of the item, place or area for public education.

 7. The technical accomplishment, value or design of the item, place or area.

 8. The symbolic or commemorative value of the item, place or area.

 9. The importance of identifying historic items, places or areas known to date from an early period of New Zealand settlement:
-

10. The importance of identifying rare types of historic items, places or areas:

11. The extent to which the item, place, or area forms part of a wider historical and cultural item, place or area.

Schedule 6: Housing capacity

This schedule will be amended in accordance with NPS Urban Development Capacity requirements. Refer to Policy 4.5.1(c) Providing for urban growth and development.

Appendix 1: Te Tiriti o Waitangi

Two versions of Te Tiriti o Waitangi, the Treaty of Waitangi, exist, an English version and a version in Te Reo. Under international law, where there is a conflict between the versions the Te Reo version should be given precedence.

The Te Reo version was signed by 512 Chiefs and the English text version was signed by 30 Chiefs. Both were signed on behalf of the Crown by William Hobson, Consul and Lieutenant Governor.

Te Reo version of the Treaty

Ko te tuatahi

Ko nga Rangatira o te Wakaminenga me nga Rangatira katoa hoki ki hai i uru ki taua Wakaminenga ka tuku rawa atu ki te Kuini o Ingarani ake tonu atu te Kawanatanga katoa o o ratou wenua.

Ko te tuarua

Ko te Kuini o Ingarani ka wakarite ka wakaae ki nga Rangatira ki nga Hapu ki nga tangata katoa o Nui Tirani te tino rangatiratanga o o ratou wenua o ratou kainga me o ratou taonga katoa. Otiia ko nga Rangatira o te Wakaminenga me nga Rangatira katoa atu ka tuku ki te Kuini te hokonga o era waahi wenua e pai ai te tangata nona te wenua ki te ritenga o te utu e wakaritea ai e ratou ko te kai hoko e meatia nei e te Kuini hei kai hoko mona.

Ko te tuatoru

Hei wakaritenga mai hoki tenei mo te wakaetanga ki te Kawanatanga o te Kuini. Ka tiakina e te Kuini o Ingarani nga tangata māori katoa o Nui Tirani ka tukua ki a ratou nga tikanga katoa rite tahi ki ana mea ki nga tangata o Ingarani.

A Literal English Translation of the Māori Text

(NZ Court of Appeal, 29 June 1987, credited to Professor I H Kawharu)

The First

The Chiefs of the Confederation and all the chiefs who have not joined that Confederation give absolutely to the Queen of England for ever the complete government over their land.

The Second

The Queen of England agrees to protect the chiefs, subtribes and all the people of New Zealand in the unqualified exercise of their chieftainship over their lands, villages and all their treasures. But on the other hand the Chiefs of the Confederation and all the chiefs will sell land to the Queen at a price agreed to by the person owning it and by the person buying it (the latter being) appointed by the Queen as her purchase agent.

The Third

For this agreed arrangement therefore concerning the Government of the Queen, the Queen of England will protect all the ordinary people of New Zealand and will give them the same rights and duties of citizenship as the people of England.

English version**Article The First**

The chiefs of the Confederation of the United Tribes of New Zealand and the separate and independent Chiefs who have not become members of the Confederation cede to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which the said Confederation or Individual Chiefs respectively exercise or possess or may be supposed to exercise or to possess over their respective Territories as the sole sovereigns thereof.

Article The Second

Her Majesty the Queen of England confirms and guarantees to the Chiefs and Tribes of New Zealand and to the respective families and individuals thereof the full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession: but the Chiefs of the United Tribes and the individual Chiefs yield to her Majesty the exclusive right of Pre-emption over such lands as the proprietors thereof may be disposed to alienate at such prices as may be agreed upon between the respective Proprietors and persons appointed by Her Majesty to treat with them in that behalf.

Article The Third

In consideration thereof Her Majesty the Queen of England extends to the Natives of New Zealand Her Royal protection and imparts to them all the rights and Privileges of British Subjects.

Glossary

If a word or phrase is not defined then the meaning should be taken to be the same as found in Section 2 of the RMA, or relevant National Policy Statement or National Environmental Standard. Terms not defined in either the glossary or the above documents should be interpreted in keeping with their common usage.

Where used in this regional policy statement, these terms have the following definitions.

1990 mean sea level (Otago Datum)	The fixed level for basing subsequent level measurements on, in this case Otago Metric Datum is the Dunedin Vertical Datum (DVD 1958) plus 100 metres.
Ahi kā	Continued occupation according to traditional law of Māori tenure “keeping the fires burning”.
Ara Tawhito	Ancient Trails.
Atua	God, supernatural being.
Biodiversity Offsets	Measurable conservation outcomes resulting from actions designed to compensate for residual adverse biodiversity impacts arising from project development after appropriate avoidance, minimisation, remediation and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground.
Cascading hazards	Where the occurrence of one natural hazard is likely to trigger another natural hazard event e.g. an earthquake triggering a landslide which dams a river causing flooding.
Climate change	A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.
Coastal water	Coastal water means seawater within the outer limits of the territorial sea and includes: <ul style="list-style-type: none"> (a) Seawater with a substantial fresh water component; and (b) Seawater in estuaries, fiords, inlets, harbours, or embayments.
Contaminant	Includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat:

	(a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or
	(b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged
Contaminated Land	Means land that has a hazardous substance in or on it that: <ul style="list-style-type: none"> (a) has significant adverse effects on the environment; or (b) is reasonably likely to have significant adverse effects on the environment
Crime prevention through environmental design	A set of principles that can be applied to the design and development of buildings and other public areas. It seeks to use effective design to reduce the incidence and fear of crime.
Cumulative effects	In regard to assessing natural hazard consequence, cumulative effects include: <ul style="list-style-type: none"> a) The repeat of the same type of event, or different types of events, on the same area and/or people; and b) The effects of an event on many areas and/or people.
Customary	In accordance with custom or habitual practice; usual; habitual. Customs, or customary uses, may include those involving uninterrupted use and occupation. The word 'customary' in this policy statement is used in accordance with its dictionary definition, and is not limited to its legal definition.
Ecosystem	A system of interacting terrestrial or aquatic living organisms within their natural and physical environment.
Ecosystem services	Are the resources and processes the environment provides that people benefit from e.g. purification of water and air, pollination of plants and decomposition of waste.
Electricity distribution infrastructure	Lines and associated equipment used for the conveyance of electricity on lines other than the National Grid or electricity sub-transmission infrastructure.

Electricity sub-transmission Infrastructure	Means electricity infrastructure which conveys electricity between the National Grid and renewable energy generation sources to zone substations and between zone substations.
Electricity transmission infrastructure	The National Grid of transmission lines and cables (aerial, underground and undersea, including the high-voltage direct current link), stations and sub-stations and other works used to connect grid injection points and grid exit points to convey electricity throughout the North and South Islands of New Zealand.
Emergency services	Has the meaning set out in section 4 of the Civil Defence Emergency Management Act 2002.
Endemic	Species that are naturally restricted to within a certain area.
Essential services	Include hospitals and health services, schools, public transport and essential commercial activities for civil defence purposes.
Exit strategy	A means of leaving a current situation that is likely to become difficult, e.g. as a result of natural hazards or climate change e.g. managed retreat or relocating dwellings.
Fresh water	Fresh water means all water except coastal water and geothermal water.
Functional needs	The locational, operational, practical or technical needs of an activity, including development and upgrades.
Future development strategy	In accordance with the NPS Urban Development Capacity
Hapū	Sub-tribe, extended whānau.
Hazardous substance	Has the meaning set out in section 2 of the Hazardous Substances and New Organisms Act 1996, but including non-toxic environmentally damaging substances, medicines in dosage form, hazardous biological substances and radioactive substances.
Highly valued natural features, landscapes and seascapes	Highly valued natural features, landscapes and seascapes are those which have values that are of significance under Sections 6(a), 6(c), 7(c) and 7(f), but are not 'outstanding natural features and landscapes' under Section 6(b) of the RMA.
Indigenous species	A species or genetic variant found naturally in New Zealand, including migrant species visiting New Zealand on a regular or irregular basis.
Infrastructure	a) Pipelines that distribute or transmit natural or manufactured gas, petroleum, biofuel, or geothermal energy;

- b) A network for the purpose of telecommunication as defined in section 5 of the Telecommunications Act 2001;
- c) A network for the purpose of radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989;
- d) Facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person—
 - i. uses them in connection with the generation of electricity for the person's use; and
 - ii. does not use them to generate any electricity for supply to any other person;
- e) A water supply distribution system, including a system for irrigation;
- f) A drainage or sewerage system;
- g) structures for transport on land by cycleways, rail, roads, walkways, or any other means;
- h) Facilities for the loading or unloading of cargo or passengers transported on land by any means;
- i) An airport as defined in section 2 of the Airport Authorities Act 1966;
- j) A navigation installation as defined in section 2 of the Civil Aviation Act 1990;
- k) Facilities for the loading or unloading of cargo or passengers carried by sea, including a port related commercial undertaking as defined in section 2(1) of the Port Companies Act 1988;
- l) Anything described as a network utility operation in regulations made for the purposes of the definition of “network utility operator” in section 166 of the Resource Management Act 1991.

Iwi Tribe.

Iwi authority The authority which represents an iwi and which is recognised by that iwi as having the authority to do so. Te Rūnanga o Ngāi Tahu is the iwi authority in Otago.

Kāi Tahu The collective of individuals who descend from Kāi Tahu, Kāti Māmoe and Waitaha, and who have mana whenua in Otago.

Note: In the south of the South Island, the local Māori dialect uses a 'k' interchangeably with 'ng'. The preference is to use a 'k' so southern Māori are known as Kāi Tahu, rather than Ngāi Tahu. In this document, the “ng” is used for the iwi in general, and the “k” for southern Māori in particular.

Kāi Tahu ki Otago	The four Papatipu Rūnaka and associated whānau and rōpū of the Otago Region.
Kāika	Settlement.
Kaimoana	Food obtained from the sea.
Kaitiaki	Guardian.
Kaitiakitaka	The exercise of customary custodianship, in a manner that incorporates spiritual matters, by Kāi Tahu who hold manawhenua status for particular area or resource.
Ki Uta Ki Tai	Mountains to the sea.
Lifeline utilities	Utilities provided by those entities listed in Schedule 1 of the Civil Defence Emergency Management Act, 2002.
Mahika Kai	The customary gathering of food and natural materials and the places where those resources are gathered.
Mana Whenua	Customary authority or rakatirataka exercised by an iwi or hapū in an identified area.
Manawhenua	Those who exercise customary authority or rakatirataka in an identified area.
Marae	The marae atea and the complex of buildings around it, including the wharenuī, wharekai, church and urupa.
Marae atea	Courtyard or meeting place in front of the wharenuī.
Marae related activity	Māori cultural activities and provision of services primarily aimed at the health and wellbeing of the Māori population, by or for Kāi Tahu, undertaken on a marae that has the approval of rūnaka, including: <ul style="list-style-type: none"> a) Hui; b) Wānaka; c) Tangi; d) Overnight accommodation for visitors; e) Events and gatherings; f) Health services; and g) Cultural tourism.
Mauka	Mountain.

Mauri	Life supporting capacity. This definition, while not replicating the term 'Mauri', achieves the essence of this concept.
Multiple hazards	Where two or more unrelated natural hazard events may occur.
Municipal infrastructure	<p>Infrastructure for:</p> <ul style="list-style-type: none"> a) Conveyance of untreated water from source to, and including, the point of its treatment to potable standard for an urban environment (see below), but excluding its distribution within that urban environment; b) Treatment of wastewater from a reticulated system in an urban environment (see below) and conveyance for its disposal, but excluding its pre-treatment collection within that urban environment; c) Treatment of stormwater from a reticulated system in an urban environment (see below) and conveyance for its disposal, but excluding its pre-treatment collection within that urban environment. <p>Urban Environment means:</p> <ul style="list-style-type: none"> a) Dunedin, Queenstown, Oamaru and any other urban area within Otago that qualifies as an urban environment as defined by the National Policy Statement on Urban Development Capacity 2016. b) An area of land containing, or intended to contain, a concentrated settlement of 10,000 people or more and any associated business land, irrespective of local authority or statistical boundaries).
Native Reserve	Any property or site that is a: Native Reserve excluded from the Ōtākou Land purchases (1844), Native Reserves excluded from the Kemps Land Purchases (1848), Reserves granted by the Native Land Court (1868), Half Caste Reserves (1881), Landless Native Reserve (1896), Other reserves (1890 and 1900).
Natural hazard	Includes any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.
No net loss	<p>In the context of biodiversity offsets, means no net loss with respect to:</p> <ul style="list-style-type: none"> a) Species abundance, population structure, and composition (e.g. individual species or species groups)

	<ul style="list-style-type: none"> b) Habitat structure (e.g. vegetation tiers, vegetation pattern) c) Ecosystem function (e.g. nutrient cycling rates) d) People's use of and cultural values associated with biodiversity (e.g. particularly valued habitats or species).
Nohoaka/Nohoanga	Seasonal settlements.
Originally rare	In relation to terrestrial ecosystems, “originally” means the ecosystem type was present when Māori arrived, and still exists today. “Rare” means the total extent of each originally rare ecosystem type is less than 0.5 percent of New Zealand’s total area – that is, less than 134,000 hectares. A published list of originally rare terrestrial ecosystem types has been compiled by Landcare Research and is available from that organisation.
Papakāika	Traditional settlement or settlement on traditional land.
Papatipu Rūnaka/Rūnanga	Local manawhenua representative group or community system of representation.
Pounamu	Nephrite, greenstone, jade.
Primary Production	The use of land and auxiliary buildings for the production (but not processing) of primary products (including agricultural, pastoral, horticultural, and forestry products). Primary production does not include land or auxiliary buildings used or associated with prospecting, exploration, or mining for minerals.
Rāhui	Restriction on access to a specific resource for a particular time.
Rakātira	Chief.
Rakātirataka	Chieftainship, decision-making rights.
Renewable electricity generation	The generation of electricity from solar, wind, hydro electricity, geothermal, biomass, tidal, wave, or ocean current energy sources.
Residual risk	The risk remaining after the implementation or undertaking of risk management measures.
Resilient / Resilience	The capacity and ability to withstand or recover quickly from difficult conditions.
Reverse sensitivity	The potential for the operation of an existing lawfully established activity to be constrained or curtailed by the more recent establishment or

	intensification of other activities which are sensitive to the established activity.
Risk	In the context of natural hazards means a combination of the likelihood of occurrence and consequences of a natural hazard event, and incorporates the concept of probabilities and impacts included in the definition of “effect” in Section 3 of the RMA.
Rohe	Boundary.
Rōpū	Grouping.
Significant electricity distribution infrastructure	Means electricity infrastructure which supplies: <ul style="list-style-type: none"> a) Essential public services (such as hospitals and lifeline facilities); b) Other regionally significant infrastructure or individual consumers requiring supply of 1MW or more; c) 700 or more consumers; or d) Communities that are isolated and which do not have an alternative supply in the event the line or cable is compromised and where the assets are difficult to replace in the event of failure.
Statutory acknowledgement	An acknowledgement by the Crown of Ngāi Tahu’s special relationship with identifiable areas, namely Ngāi Tahu’s particular cultural, spiritual, historical, and traditional association with those areas (known as statutory areas).
Surf break	A natural feature that is comprised of swell, currents, water levels, seabed morphology, and wind. The hydrodynamic character of the ocean (swell, currents and water levels) combines with seabed morphology and winds to give rise to a ‘surfable wave’. A surf break includes the ‘swell corridor’ through which the swell travels, and the morphology of the seabed of that wave corridor, through to the point where waves created by the swell dissipate and become non-surfable. ‘Swell corridor’ means the region offshore of a surf break where ocean swell travels and transforms to a ‘surfable wave’. ‘Surfable wave’ means a wave that can be caught and ridden by a surfer. Surfable waves have a wave breaking point that peels along the unbroken wave crest so that the surfer is propelled laterally along the wave crest.
System	A set of discrete components interconnected and working together to function as a complex whole.

Takata whenua	The iwi or hapū that holds mana whenua in a particular area.
Takiwā	Area, region, district.
Te Ao Tūroa	The natural environment.
Te Tai o Arai Te Uru	Otago Coastal Marine Area.
Te Wai Pounamu	The South Island.
Tikaka	Lore and custom, customary values and practices.
Tino Rangatirataka	Full chiefly authority.
Tōpuni	Named for the Tōpuni cloak worn by Ngāi Tahu raketira, Tōpuni in this sense provides a public symbol of Ngāi Tahu manawhenua and raketirataka over some of the most prominent landscape features and conservation areas in Te Wai Pounamu. Under the Ngāi Tahu Claims Settlement Act 1998 Tōpuni has been laid over 14 areas of public conservation land of significance to Ngāi Tahu.
Tuhituhi neherā	Rock art.
Tūpuna/tīpuna	Ancestor.
Umu-tī	Earth oven used for cooking tī.
Urban growth boundary	Boundary mapped in district plans to identify areas of existing urban development and where further urban development can take place over the next 10 years and beyond.
Urupā	Burial place.
Wāhi Taoka	Resources, places and sites treasured by Kāi Tahu.
Wāhi Tapu	Places sacred to Kāi Tahu.
Wāhi Tūpuna	Landscapes and places that embody the relationship of manawhenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka.
Wairua	Life principle, spirit.
Waka	Canoe.

Wānaka/Wānanga	Customary learning method.
Waste	Has the meaning set out in section 5 of the Waste Minimisation Act 2008.
Water body	Fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.
Wetland	<p>Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.</p> <p>In this Regional Policy Statement, ‘wetland’ excludes any wetland constructed for the purpose of water quality management</p>
Whakapapa	Genealogy.
Whānau	Family.
Whānau Rōpū	Whānau grouping.
Whare Kai	Dining hall.
Whareniui	Ancestral meeting house.
Whenua	Land.

User Index

This index assists users of the Regional Policy Statement for Otago in identifying the most relevant objectives and policies that relate to a specific topic. Topics are presented in this index in alphabetical order. The index is a guide only and other policies may be relevant.

Chapter One 'Resource Management in Otago is Integrated' and Chapter Two 'Kāi Tahu Values and Interests are Recognised and Kaitiakitaka is Expressed' should be considered in every instance.

AIR		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.6 Air quality	26
Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised	80
	Policy 5.4.1 Offensive or objectionable discharges	80
	Policy 5.4.4 Emission standards	81
	Policy 5.4.7 Offsetting for air quality	83
BIOLOGICAL DIVERSITY		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.9 Ecosystems and indigenous biological diversity	27
	Policy 3.1.10 Biodiversity in the coastal environment	28
	Policy 3.1.12 Environmental enhancement	29
Objective 3.2	Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded	32
	Policy 3.2.1 Identifying significant indigenous vegetation and habitats	32
	Policy 3.2.2 Managing significant indigenous vegetation and habitats	32
Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised	80
	Policy 5.4.5 Pest plants and animals	81
	Policy 5.4.6 Offsetting for indigenous biological diversity	82
	Policy 5.4.6A Biological Diversity Compensation	83

CLIMATE CHANGE		Page
Objective 4.1	Risks that natural hazards pose to Otago's communities are minimised	45
	Policy 4.1.1 Identifying natural hazards	45
	Policy 4.1.2 Natural hazard likelihood	45
	Policy 4.1.6 Avoiding increased natural hazard risk	48
	Policy 4.1.8 Precautionary approach to natural hazard risk	49
	Policy 4.1.9 Protecting features and systems that provide hazard mitigation	49
Objective 4.2	Otago's communities are prepared for and able to adapt to the effects of climate change	53
	Policy 4.2.1 Sea level rise	53
	Policy 4.2.2 Climate change	53
COASTAL ENVIRONMENT		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.5 Coastal water	25
	Policy 3.1.10 Biodiversity in the coastal environment	28
	Policy 3.1.11 Natural features, landscapes and seascapes	29
	Policy 3.1.12 Natural character in the coastal environment	29
	Policy 3.1.13 Environmental enhancement	30
Objective 3.2	Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded	32
	Policy 3.2.3 Identifying outstanding natural features, landscapes and seascapes	33
	Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes	34
	Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes	34
	Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes	35
	Policy 3.2.7 Landward extent of the coastal environment	35
	Policy 3.2.8 Identifying high and outstanding natural character in the coastal environment	36
	Policy 3.2.9 Managing the outstanding natural character of the coastal environment	36
	Policy 3.2.10 Managing the high natural character of the coastal environment	37
	Policy 3.2.11 Identifying surf breaks of national importance	38
	Policy 3.2.12 Managing surf breaks of national importance	38

Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised	80
	Policy 5.4.5 Pest plants and animals	81
	Policy 5.4.9 Activities in the Coastal Marine Area	85
DEVELOPMENT		Page
Objective 5.3	Sufficient land is managed and protected for economic production	78
	Policy 5.3.1 Rural activities	78
	Policy 5.3.2 Distribution of commercial activities	78
	Policy 5.3.3 Industrial land	79
	Policy 5.3.5 Tourism and outdoor recreation	79
Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised	80
	Policy 5.4.1 Offensive or objectionable discharges	80
	Policy 5.4.2 Adaptive management approach	80
	Policy 5.4.3 Precautionary approach	81
	Policy 5.4.4 Emission standards	81
	Policy 5.4.5 Pest plants and animals	81
ENERGY		Page
Objective 4.4	Energy supplies to Otago's communities are secure and sustainable	60
	Policy 4.4.1 Renewable electricity generation	60
	Policy 4.4.2 Small and community scale renewable electricity generation	60
	Policy 4.4.3 Protecting existing renewable electricity generation	61
	Policy 4.4.4 Efficient transport of electricity	61
	Policy 4.4.5 Electricity distribution infrastructure	61
	Policy 4.4.6 Energy efficient transport	62
	Policy 4.4.7 Fuels	63
FRESH WATER		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.1 Fresh water	23
	Policy 3.1.2 Beds of rivers, lakes, wetlands and their margins	24
	Policy 3.1.3 Water allocation and use	24
	Policy 3.1.4 Water shortage	25
	Policy 3.1.12 Environmental enhancement	29
Objective 3.2	Otago's significant and highly-valued natural resources are identified, and protected or enhanced where degraded	32
	Policy 3.2.13 Identifying outstanding freshwater bodies	38
	Policy 3.2.14 Managing outstanding freshwater bodies	39

	Policy 3.2.15	Identifying the significant values of wetlands	39
	Policy 3.2.16	Managing the values of wetlands	40
Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised		80
	Policy 5.4.1	Offensive or objectionable discharges	80
	Policy 5.4.5	Pest plants and animals	81
HISTORIC HERITAGE			Page
Objective 5.2	Historic heritage resources are recognised and contribute to the region's character and sense of identity		76
	Policy 5.2.1	Recognising historic heritage	76
	Policy 5.2.2	Identifying historic heritage	76
	Policy 5.2.3	Managing historic heritage	77
INFRASTRUCTURE AND LIFELINE UTILITIES			Page
Objective 4.1	Risks that natural hazards pose to Otago's communities are minimised		45
	Policy 4.1.7	Reducing existing natural hazard risk	48
	Policy 4.1.11	Hard protection structures	50
	Policy 4.1.12	Lifeline utilities and facilities for essential or emergency services	51
	Policy 4.1.13	Hazard mitigation measures, lifeline utilities, and essential and emergency services	51
Objective 4.3	Infrastructure is managed and developed in a sustainable way		55
	Policy 4.3.1	Managing infrastructure activities	55
	Policy 4.3.2	Nationally and regionally significant infrastructure	55
	Policy 4.3.3	Functional needs of infrastructure that has national or regional significance	56
	Policy 4.3.4	Adverse effects of nationally and regionally significant infrastructure	56
	Policy 4.3.5	Protecting infrastructure with national or regional significance	57
	Policy 4.3.6	The National Grid	58
Objective 4.5	Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments		64
	Policy 4.5.2	Integrating infrastructure with land use	65
INTEGRATED RESOURCE MANAGEMENT			Page
Objective 1.1	Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities		11
	Policy 1.1.1	Economic wellbeing	11

	Policy 1.1.2 Social and cultural wellbeing and health and safety	11
Objective 1.2	Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago	13
	Policy 1.2.1 Integrated resource management	13
KĀI TAHU		Page
Objective 1.1	Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities	11
	Policy 1.1.2 Social and cultural wellbeing and health and safety	11
Objective 2.1	The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions	16
	Policy 2.1.1 Treaty obligations	16
	Policy 2.1.2 Treaty principles	16
Objective 2.2	Kāi Tahu values, interests and customary resources are recognised and provided for	18
	Policy 2.2.1 Kāi Tahu wellbeing	18
	Policy 2.2.2 Recognising sites of cultural significance	18
	Policy 2.2.3 Wāhi tūpuna and associated sites	19
	Policy 2.2.4 Sustainable use of Māori land	19
Objective 5.2	Historic heritage resources are recognised and contribute to the region's character and sense of identity	76
	Policy 5.2.1 Recognising historic heritage	76
	Policy 5.2.2 Identifying historic heritage	76
	Policy 5.2.3 Managing historic heritage	77
LAND AND SOIL		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.7 Soil values	26
	Policy 3.1.8 Soil erosion	27
Objective 5.3	Sufficient land is managed and protected for economic production	78
	Policy 5.3.1 Rural activities	78
	Policy 5.3.2 Distribution of commercial activities	78
	Policy 5.3.3 Industrial land	79
	Policy 5.3.5 Tourism and outdoor recreation	79

Objective 5.4	Adverse effects of using and enjoying Otago's natural and physical resources are minimised	80
	Policy 5.4.1 Offensive or objectionable discharges	80
	Policy 5.4.5 Pest plants and animals	81
	Policy 5.4.10 Managing land use change in dry catchments	86
LANDSCAPES, SEASCAPES AND NATURAL FEATURES		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.11 Natural features, landscapes and seascapes	29
	Policy 3.1.12 Natural character in the coastal environment	29
Objective 3.2	Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded	32
	Policy 3.2.3 Identifying outstanding natural features, landscapes and seascapes	33
	Policy 3.2.4 Managing outstanding natural features, landscapes and seascapes	34
	Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes	34
	Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes	35
	Policy 3.2.17 Identifying significant soil	40
	Policy 3.2.18 Managing significant soil	40
NATURAL HAZARDS		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
	Policy 3.1.13 Environmental enhancement	30
Objective 4.1	Risks that natural hazards pose to Otago's communities are minimised	45
	Policy 4.1.1 Identifying natural hazards	45
	Policy 4.1.2 Natural hazard likelihood	45
	Policy 4.1.3 Natural hazard consequence	46
	Policy 4.1.4 Assessing activities for natural hazard risk	46
	Policy 4.1.5 Natural hazard risk	47
	Policy 4.1.6 Minimising increase in natural hazard risk	48
	Policy 4.1.7 Reducing existing natural hazard risk	49
	Policy 4.1.8 Precautionary approach to natural hazard risk	50
	Policy 4.1.9 Protecting features and systems that provide hazard mitigation	50
	Policy 4.1.10 Mitigating natural hazards	50
	Policy 4.1.11 Hard protection structures	50

Policy 4.1.12	Lifeline utilities and facilities for essential or emergency services	51
Policy 4.1.13	Hazard mitigation measures, lifeline utilities, and essential and emergency services	51
PUBLIC ACCESS		Page
Objective 3.1	The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded	23
Policy 3.1.13	Environmental enhancement	30
Objective 4.5	Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments	64
Policy 4.5.6	Designing for public access	67
Objective 5.1	Public access to areas of value to the community is maintained or enhanced	74
Policy 5.1.1	Public access	74
URBAN DESIGN AND GROWTH		Page
Objective 4.5	Urban growth and development is well designed, occurs in a strategic and coordinated way, and integrates effectively with adjoining urban and rural environments	64
Policy 4.5.1	Providing for urban growth and development	64
Policy 4.5.2	Integrating infrastructure with land use	65
Policy 4.5.3	Urban design	66
Policy 4.5.4	Low impact design	66
Policy 4.5.5	Warmer buildings	66
Policy 4.5.6	Designing for public access	67
WASTE, CONTAMINATION AND HAZARDOUS SUBSTANCES		Page
Objective 4.6	Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago	68
Policy 4.6.1	Hazardous substances	68
Policy 4.6.2	Use, storage and disposal of hazardous substances	68
Policy 4.6.3	Hazardous substance collection, disposal and recycling	69
Policy 4.6.4	Identifying contaminated land	69
Policy 4.6.5	Managing contaminated land	69
Policy 4.6.6	Waste management	70
Policy 4.6.7	Waste minimisation responses	70
Policy 4.6.8	Waste storage, recycling, recovery, treatment and disposal	70
Policy 4.6.9	New contaminated land	71



Proposed Otago Regional Policy Statement June 2021

Integrating the management of Otago's
natural and physical resources

978-0-908324-70-5 Print version
978-0-908324-71-2 Web version

PART 1 – INTRODUCTION AND GENERAL PROVISIONS

Foreword or mihi

Regional policy statements are significant planning tools; overarching documents that identify your most pressing environmental issues and provide direction to district plans and other resource management plans on how we will manage them. Developing this new Regional Policy Statement has provided an opportunity for renewed partnership between Kāi Tahu in Otago and Southland, and the ORC. We present this foreword to the notified version together, in recognition of that partnership and in anticipation of the work to come.

ORC didn't expect to find itself writing another Regional Policy Statement so soon. The ink is hardly dry on the 2019 Partially Operative Regional Policy Statement (in fact, as the name suggests, all the ink isn't even there yet), and here is the notification for the next. Nonetheless, a 2019 review of ORC's water management framework and a slew of new national regulation meant a new RPS was needed to set the scene for work on a new Land and Water Regional Plan.

Having this new RPS developed so soon after the last has allowed it to build directly on the previous process. With issues and concerns still fresh, more refinement has been possible, building better processes and driving rapid progress on significant issues facing the region, including resilience to climate change and natural hazards, managing urban development, improving freshwater and coastal environmental management, and supporting biodiversity. Mana whenua and ORC have faced this planning challenge together. We have placed the environment at the centre of all we do in our long-term vision:

The management of natural and physical resources in Otago, by and for the people of Otago, including Kāi Tahu, and as expressed in all resource management plans and decision-making, achieves healthy, resilient, and safeguarded natural systems, and the ecosystem services they offer, and supports the well-being of present and future generations, mō tātou, ā, mō kā uri ā muri ake nei.

This statement reflects that a healthy, flourishing environment is fundamental to our well-being. Integration is the central tenet, seeing the environment as a single connected system, ki uta ki tai, and weaving this in to the RPS fabric.

Our long-term vision takes its cue from the holistic perspective of Te Mana o te Wai in the National Policy Statement for Freshwater Management 2020. Guided by the need to give effect to Te Mana o te Wai we have worked with mana whenua and the wider community to develop long-term visions for Otago's water bodies. The purpose of these visions is to protect the mauri of water bodies in Otago, a responsibility shared by all. The aim is to achieve positive outcomes for water and habitat that also address the community's needs and interests.

A broad section of people from all walks of life have contributed to developing the Regional Policy Statement. Through a variety of means, including in-person public workshops, community reference groups, online surveys, and reports, people have helped shape policy development in its earliest stages and fed into the long-term freshwater visions for their own parts of Otago.

Thank you to all who have been involved in bringing this RPS to notification: mana whenua; staff from ORC, Aukaha, and Te Ao Marama Inc; councillors; stakeholders; and community members.

The objectives and policies in this RPS signal a significant step change in Otago, mindful of the need to consider the environment that will be inherited by future generations. We are asking our communities to join us in that change, to create a future of opportunity and security for all of us.

Contents

Part 1 – INTRODUCTION AND GENERAL PROVISIONS	2
Foreword or mihi	2
Contents	4
Purpose	5
Description of the Region	6
How the policy statement works	9
Interpretation	14
National direction instruments	45
MW – <i>Mana whenua</i>	47
PART 2 – RESOURCE MANAGEMENT OVERVIEW	64
SRMR – Significant resource management issues for the region	64
RMIA – Resource management issues of significance to iwi authorities in the region	86
IM – Integrated management	96
PART 3 – DOMAINS AND TOPICS	103
Domains	103
AIR – Air	103
CE – Coastal environment	108
LF – <i>Land and freshwater</i>	121
Topics	142
ECO – Ecosystems and indigenous <i>biodiversity</i>	142
EIT – Energy, infrastructure and transport	151
HAZ – Hazards and risks	165
HCV – Historical and cultural values	175
NFL – Natural features and landscapes	182
UFD – Urban form and development	186
PART 4 – EVALUATION AND MONITORING	198
Monitoring the efficiency and effectiveness of the policy statement	198
PART 5 – APPENDICES AND MAPS	200
Appendices	201
Maps	218

Purpose

As a community, we in Otago are moving into an age that requires solutions to both entrenched legacy issues and significant emerging issues in order to promote positive sustainable change while also enabling the Otago community to flourish, and to enjoy all that the region has to offer.

The Otago Regional Policy Statement (ORPS) provides a policy framework that aims to achieve long-term environmental sustainability by integrating the protection, restoration, enhancement, and use of Otago's natural and physical resources.

The ORPS responds to identified significant regional values and resource management issues relating to Otago's *environment*, historic heritage, economy, recreational opportunities and communities. The ORPS sets out objectives, policies, and methods to resolve, over time, the identified issues as effectively and efficiently as possible. The ORPS gives effect to the statutory requirements set out in the Resource Management Act 1991 (RMA 1991), as well as relevant national direction instruments and iwi authority planning documents. *Regional* and *district plans* must give effect to the ORPS.

Description of the Region

At 32,000 km², the Otago region is the second largest region in New Zealand, making up 12% of New Zealand's land mass.

The region's eastern edge is entirely marine, extending 12 nautical miles out to sea from a scenic and varied coastline. Otago meets Canterbury at the southern bank of the Waitaki River, its northern border following the river upstream then branching off along Awamoko Stream, following the north branch of the Kakanui River before heading inland once again along the Hawkdun Range, following catchment boundaries and ridgelines into the Southern Alps at Otago's westernmost border. In the south, beginning at Brother's Point in the scenic Catlins, the border with Southland tends northeasterly, taking in the Pomohaka River catchment, and Umbrella and Kopuwai Ranges to encompass the headwaters of the glacial alpine lakes, Whakatipu-wai-māori (Lake Wakatipu), Wanaka, and Hāwea.

Otago is made up of five *territorial authorities*: Dunedin City Council, and Queenstown Lakes, Waitaki, Central Otago, and Clutha District Councils.

Otago's population at the 2018 Census was 225,186¹. Dunedin City has the largest population of the Otago *territorial authorities* at 126,255, followed by Queenstown Lakes District at 39,153, Waitaki District at 22,308, Central Otago District at 21,558, and Clutha District at 17,667. Growth is not evenly distributed across the region, with the fastest growing district being Queenstown Lakes.

Otago's economy centres around agriculture, tourism, *mineral* mining, and education. The University of Otago enrolls approximately 20,000 students each year from around New Zealand and internationally, contributing to annual population spikes in Dunedin and significantly boosting the economy. Tourism has also had a significant impact on the regional economy, contributing about a quarter of the region's total gross domestic product. This is the highest of any region in New Zealand, and primarily concentrated in the Queenstown Lakes District.

Renewable energy generation facilities² meet a large portion of regional and national energy requirements. Significant hydroelectric generation facilities in Otago are located in the Central Otago, Clutha, and Queenstown Lakes Districts. Additionally, Otago has two wind farms, located in the Clutha District.

Climate

The Otago region experiences two distinct climates due to the geographic variety between the temperate coastal areas, and the almost continental inland areas. The coastal settlements experience a cyclic weather pattern that alternates frequently between a warmer and drier climate, and a cooler, damper climate. Central Otago's climate is characterised by hot, dry summers and contrastingly cold, frosty winters.

General temperature ranges for the region fall between 18°C and 24°C on summer afternoons, and -2°C and 3°C during winter nights.³ The mean daily temperatures in summer in Central Otago range

¹ 2018 Census place summaries: Stats NZ. (n.d.). <https://www.stats.govt.nz/tools/2018-census-place-summaries/otago-region> (accessed 26 May 2021)

² Fitzgerald, W. (2019). *Dunedin Energy Study 2017-2018*. University of Otago.

³ Macara, G. R. (2015). *The Climate and Weather of Otago*, Second Edition. NIWA SCIENCE AND TECHNOLOGY SERIES, 67th ser.

between approximately 10°C and 25°C, while the mean daily temperatures in winter range between approximately -1°C and 10°C.⁴ Central Otago has held national records for both the hottest and coldest temperature readings in New Zealand. Ophir, a small settlement in Central Otago, has recorded temperatures of 35.2°C in 1959 and -21.6°C in 1995. Significant rises in the use of heating sources occur during the drastically colder winter periods. The highest regional rainfalls, averaging 2000mm per year, occur typically over western areas of Otago such as around the Lakes District and Southern Alps. In contrast, the average rainfall in Central Otago is the lowest in New Zealand averaging around 400-500mm per year.

Coast

The Otago coastline stretches for 480 km and is extremely diverse, encompassing pebble and sandy beaches, basalt formations, dune systems, eelgrass and saltmarshes, estuaries, rolling downlands, and striking cliff heads. Significant coastal settlements include Dunedin and Oamaru, with the Otago port based in Port Chalmers. Otago Harbor is the region's only commercial freight handling harbor, however commercial fishing ramps are present in Oamaru, Moeraki, Karitane, and Taieri Mouth. Coastal erosion and the decline of the regional coastline is well documented, posing a long-term threat to residential and commercial coastal developments.

Otago's benthic and marine ecosystems are varied and diverse including rocky reef systems, sponge gardens, bryozoan and horse mussel beds, biogenic reefs, kelp forests and submarine canyons within 12 nautical miles of the shore. More than thirty species of seabird are regularly found off the coast of Otago. Rare sea birds such as the Royal Albatross and hoiho (Yellow-eyed penguin) can be found along the landward coastal environment. Surfing is a significant recreational activity, in Dunedin particularly, and there are four *surf breaks* of national significance along the Otago coastline.

Water bodies

The Otago region has significant *freshwater* resources in the form of surface water, natural and artificial *lakes*, *groundwater*, and *wetlands*. Otago's communities are reliant on the use of these *water* resources for their social, cultural and economic well-being. *Rivers* and *lakes* make up most of the regional surface *water*. The big *lakes*, such as Wanaka, Whakatipu-wai-māori (Lake Wakatipu) and Hāwea and including artificial *lakes* Dunstan, Roxburgh and Onslow, constitute about 23% of New Zealand's total *lake* surface area. The primary catchments are Lakes Wanaka, Whakatipu-wai-māori (Lake Wakatipu) and Hāwea, which feed into Otago's largest *river*, the Clutha River/Mata-Au. Otago also has many *groundwater* sources. *Wetlands* make up many significant landscape and ecosystem elements in Otago, including blanket and string bogs, saline areas, swamp forest remnants, shallow *lake* complexes, estuarine saltmarshes, and valley floor swamps.

Natural character and landscapes

Otago's landscapes are diverse. Moving inland from Otago's diverse and varied coastline, the landscapes change dramatically. Rolling plains separated by mountain ranges, steep hillsides of tussock, and deep gorges make up a lot of South and Central Otago. This *land* is dissected by flowing bodies of water, towering mountainscapes, and fascinating geological formations. Modified

⁴ Central Otago Climate. (n.d.). <https://centralotagonz.com/opportunities/working-here> (accessed 26 May 2021)

landscapes encompassing farmland and remnants of the region's early gold mining activity are ever-present, creating a rich sense of heritage and regional identity.

Urban form

Urbanised areas in Otago occupy only about 1% of total *land* area, however 87% of people live in urban settlements. Dunedin is Otago's largest urban area, surrounded by hills and harbor, and has a large suburban area and commuter catchment especially to the south, with more recent expansion moving out to connect with an expanding Mosgiel. The Queenstown Lakes District population is approximately 91% urban. Its outstanding landscape has historically determined, and will continue to determine, how urban form develops.

In the remainder of the region, smaller urban settlements are geographically scattered, maintaining clear distinctions between rural and urban forms, and with significant variability in growth pressures and infrastructure capacity. Growth in overall numbers of people is not the only driver of urban change pressures in Otago; many areas face low or no growth, and all areas are expected to have an aging population.

How the policy statement works

Statutory context

Resource Management Act 1991

The Resource Management Act 1991 (RMA 1991) is the primary resource management statute in New Zealand and sets out the related responsibilities and powers of national, regional, and city/district government.

The RMA 1991 requires regional councils to have a regional policy statement (RPS) under Section 60, prepared in accordance with the process set out in Schedule 1. The purpose of the RPS, as set out in Section 59 of the RMA, is to provide an overview of the specific resource management issues for the region and establish policies and methods to achieve the integrated management of both the *natural and physical resources* of the region. The RPS must be prepared in accordance with and contain the matters set out in Sections 30, 60, 61, and 62 of the RMA 1991.

The regional policy statement must give effect to higher order national direction instruments, including National Environmental Standards (NES), National Policy Statements (NPS), the New Zealand Coastal Policy Statement (NZCPS) and be written to comply with the National Planning Standards. The RPS sets out requirements that *regional plans, district plans*, and regional coastal plans must give effect to. More information about the relevant national direction instruments can be found in the ‘national direction instruments’ section of this Regional Policy Statement.

Figure 1 - Statutory framework



Partnership, Te Tiriti o Waitangi and Kāi Tahu⁵

The Otago Regional Policy Statement has been developed in partnership with Kāi Tahu, the iwi and *tangata whenua* of Otago. The partnership between the Otago Regional Council and Kāi Tahu is an important and valuable relationship, evident throughout the ORPS and woven into its provisions. The RMA 1991 requires Regional and Local Councils to address matters of National Importance, including matters associated with Te Tiriti o Waitangi (The Treaty of Waitangi) and key issues and concerns of iwi.⁶

The ORC has also considered the Kāi Tahu ki Otago 2005 Resource Management Plan and Te Tangi a Taurira: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008. ORPS chapters on Significant Resource Management Issues for Iwi and on *Mana Whenua* provide an in-depth discussion of iwi issues and set a basis for the remaining policy framework.

The key issues identified by Kāi Tahu include:

- recognising the rights and interests of Kāi Tahu in natural and resource management processes;
- recognising the important role of mātauraka in natural resource management;
- recognising the integral relationship of Kāi Tahu with *natural and physical resources*, including the coast, waterways, *lakes, wetlands* and indigenous flora and fauna, protecting these resources from degradation, improving them where they have been degraded, and sustaining them for future generations;
- protecting and restoring the abundance of mahika kai and restoring access to mahika kai areas;
- protecting the values of *wāhi tūpuna* and the ability for Kāi Tahu to maintain their relationship with these areas;
- enabling development of *land* and resources within native reserves, including *papakāika* housing; and
- the need for integrated management that recognises the interconnections between resources and across different parts of the environment.

Cross-boundary matters

Ecosystems and human activities cross jurisdictional boundaries. When different jurisdictions manage similar activities or resources in different ways there is potential for inconsistent outcomes, resulting in inefficient and ineffective management.

To achieve integration, those involved in resource management need to coordinate their policies, plans and actions. This is encompassed by the philosophy “ki uta ki tai” – from the mountains to the sea. Accordingly, section 62 of the RMA 1991 requires regional councils to include in the RPS the

⁵ In the South Island, the local Māori dialect uses a ‘k’ interchangeably with ‘ng’. The preference in Otago is to use a ‘k’ so southern Māori are known as Kāi Tahu, rather than Ngāi Tahu. In this RPS, the ‘ng’ is used for iwi in general or where there is reference to Ngāi Tahu ki Murihiku (Southland).

⁶ These matters are addressed throughout the Resource Management Act 1991, see in particular sections 6, 8 and 62.

processes to be used to deal with issues that cross *local authority* boundaries, and issues between *territorial authorities* or between regions.

Cross-boundary issues can arise in several ways, and generally manifest in issues for either plan preparation and review, or plan administration and the processing of applications for *resource consents*. Otago's cross-boundary matters include:

- adverse *effects* in one jurisdiction due to the activities in another, particularly where *territorial authority* boundaries do not match catchment boundaries, as with the Clutha Mata-au, or the Waitaki River catchment over which Otago and Canterbury Regional Councils share jurisdiction, or Otago's coastal environment, which covers three *territorial authorities'* jurisdictions, and may be affected by *land uses* in the other two (through sediment flowing down the Clutha Mata-au, for instance);
- Kāi Tahu interests, which span Otago as a whole, across *local authority* boundaries;
- resources that cross local authority boundaries which must be managed in a uniform manner, such as outstanding natural features, outstanding natural landscapes and significant natural areas;
- differences in policies or methods across plans, particularly where *district* and *regional plans* are at different planning stages and may be out of step with current regulation;
- local, *regionally* or *nationally significant infrastructure* operating across *local authority* boundaries, as with transport and electricity supply networks, and potentially shared services such as waste disposal; and
- duplicated effort for *local authorities* and increased cost for people seeking consents for activities that occur across *local authority* boundaries or require *resource consent* from two or more consent authorities.

Processes that will be used to address these matters are described in the sections below.

Clear direction in the ORPS

The ORPS provides a vision and broad policy framework for all resource management in Otago, including various methods that require *local authorities* to work together to achieve good outcomes and, in some cases, set implementation timeframes. *Regional* and *district plans* as they develop over the next 10 years and beyond, are required to give effect to the ORPS. In doing so one result should be consistency between them. The ORPS has been drafted using direct language and clarity of outcomes sought.

ORPS methods also indicate actions that fall outside the RMA 1991 framework. This recognises that only *district* and *regional plans* are required to give effect to a regional policy statement, and non-regulatory methods may sometimes be useful to help address cross-boundary matters and achieve desired outcomes.

Cooperation and partnerships with stakeholders

Stakeholders, from industry representatives to community-based volunteer groups, provide valuable strategic input to planning and decision-making. Inter-agency groups, such as Te Roopu Taiao, can assist with managing cross-boundary issues and issues affecting people across Otago strategically and collaboratively.

ORC will seek to establish and build upon working relationships with other resource management stakeholders. This will help ensure that the processes it undertakes are efficient and, wherever possible, reduce duplication of effort. As new issues emerge in the region and work on existing issues continues, they are best managed through collaboration, which will improve effectiveness and deliver better outcomes. This is particularly important for enhancing and managing *regionally significant infrastructure* and *significant natural areas*.

Cooperation and partnerships with other local authorities

There are many opportunities to work more closely with other *local authorities* to achieve a consistent and integrated approach to managing *natural and physical resources*.

Local authorities together can:

- share information, for instance to understand the long-term growth and economic development opportunities and threats and the spatial pattern of *land use* and development, or to ensure natural resources are not artificially fragmented;
- hold joint processes for processing *resource consents* and associated hearings where activities or *effects* cross jurisdictional boundaries. This allows all *effects* of new activities to be considered holistically at the same time, including any cumulative *effects*. Joint processes could also reduce the processing cost (in both money and time) for the applicant;
- work collaboratively on plan changes and develop combined planning documents for shared areas of responsibility;
- clearly define their resource management roles and responsibilities to reduce duplication of effort and streamline processes for Otago's communities; and
- cooperate and budget for joint processes and major projects through Annual and Long-term Planning processes under the Local Government Act 2002 (LGA 2002). This allows pooling resources, reducing inefficiency and integrating management approaches through time, to ensure that cooperation between agencies is budgeted for, including setting up structures and processes for joint management.

These approaches are more likely to properly address cross-boundary issues and *effects* than *local authorities* working alone.

Triennial agreement

Triennial agreements under the LGA 2002 are an opportunity for *local authorities* within a region to set out processes for consultation, protocols and processes for resolving cross-boundary issues.

Cooperation at a national level

Cross-boundary issues may arise that are significant at a national level. This is particularly likely when addressing nationally important infrastructure such as the electricity transmission grid or *land transport infrastructure*.

In such cases, ORC will advise and work with the Minister for the Environment, the Minister of Conservation in the *coastal marine area* and any other relevant agency to identify and resolve cross boundary issues or proposals, to ensure that consideration of the matter occurs in a transparent and timely manner. ORC will endeavor to represent its communities' interests in such situations.

Transferring and delegating functions, powers and duties to other authorities

The RMA 1991 enables ORC to transfer or delegate its powers to another public authority, community boards, commissioners or employees. ORC can also enter joint management agreements with other statutory bodies (such as Te Rūnanga o Ngāi Tahu).

These tools can be used to achieve integrated management and to reduce duplication of effort by local and public authorities. Joint management agreements enable important stakeholders to have an active role in the management of specific resources, and for specific purposes. They can also be used to build community capacity and share understanding in resource management.

Helping to build capacity for, and improve, *takata whenua* involvement

Takata whenua have the prerogative to express and explain how their tikaka and mātauraka should be realised in resource management. Councils have a vital role in assisting this process through finding ways to partner, resource, and upskill rūnaka so they can be fully involved in the resource management partnership.

Interpretation

Definitions

Term	Definition
1990 mean sea level (Otago Metric Datum)	means the fixed level for basing subsequent level measurements on. In this case Otago Metric Datum is the Dunedin Vertical Datum (DVD 1958) plus 100 metres.
Active transport	<p>has the same meaning as in clause 1.3 of the National Policy Statement on Urban Development 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means forms of transport that involve physical exercise, such as walking or cycling, and includes transport that may use a mobility aid such as a wheelchair</p> </div>
Additional infrastructure	<p>has the same meaning as in clause 1.3 of the National Policy Statement on Urban Development 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means:</p> <ul style="list-style-type: none"> (a) public open space (b) community infrastructure as defined in section 197 of the Local Government Act 2002 (c) land transport (as defined in the Land Transport Management Act 2003) that is not controlled by local authorities (d) social infrastructure, such as schools and healthcare facilities (e) a network operated for the purpose of telecommunications (as defined in section 5 of the Telecommunications Act 2001) (f) a network operated for the purpose of transmitting or distributing electricity or gas </div>
Airshed	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>airshed means—</p> <ul style="list-style-type: none"> (a) the region of a regional council excluding any area specified in a notice under paragraph (b): (b) a part of the region of a regional council specified by the Minister by notice in the Gazette to be a separate airshed </div>
Afforestation	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> (a) means planting and growing plantation forestry trees on land where there is no plantation forestry and where plantation forestry harvesting has not occurred within the last 5 years; but (b) does not include vegetation clearance from the land before planting </div>

Term	Definition
Ambient air quality standards	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the standard prescribed by regulation 13(1)</p> </div>
Amenity values	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes</p> </div>
Ancillary activity	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means an activity that supports and is subsidiary to a primary activity</p> </div>
Aquaculture activities	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>(a) means any activity described in section 12 done for the purpose of the breeding, hatching, cultivating, rearing, or ongrowing of fish, aquatic life, or seaweed for harvest if the breeding, hatching, cultivating, rearing, or ongrowing involves the occupation of a coastal marine area; and</p> <p>(b) includes the taking of harvestable spat if the taking involves the occupation of a coastal marine area; but</p> <p>(c) does not include an activity specified in paragraph (a) if the fish, aquatic life, or seaweed—</p> <ul style="list-style-type: none"> (i) are not in the exclusive and continuous possession or control of the person undertaking the activity; or (ii) cannot be distinguished or kept separate from naturally occurring fish, aquatic life, or seaweed; and <p>(d) does not include an activity specified in paragraph (a) or (b) if the activity is carried out solely for the purpose of monitoring the environment</p> </div>
Aquatic compensation	<p>has the same meaning as in clause 3.21(1) of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a conservation outcome resulting from actions that are intended to compensate for any more than minor residual adverse effects on a wetland or river after all appropriate avoidance, minimisation, remediation, and aquatic offset measures have been sequentially applied</p> </div>
Aquatic offset	<p>has the same meaning as in clause 3.21(1) of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p>means a measurable conservation outcome resulting from actions that are intended to:</p> <ul style="list-style-type: none"> (a) redress any more than minor residual adverse effects on a wetland or river after all appropriate avoidance, minimisation, and remediation, measures have been sequentially applied; and (b) achieve no net loss, and preferably a net gain, in the extent and values of the wetland or river, where: <ul style="list-style-type: none"> (i) no net loss means that the measurable positive effects of actions match any loss of extent or values over space and time, taking into account the type and location of the wetland or river, and (ii) net gain means that the measurable positive effects of actions exceed the point of no net loss
Attribute	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>means a measurable characteristic (numeric, narrative, or both) that can be used to assess the extent to which a particular value is provided for</p> </div>
Bed	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>means,—</p> <ul style="list-style-type: none"> (a) in relation to any river— <ul style="list-style-type: none"> (i) for the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the river cover at its annual fullest flow without overtopping its banks; (ii) in all other cases, the space of land which the waters of the river cover at its fullest flow without overtopping its banks; and (b) in relation to any lake, except a lake controlled by artificial means,— <ul style="list-style-type: none"> (i) for the purposes of esplanade reserves, esplanade strips, and subdivision, the space of land which the waters of the lake cover at its annual highest level without exceeding its margin; (ii) in all other cases, the space of land which the waters of the lake cover at its highest level without exceeding its margin; and (c) in relation to any lake controlled by artificial means, the space of land which the waters of the lake cover at its maximum permitted operating level; and (d) in relation to the sea, the submarine areas covered by the internal waters and the territorial sea </div>
Biodiversity	see <i>biological diversity</i>

Term	Definition
Biological diversity	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the variability among living organisms, and the ecological complexes of which they are a part, including diversity within species, between species, and of ecosystems</p> </div>
Building	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a temporary or permanent movable or immovable physical construction that is:</p> <ul style="list-style-type: none"> (a) partially or fully roofed; and (b) fixed or located on or in land; <p>but excludes any motorised vehicle or other mode of transport that could be moved under its own power</p> </div>
Business land	<p>has the same meaning as in clause 1.3 of the National Policy Statement on Urban Development 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means land that is zoned, or identified in an FDS or similar strategy or plan, for business uses in urban environments, including but not limited to land in the following:</p> <ul style="list-style-type: none"> (a) any industrial zone (b) the commercial zone (c) the large format retail zone (d) any centre zone, to the extent it allows business uses (e) the mixed use zone, to the extent it allows business uses (f) any special purpose zone, to the extent it allows business uses </div>
Cascading hazards	<p>means where the occurrence of one natural hazard is likely to trigger another natural hazard event e.g. an earthquake triggering a landslide which dams a river causing flooding.</p>
Certified freshwater farm plan	<p>has the same meaning as section 217B of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a freshwater farm plan certified under section 217G, as amended from time to time in accordance with section 217E(2) or (3)</p> </div>
Climate change	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods</p> </div>
Coastal marine area	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p>

Term	Definition
	<p>means the foreshore, seabed, and coastal water, and the air space above the water—</p> <p>(a) of which the seaward boundary is the outer limits of the territorial sea:</p> <p>(b) of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of—</p> <p>(i) 1 kilometre upstream from the mouth of the river; or</p> <p>(ii) the point upstream that is calculated by multiplying the width of the river mouth by 5</p>
Coastal water	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means seawater within the outer limits of the territorial sea and includes—</p> <p>(a) seawater with a substantial fresh water component; and</p> <p>(b) seawater in estuaries, fiords, inlets, harbours, or embayments</p> </div>
Commercial activity	<p>has the same meaning as in the Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means any activity trading in goods, equipment or services. It includes any ancillary activity to the commercial activity (for example administrative or head offices)</p> </div>
Commercial port activity	<p>means commercial shipping operations associated with the Otago Harbor and the activities carried out at the ports at Port Chalmers and Dunedin, which include:</p> <p>(a) Operation of commercial ships in Otago Harbor;</p> <p>(b) Loading and unloading of goods and passengers carried by sea;</p> <p>(c) Facilities for the storage of goods carried by sea;</p> <p>(d) Buildings, installations, other structures or equipment at or adjacent to a port and used in connection with the ports' operation or administration;</p> <p>(e) Structures, facilities and pipelines for fuel storage, and refuelling of ships;</p> <p>(f) Provision, maintenance and development of shipping channels and swing basins;</p> <p>(g) Disposal of dredged materials at AO, Heyward Point, Aramoana and Shelly Beach;</p> <p>(h) Installation and maintenance of beacons and markers for navigation safety; and</p> <p>(i) Provision and maintenance of the mole at Aramoana.</p>
Competitiveness margin	<p>has the same meaning as in clause 3.22 of the National Policy Statement on Urban Development 2020 (as set out in the box below)</p>

Term	Definition
	<p>means a margin of development capacity, over and above the expected demand that tier 1 and tier 2 local authorities are required to provide, that is required in order to support choice and competitiveness in housing and business land markets</p>
Contaminant	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat—</p> <p>(a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or</p> <p>(b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged</p>
Contaminated land	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means land that has a hazardous substance in or on it that—</p> <p>(a) has significant adverse effects on the environment; or</p> <p>(b) is reasonably likely to have significant adverse effects on the environment</p>
Critical buildings	<p>for the purposes of the consequence table within APP6, these are buildings which have a post-disaster function. These include:</p> <p>(a) Buildings and facilities designed as essential facilities;</p> <p>(b) Buildings and facilities with special post-disaster function;</p> <p>(c) Medical emergency or surgical facilities;</p> <p>(d) Emergency service facilities such as fire and police stations;</p> <p>(e) Designated emergency shelters;</p> <p>(f) Designated emergency centres and ancillary facilities; and</p> <p>(g) Buildings and facilities containing hazardous materials capable of causing hazardous conditions that extends beyond the property boundaries.</p>
Degraded	<p>where it is used in the <i>LF – Land and freshwater</i> chapter, has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p>in relation to an FMU or part of an FMU, means that as a result of something other than a naturally occurring process:</p> <p>(a) a site or sites in the FMU or part of the FMU to which a target attribute state applies:</p> <p>(i) is below a national bottom line; or</p> <p>(ii) is not achieving or is not likely to achieve a target attribute state; or</p> <p>(b) the FMU or part of the FMU is not achieving or is not likely to achieve an environmental flow and level set for it; or</p> <p>(c) the FMU or part of the FMU is less able (when compared to 7 September 2017) to provide for any value identified for it under the NOF</p>
Development capacity	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Urban Development 2020 (as set out in the box below)</p> <p>means the capacity of the land to be developed for housing or for business use, based on:</p> <p>(a) the zoning, objectives, policies, rules, and overlays that apply in the relevant proposed and operative RMA planning documents; and</p> <p>(b) the provision of adequate development infrastructure to support the development of land for housing or business use</p>
Development infrastructure	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Urban Development 2020 (as set out in the box below)</p> <p>means the following, to the extent that they are controlled by a local authority or council controlled organisation (as defined in section 6 of the Local Government Act 2002):</p> <p>(a) network infrastructure for water supply, wastewater, or stormwater</p> <p>(b) land transport (as defined in section 5 of the Land Transport Management Act 2003)</p>
Discharge	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>includes emit, deposit, and allow to escape</p>
Distribution network	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (as set out in the box below)</p> <p>(a) means lines and associated equipment that are used for conveying electricity and are operated by a business engaged in the distribution of electricity; but</p> <p>(b) does not include lines and associated equipment that are part of the national grid</p>
District plan	<p>has the same meaning as in section 43AA of the Resource Management Act 1991 (as set out in the box below)</p>

Term	Definition
	<p>(a) means an operative plan approved by a territorial authority under Schedule 1; and</p> <p>(b) includes all operative changes to the plan (whether arising from a review or otherwise)</p>
Drinking water	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means water intended to be used for human consumption; and includes water intended to be used for food preparation, utensil washing, and oral or other personal hygiene</p>
Dwelling	<p>has the same meaning as that given for dwellinghouse in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means any building, whether permanent or temporary, that is occupied, in whole or in part, as a residence; and includes any structure or outdoor living area that is accessory to, and used wholly or principally for the purposes of, the residence; but does not include the land upon which the residence is sited</p>
Earthworks	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts</p>
Effect	<p>has the same meaning as in section 3 of the Resource Management Act 1991 (as set out in the box below)</p> <p>In this Act, unless the context otherwise requires, the term effect includes—</p> <p>(a) any positive or adverse effect; and</p> <p>(b) any temporary or permanent effect; and</p> <p>(c) any past, present, or future effect; and</p> <p>(d) any cumulative effect which arises over time or in combination with other effects— regardless of the scale, intensity, duration, or frequency of the effect, and also includes—</p> <p>(e) any potential effect of high probability; and</p> <p>(f) any potential effect of low probability which has a high potential impact</p>
Effects management hierarchy	<p>has the same meaning as in clause 3.21 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) and in this RPS also applies to natural wetlands</p>

Term	Definition
	<p>in relation to natural inland wetlands and rivers, means an approach to managing the adverse effects of an activity on the extent or values of a wetland or river (including cumulative effects and loss of potential value) that requires that:</p> <ul style="list-style-type: none"> (a) adverse effects are avoided where practicable, (b) where adverse effects cannot be avoided, they are minimised where practicable, (c) where adverse effects cannot be minimised, they are remedied where practicable, (d) where more than minor residual adverse effects cannot be avoided, minimised, or remedied, aquatic offsetting is provided, and (e) if aquatic compensation is not appropriate, the activity itself is avoided
Electricity sub-transmission infrastructure	means electricity infrastructure which conveys electricity between energy generation sources, the National Grid and zone substations and between zone substations.
Environment	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>includes—</p> <ul style="list-style-type: none"> (a) ecosystems and their constituent parts, including people and communities; and (b) all natural and physical resources; and (c) amenity values; and (d) the social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) or which are affected by those matters </div>
Environmental outcome	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means, in relation to a value that applies to an FMU or part of an FMU, a desired outcome that a regional council identifies and then includes as an objective in its regional plan(s)</p> </div>
Esplanade reserve	has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)

Term	Definition
	<p>means a reserve within the meaning of the Reserves Act 1977—</p> <p>(a) which is either—</p> <p>(i) a local purpose reserve within the meaning of section 23 of that Act, if vested in the territorial authority under section 239; or</p> <p>(ii) a reserve vested in the Crown or a regional council under section 237D; and</p> <p>(b) which is vested in the territorial authority, regional council, or the Crown for a purpose or purposes set out in section 229</p>
Esplanade strip	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a strip of land created by the registration of an instrument in accordance with section 232 for a purpose or purposes set out in section 229</p> </div>
Exceedance	<p>has the same meaning as in regulation 13 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>for a contaminant, means an instance where the contaminant exceeds its threshold concentration in an airshed</p> </div>
Freshwater or fresh water	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means all water except coastal water and geothermal water</p> </div>
Freshwater management unit or FMU	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means all or any part of a water body or water bodies, and their related catchments, that a regional council determines under clause 3.8 is an appropriate unit for freshwater management and accounting purposes; and part of an FMU means any part of an FMU including, but not limited to, a specific site, river reach, water body, or part of a water body</p> </div>
Functional need	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment</p> </div>
Future development strategy	<p>has the same meaning as in the National Policy Statement for Urban Development 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the Future Development Strategy required by subpart 4 of Part 3</p> </div>
Greenhouse gas	<p>has the same meaning as in section 4(1) of the Climate Change Response Act 2002 (as set in in the box below)</p>

Term	Definition
	<p>means—</p> <ul style="list-style-type: none"> (a) carbon dioxide (CO₂): (b) methane (CH₄): (c) nitrous oxide (N₂O): (d) any hydrofluorocarbon: (e) any perfluorocarbon: (f) sulphur hexafluoride (SF₆)
Groundwater	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means water occupying openings, cavities, or spaces in soils or rocks beneath the surface of the ground</p> </div>
Hard protection structure	<p>within the coastal environment, has the same meaning as in the Glossary of the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>includes a seawall, rock revetment, groyne, breakwater, stop bank, retaining wall or comparable structure or modification to the seabed, foreshore or coastal land that has the primary purpose or effect of protecting an activity from a coastal hazard, including erosion</p> </div> <p>and</p> <p>outside the coastal environment, means any dam, weir, stopbank, carriageway, groyne, or reservoir, and any structure or appliance of any kind which is specifically established for the purpose of natural hazard risk mitigation.</p>
Highly valued natural features and landscapes	<p>highly valued natural features, landscapes and seascapes are areas which contain attributes and values of significance under Sections 7(c) and 7(f) of the RMA 1991, which have been identified in accordance with APP9.</p>
Historic heritage	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p>

Term	Definition
	<p>(a) means those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures, deriving from any of the following qualities:</p> <ul style="list-style-type: none"> (i) archaeological: (ii) architectural: (iii) cultural: (iv) historic: (v) scientific: (vi) technological; and <p>(b) includes—</p> <ul style="list-style-type: none"> (i) historic sites, structures, places, and areas; and (ii) archaeological sites; and (iii) sites of significance to Māori, including wāhi tapu; and (iv) surroundings associated with the natural and physical resources
Housing and Business Development Capacity Assessment	<p>has the same meaning as in the National Policy Statement for Urban Development Capacity 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the Housing and Business Development Capacity Assessment (HBA) required by subpart 5 of Part 3</p> </div>
Indigenous vegetation	<p>means vascular and non-vascular plants that, in relation to a particular area, are native to the ecological district in which that area is located.</p>
Industrial activities	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means an activity that manufactures, fabricates, processes, packages, distributes, repairs, stores, or disposes of materials (including raw, processed, or partly processed materials) or goods. It includes any ancillary activity to the industrial activity</p> </div>
Infrastructure	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p>

Term	Definition
	<p>means—</p> <ul style="list-style-type: none"> (a) pipelines that distribute or transmit natural or manufactured gas, petroleum, biofuel, or geothermal energy: (b) a network for the purpose of telecommunication as defined in section 5 of the Telecommunications Act 2001: (c) a network for the purpose of radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989: (d) facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person— <ul style="list-style-type: none"> (i) uses them in connection with the generation of electricity for the person’s use; and (ii) does not use them to generate any electricity for supply to any other person: (e) a water supply distribution system, including a system for irrigation: (f) a drainage or sewerage system: (g) structures for transport on land by cycleways, rail, roads, walkways, or any other means: (h) facilities for the loading or unloading of cargo or passengers transported on land by any means: (i) an airport as defined in section 2 of the Airport Authorities Act 1966: (j) a navigation installation as defined in section 2 of the Civil Aviation Act 1990: (k) facilities for the loading or unloading of cargo or passengers carried by sea, including a port related commercial undertaking as defined in section 2(1) of the Port Companies Act 1988: (l) anything described as a network utility operation in regulations made for the purposes of the definition of network utility operator in section 166
Intrinsic values	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>In relation to ecosystems, means those aspects of ecosystems and their constituent parts which have value in their own right, including –</p> <ul style="list-style-type: none"> (a) their biological and genetic diversity; and (b) the essential characteristics that determine an ecosystem’s integrity, form, functioning and resilience </div>
Kāika	means a settlement of Kāi Tahu or their tūpuna.
Kaitiakitanga or kaitiakitaka	has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)

Term	Definition
	<p>means the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Māori in relation to natural and physical resources; and includes the ethic of stewardship</p>
Key civic public spaces	<p>are publicly owned and accessible public spaces identified by local authorities where the public use and enjoyment of the space is strongly influenced by sun and daylight access to the extent that loss of sun and daylight may diminish this use and enjoyment.</p>
Lake	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means a body of fresh water which is entirely or nearly surrounded by land</p>
Land	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>(a) includes land covered by water and the airspace above land; and (b) in a national environmental standard dealing with a regional council function under section 30 or a regional rule, does not include the bed of a lake or river; and (c) in a national environmental standard dealing with a territorial authority function under section 31 or a district rule, includes the surface of water in a lake or river</p>
Landfill	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means an area used for, or previously used for, the disposal of solid waste. It excludes cleanfill areas</p>
Lifeline utilities	<p>means utilities provided by those entities listed in Schedule 1 of the Civil Defence Emergency Management Act 2002</p>
Local authority	<p>has the same meaning as in section 5 of the Local Government Act 2002 (as set out in the box below)</p> <p>means a regional council or territorial authority</p>
Loss of values	<p>has the same meaning as in clause 3.21(1) of the National Policy Statement for Freshwater Management 2020 (as set out in the box below) and in this RPS also refers to <i>natural wetlands</i></p>

Term	Definition
	<p>in relation to a natural inland <i>wetland</i> or <i>river</i>, means the <i>wetland</i> or <i>river</i> is less able to provide for the following existing or potential values:</p> <ul style="list-style-type: none"> (a) any value identified for it under the NOF process; or (b) any of the following, whether or not they are identified under the NOF process: <ul style="list-style-type: none"> (i) ecosystem health (ii) indigenous biodiversity (iii) hydrological functioning (iv) Māori freshwater values (v) amenity
Mana whenua	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below) and in this RPS also refers to the people who hold customary authority</p> <div style="border: 1px solid black; padding: 5px;"> <p>means customary authority exercised by an iwi or hapu in an identified area</p> </div>
Mineral	<p>has the same meaning as in section 2(1) of the Crown Minerals Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a naturally occurring inorganic substance beneath or at the surface of the earth, whether or not under water; and includes all metallic minerals, non-metallic minerals, fuel minerals, precious stones, industrial rocks and building stones, and a prescribed substance within the meaning of the Atomic Energy Act 1945</p> </div>
Mixing zone	<p>has the same meaning as in the Glossary of the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>the area within which ‘reasonable mixing’ of contaminants from discharges occurs in receiving waters and within which the relevant water quality standards do not apply</p> </div>
Multiple hazards	<p>means where two or more unrelated natural hazard events may occur.</p>
National grid	<p>has the same meaning as in the Interpretation section of the National Policy Statement for Renewable Electricity Generation 2011 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the lines and associated equipment used or owned by Transpower to convey electricity</p> </div>
National Objectives Framework	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the framework for managing freshwater as described in subpart 2 of Part 3</p> </div>
Nationally significant infrastructure	<p>has, to the extent applicable to the Otago Region, the same meaning as in clause 1.4(1) of the National Policy Statement for Urban Development 2020 (as set out in the box below)</p>

Term	Definition
	<p>means all of the following:</p> <ul style="list-style-type: none"> (a) State highways (b) the national grid electricity transmission network (c) renewable electricity generation facilities that connect with the national grid (d) the high-pressure gas transmission pipeline network operating in the North Island (e) the refinery pipeline between Marsden Point and Wiri (f) the New Zealand rail network (including light rail) (g) rapid transit services (as defined in this clause) (h) any airport (but not its ancillary commercial activities) used for regular air transport services by aeroplanes capable of carrying more than 30 passengers (j) the port facilities (but not the facilities of any ancillary commercial activities) of each port company referred to in item 6 of Part A of Schedule 1 of the Civil Defence Emergency Management Act 2002
Natural and physical resources	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>includes land, water, air, soil, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures</p> </div>
Natural hazard	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment</p> </div>
Natural hazard works	<p>has the same meaning as in regulation 51(1) of the National Environmental Standard for Freshwater 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means works for the purpose of removing material, such as trees, debris, and sediment, that—</p> <ul style="list-style-type: none"> (a) is deposited as the result of a natural hazard, and (b) is causing, or is likely to cause, an immediate hazard to people or property </div>
Naturally rare	<p>has the same meaning as in the Glossary of the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>originally rare: Rare before the arrival of humans in New Zealand</p> </div>
Natural wetland	<p>has the same meaning as in clause 3.21 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p>means a wetland (as defined in the Act) that is not:</p> <ul style="list-style-type: none"> (a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or (b) a geothermal wetland; or (c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain-derived water pooling
Nohoaka or nohoanga	means a site occupied by Kāi Tahu on a seasonal and temporary basis for mahika kai or other customary purposes.
Operational need	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means the need for a proposal or activity to traverse, locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints</p> </div>
Other infrastructure	<p>has the same meaning as in regulation 3 of the National Environmental Standard for Freshwater 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means infrastructure, other than specified infrastructure, that was lawfully established before, and in place at, the close of 2 September 2020</p> </div>
Outstanding water body	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a water body, or part of a water body, identified in a regional policy statement, a regional plan, or a water conservation order as having one or more outstanding values</p> </div>
Over-allocation	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>in relation to both the quantity and quality of freshwater, is the situation where:</p> <ul style="list-style-type: none"> (a) resource use exceeds a limit; or (b) if limits have not been set, an FMU or part of an FMU is degraded or degrading </div>
Papakāika or papakāinga	means use and development by <i>mana whenua</i> of ancestral or tribal lands to sustain themselves in accordance with tikanga Māori, which may include residential activities and non-residential activities for cultural, social, recreational, environmental or limited commercial purposes.
Plantation forestry	has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (as set out in the box below)

Term	Definition
	<p>means a forest deliberately established for commercial purposes, being—</p> <ul style="list-style-type: none"> (a) at least 1 ha of continuous forest cover of forest species that has been planted and has or will be harvested or replanted; and (b) includes all associated forestry infrastructure; but (c) does not include— <ul style="list-style-type: none"> (i) a shelter belt of forest species, where the tree crown cover has, or is likely to have, an average width of less than 30 m; or (ii) forest species in urban areas; or (iii) nurseries and seed orchards; or (iv) trees grown for fruit or nuts; or (v) long-term ecological restoration planting of forest species; or (vi) willows and poplars space planted for soil conservation purposes
PM₁₀	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means particulate matter that is—</p> <ul style="list-style-type: none"> (a) less than 10 micrometres in aerodynamic diameter; and (b) measured in accordance with the United States Code of Federal Regulations, Title 40—Protection of Environment, Volume 2, Part 50, Appendix J — Reference method for the determination of particulate matter as PM₁₀ in the atmosphere </div>
PM_{2.5}	<p>means particulate matter that is less than 2.5 micrometres in aerodynamic diameter.</p>
Polluted airshed	<p>has the same meaning as in regulation 17(4) of the National Environmental Standards for Air Quality 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> (a) an airshed becomes a polluted airshed on and from 1 September 2012 or any later day if, for the immediately prior 5-year period— <ul style="list-style-type: none"> (i) the airshed has meaningful PM₁₀ data for at least a 12-month period; and (ii) the airshed’s average exceedances of PM₁₀ (as calculated under regulation 16D) was more than 1 per year; and (b) an airshed stops being a polluted airshed on and from any day if the PM₁₀ standard was not breached in the airshed in the immediately prior 5-year period </div>
Primary contact site	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p>in relation to both the quantity and quality of freshwater, is the means a site identified by a regional council that it considers is regularly used, or would be regularly used but for existing freshwater quality, for recreational activities such as swimming, paddling, boating, or watersports, and particularly for activities where there is a high likelihood of water or water vapour being ingested or inhaled</p>
Primary production	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means:</p> <ul style="list-style-type: none"> (a) an aquaculture, agricultural, pastoral, horticultural, mining, quarrying or forestry activities; and (b) includes initial processing, as an ancillary activity, of commodities that result from the listed activities in a); (c) includes any land and buildings used for the production of the commodities from a) and used for the initial processing of the commodities in b); but (d) excludes further processing of those commodities into a different product
Public transport	<p>has the same meaning as in clause 1.4 of the National Policy Statement for Urban Development 2020 (as set out in the box below)</p> <p>means any existing or planned service for the carriage of passengers (other than an aeroplane) that is available to the public generally by means of:</p> <ul style="list-style-type: none"> (a) a vehicle designed or adapted to carry more than 12 persons (including the driver), or (b) a rail vehicle, or (c) a ferry
Receiving environment	<p>has the same meaning as in in clause 1.4 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p> <p>includes, but is not limited to, any water body (such as a river, lake, wetland or aquifer) and the coastal marine area (including estuaries)</p>
Reclamation	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means the manmade formation of permanent dry land by the positioning of material into or onto any part of a waterbody, bed of a lake or river or the coastal marine area, and:</p> <ul style="list-style-type: none"> (a) includes the construction of any causeway; but (b) excludes the construction of natural hazard protection structures such as seawalls, breakwaters or groynes except where the purpose of those structures is to form dry land

Term	Definition
Regional plan	<p>has the same meaning as in section 43AA of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>(a) means an operative plan approved by a regional council under Schedule 1 (including all operative changes to the plan (whether arising from a review or otherwise)); and</p> <p>(b) includes a regional coastal plan</p> </div>
Regionally significant infrastructure	<p>means:</p> <ol style="list-style-type: none"> (1) roads classified as being of regional importance in accordance with the One Network Road Classification,⁷ (2) electricity sub-transmission infrastructure, (3) renewable electricity generation facilities that connect with the local distribution network but not including renewable electricity generation facilities designed and operated principally for supplying a single premise or facility, (4) telecommunication and radiocommunication facilities, (5) facilities for public transport, including terminals and stations, (6) the following airports: Dunedin, Queenstown, Wanaka, Alexandra, Balclutha, Cromwell, Oamaru, Taieri. (7) navigation infrastructure associated with airports and commercial ports which are nationally or regionally significant, (8) defence facilities, (9) community drinking water abstraction, supply treatment and distribution infrastructure that provides no fewer than 25 households with drinking water for not less than 90 days each calendar year, and community water supply abstraction, treatment and distribution infrastructure (excluding delivery systems or infrastructure primarily deployed for the delivery of water for irrigation of land or rural agricultural drinking-water supplies) (10) community stormwater infrastructure, (11) wastewater and sewage collection, treatment and disposal infrastructure serving no fewer than 25 households, and (12) Otago Regional Council's hazard mitigation works including flood protection infrastructure and drainage schemes.
Renewable electricity generation	<p>has the same meaning as in the Interpretation section of the National Policy Statement for Renewable Electricity Generation 2011 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means generation of electricity from solar, wind, hydroelectricity, geothermal, biomass, tidal, wave, or ocean current energy sources</p> </div>
Renewable electricity generation activities	<p>has the same meaning as in the Interpretation section of the National Policy Statement for Renewable Electricity Generation 2011 (as set out in the box below)</p>

⁷ <https://www.nzta.govt.nz/roads-and-rail/road-efficiency-group/projects/onrc> (accessed 26 May 2021)

Term	Definition
	<p>means the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity</p>
Replanting	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (as set out in the box below)</p> <p>means the planting and growing of plantation forestry trees on land less than 5 years after plantation forestry harvesting has occurred</p>
Residual risk	<p>means the risk remaining after the implementation or undertaking of all available and practicable risk management measures.</p>
Resilient or resilience	<p>means the capacity and ability to withstand or recover quickly from adverse conditions.</p>
Resource consent	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>has the meaning set out in section 87; and includes all conditions to which the consent is subject</p>
Risk	<p>has the same meaning as in the Glossary in the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p> <p>Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence (AS/NZS ISO 31000:2009 <i>Risk management – Principles and guidelines</i>, November 2009)</p>
River	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)</p>
Road	<p>has the same meaning as in section 315 of the Local Government Act 1974; and includes a motorway as defined in section 2(1) of the Government Roadway Powers Act 1989 (as set out in the boxes below)</p>

Term	Definition
	<p>road means the whole of any land which is within a district, and which—</p> <ul style="list-style-type: none"> (a) immediately before the commencement of this Part was a road or street or public highway; or (b) immediately before the inclusion of any area in the district was a public highway within that area; or (c) is laid out by the council as a road or street after the commencement of this Part; or (d) is vested in the council for the purpose of a road as shown on a deposited survey plan; or (e) is vested in the council as a road or street pursuant to any other enactment;— <p>and includes—</p> <ul style="list-style-type: none"> (f) except where elsewhere provided in this Part, any access way or service lane which before the commencement of this Part was under the control of any council or is laid out or constructed by or vested in any council as an access way or service lane or is declared by the Minister of Works and Development as an access way or service lane after the commencement of this Part or is declared by the Minister of Lands as an access way or service lane on or after 1 April 1988: (g) every square or place intended for use of the public generally, and every bridge, culvert, drain, ford, gate, building, or other thing belonging thereto or lying upon the line or within the limits thereof;— <p>but, except as provided in the Public Works Act 1981 or in any regulations under that Act, does not include a motorway within the meaning of that Act or the Government Roading Powers Act 1989</p> <p>motorway—</p> <ul style="list-style-type: none"> (a) means a motorway declared as such by the Governor-General in Council under section 138 of the Public Works Act 1981 or under section 71 of this Act; and (b) includes all bridges, drains, culverts, or other structures or works forming part of any motorway so declared; but (c) does not include any local road, access way, or service lane (or the supports of any such road, way, or lane) that crosses over or under a motorway on a different level
Rural area	means any area of land that is not an <i>urban area</i>
Sensitive activities	<p>has the same meaning as in the Interpretation section of the National Policy Statement on Electricity Transmission 2008 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>includes schools, residential buildings and hospitals</p> </div>
Specified infrastructure	has the same meaning as in clause 3.21 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)

Term	Definition
	<p>means any of the following:</p> <ul style="list-style-type: none"> (a) infrastructure that delivers a service operated by a lifeline utility (as defined in the Civil Defence Emergency Management Act 2002), (b) regionally significant infrastructure identified as such in a regional policy statement or regional plan, (c) any public flood control, flood protection, or drainage works carried out: <ul style="list-style-type: none"> (i) by or on behalf of a local authority, including works carried out for the purposes set out in section 133 of the Soil Conservation and Rivers Control Act 1951, or (ii) for the purpose of drainage by drainage districts under the Land Drainage Act 1908
Sewage	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 2px;"> <p>means human excrement and urine</p> </div>
Ship	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 2px;"> <p>has the same meaning as in section 2(1) of the Maritime Transport Act 1994</p> </div>
Significant natural area	<p>means areas of significant indigenous vegetation and significant habitats of indigenous fauna that are located outside the coastal environment.</p>
Small and community scale distributed electricity generation	<p>has the same meaning as in the Interpretation section of the National Policy Statement for Renewable Electricity Generation 2011 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 2px;"> <p>means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network</p> </div>
Social and cultural buildings	<p>For the purposes of the consequence table within APP6, these are buildings that are of social and cultural importance. These include:</p> <ul style="list-style-type: none"> (a) Places of worship; (b) Museums; (c) Art galleries; (d) Marae; and (e) Educational facilities
Solid fuel	<p>has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 2px;"> <p>means a solid substance that releases useable energy when burnt (for example, wood and coal)</p> </div>
Specified rivers and lakes	<p>has the same meaning as in Appendix 3 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p>means:</p> <p>(a) rivers that are fourth order or greater, using the methods outlined in the River Environment Classification System, National Institute of Water and Atmospheric Research, Version 1, and</p> <p>(b) lakes with a perimeter of 1.5km or more</p>
Stormwater	<p>has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below)</p> <p>means run-off that has been intercepted, channelled, diverted, intensified or accelerated by human modification of a land surface, or run-off from the surface of any structure, as a result of precipitation and includes any contaminants contained within</p>
Structure	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means any building, equipment, device, or other facility made by people and which is fixed to land; and includes any raft</p>
Structure plan	<p>means a framework to prescribe development of an area, including land use patterns, infrastructure, linkages and other key features and constraints that affect the development.</p>
Subdivision	<p>has the same meaning as “subdivision of land” in section 218 of the Resource Management Act 1991 (as set out in the box below)</p> <p>(1) In this Act, the term subdivision of land means—</p> <p>(a) the division of an allotment—</p> <p>(i) by an application to the Registrar-General of Land for the issue of a separate record of title for any part of the allotment; or</p> <p>(ii) by the disposition by way of sale or offer for sale of the fee simple to part of the allotment; or</p> <p>(iii) by a lease of part of the allotment which, including renewals, is or could be for a term of more than 35 years; or</p> <p>(iv) by the grant of a company lease or cross lease in respect of any part of the allotment; or</p> <p>(v) by the deposit of a unit plan, or an application to the Registrar-General of Land for the issue of a separate record of title for any part of a unit on a unit plan; or</p> <p>(b) an application to the Registrar-General of Land for the issue of a separate record of title in circumstances where the issue of that record of title is prohibited by section 226,—</p> <p>and the term subdivide land has a corresponding meaning</p>
Surf break	<p>has the same meaning as in the Glossary in the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p>

Term	Definition
	<p>A natural feature that is comprised of swell, currents, water levels, seabed morphology, and wind. The hydrodynamic character of the ocean (swell, currents and water levels) combines with seabed morphology and winds to give rise to a 'surfable wave'. A surf break includes the 'swell corridor' through which the swell travels, and the morphology of the seabed of that wave corridor, through to the point where waves created by the swell dissipate and become non-surfable. 'Swell corridor' means the region offshore of a surf break where ocean swell travels and transforms to a 'surfable wave'. 'Surfable wave' means a wave that can be caught and ridden by a surfer. Surfable waves have a wave breaking point that peels along the unbroken wave crest so that the surfer is propelled laterally along the wave crest</p>
<p>Takata whenua or tangata whenua</p>	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>in relation to a particular area, means the iwi, or hapu, that holds mana whenua over that area</p> </div>
<p>Taxa</p>	<p>has the same meaning as in the Glossary of the New Zealand Coastal Policy Statement 2010 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>Named biological classification units assigned to individuals or sets of species (eg species, subspecies, genus, order, variety)</p> </div>
<p>Te Mana o te Wai</p>	<p>has the same meaning as in clause 1.3 of the National Policy Statement for Freshwater Management 2020 (as set out in the box below)</p>

Term	Definition
	<p><i>Concept</i></p> <p>(1) Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.</p> <p>(2) Te Mana o te Wai is relevant to all freshwater management and not just to the specific aspects of freshwater management referred to in this National Policy Statement.</p> <p><i>Framework</i></p> <p>(3) Te Mana o te Wai encompasses 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, and these principles inform this National Policy Statement and its implementation.</p> <p>(4) The 6 principles are:</p> <p>(a) <i>Mana whakahaere</i>: the power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater</p> <p>(b) <i>Kaitiakitanga</i>: the obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations</p> <p>(c) <i>Manaakitanga</i>: the process by which tangata whenua show respect, generosity, and care for freshwater and for others</p> <p>(d) <i>Governance</i>: the responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future</p> <p>(e) <i>Stewardship</i>: the obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations</p> <p>(f) <i>Care and respect</i>: the responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.</p> <p>(5) There is a hierarchy of obligations in Te Mana o te Wai that prioritises:</p> <p>(a) first, the health and well-being of water bodies and freshwater ecosystems</p> <p>(b) second, the health needs of people (such as drinking water)</p> <p>(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future</p>
Territorial authority	<p>has the same meaning as in section 5 of the Local Government Act 2002 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px;"> <p>means a city council or a district council named in Part 2 of Schedule 2</p> </div>

Term	Definition
Te Ture Whenua Maori land	means land with the following status: <ul style="list-style-type: none"> (a) Māori communal land gazetted as Māori reservation under s338 Te Ture Whenua Maori Act 1993; and (b) Māori customary land and Māori freehold land as defined in s4 and s129 Te Ture Whenua Maori Act 1993.
Threatened species	means any indigenous species of flora or fauna that meets the criteria for nationally critical, nationally endangered, or nationally vulnerable species in the New Zealand Threat Classification System Manual (Townsend et al, 2008).
Urban area	means any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that is, or is intended to be, predominantly urban in character. This includes but is not limited to any land identified in District Plans as being within any urban growth boundary or equivalent however described, any residential zone, commercial and mixed use zone, industrial zone and future urban zone as listed in the National Planning Standards or its present District Plan zone equivalent. <i>Urban environments</i> are a subset of <i>urban areas</i> .
Urban environment	has the same meaning as in clause 1.4 of the National Policy Statement on Urban Development 2020 (as set out in the box below) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>means any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that:</p> <ul style="list-style-type: none"> (a) is, or is intended to be, predominantly urban in character; and (b) is, or is intended to be, part of a housing and labour market of at least 10,000 people </div>
Vulnerability	means the conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.
Wāhi tūpuna	means landscapes and places that embody the relationship of manawhenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu and other taoka.
Waste	has the same meaning as in regulation 3 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (as set out in the box below) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>means substances or objects that are disposed of or intended to be disposed of</p> </div>
Wastewater	has the same meaning as in Standard 14 of the National Planning Standards 2019 (as set out in the box below) <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>means any combination of two or more the following wastes: sewage, greywater or industrial and trade waste</p> </div>
Water	has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)

Term	Definition
	<p>(a) means water in all its physical forms whether flowing or not and whether over or under the ground:</p> <p>(b) includes fresh water, coastal water, and geothermal water:</p> <p>(c) does not include water in any form while in any pipe, tank, or cistern</p>
Water body	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area</p>
Well-functioning urban environments	<p>has the same meaning as in Policy 1 of the National Policy Statement on Urban Development 2020 (as set out in the box below)</p> <p>well-functioning urban environments are urban environments that, as a minimum:</p> <p>(a) Have or enable a variety of homes that:</p> <p>(i) meet the needs, in terms of type, price, and location, of different households; and</p> <p>(ii) enable Māori to express their cultural traditions and norms; and</p> <p>(b) have or enable a variety of sites that are suitable for different business sectors in terms of location and site size; and</p> <p>(c) have good accessibility for all people between housing, jobs, community services, natural spaces, and open spaces, including by way of public or active transport; and</p> <p>(d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets; and</p> <p>(e) support reductions in greenhouse gas emissions; and</p> <p>(f) are resilient to the likely current and future effects of climate change</p>
Wetland	<p>has the same meaning as in section 2 of the Resource Management Act 1991 (as set out in the box below)</p> <p>includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions</p>
Wetland utility structure	<p>has the same meaning as in regulation 3 of the National Environmental Standard for Freshwater 2020 (as set out in the box below)</p>

Term	Definition
	<p>(a) means a structure placed in or adjacent to a wetland whose purpose, in relation to the wetland, is recreation, education, conservation, restoration, or monitoring, and</p> <p>(b) for example, includes the following structures that are placed in or adjacent to a wetland for a purpose described in paragraph (a):</p> <ul style="list-style-type: none"> (i) jetties (ii) boardwalks and bridges connecting them, (iii) walking tracks and bridges connecting them, (iv) signs, (v) bird-watching hides, (vi) monitoring devices, (vii) maimai
Wilding conifer	<p>has the same meaning as in regulation 3 of the National Environmental Standard for Plantation Forestry 2017 (as set out in the box below)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>means a self-established conifer species tree resulting from seed spread from plantation forestry, shelter belts, amenity planting, or an already established wilding conifer species tree population</p> </div>

Abbreviations

Abbreviation	Full Terms
CDC	Clutha District Council
CODC	Central Otago District Council
DCC	Dunedin City Council
FMU	Freshwater Management Unit
HAIL	Hazardous Activities and Industries List
LGA	Local Government Act 2002
NES	National Environmental Standard
NESAQ	National Environmental Standards for Air Quality 2004
NESCS	National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011
NESETA	National Environmental Standard for Electricity Transmission Activities 2009
NESF	National Environmental Standards for Freshwater 2020
NESMA	National Environmental Standards for Marine Aquaculture 2020
NESPF	National Environmental Standards for Plantation Forestry 2017
NESHDW	National Environmental Standard for Sources of Human Drinking Water 2007
NESTF	National Environmental Standards for Telecommunication Facilities 2016
NOF	National Objectives Framework
NPS	National Policy Statement
NPSET	National Policy Statement on Electricity Transmission 2008
NPSFM	National Policy Statement for Freshwater Management 2020
NPSREG	National Policy Statement for Renewable Electricity Generation 2011
NPSUD	National Policy Statement on Urban Development 2020
NTCSA	Ngāi Tahu Claims Settlement Act 1998
NZCPS	New Zealand Coastal Policy Statement 2010
OCCRA	Otago Climate Change Risk Assessment Phase 1 report
ORC	Otago Regional Council
PORPS 2016	Proposed Otago Regional Policy Statement 2016 – Decisions version
PORPS 2019	Partially Operative Regional Policy Statement 2019
PORPS 2021	Proposed Otago Regional Policy Statement 2021
QLDC	Queenstown Lakes District Council

Abbreviation	Full Terms
RPS	Regional Policy Statement
RPS 1998	Regional Policy Statement for Otago 1998
RMA	Resource Management Act 1991
RMS	Regional Monitoring Strategy
TAs	Territorial authorities: Central Otago District Council, Clutha District Council, Dunedin City Council, Queenstown-Lakes District Council and Waitaki District Council
Waste Plan	Regional Plan: Waste for Otago
Water Plan	Regional Plan: Water for Otago
WDC	Waitaki District Council

National direction instruments

National policy statements and New Zealand Coastal Policy Statement

National Policy Statements	
<p>National policy statements (NPSs) and the New Zealand Coastal Policy Statement (NZCPS) form part of the Resource Management Act's policy framework and are prepared by central government. NPSs and the NZCPS contain objectives, policies and methods that must be given effect to by policy statements and plans. NPSs and the NZCPS must also be given regard to by consent authorities when making decisions on <i>resource consent</i> applications, alongside other considerations.</p> <p>The following table provides an overview of whether any relevant review/s of the Otago Regional Policy Statement has been undertaken in relation to NPSs and the NZCPS.</p>	
National Policy Statement on Electricity Transmission 2008	The policy statement has been reviewed in May 2021
New Zealand Coastal Policy Statement 2010	The policy statement has been reviewed in May 2021
National Policy Statement for Renewable Electricity Generation 2011	The policy statement has been reviewed in May 2021
National Policy Statement for Freshwater Management 2020	The policy statement has been reviewed in May 2021
National Policy Statement on Urban Development (2020)	The policy statement has been reviewed in May 2021

National environmental standards

National Environmental Standards
<p>National environmental standards (NESs) are prepared by central government and can prescribe technical standards, methods (including rules) and/or other requirements for environmental matters throughout the whole country or specific areas. If an activity doesn't comply with an NES, it is likely to require a <i>resource consent</i>. NESs must be observed and enforced by <i>local authorities</i>. The following relevant NESs are currently in force:</p> <ul style="list-style-type: none"> • Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (amended 2011) • Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 • Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 • Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 • Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016

- [Resource Management \(National Environmental Standard for Plantation Forestry\) Regulations 2017](#)
- [Resource Management \(National Environmental Standards for Freshwater\) Regulations 2020](#)
- [Resource Management \(National Environmental Standards for Marine Aquaculture\) Regulations 2020](#)

Regulations

Regulations

The regulations included in this chapter come under the Resource Management Act 1991 (excluding the national environmental standards listed above). These regulations are:

- [Resource Management \(Transitional, Fees, Rents, and Royalties\) Regulations 1991](#)
- [Resource Management \(Exemption\) Regulations 1996](#)
- [Resource Management \(Marine Pollution\) Regulations 1998](#)
- [Resource Management \(Infringement Offences\) Regulations 1999](#)
- [Resource Management \(Forms, Fees, and Procedure\) Regulations 2003](#)
- [Resource Management \(Discount on Administrative Charges\) Regulations 2010](#)
- [Resource Management \(Measurement and Reporting of Water Takes\) Regulations 2010](#)
- [Resource Management \(Network Utility Operations\) Regulations 2016](#)
- [Resource Management \(Exemption\) Regulations 2017.](#)
- [Resource Management \(Stock Exclusion\) Regulations 2020](#)

Water conservation orders

Water Conservation Orders

Regional policy statements, *regional plans* and *district plans* cannot be inconsistent with the provisions of a water conservation order. A water conservation order can prohibit or restrict a regional council issuing new water and discharge permits, although it cannot affect existing permits.

The following table provides an overview of whether any relevant review/s of the Otago Regional Policy Statement have been undertaken in relation to relevant water conservation orders.

Water Conservation (Kawarau) Order 1997	The policy statement has been reviewed in May 2021
---	--

MW – *Mana whenua*

Recognition of hapū and iwi

Kāi Tahu⁸

Kāi Tahu are *takata whenua* of the Otago region. Waitaha were the first people of Te Waipounamu, the South Island. Led by Rākaihautū, they explored and settled Te Waipounamu, and their exploits are reflected in enduring place names and histories across the motu. Waitaha were followed by the arrival of Kāti Māmoe and finally Kāi Tahu. Through warfare, intermarriage and political alliances a common allegiance to Kāi Tahu was forged. Kāi Tahu means the ‘people of Tahu’, linking them by name to their common ancestor Tahu Pōtiki.

The Kāi Tahu tribal area extends from the sub Antarctic islands in the south to Te Parinuiowhiti (White Cliffs, Blenheim) in the north and to Kahurangi Point on Te Tai o Poutini (the West Coast).

Relationship of Kāi Tahu with their rohe

Te Rūnanga o Ngāi Tahu (the iwi authority) is made up of 18 Papatipu Rūnaka, of which seven have interests in the Otago region. Papatipu Rūnaka are a focus for whānau and hapū (extended family groups) who have *mana whenua* status within their area. *Mana whenua* hold traditional customary authority and maintain contemporary relationships within an area determined by whakapapa (genealogical ties), resource use and ahikāroa (the long burning fires of occupation). Te Rūnanga o Ngāi Tahu encourages consultation with the Papatipu Rūnaka and takes into account the views of kā Rūnaka when determining its own position.

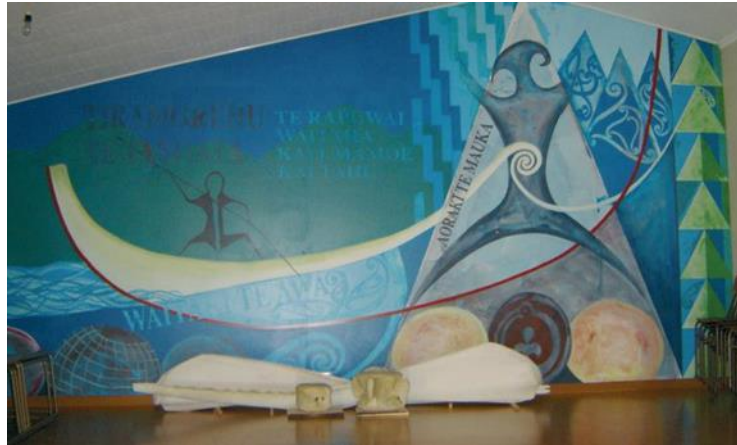
Four Kāi Tahu ki Otago Papatipu Rūnaka are based in Otago. These are Te Rūnanga o Moeraki, Kāti Huirapa Rūnaka ki Puketeraki, Te Rūnanga o Ōtākou, and Hokonui Rūnanga. Three Ngāi Tahu ki Murihiku Rūnaka – Awarua Rūnanga, Waihopai Rūnanga and Ōraka-Aparima Rūnanga – are based in Southland but also share interests with Kāi Tahu ki Otago in South Otago, the Mata-au Clutha River, and the inland *lakes* and mountains. The areas of shared interest originate from the seasonal hunting and gathering economy that was a distinctive feature of the southern Kāi Tahu lifestyle. Seasonal mobility was an important means by which hāpu and whānau maintained customary rights to the resources of the interior and ahi kā.

Te Rūnanga o Moeraki

The takiwā of Te Rūnanga o Moeraki is centred on Moeraki and extends from the Waitaki River to the Waihemo Shag River and inland to the Main Divide. The coastal interests of Te Rūnanga o Moeraki are concentrated in the Moeraki Peninsula area and surrounds, including Te Raka-a-Hineatea Pā, Koekohe Hampden Beach, and Te Kai Hinaki with its famed boulders.

<https://www.terunangaomoeraki.org/>

⁸ In the south of the South Island, the local Māori dialect uses a 'k' interchangeably with 'ng'. The preference of Kāi Tahu ki Otago is to use a 'k' so southern Māori are known as Kāi Tahu, rather than Ngāi Tahu. In this document, the “ng” is used for the iwi in general, and the “k” for southern Māori in particular.



Te Rūnanga o Moeraki Marae, Moeraki

Kāti Huirapa ki Puketeraki

The takiwā of Kāti Huirapa ki Puketeraki centres on Karitāne and extends from the Waihemo, Shag River to Purehurehu Heyward Point, and includes an interest in Ōtepoti and the greater harbor of Ōtākou. The takiwā extends inland to the Main Divide sharing an interest in the *lakes* and mountains to Whakatipu-Waitai with kā Rūnaka to the south. The kaimoana resources of the coast from Karitāne to Okahau Blueskin Bay and Pūrākaunui, and the kai awa of the Waikouaiti River and estuary are treasured and well utilised mahika kai for Kāti Huirapa ki Puketeraki.

<http://www.puketeraki.nz/>



Puketeraki Marae

Te Rūnanga o Ōtākou

The takiwā of Te Rūnaka o Ōtākou centres on Muaūpoko Otago Peninsula, and extends from Purehurehu Heyward Point, to Te Mata-au Clutha River, and inland, sharing an interest in the *lakes* and mountains to the western coast with kā Rūnaka to the north and south. The Otago Harbor has a pivotal role in the well-being of Ōtākou people. The harbor is a source of identity, a bountiful provider of kaimoana, and it is the pathway to the fishing grounds beyond. Traditionally it was the mode for other hapū to visit, and in today's world it is the lifeline to the international trade that benefits the

region. The ebb and flow of the harbor tides is a valued certainty in a world of change, a taoka to be treasured and protected for the benefit of current and future generations.

<http://www.otakourunaka.co.nz/>



Ōtākou Marae, Otago Peninsula

Hokonui Rūnanga

The takiwā of Hokonui Rūnanga centres on the Hokonui region and includes a shared interest in the *lakes* and mountains between Whakatipu-Waitai and Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards. Although Hokonui Rūnanga is based in Gore, their interests in the Otago area, especially South Otago, are significant. They hold this in common with other Otago Rūnanga through whakapapa, history and tradition.

<https://www.hokonuirunanga.org.nz/>



Hokonui Marae

Te Rūnanga o Awarua

The takiwa of Te Rūnanga o Awarua centres on Awarua and extends to the coasts and estuaries adjoining Waihopai sharing an interest in the *lakes* and mountains between Whakatipu-Waitai and Tawhitarere with other Murihiku Rūnanga and those located from Waihemo southwards.

Waihopai Rūnaka

The takiwa of Waihopai Rūnaka centres on Waihopai and extends northwards to Te Mata-au Clutha River, sharing an interest in the *lakes* and mountains to the western coast with other Murihiku Rūnaka and those located from Waihemo southwards.

Te Rūnanga o Ōraka Aparima

The takiwa of Te Rūnanga o Ōraka Aparima centres on Ōraka and extends from Waimatuku to Tawhititarere sharing an interest in the *lakes* and mountains from Whakatipu-Waitai to Tawhititarere with other Murihiku Rūnaka and those located from Waihemo southwards.

Environmental management perspectives and values of Kāi Tahu

He taura whiri kotahi mai anō te kōpunga tai nō ī te pū au

“From the source to the mouth of the sea, all things are joined together as one”

Te Tiriti o Waitangi establishes a partnership between Kāi Tahu and the Crown. The RMA 1991 requires that the relationship of Māori and their culture and traditions with their ancestral *lands, water, sites, wāhi tapu*, and other taoka, is recognised and provided for⁹ and that the principles of the Treaty of Waitangi are taken into account.¹⁰ In the spirit of this partnership and the Treaty principles the ORPS seeks to facilitate Kāi Tahu engagement in resource management in Otago.

This chapter acknowledges the principles of Te Tiriti o Waitangi and sets out general considerations for the incorporation of Kāi Tahu values and interests into resource management planning, consenting, and implementation processes. These are integrated throughout this document, and this chapter serves to tie the strands together. It reflects the philosophy embraced by Kāi Tahu of holistic resource management, *ki uta ki tai* – often described as “from the mountains to the sea”.

Kāi Tahu values

The following description is a guide to assist in understanding Kāi Tahu values. It is not a complete list of all the values held by Kāi Tahu.

Kāi Tahu do not see their existence as separate from Te Ao Tūroa, the natural world, but as an integral part of it through *whakapapa* (genealogy). *Whakapapa* is central to Te Ao Māori world view, connecting the origins of everything, past and present. It is the foundation upon which all things are built, the web that connects all things together, the anchor which holds all things in place and the means by which all things link back to the beginning of time. It is through *whakapapa* that all things are intricately linked, as well as having their individual place in the world. *Whakapapa* binds Kāi Tahu to the mountains, forests and waters and the life supported by them, and this is reflected in attitudes towards the natural world and resource management.

Whakawhanaukataka, the process of maintaining relationships, embraces *whakapapa* through the relationship between people, and between people and the *environment*. The nature of these

⁹ Section 6 of the Resource Management Act (1991).

¹⁰ Section 8 of the Resource Management Act (1991).

relationships defines people's rights and responsibilities in relation to the use and management of resources.

All things have the qualities of wairua (spiritual dimension) and mauri (life force), and have a genealogical relationship with each other. Mauri is found in all things organic and inorganic. The nurturing of all taoka and protection of their mauri is a prime concern and a kaitiakitaka obligation for Kāi Tahu.

Each Papatipu Rūnaka has its own takiwā determined by whakapapa and its ahi-kā-roa (historical use and occupation). Takiwā are often defined by natural boundaries such as heads, mountain ranges and rivers. This political and operational authority over an area is undertaken by *mana whenua* and encompasses *kaitiakitaka* and rakatirataka. An integral element of the concepts of *kaitiakitaka* and rakatirataka is the recognition that Kāi Tahu have their own traditional means of managing and maintaining resources and the *environment*. This system of rights and responsibilities (encompassing tikaka and kawa) is inherited from previous generations and has evolved over time.

The resources in any given area are a source of prestige for *mana whenua* of that area and are a statement of their identity. Traditionally, the abundance or lack of resources directly determines the welfare of every hapū, and so affects their mana.

Ki uta ki tai

Ki uta ki tai is a philosophy that has become synonymous with the way Kāi Tahu think about natural resource management. Ki uta ki tai is the concept used to describe holistic natural resource management, recognising all environmental elements are interconnected and must be managed as a whole. It is a way of understanding the natural environment, including how it functions, how people relate to it and how it can be looked after appropriately.

Rakatirataka

Rakatirataka is about having the mana or authority to give effect to Kāi Tahu culture and traditions in the management of the natural world. Recognition of the relationship of Kāi Tahu and their culture and traditions with their ancestral lands, *water*, sites, wāhi tapu, and other taoka are embedded in the RMA 1991 and the Treaty of Waitangi.

Kaitiakitaka

Kaitiakitaka means the exercise of guardianship over *natural and physical resources* and includes the ethic of stewardship. This statutory definition of *kaitiakitaka* is only a starting point for Kāi Tahu, as *kaitiakitaka* is a much wider cultural concept than guardianship.

Kaitiakitaka is fundamental to the relationship between Kāi Tahu and the *environment*. The objectives of *kaitiakitaka* are to protect the mauri and life supporting capacity of the *environment* and to pass the *environment* on to future generations in an enhanced state. For Kāi Tahu, *kaitiakitaka* is not passive custodianship, nor is it simply the exercise of traditional property rights, but it entails an active exercise of responsibility in a manner beneficial to the resource.

Tikaka

Tikaka Māori encompasses the beliefs, values, practices, and procedures that guide appropriate codes of conduct, or ways of behaving. In the context of natural resource management, observing tikaka is part of the ethic and exercise of *kaitiakitaka*. It is underpinned by a body of mātauraka (traditional

knowledge) and is based on a general understanding that people belong to the land and have a responsibility to care for and manage the land. It incorporates forms of social control to manage the relationship of people and the *environment*, including concepts such as tapu, noa and rāhui.

Tikaka is based on traditional practices but is dynamic and continues to evolve in response to different situations.

Taoka

All natural resources - air, *land*, *water*, and indigenous *biological diversity* - are taoka. Taoka are treasured resources that are highly valued by Kāi Tahu, derived from the atua (gods), and left by the tūpuna (ancestors) to provide and sustain life. In the management of natural resources, it is important that the habitats and wider needs of taoka species are sustainably managed and enhanced.

Mahika kai

Mahika kai is one of the cornerstones of Kāi Tahu cultural identity. Mahika kai is a term that literally means "food workings" and refers to the customary gathering of food and natural materials and the places where those resources are gathered or produced. The term also embodies the traditions, customs and collection methods, and the gathering of natural resources for cultural use, including raraka (weaving) and rokoā (traditional medicines). Maintaining mahika kai sites, gathering resources, and continuing to practice the tikaka that governs each resource, is an important means of passing on cultural values and mātauraka to the next generation.

Resources of significance to Kāi Tahu

Wai Maori

Like all things, *water* has a whakapapa. All *water* is seen to have originated from the separation of Rakinui and Papatūānuku and their continuing tears for one another. Rain is Rakinui's tears for his beloved Papatūānuku and mist is regarded as Papatūānuku's tears for Rakinui.

From Rakinui and Papatūānuku came the offspring who were responsible for creating the elements that constitute our total world today, both animate and inanimate - the mountains, *rivers*, forests and seas, and all fish, bird and animal life. The realm of atua such as Rakinui and his many wives and offspring overarches and informs the Kāi Tahu whānui world view, values and beliefs.

Water plays a significant role in Kāi Tahu spiritual beliefs and cultural traditions. Kāi Tahu have an obligation through whakapapa to protect wai and all the life it supports, as *ko te wai te ora o kā mea katoa (water is the life giver of all things)*. The condition of *water* is seen as a reflection of the condition of the people. *Toitū te Marae o Tane, toitū te Marae o Takaroa, toitū te Iwi (Protect and strengthen the realms of the land and sea, and they will protect and strengthen the people)*. When the natural environment is strong and healthy, the people are strong and healthy and so too is their mana.

Taoka species and habitats

Taoka species and habitats are those that are treasured by Kāi Tahu, and Kāi Tahu regard all indigenous species as taoka. In many cases taoka species are also mahika kai, treasured for their use as a resource. The Ngāi Tahu Claims Settlement Act 1998 (NTCSA 1998) recognises the relationship Kāi Tahu has with some of these species through the Statutory Acknowledgement for Taonga Species. However, Kāi

Tahu do not consider this list to be comprehensive as important taoka species such as tuna are not included.

Wāhi tūpuna

The value Kāi Tahu attached to land is evident from the fact that every part of the landscape is known and named. *Wāhi tūpuna* (ancestral landscapes) are made up of interconnected sites and areas reflecting the history and traditions associated with the long settlement of Kāi Tahu in Otago. The landscape of Otago includes many *wāhi tūpuna* and areas of significance, reflecting the relationship of Kāi Tahu with the land across the region. These places should not be seen in isolation from one another but are part of a wider cultural setting. For example, an archaeological site adjacent to a *wetland* is likely to be associated with mahika kai resources in the *wetland*. The character of *wāhi tūpuna* in past times is retained in tribal memory, for example through songs, place names and proverbs. When these references to the character of the *wāhi tūpuna* become incorrect due to modification of the *environment*, it negatively affects the Kāi Tahu relationship with that landscape. For example, a waterway named Kaituna would be expected to contain many tuna. A waterway with this name used to exist in central Dunedin, but no longer exists because there is now a city where the waterway once was.

Air and atmosphere (kōhauhau)

In Kāi Tahu traditions, air and atmosphere emerged through the creation traditions and the movement from Te Kore through Te Pō to Te Ao Marama. Following the separation of Raki and Papatūānuku, one of their many children, Tāwhirimātea, fled with Raki into the sky. From there he controls the wind and weather. The air and atmosphere are integral parts of the *environment* that must be valued, used with respect, and passed on intact to the next generation. Pollution of the air and atmosphere adversely affects the mauri of this taoka and other taoka such as plants and animals.

Coastal environment (taku tai moana me te wai māori)

The tūpuna of Kāi Tahu were great ocean travellers. Like many other Pacific peoples, Kāi Tahu are connected by whakapapa to those people who spread across Te-Moana-Nui-a-Kiwa, the Pacific Ocean. Takaroa is the atua who is central to these beliefs, which influence the way Kāi Tahu relate to and manage marine resources. The marine environment is a moving force, a reminder of the power of Takaroa. The coastal environment is particularly significant for Kāi Tahu in the southern South Island. Most of the permanent settlements were established on the coast due, in part, to the moderating influence of the sea on temperature, making the winters less bitter. The coast also had a bounty of kaimoana resources to support coastal settlements.

The *coastal waters* and processes were integral to the way of life tūpuna enjoyed, and the coastal environment continues to support significant mahika kai resources. The *coastal waters* are a *receiving environment* for fresh water, gravels and sediment from the terrestrial landscape, which are important to maintaining natural processes and the domain of Takaroa. Recognising the interconnection of the *land* and sea environments is consistent with the ki uta ki tai philosophy.

Pounamu

Kāi Tahu customs are intricately linked to this special taoka. The practice of gathering, using and trading pounamu bind Kāi Tahu identity to the landscape. Pounamu conveys mana and mauri from ages past, and is reflected in its exalted whakapapa lineage, an uri (descendant) of Takaroa.

As an interim measure, until a Regional Pounamu Management Plan is developed for Otago and Murihiku, a rāhui pounamu has been in place in the Otago region since the passing of the Ngāi Tahu (Pounamu Vesting) Act 1997. This is subject to review by the collective Kaitiaki Rūnaka who will determine appropriate protection, access and use policies applicable to their membership and Ngāi Tahu whānui.

Ngāi Tahu Claims Settlement Act 1998 (NTCSA 1998)

The NTCSA 1998 was enacted to settle historical Ngāi Tahu claims against the Crown. The NTCSA 1998 provides redress for breaches of Te Tiriti o Waitangi and to signal a new age of co-operation of the Crown and its agencies with Kāi Tahu. The Crown apology recorded in section 4 of the NTCSA 1998 explicitly recognises the rakatirataka of Kāi Tahu within its takiwā, and the Act includes specific provisions that provide for exercise of rakatirataka and *kaitiakitaka by mana whenua* in respect to mahika kai, taoka species and other resource management matters. These include rights in relation to the management of specified significant areas (statutory acknowledgement areas, tōpuni and *nohoaka*) and customary fisheries.

Statutory acknowledgement areas

Statutory acknowledgements are recorded in the NTCSA 1998 for several *water bodies*, mountains and coastal features in the Otago Region. These acknowledgements are statements by Te Rūnanga o Ngāi Tahu of the particular cultural, spiritual, historic and traditional association of Kāi Tahu with these areas.

Part 12 of the NTCSA 1998 provides details of statutory acknowledgements, and the responsibilities relating to them. Section 208 of the NTCSA 1998 requires that *local authorities* have regard to these statutory acknowledgements in *resource consent* processing under Section 95 of the RMA in deciding whether Te Rūnanga o Ngāi Tahu may be adversely affected by the granting of a *resource consent* for activities within, adjacent to or impacting directly on the area.

Statutory acknowledgements were intended as a measure to improve opportunities for *mana whenua* engagement in resource management processes, pending broader provision for areas of significance to Kāi Tahu being incorporated into resource management plans in order to protect and restore associated rights, interests and values. The statutory acknowledgements are *wāhi tūpuna*, but *wāhi tūpuna* are not confined to these areas.

The following statutory acknowledgement areas in Otago are recognised in the NTCSA 1998, and their values are described in Schedules to that Act:

- Ka Moana Haehae (Lake Roxburgh) - Schedule 22
- Kakaunui River - Schedule 23
- Kuramea (Lake Catlins) - Schedule 28
- Lake Hāwea - Schedule 30
- Lake Wānaka - Schedule 36

- Mata-Au (Clutha River) - Schedule 40
- Matakaea (Shag Point) - Schedule 41
- Pikirakatahi (Mount Earnslaw) - Schedule 51
- Pomahaka River - Schedule 52
- Te Tauraka Poti (Merton Tidal Arm) - Schedule 60
- Te Wairere (Lake Dunstan) - Schedule 61
- Tititea (Mount Aspiring) - Schedule 62
- Tokatā (The Nuggets) - Schedule 64
- Waihola/Waipori Wetland - Schedule 70
- Waitaki River – Schedule 72¹¹
- Whakatipu Wai Māori (Lake Wakatipu) - Schedule 75
- Te Tai O Arai Te Uru (Otago Coastal Marine Area) - Schedule 103.

Tōpuni

The concept of tōpuni derives from the traditional Kāi Tahu custom of persons of raketira status extending their mana and protection over a person or area by placing their cloak over them or it. A number of areas on public conservation land that have significant values to Kāi Tahu because of their cultural, spiritual, historic and traditional associations are recognised in the NTCSA 1998 as tōpuni. Sections 240 to 246 of the NTCSA 1998 provide for Kāi Tahu consultation on management of these areas, to protect their values. Although the specific provisions in the NTCSA 1998 relate only to management of conservation land, the interests of Kāi Tahu should be recognised and provided for when considering activities in nearby areas that may impact on the values of tōpuni or *waters* flowing from them.

Tōpuni recognised in Otago are:

- Matakaea (Shag Point) – Schedule 83
- Maukaatua Scenic Reserve – Schedule 84
- Pikirakatahi (Mount Earnslaw) – Schedule 87
- Te Koroka (Dart/Slipstream) – Schedule 91
- Tititea (Mount Aspiring) – Schedule 92.

Nohoaka

Nohoanga (or *nohoaka*) entitlements provide a right of seasonal occupation and use for Kāi Tahu whānui on specified areas of Crown-owned land near *water bodies* for harvest of natural resources (sections 255 to 268 of the NTCSA 1998). These rights are intended as partial redress for the loss of mahika kai through alienation of land.

Kāi Tahu interests in these areas should be recognised and provided for when considering management of associated *water bodies* or activities on nearby land. The ability of Kāi Tahu whānui to access and use *nohoaka* as intended is reliant upon protection and restoration of mahika kai values associated with them.

¹¹ The Waitaki River lies within both the Otago and Canterbury regions.

Nohoaka entitlements are listed in Schedule 95 of the NTCSA 1998. In Otago, sites are identified adjacent to the following *water bodies*:

- Waitaki River (two sites)
- Waianakarua River
- Taieri River (three sites)
- Lake Hāwea (three sites)
- Hāwea River
- Lake Wānaka (two sites)
- Lake Wakatipu
- Shotover River (two sites)
- Mata-au Clutha River (four sites).

Customary fisheries

Sections 297 to 311 of the NTCSA 1998 include provisions recognising Kāi Tahu rights and interests in customary fisheries, and provide for involvement in management of these resources through the Conservation Act 1987 and the Fisheries Acts 1983 and 1996.

The interests of Kāi Tahu should be recognised and provided for when considering activities under the RMA 1991 that may impact on customary fisheries, to enable protection and restoration of fisheries habitat. Mātaitai and taiāpure are mechanisms under the Fisheries Act that provide for management of customary fisheries areas and are applicable to both coastal and *freshwater* fisheries environments.

The East Otago Taiāpure is constituted by the Fisheries (East Otago Taiāpure) Order 1999. It includes the estuarine and inshore marine waters between Cornish Head and Potato Point.

There are also four mātaitai in Otago:

- Moeraki Mātaitai Reserve includes areas of *coastal waters* at Moeraki and Katiki (<https://www.mpi.govt.nz/dmsdocument/15220-Moeraki-North-Otago-Mataitai-Reserve>)
- Waikouaiti Mātaitai Reserve includes *freshwater* and estuarine waters of the Waikouaiti River (<https://www.mpi.govt.nz/dmsdocument/12954-Waikouaiti-South-Canterbury-Mataitai-Reserve->)
- Ōtākou Mātaitai Reserve includes most of the Otago Harbor north of a line from Harwood to Pulling Point (<https://www.mpi.govt.nz/dmsdocument/14077-Otakou-mataitai-reserve>)
- Puna-wai-Tōriki (Hays Gap) Mātaitai Reserve includes an area of *coastal waters* north of Nugget Point (<https://www.mpi.govt.nz/dmsdocument/15223-Puna-wai-Toriki-Hays-Gap-South-Otago-Mataitai-Reserve>)

Māori land reserves

A Native Reserve is any property or site that is a:

- Native Reserve excluded from the Ōtākou Land Purchases (1844)
- Native Reserve excluded from the Kemps Land Purchases (1848)
- Reserve granted by the Native Land Court (1868)
- Half Caste Reserve (1881)

- Landless Native Reserve (1896)
- Other reserve (1890 and 1900)

A number of Māori reserves exist that were excluded from the land sales of the 1840s. These reserves are steeped in history and association and are places of belonging. Remaining reserves are located at Moeraki, Waikouaiti, Ōtākou, Onumia, Taieri Mouth, and Te Karoro, Kaka Point. Other categories of Māori land exist at Koputai, Port Chalmers, and Ōtepoti, Dunedin, where tauraka waka, landing sites, were recognised. In addition, land was held at Manuhaea, Lake Hāwea, Aramoana, Clarendon, Taieri Mouth, Tautuku-Waikawa and Glenomaru amongst others. Landing reserves were allocated at Matainaka, Waikouaiti, and the former Lake Tatawai on the Taieri Plains.

The following table lists the reserves in Otago. Many of the sections within these Native Reserves now have the status of general land. While some of this general land is still in Māori ownership, many of the general titled sections have been sold to non-Māori or taken under various pieces of legislation such as the Public Works Act 1981. Although these sections are no longer in whānau ownership, descendants of the original owners retain an ancestral relationship with these lands.

Table 1: Native reserves located within the Otago region

Location	Comments	Reserve Type
Tautuku	Southern block of Tautuku sections	South Island Landless Natives Act
	Northern sections are Reserved lands	Native Reserve
Glenomaru	Located south of Kaka Point	South Island Landless Natives Act
Maranuku	Granted in 1844 as part of the Otakou Purchase. Originally called Te Karoro, split into two reserves	Native Reserve
Clarendon	Located inland from Taieri Mouth	Clarendon Half Caste Reserve
Taieri	Granted in 1844 as part of the Otakou Purchase Deed. Split into three reserves; A, B and C	Native Reserve
Lake Tatawai	Located on the Taieri Plain, south of the Dunedin	Native Reserve
Lake Tatawai	Lake that is now drained	Landing Reserve
Otago Heads Native Reserve	Granted in 1844 as part of the Ōtākou Purchase Deed. Split into four reserves	Native Reserve
Port Chalmers	Granted in 1848 as part of the Ōtākou Purchase Deed. A further grant adjacent to the Reserve was made in approximately 1888	Native Reserve
Aramoana	This reserve resulted from the Purakaunui Half Caste grant	Half Caste Reserve
Purakanui	Granted in 1848 as part of Kemp's Purchase Deed. Further allocations were made in 1868 at Wharauwerawera	Native Reserve
Brinns Point	Granted in the latter part of the nineteenth century	Half Caste Reserve
Karitane (Waikouaiti Native Reserve)	Granted in 1848 as part of Kemp's Purchase Deed	Native Reserve

Matainaka and Hawksbury Fishing Easement	Two fishing easements fall under this reserve, Matainaka, located at Hawkesbury Lagoon at Waikouaiti and the Forks Reserve located inland from Karitane. The legal description for the latter reserve is Section 1N Town of Hawksbury	Fishing Easement
Hawksbury	Located north of Waikouaiti, in the vicinity of Goodwood	Hawksbury Half Caste Reserve
Moeraki	Granted in 1848 as part of Kemp's Purchase Deed. Further awards were made in 1868	Native Reserve
Kuri Bush	10 acre reserve of timber	Native Reserve
Kakanui	Granted in 1848 as part of Kemp's Purchase Deed. By 1853, this Reserve was noted as being abandoned and the 75 acre allocation was added to the southern edge of the Moeraki Native Reserve	Native Reserve
Korotuaheka	Located south of the Waitaki River mouth. Now Reserved as an urupa. It appears this originated as an occupational reserve and Fishing Easement	Partitioned in 1895 Possibly awarded as part of the 1868 awards
Punaomaru	376 acre reserve located approximately 14 miles from the Waitaki River mouth on the south bank of the river	Native Reserve
Lake Hāwea	Reserve of 100 acres situated in the western extremity of the middle arm of Lake Hāwea near a Lagoon. Part of the Reserve was taken for power development in 1962 and the balance of the land was alienated by the Māori Trustee in 1970	Fishing Easement

Mana whenua – local authority relationships

Kāi Tahu relationships with local authorities

There are a number of relationship agreements between Kāi Tahu Ki Otago and *local authorities* in Otago. These include:

- Memorandum of Understanding and Protocol between Otago Regional Council, Te Rūnanga Ngāi Tahu and Kāi Tahu ki Otago for Effective Consultation and Liaison (2003)
- Te Roopū Taiao Otago Charter and Hui (ORC, QLDC, DCC, WDC, CDC, CODC)
- Charter of Understanding signed with Te Ao Marama Inc. and Southland Rūnanga (2016)

Kāi Tahu and Otago Regional Council use the Mana to Mana forum as a means to build a strengthened relationship between the two entities.

He Huarahi mō Ngā Uri Whakatupu¹² is the Charter of Understanding between Ngāi Tahu ki Murihiku (Awarua Rūnanga, Waihopai Rūnanga, Ōraka-Aparima Rūnanga and Hokonui Rūnanga) and the *local*

¹² Available from <https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/iwi-management-plan/documents/The%20Charter%20of%20Understanding.pdf> (accessed 26 May 2021)

authorities. Otago Regional Council and Queenstown Lakes District Council are signatories to He Huarahi mō Ngā Uri Whakatupu as it applies to their areas of jurisdiction.

Hapu and iwi planning documents

There are four iwi planning documents lodged with the *local authorities* in the Otago Region:

- Te Rūnanga o Ngāi Tahu Freshwater Policy 1999
- Kāi Tahu ki Otago Natural Resources Management Plan 2005
- Te Tangi a Tauira: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008
- Waitaki Iwi Management Plan 2019

How the iwi planning documents have been taken into account in this Regional Policy Statement

Objectives and policies of the iwi management plans are reflected in the Resource Management Issues of Significance to Kāi Tahu and have been taken into account in the development of provisions across the whole of this Regional Policy Statement.

How iwi planning documents are used in Otago

The iwi management plans are used to provide cultural context and guidance as to the natural resource values, concerns and issues of Kāi Tahu ki Otago and Ngāi Tahu ki Murihiku.

The iwi planning documents are to be used in the development of planning policy and assist decision-makers to make informed decisions, recognising the local knowledge of the *environment* held by Papatipu Rūnaka and the significance of the natural resource values to Kāi Tahu.

The iwi planning documents are also used to guide consultation with Rūnaka and set out the expectations for consultation. The iwi management plans are not a substitute for direct communication with Papatipu Rūnaka.

Involvement and participation with *mana whenua*

ORC and the *local authorities* will establish and maintain effective resource management relationships with Kāi Tahu based on a mutual obligation to act reasonably and in good faith. The *local authorities* and Otago Regional Council will consult Kāi Tahu at an early stage in resource management processes and implementation, and facilitate efficient and effective processes for applicants to consult Kāi Tahu on *resource consent* applications and private plan change requests.

Local authorities may also delegate and transfer any one or more of their functions, powers or duties to an iwi authority in accordance with section 33 of the RMA, and where this provides an effective service.

***Mana whenua* consultancy services**

The Papatipu Rūnaka consultancy services, Aukaha, representing Kāi Tahu ki Otago, and Te Ao Marama Inc, representing Ngāi Tahu ki Murihiku, facilitate Kāi Tahu engagement in resource management processes and provide a first point of contact for the public seeking to engage with Papatipu Rūnaka.

Other iwi, hapū and mātāwaka

Otago is also home to Māori from other iwi, hapū, and mātāwaka. The Araiteuru marae in Dunedin and Te Whare Koa in Oamaru are important pan-tribal cultural centres for mātāwaka and sit within the manaakitaka of *takata whenua*.

Provisions

Objectives

MW–O1 – Principles of Te Tiriti o Waitangi

The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and Papatipu Rūnaka to ensure that what is valued by *mana whenua* is actively protected in the region.

Policies

MW–P1 – Treaty obligations

Promote awareness and understanding of the obligations of *local authorities* in regard to the principles of Te Tiriti o Waitangi, tikaka Māori and kaupapa Māori.

MW–P2 – Treaty principles

Local authorities exercise their functions and powers in accordance with Treaty principles, by:

- (1) recognising the status of Kāi Tahu and facilitating Kāi Tahu involvement in decision-making as a Treaty partner,
- (2) including Kāi Tahu in resource management processes and implementation to the extent desired by *mana whenua*,
- (3) recognising and providing for Kāi Tahu values and resource management issues, as identified by *mana whenua*, in resource management decision-making processes and plan implementation,
- (4) recognising and providing for the relationship of Kāi Tahu culture and traditions with their ancestral lands, *water*, sites, *wāhi tapu*, and other *taoka* by ensuring that Kāi Tahu have the ability to identify these relationships and determine how best to express them,
- (5) ensuring that *regional* and *district plans* recognise and provide for Kāi Tahu relationships with Statutory Acknowledgement Areas, *tōpuni*, *nohoaka* and customary fisheries identified in the NTCSA 1998, including by actively protecting the *mauri* of these areas,
- (6) having particular regard to the ability of Kāi Tahu to exercise *kaitiakitaka*,
- (7) actively pursuing opportunities for:
 - (a) delegation or transfer of functions to Kāi Tahu, and
 - (b) partnership or joint management arrangements, and
- (8) taking into account iwi management plans when making resource management decisions.

MW–P3 – Supporting Kāi Tahu well-being

The natural environment is managed to support Kāi Tahu well-being by:

- (1) protecting customary uses, Kāi Tahu values and relationships of Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities,
- (2) safeguarding the mauri and life-supporting capacity of natural resources, and
- (3) working with Kāi Tahu to incorporate mātauraka in resource management.

MW–P4 – Sustainable use of Māori land

Kāi Tahu are able to protect, develop and use *land* and resources within native reserves and *land* held under Te Ture Whenua Māori Act 1993 in a way consistent with their culture and traditions and economic, cultural and social aspirations, including for *papakāika*, marae and marae related activities, while:

- (1) avoiding adverse *effects* on the health and safety of people,
- (2) avoiding significant adverse *effects* on matters of national importance, and
- (3) avoiding, remedying, or mitigating other adverse *effects*.

Methods**MW–M1 – Collaboration with Kāi Tahu**

Local authorities must collaborate with Kāi Tahu to:

- (1) identify and map places, areas or landscapes of cultural, spiritual or traditional significance to them,
- (2) protect such places, areas, or landscapes, and the values that contribute to their significance,
- (3) identify indigenous species and ecosystems that are taoka in accordance with ECO–M3, and
- (4) identify and map outstanding natural features, landscapes and seascapes, and highly valued natural features, landscapes and seascapes and record their values.

MW–M2 – Work with Kāi Tahu

Local authorities must consult with Kāi Tahu to:

- (1) determine appropriate naming for places of significance in Otago,
- (2) share information relevant to Kāi Tahu interests, and
- (3) develop research and monitoring programmes that incorporate mātauraka and are led by *mana whenua*.

MW–M3 – Kāi Tahu relationships

Local authorities must develop processes to:

- (1) establish and maintain effective resource management relationships with Kāi Tahu based on a mutual obligation to act reasonably and in good faith,

- (2) involve Kāi Tahu at an early stage and throughout resource management processes and implementation, and
- (3) facilitate efficient and effective processes for applicants to consult Kāi Tahu on *resource consent* applications, private plan change requests, notices of requirement, and notices of requirement for heritage orders.

MW–M4 – Kāi Tahu involvement in resource management

Local authorities must facilitate Kāi Tahu involvement in resource management (including decision making) by:

- (1) including accredited Kāi Tahu commissioners on hearing panels for *resource consent* applications, notices of requirements, plan changes or plans where Kāi Tahu values may be affected,
- (2) resourcing Kāi Tahu participation in resource management decision making, including funding,
- (3) joint management agreements and full or partial transfers of functions, duties or powers from *local authorities* to iwi authorities in accordance with section 33 of the RMA 1991, and
- (4) entering into a Mana Whakahono ā Rohe with one or more iwi authorities.

MW–M5 – Regional and district plans

Local authorities must amend their *regional* and *district plans* to:

- (1) take Iwi Management Plans and resource management issues of significance to Kāi Tahu (RMIA) into account,
- (2) provide for the use of native reserves and *land* held under Te Ture Whenua Māori Act 1993 in accordance with MW–P4, and
- (3) incorporate active protection of areas and resources recognised in the NTCSA 1998.

MW–M6 – Incentives and education

Local authorities are encouraged to use other mechanisms or incentives to assist in achieving Policies MW–P1 to MW–P4, promoting awareness and improving knowledge of tikaka and the principles of Te Tiriti o Waitangi among staff and stakeholders, including through hiring practices, induction programmes, key performance indicators and training activities.

MW–M7 – Advocacy and facilitation

Local authorities may facilitate negotiations with landowners to provide Kāi Tahu access to sites of significance to Kāi Tahu that do not have suitable access.

Explanation

MW–E1 – Explanation

The policies in this section are designed to achieve MW–O1 by setting out the actions that must be undertaken by *local authorities* to ensure the principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions. The policies also require the development and implementation of planning tools which recognise the role of Kāi Tahu in resource management and ensure their engagement with and participation in resource management.

Principal reasons

MW–PR1 – Principal reasons

Te Tiriti o Waitangi creates a special relationship between *takata whenua* and the Crown. Section 8 of the RMA 1991 requires *local authorities* to take the principles of Te Tiriti o Waitangi into account. These principles include *kāwanataka*, *rakatirataka*, partnership, participatory decision making and active protection of Kāi Tahu resources. Section 7(a) of the RMA 1991 requires decision makers to have particular regard to *kaitiakitaka*. Effective *kaitiakitaka* is dependent upon the extent to which Kāi Tahu can exercise *rakatirataka*, which requires the authority and ability to make decisions relating to management of resources.

Local authorities need to incorporate Treaty principles into their decision making and ensure they are properly applied, to account for the *effects* of resource management decisions on Kāi Tahu values, including those described in iwi resource management plans. Deliberate measures need to be taken to ensure the principles are well understood. The principles are broadly expressed, so a measure of flexibility is needed in applying them.

The provisions in this chapter assist in implementing sections 6(e), 7(a) and 8 of the RMA 1991 by requiring a partnership approach which involves Kāi Tahu and considers *mana whenua* rights, interests and values in decision making processes, and enables Treaty principles to be taken into account in an appropriate way.

Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions. However *local authorities* may also adopt additional non-regulatory methods to implement the policies and support achievement of the objective.

Anticipated environmental results

- MW–AER1** Resource management processes and decisions reflect the principles of Te Tiriti o Waitangi.
- MW–AER2** Strong relationships between Kāi Tahu and *local authorities* facilitate the exercise of *rakatirataka* and *kaitiakitaka* by *mana whenua* in relation to their taoka tuku iho.

PART 2 – RESOURCE MANAGEMENT OVERVIEW

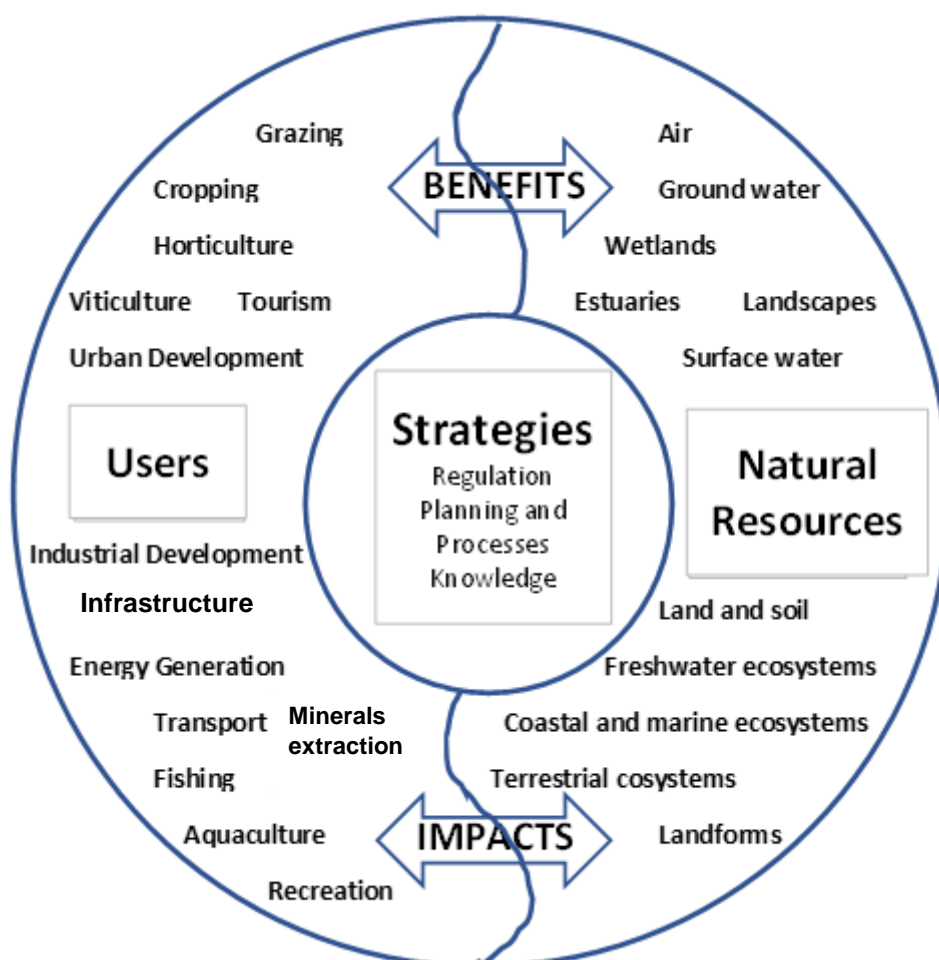
SRMR – Significant resource management issues for the region

Introduction

Otago's people and communities rely on the natural resources that Otago's *environment* provides to enable their social, economic, and cultural well-being. Natural resources include *freshwater* (i.e. surface and *groundwater*, *wetlands*, estuaries), *land*, terrestrial and *freshwater* ecosystems, coastal and marine ecosystems, and air, landscapes, vegetation and natural landforms.

From an economic perspective natural resources support, and are impacted by, agricultural industries (e.g. grazing, cropping, horticulture, viticulture), urban development, industrial development, *infrastructure*, energy generation, transport, marine industries (fishing and aquaculture), tourism and mineral extraction. From a social and cultural perspective natural resources support and are impacted by recreation, housing, and cultural activities (Refer Figure 2).

Figure 2 - Relationships between natural resources, resource use and strategies



This RPS identifies the eleven most significant issues impacting the Otago region. Issues firstly considered include *natural hazards*, *climate change*, pest species, *water* quantity and quality, and biodiversity loss, collectively the “natural asset-based issues”. Two “place-based issues” of regional significance are then addressed - being Otago’s coast and Otago’s *lake* areas. Finally, issues of economic and domestic pressures, cumulative impacts and *resilience* are considered.

While the issues in this section are considered individually, this RPS considers and responds to them in a joined-up manner as part of a complex system with biophysical limits, inherent uncertainty, potentially irreversible and sometimes catastrophic impacts, and interdependent behaviours.

Each issue is considered in the following manner:

- an issue statement
- context
- impacts on the *environment*, economy, and society

SRMR-I1 – *Natural hazards pose a risk to many Otago communities*

Statement

An earthquake on the Alpine Fault would cause potentially catastrophic impacts on the entire region. Particular areas in Otago are prone to flooding. A major hazard event could isolate all or parts of Otago for an extended time.

Context

The Otago region is exposed to a wide variety of *natural hazards* that impact on people, property, *infrastructure*, historic heritage and the wider *environment*. When a *natural hazard* event occurs, it is usually difficult and costly for a community to recover. The *natural hazard* threats range from coastal erosion and flooding in lowland coastal areas to alluvial fan deposition, landslip, rock fall, seismic events (earthquake and tsunami), wind, snow, drought and riverbank breaches.

Frequent heavy rainstorms, the steep gradients of many *river* catchments and human occupation of floodplains combine to make flooding the most frequently occurring *natural hazard* event in the Otago region. For example, flooding can affect Otago's main urban centres causing damage to housing and business disruption, and agriculture can be disrupted in Otago's floodplains (lower Clutha and Taieri).

Seismic *risks* are widespread in Otago as evidenced by the region's active faults, being the Cardrona, Dunstan, Rough Ridge, Hyde, Taieri Ridge, Waihemo and Akatore faults. The Alpine Fault in the Queenstown Lakes District has an estimated 75% probability of causing a major earthquake in the next 50 years with associated large-scale destruction.

Otago's coastline is exposed to tsunamis, from local offshore faults and nearby subduction zones, such as the Puysegur Trench (south of the South Island). The stretch of the Otago coastline north of the Otago Peninsula has a greater level of exposure to tsunamis generated from South America.

Natural hazards may be exacerbated by the *effects* of *climate change*, which include sea level rise, and greater frequency and intensity of extreme weather events. Elevated sea levels resulting in flooding can occur as a result of a combination of tides, storm surge, and waves. There are several low-lying areas in relatively close proximity to the coast that have been identified as being at *risk*, such as South Dunedin.

Parts of the Otago coastline (which is a soft coast formed by material such as sand or gravel) are also prone to significant coastal erosion. Coastal erosion is a *risk* in Waitaki District, Dunedin City and along the Clutha River Delta, potentially affecting communities and *infrastructure* near the coast.

Impact snapshot

Environmental

Ecosystems (from the mountains to the coast), *water bodies* and *water* quality (*rivers, lakes, wetlands* and *ground water*) are variously at *risk* of increased frequency and intensity of flooding and landslides. Seismic events result in liquefaction of land and associated soil disturbance, elevated sea levels and associated flooding, potential permanent inundation and coast erosion. While *effects* are localised, *natural hazard* impacts can be significant where threatened ecosystems or species are involved.

Economic

Otago's primary industries, *infrastructure*, energy and transport systems, and urban areas are exposed to the full range of hazards noted above, with potential for major-to-catastrophic economic consequences, including damage to production, *infrastructure* such as transport routes (highways, bridges), the built environment and communications, and often resulting in supply chain disruptions. Natural hazards could also impact on renewable electricity generation in the region with subsequent impact on electricity generation capacity.

For individuals and households this can result in changes to employment, income, assets and consumption patterns, disruption to social protection, services, social safety net mechanisms and institutions.

For industry, hazards can damage production assets and *infrastructure* with associated costs, disrupt service delivery and limit availability and access to goods and services, and cause decline in sales and increased costs. Loss or changes in production flows can be either temporary or permanent depending on financial *resilience* of businesses, which is a function of their existing loan commitments, credit worthiness and insurance cover. Food security can also be affected.

Social

Social impacts can be direct (e.g. physical destruction of housing or transport route, human physical harm) but equally important are indirect and secondary impacts of disasters, including the destruction of communities and the negative impacts on people. Physical impacts and community dislocation can also cause long term psychological stresses affecting people's coping mechanisms, recovery sources and capacity which can test the *resilience* of a community.

Social impacts of events can result in immediate impacts on livelihoods for individuals and families, particularly for lower socio-economic groups. Health services disruptions can occur, including access to and changes in demand for services. Similarly, there can be disruptions to education service delivery. Housing impacts may require urgent provision for basic human needs including replacement shelter and housing, and food and *water* immediately following an event.

Damage to *infrastructure* and assets may have varying impacts on different groups, for example those with less resources may have less capacity to respond to hazard events and be more impacted as a result. The relationship between affected people and their cultural assets may also be affected, for example customs and traditions related to housing, health, livelihoods, and nutrition.

SRMR–I2 – *Climate change is likely to impact our economy and environment*

Statement

Otago's climate is changing, and these changes will continue for the foreseeable future. Central Otago is likely to see more varied precipitation, leading to increased flooding and reduced *water* reliability. This will be compounded by stronger winds, increased temperatures and longer dry periods, which may affect the number and types of crops and animals that the land can sustain. On the coast, low lying areas like South Dunedin are at *risk* of inundation from rising sea levels. This will also exacerbate coastal erosion, which could damage coastal *infrastructure* (including *roads*), damage historic heritage, particularly *wāhi tūpuna*, and expose old waste dumps (e.g. at Middle Beach). *Climate change* will also affect native animals and plants, compounding the impacts of existing pests and stresses and providing opportunities for new pests to establish themselves due to changed conditions. The impact of other *climate change* threats is unpredictable.

Context

The rate of future *climate change* depends on how fast *greenhouse gas* concentrations increase. These changes are expected to result in higher temperatures, changes in precipitation, drought, fire weather, extreme weather events, inland and coastal flooding, landslides and soil erosion, salinity, sea level rise, erosion, reduced snow and ice, and marine heatwaves.

It is expected temperatures will increase across Otago, and by 2090, Otago is projected to have from 4 to 25 extra days per year where maximum temperatures exceed 25°C, with around 13 to 45 fewer frosts per year (and consequently less snow). Precipitation overall will increase slightly (by up to 10%), more so in the western part of the region, with less precipitation in central and eastern Otago. There will be an increase in average annual flows across the region, apart from the Taieri and North Otago, and flooding will be more severe – there will be an increase in the mean annual flood by 100% in some locations by the end of the century.

Impact snapshot

Climate change impacts arising from changes in temperature, rainfall, *river* flows and flooding have been assessed in the Otago Regional Council's commissioned report: Otago Climate Change Risk Assessment Phase 1 report (OCCRA report).¹³ The following discussion is based on potential *climate change* impacts at 2050.

Environment

For terrestrial native ecosystems and species, higher frequency of severe events (e.g. high/low temperatures, intense rainfall, drought, fire weather) could reduce *resilience* of native terrestrial ecosystems and species over time with adverse impacts on biodiversity. Native species (including *threatened species*) and ecosystems are also likely to be affected by increased competition with invasive species/pests favoured by warmer temperatures, particularly with milder winters. This could be a contributory *risk* factor (but not sole cause) for native species that are threatened or close to extinction.

For marine and coastal ecosystems and species, potential climate impacts include lower ocean productivity and impacts on feeding grounds (e.g. decreasing the population of yellow-eyed

¹³ Tonkin+Taylor, 2020, Otago Climate Change Risk Assessment (Commissioned by the Otago Regional Council)

penguins); ocean acidification; and changes in species diversity/distribution (e.g. reducing kelp forests). Increased intensity of flooding would result in an increase in sediment which will change the physical composition of *freshwater* and marine waters and, for example, may reduce light availability, smother fragile habitats, or impact on the foraging ability of some species, particular those that rely on vision (e.g. yellow-eyed penguins). New pests and disease threats may arise from marine heatwaves/warmer ocean temperatures. Warmer temperatures could also reduce oxygen and cause stratification in shallow bays (resulting in *water* quality impacts). Sea level rise will also affect coastal habitats and ecosystems (inter-tidal zones, sand dunes). *Groundwater* impacts will include coastal aquifers being affected by salinisation, and reduced rainfall in some areas will affect *groundwater* recharge, flow and surface *water discharges*, with potential adverse impacts on ecosystems and species dependent on *groundwater*.

By 2090, the time spent in drought ranges from minimal change through to more than double, depending on the climate model and emissions scenario considered. More frequent droughts are likely to lead to *water* shortages, increased demand for irrigation and increased *risk* of wildfires. Reduced snowfalls may affect *water* availability since snow acts as a storage mechanism until the *water* is required in summer.¹⁴ As a result, *river* ecosystems could be altered through reduced flows during drought periods with associated declining *water* quality, reduced food resources, and availability of habitats. This would affect ecosystems for key species, such as *river* nesting birds and endemic *freshwater* fish species.

Lakes could be subject to temperature increases. This can impact on the health of *lake* ecosystems, for example algal blooms. *Wetland* plant species and *wetland* habitats, and other species reliant on *wetlands* (including threatened bird species) are at *risk* of being negatively impacted. There are also likely to be cascading impacts on surrounding *environments* and ecosystems from hydrological changes (e.g. increased flood *risk*/changing *water* flows due to *wetland* loss). Coastal *wetlands* are particularly at *risk* due to salinisation from sea level rise and coastal flooding.

Economy

Regional industry

Climate change impacts will result in both impacts and opportunities for regional industry in terms of jobs, business income and profitability. Key industries likely to be impacted include sheep, beef, dairy and deer farming, cropping and viticulture, forestry, fisheries and aquaculture, as well as tourism. For example, agriculture may benefit from warmer temperatures, longer growing seasons and elevated carbon dioxide concentrations leading to better pasture and crop growth. *Climate change* may also result in shifting land-use activities to adapt to altered climate conditions, which will incur costs, and potentially enable resources previously unviable to come into production.

However, these benefits may be limited by negative *effects* of *climate change* such as prolonged drought and increased flood *risk*. Some of these impacts can be mitigated by adaptation, for example, planting new crops that are better suited to new climatic conditions or through changes in crop intensification, or *water* harvesting practices. Pests and diseases could spread in range and severity, and pasture composition is likely to change with uncertain impacts on animal productivity and nutrient balances.

For tourism, there will be negative impacts on skiing where the number of snow days experienced annually could decrease by as much as 30-40 days in some parts of the region. The duration of snow

¹⁴ <https://www.mfe.govt.nz/climate-change/likely-impacts-of-climate-change/how-could-climate-change-affect-my-region/otago>
(Accessed 26 May 2021)

cover is also likely to decrease, particularly at lower elevations. This will also lead to reduced summer waterflows.

Built environment

For Otago, by 2050, the built environment will experience high to extreme impact *risks* to *wastewater* and *stormwater infrastructure*, roads and bridges, airports, stop banks and flood management schemes, and rural drainage. Medium to extreme impact *risks* are expected to affect urban and rural housing, *water supply*, *landfill* areas; and medium level *risks* are likely for commercial and public *buildings*, open space, rail, and ports.

The main threat to the *urban environment* comes from possible increases in heavy rainfall, which would put pressure on drainage and *stormwater* systems and increase the *risk* of flooding in some areas. Erosion could also increase *road* maintenance costs. There is greater risk of wastewater network overflows, and wastewater treatment plants being compromised.

Warmer conditions will substantially reduce home heating costs, leading to reduced electricity demand during the peak winter season, but possibly increase demand for air conditioning during summer. A reduced winter demand for electricity, combined with an increased availability of *water* in hydroelectric storage *lakes* from projected rainfall increases over the Main Divide, would provide the opportunity for a more balanced annual cycle in electricity supply and demand.¹⁵

Areas of particular concern include inland areas of flooding *risk* including South Dunedin, Mosgiel, and Milton; coastal erosion *risk* areas including St Kilda, St Clair, Clutha Delta, Moeraki, and Oamaru; sea level rise and salinity *risk* areas including South Dunedin, Harbor Basin, Aramoana, and Kaka Point.

Social

Changes to the economy generally and in relation to local shift in economic activity because of *climate change* may impact on community cohesion and *resilience*, and mental well-being and health. Higher temperatures could reduce illness in winter but can increase heat stress in summer. Higher levels and duration of ultraviolet radiation could increase skin cancer *risks*. Insect pests could increase, adversely impacting outdoor recreation experiences.

Differentiation may occur between highly *resilient* (high social capital, high income and politically empowered) and non-*resilient* communities (especially those with low adaptive capacity, such as low-income and marginalised groups) which has the potential to increase socio-economic and intergeneration and intrageneration inequality.

SRMR–I3 – Pest species pose an ongoing threat to indigenous biodiversity, economic activities and landscapes

Statement

Pest species can be found throughout Otago, from alpine to marine environments. Rabbits are changing Central Otago's landscape, eroding soils and affecting agriculture. *Wilding conifers* threaten high country and tussock grassland, changing the landscape and impacting on recreational, hydrological and conservation values. Aquatic pests and weeds such as didymo, lake snow and *lagarosiphon* affect our *lakes* and *rivers*. Invasive marine species affect our marine waters. Native

¹⁵ <https://environment.govt.nz/assets/Publications/Files/impacts-report-jun01.pdf> (Accessed 28 May 2021)

aquatic plants are displaced, impacting ecosystem and indigenous biodiversity health and recreation activities.

Context

Otago's landscape and climate support many plants and animals considered to be pests. This includes weeds, vertebrate pests (e.g. rabbits), invertebrate pests (e.g. pathogenic pest diseases (e.g. foot and mouth disease, pine needle diseases)), and *freshwater* and marine pests which are all biosecurity threats in the Otago region.

There are 35 listed weed species in Otago, and 11 listed animal pests. Pest management approaches include exclusion and surveillance (e.g. African feather grass), attempted eradication (e.g. wallabies and rooks), containment (e.g. *bomarea*) and sustained control (e.g. rabbits, gorse and broom). The approach deployed depends on the degree to which species are entrenched.

The Otago Pest Management Plan 2019-2029¹⁶ seeks to meet ORC's responsibilities under Part 2 of the Biosecurity Act 1992 to provide regional leadership through activities that prevent, reduce, or eliminate adverse *effects* resulting from harmful species that are present in the region. That plan details which approaches are to be used for which pest species, and the methods to be used for control.

In conjunction with that Plan, ORC has also established a Biosecurity Strategy (the Strategy) which sets out ORC's objectives for biosecurity management in the region using the full range of statutory and non-statutory tools available. Strategy priorities provide for protection of indigenous biodiversity, protection of landscape, recreation, cultural and *amenity values* and minimising the impact on agricultural production. The Strategy also supports pest management and seeks to integrate the regulatory and non-regulatory programmes. Collaborative partnership models of pest management are increasingly being developed and adopted in conjunction with community groups and land holders.

Impact snapshot

Environmental

Otago is one of the most biodiverse regions in New Zealand, with high levels of endemism. It is also one of the most modified regions in New Zealand. Both plant and animal species pests have significant impacts on biodiversity. Pests can also adversely impact natural features and landscapes.

Vertebrate browsing pests such as rabbits and wallabies cause erosion and damage to land in both introduced pastures and native tussock communities. Severe erosion can have adverse *effects* on *water* quality. Rats and stoats predate on native birds, while deer destroy native vegetation, and possums compete with native birds for hollows and have also been known to predate on chicks. Possums spread viruses and diseases such as bovine tuberculosis, which can have severe impacts on stock.

Weeds smother and compete with native vegetation, taking up available nutrients, *water*, space and sunlight. They reduce natural diversity and prevent native plants growing back after clearing, fire and other disturbance. Nationally, weeds will potentially affect 7% of the conservation estate within a decade, corresponding to a loss of native biodiversity equivalent to \$1.3 billion.¹⁷ For example, wilding

¹⁶ https://www.orc.govt.nz/media/8029/orc-pest-management-plan-2019_final_digital.pdf (accessed 26 May 2021)

¹⁷ <https://www.royalsociety.org.nz/news/pests-costing-economy-and-environment-billions> (accessed 26 May 2021)

pinus are a significant issue for the Otago region as well as nationally, where they threaten high country and tussock grassland, increase fire *risk*, and reduce *water* yield in *water* short catchments, change the landscape and negatively impact recreational, hydrological and conservation values.

Pest species destabilise aquatic habitats and negatively modify *water* flow with consequences for drainage, irrigation, power generation and recreational activities. The introduction of the *freshwater* diatom didymo (*Didymosphenia geminata*) in South Island streams is an example.¹⁸

Economic

Pests can cause economic losses because of reduction in production, quality, efficiency and or functionality. This can include lost crop production, higher *water* requirements and reductions in animal health. Weeds can affect wool quality, taint meat and milk, damage the feet of stock and, in some instances, be toxic.

Costs to agriculture, business and government to control pests and mitigate impacts are considerable, as are biosecurity costs to prevent pest incursion which are reflected in biosecurity fees and taxes. Biosecurity failure can have serious economic impacts on existing industries e.g. through the importation of fruit infected with fruitfly in a traveller's bag. Pests also adversely affect tourism through loss of landscape values (e.g. wilding pines) and *amenity values* (e.g. didymo compromising fishing) which lead to reduced visitor experiences.

Weeds, for example, are conservatively estimated to cost the New Zealand economy \$1.6 billion per annum¹⁹ in terms of loss of economic production, management and control costs. They also affect landscape amenity value and tourism experiences relied upon by the tourism sector. Weeds can also adversely impact *infrastructure*, for example, *water* systems including irrigation, dams, and levies; power systems (e.g. generation penstock, gates, valves, surge tanks, transmission lines); and transportation systems (e.g. *road* beds, *lake* and *river* transportation, airstrips).

Social

Recreation values can be impacted through loss of amenity, access or landscape values. Pests can also cause human health problems. For example, some weed pollens can induce asthma and cause allergies (e.g. hay fever).²⁰ Zoonoses (bacterium, viruses, parasites, prions) can result in diseases being transferred from animals to humans and include, for example, leptospirosis and campylobacter.

SRMR–I4 – Poorly managed urban and residential growth affects productive land, treasured natural assets, infrastructure and community well-being

Statement

Natural resources used for urban development are permanently transformed – with the opportunity cost of removing urban activity being too high for land to revert to productive uses. Frequently, places that are attractive for urban growth also have landscape and productive values all of which must be balanced and where possible protected. The growth of Wanaka and Queenstown is changing the natural landscape. Mosgiel's growth is occurring on some of Otago's most highly productive soil, which

¹⁸ SL Goldson, GW Bourdôt, EG Brockerhoff, AE Byrom, MN Clout, MS McGlone, WA Nelson, AJ Popay, DM Suckling & MD Templeton (2015) New Zealand pest management: current and future challenges, *Journal of the Royal Society of New Zealand*, 45:1, 31-58, DOI: 10.1080/03036758.2014.1000343

¹⁹ <https://www.tandfonline.com/doi/abs/10.1080/14735903.2017.1334179?journalCode=tags20> (accessed 26 May 2021)

²⁰ <http://www.allergy.org.nz/site/allergyvz/files/Annual%20Pollen%20Calendar.pdf> (accessed 26 May 2021)

removes the option for agriculture. Towns like Arrowtown, Clyde and Milton experience poor air quality in winter, while experiencing pressure to grow.

Context

How urban areas function and grow now and in the future can directly impact on a significant proportion of the current and future urban population and correspondingly future environmental, economic, social and cultural outcomes and well-being. Most of Otago's population (87% or 225,186²¹ in 2018) live in urban areas, while non-urban areas comprise 99% of the region.²² Otago's total population under a medium scenario is projected to increase by 20% between 2018 and 2048, with Queenstown-Lakes population projected to grow by 60%, Central Otago by 42%, Dunedin and Waitaki by 8%, and Clutha by 4% over the same period.²³

Otago's urban areas, like its people and landscapes, are also diverse. The attraction of urban areas results from the benefits of proximity and access to a variety of other people, experiences, goods, services (e.g. shopping, education, specialist service providers, recreation and leisure facilities and *infrastructure* (usually described as agglomeration effect)). These are generally considered to exceed the inconveniences such as congestion, pollution, and noise. Growth in some urban areas and demand for living in and visiting Otago can also be driven by proximity and access to highly valued natural features, such as the coast, mountains, *lakes*, and *rivers*. The open space and landscapes provided in rural areas also drives demand for rural residential living, particularly in areas with these qualities that are also in relative proximity to urban services.

Well-functioning urban places need to be dynamic and efficient, enable human social interactions and provide a wide variety of housing, employment, service and recreational opportunities that meet changing needs and preferences, in a way that maximises the well-being of all its present and future inhabitants, and respects its history and historic heritage, its setting and the *environment*. This requires well located development, supported by the necessary infrastructure.

Urban growth, especially if it exceeds *infrastructure* capacity (either through sheer pace and scale or by lack of planning) or if it occurs in a way or at a rate that mean that appropriate *infrastructure* is not provided, is lagging or is inefficient, can result in adverse impacts on the *environment*, existing residents, business and wider society. Quality urban environments are those that maximise the positive aspects of urban areas and minimise the negative.

Impact snapshot

Environmental

Urban areas and associated concentration of human activity result in adverse impacts on the natural environment, as a result of land consumption, landscape, waterway and vegetation modification for housing, industry, transport of goods and people and recreation areas, the diversion and use of *water*, and waste disposal and effluent and pollution *discharges* to air, *land* and *water*. All of these can also impact *mana whenua* values. These impacts can also result in loss or impediment of access to important resources including significant biodiversity or natural features and landscapes.

²¹2018 Census place summaries: Stats NZ. (n.d.). Retrieved June 29, 2020, from <https://www.stats.govt.nz/tools/2018-census-place-summaries/otago-region> (accessed 26 May 2021)

²² The rural/urban area definitions in this paragraph are taken from Statistics New Zealand Urban/Rural Classification at the SA2 geographic level using usually resident population data from the 2018 Census

²³ Statistics New Zealand Subnational Population Projections, 2018 base, published 31 March 2021 . (accessed 26 May 2021)

Urban development can also lead to reverse-sensitivity *effects* whereby traditional methods of pest management or the undertaking of rural production activities cannot be deployed due to the proximity of urban populations and the potential for adverse impacts on those populations. Urban growth can also impact air quality, through increased vehicle use, but also particularly where *solid fuel* burners are used, noting they are the heating of choice in Otago. Urban areas such as Arrowtown, Cromwell, Alexandra, Clyde, Milton, and Mosgiel already do not meet National Environment Standards for Air Quality (NESAQ), for example. Emissions from existing domestic fuel burners account for more than 95% of winter *PM₁₀* emissions in all of these towns but Milton.²⁴ Air quality in urban areas in Otago therefore needs to be addressed from two perspectives, dealing with existing problems and, in areas where further development is planned, addressing the additional impact that development may have.

Economic

While potentially providing short term commercial returns, poorly managed urban growth and development may result in long term impacts including:

- the loss of productive land (either directly through building on it, or indirectly through reverse sensitivity effects);
- the consequences of previous decisions (low density development, including rural residential, in the short term can preclude higher density development in the medium to longer term);
- increased capital and operational costs for *infrastructure* which can foreclose other more suitable investments or spending, increased costs from less efficient spatial arrangements (such as increased transportation and *infrastructure* costs to both users and operators), and loss of valued natural capital and future opportunities; and
- housing affordability can be negatively affected by urban growth where demand outpaces supply.

In Otago, housing has been more affordable for homeowners than the NZ average in recent years, however house value growth has been higher in Otago (12.6% per annum) than the NZ average (7%) since 2017.

The costs and negative impacts from ‘over planning’ for growth are much lower than the direct and wider costs and risks of under-planning, and largely relate to the provision of infrastructure ahead of demand. While this can cause financial and operational issues for infrastructure providers, undersized or delayed infrastructure also generates impacts for those providers, and the wider economy, through delayed, foregone, or less appropriate or efficient development, and contributes to rising housing and land costs.

Social

Adverse impacts from inefficient or poorly planned urban development affect the well-being of both individuals and communities. This shows up as health risks as a result of increased air pollution and *water* pollution, decreased social capital and mental health in fragmented, disconnected and dispersed communities and inequality impacts arising from less-competitive land and house markets and reduced housing choice and access to affordable housing.

Changes in the overall number of people and changes in preferences can alter the relative balance between supply and demand for housing and where supply is unable to respond in a timely way to demand, this can impact on prices for housing, including rent. These impacts can disproportionately

²⁴ “Alexandra, Arrowtown, Mosgiel and Milton Air Emission Inventory – 2016” & “Wanaka, Cromwell and Clyde Air Emission Inventory - 2019”, prepared by Emily Wilton, Environet Ltd, for Otago Regional Council.

affect people on lower incomes who may already face affordability issues, and accordingly have less options. While Otago has traditionally been relatively affordable, house prices have risen rapidly across almost all districts, at a rate higher than the national average.

Transportation of goods and people between and within urban areas can also generate impacts on humans. For example, increased traffic congestion and lack of safe and attractive alternatives within urban areas impacts people and businesses living near to high volume traffic routes, resulting in lost time for family and other activities for those who use them, and *road* fatalities on rural highways.

Urban growth has the potential, through good development planning and provision of appropriate infrastructure, to improve well-being by providing an increased range of housing types in more locations, resulting in greater range of prices. Well planned subdivisions provide opportunities to increase public access to natural environments, including to the coast (e.g. via esplanades, *lakes*, *rivers* and their margins), to protect areas of cultural or historic significance and to provide means or other measures for their protection, such as through restrictive covenants. Poorly managed growth can compromise both access to and protection of natural and cultural environments, and as subdivision and development is effectively permanent and irreversible, it is important that it is done well with an eye to the longer term.

SRMR–15 – *Freshwater* demand exceeds capacity in some places

Statement

In *water*-short catchments, *freshwater* availability may not be able to meet competing demands from the health and well-being needs of the *environment*, the health and well-being needs of people, and the ability of people and communities to provide for their social, economic and cultural well-being. Many of these catchments are also experiencing urban growth, changes in rural *land* uses, and increased demand for hydro-electric generation. Individually and cumulatively these can alter demand including further increases in demand on *freshwater* supply. Some catchments are complex, making it challenging to identify or mitigate these *effects*.

Context

Freshwater, including *rivers* and streams, *lakes*, *groundwater* systems, and *wetlands*, is a finite resource, critical to the environment, society and the economy. In Otago, access to, allocation, and use of *freshwater* reflects current demands and historical development associated with “deemed permits” (water permits under the RMA 1991) and a permissive water resource management regime. The deemed permits originated from mining licences issued under historic mining legislation and which enable water to continue to be used for a range of uses until October 2021.

Population growth and land-use intensification in urban and rural environments can create increased demand for *freshwater* for human consumption, irrigation and other economic uses. *Freshwater* resources in some places are reaching, or are beyond, their sustainable abstraction limits. However, there continues to be debate in the community about how historical *freshwater* allocations can be adjusted to achieve a balance of economic, environmental, social and cultural needs.

On 3 September 2020, new National Environmental Standards for Freshwater (NESF) and a new National Policy Statement for Freshwater Management (NPSFM)²⁵ came into force. They have a goal

²⁵ <https://www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-policy-statement-freshwater-management> (accessed 26 May 2021)

of improving *freshwater* quality within five years, reversing past damage and bringing New Zealand's *freshwater* resources, waterways and ecosystems to a healthy state within a generation. The NPS-FM also clarified the need to provide first for the health and well-being of *water bodies* and *freshwater* ecosystems; then health and needs of people (such as *drinking water*); and finally the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Impact snapshot

Environmental

Freshwater abstraction can reduce *water* level or flow and connections between different *water bodies*. This can negatively impact ecosystems by affecting²⁶ *freshwater* habitat size and the shape and condition of the *water body*, including *bed*, banks, margin, riparian vegetation, connections to *groundwater*, *water* chemistry (for example by increasing concentrations of pollutants), and interaction between species and their habitat. How much an ecosystem is affected by taking *freshwater* is determined by departure from natural flow regimes, taking into account magnitude, frequency, timing, duration and rate of change, and ecosystem capacity to recover.

Economic

Freshwater in the Otago region is a factor of production that directly contributes to human needs (urban *water* supply), agriculture (including irrigation), hydro-electric power supply, and mineral extraction. *Freshwater* also indirectly contributes to the tourism industry through maintenance of *freshwater* assets for aesthetic and commercial recreational purposes. Lack of *freshwater* can negatively impact economic output of those industries that rely on *water* in the production process. To varying degrees these impacts can be mitigated through *water* efficiency measures and innovation. At the same time other industries, such as tourism that rely on the aesthetic characteristic of *rivers* and *lakes*, do not have such opportunities available to them and instead rely on management regimes that sustain flows and *water* levels suitable for their activities.

Social

Ensuring appropriate *freshwater* supply for human use is available as part of planned urban growth is essential. It is possible this may require consideration of additional *freshwater* storage in the future. The region's *freshwater* assets also support a range of recreation uses, for example camping, fishing, *water* sports, and swimming. These values are strongly linked to environmental values and as such, reduced environmental flows have a corresponding negative impact on social and cultural values.

SRMR–I6 – Declining *water* quality has adverse effects on the environment, our communities, and the economy

Statement

While the pristine areas of Otago generally maintain good *water* quality, some areas of Otago demonstrate poorer quality and declining trends in *water* quality which can be attributed to *discharges* from *land use* intensification (both rural and urban) and *land* management practices.

²⁶ Clapcott, 2018, Our Freshwater 2020

Erosion, run-off and soil loss can lead to sediment and nutrients being deposited into *freshwater* bodies resulting in declining *water* quality.

Context

The health of *water* is vital for the health of the *environment*, people and the economy. It is at the heart of culture and identity. Nationally, and in parts of Otago, *freshwater* is facing significant pressure. Population growth and land-use intensification in urban and rural environments has impacted the quality of *water*, increasing contamination from nutrients and sediment.

Water quality affects a wide range of environmental health factors, human survival needs, and cultural, social, recreational, and economic uses. Some of the biggest impacts on *water* quality in Otago are considered to come from agriculture and urbanisation, through diffuse *discharges* and point source *discharges*.

On 3 September 2020, new National Environmental Standards (NESF) and a new National Policy Statement (NPSFM)²⁷ came into force to improve *water* quality within five years; and reverse past damage and bring New Zealand's *freshwater* resources, waterways and ecosystems to a healthy state within a generation.

Impact snapshot

Environmental

Despite the region's *lakes* and *rivers* being highly valued by Otago communities, reports indicate there are reasons for concern about *water* quality and its trends with consequent potential impact on ecosystems and people.

Water quality across Otago is variable. *River water* quality is best at *river* and stream reaches located at high or mountainous elevations under predominantly native vegetation cover, and mostly good in the upper areas of large river catchment and outlets from large *lakes*. *Water* quality is generally poorer in smaller low-elevation streams and coastal shallow lakes where they receive water from upstream pastoral areas or urban catchments. For example, catchments such as the Waiareka Creek, Kaikorai Stream, and the lower Clutha catchment, have some of the worst *water* quality in the region; Otago's central lakes are impacted by increased population, urban development and tourism demand; other areas, such as urban streams in Dunedin, intensified catchments in North Otago and some tributaries, also have poor *water* quality.²⁸ Between 2006 and 2017, trends in a number of *water* quality parameters were worsening.²⁹

For *E. coli*, for example, 30% of sites had a probable or significant worsening trend compared to 7% of sites that had either stable or improving trends. In urban streams in Dunedin, intensified catchments in North Otago and some tributaries of the Pomahaka, *E. coli* was the worst performing variable³⁰. In many cases, the specific source of contamination is unknown.

²⁷ <https://www.mfe.govt.nz/fresh-water/freshwater-acts-and-regulations/national-policy-statement-freshwater-management> (accessed 26 May 2021)

²⁸ Rachel Ozanne and Adam Uytendaal (2017) *State of the Environment Surface Water Quality in Otago 2006 to 2017*: Otago Regional Council p ii

²⁹ Ibid.

³⁰ Ibid.

There are many different types and sizes of *lakes* in Otago. ORC monitors *water* quality in *lakes*, of which eight have generally shown good *water* quality. There have been concerns within the community about the quality of *water* in Lakes Wānaka, Wakatipu and Hayes.

Groundwater quality also varies across the region, with some areas having elevated *E. coli* and nitrate concentrations above the NZ Drinking Water Standards. The main areas with elevated nitrate concentrations are North Otago and the Lower Clutha. Some bores across the region have exceeded the drinking water standards for *E. coli*; highlighting localized problems, likely due to inadequate bore head security. In addition to human sources of poorer groundwater quality, low groundwater quality from natural or geologic sources may also affect the potability of bore water throughout Otago (e.g. naturally occurring arsenic or boron concentrations found in bores associated with particularly geologies).

Stock entering *water bodies* can lead to pugging and destruction of riparian soils and *beds* that play an important role in filtering *contaminants*, as well as excreting directly in waterways. The growing practice of wintering cattle in Otago can exacerbate leaching *effects*, which may not connect to surface *water* until spring, creating spikes in nutrient loads.³¹

Sediment is a key issue for *freshwater* quality throughout Otago, including coastal estuaries where it can significantly impact the life supporting capacity of waterways. Urban development is a key generator of sediment input to *lakes* and *rivers* in Central Otago, from *building* platforms and from *stormwater* contamination. Activities such as agricultural intensification, mining, and forestry also contribute.

Agricultural intensification also contributes to nutrients (nitrogen and phosphorus) leaching into underlying *groundwater* or running off into surface *water bodies*, and can also increase the risk of *E.coli* contamination from animal waste.

Urban environmental *contaminants* include hydrocarbons, and metals from *roads* and *structures*. They often wash into urban *stormwater* systems and pass unfiltered into *water bodies*, or the *coastal marine area*. *Stormwater effects*, particularly in urban areas, are poorly understood. *Wastewater* and *stormwater* systems may not be adequate in some places due to aging *infrastructure*, rapid growth pressure, or insufficient investment in replacement or upgrades. Overflows of *wastewater* (*sewage* and waste products) create significant *risks* for *water* quality. These can enter the *environment* either directly or through *stormwater* systems, particularly in flood events.

Economic

Water pollution (from nutrients, chemicals, pathogens and sediment) can have far-reaching *effects* potentially impacting tourism, property values, commercial fishing, recreational businesses, and many other sectors that depend on clean *water*.³²

These impacts can be direct (varying the quality of primary production outputs such as fish); increasing costs of production through mitigation or remediation costs (*drinking water* treatment cost, riparian restoration); loss of enjoyment and benefit from tourism uses, and indirect such as cost to human health and associated medical costs, or reduction in brand value (e.g. Brand New Zealand).

³¹ Science Staff Survey, June 2020.

³² <https://www.epa.gov/nutrientpollution/effects-economy> (accessed 26 May 2021)

Social

For the wider community, *water* is a source of kai and of recreation, including swimming, fishing and *water* sports. Otago's *rivers, lakes, estuaries* and bays are important destinations for recreational *use* including swimming, fishing and *water* sports. Eighty-two per cent of Otago's *rivers* and *lakes* are swimmable.³³ Where *water* quality cannot support these activities, the lifestyle of those living in Otago is impacted.

Degraded *water* quality reduces the mauri of the *water* and the habitats and species it supports, therefore also negatively affecting mahika kai and taoka species and places. This constitutes a loss of Kāi Tahu culture, affecting the intergenerational transfer of knowledge handed down from tūpuna over hundreds of years; and it culminates in a loss of rakatiratata and mana.

SRMR-17 – Rich and varied *biodiversity* has been lost or degraded due to human activities and the presence of pests and predators

Statement

Fragmentation, loss and isolation of populations and communities of indigenous species has been ongoing across New Zealand, and Otago is no exception. *Biodiversity* mapping indicates Otago is one of the most modified regions in New Zealand. This can be attributed to habitat loss, land use changes, vegetation clearance and the presence of pests and predators. Further, many of these *effects* are a result of the cumulative changes of past and current development. These cumulative *effects* have often not been identified, managed or measured. Leadership and coordination of the various initiatives to address *biodiversity* loss has also been lacking.

Context

Otago is notable for the diversity of its landscapes, ecosystems, and climatic conditions. With that comes a diverse range of important *biodiversity* values which are at *risk*. These include rare ecosystems such as inland saline habitats, nationally rare *lake* and *river* systems, endemic and threatened lizard and fish species and important and diverse marine and coastal habitats.

Ecosystems are an interacting system of living and non-living parts such as sunlight, air, *water, minerals* and nutrients. *Biological diversity* (hereafter called *biodiversity*) describes the variety of all living things, including the range of species living in our *environments*, their genetics, and the ecosystems where they live. New Zealand's high level of indigenous *biodiversity* makes a unique contribution to the world's *biodiversity*. Otago is a good example of the enormous diversity in New Zealand's natural environment from toroa (albatross) and hoiho (yellow-eyed penguins) on the Otago Peninsula to the endangered species (for example, skinks) of Central Otago, the kea of the Southern Alps, galaxias species as well as the internationally significant braided *rivers* and their ecosystems.

The health of New Zealand's *biodiversity* has declined significantly since the arrival of humans. Environment Aotearoa 2019³⁴ found that our indigenous *biodiversity* is under significant pressure from introduced species, pollution, physical changes to our *environment* and harvesting of wild species.

³³ This estimate applies to larger rivers and lakes, defined as "rivers that are fourth order in the River Environment Classification system and lakes with a perimeter of 1.5km or more" – ORC Policy Committee Report – 29 Nov 2018 - PPRM1843

³⁴ <https://environment.govt.nz/assets/Publications/Files/environment-aotearoa-2019.pdf> (accessed 26 May 2021)

Almost 4,000 native species are currently threatened with, or at *risk* of, extinction. The information available indicates Otago's *biodiversity* faces the same challenges.

Impact snapshot

Environmental

Threats to *biodiversity* in Otago include invasive species (weeds and predators), vegetation clearing, land fragmentation and grassland "improvement", poor *water* quality (nutrients and sediments), dredging and overfishing.

There are 62 ecosystems in the Otago region.³⁵ Whilst the average ecosystem extent compared to pre-European settlement is 62%, over 17 communities have been reduced to less than 40% extent. Forest communities have declined substantially, for example kahikatea forests have been reduced to 3.9% of pre-European extent. Matai, totara, broadleaved forest (6.5%) and Kirk's scurvy grass herbfield/loamfield (7.1%) have also been significantly reduced. There are six ecosystems with less than 10 hectares remaining.

Impacts of human activities are evident both in terms of species and ecosystems. Some 44% of Otago's bird species are threatened or at *risk*; 88% of lizard species; and 72% of indigenous fish species. Inland Otago has degraded native fish communities, due to the presence of the Clutha dams and their *effects* on eel populations and trout predation on native galaxiids. This is illustrated by the low scores for Otago's *rivers* in the *freshwater* fish index of biotic integrity.

The extent of impacts on marine species and environments is not well understood. Sedimentation is known to have contributed to the loss of kelp forests.³⁶ In addition to sedimentation, other human impacts on kelp forests include rising sea surface temperatures associated with climate change and trophic cascades from fishing pressure; together with downward trends in fish and crayfish catches. There has been a 70% decline in the abundance of hoiho (yellow-eyed penguin) on the Otago coast since 2008³⁷ and downward trends in ngohi (fish) and koura (crayfish) catches. The effects of *climate change* will add significantly to *risks* of continuing *biodiversity* decline.

Economic

Biodiversity and ecosystem services underpin agriculture (ecosystem services such as *water*, soil *biodiversity*, pest protection, pollination) and tourism (the "clean green" image of "pure New Zealand" is related to a public perception of Otago's healthy *environment* and biodiversity).

Short-term impacts of loss of productivity or increased costs of pest management occur and longer-term impacts of net loss of natural capital in the region over time are also of concern. The economic costs of lost productivity due to pests, erosion and damage to land, are likely to be significant and there is potential for loss of *biodiversity* to adversely impact on the economy.

Social

Biodiversity is a significant contributor to the community's recreational experiences and intrinsic values. *Biodiversity* loss will adversely impact those values and experiences. Some introduced species

³⁵ Wildlands (2020). Unpublished Consultancy Report to Otago Regional Council R5015a. Mapping of potential natural ecosystems and current ecosystems in Otago region.

³⁶ Schiel et al. 2006, Sediment on rocky intertidal reefs: Effects on early post-settlement stages of habitat-forming seaweeds, *Journal of Experimental Marine Biology and Ecology* 331(2):158-172 (reference provided by Department of Conservation)

³⁷ Department of Conservation, 2008, Unpublished data.

such as trout, deer and pigs have social and recreation values but may also have impacts on native ecosystems and species.

SRMR–18 – Otago’s coast is a rich natural, cultural and economic resource that is under threat from a range of terrestrial and marine activities

Statement

Otago’s coast provides habitat for rare species (including toroa and hoiho), comprises some of the region’s outstanding landscapes, is a rich food source, provides many recreation opportunities, is the location for some industries, and has potential for further economic use (aquaculture). Threats to it are not always well understood and not always well managed. From the sedimentation *effects* of inland development to waste disposal, human activity puts stress on the marine and coastal environment. Some of those activities, like port activities and tourism, are also vital to the region’s economic well-being.

Context

Otago’s coastal environment is generally considered to extend from the land that forms the first significant ridgeline out to the twelve nautical mile seaward limit. The coastal environment is a finite resource which is sensitive to change. Recent rapid expansion of some types of coastal development is a significant issue for the sustainable management of the coastal environment of Otago.

Activities occurring within or affecting the coastal environment include urban development, recreational activities, transport *infrastructure*, energy generation and transmission, land and marine based (e.g. aquaculture) food production industries and other rural industry activities, *plantation forestry*, fishing, tourism, and *mineral* extraction. Such activities can be important contributors to the existing and future health and well-being of communities, when they are located and managed appropriately. A number of these activities provide a significant contribution to the regional economy.

Dunedin is a major coastal city with increasing urban development. It also hosts *infrastructure* of national significance such as Port Otago and associated *road* transport networks servicing the Otago region and beyond which contribute to and facilitate regional economic and social development.

The community values the coast for its landscapes, natural character, recreational uses and associated habitat for biodiversity. Recreational activities such as boating, fishing, swimming and general beach access are interconnected with coastal values. Conserving coastal biodiversity and marine reserves are associated with coastal values.³⁸ A key challenge is the protection of the coast’s natural and cultural assets while enabling economic and social development opportunities to be realised.

Impact snapshot

Impacts of hazards, climate change, pests, water, and biodiversity loss, which have been discussed above, all impact the coast. Urban development and population pressure can amplify these effects.

Environmental

³⁸ ORC Committee Report, *RPS Consultation Summary*, ORC Agenda 27 May 2020

These impacts can affect natural processes. For example, poor water quality can result in degradation of estuarine and ocean chemistry with adverse impacts on ecosystems, including coastal *wetlands* and marshes, benthic muds, subtidal and inter-tidal area muds/sands, reefs, and marine vegetation areas (e.g. sea grasses, kelp). Ecosystems and indigenous biodiversity, and their flora and fauna (from zooplankton to whales) can be impacted by urban and industrial development, pests, and climate change leading to biodiversity loss.

Natural features, landscapes, seascapes, and *surf breaks* of national significance can be affected by human activity, climate change, and natural hazards. Vulnerability to these impacts is determined by susceptibility, spatial scale, frequency, functional impact/consequence, recovery capacity/time, and likelihood of the impact's occurrence. Around Dunedin, for example, impacts include nutrients and contaminants from Dunedin stormwater which impact on coastal waters and estuaries; declining hoiho (yellow-eyed penguins) numbers due to introduced predators and domestic pets; whilst recovering seal and sealion numbers can create conflict with recreational *uses* on the coast; and beach erosion at St. Clair in Dunedin can impact social values and beach recreation *use*.

Economic

Deterioration of coastal assets and values causes loss of production and income, increases *infrastructure* costs and costs of production, and loss of property values. There are also costs associated with mitigation, for example in the case of coastal erosion. Other economic impacts include recreation and tourism industries being adversely impacted by degraded coastal environments; marine industry production suffering because of poor *water* quality; dredging of sedimentation; and costs of mitigating adverse impacts, e.g. combatting invasive pests.

Social

Impacts on the coastal environment and its associated unique values include those on its landscapes and landforms, those on it as a place to live and work and for recreation activities, those on access, and those which give rise to coastal deterioration and which compromise general enjoyment and amenity for communities.

SRMR-19 – Otago lakes are subject to pressures from tourism and population growth

Statement

The beauty, recreational opportunities and regional climate of Lakes Wanaka, Wakatipu, Hāwea and Dunstan and their environs attract visitors and residents from around the region, the country and the world. This influx brings economic opportunity, but the activities and services created to take advantage of it can degrade the *environment* and undermine the experience that underpins their attractiveness.

Context

Healthy *lakes* are one of Otago's most valued natural resources and for the most part *water* quality is good. The values assigned to *lakes* include the natural features and landscapes, the quality and quantity of *water* accessible to the Otago communities, the accessibility of these resources for recreation, the health of native flora and fauna associated with Otago's *rivers* and *lakes*, and renewable energy production.

Urban growth is adversely affecting the natural features and landscapes around the lakes. The amount of growth is demonstrated in the Queenstown Lakes District, including Queenstown and Wanaka, where the population tripled in the last 20 years from 16,750 in 1999 to 47,400 in 2020.³⁹ Continued growth is projected over the 30 years from 2020 to 2050 (by 63%)⁴⁰.

This desire of New Zealanders and international visitors to enjoy the outstanding natural environments of the Otago *lakes* has placed significant pressures on the *environment*, transport, energy and other *infrastructure*, health services and social structures. At the same time the economy of the Otago lakes area is heavily dependent on tourism. For example in 2020, tourism employment accounted for an estimated 56% (or 17,758) of the jobs in the Queenstown-Lakes district; tourism GDP accounted for 43.7% (or NZ \$1.7 billion) of the district's GDP and international tourism contributed 64% (or NZ \$1.89 billion).⁴¹ The Otago-Lakes area also supplies significant renewable energy for use in Otago and beyond.

Impact snapshot

Environmental

Population pressures arising from urban development, and tourism population pressures are impacting on the *environment*. Lake Wanaka, Lake Hāwea, and Lake Wakatipu, as well as the Kawarau River and upper reaches of the Clutha Mata-au and Taieri Rivers all have good *water* quality which equates to the "A" band (being top/best level) for the *National Objectives Framework*.⁴²

However, *water* quality is being adversely impacted by increased population, urban development and tourism demand which is straining existing waste management infrastructure. In addition, localised degradation of some areas is occurring due to overuse and unregulated use (e.g. freedom camping). The amenity of these areas is being compromised in some places by over-crowding.

Recreation *use* impacts on the *environment* can be a *risk*, for example the distribution of pest species can be accelerated as has occurred for lake snow and *Lagarosiphon* weeds being spread by recreation boating movements. Natural features and landscape values are also adversely impacted by tourism and urban growth, and energy production.

Economic

The economic benefits of urban development, tourism, agriculture, energy production and *water* supply can be positive for the Otago-Lakes' communities and visitors. It also impacts on the region's natural assets with a growing cost to the region that puts at *risk* the *environment* highly prized by residents and visitors. There are also impacts between industry sectors.

For example, the clean green image of New Zealand, of which the Otago Lakes area is symbolic, is at *risk* of being compromised because of over-crowding in peak tourism seasons. This has the potential to adversely affect the existing regional economy and future economic development; and the tourism industry's social licence to operate. At the same time tourism can negatively impact on how agriculture can operate, potentially limiting its contribution to the regional economy.

³⁹ Infometrics online database (February 2021)

⁴⁰ Queenstown-Lakes District Council demand projections by Utility

⁴¹ Infometrics online database; (February 2021)

⁴² Land, Air, Water, Aotearoa: <https://www.lawa.org.nz/explore-data/otago-region/> (accessed 26 May 2021).

Urban development brings economic development and improved opportunities and standards of living to the Otago lakes area but can adversely impact on both the *environment* and how agriculture can operate.

Social

Over-crowding impacts adversely affect recreation experiences of both tourists and residents, such as fishing and *water* sports, and urban amenity. *Infrastructure* capacity limits can, for example, result in an increased number of wastewater overflows to the environment when demand on the network exceeds capacity. These can have significant adverse impacts on human health as well as recreational amenity.

SRMR–I10 – Economic and domestic activities in Otago use natural resources but do not always properly account for the environmental stresses or the future impacts they cause

Statement

Sediment from development and forestry activities flow into streams and builds up in the coastal environment, smothering kelp forests and affecting rich underwater habitats. *Water* abstraction and wastewater and stormwater discharges adversely affect the natural environment, cultural and amenity values, and recreation. Agriculture, fishing and minerals extraction support employment and economic well-being but also change landscapes and habitats. Otago’s port moves freight to and from Otago and Southland, but operates alongside sensitive environments, including the Aramoana saltmarsh. Tourism, which relies on the environment, can also put pressure on natural environments.

Context

The Otago regional economy GDP totals \$13.2 billion and supports a population of 236,200 residents (over half of which are in Dunedin). A significant part of the economy relies on the region’s natural resources (air, vegetation, biodiversity, *water*, *land*, marine and *minerals*). This supports agriculture, forestry, fishing (6.9% of GDP), mining (4.5% of GDP), electricity, gas, *water* and waste services (4.4% of GDP), as well as conservation activities and hunting. Tourism (18.1% of GDP) also partially relies on the natural values of the region.⁴³

However, economic activity needs to more effectively account for and manage its impacts on the region’s natural resources.⁴⁴ Where business and social activity does not account for its impacts on natural resources in the long term, not only is the sustainability of the region’s natural resources threatened, but equally the associated long term economic, social and cultural values are also threatened.

Impact snapshot

Environmental

⁴³ Infometrics, August 2020.

⁴⁴ <https://www.orc.govt.nz/media/8882/community-consultation-summary-report-draft.pdf> (accessed 26 May 2021)

Economic activities can lead to, for example, biodiversity loss, poor *water* quality, coastal and marine degradation, and loss of natural features and landscapes. These and other matters are considered in further detail elsewhere in this chapter.

Negative impacts on the *environment* can also compromise the ecosystems and the services economic activities depend on (ecosystem services), for example loss of *wetlands* which provide flood attenuation services, loss of biodiversity which provide pest control and pollination services, and loss of soil biodiversity. Economic activity also has the potential to compromise or destroy natural features and landscapes. Such impacts are both immediate and cumulative. Cumulative impacts that are not addressed have the potential to lead to tipping points beyond which systems can no longer properly function.

Economic

The costs of production can rise because of poor quality natural resources, for example, through higher input costs (e.g. fertiliser, weed and pest control); and remediation requirements (e.g. riverbank restoration, erosion control). Some land management practices can compromise productive capacity of agricultural land, for example, loss of soil through erosion or soil structure through compaction. Marine industries (e.g. fishing and aquaculture) can also be adversely affected.

Business environmental performance is becoming increasingly important in terms of providing access to investment. Poor business environmental performance can also lead to increased regulatory requirements and associated higher costs of doing business.

Social

Damage to or loss of natural features and landscapes compromises *amenity values*. Failure of business to sustainably manage natural resources compromises the social licence of a business sector to operate. This adversely impacts social capital (trust) and can create community division. In extreme cases it can lead to calls for reduced access to resources.

SRMR–I11 – Cumulative impacts and *resilience* – the environmental costs of our activities in Otago are adding up with tipping points potentially being reached

Statement

How and where we currently live is likely to change significantly in coming years. To respond to all the issues identified in this RPS, it is essential to consider changes to how we travel, the industries our economy relies on, the use we currently make of the *natural and physical resources* of the region, and how we provide for personal and community well-being, all while protecting our natural environment.

Context

The long term environmental, economic, and social well-being of the Otago region requires anticipating and minimising cumulative environmental impacts before they reach a tipping point, beyond which systems can no longer properly function. This requires *resilient* frameworks that take account of the dynamic relationship between the *environment*, economy and people while acknowledging that the future is always uncertain, and knowledge is imperfect. Should a tipping point

be reached a *resilient* Otago society will have the ability to absorb, respond to, adapt to, and recover from disruptive events.⁴⁵

Impact snapshot

Environmental

While many ecosystems have a degree of *resilience*, increasing pressures on the *environment*, typically as a result of human activities (for example economic development), can have an adverse cumulative *effect*. *Climate change* also has the potential to seriously challenge ecosystem adaptive capacity. Much work is being undertaken to address this challenge, but it is still possible that permanent changes may occur (tipping point).

The first and best response is to ensure sustainable management of our natural resources and avoid immediate and long-term cumulative *effects* that degrade the *environment*. At the same time a *resilience* approach is needed that identifies thresholds and sets limits on the use of natural resources to avoid permanent and potentially catastrophic changes occurring, as would occur if a tipping point is reached.

Indicators and tools for measuring *resilience* and tipping points remain in the early stages of understanding and development. Even though regulatory agencies and proponents for natural resource development and environmental rehabilitation projects have difficulties interpreting and verifying the potential for environmental recovery and *resilience* (particularly in relation to the regulatory context of impact assessment in order to provide consenting decisions for regulated activities)⁴⁶ that should not be taken as a reason to delay acting.

Social and economic

The well-being of Otago's people and communities in the long term will be sustained by the enduring ecological health and *resilience* of the *environment* and by human activity providing for the *environment* in equal or greater measure than is taken from it (in other words, net impact determines net well-being). It will also be sustained through community *resilience* so that it can adapt and nimbly respond to future challenges.

⁴⁵ <https://www.civildefence.govt.nz/cdem-sector/plans-and-strategies/national-disaster-resilience-strategy/national-disaster-resilience-strategy-summary-version/> (accessed 26 May 2021)

⁴⁶ <https://par.nsf.gov/servlets/purl/10047476> (accessed 26 May 2021)

RMIA – Resource management issues of significance to iwi authorities in the region

Introduction

The MW – *Mana Whenua* chapter describes the integral relationship between Kāi Tahu and the natural world, including the relationship with particular resources, and the values that influence the Kāi Tahu approach to resource management. The issues and concerns described in this chapter should be read and understood in the context of the explanations in the MW – *Mana Whenua* chapter.

RMIA–WAI – Wai Māori

Context

Water plays a significant role in Kāi Tahu spiritual beliefs and cultural traditions. Kāi Tahu have an obligation through whakapapa to protect wai and all the life it supports. Whānau have observed the health of *water* degrade through time and consider it is crucial that this degradation is reversed.

RMIA–WAI–I1 – The loss and degradation of *water* resources through drainage, abstraction, pollution, and damming has resulted in material and cultural deprivation for Kāi Tahu ki Otago

The drainage of *wetlands*, *water* abstraction, degraded *water* quality, barriers to fish passage and changes to flow regimes as a result of damming have had significant negative impacts on Kāi Tahu. These activities degrade the mauri of the *water* and the habitats and species it supports, therefore also degrading mahika kai and taoka species and places.

These changes to the *environment* have meant that Kāi Tahu have had to adapt and change their *use* of the *environment*. As traditional mahika kai places and species have declined, mahika kai must now be carried out in artificial habitats such as reservoirs, and whānau have had to switch to exotic species such as trout and salmon. The mātauraka associated with traditional mahika kai species and places cannot be passed on, and the intergenerational transfer of knowledge that has occurred for over 800 years is broken. Place names that carry tribal history are no longer reflective of their places – for example no one would now claim that the Waiareka is ‘sweet water’ to drink.

RMIA–WAI–I2 – Current *water* management does not adequately address Kāi Tahu cultural values and interests

Kāi Tahu values and interests are not properly considered in current *land* and *water* resource management. The well-being of mahika kai and taoka and protection of other cultural values is rarely given effect to in environmental policy or decision-making processes and these considerations are often compromised in favour of other values, including economic values. The mana of *mana whenua* and of the *water* is not recognised because *water* quality and quantity have been allowed to be degraded. Resource management in Otago has failed to meet its obligation to recognise Kāi Tahu values and provide for the relationship of Kāi Tahu with the *water bodies* within their rohe. The understanding of cultural values by many is still developing and, as a result, Kāi Tahu values and interests are often not well represented in plans and decision-making.

RMIA–WAI–I3 – The *effects of land and water use activities on freshwater habitats have resulted in adverse effects on the diversity and abundance of mahika kai resources and harvesting activity*

Mahika kai is the gathering of foods and other resources, the places where they are gathered, and the practices used in doing so. Mahika kai is an intrinsic part of Kāi Tahu identity and economic well-being. Kāi Tahu fishing rights were explicitly protected by the Treaty of Waitangi. Not only was the right to engage in mahika kai activity confirmed, so too was the expectation that such activity will continue to be successful as measured by reference to past practice. However, as described in evidence provided to the Waitangi Tribunal in the Ngāi Tahu claim, there has been a dramatic loss of mahika kai resources and places of procurement since the Treaty was signed. This loss is greater than the loss of kai. It is a loss of Kāi Tahu culture, as it affects the intergenerational transfer of mātauraka handed down from tūpuna over hundreds of years. It represents a loss of rakatirataka and of mana. Mahika kai continues to be degraded through the *effects of land and water use activities on freshwater habitats*. Activities such as the construction of barriers to fish passage, drainage, altered flow regimes, reduced water quality and removal of riparian vegetation all impact on access to and use of resources.

RMIA–WAI–I4 – Effective participation of Kāi Tahu in *freshwater management is hampered by poor recognition of mātauraka*

The term ‘mātauraka Māori’ includes all branches of Māori knowledge, past, present, and still developing. It involves observing, experiencing, studying, and understanding the world from an indigenous cultural perspective. It is a tool for thinking, organising information, considering the ethics of knowledge, and informing us about our world and our place in it. Incorporation of mātauraka in resource management decision-making is important to ensure that cultural interests are appropriately recognised and provided for. Resource managers do not always appreciate the depth and value of mātauraka held by members of Kāi Tahu Whānui. Even where mātauraka is valued there may be difficulty in determining how best to apply the knowledge.

RMIA–WAI–I5 – Poor integration of *water management, across agencies and across a catchment, hinders effective and holistic freshwater management*

Kāi Tahu place emphasis on the holistic management of resources. Cultural values such as whakapapa and concepts such as ki uta ki tai recognise the interconnectedness of all things, and that *effects* on one part of the whole will be felt throughout the whole. Management of *water* in Otago is not holistic. Catchments are often managed by multiple councils, and the Waitaki (a most significant *river* to Kāi Tahu) is managed by two regional councils with policies and management approaches that include some significant differences. Regional councils are responsible for managing *land use effects on land* and at sea up to 12 nautical miles offshore, but beyond that the Environmental Protection Authority manages *effects* through a separate piece of legislation. District councils, although not specifically responsible for managing *freshwater*, are responsible for managing activities that affect *freshwater*.

In Otago there are separate plans for *freshwater* and the coastal area, and they are not consistent with each other. These divisions in the management of the *environment* fail to recognise that all *water*, in *rivers*, underground, in the air and in the ocean is connected, and what occurs in the headwaters and on *land* will have an impact in the ocean. This lack of holistic *freshwater* management also makes it difficult to understand and address the cumulative *effects* of different activities and decisions on cultural values.

Specific concerns related to RMIA-WAI-I1 to RMIA-WAI-I5 are interrelated, and include:

- *Water quality concerns:*

- Deterioration in *water* quality resulting from poor *land* management practices.
- The cultural and *water* quality impacts of point and non-point source *discharge* of human waste and other *contaminants* to *water*. Whānau cannot gather kai from places where human waste (whether treated or not) has been *discharged*, or where herbicides and pesticides have been used. Reliance on dilution rates to mitigate the *effects* of *discharges* is culturally inappropriate.
- The *water* quality impacts of *discharges* from mining activities.
- *Water* allocation concerns:
 - Kāi Tahu consider that many of the waterways in the region are over-allocated from a cultural perspective.
 - Abstractions of greater volumes of *water* than are required, lack of *water* harvesting and continuation of inefficient methods of *water* use.
 - The implications of increased *water* demand for domestic use which will put additional pressure on the already scarce *water* resource.
 - The *effects* of long durations for *water* take consents which lock in a pattern of resource *use* for a long time, limiting the ability for Kāi Tahu to exercise kaitiakitaka responsibilities.
 - The impact of cross mixing of *water* from different catchments on the distinctive mauri of the *water bodies*.
 - The lack of understanding of the interactions between *groundwater* and surface *water*.
- Concerns about channel modification and *river* works:
 - The *effects* of damming on disruption of natural flow patterns, loss of *freshwater* habitats and migration of indigenous fish species.
 - The *effects* on the mauri of the water body from diversion of watercourses upstream and downstream of mines.
 - Impacts of activities such as channel maintenance and channel cleaning on *water* quality and on disruption of species living in the channel and their habitat.
 - Impacts of channel reshaping, in particular straightening, on *river* flow and habitats, and the mauri of the *water body*.
 - The *effects* of *bed* disturbance, including suction dredging and gravel extraction, on stream morphology and habitats.
 - Impacts of willow removal on *water* quality, *water* temperature and mahika kai habitat.
 - Introduction of exotic weeds through poorly cleaned machinery, and the subsequent impact on bank habitat and *water* ecosystems.
 - The *effects* of changes in vegetation cover, including clearance of *indigenous vegetation* and exotic *afforestation*, on the *water* retention capacity of *land* and consequent flow patterns, which can negatively affect mahika kai and taoka species through a reduction in their habitat.

RMIA–MKB – Mahika kai and biodiversity

Context

The cold climate in southern Te Waipounamu, and the consequent difficulty of growing crops, made it difficult for tūpuna to establish permanent settlements and as a result Kāi Tahu in this area traditionally had a hunter-gatherer lifestyle, and went where the mahika kai was abundant and in season. This lifestyle was unique to southern Kāi Tahu and mahika kai retains a central place in Kāi Tahu cultural identity. All indigenous species and habitats are treasured by Kāi Tahu as taoka in their own right, as well as for the mahika kai values associated with some species.

RMIA–MKB–11 – The diversity and abundance of terrestrial and aquatic indigenous species has been reduced due to adverse *effects* of resource *use* and development

Resource *use* and development in Otago has led to degradation of taoka and mahika kai places. This has occurred in a myriad of ways, contributing to a significant negative cumulative *effect* on many species and habitats. The decrease in diversity and abundance of indigenous species causes a negative impact on the mauri and health of the natural environment.

The Kāi Tahu perspective recognises that species within ecosystems are connected, and effects on one species will be felt throughout the rest of the system. Effects on mahika kai and taoka species diversity and abundance affect the relationship of Kāi Tahu with these species. Whānau are unable to access traditional mahika kai and taoka species and places because in many cases they no longer exist, or no longer provide resources that were once abundant there.

Specific concerns include:

- Degradation of mahika kai due to the impacts of *contaminants* from both point and non-point source *discharges*, including human waste disposal to mahika kai areas.
- The effects of soil contamination from poorly managed landfills, industrial sites and waste disposal sites.
- Continued urban spread encroaching on mahika kai sites.
- Genetic modification of indigenous flora and fauna, which represents deliberate alteration of whakapapa.
- The impact on mahika kai and indigenous *biodiversity* from weed and pest invasion.
- Loss of indigenous fish species, many of which are taoka and mahika kai, through displacement and predation.
- Loss of indigenous flora and fauna remnants and lack of co-ordinated management of habitat corridors.
- Impacts on mahika kai and aquatic ecosystems from a lack of effective catchment-wide riparian management.
- Loss of recruitment of indigenous flora in remnant bush areas due to continuous stock grazing.
- The impact of inappropriate forestry developments, conversion of tussock lands and other intensification of farming on indigenous flora and fauna values, including ecological disturbance and displacement of species.

RMIA–MKB–12 – Regulatory and physical barriers have impeded the ability of Kāi Tahu to access mahika kai and to undertake customary harvest

The ability for Kāi Tahu to exercise customary rights to mahika kai has been impeded by obstacles to accessing mahika kai sites. Obstacles include lack of physical access and the sites no longer being safe to access due to the site becoming polluted, or a change in the flow velocity and/or depth.

RMIA–MKB–13 – Impacts of *climate change* on both species/habitat viability and increasing pest (flora/fauna) encroachments

Climate change is now affecting and will continue to affect habitat availability and suitability for species in Otago. In some cases, this will mean that species will be able to increase their distribution, which will encourage spread of pest/weed species. *Climate change* will also reduce habitat and distributions for some species and affect habitat quality. These *effects* may also accumulate; for example, a native species may have worse and less habitat and its pest/predator's distribution and

population may increase due to *climate change effects*. Where possible, these *effects* should be planned for in environmental management.

RMIA–MKB–I4 – Shortage of protected and secure areas for biodiversity

Currently there are not enough protected and secure areas for biodiversity in Otago. To ensure the long-term survival of our region’s most *threatened species*, a series of protected areas must be established, ideally in a network connected by corridors so that each individual population is more *resilient* as well as the species’ overall population.

RMIA–MKB–I5 – Inconsistent approaches to biodiversity protection amongst regulatory authorities

Biodiversity is managed by several entities who have different approaches and powers through their separate governing legislation. For example, regional and district councils have obligations under the Resource Management Act and the Department of Conservation has obligations under the Conservation Act. Different pieces of legislation are not always consistent with each other. There can also be confusion about who is responsible for different aspects of biodiversity management as it is not managed by one entity.

RMIA–MKB–I6 – Lack of information on species health and viability

In many instances there is a lack of information on species. This absence of information on matters such as life histories, current and previous distributions and habitat preferences makes it difficult to make decisions about how best to manage these species.

RMIA–WTU – *Wāhi tūpuna*

Context

Wāhi tūpuna (ancestral landscapes) across Otago are made up of interconnected sites and areas reflecting the history and traditions associated with the long settlement of Kāi Tahu in Otago. Areas of significance that form part of *wāhi tūpuna* include, but are not limited to:

- Wāhi tapu
- Kāika *nohoaka* (settlements)
- Wāhi kohātu and wāhi mahi kohātu (quarry sites)
- Wāhi ikoa (place names)
- Ara tawhito (traditional travel routes)
- Mauka (mountains)

It is important that resource management recognises the wider cultural setting by considering effects of activities on the broader *wāhi tūpuna* rather than just on discrete sites.

RMIA–WTU–I1 – The values of *wāhi tūpuna* are poorly recognised in resource management in Otago

Land management regimes have failed to adequately provide for Kāi Tahu interests in *wāhi tūpuna*. Attention has been too narrowly focused on the cultural redress components of the Ngāi Tahu Claims Settlement Act 1998 (statutory acknowledgements, place names, tōpuni areas and *nohoaka* sites),

whereas *wāhi tūpuna* are considerably broader than the areas described in the legislation. The values of these areas can be adversely affected by inappropriate *land* use and development.

Specific concerns include:

- Changes to the recognisable character of *wāhi tūpuna* resulting from intensified *land use*, spread of exotic wilding trees and other woody weeds, forestry, subdivision, development of *buildings* and *structures*.
- Impacts on the integrity of *wāhi tūpuna* from extension and maintenance of *infrastructure* such as transport, telecommunications and other utility networks.
- Modification of landforms by *earthworks*, particularly on ridgelines and upper slopes and near waterways.
- Impacts on *wāhi tapu* and archaeological sites from *earthworks*.
- Sedimentation of *water bodies* within *wāhi tūpuna* from *earthworks*.
- Poor land management and inappropriate *land use* degrades the whenua itself.
- Failure to recognise Kāi Tahu connections to the land through use of traditional names for landscape features and sites.

RMIA–WTA – Wāhi tapu and wāhi taoka

Context

Tribal land was not just the source of economic well-being. For Māori it was also the burial ground of the placenta and of the bones of ancestors, the abode of tribal atua and a storybook through place names and traditions. This is reflected in Te Reo Māori, as the word ‘whenua’ means both ‘placenta’ and ‘land’. Ancestral lands were therefore regarded with deep veneration. For Kāi Tahu, *wāhi tapu* and *wāhi taoka* refers to the places that hold the respect of the people in accordance with tikaka or history including:

- Mauka (mountains)
- Urupā (burial places)
- Tuhituhi neherā (rock art)
- Umu (ovens)
- *Nohoaka* (seasonal camp sites)

RMIA–WTA–I1 – *Land use* activities have resulted in disturbance and degradation of *wāhi tapu* and *wāhi taoka* sites and the cultural and spiritual values associated with these areas

Wāhi tapu and *wāhi taoka* sites are vulnerable to disturbance or destruction from the direct *effects* of resource *use* and development. This is through activities that require *earthworks* as well as from natural or human-induced changes to biophysical processes such as coastal erosion. *Wāhi tapu* and *wāhi taoka* values can also be adversely affected by the encroachment of culturally offensive activities e.g. it is inappropriate to have a *wastewater* treatment plant at or near a *wāhi tapu* or *wāhi taoka*.

Specific concerns include:

- Disturbance, modification or destruction of *wāhi tapu* or *wāhi taoka* by *earthworks*.
- Degradation of the cultural value and integrity of *wāhi tapu* or *wāhi taoka* through contamination by *discharges*, inappropriate development, and culturally inappropriate activities such as mining/quarrying, *landfills* or *wastewater* disposal.

- The resurfacing of kōiwi takata (human remains) through natural and human-induced processes and ensuring that these are kept safe and returned to Kāi Tahu so that they can be reinterred in accordance with tikaka.
- Ineffective management of *effects* due to inappropriate and inaccurate recording of wāhi tapu and wāhi taoka, and misinterpretation of the status and importance of sites.

RMIA–WTA–I2 – Access to wāhi tapu and wāhi taoka and the ability to undertake customary activities on these sites has been impeded

Access to culturally important sites has been impeded in many ways, affecting the ability of *mana whenua* to carry out customary activities. Many sites are privately owned and cannot be accessed. Some sites no longer exist, or the customary activities associated cannot be undertaken – for example, *nohoaka* sites associated with mahika kai gathering cannot be used if the mahika kai is no longer there.

A limited number of *nohoaka* sites were granted to Kāi Tahu through the Ngāi Tahu Claims Settlement Act 1998 as redress for loss of traditional sites. Some of these were traditional sites, but others were in new locations. Some *nohoaka* have also become dissociated from their customary use due to *land* use change and hazard management. For example, if the *river* channel has moved and the *nohoaka* has not, whānau visiting the *nohoaka* are not able to fish there.

RMIA–AA – Air and atmosphere

Context

As discussed in Part 1, the air and atmosphere are resources of significance to Kāi Tahu. In Kāi Tahu traditions, air and atmosphere emerged through the creation traditions and Te Ao Marama. The air is an integral part of the environment that must be valued, used with respect, and passed on intact to the next generation. Pollution of the atmosphere adversely affects the mauri of this taoka and other taoka such as plants and animals.

RMIA–AA–I1 –The cultural impacts of discharges to air are poorly recognised in resource management

The cultural impacts of air pollution and *discharges* to air are poorly understood and seldom recognised. *Discharges* to air can adversely affect health and can be culturally offensive. Clean air is important to the health of mahika kai and people, and odour and other emissions impact on the tapu of wāhi tapu sites. Air emissions can also reduce the visibility of cultural landscape features and of the moon, stars and rainbows.

Specific concerns include:

- Potential impacts of *climate change* which could potentially negatively affect wai Māori, mahika kai and biodiversity, *wāhi tūpuna*, wāhi tapu, the coastal environment and the well-being of all people.
- Insufficient data has been collected and distributed about the *effects* of *discharges* to air.
- The *effects* of *discharges* to air on the health of people and mahika kai, including *discharges* from industrial or trade premises, agrichemical spray drift, vehicle emissions and emissions from domestic fires in built up areas prone to inversion layers.
- Culturally offensive *discharges* from crematoriums, if located in close proximity to mahika kai and wāhi taoka.
- Adverse *effects* of vegetation burning on the integrity and the tapu of wāhi tapu sites.

- Impacts of odour on wāhi tapu, mahika kai sites and *nohoaka*.
- Impacts of urban settlement and *discharges* to air on the visibility of the sky and *wāhi tūpuna* features.
- The impact of dust on the integrity of rock art sites.

RMIA–CE – Coastal environment (Taku tai moana me te wai Māori)

Context

The coastal environment is particularly significant for Kāi Tahu in the southern South Island. The spiritual and cultural significance of taku tai moana me te wai māori (saltwater and *freshwater*) and the interconnection between *land* and sea environments are not always well recognised in management of the coastal environment.

RMIA–CE–I1 – Mahika kai and coastal systems are adversely affected by lack of integrated management across the land-water interface

Management of mahika kai species and their habitats varies and is not holistic. Many important indigenous mahika kai fish species are diadromous and move between *freshwater* and the ocean during different parts of their life cycle. The interconnection between *land* and marine environments needs to be carefully considered in order to manage *effects* that cross the *coastal marine area* boundary.

Specific concerns include:

- *Effects* on the coastal environment and natural systems resulting from modifications to waterways, such as damming and artificial openings of *river* mouths, estuary and lagoon systems.
- The *effects* of reductions in *river* flows on ingress of saltwater to *river* systems and conditions for inaka spawning.
- Barriers to species migration, and hence lifecycles, created by changes to *river* mouths from reductions in *river* flow.
- Impacts of changes in sediment transport on coastal ecosystems.
- The *effects* of *land reclamation* on *water* quality and flow in enclosed harbors and estuarine ecosystems.
- *Effects* of *land use* activities and poor management of coastal margins on *coastal water* quality.
- *Climate change effects* occur across the land-water interface and the *freshwater*-saltwater interface, and cause changes to mahika kai species distribution and the quality and locations of mahika kai habitat.

RMIA–CE–I2 – Discharges into coastal waters and marine dumping of waste degrade mahika kai and the mauri of the waters

The practice of using the marine environment as a sink for disposal of waste from both *land* development and marine vessels is culturally offensive and has resulted in degradation of kaimoana resources. Leaching and overland runoff of *contaminants* from activities occurring near the coast have also contributed to the adverse *effects* on the marine area.

Specific concerns include:

- Point source industrial *discharges* to the coastal environment.

- Contamination of *coastal waters* by leachate from inappropriately sited *landfills* and other waste disposal sites and runoff from coastal subdivisions.
- *Discharges of sewage* from marine outfalls, poorly designed or inadequate coastal sewerage *infrastructure* and freedom camping.
- The *effects of contaminants* such as oil and carbon particles in *discharges of stormwater* from urban *roads*.
- *Discharges of sewage* and contaminated bilge and ballast *water* from *ships*.
- Proliferation of rubbish in the coastal environment, including materials such as lengths of rope from boats and moorings, plastic packaging strips, discarded and lost fishing gear, glass and plastic bottles as well as other dumped material.
- *Discharge* or disposal of waste products from the processing of marine species.
- Oil and chemical spills negatively affecting the natural environment
- Indiscriminate *discharge* of human ashes in sensitive areas such as kaimoana areas, or without the knowledge of *takata whenua*.

RMIA–CE–13 – The ability for Kāi Tahu ki Otago to access and harvest kaimoana has been impeded by the effects of activities in the coastal and marine environment

Parts of the coastal environment in Otago have been heavily modified since the arrival of settlers. Many parts of the coast around Dunedin have been reclaimed to establish the city, and the harbor has been dredged to enable the growth of the port. This has limited the ability for whānau to carry out customary harvest of kaimoana resources and to access sites of significance for customary fishing. Whānau are often unable to physically access the foreshore and seabed for the collection of kaimoana, or find that kai is no longer safe to eat due to pollution.

Specific concerns include:

- Impacts on kaimoana and associated habitats from the *effects* of waterway modifications on estuarine systems and the *freshwater/saltwater* interface.
- Modification or loss of marine habitats as a result of *reclamation*, dredging and dumping.
- Disturbance of intertidal habitats by vehicle access along beaches.
- Potential for modification and displacement of habitats by *aquaculture activities*.
- The negative *effects* of point and non-point source *discharges* on *water* quality.
- The introduction and spread of exotic species, such as the invasive seaweed *undaria*, through ballast, hull cleaning, and other shipping activities.
- Loss of access due to development of coastal *land*.

RMIA–CE–14 – Habitat disturbance and modification has contributed to decline in populations of indigenous marine species, including marine mammals

Indigenous marine species, including marine mammals, are regarded as taoka by Kāi Tahu, and in many cases these are recognised through the NTCSA 1998. The health and abundance of marine species populations are threatened by modification and loss of natural habitat as a result of the impacts identified in RMIA–CE–12 and RMIA–CE–13.

RMIA–CE–15 – Wāhi tapu and wāhi tūpuna values in the coastal environment are poorly recognised and protected

The coastal environment is the domain of Takaroa and includes the *coastal waters* of Te Tai o Arai Te Uru as well as the adjoining land. Tauraka waka (waka landing places) occur up and down the coast in their hundreds and wherever a tauraka waka is located there is also likely to be a *nohoaka*, fishing

ground, kaimoana resource, or rimurapa (seaweed) with the sea trail linked to a land trail or mahika kai resource. Burial sites and other wāhi tapu are also associated with these wāhi tūpuna. Seascapes such as reef systems also form part of wāhi tūpuna.

Wāhi tapu and the broader wāhi tūpuna can be adversely affected by inappropriate activities and developments on coastal land and in the *coastal marine areas*.

Specific concerns include:

- Damage to and disturbance of wāhi tapu resulting from coastal erosion, earthworks associated with *subdivisions*, and development of coastal walkways.
- The *effects* of *land* fragmentation on access to sites of significance.
- Loss of the integrity of cultural landscapes by *reclamation* and the inappropriate location of *structures* and activities associated with aquaculture, tourism activities, *infrastructure*, and vessel moorings.
- Disturbance from mining of the seabed and foreshore.
- Restriction of access to tauraka waka and associated trails due to *land* development.
- The cumulative *effect* of incremental, uncoordinated *subdivisions*, *land use* change and building within the coastal environment.
- Failure to recognise and provide for the *effects* of changing sea levels on coastal landscapes.

RMIA–PO – Pounamu

Context

Kāi Tahu customs are intricately linked to this special taoka. There is currently no Regional Pounamu Plan for Otago. Management of this taoka is currently dependent on the provisions of the Ngāi Tahu (Pounamu Vesting) Act 1997 and a rāhui pounamu is in place in the Otago region.

RMIA–PO–I1 – Pounamu resources need protection from the *effects* of *land use* activities

Pounamu is a taoka for Kāi Tahu, but lack of recognition and protection of pounamu resources may lead to these resources being unknowingly degraded, for example by extraction of material for *road* aggregate.

IM – Integrated management

Objectives

IM–O1 – Long term vision

The management of *natural and physical resources* in Otago, by and for the people of Otago, including Kāi Tahu, and as expressed in all resource management plans and decision making, achieves healthy, resilient, and safeguarded natural systems, and the ecosystem services they offer, and supports the well-being of present and future generations, *mō tātou, ā, mō kā uri ā muri ake nei*.

IM–O2 – Ki uta ki tai

Natural and physical resource management and decision making in Otago embraces *ki uta ki tai*, recognising that the *environment* is an interconnected system, which depends on its connections to flourish, and must be considered as an interdependent whole.

IM–O3 – Environmentally sustainable impact

Otago’s communities carry out their activities in a way that preserves environmental integrity, form, function, and *resilience*, so that the life-supporting capacities of air, *water*, soil, ecosystems, and indigenous *biodiversity* endure for future generations.

IM–O4 – Climate change

Otago’s communities, including Kāi Tahu, understand what *climate change* means for their future, and *climate change* responses in the region, including adaptation and mitigation actions, are aligned with national level *climate change* responses and are recognised as integral to achieving the outcomes sought by this RPS.

Policies

IM–P1 – Integrated approach

The objectives and policies in this RPS form an integrated package, in which:

- (1) all activities are carried out within the environmental constraints of this RPS,
- (2) all provisions relevant to an issue or decision must be considered,
- (3) if multiple provisions are relevant, they must be considered together and applied according to the terms in which they are expressed, and
- (4) notwithstanding the above, all provisions must be interpreted and applied to achieve the integrated management objectives IM–O1 to IM–O4.

IM–P2 – Decision priorities

Unless expressly stated otherwise, all decision making under this RPS shall:

- (1) firstly, secure the long-term life-supporting capacity and mauri of the natural environment,
- (2) secondly, promote the health needs of people, and
- (3) thirdly, safeguard the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

IM–P3 – Providing for *mana whenua* cultural values in achieving integrated management

Recognise and provide for Kāi Tahu’s relationship with natural resources by:

- (1) enabling *mana whenua* to exercise *rakaitirataka* and *kaitiakitaka*,
- (2) facilitating active participation of *mana whenua* in resource management decision making,
- (3) incorporating *mātauraka Māori* in decision making, and
- (4) ensuring resource management provides for the connections of Kāi Tahu to *wāhi tūpuna*, *water* and *water bodies*, the coastal environment, *mahika kai* and habitats of *taoka* species.

IM–P4 – Setting a strategic approach to ecosystem health

Healthy ecosystems and ecosystem services are achieved through a planning framework that:

- (1) protects their *intrinsic values*,
- (2) takes a long-term strategic approach that recognises changing *environments*,
- (3) recognises and provides for ecosystem complexity and interconnections, and
- (4) anticipates, or responds swiftly to, changes in activities, pressures, and trends.

IM–P5 – Managing environmental interconnections

Coordinate the management of interconnected *natural and physical resources* by recognising and providing for:

- (1) situations where the value and function of a *natural or physical resource* extends beyond the immediate, or directly adjacent, area of interest,
- (2) the effects of activities on a *natural or physical resource* as a whole when that resource is managed as sub-units, and
- (3) the impacts of management of one *natural or physical resource* on the values of another, or on the *environment*.

IM–P6 – Acting on best available information

Avoid unreasonable delays in decision-making processes by using the best information available at the time, including but not limited to *mātauraka Māori*, local knowledge, and reliable partial data.

IM–P7 – Cross boundary management

Coordinate the management of Otago’s *natural and physical resources* across jurisdictional boundaries and, whenever possible, between overlapping or related agency responsibilities.

IM–P8 – Climate change impacts

Recognise and provide for *climate change* processes and *risks* by identifying *climate change* impacts in Otago, including impacts from a te ao Māori perspective, assessing how the impacts are likely to change over time and anticipating those changes in resource management processes and decisions.

IM–P9 – Community response to climate change impacts

By 2030 Otago’s communities have established responses for adapting to the impacts of *climate change*, are adjusting their lifestyles to follow them, and are reducing their *greenhouse gas* emissions to achieve net-zero carbon emissions by 2050.

IM–P10 – Climate change adaptation and mitigation

Identify and implement *climate change* adaptation and mitigation methods for Otago that:

- (1) minimise the *effects* of *climate change* processes or *risks* to existing activities,
- (2) prioritise avoiding the establishment of new activities in areas subject to *risk* from the *effects* of *climate change*, unless those activities reduce, or are resilient to, those *risks*, and
- (3) provide Otago’s communities, including Kāi Tahu, with the best chance to thrive, even under the most extreme *climate change* scenarios.

IM–P11 – Enhancing environmental resilience to effects of climate change

Enhance environmental *resilience* to the adverse *effects* of *climate change* by facilitating activities that reduce human impacts on the *environment*.

IM–P12 – Contravening environmental bottom lines for climate change mitigation

Where a proposed activity provides or will provide enduring regionally or nationally significant mitigation of *climate change* impacts, with commensurate benefits for the well-being of people and communities and the wider *environment*, decision makers may, at their discretion, allow non-compliance with an environmental bottom line set in any policy or method of this RPS only if they are satisfied that:

- (1) the activity is designed and carried out to have the smallest possible environmental impact consistent with its purpose and *functional needs*,
- (2) the activity is consistent and coordinated with other regional and national *climate change* mitigation activities,
- (3) adverse *effects* on the *environment* that cannot be avoided, remedied, or mitigated are offset, or compensated for if an offset is not possible, in accordance with any specific criteria for using offsets or compensation, and ensuring that any offset is:
 - (a) undertaken where it will result in the best ecological outcome,

- (b) close to the location of the activity, and
 - (c) within the same ecological district or coastal marine biogeographic region,
- (4) the activity will not impede either the achievement of the objectives of this RPS or the objectives of regional policy statements in neighbouring regions, and
- (5) the activity will not contravene a bottom line set in a national policy statement or national environmental standard.

IM–P13 – Managing cumulative effects

Otago’s environmental integrity, form, function, and *resilience*, and opportunities for future generations, are protected by recognising and specifically managing the cumulative *effects* of activities on *natural and physical resources* in plans and explicitly accounting for these *effects* in other resource management decisions.

IM–P14 – Human impact

Preserve opportunities for future generations by:

- (1) identifying limits to both growth and adverse *effects* of human activities beyond which the *environment* will be degraded,
- (2) requiring that activities are established in places, and carried out in ways, that are within those limits and are compatible with the natural capabilities and capacities of the resources they rely on, and
- (3) regularly assessing and adjusting limits and thresholds for activities over time in light of the actual and potential environmental impacts.

IM–P15 – Precautionary approach

Adopt a precautionary approach towards proposed activities whose *effects* are uncertain, unknown or little understood, but could be significantly adverse, particularly where the areas and values within Otago have not been identified in plans as required by this RPS.

Methods

IM–M1 – Regional and district plans

Local authorities must prepare or amend and maintain their *regional* and *district plans* to:

- (1) establish, by December 2030, policy frameworks designed to achieve the objectives for Otago set out in IM–O1 to IM–O4,
- (2) give effect to any response to *climate change* developed under this RPS, if applicable,
- (3) provide for activities that seek to mitigate or adapt to the effects of *climate change* or reduce greenhouse gas emissions,
- (4) ensure cumulative *effects* of activities on *natural and physical resources* are accounted for in resource management decisions by recognising and managing such *effects*, including:

- (a) the same *effect* occurring multiple times,
 - (b) different *effects* occurring at the same time,
 - (c) different *effects* occurring multiple times,
 - (d) one *effect* leading to different *effects* occurring over time,
 - (e) different *effects* occurring sequentially over time,
 - (f) *effects* occurring in the same place,
 - (g) *effects* occurring in different places,
 - (h) *effects* that are spatially or temporally distant from their cause or causes, and,
 - (i) more than minor cumulative *effects* resulting from minor or transitory *effects*,
- (5) adopt a *ki uta ki tai* approach to resource management by establishing policy and implementation frameworks that treat Otago's *environments* as an integrated system, including collaboration between local authorities to achieve consistent management of resources or *effects* that cross jurisdictional boundaries, and
- (6) establish clear thresholds for, and limits on, activities that have the potential to adversely affect healthy ecosystem services and *intrinsic values*.

IM–M2 – Relationships

Starting immediately, *local authorities* must:

- (1) partner with Kāi Tahu to ensure *mana whenua* involvement in resource management,
- (2) work together and with other agencies to ensure consistent implementation of the objectives, policies and methods of this RPS, and
- (3) consult with Otago's communities to ensure policy frameworks adequately respond to the diverse facets of environmental, social, cultural, and economic well-being.

IM–M3 – Identification of *climate change* impacts and community guidance

By December 2025, Otago Regional Council must:

- (1) identify the specific types and locations of *climate change* impacts in Otago by undertaking a *climate change risk* assessment, including an assessment that incorporates a Kāi Tahu approach to *climate change risk* identification and evaluation, and
- (2) develop guidance to support communities to be prepared and *resilient*.

IM–M4 – *Climate change* response

By January 2027, *local authorities* (led by Otago Regional Council) must together, in partnership with Kāi Tahu and in consultation with Otago's communities, develop *climate change* responses for the region that achieve *climate change* adaptation and mitigation, and that include:

- (1) identifying natural and built resources vital to environmental and community *resilience* and well-being,

- (2) identifying vulnerable resources and communities and developing adaptation pathways for them where possible, and
- (3) developing plans and agreements for implementation.

IM–M5 – Other methods

Local authorities should:

- (1) at their next plan review or by December 2030, whichever is sooner, align (to the extent possible) all strategies and management plans prepared under other legislation to contribute to the attainment of the long-term vision for Otago, and
- (2) facilitate community involvement in realising the long-term vision for Otago stated in IM–O1 through non-regulatory means,
- (3) encourage changes to business practice that will enable businesses to function in a net-zero carbon economy, and
- (4) advocate for and incentivise activities that reduce, mitigate, or eliminate risk of environmental degradation.

Explanation

IM–E1 – Explanation

The policies in this chapter provide direction on integrated management across the region, to achieve the revitalisation, *resilience* and safeguarding of Otago’s environment and ensure that it supports ka takata and the community’s cultural, social, and economic well-being. The policies seek to apply a ki uta ki tai approach and ensure that the *effects* of *climate change* are understood and responded to across the region. Further, they are designed to ensure that environmental integrity, form, function, and *resilience* are at the centre of all resource management decision making and that changes are made where necessary to ensure the environment’s life-supporting capacity continues to support people’s health and well-being both now and into the future.

The policies in this chapter include direction for resolving issues when multiple Regional Policy Statement provisions need to be applied simultaneously. This direction reinforces the primacy of national legislation and regulation, as some provisions of National Policy Statements and National Environmental Standards are prescriptive enough that they do not need a regional interpretation and are only referred to in the RPS when necessary. Further, some direction in the New Zealand Coastal Policy Statement 2010, such as in Policy 3, is considered appropriate to apply to the management of resources throughout Otago, rather than solely within the coastal environment.

Principal reasons

IM–PR1 – Principal reasons

Integrated management is at the core of the RMA 1991. The provisions in this chapter set out core facets of integration - the interconnections and interdependencies within the environment, involvement of *mana whenua* in resource management, the fundamental importance of

environmental health to human well-being, and holistic assessment of human *effects* on the *environment*. They also address the *effects* of *climate change* as the key threat to environmental stability.

The provisions seek to enshrine an explicit recognition and implementation of these facets into plan making and resource consenting processes. They set an expectation of integrated resource management that flows through to all other provisions of the RPS, and informs the limits and thresholds we set on human activities for protecting environmental health. It sets explicit expectations that local authorities will work with each other and with other agencies to ensure management approaches are clear, coordinated, and able to support Otago's communities into the future.

Anticipated environmental results

IM-AER1	Monitoring shows the limits and thresholds set for human activities are adhered to and are resulting in environmental well-being and resilience.
IM-AER2	Environmental well-being and resilience is resulting in sustainable social, cultural, and economic well-being.
IM-AER3	Communities are aware of the potential impacts of <i>climate change</i> and there are observable changes in community behaviour towards more sustainable lifestyles.
IM-AER4	Plan development and decision-making processes demonstrate improved awareness of the interdependencies and interconnectedness of <i>natural and physical resources</i> within the region.

PART 3 – DOMAINS AND TOPICS

DOMAINS

AIR – Air

Objectives

AIR–O1 – Ambient air quality

Ambient air quality provides for the health and well-being of the people of Otago, *amenity* and *mana whenua values*, and the life-supporting capacity of ecosystems.

AIR–O2 – Discharges to air

Human health, *amenity* and *mana whenua values* and the life-supporting capacity of ecosystems are protected from the adverse effects of discharges to air.

Policies

AIR–P1 – Maintain good ambient air quality

Good ambient air quality is maintained across Otago by:

- (1) ensuring *discharges* to air comply with ambient air quality limits where those limits have been set, and
- (2) where limits have not been set, only allowing *discharges* to air if the adverse *effects* on ambient air quality are no more than minor.

AIR–P2 – Improve poor ambient air quality

Poor ambient air quality is improved across Otago by:

- (1) establishing, maintaining and enforcing plan provisions that set limits and timeframes for improving ambient air quality, including by managing the spatial distribution of activities and transport, and
- (2) prioritising actions to reduce PM_{10} and $PM_{2.5}$ concentrations in *polluted airsheds*, including phasing out existing domestic *solid fuel* burning appliances and preventing any *discharges* from new domestic *solid fuel* burning appliances that do not comply with the standards set in the NESAQ.

AIR–P3 – Providing for discharges to air

Allow discharges to air provided they do not adversely affect human health, amenity and *mana whenua* values and the life supporting capacity of ecosystems.

AIR–P4 – Avoiding certain discharges

Avoid discharges to air that cause offensive, objectionable, noxious or dangerous effects.

AIR–P5 – Managing certain discharges

Manage the *effects* of *discharges* to air beyond the boundary of the property of origin from activities that include but are not limited to:

- (1) outdoor burning of organic material,
- (2) agrichemical and fertiliser spraying,
- (3) farming activities,
- (4) activities that produce dust, and
- (5) industrial and trade activities.

AIR–P6 – Impacts on *mana whenua* values

Avoid *discharges* to air that adversely affect *mana whenua* values by having particular regard to values and areas of significance to *mana whenua*.

Methods**AIR–M1 – Review *airshed* boundaries**

Prior to implementing AIR–M2, and no later than 31 December 2022, the Otago Regional Council must review existing *airshed* boundaries and apply to the Ministry for the Environment to gazette amended boundaries where *airsheds* do not account for:

- (1) current or anticipated areas of development,
- (2) weather patterns and geography, or
- (3) existing areas of poor air quality.

AIR–M2 – *Regional plans*

No later than 31 December 2024, Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) avoid offensive, objectionable, noxious or dangerous *discharges* to air,
- (2) include provisions to mitigate the adverse *effects* from *discharges* to air beyond the boundary of the property of origin,
- (3) implement the prioritisation of actions set out in AIR–P2,

- (4) mitigate the adverse *effects* of *discharges* to air in areas adjacent to *polluted airsheds* where the *discharge* will adversely affect air quality in the *polluted airshed*, and
- (5) give effect to the Air Quality Strategy for Otago and any subsequent amendments or updates.

AIR–M3 – Territorial authorities

No later than 31 December 2029, *territorial authorities* must prepare or amend and maintain their *district plans* to include provisions that direct an urban form that assists in achieving good air quality by:

- (1) reducing reliance on private motor vehicles and enabling the adoption of *active transport*, shared transport and *public transport* options to assist in achieving good air quality, and
- (2) managing the spatial distribution of activities.

AIR–M4 – Monitoring and reporting

Otago Regional Council must monitor and report no less frequently than annually on:

- (1) air quality in accordance with the NESAQ to identify changes in ambient air quality within *airsheds*, and
- (2) progress towards attainment of the *ambient air quality standards*.

AIR–M5 – Incentives and other mechanisms

In collaboration with *territorial authorities*, iwi authorities, key stakeholders and industry, Otago Regional Council must, on an on-going basis, use other mechanisms or incentives to assist with achieving the air quality objectives, including:

- (1) improving community awareness of air quality issues in Otago associated with home heating,
- (2) educating communities and promoting the use of alternative methods for home heating including the use of new technology (including low emission or ultra-low emission home heating appliances) and cleaner fuels or energy sources,
- (3) advocating, promoting and supporting upgrading Otago's housing stock and changes to the Building Act 2004 and Building Code to require houses to create and maintain warmth more efficiently and reduce reliance on non-compliant domestic *solid fuel* burning appliances as described in AIR-P2,
- (4) advocating to energy providers to improve the *resilience* of electricity infrastructure so alternative sources of heating are available and reliable,
- (5) measures to encourage the use of *active transport*, shared transport and *public transport* over the use of private motor vehicles, and
- (6) providing financial incentives (such as funding schemes, subsidies or rates relief) and support to improve home heating efficiency and assist with the transition towards cleaner heating, improved energy efficiency and home insulation, including the replacement of *solid fuel* burners that do not comply with the NESAQ standards.

Explanation

AIR-E1 – Explanation

The policies in this chapter are designed to achieve and maintain good air quality for Otago by requiring improvements where air quality is poor, maintaining it where it is good. Managing air quality does not include emissions from ships which are managed under separate national regulation. The policies in this chapter focus on preventing further decline in air quality by preventing use of new domestic *solid fuel* burning appliances that do not comply with the NESAQ, and phasing out the use of existing domestic *solid fuel* burning appliances that are non-compliant. The policies also require the boundaries of *airsheds* be amended to accurately reflect current and anticipated areas of urban growth. This is required to ensure monitoring of ambient air quality is accurate and that all activities that contribute to poor ambient air quality within an *airshed* are subject to the same measures to improve ambient air quality. This policy framework also directs future reviews of the Regional Plan: Air to manage the adverse effects of discharges to air.

In addition to the objectives and policies in this chapter, the air quality outcomes are also provided for in the objectives and policies listed within the following chapters of the RPS where they provide direction on the management of *environments* and activities that may affect air quality:

- IM – Integrated management
- EIT – Energy, *infrastructure* and transport
- UFD – Urban form and development

Principal reasons

AIR-PR1

Clean air is vital for supporting a healthy population and *environment*. Air quality monitoring shows that for most of the year air quality in the Otago Region is very good. During winter months however, temperatures drop and emissions from home heating increase. This, coupled with the topography of some areas and cold, calm conditions, leads to poor winter air quality in many towns and cities across the region. At times, parts of Otago have some of the poorest air quality in New Zealand. This is intensifying through urban growth.

The provisions in this chapter set out the framework for a review of the Air Plan and supports ORC's obligation to both observe and enforce the NESAQ. Implementation of the provisions in this chapter will occur primarily through regional and *district plan* provisions, however a collaborative approach with central government, other *local authorities*, stakeholders and industry will support the achievement of the objectives over time.

Anticipated environmental results

- | | |
|-----------------|---|
| AIR-AER1 | Where air quality is poor, there is a decreasing trend in concentrations of <i>PM₁₀</i> and <i>PM_{2.5}</i> . |
| AIR-AER2 | Otago has an urban form that takes into account the <i>effects</i> of activities, and any <i>discharges</i> to air they create, on Otago's air quality. |

- AIR-AER3** Homes have cleaner forms of heating and non-compliant burners are no longer in use.
- AIR-AER4** There is a decrease in the number of complaints regarding offensive, objectionable, noxious or dangerous *discharges* into air.
- AIR-AER5** Where air quality is good it is maintained.
- AIR-AER6** Otago is compliant with NESAQ requirements.

CE – Coastal environment

Objectives

CE–01 – Safeguarding the coastal environment

The integrity, form, functioning and resilience of Otago's coastal environment is safeguarded so that:

- (1) the mauri of *coastal water* is protected, and restored where it has *degraded*,
- (2) *coastal water* quality supports healthy ecosystems, natural habitats, water-based recreational activities, existing activities, and customary uses, including practices associated with mahika kai and kaimoana,
- (3) the dynamic and interdependent natural biological and physical processes in the coastal environment are maintained or enhanced,
- (4) representative or significant areas of biodiversity are protected, and
- (5) *surf breaks* of national significance are protected.

CE–02 – Maintaining or enhancing highly valued areas of the coastal environment

Public access, recreation opportunities, and *highly valued natural features and landscapes* in the coastal environment are maintained or enhanced.

CE–03 – Natural character, features and landscapes

Areas of natural character, natural features, landscapes and seascapes within the coastal environment are protected from inappropriate activities, and restoration is encouraged where the values of these areas have been compromised.

CE–04 – Kāi Tahu associations with Otago's coastal environment

The enduring cultural association of Kāi Tahu with Otago's coastal environment is recognised and provided for, and *mana whenua* are able to exercise their kaitiaki role within the coastal environment.

CE–05 – Activities in the coastal environment

Activities in the coastal environment:

- (1) make efficient use of space occupied in the *coastal marine area*,
- (2) are of a scale, density and design compatible with their location,
- (3) are only provided for within appropriate locations and limits, and
- (4) maintain or enhance public access to and along the *coastal marine area*, including for customary uses.

Policies

CE–P1 – Links with other chapters

Recognise that:

- (1) coastal hazards must be identified in accordance with CE–P2(4) and managed in accordance with the HAZ–NH – Natural hazards section of this RPS;
- (2) port activities must be managed in accordance with the TRAN – Transport section of this RPS; and
- (3) *historic heritage* must be managed in accordance with the HCV – Historical and cultural values section of this RPS.

CE–P2 – Identification

Identify the following in the coastal environment:

- (1) the landward extent of the coastal environment, recognising that the coastal environment includes:
 - (a) the *coastal marine area*,
 - (b) islands within the *coastal marine area*,
 - (c) areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these,
 - (d) areas at risk from coastal hazards as identified in CE–P2(4),
 - (e) coastal vegetation and the habitat of indigenous coastal species including migratory birds,
 - (f) elements and features that contribute to the natural character, landscape, visual qualities or *amenity values*,
 - (g) items of cultural and *historic heritage* in the *coastal marine area* or on the coast,
 - (h) inter-related coastal marine and terrestrial systems, including the intertidal zone, and
 - (i) physical resources and built facilities, including *infrastructure*, that have modified the coastal environment,
- (2) areas of *water quality* in the *coastal marine area* that are considered to have deteriorated so that it is having a significant adverse *effect* on ecosystems, natural habitats, or water-based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities such as mahika kai and harvesting of kaimoana,
- (3) areas of *coastal water* where *takata whenua* have a particular interest,
- (4) areas that are potentially affected by coastal hazards (including tsunamis), giving priority to the identification of areas at high *risk* of being affected, and
- (5) the nationally significant *surf breaks* at Karitane, Papatowai, The Spit, and Whareakeake and any regionally significant *surf breaks*.

CE–P3 – Coastal water quality

Coastal water quality is improved where it is considered to have deteriorated to the extent described within CE-P1(2), and otherwise managed, so that:

- (1) healthy coastal ecosystems, indigenous habitats provided by the coastal environment, and the migratory patterns of indigenous *coastal water* species are maintained or enhanced,
- (2) Kāi Tahu relationships with and customary uses of *coastal water* are sustained,
- (3) recreation opportunities and existing uses of *coastal water* are maintained or enhanced, and
- (4) within identified areas where *takata whenua* have a particular interest, adverse *effects* on these areas and values are remedied or where remediation is not practicable, are mitigated.

CE–P4 – Natural character

Identify, preserve and restore the natural character of the coastal environment by:

- (1) identifying areas and values of high and outstanding natural character which may include matters such as:
 - (a) natural elements, processes and patterns,
 - (b) biophysical, ecological, geological and geomorphological aspects,
 - (c) natural landforms such as headlands, peninsulas, cliffs, dunes, *wetlands*, estuaries, reefs, *freshwater* springs and *surf breaks*,
 - (d) the natural movement of *water* and sediment,
 - (e) the natural darkness of the night sky,
 - (f) places or areas that are wild or scenic,
 - (g) a range of natural character from pristine to modified,
 - (h) experiential attributes, including the sounds and smell of the sea, and their context or setting,
- (2) avoiding adverse *effects* on natural character in areas identified as having outstanding natural character,
- (3) avoiding significant adverse *effects* and avoiding, remedying or mitigating other adverse *effects* on natural character outside the areas in (2) above,
- (4) encouraging de-reclamation of redundant reclaimed *land* where it would restore the natural character and resources of the *coastal marine area* and provide for more public open space, and
- (5) promoting *activities* and restoration projects that will restore natural character in the coastal environment where it has been reduced or lost.

CE–P5 – Coastal indigenous biodiversity

Protect indigenous *biodiversity* in the coastal environment by:

- (1) identifying and avoiding adverse effects on the following ecosystems, vegetation types and areas:
 - (a) indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists,
 - (b) taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened,
 - (c) indigenous ecosystems and vegetation types in the coastal environment that are threatened or are naturally rare,
 - (d) habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare,
 - (e) areas containing nationally significant examples of indigenous community types, and
 - (f) areas set aside for full or partial protection of indigenous *biodiversity* under other legislation, and
- (2) identifying and avoiding significant adverse *effects* and avoiding, remedying or mitigating other adverse *effects* on the following ecosystems, vegetation types and areas:
 - (a) areas of predominantly indigenous vegetation in the coastal environment,
 - (b) habitats in the coastal environment that are important during the vulnerable life stages of indigenous species,
 - (c) indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable,
 - (d) areas sensitive to modification, including estuaries, lagoons, coastal *wetlands*, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh,
 - (e) habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes,
 - (f) habitats, including areas and routes, important to migratory species, and
 - (g) ecological corridors, and areas important for linking or maintaining biological values identified under this policy.

CE–P6 – Natural features, landscapes and seascapes

Protect natural features, landscapes and seascapes in the coastal environment by:

- (1) identifying their areas and values in accordance with APP9,
- (2) avoiding adverse *effects* of activities on outstanding natural features, landscapes or seascapes,
- (3) avoiding significant adverse *effects* and avoiding, remedying, or mitigating other adverse *effects* of activities on other natural features and natural landscapes or seascapes, and
- (4) promoting restoration or enhancement of natural features, landscapes and seascapes where they have been reduced or lost.

CE–P7 – Surf breaks

Manage Otago’s nationally and regionally significant *surf breaks* so that:

- (1) nationally significant *surf breaks* are protected by avoiding adverse *effects* on the *surf breaks*, including on access to and use and enjoyment of them, and
- (2) the values of and access to regionally significant *surf breaks* are maintained.

CE–P8 – Public access

Maintain or enhance public access to and along the *coastal marine area*, unless restricting public access is necessary:

- (1) to protect public health and safety,
- (2) to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna,
- (3) to protect dunes, estuaries and other sensitive natural areas or habitats,
- (4) to protect places or areas containing *historic heritage* of regional or national significance,
- (5) to protect places or areas of significance to *takata whenua*, including wāhi tapu and wāhi tūpuna,
- (6) for defence purposes in accordance with the Defence Act 1990,
- (7) for temporary activities or special events, or
- (8) to ensure a level of security consistent with the operational requirements of a lawfully established activity.

CE–P9 – Activities on *land* within the coastal environment

The strategic and co-ordinated use of *land* within the coastal environment is achieved by:

- (1) avoiding sprawling or sporadic patterns of *subdivision*, use and development,
- (2) considering the rate at which built development should be enabled to provide for the reasonably foreseeable needs of population growth without compromising the values of the coastal environment,
- (3) recognising the importance of the provision of *infrastructure* to the social, economic and cultural well-being of people and communities,
- (3) maintaining or enhancing public access to the coastal environment, and
- (4) considering where activities that maintain the character of the existing built environment should be encouraged, and where activities resulting in a change in character would be acceptable.

CE–P10 – Activities within the *coastal marine area*

Use and development in the *coastal marine area* must:

- (1) enable multiple uses of the *coastal marine area* wherever reasonable and practicable,

- (2) maintain or improve the integrity, form, function and *resilience* of the *coastal marine area*, and
- (3) have a *functional or operational need* to be located in the *coastal marine area*, or
- (4) have a public benefit or opportunity for public recreation that cannot practicably be located outside the *coastal marine area*.

CE–P11 – Aquaculture

Provide for the development and operation of *aquaculture activities* within appropriate locations and limits, taking into account:

- (1) the need for high quality *water* required for an *aquaculture activity*,
- (2) the need for *land*-based facilities and infrastructure required to support the operation of *aquaculture activities*, and
- (3) the potential social, economic and cultural benefits associated with the operation and development of *aquaculture activities*.

CE–P12 – Reclamation

Avoid reclamation in the *coastal marine area*, unless:

- (1) *land* outside the *coastal marine area* is not available for the proposed activity,
- (2) the activity to be established on the reclamation can only occur immediately adjacent to the *coastal marine area*,
- (3) there are no practicable alternative methods of providing for the activity, and
- (4) the reclamation will provide significant regional or national benefit.

CE–P13 – Kaitiakitaka

Recognise and provide for the role of Kāi Tahu as kaitiaki of the coastal environment by:

- (1) involving *mana whenua* in decision making and management processes in respect of the coast,
- (2) identifying, protecting, and improving where degraded, sites, areas and values of importance to Kāi Tahu within the coastal environment, and managing these in accordance with tikaka,
- (3) providing for customary uses, including mahika kai and the harvesting of kaimoana,
- (4) incorporating the impact of activities on customary fisheries in decision making, and
- (5) incorporating mātauraka Maōri in the management and monitoring of activities in the coastal environment.

Methods

CE–M1 – Identifying the coastal environment

Local authorities must:

- (1) no later than 31 May 2023, work collaboratively to:

- (a) identify the landward extent of the coastal environment, in accordance with CE-P2(1),
- (b) map the landward extent of the coastal environment area in the relevant *regional* and *district plans*.

CE–M2 – Identifying other areas

Local authorities must work collaboratively together to:

- (1) identify areas and values of high and outstanding natural character within their jurisdictions in accordance with CE–P4(1), map the areas and describe their values in the relevant *regional* and *district plans*, and identify their capacity to accommodate change through use or development while protecting the values that contribute to the natural character of the area being considered high or outstanding,
- (2) identify areas and values of outstanding natural features, landscapes, and seascapes (in the coastal environment) within their jurisdictions in accordance with CE–P6(1), map the areas and describe their values in the relevant *regional* and *district plans*, and identify their capacity to accommodate change through use or development while protecting the values that contribute to the natural features, landscapes, and seascapes being considered outstanding,
- (3) identify areas and values of indigenous *biodiversity* within their jurisdictions in accordance with CE–P5, map the areas and describe their values in the relevant *regional* and *district plans*, and
- (4) prioritise identification under (1) – (3) in areas that are:
 - (a) likely to face development or growth pressure over the life of this RPS, or
 - (b) likely to contain outstanding natural character areas, outstanding natural features or landscapes, and areas of significant indigenous *biodiversity*, including the areas in the table below.

Table 2: Areas likely to contain significant values

Oamaru Harbour Breakwater	Te Whakarekaiwi
Moeraki Beach	Papanui Inlet
Moeraki Peninsula	Hoopers Inlet
Shag Point & Shag River Estuary	Kaikorai Estuary
Stony Creek Estuary	Brighton
Pleasant River Estuary	Akatore Creek Estuary
Hawksbury Inlet	Tokomairiro Estuary
Waikouaiti River Estuary	Wangaloa
Karitane Headland	Clutha River Mata-au, Matau Branch
Puketeraki	Nugget Point
Blueskin Bay	Surat Bay
Orokonui Inlet	Catlins Lake Estuary
Mapoutahi	Jacks Bay
Purakanui Inlet	Waiheke Beach
Aramoana	Tahakopa Estuary
Otago Harbour Historic Walls	Oyster Bay
Otakou & Taiaroa Head	Tautuku Estuary
Pipikaretu Point	Waipati Estuary & Kinakina Island

CE–M3 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* no later than 31 December 2028 to:

- (1) map areas of deteriorated *water* quality in the coastal environment, in accordance with CE–P2(2) and CE–P2(3),
- (2) map the areas and characteristics of, and access to, nationally and regionally significant *surf breaks*,
- (3) require development to be set back from the *coastal marine area* where practicable to protect the natural character, open space, public access and *amenity values* of the coastal environment,
- (4) manage the *discharge* of *contaminants* into *coastal water* by:
 - (a) only enabling the use of small *mixing zones* before the *water* quality standards need to be met in the *receiving environment* and minimising adverse *effects* on the life-supporting capacity of *water* within any mixing zone,
 - (b) prohibiting the *discharge* of untreated human *sewage* directly to water in the coastal environment,
 - (c) prohibiting the *discharge* of treated human *sewage* directly to water in the coastal environment unless:
 - (i) there has been adequate consideration of alternative methods, sites and routes for undertaking the *discharge*, and
 - (ii) it can be demonstrated that the proposal has been informed by consultation with *tangata whenua* and the affected community, and
 - (d) reducing the *discharge* of sediment by:
 - (i) requiring that *subdivision*, use, or development will not increase sedimentation of the *coastal marine area* or other *coastal water*,
 - (ii) controlling the impacts of vegetation removal on sedimentation including the impacts of harvesting *plantation forestry*, and
 - (iii) reducing sediment loadings in runoff and in *stormwater* systems through controls on *land* use activities, and
 - (e) avoiding cross-contamination between *sewage* and *stormwater* systems where new systems are proposed and remedy cross-contamination where they currently exist in established systems, and
 - (f) having particular regard to:
 - (i) the sensitivity of the receiving environment,
 - (ii) the nature of the *contaminants* to be *discharged*, the *contaminant* concentration thresholds not to be exceeded to achieve the required *water* quality in the receiving environment, and the risks if that concentration of *contaminants* is exceeded,
 - (iii) the capacity of the receiving environment to assimilate the *contaminants*, and

- (iv) avoiding significant adverse *effects* on ecosystems and habitats after reasonable mixing,
- (5) control the use and development of the *coastal marine area*, in order to:
 - (a) preserve the natural character; natural landscapes, features, and seascapes; and indigenous *biodiversity* of the *coastal marine area* in accordance with CE–P4, CE–P5 and CE–P6, and
 - (b) manage Otago’s nationally and regionally significant *surf breaks* in accordance with CE–P7,
- (6) include provisions requiring the adoption of a precautionary approach to assessing the *effects* of activities in the coastal environment in accordance with IM–P15 where:
 - (a) there is scientific uncertainty, or
 - (b) there are potentially significant or irreversible adverse *effects*,
- (7) identify areas appropriate for aquaculture and the forms and limits associated with providing for aquaculture that will enable achievement of objectives CE–O1 to CE–O5,
- (8) provide for walking access to and along the *coastal marine area* in accordance with Policy 19 of the NZCPS,
- (9) control vehicle access to and along the *coastal marine area* in accordance with Policy 20 of the NZCPS,
- (10) manage reclamation activities in accordance with CE–P12, and when *reclamation* is considered suitable in accordance with CE–P12, have particular regard to the matters listed in Policy 10(2) and (3) of the NZCPS,
- (11) require stock to be excluded from the *coastal marine area*, adjoining intertidal areas and other *water bodies* and riparian margins in the coastal environment, and
- (12) provide for and encourage activities undertaken for the primary purpose of restoring natural character, features, landscapes, or seascapes in accordance with CE–P4 and CE–P6.

CE–M4 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) control the location, density and form of *subdivision* in the coastal environment (outside the *coastal marine area*),
- (2) control the location, scale and form of *buildings* and *structures* in the coastal environment (outside the *coastal marine area*),
- (3) control the location and scale of *earthworks* and vegetation planting, modification and removal in the coastal environment (outside the *coastal marine area*),
- (4) require *resource consent* for uses of *land* on reclamations that have occurred after the date this RPS becomes operative,
- (5) provide for the establishment of *esplanade reserves* and *esplanade strips*,
- (6) include provisions requiring the adoption of a precautionary approach to assessing the *effects* of activities in the coastal environment in accordance with IM–P15 where:

- (a) there is scientific uncertainty, or
- (b) there are potentially significant or irreversible adverse *effects*,
- (7) provide for walking access to the *coastal marine area* in accordance with Policy 19 of the NZCPS,
- (8) control vehicle access to the *coastal marine area* in accordance with Policy 20 of the NZCPS,
- (9) recognise *takata whenua* needs for *papakāika*, marae and associated developments within the coastal environment and make appropriate provision for them,
- (10) provide access to nationally and regionally significant *surf breaks*, and
- (11) provide for and encourage activities undertaken for the primary purpose of restoring natural character, features, or landscapes in accordance with CE–P4 and CE–P6.

CE–M5 – Other incentives and mechanisms

Local authorities are encouraged to consider the use of other mechanisms or incentives to assist in achieving Policies CE–P2 to CE–P12, including:

- (1) identifying areas and opportunities within the coastal environment for restoration or rehabilitation,
- (2) identifying opportunities to enhance or restore public walking access in accordance with Policy 19(c) of the NZCPS,
- (3) promoting the removal of abandoned or redundant structures that have no heritage, amenity or reuse value,
- (4) funding assistance for restoration projects (for example, through Otago Regional Council’s ECO Fund),
- (5) development or design guidelines (for example, colour palettes for *structures* in the coastal environment),
- (6) rating differentials for *land* that is protected due to its status as a high or outstanding natural character area,
- (7) education and advice,
- (8) research relevant to the *effects* of activities on:
 - (a) coastal network *infrastructure*,
 - (b) coastal values,
 - (c) coastal hazards,
 - (d) riparian vegetation cover or any *land* cover that contributes to supporting coastal values or mitigating coastal hazards, or
 - (e) areas particularly sensitive to *land* use changes,
- (9) facilitating the restoration, rehabilitation or creation of coastal habitats, particularly when it:
 - (a) encourages the natural regeneration of indigenous species,
 - (b) buffers or links ecosystems, habitats and areas of significance that contribute to ecological corridors, or

- (c) maintains or enhances the provision of indigenous ecosystem services, and
- (10) bylaws controlling vehicle access to and along the *coastal marine area* in accordance with Policy 20 of the NZCPS.

Explanation

CE–E1 – Explanation

The provisions in this chapter recognise that the coastal environment is a finite resource with a range of values that need to be preserved. The policies within the chapter are designed to protect the coastal environment from inappropriate activities. The coastal environment is also recognised as dynamic and the policies, in association with others in the ORPS, seek to prevent increasing *risks* to life, *infrastructure* and property.

The policies in this chapter require the identification and management of a range of values within the coastal environment. They also set out a number of environmental bottom lines that give effect to the requirements of the NZCPS. Provided these environmental bottom lines are achieved, the chapter also acknowledges that there are a range of activities including port activities, aquaculture, and appropriately designed and located *subdivision*, use and development that can be undertaken within the coastal environment. The policies also provide specific direction on how activities in the coastal environment are to be undertaken. The balance of protective and enabling policies within this chapter are designed to implement the objectives by requiring that activities in the coastal environment are undertaken in a manner that preserves or restores the values of the coastal environment.

Kāi Tahu tūpuna had an extensive knowledge of the coastal environment and weather patterns, passed from generation to generation. This knowledge continues to be held by whānau and hapū and is regarded as a taoka. The seasonal lifestyle of Kāi Tahu led to their dependence on the resources of the coast. This enduring relationship with the coastal environment, arising from long whakapapa associations and the use of tikaka to guide resource management practices, is manifested in the rakatirataka and *kaitiakitaka* responsibilities that Kāi Tahu hold as *mana whenua*.

Some of the policies in the NZCPS are highly prescriptive and will be most effectively implemented through *regional* and *district plans*. In those cases, the policies in this RPS have included additional region-specific context where that is possible, but have not sought to restate the content of NZCPS policies with the expectation that those policies will be implemented by the *regional* and *district plans*.

In addition to the policies in this chapter, the values of the coastal environment are recognised and provided for in the following chapters of the ORPS where they provide direction on the management of the coastal environment or activities within the coastal environment:

- ECO – Ecosystems and indigenous biodiversity
- LF – Land and freshwater
- EIT – Energy, infrastructure and transport
- HCV – Historical and cultural values
- NFL – Natural features and landscapes
- HAZ – Hazards and risks

Principal reasons

CE–PR1 – Principal reasons

The coastal environment includes the *coastal marine area*, islands within the *coastal marine area* and the area landward of the line of mean high-water springs. The landward extent of the coastal environment is determined by the natural and physical elements, features and processes set out in Policy 1(2) of the NZCPS. The importance of the coastal environment is reflected in the statutory resource management framework, particularly as identified in sections 6 and 7 of the RMA 1991 and as set out in the NZCPS.

A number of activities occur within or affect the coastal environment including urban development, recreational activities, transport infrastructure, port activities, *infrastructure*, energy generation and transmission, food production and other farming activities, *plantation forestry*, rural industry and *mineral* extraction. These activities can be important contributors to the existing and future health and well-being of communities. However, poorly located or managed activities can have adverse *effects* that compromise the values of the coastal environment such as natural character, biophysical processes, *water* quality, *surf breaks*, indigenous *biodiversity* and natural landscapes.

The coastal environment is highly valued by Kāi Tahu *mana whenua*, with a number of areas in the coastal environment recognised in statutory acknowledgments in the NTCSA 1998. The marine environment is a moving force, a reminder of the power of Takaroa. The *coastal waters* and processes were integral to the way of life *tūpuna* enjoyed, and the coastal environment supports significant mahika kai/kaimoana resources and *wāhi tūpuna*. This environment was traditionally important for settlement and travel and continues to provide for settlement and mahika kai and fisheries resources. Kaimoana is essential to coastal iwi and hapū relationships with the *environment* and in particular as part of the tikaka of food gathering and as indicators of the health of coastal environments.

The *coastal waters* are a *receiving environment* for *freshwater*, gravels, sediment and *contaminants* from the terrestrial landscape - of particular concern are the significant *discharges* of sediments, transported by *rivers* and waterways, that have a smothering effect on the benthic systems of the coastal area, including the important kelp beds. The interconnection of the *land* and sea environments is central to the ki uta ki tai ('mountains to the sea') philosophy. This interconnection requires careful consideration in managing the *effects* of *land* use activities.

Other chapters of the Regional Policy Statement are also relevant for managing the coastal environment as land-based activities can have a significant *effect* on the health of the marine environment. Sediment, *contaminants* and litter that are carried by waterways or pipes into the sea affect *water* quality and the ecological health of the coastal environment.

Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions, however *local authorities* may also choose to adopt additional non-regulatory methods to support the achievement of the objectives.

Anticipated environmental results

CE–AER1 The values of the coastal environment are not adversely affected or lost because of inappropriate uses of the *natural and physical resources* in the coastal environment.

CE–AER2 There is no reduction in the extent of identified areas of high and outstanding natural character in the coastal environment.

- CE-AER3** Areas where natural character has been reduced or lost are restored.
- CE-AER4** There is an improvement in the quality of *water* in areas identified as having deteriorated *water* quality.
- CE-AER5** The quality of *coastal water* supports healthy coastal ecosystems and provides for contact recreation and customary uses.
- CE-AER6** New building and development in the coastal environment is consistent with the character of the area and avoids or minimises *risks* from *natural hazards* to people and communities.
- CE-AER7** The public have improved access to, along, and adjacent to the *coastal marine area*.

LF – Land and freshwater

LF–WAI – Te Mana o te Wai

Objectives

LF–WAI–O1 – Te Mana o te Wai

The mauri of Otago’s *water bodies* and their health and well-being is protected, and restored where it is *degraded*, and the management of *land* and *water* recognises and reflects that:

- (1) *water* is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa,
- (2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future,
- (3) each *water body* has a unique whakapapa and characteristics,
- (4) *water* and *land* have a connectedness that supports and perpetuates life, and
- (5) Kāi Tahu exercise rakatirataka, manaakitaka and their *kaitiakitaka* duty of care and attention over wai and all the life it supports.

Policies

LF–WAI–P1 – Prioritisation

In all management of *fresh water* in Otago, prioritise:

- (1) first, the health and well-being of *water bodies* and *freshwater* ecosystems, te hauora o te wai and te hauora o te taiao, and the exercise of *mana whenua* to uphold these,⁴⁷
- (2) second, the health and well-being needs of people, te hauora o te tangata; interacting with *water* through ingestion (such as *drinking water* and consuming harvested resources) and immersive activities (such as harvesting resources and bathing), and
- (3) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

LF–WAI–P2 – Mana whakahaere

Recognise and give practical effect to Kāi Tahu rakatirataka in respect of *fresh water* by:

- (1) facilitating partnership with, and the active involvement of, *mana whenua* in *freshwater* management and decision-making processes,
- (2) sustaining the environmental, social, cultural and economic relationships of Kāi Tahu with *water bodies*,

⁴⁷ In matters of mana, the associated spiritual and cultural responsibilities connect natural resources and *mana whenua* in a kinship relationship that is reciprocal and stems from the time of creation.

- (3) providing for a range of customary uses, including mahika kai, specific to each *water body*, and
- (4) incorporating mātauraka into decision making, management and monitoring processes.

LF-WAI-P3 – Integrated management/ki uta ki tai

Manage the use of *fresh water* and *land* in accordance with tikaka and kawa, using an integrated approach that:

- (1) recognises and sustains the connections and interactions between *water bodies* (large and small, surface and ground, fresh and coastal, permanently flowing, intermittent and ephemeral),
- (2) sustains and, wherever possible, restores the connections and interactions between *land* and *water*, from the mountains to the sea,
- (3) sustains and, wherever possible, restores the habitats of mahika kai and indigenous species, including taoka species associated with the *water body*,
- (4) manages the *effects* of the use and development of *land* to maintain or enhance the health and well-being of *fresh water* and *coastal water*,
- (5) encourages the coordination and sequencing of regional or urban growth to ensure it is sustainable,
- (6) has regard to foreseeable *climate change risks*, and
- (7) has regard to cumulative *effects* and the need to apply a precautionary approach where there is limited available information or uncertainty about potential adverse *effects*.

LF-WAI-P4 – Giving effect to *Te Mana o te Wai*

All persons exercising functions and powers under this RPS and all persons who use, develop or protect resources to which this RPS applies must recognise that LF-WAI-O1, LF-WAI-P1, LF-WAI-P2 and LF-WAI-P3 are fundamental to upholding *Te Mana o te Wai*, and must be given effect to when making decisions affecting *fresh water*, including when interpreting and applying the provisions of the LF chapter.

Methods

LF-WAI-M1 – *Mana whenua* involvement

Otago Regional Council must partner with Kāi Tahu in *freshwater* management by:

- (1) implementing the actions in MW-M3 and MW-M4,
- (2) actively identifying and pursuing opportunities for *mana whenua* to be involved in *freshwater* governance, including through use of available mechanisms such as transfers of functions (under section 33 of the RMA 1991) and supporting the establishment of *freshwater* mātaimai,
- (3) implementing actions to foster the development of *mana whenua* capacity to contribute to the Council's decision-making processes, including resourcing,
- (4) supporting *mana whenua* initiatives that contribute to maintaining or improving the health and well-being of *water bodies*, and
- (5) providing relevant information to *mana whenua* for the purposes of (1), (2), (3) and (4).

LF-WAI-M2 – Other methods

In addition to method LF–WAI–M1, the methods in the LF–VM, LF–FW, and LF–LS sections are also applicable.

Explanation

LF–WAI–E1 – Explanation

Water is a central element in Kāi Tahu creation traditions. It was present very early in the whakapapa of the world: in the beginning there was total darkness, followed by the emergence of light and a great void of nothingness. In time Maku mated with Mahoronuiatea which resulted in great expanses of water, then Papatūanuku and Takaroa met and had children after which Takaroa took a long absence. Papatūanuku met Rakinui and they had many children who conspired to force their parents' coupled bodies apart to let the light in. They were also responsible for creating many of the elements that constitute our world today - the mountains, rivers, forests and seas, and all fish, bird and animal life. The whakapapa and spiritual source of *water* and *land* are connected, and *water bodies* are the central unifying feature that connects our landscapes together. The spiritual essence of *water* derives from the atua and the life it exudes is a reflection of the atua.

The whakapapa of *mana whenua* and water are also integrally connected. There is a close kinship relationship, and *mana whenua* and the wai cannot be separated. The tūpuna relationship with *water*, and the different uses made of the *water*, provide a daily reminder of greater powers – of both the atua and tūpuna. This relationship continues into the present and future and is central to the identity of Kāi Tahu. The mana of wai is sourced from the time of creation and the work of kā Atua, invoking a reciprocal relationship with *mana whenua* based in kawa, tikaka and respect for *water's* life-giving powers and its sanctity.

The kinship connection engenders a range of rights and responsibilities for *mana whenua*, including rakatirataka rights and the responsibility of *kaitiakitaka*. *Kaitiakitaka* encompasses a high duty to uphold and maintain the mauri of the wai. If the mauri is degraded it has an impact not only on the mana of the wai but also on the kinship relationship and on *mana whenua*. The mauri expresses mana and connection, which can only be defined by *mana whenua*. Recognising rakatirataka enables *mana whenua* to enjoy their rights over *water bodies* and fulfil their responsibilities to care for the wai and the communities it sustains.

The condition of *water* is seen as a reflection of the condition of the people - when the wai is healthy, so are the people. Kawa and tikaka have been developed over the generations, based on customs and values associated with the Māori world view that span the generations, recognising and honouring *Te Mana o te Wai* and upholding the mauri of the wai is consistent with this value base.

Each *water body* is unique. This is a reflection of its unique whakapapa and characteristics, and it means that each *water body* has different needs. Management and use must recognise and reflect this.

Principal reasons

LF–WAI–PR1 – Principal reasons

In accordance with the NPSFM, councils are required to implement a framework for managing *freshwater* that gives effect to *Te Mana o te Wai*. This places the mauri (life-force) of the *water* at the forefront of decision making, recognising *te hauora o te wai* (the health of the *water*) is the first priority, and supports *te hauora o te taiao* (the health of the environment) and *te hauora o te takata* (the health of the people). It is only after the health of the *water* is sustained that *water* can be used for economic purposes. Giving

effect to *Te Mana o te Wai* requires actively involving *takata whenua* in *freshwater* planning and management.

The NZCPS also recognises the interconnectedness of *land* and *water*. It notes inland activities can have a significant impact on *coastal water* quality which, in many areas around New Zealand, is in decline. This is a consequence of point and diffuse sources of contamination which can have environmental, social, cultural and economic implications. For example, poor *water* quality adversely effects aquatic life and opportunities for mahika kai gathering and recreational uses such as swimming and kayaking.

Anticipated environmental results

LF-WAI-AER1 Kāi Tahu are actively involved in the management of *fresh water* and able to effectively exercise their *rakatirataka*, *manaakitaka* and *kaitiakitaka*.

LF-WAI-AER2 The mauri of Otago's *water bodies* and their health and well-being is protected.

LF-VM – Visions and management

Objectives

LF-VM-O2 – Clutha Mata-au *FMU* vision

In the Clutha Mata-au *FMU*:

- (1) management of the *FMU* recognises that:
 - (a) the Clutha Mata-au is a single connected system ki uta ki tai, and
 - (b) the source of the wai is pure, coming directly from Tawhirimatea to the top of the mauka and into the awa,
- (2) *fresh water* is managed in accordance with the LF-WAI objectives and policies,
- (3) the ongoing relationship of Kāi Tahu with *wāhi tūpuna* is sustained,
- (4) *water bodies* support thriving mahika kai and Kāi Tahu whānui have access to mahika kai,
- (5) indigenous species migrate easily and as naturally as possible along and within the *river* system,
- (6) the national significance of the Clutha hydro-electricity generation scheme is recognised,
- (7) in addition to (1) to (6) above:
 - (a) in the Upper Lakes rohe, the high quality *waters* of the *lakes* and their tributaries are protected, recognising the significance of the purity of these *waters* to Kāi Tahu and to the wider community,
 - (b) in the Dunstan, Manuherehia and Roxburgh rohe:
 - (i) flows in *water bodies* sustain and, wherever possible, restore the natural form and function of main stems and tributaries to support Kāi Tahu values and practices, and
 - (ii) innovative and sustainable *land* and *water* management practices support food production in the area and reduce discharges of nutrients and other *contaminants* to *water bodies* so that they are safe for human contact, and

- (iii) sustainable abstraction occurs from main stems or *groundwater* in preference to tributaries,
- (c) in the Lower Clutha rohe:
 - (i) there is no further modification of the shape and behaviour of the *water bodies* and opportunities to restore the natural form and function of *water bodies* are promoted wherever possible,
 - (ii) the ecosystem connections between *freshwater*, *wetlands* and the coastal environment are preserved and, wherever possible, restored,
 - (iii) *land* management practices reduce discharges of nutrients and other *contaminants* to *water bodies* so that they are safe for human contact, and
 - (iv) there are no direct *discharges* of *wastewater* to *water bodies*, and
- (8) the outcomes sought in (7) are to be achieved within the following timeframes:
 - (a) by 2030 in the Upper Lakes rohe,
 - (b) by 2045 in the Dunstan, Roxburgh and Lower Clutha rohe, and
 - (c) by 2050 in the Manuherekia rohe.

LF-VM-O3 – North Otago FMU vision

By 2050 in the North Otago FMU:

- (1) *fresh water* is managed in accordance with the LF-WAI objectives and policies, while recognising that the Waitaki River is influenced in part by catchment areas within the Canterbury region,
- (2) the ongoing relationship of Kāi Tahu with *wāhi tūpuna* is sustained and Kāi Tahu maintain their connection with and use of the *water bodies*,
- (3) healthy riparian margins, *wetlands*, estuaries and lagoons support thriving mahika kai, indigenous habitats and downstream coastal ecosystems,
- (4) indigenous species can migrate easily and as naturally as possible to and from the coastal environment,
- (5) *land* management practices reduce *discharges* of nutrients and other *contaminants* to *water bodies* so that they are safe for human contact, and
- (6) innovative and sustainable *land* and *water* management practices support food production in the area and improve resilience to the *effects of climate change*.

LF-VM-O4 – Taieri FMU vision

By 2050 in the Taieri FMU:

- (1) *fresh water* is managed in accordance with the LF-WAI objectives and policies,
- (2) the ongoing relationship of Kāi Tahu with *wāhi tūpuna* is sustained,
- (3) healthy *wetlands* are restored in the upper and lower catchment *wetland* complexes, including the Waipori/Waihola Wetlands, Tunaheketaka/Lake Taieri, scroll plain, and tussock areas,
- (4) the gravel *bed* of the lower Taieri is restored and sedimentation of the Waipori/Waihola complex is reduced,

- (5) creative ecological approaches contribute to reduced occurrence of didymo,
- (6) *water bodies* support healthy populations of *galaxiid* species,
- (7) there are no direct *discharges of wastewater* to *water bodies*, and
- (8) innovative and sustainable *land* and *water* management practices support food production in the area and improve resilience to the *effects of climate change*.

LF-VM-05 – Dunedin & Coast FMU vision

By 2040 in the Dunedin & Coast FMU:

- (1) *fresh water* is managed in accordance with the LF-WAI objectives and policies,
- (2) the ongoing relationship of Kāi Tahu with *wāhi tūpuna* is sustained,
- (3) healthy estuaries, lagoons and *coastal waters* support thriving mahika kai and downstream coastal ecosystems, and indigenous species can migrate easily and as naturally as possible to and from these areas,
- (4) there is no further modification of the shape and behaviour of the *water bodies* and opportunities to restore the natural form and function of *water bodies* are promoted wherever possible, and
- (5) *discharges of contaminants* from urban environments are reduced so that *water bodies* are safe for human contact.

LF-VM-06 – Catlins FMU vision

By 2030 in the Catlins FMU:

- (1) *fresh water* is managed in accordance with the LF-WAI objectives and policies,
- (2) the ongoing relationship of Kāi Tahu with *wāhi tūpuna* is sustained,
- (3) *water bodies* support thriving mahika kai and access of Kāi Tahu whānui to mahika kai,
- (4) the high degree of naturalness and ecosystem connections between the forests, *freshwater* and coastal environment are preserved,
- (5) *water bodies* and their catchment areas support the health and well-being of *coastal water*, ecosystems and indigenous species, including downstream kaimoana, and
- (6) healthy, clear and clean *water* supports opportunities for recreation and sustainable food production for future generations.

LF-VM-07 – Integrated management

Land and *water* management apply the ethic of ki uta ki tai and are managed as integrated natural resources, recognising the connections and interactions between *fresh water*, *land* and the coastal environment, and between surface water, *groundwater* and *coastal water*.

Policies

LF-VM-P5 – Freshwater Management Units (FMUs) and rohe

Otago's *fresh water* resources are managed through the following *freshwater management units* or *rohe* which are shown on MAP1:

Table 3 – Freshwater Management Units and rohe

Freshwater Management Unit	Rohe
Clutha Mata-au	Upper Lakes Dunstan Manuherekia Roxburgh Lower Clutha
Taieri	n/a
North Otago	n/a
Dunedin & Coast	n/a
Catlins	n/a

LF-VM-P6 – Relationship between FMUs and rohe

Where rohe have been defined within FMUs:

- (1) *environmental outcomes* must be developed for the FMU within which the rohe is located,
- (2) if additional *environmental outcomes* are included for rohe, those *environmental outcomes*:
 - (a) set target *attribute* states that are no less stringent than the parent FMU *environmental outcomes* if the same *attributes* are adopted in both the rohe and the FMU, and
 - (b) may include additional *attributes* and target *attribute* states provided that any additional *environmental outcomes* give effect to the *environmental outcomes* for the FMU,
- (3) *limits* and action plans to achieve *environmental outcomes* may be developed for the FMU or the rohe or a combination of both,
- (4) any *limit* or action plan developed to apply within a rohe:
 - (a) prevails over any *limit* or action plan developed for the FMU for the same *attribute*, unless explicitly stated to the contrary, and
 - (b) must be no less stringent than any *limit* set for the parent FMU for the same *attribute*, and
 - (c) must not conflict with any *limit* set for the underlying FMU for *attributes* that are not the same, and
- (5) the term “no less stringent” in this policy applies to *attribute states* (numeric and narrative) and any other metrics and timeframes (if applicable).

Methods

LF-VM-M3 – Community involvement

Otago Regional Council must work with communities to achieve the objectives and policies in this chapter, including by:

- (1) engaging with communities to identify *environmental outcomes* for Otago's *FMUs* and *rohe* and the methods to achieve those outcomes,
- (2) encouraging community stewardship of *water* resources and programmes to address *freshwater* issues at a local catchment level,
- (3) supporting community initiatives that contribute to maintaining or improving the health and well-being of *water bodies*, and
- (4) supporting industry-led guidelines, codes of practice and environmental accords where these would contribute to achieving the objectives of this RPS.

LF-VM-M4 – Other methods

In addition to method LF-VM-M3, the methods in the LF-WAI, LF-FW, and LF-LS sections are also applicable.

Explanation

LF-VM-E2 – Explanation

Implementing the NPSFM requires Council to identify *Freshwater Management Units (FMUs)* that include all *freshwater bodies* within the region. Policy LF-VM-P5 identifies Otago's five *FMUs*: Clutha Mata-au *FMU*, Taieri *FMU*, North Otago *FMU*, Dunedin & Coast *FMU* and Catlins *FMU*. The Clutha Mata-au *FMU* is divided into five sub-*FMUs* known as 'rohe'. Policy LF-VM-P6 sets out the relationship between *FMUs* and *rohe* which, broadly, requires *rohe* provisions to be no less stringent than the parent *FMU* provisions. This is to avoid any potential for *rohe* to set lower standards than others which would affect the ability of the *FMU* to achieve its stated outcomes.

Principal reasons

LF-VM-PR2 – Principal reasons

To support the implementation of the NPSFM, the Council is required to develop long-term visions for *fresh water* across the Otago region. *Fresh water* visions for each *FMU* and *rohe* have been developed through engagement with Kāi Tahu and communities. They set out the long-term goals for the *water bodies* (including *groundwater*) and *fresh water* ecosystems in the region that reflect the history of, and environmental pressures on, the *FMU* or *rohe*. They also establish ambitious but reasonable timeframes for achieving these goals. The Council must assess whether each *FMU* or *rohe* can provide for its long-term vision, or whether improvement to the health and well-being of *water bodies* (including *groundwater*) and *fresh water* ecosystems is required to achieve the visions. The result of that assessment will then inform the development of *regional plan* provisions in the *FMU*, including *environmental outcomes*, *attribute* states, *target attribute* states and *limits*.

Anticipated environmental outcomes

LF-VM-AER3

The *fresh water* visions in this section underpin Otago's planning framework and the outcomes they seek are achieved within the timeframes specified.

LF–FW – *Fresh water*

Objectives

LF–FW–O8 – *Fresh water*

In Otago's *water bodies* and their catchments:

- (1) the health of the *wai* supports the health of the people and thriving *mahika kai*,
- (2) *water* flow is continuous throughout the whole system,
- (3) the interconnection of *fresh water* (including *groundwater*) and *coastal waters* is recognised,
- (4) native fish can migrate easily and as naturally as possible and *taoka* species and their habitats are protected, and
- (5) the significant and outstanding values of Otago's *outstanding water bodies* are identified and protected.

LF–FW–O9 – *Natural wetlands*

Otago's *natural wetlands* are protected or restored so that:

- (1) *mahika kai* and other *mana whenua* values are sustained and enhanced now and for future generations,
- (2) there is no decrease in the range and diversity of indigenous ecosystem types and habitats in *natural wetlands*,
- (3) there is no reduction in their ecosystem health, hydrological functioning, *amenity values*, extent or *water* quality, and if degraded they are improved, and
- (4) their flood attenuation capacity is maintained.

LF–FW–O10 – *Natural character*

The natural character of *wetlands*, *lakes* and *rivers* and their margins is preserved and protected from inappropriate subdivision, use and development.

Policies

LF–FW–P7 – *Fresh water*

Environmental outcomes, *attribute* states (including target *attribute* states) and limits ensure that:

- (1) the health and well-being of *water bodies* is maintained or, if *degraded*, improved,
- (2) the habitats of indigenous species associated with *water bodies* are protected, including by providing for fish passage,
- (3) *specified rivers and lakes* are suitable for primary contact within the following timeframes:
 - (a) by 2030, 90% of *rivers* and 98% of *lakes*, and
 - (b) by 2040, 95% of *rivers* and 100% of *lakes*, and

- (4) mahika kai and *drinking water* are safe for human consumption,
- (5) existing *over-allocation* is phased out and future *over-allocation* is avoided, and
- (6) *fresh water* is allocated within environmental limits and used efficiently.

LF–FW–P8 – Identifying *natural wetlands*

Identify and map *natural wetlands* that are:

- (1) 0.05 hectares or greater in extent, or
- (2) of a type that is naturally less than 0.05 hectares in extent (such as an ephemeral *wetland*) and known to contain threatened species.

LF–FW–P9 – Protecting *natural wetlands*

Protect *natural wetlands* by:

- (1) avoiding a reduction in their values or extent unless:
 - (a) the *loss of values* or extent arises from:
 - (i) the customary harvest of food or resources undertaken in accordance with tikaka Māori,
 - (ii) restoration activities,
 - (iii) scientific research,
 - (iv) the sustainable harvest of sphagnum moss,
 - (v) the construction or maintenance of *wetland utility structures*,
 - (vi) the maintenance of operation of *specific infrastructure*, or *other infrastructure*,
 - (vii) *natural hazard works*, or
 - (b) the Regional Council is satisfied that:
 - (i) the activity is necessary for the construction or upgrade of *specified infrastructure*,
 - (ii) the *specified infrastructure* will provide significant national or regional benefits,
 - (iii) there is a *functional need* for the *specified infrastructure* in that location,
 - (iv) the *effects* of the activity on indigenous *biodiversity* are managed by applying either ECO–P3 or ECO–P6 (whichever is applicable), and
 - (v) the other *effects* of the activity (excluding those managed under (1)(b)(iv)) are managed by applying the *effects management hierarchy*, and
- (2) not granting resource consents for activities under (1)(b) unless the Regional Council is satisfied that:
 - (a) the application demonstrates how each step of the *effects management hierarchies* in (1)(b)(iv) and (1)(b)(v) will be applied to the *loss of values* or extent of the *natural wetland*, and

- (b) any consent is granted subject to conditions that apply the *effects management hierarchies* in (1)(b)(iv) and (1)(b)(v).

LF-FW-P10 – Restoring *natural wetlands*

Improve the ecosystem health, hydrological functioning, *water* quality and extent of *natural wetlands* that have been degraded or lost by requiring, where possible:

- (1) an increase in the extent and quality of habitat for indigenous species,
- (2) the restoration of hydrological processes,
- (3) control of pest species and vegetation clearance, and
- (4) the exclusion of stock.

LF-FW-P11 – Identifying *outstanding water bodies*

Otago's *outstanding water bodies* are:

- (1) the Kawarau River and tributaries described in the Water Conservation (Kawarau) Order 1997,
- (2) Lake Wanaka and the outflow and tributaries described in the Lake Wanaka Preservation Act 1973,
- (3) any *water bodies* identified as being wholly or partly within an outstanding natural feature or landscape in accordance with NFL-P1, and
- (4) any other *water bodies* identified in accordance with APP1.

LF-FW-P12 – Protecting *outstanding water bodies*

The significant and outstanding values of *outstanding water bodies* are:

- (1) identified in the relevant *regional and district plans*, and
- (2) protected by avoiding adverse *effects* on those values.

LF-FW-P13 – Preserving *natural character*

Preserve the natural character of *lakes* and *rivers* and their *beds* and margins by:

- (1) avoiding the *loss of values* or extent of a *river*, unless:
 - (a) there is a *functional need* for the activity in that location, and
 - (b) the *effects* of the activity are managed by applying:
 - (i) for *effects* on indigenous *biodiversity*, either ECO-P3 or ECO-P6 (whichever is applicable), and
 - (ii) for other *effects*, the *effects management hierarchy*,
- (2) not granting resource consent for activities in (1) unless Otago Regional Council is satisfied that:
 - (a) the application demonstrates how each step of the *effects management hierarchies* in (1)(b) will be applied to the *loss of values* or extent of the *river*, and
 - (b) any consent is granted subject to conditions that apply the *effects management hierarchies* in (1)(b),

- (3) establishing environmental flow and level regimes and *water* quality standards that support the health and well-being of the *water body*,
- (4) wherever possible, sustaining the form and function of a *water body* that reflects its natural behaviours,
- (5) recognising and implementing the restrictions in Water Conservation Orders,
- (6) preventing the impounding or control of the level of Lake Wanaka,
- (7) preventing modification that would reduce the braided character of a *river*, and
- (8) controlling the use of *water* and *land* that would adversely affect the natural character of the *water body*.

LF–FW–P14 – Restoring natural character

Where the natural character of *lakes* and *rivers* and their margins has been reduced or lost, promote actions that:

- (1) restore a form and function that reflect the natural behaviours of the *water body*,
- (2) improve *water* quality or quantity where it is *degraded*,
- (3) increase the presence, *resilience* and abundance of indigenous flora and fauna, including by providing for fish passage within *river* systems,
- (4) improve *water body* margins by naturalising bank contours and establishing indigenous vegetation and habitat, and
- (5) restore *water* pathways and natural connectivity between *water* systems.

LF–FW–P15 – Stormwater and wastewater discharges

Minimise the adverse *effects* of direct and indirect *discharges* of *stormwater* and *wastewater* to *fresh water* by:

- (1) except as required by LF–VM–O2 and LF–VM–O4, preferring *discharges* of *wastewater* to *land* over *discharges* to *water*, unless adverse *effects* associated with a *discharge* to *land* are greater than a *discharge* to *water*, and
- (2) requiring:
 - (a) all sewage, industrial or trade waste to be *discharged* into a reticulated *wastewater* system, where one is available,
 - (b) all *stormwater* to be *discharged* into a reticulated system, where one is available,
 - (c) implementation of methods to progressively reduce the frequency and volume of wet weather overflows and minimise the likelihood of dry weather overflows occurring for reticulated *stormwater* and *wastewater* systems,
 - (d) on-site *wastewater* systems to be designed and operated in accordance with best practice standards,
 - (e) *stormwater* and *wastewater discharges* to meet any applicable water quality standards set for *FMUs* and/or rohe, and

- (f) the use of water sensitive urban design techniques to avoid or mitigate the potential adverse *effects* of *contaminants* on receiving *water bodies* from the *subdivision*, use or development of *land*, wherever practicable, and
- (3) promoting the reticulation of *stormwater* and *wastewater* in urban areas.

Methods

LF–FW–M5 – *Outstanding water bodies*

No later than 31 December 2023, Otago Regional Council must:

- (1) in partnership with Kāi Tahu, undertake a review based on existing information and develop a list of *water bodies* likely to contain outstanding values, including those *water bodies* listed in LF-VM-P6,
- (2) identify the outstanding values of those *water bodies* (if any) in accordance with APP1,
- (3) consult with the public during the identification process,
- (4) map *outstanding water bodies* and identify their outstanding and significant values in the relevant *regional plan(s)*, and
- (5) include provisions in *regional plans* to avoid the adverse *effects* of activities on the significant and outstanding values of *outstanding water bodies*.

LF–FW–M6 – *Regional plans*

Otago Regional Council must publicly notify a Land and Water *Regional Plan* no later than 31 December 2023 and, after it is made operative, maintain that *regional plan* to:

- (1) identify the compulsory and, if relevant, other values for each *Freshwater Management Unit*,
- (2) state *environmental outcomes* as objectives in accordance with clause 3.9 of the NPSFM,
- (3) identify *water bodies* that are *over-allocated* in terms of either their *water* quality or quantity,
- (4) include environmental flow and level regimes for *water bodies* (including *groundwater*) that give effect to *Te Mana o te Wai* and provide for:
 - (a) the behaviours of the *water body* including a base flow or level that provides for variability,
 - (b) healthy and resilient mahika kai,
 - (c) the needs of indigenous fauna, including taoka species, and aquatic species associated with the *water body*,
 - (d) the hydrological connection with other *water bodies*, estuaries and coastal margins,
 - (e) the traditional and contemporary relationship of Kāi Tahu to the *water body*, and
 - (f) community *drinking water* supplies, and
- (5) include limits on resource use that:
 - (a) differentiate between types of uses, including *drinking water*, and social, cultural and economic uses, in order to provide long-term certainty in relation to those uses of available *water*,

- (b) for *water bodies* that have been identified as *over-allocated*, provide methods and timeframes for phasing out that *over-allocation*,
 - (c) control the *effects* of existing and potential future development on the ability of the *water body* to meet, or continue to meet, *environmental outcomes*,
 - (d) manage the adverse *effects* on *water bodies* that can arise from the use and development of *land*, and
- (6) provide for the off-stream storage of surface *water* where storage will:
- (a) support *Te Mana o te Wai*,
 - (b) give effect to the objectives and policies of the LF chapter of this RPS, and
 - (c) not prevent a surface *water body* from achieving identified *environmental outcomes* and remaining within any limits on resource use, and
- (7) identify and manage *natural wetlands* in accordance with LF–FW–P7, LF–FW–P8 and LF–FW–P9 while recognising that some activities in and around *natural wetlands* are managed under the NESF, and
- (8) manage the adverse *effects* of *stormwater* and *wastewater* in accordance with LF–FW–P15.

LF–FW–M7 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* no later than 31 December 2026 to:

- (1) map *outstanding water bodies* and identify their outstanding and significant values using the information gathered by Otago Regional Council in LF–FW–M5, and
- (2) include provisions to avoid the adverse *effects* of activities on the significant and outstanding values of *outstanding water bodies*,
- (3) require, wherever practicable, the adoption of water sensitive urban design techniques when managing the *subdivision*, use or development of *land*, and
- (4) reduce the adverse *effects* of *stormwater discharges* by managing the *subdivision*, use and development of *land* to:
 - (a) minimise the peak volume of *stormwater* needing off-site disposal and the load of *contaminants* carried by it,
 - (b) minimise adverse *effects* on *fresh water* and *coastal water* as the ultimate receiving environments, and the capacity of the *stormwater* network,
 - (c) encourage on-site storage of rainfall to detain peak *stormwater* flows, and
 - (d) promote the use of permeable surfaces.

LF–FW–M8 – Action plans

Otago Regional Council:

- (1) must prepare an action plan for achieving any target *attribute* states for *attributes* described in Appendix 2B of the NPSFM,

- (2) may prepare an action plan for achieving any target *attribute* states for *attributes* described in Appendix 2A of the NPSFM, and
- (3) must prepare any action plan in accordance with clause 3.15 of the NPSFM.

LF–FW–M9 – Monitoring

Otago Regional Council, for every *FMU*, must:

- (1) establish a long-term monitoring programme that incorporates cultural health monitoring,
- (2) record information (including monitoring data) about the state of *water bodies* and *freshwater* ecosystems and the challenges to their health and well-being, and
- (3) regularly prepare reports on the matters in (1) and (2) and publish those reports.

LF–FW–M10 – Other methods

In addition to methods LF–FW–M5 to LF–FW–M9, the methods in the LF–WAI, LF–VM and LF–LS sections are also applicable.

Explanation

LF–FW–E3 – Explanation

This section of the LF chapter outlines how the Council will manage *fresh water* within the region. To give effect to *Te Mana o te Wai*, the *freshwater* visions, and the policies set out the actions required in the development of *regional plan* provisions to implement the NPSFM.

The outcomes sought for *natural wetlands* are implemented by requiring identification, protection and restoration. The first two policies reflect the requirements of the NPSFM for identification and protection but apply that direction to all *natural wetlands*, rather than only inland natural wetlands (those outside the *coastal marine area*) as the NPSFM directs. This reflects the views of *takata whenua* and the community that *fresh* and *coastal water*, including *wetlands*, should be managed holistically and in a consistent way. While the NPSFM requires promotion of the restoration of natural inland wetlands, the policies in this section take a stronger stance, requiring improvement where *natural wetlands* have been *degraded* or lost. This is because of the importance of restoration to Kāi Tahu and in recognition of the historic loss of *wetlands* in Otago.

The policies respond to the NPSFM by identifying a number of *outstanding water bodies* in Otago that have previously been identified for their significance through other processes. Additional *water bodies* can be identified if they are wholly or partly within an outstanding natural feature or landscape or if they meet the criteria in APP1 which lists the types of values which may be considered outstanding: cultural and spiritual, ecology, landscape, natural character, recreation and physical. The significant values of *outstanding water bodies* are to be identified and protected from adverse *effects*.

Preserving the natural character of *lakes* and *rivers*, and their *beds* and margins, is a matter of national importance under section 6 of the RMA 1991. The policies in this section set out how this is to occur in Otago, reflecting the relevant direction from the NPSFM but also a range of additional matters that are important in Otago, such as recognising existing Water Conservation Orders, the Lake Wanaka Act 1973 and the particular character of braided *rivers*. Natural character has been reduced or lost in some *lakes* or *rivers*, so the policies require promoting actions that will restore or otherwise improve natural character.

The impact of *discharges of stormwater and wastewater on freshwater bodies* is a significant issue for *mana whenua* and has contributed to *water quality issues in some water bodies*. The policies set out a range of actions to be implemented in order to improve the quality of these *discharges* and reduce their adverse *effects* on receiving environments.

Principal reasons

LF–FW–PR3 – Principal reasons

Otago’s *water bodies* are significant features of the region and play an important role in Kāi Tahu beliefs and traditions. A growing population combined with increased *land use intensification* has heightened demand for *water*, and increasing nutrient and sediment contamination impacts *water quality*. The legacy of Otago’s historical mining privileges, coupled with contemporary *land uses*, contribute to ongoing *water quality and quantity issues in some water bodies*, with significant cultural effects.

This section of the LF chapter contains more specific direction on managing *fresh water* to give effect to *Te Mana o te Wai* and contributes to achieving the long-term *freshwater* visions for each *FMU* and *rohe*. It also reflects key direction in the NPSFM for managing the health and well-being of *fresh water*, including *wetlands* and *rivers* in particular, and matters of national importance under section 6 of the RMA 1991. The provisions in this section will underpin the development of the Council’s *regional plans* and provide a foundation for implementing the requirements of the NPSFM, including the development of *environmental outcomes*, *attribute states*, *target attribute states* and *limits*.

Anticipated environmental results

- | | |
|--------------------|---|
| LF–FW–AER4 | <i>Fresh water</i> is allocated within limits that contribute to achieving specified <i>environmental outcomes for water bodies</i> within timeframes set out in <i>regional plans</i> that are no less stringent than the timeframes in the LF–VM section of this chapter. |
| LF–FW–AER5 | <i>Specified rivers and lakes</i> are suitable for primary contact within the timeframes set out in LF–FW–P7. |
| LF–FW–AER6 | <i>Degraded water</i> quality is improved so that it meets specified <i>environmental outcomes</i> within timeframes set out in <i>regional plans</i> that are no less stringent than the timeframes in the LF–VM section of this chapter. |
| LF–FW–AER7 | <i>Water</i> in Otago’s aquifers is suitable for human consumption, unless that <i>water</i> is naturally unsuitable for consumption. |
| LF–FW–AER8 | Where <i>water</i> is not <i>degraded</i> , there is no reduction in <i>water</i> quality. |
| LF–FW–AER9 | The frequency of <i>wastewater</i> overflows is reduced. |
| LF–FW–AER10 | The quality of <i>stormwater discharges</i> from existing <i>urban areas</i> is improved. |
| LF–FW–AER11 | There is no reduction in the extent or quality of Otago’s <i>natural wetlands</i> . |

LF–LS – *Land and soil*

Objectives

LF–LS–O11 – *Land and soil*

The life-supporting capacity of Otago’s soil resources is safeguarded and the availability and productive capacity of highly productive land for *primary production* is maintained now and for future generations.

LF–LS–O12 – *Use of land*

The use of *land* in Otago maintains soil quality and contributes to achieving *environmental outcomes* for *fresh water*.

Policies

LF–LS–P16 – *Integrated management*

Recognise that maintaining soil quality requires the integrated management of *land* and *freshwater* resources including the interconnections between soil health, vegetative cover and *water* quality and quantity.

LF–LS–P17 – *Soil values*

Maintain the mauri, health and productive potential of soils by managing the use and development of *land* in a way that is suited to the natural soil characteristics and that sustains healthy:

- (1) soil biological activity and *biodiversity*,
- (2) soil structure, and
- (3) soil fertility.

LF–LS–P18 – *Soil erosion*

Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from *land* use activities by:

- (1) implementing effective management practices to retain topsoil in-situ and minimise the potential for soil to be *discharged to water bodies*, including by controlling the timing, duration, scale and location of soil exposure,
- (2) maintaining vegetative cover on erosion-prone *land*, and
- (3) promoting activities that enhance soil retention.

LF–LS–P19 – *Highly productive land*

Maintain the availability and productive capacity of highly productive *land* by:

- (1) identifying highly productive *land* based on the following criteria:
 - (a) the capability and versatility of the *land* to support primary production based on the Land Use Capability classification system,
 - (b) the suitability of the climate for primary production, particularly crop production, and

- (c) the size and cohesiveness of the area of *land* for use for primary production, and
- (2) prioritising the use of highly productive *land* for primary production ahead of other *land* uses, and
- (3) managing urban development in rural areas, including rural lifestyle and rural residential areas, in accordance with UFD–P4, UFD–P7 and UFD–P8.

LF–LS–P20 – Land use change

Promote changes in *land* use or *land* management practices that improve:

- (1) the sustainability and efficiency of *water* use,
- (2) resilience to the impacts of *climate change*, or
- (3) the health and quality of soil.

LF–LS–P21 – Land use and fresh water

Achieve the improvement or maintenance of *fresh water* quantity or quality to meet *environmental outcomes* set for *Freshwater Management Units* and/or rohe by:

- (1) reducing direct and indirect *discharges* of *contaminants* to *water* from the use and development of *land*, and
- (2) managing *land* uses that may have adverse *effects* on the flow of *water* in surface *water bodies* or the recharge of *groundwater*.

LF–LS–P22 – Public access

Provide for public access to and along *lakes* and *rivers* by:

- (1) maintaining existing public access,
- (2) seeking opportunities to enhance public access, including by *mana whenua* in their role as kaitiaki and for gathering of mahika kai, and
- (3) encouraging landowners to only restrict access where it is necessary to protect:
 - (a) public health and safety,
 - (b) *significant natural areas*,
 - (c) areas of outstanding natural character,
 - (d) outstanding natural features and landscapes,
 - (e) places or areas with special or outstanding *historic heritage* values, or
 - (f) places or areas of significance to *takata whenua*, including wāhi tapu and wāhi tūpuna.

Methods

LF–LS–M11 – Regional plans

Otago Regional Council must publicly notify a Land and Water *Regional Plan* no later than 31 December 2023 and then, when it is made operative, maintain that *regional plan* to:

- (1) manage *land* uses that may affect the ability of *environmental outcomes* for *water* quality to be achieved by requiring:
 - (a) the development and implementation of *certified freshwater farm plans* as required by the RMA and any regulations,
 - (b) the adoption of practices that reduce the *risk* of sediment and nutrient loss to *water*, including by minimising the area and duration of exposed soil, using buffers, and actively managing critical source areas,
 - (c) effective management of effluent storage and applications systems, and
 - (d) *earthworks* activities to implement effective sediment and erosion control practices and setbacks from *water bodies* to reduce the *risk* of sediment loss to *water*, and
- (2) provide for changes in *land* use that improve the sustainable and efficient allocation and use of *fresh water*, and
- (3) implement policies LF–LS–P16 to LF–LF–P22.

LF–LS–M12 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* no later than 31 December 2026 to:

- (1) manage *land* use change by:
 - (a) controlling the establishment of new or any spatial extension of existing *plantation forestry activities* where necessary to give effect to an objective developed under the NPSFM, and
 - (b) minimising the removal of tall tussock grasslands, and
- (2) provide for and encourage the creation and enhancement of vegetated riparian margins and constructed *wetlands*, and maintain these where they already exist, and
- (3) facilitate public access to *lakes* and *rivers* by:
 - (a) requiring the establishment of *esplanade reserves* and *esplanade strips*, and
 - (b) promoting the use of legal *roads*, including paper *roads*, that connect with *esplanade reserves* and *esplanade strips*.

LF–LS–M13 – Management of beds and riparian margins

Local authorities must prepare or amend and maintain their *regional* and *district plans* to manage the condition of the *bed* and banks of *water bodies*, riparian margins and associated *lands*, including vegetative cover, to:

- (1) maintain existing *biodiversity* values,
- (2) increase the presence, resilience and abundance of indigenous flora and fauna, particularly taoka species, including by providing for *biodiversity* corridors within *river* systems, and requiring riparian buffers that are sufficient to maintain indigenous *biodiversity*,
- (3) support improvement in the functioning of catchment processes where these have been adversely affected by changes in margins and connected *lands* over time, and
- (4) reduce unnatural sedimentation of *water bodies*.

LF–LS–M14 – Other methods

In addition to methods LF–LS–M11 to LF–LS–M13, the methods in the LF–WAI, LF–VM and LF–FW sections are also applicable.

Explanation

LF–LS–E4 – Explanation

The policies in this section of the LF chapter seek to maintain the health of Otago’s soils and manage *land* uses as part of an integrated approach to sustaining soil and *water* health. The connections and interactions between these resources require a holistic approach to management.

Managing soil resources, in particular, cannot be undertaken in isolation. The policies require managing the use and development of *land* and *fresh water* to maintain soil values, recognising that soil can be valued for more than its productive use and those values should be maintained. Soil erosion is problematic for both soil and *water* health. The policies provide direction on managing erosion resulting from *land* use activities to, primarily, retain soil and prevent its *discharge* to *water*.

Highly productive *land* is *land* used for primary production that provides economic and employment benefits. Providing for and managing such *land* types is essential to ensure its sustainability. The policies seek to identify and prioritise *land* used for productive purposes managing urban encroachment into rural environments where appropriate.

Responding to *climate change* and achieving *freshwater* visions is likely to require changes in *land* uses and land management practices in parts of Otago. This is recognised in the policies which seek to promote changes in *land* use or management that improve efficient use of *water*, *resilience* to *climate change* and the health and quality of soil. The policies also require reducing *discharges* to *water* from the use and development of *land* and managing *land* uses that are unsupportive of *environmental outcomes* for *fresh water* as identified by each *FMU*.

Maintaining public access to and along *lakes* and *rivers* is a matter of national importance under section 6 of the RMA 1991. The policies in this section seek to maintain existing and where appropriate promote public access to and along *lakes* and *rivers*. Circumstances which restrict public access are set out where, for example, public health and safety is at *risk* or valued parts of the *environment* may be compromised.

Principal reasons

LF–LS – PR4 – Principal reasons

Population growth and *land* use intensification in urban and rural environments has increased demand for *land* and soil resources. It has also impacted on the quality of our *water*, increasing contamination such as by nutrients and sediment and harming ecosystems. In Otago, historical and contemporary *land* uses have *degraded* some *water bodies*, both in terms of their quantity and quality, leading to adverse effects on the mauri of *water* and the diversity and abundance of mahika kai resources.

Soil health is vital to wider ecological health, human health, and economic *resilience*. Otago has a rich and long history of varied forms of primary production on a wide range of soil types and in variable climatic conditions. Otago’s highest quality soils (in terms of suitability for primary production) are mainly on the Taieri Plain, North Otago downlands, South Otago lowlands, parts of Central Otago and the Strath Taieri,

and along some *river* margins. Their extent is limited and use of these soils can be constrained by external factors such as economics, erosion, natural and human induced hazards, animal, and plant pests.

Managing *land* uses is a critical component of implementing the NPSFM due to the effects of *land* use on the health and well-being of *water*. This chapter assists the Council to recognise and provide for the connections and interactions between Otago's *land* and *fresh water*, while managing the use and development of this *land*, and its effects on *fresh water*.

Anticipated environmental results

- | | |
|--------------------|--|
| LF-LS-AER12 | The life-supporting capacity of soil is maintained or improved throughout Otago. |
| LF-LS-AER13 | The availability and capability of Otago's highly productive land is maintained. |
| LF-LS-AER14 | The use of <i>land</i> supports the achievement of <i>environmental outcomes</i> and objectives in Otago's <i>FMUs</i> and rohe. |

TOPICS

ECO – Ecosystems and indigenous *biodiversity*

Objectives

ECO–O1 – Indigenous *biodiversity*

Otago’s indigenous *biodiversity* is healthy and thriving and any decline in quality, quantity and diversity is halted.

ECO–O2 – Restoring or enhancing

A net increase in the extent and occupancy of Otago’s indigenous *biodiversity* results from restoration or enhancement.

ECO–O3 – *Kaitiaki* and stewardship

Mana whenua are recognised as *kaitiaki* of Otago’s indigenous *biodiversity*, and Otago’s communities are recognised as stewards, who are responsible for:

- (1) te hauora o te koiora (the health of indigenous *biodiversity*), te hauora o te taoka (the health of species and ecosystems that are taoka), and te hauora o te taiao (the health of the wider *environment*), while
- (2) providing for te hauora o te takata (the health of the people).

Policies

ECO–P1 – *Kaitiakitaka*

Recognise the role of Kāi Tahu as *kaitiaki* of Otago’s indigenous *biodiversity* by:

- (1) involving Kāi Tahu in the management of indigenous *biodiversity* and the identification of indigenous species and ecosystems that are taoka,
- (2) incorporating the use of mātauraka Māori in the management and monitoring of indigenous *biodiversity*, and
- (3) providing for access to and use of indigenous *biodiversity* by Kāi Tahu, including mahika kai, according to tikaka.

ECO–P2 – Identifying *significant natural areas* and taoka

Identify:

- (1) the areas and values of *significant natural areas* in accordance with APP2, and
- (2) indigenous species and ecosystems that are taoka in accordance with ECO–M3.

ECO–P3 – Protecting *significant natural areas* and taoka

Except as provided for by ECO–P4 and ECO–P5, protect *significant natural areas* and indigenous species and ecosystems that are taoka by:

- (1) avoiding adverse *effects* that result in:
 - (a) any reduction of the area or values (even if those values are not themselves significant) identified under ECO–P2(1), or
 - (b) any loss of Kāi Tahu values, and
- (2) after (1), applying the *biodiversity effects management hierarchy* in ECO–P6, and
- (3) prior to *significant natural areas* and indigenous species and ecosystems that are taoka being identified in accordance with ECO–P2, adopt a precautionary approach towards activities in accordance with IM–P15.

ECO–P4 – Provision for new activities

Maintain Otago’s indigenous *biodiversity* by following the sequential steps in the effects management hierarchy set out in ECO–P6 when making decisions on plans, applications for resource consent or notices of requirement for the following activities in *significant natural areas*, or where they may adversely affect indigenous species and ecosystems that are taoka:

- (1) the development or upgrade of *nationally* and *regionally significant infrastructure* that has a *functional* or *operational need* to locate within the relevant *significant natural area(s)* or where they may adversely affect indigenous species or ecosystems that are taoka,
- (2) the development of *papakāika*, marae and ancillary facilities associated with customary activities on Māori land,
- (3) the use of Māori land in a way that will make a significant contribution to enhancing the social, cultural or economic well-being of *takata whenua*,
- (4) activities that are for the purpose of protecting, restoring or enhancing a *significant natural area* or indigenous species or ecosystems that are taoka, or
- (5) activities that are for the purpose of addressing a severe and immediate *risk* to public health or safety.

ECO–P5 – Existing activities in *significant natural areas*

Except as provided for by ECO–P4, provide for existing activities within *significant natural areas* and that may adversely affect indigenous species and ecosystems that are taoka, if:

- (1) the continuation of an existing activity will not lead to the loss (including through cumulative loss) of extent or *degradation* of the ecological integrity of any *significant natural area* or indigenous species or ecosystems that are taoka, and
- (2) the adverse *effects* of an existing activity are no greater in character, spatial extent, intensity or scale than they were before this RPS became operative.

ECO–P6 – Maintaining indigenous *biodiversity*

Maintain Otago’s indigenous *biodiversity* (excluding the coastal environment and areas managed under ECO–P3) by applying the following *biodiversity* effects management hierarchy in decision-making on applications for *resource consent* and notices of requirement:

- (1) avoid adverse *effects* as the first priority,
- (2) where adverse *effects* demonstrably cannot be completely avoided, they are remedied,
- (3) where adverse *effects* demonstrably cannot be completely avoided or remedied, they are mitigated,
- (4) where there are residual adverse *effects* after avoidance, remediation, and mitigation, then the residual adverse *effects* are offset in accordance with APP3, and
- (5) if *biodiversity* offsetting of residual adverse *effects* is not possible, then:
 - (a) the residual adverse *effects* are compensated for in accordance with APP4, and
 - (b) if the residual adverse *effects* cannot be compensated for in accordance with APP4, the activity is avoided.

ECO–P7 – Coastal indigenous *biodiversity*

Coastal indigenous *biodiversity* is managed by CE–P5, and implementation of CE–P5 also contributes to achieving ECO–O1.

ECO–P8 – Enhancement

The extent, occupancy and condition of Otago’s indigenous *biodiversity* is increased by:

- (1) restoring and enhancing habitat for indigenous species, including taoka and mahika kai species,
- (2) improving the health and *resilience* of indigenous *biodiversity*, including ecosystems, species, important ecosystem function, and *intrinsic values*, and
- (3) buffering or linking ecosystems, habitats and ecological corridors.

ECO–P9 – *Wilding conifers*

Reduce the impact of *wilding conifers* on indigenous *biodiversity* by:

- (1) avoiding *afforestation* and *replanting of plantation forests* with *wilding conifer* species listed in APP5 within:
 - (a) areas identified as *significant natural areas*, and
 - (b) buffer zones adjacent to *significant natural areas* where it is necessary to protect the *significant natural area*, and
- (2) supporting initiatives to control existing *wilding conifers* and limit their further spread.

ECO–P10 – Integrated management

Implement an integrated and co-ordinated approach to managing Otago’s ecosystems and indigenous *biodiversity* that:

- (1) ensures any permitted or controlled activity in a *regional or district plan* rule does not compromise the achievement of ECO–O1,
- (2) recognises the interactions *ki uta ki tai* (from the mountains to the sea) between the terrestrial *environment, fresh water, and the coastal marine area*, including the migration of fish species between *fresh and coastal waters*,
- (3) promotes collaboration between individuals and agencies with *biodiversity* responsibilities,
- (4) supports the various statutory and non-statutory approaches adopted to manage indigenous *biodiversity*,
- (5) recognises the critical role of people and communities in actively managing the remaining indigenous *biodiversity* occurring on private *land*, and
- (6) adopts regulatory and non-regulatory regional pest management programmes.

Methods

ECO–M1 – Statement of responsibilities

In accordance with section 62(1)(i)(iii) of the RMA 1991, the *local authorities* responsible for the control of *land* use to maintain indigenous *biological diversity* are:

- (1) the Regional Council and *territorial authorities* are responsible for specifying objectives, policies and methods in *regional and district plans* for managing the margins of *wetlands, rivers and lakes*,
- (2) the Regional Council is responsible for specifying objectives, policies and methods in *regional plans*:
 - (a) in the *coastal marine area*,
 - (b) in *wetlands, lakes and rivers*, and
 - (c) in, on or under the *beds of rivers and lakes*,
- (3) in addition to (1), *territorial authorities* are responsible for specifying objectives, policies and methods in *district plans* outside of the areas listed in (2) above if they are not managed by the Regional Council under (4), and
- (4) the Regional Council may be responsible for specifying objectives, policies and methods in *regional plans* outside of the areas listed (1) above if:
 - (a) the Regional Council reaches agreement with the relevant *territorial authority or territorial authorities*, and
 - (b) if applicable, a transfer of powers in accordance with section 33 of the RMA 1991 occurs from the relevant *territorial authority or territorial authorities* to the Regional Council.

ECO–M2 – Identification of *significant natural areas*

Local authorities must:

- (1) in accordance with the statement of responsibilities in ECO–M1, identify the areas and values of *significant natural areas* as required by ECO–P2, and

- (2) map the areas and include the values identified under (1) in the relevant *regional* and *district plans*,
- (3) recognise that indigenous *biodiversity* spans jurisdictional boundaries by:
 - (a) working collaboratively to ensure the areas identified by different *local authorities* are not artificially fragmented when identifying *significant natural areas* that span jurisdictional boundaries, and
 - (b) ensuring that indigenous *biodiversity* is managed in accordance with this RPS,
- (4) require ecological assessments to be provided with applications for resource consent and notices of requirement that identify whether affected areas are *significant natural areas* in accordance with APP2,
- (5) in the following areas, prioritise identification under (1) no later than 31 December 2025:
 - (a) intermontane basins that contain indigenous vegetation and habitats,
 - (b) areas of dryland shrubs,
 - (c) braided *rivers*, including the Makarora, Mātukituki and Lower Waitaki Rivers,
 - (d) areas of montane tall tussock grasslands, and
 - (e) limestone habitats.

ECO–M3 – Identification of taoka

Local authorities must:

- (1) work together with *mana whenua* to agree a process for:
 - (a) identifying indigenous species and ecosystems that are taoka,
 - (b) describing the taoka identified in (1)(a),
 - (c) mapping or describing the location of the taoka identified in (1)(a), and
 - (d) describing the values of each taoka identified in (1)(a), and
- (2) notwithstanding (1), recognise that *mana whenua* have the right to choose not to identify taoka and to choose the level of detail at which identified taoka, or their location or values, are described, and
- (3) to the extent agreed by *mana whenua*, amend their *regional* and *district plans* to include matters (1)(b) to (1)(d) above.

ECO–M4 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) if the requirements of ECO–P3 and ECO–P6 can be met, provide for the use of *lakes* and *rivers* and their *beds*, including:
 - (a) activities undertaken for the purposes of pest control or maintaining or enhancing the habitats of indigenous fauna, and

- (b) the maintenance and use of existing *structures* (including *infrastructure*), and
 - (c) *infrastructure* that has a *functional* or *operational need* to be sited or operated in a particular location,
- (2) require:
- (a) resource consent applications to include information that demonstrates that the sequential steps in the effects management hierarchy in ECO–P6 have been followed, and
 - (b) that consents are not granted if the sequential steps in the effects management hierarchy in ECO–P6 have not been followed, and
- (3) provide for activities undertaken for the purpose of restoring or enhancing the habitats of indigenous fauna.

ECO–M5 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) if the requirements of ECO–P3 and ECO–P6 are met, provide for the use of *land* and the surface of *water bodies* including:
 - (a) activities undertaken for the purposes of pest control or maintaining or enhancing the habitats of indigenous fauna, and
 - (b) the maintenance and use of existing *structures* (including *infrastructure*), and
 - (c) *infrastructure* that has a *functional* or *operational need* to be sited or operated in a particular location,
- (2) control the clearance or modification of indigenous vegetation,
- (3) promote the establishment of *esplanade reserves* and *esplanade strips*, particularly where they would support ecological corridors, buffering or connectivity between *significant natural areas*,
- (4) require:
 - (a) resource consent applications to include information that demonstrates that the sequential steps in the effects management hierarchy in ECO–P6 have been followed, and
 - (b) that consents are not granted if the sequential steps in the effects management hierarchy in ECO–P6 have not been followed, and
- (5) provide for activities undertaken for the purpose of restoring or enhancing the habitats of indigenous fauna, and
- (6) prohibit the planting of *wilding conifer* species listed in APP5 within areas identified as *significant natural areas*.

ECO–M6 – Engagement

Local authorities, when implementing the policies in this chapter, will:

- (1) work collaboratively with other *local authorities* to adopt an integrated approach to managing Otago’s *biodiversity* across administrative boundaries,

- (2) engage with individuals (including landowners and *land* occupiers), community groups, government agencies and other organisations with a role or an interest in *biodiversity* management, and
- (3) consult directly with landowners and *land* occupiers whose properties potentially contain or are part of *significant natural areas*.

ECO–M7 – Monitoring

Local authorities will:

- (1) establish long-term monitoring programmes for areas identified under ECO–P1 that measure the net loss and gain of indigenous *biodiversity*,
- (2) record information (including data) about the state of species, vegetation types and ecosystems,
- (3) to the extent possible, use mātauraka Māori and tikaka Māori monitoring methods, as well as scientific monitoring methods, and
- (4) regularly report on matters in (1) and (2) and publish these reports.

ECO–M8 – Other incentives and mechanisms

Local authorities are encouraged to consider the use of other mechanisms or incentives to assist in achieving Policies ECO–P1 to ECO–P10, including:

- (1) providing information and guidance on the maintenance, restoration and enhancement of indigenous ecosystems and habitats,
- (2) funding assistance for restoration projects (for example, through Otago Regional Council’s ECO Fund),
- (3) supporting the control of pest plants and animals, including through the provision of advice and education and implementing regulatory programmes such as the Regional Pest Management Plan,
- (4) financial incentives,
- (5) covenants to protect areas of *land*, including through the QEII National Trust,
- (6) advocating for a collaborative approach between central and local government to fund indigenous *biodiversity* maintenance and enhancement, and
- (7) gathering information on indigenous ecosystems and habitats, including outside *significant natural areas*.

Explanation

ECO–E1 – Explanation

The first policy in this chapter outlines how the kaitiaki role of Kāi Tahu will be recognised in Otago. The policies which follow then set out a management regime for identifying *significant natural areas* and indigenous species and ecosystems that are taoka and protecting them by avoiding particular adverse *effects* on them. The policies recognise that these restrictions may be unduly restrictive for some activities within *significant natural areas*, including existing activities already established. To maintain ecosystems

and indigenous *biodiversity*, the policies set out mandatory and sequential steps in an effects management hierarchy to be implemented through decision making, including providing for *biodiversity* offsetting and compensation if certain criteria are met.

Although the objectives of this chapter apply within the coastal environment, the specific management approach for *biodiversity* is contained in the CE – Coastal environment chapter. Given the *biodiversity* loss that has occurred in Otago historically, restoration or enhancement will play a part in achieving the objectives of this chapter and these activities are promoted.

Wilding conifers are a particular issue for *biodiversity* in Otago. Although *plantation forestry* is managed under the NESPF, the NESPF allows plan rules to be more stringent if they recognise and provide for the protection of *significant natural areas*. The policies adopt this direction by requiring *district* and *regional plans* to prevent *afforestation* within *significant natural areas* and establish buffer zones where they are necessary to protect *significant natural areas*.

The policies recognise that managing ecosystems and indigenous *biodiversity* requires co-ordination across different areas and types of resources, as well as across organisations, communities and individual landowners. This articulates the stewardship role of all people and communities in Otago in respect of indigenous *biodiversity*.

Principal reasons

ECO–PR1 – Principal reasons

The health of New Zealand’s *biodiversity* has declined significantly since the arrival of humans and remains under significant pressure. Mahika kai and taoka species, including their abundance, have been damaged or lost through resource use, *land* use change and development in Otago. The provisions in this chapter seek to address this loss and pressure through providing direction on how indigenous *biodiversity* is to be managed.

The provisions in this chapter assist in maintaining, protecting and restoring indigenous *biodiversity* by:

- stating the outcomes sought for ecosystems and indigenous *biodiversity* in Otago,
- requiring identification and protection of *significant natural areas* and indigenous species and ecosystems that are taoka, and
- directing how indigenous *biodiversity* is to be maintained.

This chapter will assist with achieving the outcomes sought by *Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy 2020*. Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions, however *local authorities* may also choose to adopt additional non-regulatory methods to support the achievement of the objectives.

Anticipated environmental results

ECO–AER1 There is no further decline in the quality, quantity or diversity of Otago’s indigenous *biodiversity*.

ECO–AER2 The quality, quantity and diversity of indigenous *biodiversity* within Otago improves over the life of this Regional Policy Statement.

- ECO–AER3** Kāi Tahu are involved in the management of indigenous *biodiversity* and able to effectively exercise their *kaitiakitaka*.
- ECO–AER4** Within *significant natural areas*, the area of *land* vegetated by *wilding conifers* is reduced.

EIT – Energy, infrastructure and transport

EIT–EN – Energy

Objectives

EIT–EN–O1 – Energy and social and economic well-being

Otago’s communities and economy are supported by *renewable energy generation* within the region that is safe, secure, and *resilient*.

EIT–EN–O2 – *Renewable electricity generation*

The generation capacity of *renewable electricity generation activities* in Otago:

- (1) is maintained and, if practicable maximised, within environmental limits, and
- (2) contributes to meeting New Zealand’s national target for *renewable electricity generation*.

EIT–EN–O3 – Energy use

Development is located and designed to facilitate the efficient use of energy and to reduce demand if possible, minimising the contribution that Otago makes to total *greenhouse gas* emissions.

Policies

EIT–EN–P1 – Operation and maintenance

The operation and maintenance of existing *renewable electricity generation activities* is provided for while minimising its adverse *effects*.

EIT–EN–P2 – Recognising *renewable electricity generation activities* in decision making

Decisions on the allocation and use of *natural and physical resources*, including the use of *fresh water* and development of *land*:

- (1) recognise the national, regional and local benefits of existing *renewable electricity generation activities*,
- (2) take into account the need to at least maintain current *renewable electricity generation* capacity, and
- (3) recognise that the attainment of increases in *renewable electricity generation* capacity will require significant development of *renewable electricity generation activities*.

EIT–EN–P3 – Development and upgrade of *renewable electricity generation activities*

The security of renewable electricity supply is maintained or improved in Otago through appropriate provision for the development or upgrading of *renewable electricity generation activities* and diversification of the type or location of *electricity generation activities*.

EIT–EN–P4 – Identifying new sites or resources

Provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for *renewable electricity generation* and, when selecting a site for new *renewable electricity generation*, prioritise those where adverse *effects* on highly valued *natural and physical resources* and *mana whenua* values can be avoided or, at the very least, minimised.

EIT-EN-P5 – Non-renewable energy generation

Avoid the development of non-renewable energy generation activities in Otago and facilitate the replacement of non-renewable energy sources, including the use of fossil fuels, in energy generation.

EIT-EN-P6 – Managing effects

Manage the adverse *effects* of *renewable electricity generation activities* by:

- (1) applying EIT-INF-P13,
- (2) having regard to:
 - (a) the *functional need* to locate *renewable electricity generation activities* where resources are available,
 - (b) the *operational need* to locate where it is possible to connect to the *National Grid* or *electricity sub-transmission infrastructure*, and
 - (c) the extent and magnitude of adverse *effects* on the *environment* and the degree to which unavoidable adverse *effects* can be remedied or mitigated, or residual adverse *effects* are offset or compensated for; and
- (3) requiring consideration of alternative sites, methods and designs, and offsetting or compensation measures (in accordance with any specific requirements for their use in this RPS), where adverse *effects* are potentially significant or irreversible.

EIT-EN-P7 – Reverse sensitivity

Activities that may result in reverse sensitivity *effects* or compromise the operation or maintenance of *renewable electricity generation activities* are, as the first priority, prevented from establishing and only if that is not reasonably practicable, managed so that reverse sensitivity *effects* are minimised.

EIT-EN-P8 – Small and community scale distributed electricity generation

Provide for *small and community scale distributed electricity generation* activities that increase the local community's *resilience* and security of energy supply.

EIT-EN-P9 – Energy conservation and efficiency

Development is designed, including through roading, lot size, dimensions, layout, and orientation so that energy use is efficient, energy waste is minimised, and solar gain is optimised.

Methods

EIT-EN-M1 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for *renewable electricity generation*,
- (2) require the prioritisation of sites for new *renewable electricity generation activities* where adverse *effects* on highly valued *natural and physical resources* and *mana whenua* values can be avoided or, at the very least, minimised,
- (3) manage the adverse *effects* of developing or upgrading *renewable electricity generation activities* that:
 - (a) are within the *beds of lakes and rivers* and the *coastal marine area*, or
 - (b) involve the taking, use, damming or diversion of *water* and *discharge of water* or *contaminants*,
- (4) provide for the operation and maintenance of existing *renewable electricity generation activities*, including their *natural and physical resource* requirements, within the environmental limits, and
- (5) restrict the establishment of activities that may adversely affect the efficient functioning of *renewable electricity generation infrastructure* (including impacts on generation capacity).

EIT-EN-M2 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for *renewable electricity generation*,
- (2) require the prioritisation of sites for new *renewable electricity generation activities* where adverse *effects* on highly valued *natural and physical resources* and *mana whenua* values can be avoided or, at the very least, minimised,
- (3) manage the adverse *effects* of developing or upgrading *renewable electricity generation activities* that:
 - (a) are on the surface of *rivers and lakes* and on *land* outside the *coastal marine area*, or
 - (b) the *beds of lakes and rivers*,
- (4) provide for the continued operation and maintenance of *renewable electricity generation activities* on the surface of *rivers and lakes* and on *land* outside the *coastal marine area* and the *beds of lakes and rivers*,
- (5) restrict the establishment or occurrence of activities that may adversely affect the efficient functioning of *renewable electricity generation infrastructure*,
- (6) require the design of *subdivision* development to optimise solar gain, including through roading, lot size, dimensions, layout and orientation, and
- (7) require design of transport *infrastructure* that provides for multi-modal transport options in urban and rural residential locations.

EIT-EN-M3 – Education and information

- (1) *Local authorities* must provide education and information to improve energy efficiency and provide for the adoption of renewable energy sources, including:

- (a) measures for increased energy efficiency and energy conservation, and
 - (b) opportunities for *small and community scale distributed electricity generation*.
- (2) *Territorial authorities* must provide information on design techniques to optimise solar gain, including through roading, lot size, dimensions, layout, and orientation.

Explanation

EIT-EN-E1 – Explanation

The policies in this section are designed to set a clear preference for *renewable electricity generation activities* contributing to meeting New Zealand’s national target for *renewable electricity generation*. *Renewable electricity generation activities* are promoted by providing for the investigation, operation and maintenance of these sites and ensuring that decisions on allocating natural resources and the use of *land*, for example, recognise the benefits of *renewable electricity generation activities* arising from maintaining or increasing generation capacity. It is noted that *renewable electricity generation activities* will come within the definition of *infrastructure*, and that provisions relating to *infrastructure* also apply.

The potential magnitude of adverse *effects* and *functional* and *operational needs* associated with *renewable electricity generation activities* is recognised by requiring consideration of those needs, and the extent to which unavoidable *effects* can be remedied or mitigated. Where residual adverse *effects* remain, consideration is given to proposals to offset these, or compensate for them. Increasing energy security will assist with ensuring that communities have options for clean heat.

To ensure the on-going functionality of assets and to maximise their benefits, reverse sensitivity *effects* or activities that may compromise the operation or maintenance of *renewable electricity generation activities* are to be avoided or their impacts minimised.

The policies also seek that energy use is efficient and energy waste is reduced, which will have consequential *effects* on minimising Otago’s contribution to the nation’s *greenhouse gas* emissions.

Principal reasons

EIT-EN-PR1 – Principal reasons

Energy is a basic requirement of life in Otago. It enables communities to provide for their well-being, and health and safety, and is essential to the regional economy. Everyday life is significantly affected when energy supply is disrupted. Therefore, ensuring the security of energy supplies that meet demand is crucial. The ability of existing energy generation activities to continue operating is dependent on access to resources such as *water* in hydro *lakes* and the operator’s ability to maintain existing *infrastructure*.

Otago is fortunate to have several existing *renewable electricity generation* sites and potential to increase *renewable electricity generation*. The benefits of *renewable electricity generation* include reducing *greenhouse gas* emissions, dependence on imported energy and greater supply security. These benefits are afforded to Otago communities and nationally as exported energy is significant for other regions. Because of this, providing for new *renewable electricity generation* opportunities to meet increasing energy demand is necessary. Additionally, addressing inefficiencies in energy use can ensure that existing *infrastructure* is better utilised to reduce the need for new generation sites.

Renewable electricity generation facilities can cause significant adverse *effects* on the environment because of their *functional need* to locate in particular areas. These areas are where resources are available, for example *water* for hydro-electricity generation, but they may also contain other significant

values such as outstanding natural features or landscapes, significant *indigenous vegetation* or sites of significance to *mana whenua* values. In some situations, it may not be possible to avoid adverse *effects* on these significant values after considering alternative sites or design options. In these circumstances the *effects* should be remedied or mitigated, and consideration should be given to whether those *effects* that cannot be avoided are offset or compensated.

The provisions in this chapter assist in giving effect to the NPSREG and NPSFM and implementing section 7(j) of the RMA 1991. Implementation of the provisions will occur primarily through *regional* and *district plan* provisions but regional, city and district councils also have a role in providing education and information to the community.

Anticipated environmental results

EIT-EN-AER1	The proportion of electricity generated by <i>renewable energy generation activities</i> (including small and community scale electricity generation) in Otago increases over time.
EIT-EN-AER2	Energy use in Otago becomes more efficient over time and security of supply is maintained.
EIT-EN-AER3	The adverse <i>effects</i> associated with <i>renewable energy generation activities</i> are minimised.
EIT-EN-AER4	The proportion of <i>greenhouse gas</i> emissions per capita from energy generation reduces over time.

INF – Infrastructure

Objectives

EIT-INF-04 – Provision of *infrastructure*

Effective, efficient and resilient *infrastructure* enables the people and communities of Otago to provide for their social and cultural well-being, their health and safety, and supports sustainable economic development and growth within the region within environmental limits.

EIT-INF-05 – Integration

Development of *nationally* and *regionally significant infrastructure*, as well as *land* use change, occurs in a co-ordinated manner to minimise adverse *effects* on the *environment* and increase efficiency in the delivery, operation and use of the *infrastructure*.

EIT-INF-06 – Long-term planning for electricity transmission infrastructure

Long-term investment in, and planning for, electricity transmission *infrastructure*, and its integration with *land* use, is sustained.

Policies

EIT-INF-P10 – Recognising resource requirements

Decision making on the allocation or use of *natural and physical resources* must take into account the needs of *nationally* and *regionally significant infrastructure*.

EIT-INF-P11 – Operation and maintenance

Except as provided for by ECO-P4, allow for the operation and maintenance of existing *nationally* and *regionally significant infrastructure* while:

- (1) avoiding, as the first priority, significant adverse *effects* on the *environment*, and
- (2) if avoidance is not practicable, and for other adverse *effects*, minimising adverse *effects*.

EIT-INF-P12 – Upgrades and development

Provide for upgrades to, and development of, *nationally* or *regionally significant infrastructure* while ensuring that:

- (1) *infrastructure* is designed and located, as far as practicable, to maintain functionality during and after *natural hazard* events,
- (2) it is, as far as practicable, co-ordinated with long-term *land* use planning, and
- (3) increases efficiency in the delivery, operation or use of the *infrastructure*.

EIT-INF-P13 – Locating and managing *effects* of *infrastructure*

When providing for new *infrastructure* outside the coastal environment:

- (1) avoid, as the first priority, locating *infrastructure* in all of the following:
 - (a) *significant natural areas*,

- (b) outstanding natural features and landscapes,
 - (c) *natural wetlands*,
 - (d) *outstanding water bodies*,
 - (e) areas of high or outstanding natural character,
 - (f) areas or places of significant or outstanding *historic heritage*,
 - (g) wāhi tapu, wāhi taoka, and areas with protected customary rights, and
 - (h) areas of high recreational and high amenity value, and
- (2) if it is not possible to avoid locating in the areas listed in (1) above because of the *functional or operational needs* of the *infrastructure* manage adverse *effects* as follows:
- (a) for *nationally or regionally significant infrastructure*:
 - (i) in *significant natural areas*, in accordance with ECO–P4,
 - (ii) in *natural wetlands*, in accordance with the relevant provisions in the NESF,
 - (iii) in *outstanding water bodies*, in accordance with LF–P12,
 - (iv) in other areas listed in EIT–INF–P13 (1) above, minimise the adverse *effects* of the *infrastructure* on the values that contribute to the area’s importance, and
 - (b) for all *infrastructure* that is not *nationally or regionally significant*, avoid adverse *effects* on the values that contribute to the area’s outstanding nature or significance.

EIT–INF–P14 – Decision making considerations

When considering proposals to develop or upgrade *infrastructure*:

- (1) require consideration of alternative sites, methods and designs if adverse *effects* are potentially significant or irreversible, and
- (2) utilise the opportunity of substantial upgrades of *infrastructure* to reduce adverse *effects* that result from the existing *infrastructure*, including on *sensitive activities*.

EIT–INF–P15 – Protecting *nationally or regionally significant infrastructure*

Seek to avoid the establishment of activities that may result in reverse sensitivity *effects* on *nationally or regionally significant infrastructure*, and/or where they may compromise the *functional or operational needs* of *nationally or regionally significant infrastructure*.

EIT–INF–P16 – Providing for electricity transmission and the *National Grid*

Maintain a secure and sustainable electricity supply in Otago by:

- (1) providing for development of, and upgrades to, the electricity transmission network and requiring, as far as practicable, its integration with *land* use,
- (2) considering the requirements of and constraints on the *functional or operational needs* of the electricity transmission network,
- (3) providing for the efficient and effective development, operation, maintenance, and upgrading of the *National Grid*,

- (4) enabling the reasonable operation, maintenance and minor upgrade requirements of established electricity transmission assets, and
- (5) minimising the adverse *effects* of the electricity transmission network on urban amenity, and avoiding adverse *effects* on town centres, areas of high amenity or recreational value and existing *sensitive activities*.

EIT-INF-P17 – Urban growth and infrastructure

Provide for *development infrastructure* and *additional infrastructure* required to service existing, planned and expected urban growth demands in the short, medium and long term, taking in account UFD-P1 to UFD-P10.

Methods

EIT-INF-M4 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) manage the adverse *effects* of *infrastructure* activities that:
 - (a) are in the *beds* of *lakes* and *rivers*, or
 - (b) are in the *coastal marine area*, or
 - (c) involve the taking, use, damming or diversion of *water* or,
 - (d) involve the *discharge* of *water* or *contaminants*, and
- (2) require the prioritisation of sites for *infrastructure* where adverse *effects* on highly valued *natural and physical resources* and *mana whenua* values can be avoided or, at the very least, minimised.

EIT-INF-M5 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) require a strategic approach to the integration of *land* use and *nationally or regionally significant infrastructure*,
- (2) enable planning for the electricity transmission network and *National Grid* to achieve efficient distribution of electricity,
- (3) map the electricity transmission network, and in relation to the *National Grid*, identify a buffer corridor within which *sensitive activities* shall generally not be allowed, and
- (4) manage the *subdivision*, use and development of *land* to ensure *nationally or regionally significant infrastructure* can develop to meet increased demand,
- (5) manage the adverse *effects* of developing, operating, maintaining, or upgrading *nationally or regionally significant infrastructure* that are on:
 - (a) the surface of *rivers* and *lakes* and on *land* outside the *coastal marine area*, and
 - (b) the *beds* of *lakes* and *rivers*,
- (6) ensure that development is avoided where:
 - (a) it cannot be adequately served with *infrastructure*,

- (b) it utilises *infrastructure* capacity for other planned development, or
 - (c) the required upgrading of *infrastructure* is not funded, and
- (7) require the prioritisation of sites where adverse *effects* on highly valued *natural and physical resources* and *mana whenua* values can be avoided or, at the very least, minimised.

EIT-INF-M6 – Advocacy

Local authorities must:

- (1) advocate for the upgrading or replacement of existing *nationally or regionally significant infrastructure* if the operation of *infrastructure* results in significant adverse *effects*, and
- (2) work proactively with *infrastructure* providers to co-ordinate the upgrading or development of *nationally or regionally significant infrastructure* to support co-location or concurrent construction to reduce adverse *effects*.

Explanation

EIT-INF-E2 – Explanation

The policies in this section recognise the critical importance of *infrastructure* to communities and provide for the continued operation of existing *infrastructure* and the development of upgraded or new *infrastructure* where adverse *effects* are managed. As many assets rely on particular resource requirements or specific locations, decisions on allocating *natural and physical resources* shall make provision for the *functional or operational needs* of *nationally and regionally significant infrastructure*. For *infrastructure* in the coastal environment, the provisions of the CE – Coastal environment chapter are also applicable to ensure the NZCPS is given effect.

Given the potential magnitude of adverse *effects* associated with this *infrastructure*, consideration is required of the ability to remedy or mitigate unavoidable adverse *effects*, alternative options and offsetting or compensation.

To ensure *infrastructure* is planned for, and used efficiently, the provisions require that the benefits of existing *nationally and regionally significant infrastructure* are maximised, and *infrastructure* provision is undertaken in a co-ordinated manner. The policies also seek to manage the potential adverse *effects* of other activities on *nationally and regionally significant infrastructure* to ensure the ability to operate these assets is not compromised.

Principal reasons

EIT-INF-PR2 – Principal reasons

Infrastructure is fundamental to the health and safety of communities, and their social and economic well-being and functioning. The nature of *infrastructure* means there are typically operational and functional constraints which dictate where and how these activities operate to properly serve local communities. These types of assets also tend to require significant investment, although some have at times been subject to under-investment.

The scale and type of activities involved in the development, operation, maintenance, and upgrading of *infrastructure* are such that adverse *effects* on the *environment* are likely and, at times, significant. Efforts are required to reduce impacts from *infrastructure*, by avoiding its location in areas that are important to Otago, particularly where alternatives are available. If it is necessary to locate in those areas, then it is

necessary that the values that make those areas important are protected. There are instances however, when residual *effects* cannot be avoided, in which case *effects* should be remedied or mitigated and offsetting or compensation may be necessary if it meets any criteria set. Given the potential for adverse *effects*, it is important that *local authorities* monitor and enforce the standards set in plans and on *resource consents* and designations.

The policies in this chapter give effect to the NPSREG, NPSET, NPSFM and NPSUD and recognise *infrastructure* that has benefits for the wider Otago region and nationally. Implementation of the provisions will occur through the *regional* and *district plan* provisions.

Anticipated environmental results

EIT-INF-AER5	<i>Infrastructure</i> provides safe, effective and efficient services to the Otago community.
EIT-INF-AER6	The provision of <i>infrastructure</i> is co-ordinated and integrated to service growth efficiently.
EIT-INF-AER7	<i>Nationally</i> and <i>regionally significant infrastructure</i> is protected from reverse sensitivity <i>effects</i> caused by incompatible activities.
EIT-INF-AER8	The adverse <i>effects</i> associated with <i>nationally</i> and <i>regionally significant infrastructure</i> are minimised.

TRAN – Transport

Objectives

EIT–TRAN–07 – Effective, efficient, and safe transport

Otago has an integrated air, *land* and sea transport network that:

- (1) is effective, efficient and safe,
- (2) connects communities and their activities within Otago, with other regions, and internationally, and
- (3) is *resilient to natural hazards*.

EIT–TRAN–08 – Transport system

The transport system within Otago supports the movement of people, goods and services, is integrated with *land* use, provides a choice of transport modes and is adaptable to changes in demand.

EIT–TRAN–09 – Effects of the transport system

The contribution of transport to Otago's *greenhouse gas* emissions is reduced and communities are less reliant on fossil fuels for transportation.

EIT–TRAN–O10 – Commercial port activities

Commercial port activities operate safely and efficiently, and within environmental limits.

Policies

EIT–TRAN–P18 – Integration of the transport system

The transport system contributes to the social, cultural and economic well-being of the people of Otago through:

- (1) integration with *land* use activities and across transport modes, and
- (2) provision of transport *infrastructure* that enables service delivery as demand requires.

EIT–TRAN–P19 – Transport system design

Resilience and adaptability of the transport system supports efficient networks for the transport of people and goods that are sustained and improved by:

- (1) promoting a consolidated urban form that integrates *land* use activities with the transport system,
- (2) placing a high priority on *active transport* and *public transport* and their integration into the design of development and transport networks, and
- (3) encouraging improved access to public spaces, including the *coastal marine area*, *lakes* and *rivers*.

EIT–TRAN–P20 – Public transport

Plans and proposals for maintenance and development of the transport system enhance the uptake of *public transport* by:

- (1) providing safe and reliable alternatives to private vehicle transport,
- (2) including measures to ensure pedestrian and cyclist safety and amenity, and
- (3) taking into consideration the accessibility needs of the community.

EIT-TRAN-P21 – Operation of the transport system

The efficient and effective operation of the transport system is maintained by:

- (1) avoiding adverse *effects* of activities on the functioning of the transport system,
- (2) avoiding the impacts of incompatible activities, including those that may result in reverse sensitivity *effects*,
- (3) avoiding development that forecloses an opportunity to adapt, upgrade or develop the transport system to meet future transport demand,
- (4) promoting the development and use of transport hubs that enable an efficient transfer of goods for transport and distribution across different freight and people transport modes,
- (5) promoting methods that provide more efficient use of, or reduce reliance on, private motor vehicles, including ridesharing, park and ride facilities, demand management and alternative transport modes, and
- (6) encouraging a shift to using renewable energy sources.

EIT-TRAN-P22 – Sustainable transportation

Sustainable transport networks that enhance the uptake of new technologies and reduce reliance on fossil fuels are developed throughout Otago.

EIT-TRAN-P23 – Commercial port activities

Recognise the national and regional significance of the *commercial port activities* associated with the ports at Port Chalmers and Dunedin (respectively) by:

- (1) within environmental limits as set out in Policies CE-P3 to CE-P12, providing for the efficient and safe operation of these ports and efficient connections with other transport modes,
- (2) within the environmental limits set out in Policies CE-P3 to CE-P12, providing for the development of the ports' capacity for national and international shipping in and adjacent to existing port activities, and
- (3) ensuring that development in the coastal environment does not adversely affect the efficient and safe operation of these ports, or their connections with other transport modes.

Methods

EIT-TRAN-M7 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) provide for the development, operation, maintenance, or upgrade of the transport system that:
 - (a) is within the *beds of lakes and rivers* or the *coastal marine area*, or
 - (b) involves the taking, use, damming or diversion of *water* and *discharge of water and contaminants*,

- (2) manage the adverse *effects* of *infrastructure* activities that:
 - (a) provide for the establishment of transport *infrastructure* that supports modes of transport that are not reliant on fossil fuels, and
 - (b) include policies and methods that provide for the *commercial port activities* associated with the operations at Otago Harbour and the ports at Port Chalmers and Dunedin, and
- (3) within environmental limits, facilitate the safe and efficient operation and development of *commercial port activities* at Port Chalmers and Dunedin. This includes previously approved *resource consents* for the following activities in the coastal development area mapped in MAP2:
 - (a) dredging of Otago lower harbor (to 17.5m for entrance channel, and 14.5m through to Port Chalmers),
 - (b) dredging of Otago upper harbour to 10.5m,
 - (c) management of upper and lower harbour navigation beacons,
 - (d) *discharge* of dredging spoil to the disposal grounds at Heyward Point, Aramoana, Shelley Beach, and AO, and
 - (e) placement and use of scientific buoys.

EIT-TRAN-M8 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) require a strategic approach to the integration of the transport system with *land* uses and between modes,
- (2) require high trip generating activities to be integrated with public transport services and provide for safe pedestrian and cycling access,
- (3) include *subdivision* and *infrastructure* design standards to minimise private vehicle use, enable public transport networks to operate and recognise the accessibility needs of the community, including the mobility impaired, the elderly and children,
- (4) restrict or prevent the establishment or expansion of activities adjacent to transport *infrastructure* that may compromise the operation or safety of the transport system,
- (5) provide for the establishment of transport *infrastructure* that supports modes of transport that are not reliant on fossil fuels, and
- (6) include policies and methods that provide for *commercial port activities* associated with the operations at Otago Harbour and the ports at Port Chalmers and Dunedin.

EIT-TRAN-M9 – Regional Land Transport Plan

Otago Regional Council will take into account the objectives, provisions and methods of this chapter in preparing its Regional Land Transport Plan and Regional Public Transport Plan.

Explanation

EIT-TRAN-E3 – Explanation

The policies in this section seek to ensure that transport *infrastructure* is well designed and functions effectively, including providing for accessibility for different modes and purposes. This includes managing

potential *effects* of other activities on the transport system and ensuring strategic decision making in the provision of transport *infrastructure* to best provide for connectivity. The policies also recognise the contribution of the transport system to emissions and provide for networks that seek to adopt technologies which reduce the adverse *effects* on the *environment* arising from fuel usage. In relation to *commercial port activities* taking place within the coastal environment, the provisions of the CE – Coastal Environment chapter also apply.

Principal reasons

EIT–TRAN–PR3 – Principal reasons

The transport system is critical for connecting people and communities and transporting goods, the effective functioning of Otago’s economy and the well-being of Otago’s community. The transport network can, however, have adverse *effects* on the *environment* and impact on community well-being. If there is sufficient demand, integration and the necessary *infrastructure*, modal choices can be provided and by giving preference to modes with lower environmental *effects*, the adverse impacts of the transport system can be reduced. However, as large parts of the Otago region are rural, reliance on private vehicles will remain the preferred, or the only practical, transport option for many people. This should not exclude the potential for improvements in modal choice or accessibility for a range of abilities and sectors of the community. Planning for transport *infrastructure* should be co-ordinated with urban and commercial growth and development to enable the transport system to effectively serve local communities and avoid reducing the efficiency of existing *infrastructure*.

Anticipated environmental results

EIT–TRAN–AER9	Structure planning and <i>district plans</i> make explicit provision for all modes of transport.
EIT–TRAN–AER10	The number of people participating in active transport increases.
EIT–TRAN–AER11	The number of dwellings per hectare in areas accessible to <i>public transport</i> increases over the life of this RPS.
EIT–TRAN–AER12	<i>Public transport</i> patronage increases and congestion levels decrease over the life of this RPS.
EIT–TRAN–AER13	<i>Greenhouse gas</i> emissions arising from the transport system reduce over time from increased active transport, shared travel and <i>public transport</i> patronage and reduced reliance on fossil fuels.
EIT–TRAN–AER14	The transport of people, goods and services within Otago is achieved in a timely manner and at costs comparable to other regions.

HAZ – Hazards and *risks*

HAZ–NH – *Natural hazards*

Objective

HAZ–NH–O1 – *Natural hazards*

Levels of *risk* to people, communities and property from *natural hazards* within Otago do not exceed a tolerable level.

HAZ–NH–O2 – *Adaption*

Otago's people, property and communities are prepared for and able to adapt to the *effects* of *natural hazards*, including *climate change*.

Policies

HAZ–NH–P1 – *Identifying areas subject to natural hazards*

Identify areas where *natural hazards* may adversely affect Otago's people, communities and property by assessing:

- (1) the hazard type and characteristics,
- (2) *multiple* and *cascading hazards*, where present,
- (3) any cumulative *effects*,
- (4) any *effects* of *climate change*,
- (5) likelihood, using the best available information, and
- (6) any other exacerbating factors.

HAZ–NH–P2 – *Risk assessments*

Assess the level of *natural hazard risk* by determining a range of *natural hazard* event scenarios and their potential consequences in accordance with the criteria set out within APP6.

HAZ–NH–P3 – *New activities*

Once the level of *natural hazard risk* associated with an activity has been determined in accordance with HAZ–NH–P2, manage new activities to achieve the following outcomes:

- (1) when the *natural hazard risk* is significant, the activity is avoided,
- (2) when the *natural hazard risk* is tolerable, manage the level of *risk* so that it does not become significant, and
- (3) when the *natural hazard risk* is acceptable, maintain the level of *risk*.

HAZ–NH–P4 – *Existing activities*

Reduce existing *natural hazard risk* by:

- (1) encouraging activities that reduce *risk*, or reduce community vulnerability,
- (2) restricting activities that increase *risk*, or increase community vulnerability,
- (3) managing existing *land* uses within areas of significant *risk* to people and communities,
- (4) encouraging design that facilitates:
 - (a) recovery from *natural hazard* events, or
 - (b) relocation to areas of acceptable *risk*, or
 - (c) reduction of *risk*,
- (5) relocating *lifeline utilities*, and facilities for essential and emergency services, away from areas of significant *risk*, where appropriate and practicable, and
- (6) enabling development, upgrade, maintenance and operation of *lifeline utilities* and facilities for essential and emergency services.

HAZ–NH–P5 – Precautionary approach to *natural hazard risk*

Where the *natural hazard risk*, either individually or cumulatively, is uncertain or unknown, but potentially significant or irreversible, apply a precautionary approach to identifying, assessing and managing that *risk* by adopting an avoidance or adaptive management response to diminish the *risk* and uncertainty.

HAZ–NH–P6 – Protecting features and systems that provide hazard mitigation

Protect natural or modified features and systems that contribute to mitigating the *effects* of *natural hazards* and *climate change*.

HAZ–NH–P7 – Mitigating *natural hazards*

Prioritise *risk* management approaches that reduce the need for *hard protection structures* or similar engineering interventions, and provide for *hard protection structures* only when:

- (1) *hard protection structures* are essential to manage *risk* to a level the community is able to tolerate,
- (2) there are no reasonable alternatives that result in reducing the *risk* exposure,
- (3) *hard protection structures* would not result in an increase in *risk* to people, communities and property, including displacement of *risk* off-site,
- (4) the adverse *effects* of the *hard protection structures* can be adequately managed, and
- (5) the mitigation is viable in the reasonably foreseeable long term or provides time for future adaptation methods to be implemented, or
- (6) the *hard protection structure* protects a *lifeline utility*, or a facility for essential or emergency services.

HAZ–NH–P8 – *Lifeline utilities* and facilities for essential or emergency services

Locate, relocate, and design *lifeline utilities* and facilities for essential or emergency services to:

- (1) maintain their ability to function to the fullest extent possible, during and after *natural hazard* events, and

- (2) take into account their operational co-dependence with other *lifeline utilities* and essential services to ensure their effective operation.

HAZ–NH–P9 – Protection of hazard mitigation measures

Protect the *functional needs* of hazard mitigation measures, *lifeline utilities*, and essential or emergency services, including by:

- (1) avoiding significant adverse *effects* on those measures, utilities or services,
- (2) avoiding, and only where avoidance is not practicable, remedying or mitigating other adverse *effects* on those measures, utilities or services,
- (3) maintaining access to those measures, utilities or services for maintenance and operational purposes, and
- (4) restricting the establishment of other activities that may result in reverse sensitivity *effects* on those measures, utilities or services.

HAZ–NH–P10 – Coastal hazards

In addition to HAZ–NH–P1 to HAZ–NH–P9 above, on any *land* that is potentially affected by coastal hazards over at least the next 100 years:

- (1) avoid increasing the *risk* of social, environmental and economic harm from coastal hazards,
- (2) ensure no *land* use change or redevelopment occurs that would increase the *risk* to people and communities from that coastal hazard,
- (3) encourage *land* use change or redevelopment that reduces the *risk* from that coastal hazard, and
- (4) ensure decision making about the nature, scale and location of activities considers the ability of Otago’s people and communities to adapt to, or mitigate the *effects* of, sea level rise and *climate change*.

HAZ–NH–P11 – Kaitiaki decision making

Recognise and provide for the role of Kāi Tahu as kaitiaki over *wāhi tūpuna*, Māori reserves and freehold land that is susceptible to *natural hazards* by involving *mana whenua* in decision making and management processes.

Methods

HAZ–NH–M1 – Statement of responsibilities

In accordance with section 62(1)(i)(i) of the RMA 1991, the responsibilities for the control of *land* use to avoid or mitigate *natural hazards* or any group of hazards are as follows:

- (1) the Regional Council and *territorial authorities* are both responsible for specifying objectives, policies and methods in *regional* and *district plans* for managing *land* subject to *natural hazard risk*,
- (2) the Regional Council is responsible for:
 - (a) specifying objectives, policies and methods in *regional plans*:
 - (i) in the *coastal marine area*,
 - (ii) in *wetlands, lakes* and *rivers*, and

- (iii) in, on or under the *beds of rivers and lakes*,
 - (b) identifying areas in the region subject to *natural hazards* and describing their characteristics as required by Policy HAZ–NH–P1, mapping the extent of those areas in the relevant *regional plan(s)* and including those maps on a *natural hazard register* or database,
 - (c) in the coastal environment, identifying the coastal hazards as required by CE–P2(3) in accordance with Policy 24 of the NZCPS, mapping the extent of those areas in the relevant *regional plan(s)* and including those maps on a *natural hazard register* or database, and
- (3) *territorial authorities* are responsible for
- (a) specifying objectives, policies and methods in *district plans* for *land* outside of the areas listed in (2)(a), and
 - (b) mapping or identifying via the *natural hazard register* or database, areas identified in 2(a), (b) and (c) above subject to natural hazards and describing the characteristics and the extent of those areas in the relevant *district plan(s)*.

HAZ–NH–M2 – Local authorities

Local authorities must:

- (1) assess the level of *natural hazard risk* in their region or district in accordance with HAZ–NH–P2 and APP6, including by:
 - (a) consulting with communities, stakeholders and partners regarding *risk* levels thresholds, and
 - (b) developing a Risk Table in accordance with Step 3 of APP6 at a district or community scale,
- (2) continue to undertake research on the identification of *natural hazard risk* and amend *natural hazard registers, databases, regional and/or district plans* as required,
- (3) investigate options for reducing the level of *natural hazard risk* within areas of existing development to a tolerable or lower level, including by managing existing use rights under Sections 10 and 20A of the RMA,
- (4) prepare or amend and maintain their *regional or district plans* to take into account the *effects of climate change* by:
 - (a) using the best relevant *climate change* data and projections to 2115,
 - (b) taking a precautionary approach when assessing and managing the *effects of climate change* where there is scientific uncertainty and potentially significant or irreversible *effects*,
 - (c) providing for activities that assist to reduce or mitigate the *effects of climate change*, and
 - (d) encouraging system *resilience*.

HAZ–NH–M3 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) manage activities in the *coastal marine area, beds of lakes and rivers, and wetlands* to achieve policies HAZ–NH–P2 to HAZ–NH–P6 and APP6,
- (2) include *natural hazard* reduction measures, such as removing or restricting existing *land* uses, where there is significant *risk* to people or property,

- (3) protect natural or modified features and systems that provide mitigation from the adverse *effects of natural hazards* in accordance with HAZ–NH–P6,
- (4) provide for *hard protection structures* in accordance with HAZ–NH–P7,
- (5) provide for the *functional needs* of hazard mitigation measures, *lifeline utilities*, and essential or emergency services in accordance with HAZ–NH–P8 and HAZ–NH–P9,
- (6) include provisions that require decision makers to apply the precautionary approach set out in HAZ–NH–P5 when considering applications for *resource consent* for activities that will change the use of *land* and thereby increase the *risk from natural hazards* within areas subject to *natural hazard risk* that is uncertain or unknown, but potentially significant or irreversible, and
- (7) require a *natural hazard risk* assessment be undertaken where an activity requires a *resource consent* to change the use of *land* which will increase the *risk from natural hazards* within areas subject to *natural hazards*, and where the *resource consent* is lodged prior to the *natural hazard risk* assessment required by HAZ–NH–M2(1) being completed, the *natural hazard risk* assessment must include:
 - (a) an assessment of the level of *natural hazard risk* associated with the proposal in accordance with APP6, and
 - (b) an assessment demonstrating how the proposal will achieve the outcomes set out in Policies HAZ–NH–P3 and HAZ–NH–P4.

HAZ–NH–M4 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) achieve policies HAZ–NH–P2 to HAZ–NH–P6 and APP6 on *land* outside the *coastal marine area*, *beds of lakes and rivers*, and *wetlands* by managing the location, scale and density of activities that may be subject to *natural hazard risk*,
- (2) require implementation of *natural hazard risk* reduction measures, including to existing activities in accordance with HAZ–NH–P4,
- (3) protect the role of natural or modified features and systems that provide mitigation from the adverse *effects of natural hazards* in accordance with HAZ–NH–P6,
- (4) provide for *hard protection structures* in accordance with HAZ–NH–P7,
- (5) provide for the *functional needs* of hazard mitigation measures, *lifeline utilities*, and essential or emergency services in accordance with HAZ–NH–P8 and HAZ–NH–P9,
- (6) include provisions that require decision makers to apply the precautionary approach set out in HAZ–NH–P5 when considering applications for *resource consent* for activities that will change the use of *land* and which may increase the *risk from natural hazards* within areas subject to *natural hazard risk* that is uncertain or unknown, but potentially significant or irreversible, and
- (7) require a *natural hazard risk* assessment be undertaken where an activity requires a plan change or *resource consent* to change the use of *land* which will increase the *risk from natural hazards* within areas subject to *natural hazards*, and where the application is lodged prior to the *natural hazard risk* assessment required by HAZ–NH–M2(1) being completed, the *natural hazard risk* assessment must include:
 - (a) an assessment of the level of *natural hazard risk* associated with the proposal in accordance with APP6, and

- (b) an assessment demonstrating how the proposal will achieve the outcomes set out in Policies HAZ–NH–P3 and HAZ–NH–P4.

HAZ–NH–M5 – Other incentives and mechanisms

Local authorities are encouraged to consider the use of other mechanisms or incentives to assist in achieving Policies HAZ–NH–P1 to HAZ–NH–P11, including:

- (1) preparing *natural hazard* strategies or other similar documents to assist in the management and reduction of *natural hazard risk* and adaptation to, and mitigation of, the *effects of climate change*,
- (2) developing community relevant responses to the impacts of *natural hazards* and *climate change*, in collaboration with key stakeholders and affected community,
- (3) undertaking research in collaboration with other *local authorities* and other stakeholders as appropriate, into *natural hazards* and *climate change* in Otago, and
- (4) providing information and guidance on:
 - (a) management approaches to the avoidance or mitigation of *natural hazards*,
 - (b) ways to adapt to and mitigate the *effects of climate change*, and
 - (c) the benefits of natural features and systems in mitigating *natural hazards*.

Explanation

HAZ–NH–E1 – Explanation

The policies in this chapter are designed to reduce the level of *natural hazard risk* within the region through sound preparation, investigation and planning. These provisions take a risk-based approach, taking into consideration the likelihood of the hazard and the vulnerability of people, communities, and the *environment*. The approach ensures consistent planning by applying the same framework irrespective of the type of *natural hazard* that may exist. It allows for the full range of *risk* mitigation measures (regulatory and non-regulatory) to be taken into account in determining the level of *risk* that exists at a particular locality.

Once the level of *risk* has been established, the provisions direct that *district* and *regional plans* require activities to be undertaken in a manner that results in the *natural hazard risk* to people, the community and property being tolerable or lower. Where a *natural hazard risk* to people, the community and property cannot be reduced to a tolerable level, the activity must be avoided. The provisions require that the same risk-based approach is taken when considering the management of existing development, by ensuring that the *risk* associated with existing development is tolerable or lower.

The provisions also set direction on *natural hazard* management methods such as use of the precautionary approach, protecting natural features and systems that provide hazard mitigation, the use of *hard protection structures*, and the location and design of *lifeline utilities* and facilities for essential or emergency services. These provisions are designed to reduce the level of *natural hazard risk* within the region.

HAZ–NH–PR1 – Principal reasons

The Otago region is exposed to a wide variety of *natural hazards* that impact on people, property, *infrastructure* and the wider *environment*. Given the wide variety of landscapes that make up the Otago

region, the *natural hazards* threats range from coastal erosion and flooding in the lowland coastal areas of the region to alluvial fan deposition, landslip, fire, earthquakes, rock fall, and *river* breaches in the alpine areas of the region. The *effects* of *natural hazards* vary in terms of both their likelihood and consequence. Some *natural hazards*, such as flooding, may occur relatively frequently and may damage property and disrupt people's lives and economic, social and cultural activities, whereas *natural hazards* such as tsunami occur infrequently, but when they do occur, they pose serious *risk* to life.

The negative *effects* of *natural hazards* are generally best managed by avoiding development in areas that are known to be subject to *natural hazards*. However, the majority of the region is subject to some form of hazards *risk*, to a greater or lesser extent. While avoidance may be the preferred option in many cases, in other situations mitigating the *effects* of *natural hazards* to tolerable levels will be a feasible option to ensure the health, safety and well-being of the community. The changing nature of *natural hazards risk* due to *climate change* means that planning provisions need to be able to adapt to a future *natural hazards environment*.

Communities need consistent guidance on sea level rise, extreme weather events, and all other adverse *effects* of *climate change* if they are to appropriately manage those *effects*. *Climate change* is resulting in rising sea levels and is increasing the frequency and severity of climate related *natural hazards* including flooding, wind events, fires, landslips, erosion and drought. *Stormwater* systems may not be able to cope with heavier rainfall. Other *effects* of *climate change* include changing distributions of plants and animals, and consequential *effects*, such as the *risk* of saltwater intrusion into *groundwater* as a result of sea level rise in combination with increased *groundwater* abstraction, and *groundwater* ponding. There may be other adverse *effects* from *climate change* that are not yet known. A precautionary approach is required where there is scientific uncertainty. The *effects* of *climate change* will result in social, environmental and economic costs. It is prudent that these changes are planned for now, so that the impacts can be reduced.

In addition to the objectives and policies in this chapter, the management of *natural hazards* are also recognised and provided for in the following chapters of this RPS:

- IM – Integrated management
- CE – Coastal environment
- EIT – Energy, infrastructure and transport
- UFD – Urban form and development

Anticipated environmental results

HAZ–NH–AER1 The location and design of new developments and natural resource use reduces community exposure to the adverse *effects* of *natural hazards* events and processes.

HAZ–NH–AER2 No developments proceed that have a significant level of *risk*.

HAZ–NH–AER3 The level of *risk* associated with new development does not exceed a tolerable level.

HAZ–NH–AER4 Where existing development is subject to *risks* from *natural hazards*, the level of *risk* is reduced to a tolerable level.

HAZ–NH–AER5 The impact on life, property, *lifeline utilities*, and essential services from *natural hazards* and *climate change* is managed.

HAZ–CL – *Contaminated land*

Objectives

HAZ–CL–O3 – *Contaminated land*

Contaminated land and *waste* materials are managed to protect human health, *mana whenua* values and the *environment* in Otago.

Policies

HAZ–CL–P13 – *Identifying contaminated land*

Identify sites of known or potentially *contaminated land* in Otago using the Ministry for the Environment’s *Hazardous Activities and Industries List*.

HAZ–CL–P14 – *Managing contaminated land*

Actively manage contaminated or potentially *contaminated land* so that it does not pose an unacceptable *risk* to people and the *environment*, by:

- (1) assessing and monitoring *contaminant* levels and environmental *risks*,
- (2) protecting human health in accordance with regulatory requirements,
- (3) avoiding, as the first priority, and only where avoidance is not practicable, mitigating or remediating, adverse *effects* of the *contaminants* on the *environment*, and
- (4) requiring closed *landfills* to be managed in accordance with a closure plan that sets out monitoring requirements and, where necessary, any remedial actions required to address ongoing *risks*.

HAZ–CL–P15 – *New contaminated land*

Avoid the creation of new *contaminated land* or, where this is not practicable, minimise adverse *effects* on the *environment* and *mana whenua* values.

HAZ–CL–P16 – *Waste minimisation responses*

Apply the principles of the *waste* management hierarchy (reduce, reuse, recycle, recover, residual *waste* management) to the management of all *waste* streams.

HAZ–CL–P17 – *Disposal of waste materials*

Provide for the development and operation of facilities and services for the storage, recycling, recovery and treatment of *waste* materials but only for the disposal of *waste* materials if those materials cannot be recycled, recovered or treated for re-use.

HAZ–CL–P18 – *Waste facilities and services*

When providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of *waste* materials:

- (1) avoid adverse *effects* on the health and safety of people,
- (2) minimise the potential for adverse *effects* on the *environment* to occur,

- (3) minimise *risk* associated with *natural hazard* events, and
- (4) restrict the establishment of activities that may result in reverse sensitivity *effects* near *waste* management facilities and services.

Methods

HAZ-CL-M6 – Regional plans

Otago Regional Council must:

- (1) maintain a register or database of sites where hazardous activities and industries are or have been located in Otago,
- (2) prepare or amend and maintain its *regional plans* to:
 - (a) in accordance with HAZ-CL-P14 and HAZ-CL-P15 manage the *effects* of the use of *contaminated land* on:
 - (i) the quality of air, *water* and *land*; and
 - (ii) the *coastal marine area*, and the *beds* of *rivers*, *lakes* and other *water bodies*,
 - (b) require *waste* disposal facilities to be designed, constructed and operated in accordance with best industry practice, and
 - (c) require *waste* disposal facilities to monitor, record and report on the quantity and composition of *waste* being deposited to *landfill*.

HAZ-CL-M7 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to provide for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of *waste* while achieving the outcomes listed in HAZ-CL-P14 to HAZ-CL-P16.

HAZ-CL-M8 – Waste management and minimisation plans

Local authorities must develop *waste* management and minimisation plans in accordance with the Waste Minimisation Act 2008.

HAZ-CL-M9 – Other incentives and mechanisms

Local authorities may:

- (1) encourage the application of the *waste* management hierarchy by:
 - (a) giving preference to reducing *waste* generated,
 - (b) reusing *waste*,
 - (c) recycling *waste*,
 - (d) recovering resources from *waste*, and
 - (e) only disposing residual *waste* to a disposal facility,
- (2) provide information and guidance on *waste* minimisation and management, and
- (3) advocate for:

- (a) the implementation of the *waste* hierarchy throughout the region, and
- (b) the development of *infrastructure* and services to provide for recycling and disposal services across the region.

Explanation

HAZ–CL–E2 – Explanation

The policies in this chapter are designed to ensure that *contaminated land* and *waste* materials do not harm human health or the *environment*. To achieve this, areas of known or potentially *contaminated land* are to be identified. Once sites are identified, the protection of human health is managed by the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012 (NESCS). It is the role of *regional plans* to minimise the adverse *effects* of the *contaminants* on the *environment* by avoiding the creation of new *contaminated land* and minimising the adverse *effects* of *waste* material on the *environment*. The provisions within this chapter also encourage the application of the *waste* management hierarchy.

Principal reasons

HAZ–CL–PR2 – Principal reasons

Resources need to be carefully used to minimise the material disposed of as *waste*. Waste materials and hazardous substances need to be carefully managed to avoid creating environmental problems or adversely affecting human health.

In order to protect people and the *environment* from the adverse *effects* of *contaminated land*, the first task is to identify *land* that could be contaminated. The Ministry for the Environment’s Hazardous Activities and Industries List (HAIL) is a list of activities and industries that may have involved the use of hazardous substances. Such use of hazardous substances may have resulted in *land* becoming contaminated. Once known or potentially *contaminated land* has been identified, assessments can be made to determine the nature or existence of contamination.

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012 (NESCS) sets out a nationally consistent set of planning controls and soil *contaminant* values. It applies to assessing and managing the actual or potential adverse *effects* of *contaminants* in soil on human health when undertaking *subdivision*, *land* use change, *earthworks*, soil sampling or removing the underground portions of any fuel storage or dispensing systems. The NESCS does not apply to assessing and managing the actual or potential adverse *effects* of *contaminants* on other receptors, including ecology, *water* quality or *amenity values*. Therefore, it is the role of the *regional plans* to manage these adverse *effects*.

The *waste* management hierarchy is an internationally recognised management model for the reduction of residual *waste*. The *waste* management hierarchy can be applied to all *waste* streams. When making decisions about a *land* use or activity, it is possible to include methods that will reduce *waste* over the lifetime of that *land* use or activity.

Anticipated environmental results

HAZ–CL–AER6 The environment, people and communities are not harmed by *waste* materials.

HAZ–CL–AER7 The *waste* hierarchy is implemented, resulting in less *waste* requiring disposal and a reduction of the environmental *effects* generated from *waste*.

HCV – Historical and cultural values

HCV–WT – *Wāhi tūpuna*

Objectives

HCV–WT–O1 – Kāi Tahu cultural landscapes

Wāhi tūpuna and their associated cultural values are identified and protected.

HCV–WT–O2 – Rakatirataka

The rakatirataka of *mana whenua* over *wāhi tūpuna* is recognised, and *mana whenua* are able to exercise *kaitiakitaka* within these areas.

Policies

HCV–WT–P1 – Recognise and identify *wāhi tūpuna*

Kāi Tahu relationships with *wāhi tūpuna* are sustained, including by:

- (1) identifying as *wāhi tūpuna* any sites and areas of significance to *mana whenua*, along with the cultural values that contribute to each *wāhi tūpuna* being significant,
- (2) recognising the rakatirataka of *mana whenua* over *wāhi tūpuna* and providing for their ability to exercise *kaitiakitaka* within these areas,
- (3) recognising and providing for connections and associations between different *wāhi tūpuna*, and
- (4) recognising and using traditional place names.

HCV–WT–P2 – Management of *wāhi tūpuna*

Wāhi tūpuna are protected by:

- (1) avoiding significant adverse *effects* on the cultural values associated with identified *wāhi tūpuna*,
- (2) where adverse *effects* demonstrably cannot be completely avoided, remedying or mitigating adverse *effects* in a manner that maintains the values of the *wāhi tūpuna*,
- (3) managing identified *wāhi tūpuna* in accordance with tikaka Māori,
- (4) avoiding any activities that may be considered inappropriate in *wāhi tūpuna* as identified by Kāi Tahu, and
- (5) encouraging the enhancement of access to *wāhi tūpuna* to the extent compatible with the particular *wāhi tūpuna*.

Methods

HCV–WT–M1 – Identification

Local authorities must:

- (1) enable Kāi Tahu to identify *wāhi tūpuna* sites, areas and values,

- (2) identify *wāhi tūpuna* using the guide set out in APP7,
- (3) recognise that *wāhi tūpuna* span jurisdictional boundaries and work together to ensure the identification process under (1) enables *wāhi tūpuna* sites, areas and values to be treated uniformly across district boundaries, and
- (4) identify, map, describe and protect the areas and values identified under (1) in the relevant *regional* and *district plans* or, if a site is a sensitive cultural site, use alert layers to advise of sensitive cultural sites without disclosure in plans.

HCV–WT–M2 – Regional and district plans

Local authorities must prepare or amend and maintain their *regional* and *district plans* to include methods that are in accordance with tikaka to:

- (1) control activities in, or adjacent to, *wāhi tūpuna* sites and areas,
- (2) require cultural impact assessments where activities have the potential to adversely affect *wāhi tūpuna*,
- (3) require including conditions on *resource consents* or designations to provide buffers or setbacks between *wāhi tūpuna* and incompatible activities,
- (4) require including accidental discovery protocols as conditions on *resource consents* or designations for activities that may unearth archaeological sites, and
- (5) maintain existing access to identified *wāhi tūpuna* sites and areas and promote improved access where practicable.

HCV–WT–M3 – Collaboration with Kāi Tahu

Local authorities must include Kāi Tahu in all decision making concerning protection of the values of *wāhi tūpuna* sites and areas and collaborate with Kāi Tahu to:

- (1) identify and protect places, areas or landscapes of cultural, spiritual or traditional significance to them,
- (2) identify and protect the values that contribute to their significance, and
- (3) share information relevant to Kāi Tahu interests.

Explanation

HCV–WT–E1 – Explanation

The policies in this chapter are designed to achieve protection of *wāhi tūpuna* from inappropriate *subdivision*, use and development. The policies recognise the significance of *wāhi tūpuna* to Kāi Tahu, and enable the relationship of Kāi Tahu with their culture and traditions by acknowledging that the identification of *wāhi tūpuna* and the associated values can only be undertaken by Kāi Tahu, then protecting or managing those sites or areas to ensure that activities do not have any significant adverse *effects* on the values associated with the identified *wāhi tūpuna*. The policies also direct that the management of activities within or adjacent to *wāhi tūpuna* must occur in a culturally appropriate manner.

Principal reasons

HCV–WT–PR1 – Principal reasons

Wāhi tūpuna are landscapes that embody the customary and contemporary relationship of Kāi Tahu and their culture and traditions with Otago. The sites and resources used by Kāi Tahu are spread throughout Otago, reflecting the relationship of Kāi Tahu with the *land, coastal waters* and *wai Māori*. *Wāhi tūpuna* have significant cultural value to Kāi Tahu.

The provisions in this chapter assist in implementing section 6(e) of the RMA 1991 and the NZCPS by requiring:

- the identification of *wāhi tūpuna* in consultation with Kāi Tahu,
- the protection of *wāhi tūpuna* from inappropriate *subdivision*, use and development, and
- specified actions on the part of Otago's *local authorities* in managing activities that may impact *wāhi tūpuna*.

Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions, however *local authorities* may also choose to adopt additional non-regulatory methods to support the achievement of the objectives.

Anticipated environmental results

HCV–WT–AER1 The areas and places of *wāhi tūpuna* are identified in the relevant *regional* and *district plans*.

HCV–WT–AER2 *Wāhi tūpuna* and their values are maintained.

HCV–HH – *Historic heritage*

Objective

HCV–HH–O3 – *Historic heritage resources*

Otago's unique *historic heritage* contributes to the region's character, sense of identity, and social, cultural and economic well-being, and is preserved for future generations.

Policies

HCV–HH–P3 – Recognising *historic heritage*

Recognise that Otago's *historic heritage* includes:

- (1) Māori cultural and *historic heritage* values,
- (2) archaeological sites,
- (3) residential and commercial *buildings*,
- (4) pastoral sites,
- (5) surveying equipment, communications and transport, including *roads*, bridges and routes,
- (6) industrial *historic heritage*, including mills and brickworks,
- (7) gold and other mining systems and settlements,
- (8) dredge and ship wrecks,
- (9) ruins,
- (10) coastal *historic heritage*, particularly Kāi Tahu occupation sites and those associated with early European activities such as whaling,
- (11) memorials, and
- (12) trees and vegetation.

HCV–HH–P4 – Identifying *historic heritage*

Identify the places and areas of *historic heritage* in Otago in accordance with APP8 and categorise them as:

- (1) places and areas with special or outstanding *historic heritage* values or qualities, or
- (2) places and areas with *historic heritage* values or qualities.

HCV–HH–P5 – Managing *historic heritage*

Protect *historic heritage* by:

- (1) requiring the use of accidental discovery protocols,
- (2) avoiding adverse *effects* on areas or places with special or outstanding *historic heritage* values or qualities,
- (3) avoiding significant adverse *effects* on areas or places with *historic heritage* values or qualities,

- (4) avoiding, as the first priority, other adverse *effects* on areas or places with *historic heritage* values or qualities,
- (5) where adverse *effects* demonstrably cannot be completely avoided, remedying or mitigating them, and
- (6) recognising that for *infrastructure*, EIT-INF-P13 applies instead of HCV-HH-P5(1) to (5).

HCV-HH-P6 – Enhancing *historic heritage*

Enhance places and areas of *historic heritage* wherever possible through the implementation of plan provisions, decisions on applications for *resource consent* and notices of requirement and non-regulatory methods.

HCV-HH-P7 – Integration of *historic heritage*

Maintain *historic heritage* values through the integration of *historic heritage* values into new activities and the adaptive reuse or upgrade of *historic heritage* places and areas.

Methods

HCV-HH-M4 – *Regional plans*

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) identify places and areas with *historic heritage* in accordance with HCV-HH-P4 that are located in the *beds of lakes and rivers, wetlands* and the *coastal marine area*,
- (2) control the following where they may adversely affect *historic heritage*:
 - (a) the character, location, scale and form of *structures* in the *beds of lakes and rivers, wetlands* and in the *coastal marine area*,
 - (b) indigenous vegetation removal in the *beds of lakes and rivers, wetlands* and the *coastal marine area*,
 - (c) *earthworks*, deposition and disturbance to and in the *beds of lakes and rivers* and in the *coastal marine area*,
 - (d) *discharges* to air,
 - (e) taking, use, damming and diversion of, and *discharges* to, *water*, and
 - (f) the disturbance, demolition or alteration of physical elements or *structures* of *historic heritage* in the *beds of lakes and rivers* and in the *coastal marine area*,
- (3) include implementation methods to protect *historic heritage* that are in accordance with HCV-HH-P5 and may also include:
 - (a) assessment criteria, development standards or thresholds to control the scale, intensity, form and location of activities (including for the purposes of controlling cumulative adverse *effects*), and
 - (b) conditions on *resource consents* to provide buffers or setbacks between *historic heritage* places or areas and other incompatible activity, and
- (4) require the use of accidental discovery protocols as conditions on *resource consents* for *earthworks* or other activities that may encounter archaeological features.

HCV–HH–M5 – District Plans

Territorial authorities must prepare or amend and maintain their *district plans* to the extent necessary to:

- (1) identify places and areas with *historic heritage* in accordance with HCV–HH–P4 that are located outside the *beds of lakes and rivers, wetlands* and the *coastal marine area*,
- (2) control the following where they may adversely affect *historic heritage*:
 - (a) the location, intensity and form of *subdivision*,
 - (b) the character, location, scale and form of activities (including *structures*) outside the *beds of lakes and rivers* and the *coastal marine area*,
 - (c) the location and scale of *earthworks* and indigenous vegetation removal outside the *beds of lakes and rivers* and the *coastal marine area*,
 - (d) the disturbance, demolition or alteration of physical elements or *structures* with special or outstanding *historic heritage* value or qualities outside the *coastal marine area, beds of lakes and rivers*,
- (3) include implementation methods to protect *historic heritage* places and areas required by HCV–HH–P5, and may also include:
 - (a) assessment criteria, development standards or thresholds to control the scale, intensity, form and location of activities (including for the purposes of controlling cumulative adverse effects),
 - (b) conditions on *resource consents* and designations to provide buffers or setbacks between *historic heritage* places or areas and other incompatible activity,
 - (c) accidental discovery protocols as conditions on *resource consents* for *earthworks* or other activities that may unearth archaeological features,
 - (d) providing for activities seeking to retain *historic heritage* places, areas or landscapes, including adaptive reuse, maintenance and seismic strengthening,
 - (e) including heritage alert layers in plans to inform the public about areas where there is a high probability of the presence of heritage values, particularly archaeological values, and
- (4) require the use of accidental discovery protocols as conditions on *resource consents* and designations for *earthworks* or other activities that may unearth archaeological features.

HCV–HH–M6 – Incentives and education

Local authorities are encouraged to use other mechanisms or incentives to assist in achieving Policies HCV–HH–P3 to HCV–HH–P7, including:

- (1) promoting public awareness of *historic heritage* values through providing information and education, and
- (2) rates differentials and *resource consent* fee waivers for activities that involve the retention of historic places or areas.

Explanation

HCV–HH–E2 – Explanation

The policies in this section are designed to ensure that Otago’s unique *historic heritage* continues to contribute to the region’s character, sense of identity, and social and economic well-being by requiring places and areas of significant *historic heritage* to be identified using regionally consistent methodology, then protecting or managing those sites or areas in particular ways to ensure that other activities do not detract from the region’s special character and sense of identity. This also includes enhancing places and areas of *historic heritage* by encouraging the integration of *historic heritage* values into new activities and enabling the adaptive reuse or upgrade of *historic heritage* places in certain circumstances.

Principal reasons

HCV–HH–PR2 – Principal reasons

Otago is a region rich in *historic heritage*, with a diversity of significant cultural and *historic heritage* places and areas that contribute to its special character and identity. *Historic heritage* encompasses historic sites, *structures*, places, and areas; archaeological sites; sites of significance to Māori (including wāhi tapu and wāhi taoka) and the broader surroundings and landscape in which they are situated. The heritage resources in Otago are reflective of the history that helped to shape the region, and is representative of the different cultures, industries and institutions that contributed to its development. Historic landscapes in the coastal *environment* are specifically recognised in Policy 17 of the NZCPS.

The provisions in this chapter assist in implementing section 6(f) of the RMA 1991 and the NZCPS by requiring:

- the identification of places and areas with *historic heritage* values and qualities and places and areas with special or outstanding *historic heritage* values and qualities using clear criteria and methodology that is regionally consistent,
- the protection of *historic heritage* from inappropriate *subdivision*, use and development,
- the enhancement of *historic heritage* through the integration of *historic heritage* values into new activities and enabling the adaptive reuse or upgrade of *historic heritage* places and areas in certain circumstances, and
- specified actions on the part of Otago’s *local authorities* in managing *historic heritage*.

Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions, however *local authorities* may also choose to adopt additional non-regulatory methods to support the achievement of the objectives.

Anticipated environmental results

HCV–HH–AER3	Heritage resources that make a significant contribution towards Otago’s <i>historic heritage</i> are identified and protected.
HCV–HH–AER4	The number, type, extent and distribution of <i>historic heritage</i> sites and places with special or outstanding values or qualities are maintained.
HCV–HH–AER5	Otago’s existing built <i>historic heritage</i> is maintained, enhanced and integrated through efficient use, or adaptive reuse, where appropriate.

NFL – Natural features and landscapes

Objectives

NFL–O1 – Outstanding and *highly valued natural features and landscapes*

The areas and values of Otago’s outstanding and *highly valued natural features and landscapes* are identified, and the use and development of Otago’s *natural and physical resources* results in:

- (1) the protection of outstanding natural features and landscapes, and
- (2) the maintenance or enhancement of *highly valued natural features and landscapes*.

Policies

NFL–P1 – Identification

In order to manage outstanding and *highly valued natural features and landscapes*, identify:

- (1) the areas and values of outstanding and *highly valued natural features and landscapes* in accordance with APP9, and
- (2) the capacity of those natural features and landscapes to accommodate use or development while protecting the values that contribute to the natural feature and landscape being considered outstanding or highly valued.

NFL–P2 – Protection of outstanding natural features and landscapes

Protect outstanding natural features and landscapes by:

- (1) avoiding adverse *effects* on the values that contribute to the natural feature or landscape being considered outstanding, even if those values are not themselves outstanding, and
- (2) avoiding, remedying or mitigating other adverse *effects*.

NFL–P3 – Maintenance of *highly valued natural features and landscapes*

Maintain or enhance *highly valued natural features and landscapes* by:

- (1) avoiding significant adverse *effects* on the values of the natural feature or landscape, and
- (2) avoiding, remedying or mitigating other adverse *effects*.

NFL–P4 – Restoration

Promote restoration of the areas and values of outstanding and *highly valued natural features and landscapes* where those areas or values have been reduced or lost.

NFL–P5 – *Wilding conifers*

Reduce the impact of *wilding conifers* on outstanding and *highly valued natural features and landscapes* by:

- (1) avoiding *afforestation* and *replanting of plantation forests* with *wilding conifer* species listed in APP5 within:
 - (a) areas identified as outstanding natural features or landscapes, and
 - (b) buffer zones adjacent to outstanding natural features and landscapes where it is necessary to protect the outstanding natural feature or landscape, and
- (2) supporting initiatives to control existing *wilding conifers* and limit their further spread.

NFL-P6 – Coastal features and landscapes

Natural features and landscapes located within the coastal environment are managed by CE-P6 and implementation of CE-P6 also contributes to achieving NFL-O1.

Methods

NFL-M1 – Identification

Territorial authorities must:

- (1) include in their *district plans* a map or maps and a statement of the values of the areas of outstanding and *highly valued natural features and landscapes* in accordance with NFL-P1,
- (2) include in their *district plans* a statement of the capacity of outstanding and *highly valued natural features and landscapes* to accommodate change in use and development without their values being materially compromised or lost, in accordance with NFL-P1,
- (3) recognise that natural features and landscapes may span jurisdictional boundaries and work together, including with the Regional Council, to identify areas under (1) to ensure that the identification of natural features and landscapes are treated uniformly across district boundaries, and
- (4) prioritise identification under (1) in areas that are likely to contain outstanding natural features or landscapes and are likely to face development or growth pressure over the life of this RPS.

NFL-M2 – Regional plans

Otago Regional Council must prepare or amend and maintain its *regional plans* to:

- (1) control the use and development of *water bodies*, the *beds of rivers* and *lakes*, and *wetlands* in order to protect outstanding natural features and landscapes in accordance with NFL-P2, and maintain and enhance *highly valued natural features or landscapes* in accordance with NFL-P3, and
- (2) provide for and encourage activities undertaken for the primary purpose of restoring *highly valued natural features or landscapes* in accordance with NFL-P4.

NFL-M3 – District plans

Territorial authorities must prepare or amend and maintain their *district plans* to:

- (1) control the *subdivision*, use and development of *land* and the use of the surface of *water bodies* in order to protect outstanding natural features or landscapes in accordance with NFL-P2, and maintain and enhance *highly valued natural features or landscapes* in accordance with NFL-P3,

- (2) provide for and encourage activities undertaken for the primary purpose of restoring *highly valued natural features or landscapes* in accordance with NFL–P4, and
- (3) manage *wilding conifer* spread in accordance with NFL–P5.

NFL–M4 – Other incentives and mechanisms

Local authorities are encouraged to consider the use of other mechanisms or incentives to assist in achieving the outcomes sought by the policies in this chapter, including:

- (1) funding assistance for restoration projects (for example, through the Regional Council’s ECO Fund),
- (2) purchase of *land* that forms part of a natural feature or landscape,
- (3) development or design guidelines (for example, colour palettes for *structures* in or on natural features or landscapes),
- (4) rates relief for *land* that is protected due to its status as an outstanding natural feature or landscape,
- (5) education and advice,
- (6) waiver or reduction of processing fees for activities where the primary purpose is to enhance the values of *highly valued natural features or landscapes*, and
- (7) advocating for a collaborative approach between central and local government to fund and carry out *wilding conifer* control.

Explanation

NFL–E1 – Explanation

The policies in this chapter are designed to require outstanding and *highly valued natural features and landscapes* to be identified using regionally consistent attributes, then managing activities to either protect outstanding natural features and landscapes in accordance with section 6(b) of the RMA 1991 or maintain *highly valued natural features or landscapes* in accordance with section 7 of the RMA 1991. This distinction recognises that these areas have values with differing degrees of significance and that, generally, those classified as ‘highly valued’ will have greater capacity to accommodate *land* use change and development without values being adversely affected. The policies seek to control the impact of *wilding conifers* which are a particular threat to Otago’s natural features and landscapes, in a way that recognises the regulations in the NESPF.

Principal reasons

NFL–PR1 – Principal reasons

Natural features include resources that are the result of natural processes, particularly those reflecting a particular geology, topography, geomorphology, hydrology, ecology, or other physical attribute that creates a natural feature or combination of natural features. Landscapes include the natural and physical attributes of *land* together with air and *water*, which change over time and which is made known by people’s evolving perceptions and associations. Natural features and landscapes also have significant

cultural value to Kāi Tahu. There are many sites of significance across Otago, reflecting the relationship of Kāi Tahu with the *land, water* and sea.

The provisions in this chapter assist in protecting Otago's outstanding and *highly valued natural features and landscapes* by requiring:

- the identification of outstanding and *highly valued natural features and landscapes* using regionally consistent criteria,
- the protection of outstanding natural features and landscapes and maintenance of *highly valued natural features and landscapes*,
- an ongoing reduction in the impact of *wilding conifers* on natural features and landscapes, and
- specified actions on the part of Otago's *local authorities* in managing natural features and landscapes.

Implementation of the provisions in this chapter will occur primarily through *regional* and *district plan* provisions, however *local authorities* may also choose to adopt additional non-regulatory methods to support the achievement of the objectives.

Anticipated environmental results

NFL–AER1	The number, type, extent and distribution of identified outstanding and <i>highly valued natural features and landscapes</i> are maintained over the life of this RPS.
NFL–AER2	The values of outstanding and <i>highly valued natural features and landscapes</i> are not reduced or lost.
NFL–AER3	Within areas identified as outstanding or <i>highly valued natural features or landscapes</i> , the area of <i>land</i> vegetated by <i>wilding conifers</i> is reduced over the life of this RPS.

UFD – Urban form and development

Objectives

UFD–O1 – Form and function of *urban areas*

The form and functioning of Otago’s *urban areas*:

- (1) reflects the diverse and changing needs and preferences of Otago’s people and communities, now and in the future, and
- (2) maintains or enhances the significant values and features identified in this RPS, and the character and resources of each *urban area*.

UFD–O2 – Development of *urban areas*

The development and change of Otago’s *urban areas*:

- (1) improves housing choice, quality, and affordability,
- (2) allows business and other non-residential activities to meet the needs of communities in appropriate locations,
- (3) respects and wherever possible enhances the area’s history, setting, and natural and built environment,
- (4) delivers good urban design outcomes, and improves liveability,
- (5) improves connectivity within urban areas, particularly by *active transport* and *public transport*,
- (6) minimises conflict between incompatible activities,
- (7) manages the exposure of *risk* from *natural hazards* in accordance with the HAZ–NH – Natural hazards section of this RPS,
- (8) results in sustainable and efficient use of *water*, *energy*, *land*, and *infrastructure*,
- (9) achieves integration of *land* use with existing and planned *development infrastructure* and *additional infrastructure* and facilitates the safe and efficient ongoing use of *regionally significant infrastructure*,
- (10) achieves consolidated, well designed and located, and sustainable development in and around existing *urban areas* as the primary focus for accommodating the region’s urban growth and change, and
- (11) is guided by the input and involvement of *mana whenua*.

UFD–O3 – Strategic planning

Strategic planning is undertaken in advance of significant development, expansion or redevelopment of *urban areas* to ensure that

- (1) there is sufficient *development capacity* supported by integrated *infrastructure* provision for Otago’s housing and business needs in the short, medium and long term,

- (2) development is located, designed and delivered in a way and at a rate that recognises and provides for locationally relevant regionally significant features and values identified by this RPS, and
- (3) the involvement of *mana whenua* is facilitated, and their values and aspirations are provided for.

UFD–04 – Development in rural areas

Development in Otago’s *rural areas* occurs in a way that:

- (1) avoids impacts on significant values and features identified in this RPS,
- (2) avoids as the first priority, land and soils identified as highly productive by LF–LS–P19 unless there is an *operational need* for the development to be located in *rural areas*,
- (3) only provides for urban expansion, rural lifestyle and rural residential development and the establishment of *sensitive activities*, in locations identified through strategic planning or zoned within *district plans* as suitable for such development; and
- (4) outside of areas identified in (3), maintains and enhances the *natural and physical resources* that support the productive capacity, rural character, and long-term viability of the rural sector and rural communities.

UFD–05 – Urban development and climate change

The impacts of *climate change* are responded to in the development and change of Otago’s *urban areas* so that:

- (1) the contributions of current communities and future generations to *climate change* impacts are reduced,
- (2) community resilience increases,
- (3) adaptation to the effects of *climate change* is facilitated,
- (4) energy use is minimised, and energy efficiency improves, and
- (5) establishment and use of *small and community-scale distributed electricity generation* is enabled.

Policies

UFD–P1 – Strategic planning

Strategic planning processes, undertaken at an appropriate scale and detail, precede urban growth and development and:

- (1) ensure integration of *land use* and *infrastructure*, including how, where and when necessary *development infrastructure* and *additional infrastructure* will be provided, and by whom,
- (2) demonstrate at least sufficient *development capacity* supported by integrated *infrastructure* provision for Otago’s housing and business needs in the short, medium and long term,
- (3) maximise current and future opportunities for increasing resilience, and facilitating adaptation to changing demand, needs, preferences and *climate change*,

- (4) minimise *risks* from and improve resilience to *natural hazards*, including those exacerbated by *climate change*, while not increasing *risk* for other development,
- (5) indicate how connectivity will be improved and connections will be provided within *urban areas*,
- (6) provide opportunities for iwi, hapū and whānau involvement in planning processes, including in decision making, to ensure provision is made for their needs and aspirations, and cultural practices and values,
- (7) facilitate involvement of the current community and respond to the reasonably foreseeable needs of future communities, and
- (8) identify, maintain and where possible, enhance important features and values identified by this RPS.

UFD–P2 – Sufficiency of *development capacity*

Sufficient urban area housing and business *development capacity* in *urban areas*, including any required competitiveness margin, is provided in the short, medium and long term by:

- (1) undertaking strategic planning in accordance with UFD–P1
- (2) identifying areas for urban intensification in accordance with UFD–P3,
- (3) identifying areas for urban expansion in accordance with UFD–P4,
- (4) providing for commercial and industrial activities in accordance with UFD–P5 and UFD–P6
- (5) responding to any demonstrated insufficiency in housing or business *development capacity* by increasing *development capacity* or providing more *development infrastructure* as required, as soon as practicable, and
- (6) requiring Tier 2 *urban environments* to meet, at least, the relevant housing bottom lines in APP10.

UFD–P3 – Urban intensification

Within *urban areas* intensification is enabled where it:

- (1) contributes to establishing or maintaining the qualities of a *well-functioning urban environment*,
- (2) is well-served by existing or planned *development infrastructure* and *additional infrastructure*,
- (3) meets the greater of demonstrated demand for housing and/or business use or the level of accessibility provided for by existing or planned *active transport* or *public transport*,
- (4) addresses an identified shortfall for housing or business space, in accordance with UFD–P2,
- (5) addresses issues of concern to iwi and hapū, including those identified in any relevant iwi planning documents, and
- (6) manages adverse *effects* on values or resources identified by this RPS that require specific management or protection.

UFD–P4 – Urban expansion

Expansion of existing *urban areas* is facilitated where the expansion:

- (1) contributes to establishing or maintaining the qualities of a *well-functioning urban environment*,

- (2) will not result in inefficient or sporadic patterns of settlement and residential growth,
- (3) is integrated efficiently and effectively with *development infrastructure* and *additional infrastructure* in a strategic, timely and co-ordinated way,
- (4) addresses issues of concern to iwi and hapū, including those identified in any relevant iwi planning documents,
- (5) manages adverse *effects* on other values or resources identified by this RPS that require specific management or protection,
- (6) avoids, as the first priority, highly productive land identified in accordance with LF–LS–P19,
- (7) locates the new urban/rural zone boundary interface by considering:
 - (a) adverse *effects*, particularly reverse sensitivity, on *rural areas* and existing or potential productive rural activities beyond the new boundary, and
 - (b) key natural or built barriers or physical features, significant values or features identified in this RPS, or cadastral boundaries that will result in a permanent, logical and defensible long-term limit beyond which further urban expansion is demonstrably inappropriate and unlikely, such that provision for future development infrastructure expansion and connectivity beyond the new boundary does not need to be provided for, or
 - (c) reflects a short or medium term, intermediate or temporary zoning or infrastructure servicing boundary where provision for future *development infrastructure* expansion and connectivity should not be foreclosed, even if further expansion is not currently anticipated.

UFD–P5 – Commercial activities

Provide for *commercial activities* in *urban areas* by:

- (1) enabling a wide variety and scale of *commercial activities*, social activities and cultural activities in central business districts, town centres and commercial areas, especially if they are highly accessible by *public transport* and *active transport*,
- (2) enabling smaller local and neighbourhood centres and rural settlements to accommodate a variety of *commercial activities*, social activities and cultural activities of a scale appropriate to service local community needs,
- (3) providing for the expansion of existing areas or establishment of new areas identified in (1) and (2) by first applying UFD–P1 and UFD–P2, and
- (4) outside the areas described in (1) and (2), allow for small scale retail and service activities, home occupations and *community services* to establish within or close to the communities they serve.

UFD–P6 – Industrial activities

Provide for *industrial activities* in *urban areas* by:

- (1) identifying specific locations and applying zoning suitable for accommodating *industrial activities* and their reasonable needs and *effects* including supporting or *ancillary activities*,
- (2) identifying a range of *land* sizes and locations suitable for different *industrial activities*, and their *operational needs* including land-extensive activities,

- (3) managing the establishment of non-industrial activities, in industrial zones, by avoiding activities likely to result in reverse sensitivity *effects* on *industrial activities*, or likely to result in an inefficient use of industrial zoned *land* or *infrastructure*, particularly where:
 - (a) the area provides for a significant *operational need* for a particular *industrial activity* or grouping of *industrial activities* that are unlikely or are less efficiently able to be met in alternative locations, or
 - (b) the area contains *nationally or regionally significant infrastructure* and the requirements of EIT-INF-P15 apply, and
- (4) in areas that are experiencing or expected to experience high demand from other urban activities, and the criteria in (3)(a) or (3)(b) do not apply, managing the establishment of non-industrial activities and the transition of industrial zoned areas to other purposes, by first applying (1) and (2).

UFD-P7 –Rural Areas

The management of *rural areas*:

- (1) provides for the maintenance and, wherever possible, enhancement of important features and values identified by this RPS,
- (2) outside areas identified in (1), maintains the productive capacity, amenity and character of *rural areas*,
- (3) enables *primary production* particularly on land or soils identified as highly productive in accordance with LF-LS-P19,
- (4) facilitates *rural industry* and supporting activities,
- (5) directs rural residential and rural lifestyle development to areas zoned for that purpose in accordance with UFD-P8,
- (6) restricts the establishment of residential activities, *sensitive activities*, and non-rural businesses which could adversely affect, including by way of reverse sensitivity, the productive capacity of highly productive *land*, *primary production* and *rural industry* activities, and
- (7) otherwise limits the establishment of residential activities, *sensitive activities*, and non-rural businesses to those that can demonstrate an *operational need* to be located in *rural areas*.

UFD-P8 – Rural lifestyle and rural residential zones

The establishment, development or expansion of rural lifestyle and rural residential zones only occurs where:

- (1) the *land* is adjacent to existing or planned *urban areas* and ready access to employment and services is available,
- (2) despite the direction in (1), also avoids *land* identified for future urban development in a relevant plan or *land* reasonably likely to be required for its future urban development potential, where the rural lifestyle or rural residential development would foreclose or reduce efficient realisation of that urban development potential,
- (3) minimises impacts on rural production potential, *amenity values* and the potential for reverse sensitivity *effects* to arise,
- (4) avoids, as the first priority, highly productive land identified in accordance with LF-LS-P16,

- (5) the suitability of the area to accommodate the proposed development is demonstrated, including
 - (a) capacity for servicing by existing or planned *development infrastructure* (including self-servicing requirements),
 - (b) particular regard is given to the individual and cumulative impacts of domestic *water* supply, *wastewater* disposal, and *stormwater* management including self-servicing, on the receiving or supplying environment and impacts on capacity of *development infrastructure*, if provided, to meet other planned urban area demand, and
 - (c) likely future demands or implications for publicly funded services and *additional infrastructure*, and
- (6) provides for the maintenance and wherever possible, enhancement, of important features and values identified by this RPS.

UFD–P9 – Iwi, hapū and whānau

Facilitate the development of Native Reserves and *Te Ture Whenua Maori land*, for *papakāika*, *kāika*, *nohoaka*, and *marae*, where existing or planned *development infrastructure* of sufficient capacity is or can be provided (including allowance for self-servicing systems).

UFD–P10 – Criteria for significant development capacity

‘Significant development capacity’ is provided for where a proposed plan change affecting an *urban environment* meets all of the following criteria:

- (1) the location, design and layout of the proposal will positively contribute to achieving a *well-functioning urban environment*,
- (2) the proposal is well-connected to the existing or planned urban area, particularly if it is located along existing or planned transport corridors,
- (3) required *development infrastructure* can be provided effectively and efficiently for the proposal, and without material impact on planned *development infrastructure* provision to, or reduction in *development infrastructure* capacity available for, other feasible, likely to be realised developments, in the short-medium term,
- (4) the proposal makes a significant contribution to meeting a need identified in a *Housing and Business Development Capacity Assessment*, or a shortage identified in monitoring for:
 - (a) housing of a particular price range or typology, particularly more affordable housing,
 - (b) business space or *land* of a particular size or locational type, or
 - (c) community or educational facilities, and
- (5) when considering the significance of the proposal’s contribution to a matter in (4), this means that the proposal’s contribution:
 - (a) is of high yield relative to either the forecast demand or the identified shortfall,
 - (b) will be realised in a timely (i.e. rapid) manner,
 - (c) is likely to be taken up, and
 - (d) will facilitate a net increase in district-wide up-take in the short to medium term.

Methods

UFD–M1 – Strategic planning

Otago Regional Council and *territorial authorities*:

- (1) must, where they are Tier 2 local authorities, jointly determine housing *development capacity* that is feasible and likely to be taken up in the medium and long terms through *Housing and Business Development Capacity Assessments*,
- (2) should, for other districts, jointly determine demand and potential supply responses through similar, but appropriately scaled strategic planning approaches,
- (3) must, where they are Tier 2 and Tier 3 local authorities, monitor and regularly assess and report on the supply of, and demand for, residential, commercial and industrial zoned *land development capacity* available at the regional, district and *urban environment* scales, and other local authorities are encouraged to do so,
- (4) must coordinate the redevelopment and intensification of urban areas and the development of extensions to urban areas with *infrastructure* planning and development programmes, to provide the required *development infrastructure* and *additional infrastructure* in an integrated, timely, efficient and effective way, and to identify and manage impacts on key values and resources identified by this RPS, and for Tier 2 local authorities to achieve this through jointly developed *Future Development Strategies* and/or strategic planning, and for all other *local authorities* through strategic planning in accordance with UFD–P1,
- (5) must, where they are Tier 2 local authorities, develop housing bottom lines for *urban environments* and include those bottom lines in APP10 and in the relevant *district plans*,
- (6) must individually or jointly develop further regulatory or non-regulatory methods and actions to implement strategic and spatial plans, including to guide the detail of how, when and where development occurs, including matters of urban design, requirements around the timing, provision, and responsibilities for open space, connections and infrastructure, including by third parties, and the ongoing management of effects of urban development on matters of local importance, and
- (7) must involve *mana whenua*, and provide opportunities for iwi, hapū and whānau involvement in planning processes, including in decision making, to ensure provision is made for their needs and aspirations, and cultural practices and values and to ensure the requirements of the MW chapter are met, and the issues and values identified in RMIA are recognised and provided for.

UFD–M2 – District plans

Territorial authorities must prepare or amend their *district plans* as soon as practicable, and maintain thereafter, to:

- (1) identify and provide for urban expansion and intensification, to occur in accordance with:
 - (a) any adopted *future development strategy* for the relevant district or region, which must be completed in time to inform the 2024 Long Term Plan, or
 - (b) where there is no *future development strategy*, a *local authority* adopted strategic plan developed in accordance with UFD–P1, for the relevant area, district or region,
- (2) in accordance with any required *Housing and Business Development Capacity Assessments* or monitoring, including any *competitiveness margin*, ensure there is always sufficient *development capacity* that is feasible and likely to be taken up and, for Tier 2 urban environments, at a minimum

meets the bottom lines for housing in APP-10, and meets the identified *land* size and locational needs of the commercial and industrial sectors,

- (3) ensure that urban development is designed to:
 - (a) achieve a built form that relates well to its surrounding *environment*, including by identifying and managing impacts of urban development on values and resources identified in this RPS,
 - (b) provide for a diverse range of housing, *commercial activities*, industrial and service activities, social and cultural opportunities,
 - (c) achieve an efficient use of *land*, energy, *water* and *infrastructure*,
 - (d) promote the use of water sensitive design wherever practicable,
 - (e) minimise the potential for reverse sensitivity *effects* to arise, by managing the location of incompatible activities, and
 - (f) reduce the adverse *effects* of Otago’s cooler winter climate through designing new subdivision and development to maximise passive winter solar gain and winter heat retention, including through roading, lot size, dimensions, layout and orientation,
- (4) identify and provide for locations that are suitable for urban intensification in accordance with UFD–P2,
- (5) identify and provide for locations that are suitable for urban expansion, if any, in accordance with UFD–P3,
- (6) identify and provide for *commercial activities* in accordance with UFD–P5,
- (7) identify and provide for *industrial activities* in accordance with UFD–P6,
- (8) manage development in *rural areas* in accordance with UFD–P7,
- (9) manage rural residential and rural lifestyle activities in *rural areas* in accordance with UFD–P8,
- (10) provide for *papakāika*, *kāika*, *nohoaka*, and *marae*, in accordance with UFD–P9, and
- (11) must involve *mana whenua* and provide opportunities for iwi, hapū and whānau involvement in planning processes, including in decision making, to ensure provision is made for their needs and aspirations, and cultural practices and values and ensure the requirements of the MW chapter are met, and the issues and values identified in RMIA are recognised and provided for at the local level.

UFD–M3 – Design of public spaces and surrounds

Territorial authorities must design and maintain public places and spaces, including streets, open spaces, public *buildings* and publicly accessible spaces so that they are safe, attractive, accessible and usable by everyone in the community.

Explanation

UFD–E1 – Explanation

The policies in this chapter are designed to facilitate the provision of sufficient housing and business capacity and ensure all of the region’s *urban areas* demonstrate the features of *well-functioning urban*

environments and meet the needs of current and future communities. Urban intensification must be enabled, and urban expansion should be facilitated, however these important decisions should be preceded and guided by strategic planning processes that consider how best this can be achieved, while also maintaining and, wherever possible, enhancing the important values and features identified in other chapters of this RPS, and in consideration of local context, values and pressures. The strategic planning process will also consider and demonstrate where, when, how and by whom the necessary *development infrastructure* and *additional infrastructure* will be provided in order to both facilitate development and change and minimise environmental impacts from it, including avoiding impacts on the operation of *regionally and nationally significant infrastructure*.

In addition, this chapter seeks to maintain the character and *amenity values* of Otago's rural areas, including by facilitating the use of the *natural and physical resources* that support the viability of the rural sector. Otago's rural and urban areas also contain significant natural, cultural and historic values and features as identified by other parts of this RPS. In all cases while facilitating urban development and managing rural productive activities these values must also be identified, maintained and, wherever possible, enhanced. This approach includes direction on different types of development within rural areas, managing the expansion and location of *urban areas*, and rural lifestyle and rural residential development, and directing that growth be enabled in *urban areas* to minimise the need for development to occur within rural areas, other than what is needed to facilitate rural community and rural productive activities.

The policies in this chapter are primarily focused on directing where development is and is not appropriate and under what circumstances, but provides discretion for *local authorities* to determine the detail of how that development is managed, its ultimate density, height, bulk and location, timing and sequencing, the detail of any required *development infrastructure* and *additional infrastructure* that may be needed, and allows for the consideration of particular locally significant features values and needs that contribute to the attractiveness or uniqueness of the diverse communities, landscapes, and environments of the region.

This more detailed determination must, however, be informed by evidence and information collated through appropriately scaled *strategic planning* processes and will be implemented by a range of regulatory and non-regulatory methods, including joint development of *Housing and Business Assessments* and *Future Development Strategies* for Tier 2 local authorities, and similar but appropriately scaled processes undertaken in and for other areas, including regular regional, district and *urban environment* scale monitoring, analysis and evaluation.

In delivering on the objectives and policies in this chapter, which relate largely to human activities and settlements, the natural, physical, and built values and features of importance to the region must be recognised and provided for.

The following chapters of this Regional Policy Statement have particular relevance to the achievement of the objectives of this chapter by identifying particular aspects of Domains or Topics to be managed, and where there is an apparent conflict, must be balanced in accordance with the directions outlined in the Integrated Management chapter:

- *MW – Mana Whenua*
- *AIR – Air*
- *CE – Coastal environment*
- *LF – Land and freshwater*
- *ECO – Ecosystems and indigenous biodiversity*
- *EIT – Energy, infrastructure and transport*
- *HAZ – Hazards and risks*

- HCV – Historical and cultural values
- NFL – Natural features and landscapes

Principal reasons

UFD–PR1 – Principal reasons

The provisions in this chapter assist in fulfilling the functions of the regional council under section 30(ba) and *territorial authorities* under section 31(aa) of the RMA 1991 to ensure sufficient *development capacity* in relation to housing and *business land* to meet the expected demands of the region and districts respectively. They also assist in giving effect to the similar but more detailed requirements of the *NPSUD*.

Urban areas are important for community well-being and are a reflection the inherently social nature of humans. Well-functioning urban areas enable social interactions and provide a wide variety (across type, location and price) of housing, employment and recreational opportunities to meet the varied and variable needs and preferences of communities, in a way that maximises the well-being of its present and future inhabitants, and respects its history, its setting and the *environment*. The combination of population growth and demographic change will result in changes in the quantity and qualities demanded of housing, employment, business, *infrastructure*, social facilities and services across the region. Upgrade and replacement of the existing development and infrastructure will also continue to be required even where growth is limited, resulting in changes in the built environment. Some of these changes will also be driven by changes in the *natural environment*, including the impacts of climate change. Urban areas are highly dynamic by nature, so the provisions in this chapter seek to manage, rather than limit, the form, function, growth and development of urban areas in a way that best provides for the community's well-being both now and into the future.

The pace and scale of growth and change, and the scale and nature of urban environments and areas in the region is variable, meaning no single response at a regional level is appropriate in all cases. Accordingly, the process identified in this RPS remains flexible and responsive (outside of Tier 2 urban environments, which have specific requirements under the *NPSUD*). Key requirements of strategic planning include considering and providing for reasonably expected changes in overall quantum of demand and supply as well as changes in needs and preferences that may drive or add to these changes in demand, designing to maximise the efficient use of energy, land and infrastructure (including transport infrastructure). This can best be achieved by prioritising development in and around the region's existing urban areas as the primary focus of the region's growth and change, by enabling development within and adjacent to those urban areas, where it generally is most suitable and most efficient to do so.

These strategic planning processes provide the mechanism by which longer term issues can be considered, integration between land use and infrastructure can be achieved, and various constraints, opportunities and key trade-offs can be identified and appropriately resolved, while identifying and managing the values and resources identified in this RPS. These processes, and others should always involve *mana whenua*, at all levels of the process to ensure their views and values can be incorporated and celebrated, and their needs and aspirations appropriately provided for.

All development should seek to maximise efficient use of water consumption (through water efficient design) and disposal (reduced consumption reduces sewerage loads, and the water sensitive design reduces impacts on both supplying and receiving natural systems and can reduce flooding from stormwater), and maximise the winter capture and retention of the sun's energy, which will also assist with reducing the energy needed to heat homes in winter and can also help reduce air pollution from solid fuel burning for home heating. Development in more central parts of the region also need to be

designed to be cognisant of minimising excess sun capture in the summer months. Enabling the establishment and use of small-scale renewable energy generation also facilitates local energy resilience, contributes to national renewable energy generation targets with associated climate change benefits, and may reduce the need for additional large-scale generation and transmission infrastructure and associated impacts.

Rural areas are attractive as residential living areas, and for other non-rural activities. However, they contain areas, activities and resources critical for rural production that can be impacted by sensitive activities. Non-urban areas also contain a wide range of other values that can be negatively impacted by the impacts of rural-residential and other activities, that do not have a functional need to be in rural areas. The provisions in this chapter focus on managing where rural living opportunities and other non-rural activities are provided for, so that the potential *effects* on the rural character, productive potential and the wide range of environmental values, features and resources that rural areas also contain are appropriately managed. The supply of rural lifestyle opportunities to meet demand should be directed to suitably located and zoned areas to minimise impacts on values in rural areas. In designing and planning for rural residential and rural lifestyle development, local authorities will need to be aware of the potential future constraints on future urban expansion and development, including the cumulative impacts of infrastructure servicing irrespective of whether this is onsite, community or through connections to urban reticulated schemes.

Implementation of the provisions in this chapter will occur partially through *regional plans* but primarily *district plan* provisions, as well as through preparation of *future development strategies* and *structure plans*. To appropriately and efficiently achieve the objectives and policies, other non-regulatory spatial planning exercises and associated action plans, agreements and infrastructure delivery programs will be needed to complement regulatory approaches, including setting aside the necessary funding for delivery, and partnering with *mana whenua*, central government, communities and developers to deliver the quality and quantity of urban development needed to meet demand and provide for change, improve land and development market competitiveness, and achieve resilient, efficient and attractive urban places.

Anticipated environmental results

UFD–AER1	Appropriately scaled strategic planning occurs in advance of regulatory planning, and regulatory plans are changed in a timely manner to facilitate the outcomes identified in these processes.
UFD–AER2	Urban expansion only occurs when suitable and sufficient <i>development infrastructure</i> is in place or will be provided at the time of expansion and provision is made for the needs of <i>additional infrastructure</i> .
UFD–AER3	<i>Development infrastructure</i> is in place in time to facilitate reasonably expected urban intensification or planned expansion.
UFD–AER4	New developments including redevelopments are designed to maximise energy and transport efficiency and minimise impacts on <i>water</i> quality and quantity.
UFD–AER5	The majority of new development is located close to services, jobs, and other urban amenities and can access those amenities by a range of transport modes including <i>active transport</i> and, where available, <i>public transport</i> .
UFD–AER6	The mode share and use of <i>active transport</i> and <i>public transport</i> increases.

- UFD–AER7** New developments are at minimal *risk* from *natural hazards* including changes to *risk* due to the impacts of *climate change*, and do not increase *risk* to existing or planned developments.
- UFD–AER8** In existing urban areas at *risk* from *natural hazards*, including changes to *risk* due to the impacts of *climate change*, communities are informed, *resilient* and prepared for the *effects* of known *natural hazard risks*.
- UFD–AER9** There is an increased range of housing types and locations and an increased number of *dwellings*, particularly more affordable housing in existing and planned *urban areas*.
- UFD–AER10** The current and future needs of business are met by the availability of a range of opportunities for *land* and space that meets their requirements.
- UFD–AER11** All new rural residential or rural lifestyle development occurs within areas zoned for this use.

PART 4 – EVALUATION AND MONITORING

Monitoring the efficiency and effectiveness of the policy statement

ORC must monitor the efficiency and effectiveness of its RPS provisions and publish the results every five years.⁴⁸ The RPS needs to include the procedures for monitoring its methods and policies.⁴⁹

Existing monitoring procedure

ORC has policies and procedures in place to gather information and to monitor and report on how well Otago's *natural and physical resources* are managed. These include State of the Environment reporting, *resource consent* monitoring, and annual reporting against objectives in the Council's Long-Term Plan. These policies and procedures will be reviewed and updated to reflect ORPS environmental goals (objectives) and ensure the right information is being gathered to monitor the environmental results anticipated.

The ORPS is relevant to all decision making under the RMA 1991 and must be given effect through *regional and district plans*. As the ORPS is given effect through *regional and district plans*, much of the data needed for monitoring will be gathered for the purpose of, or will be relevant to, the monitoring of *regional and district plans*. ORC will undertake a work programme to identify data the *territorial authorities* collect in the course of their normal monitoring regimes and make arrangements for collection and sharing of data, including information that the regional council collects that may be of benefit to *territorial authorities*.

Specific environmental indicators will be developed to monitor the impact that ORPS policies and methods are having on Otago's social, economic, cultural and environmental well-being, and whether they remain the most appropriate for achieving the RMA 1991's purpose. These environmental indicators will be developed outside of the ORPS. This approach enables the frequency or type of indicators to be amended, in order to respond to emerging issues, improved technology and best practice, changes in the local *environment*, or societal expectations. It forms part of a continuous review and reporting cycle, resulting in policy changes and adjustments as necessary.

The ORPS needs to reflect the needs and aspirations of *tangata whenua* and the wider community, so *tangata whenua* and stakeholders will be encouraged to be involved with monitoring the provisions of the ORPS.

Regional Monitoring Strategy

To address the undertakings described above, ORC must develop a comprehensive integrated Regional Monitoring Strategy (RMS). This strategy will link ORC's various monitoring procedures together to reduce double handling, identify connections, and improve interrelationships, both between ORC functions and

⁴⁸ Section 35 of the Resource Management Act 1991

⁴⁹ Section 62(1)(j) of the Resource Management Act 1991

with other agencies. The strategy will help monitor the effectiveness and efficiency of the ORPS, using both quantitative and qualitative assessments, and sit alongside it as a non-statutory document.

The RMS will assist ORC with expanding its monitoring activities to respond to ORPS provisions and ensure the things measured accurately reflect policy success, including natural, social, economic, cultural and *historic heritage* values. It will increase transparency by stating what is monitored and why.

This goes hand in hand with increasing the ORC's leadership and facilitation role in several areas, including *climate change*.

PART 5 – APPENDICES AND MAPS

Appendices

APP1 – Criteria for identifying *outstanding water bodies*

Outstanding water bodies include any *water body* with one or more of the following outstanding values, noting that sub-values are not all-inclusive:

Table 4: Values of outstanding water bodies

Values	Description	Example sub-values
Cultural and spiritual	A <i>water body</i> which has outstanding cultural and spiritual values.	Wāhi tapu, wāhi taoka, wai tapu, rohe boundary, battle sites, pa, kāika, tauraka waka, mahika kai, pa tuna; and acknowledged in korero tuku iho, pepeha, whakatauki or waiata
Ecology	A <i>water body</i> which has outstanding ecological value as a habitat for: <ul style="list-style-type: none"> • Native birds • Native fish • Salmonid fish • Other aquatic species 	Native birds, native fish, native plants, aquatic macroinvertebrates
Landscape	A <i>water body</i> which forms a key component of a landscape that is “conspicuous, eminent, remarkable or iconic” within the region, or is critical to an outstanding natural feature.	Scenic, association, natural characteristics (includes hydrological, ecological and geological features)
Natural character	A <i>water body</i> with high naturalness that exhibits an exceptional combination of natural processes, natural patterns and natural elements with low levels of modification to its form, ecosystems and the surrounding landscape.	Natural characteristics (includes hydrological, ecological and geological features)
Recreation	A <i>water body</i> which is recognised as providing an outstanding recreational experience for an activity which is directly related to the <i>water</i> .	Angling, fishing, kayaking, rafting, jetboating
Physical	A <i>water body</i> which has an outstanding geomorphological, geological or hydrological feature which is dependent on the <i>water body’s</i> condition and functioning.	Science

APP2 – Significance criteria for indigenous *biodiversity*

An area is considered to be a *significant natural area* if it meets any one or more of the criteria below:

- | | |
|---------------------------|--|
| Representativeness | <ul style="list-style-type: none"> (a) An area that is an example of an indigenous vegetation type or habitat that is typical or characteristic of the original natural diversity of the relevant ecological district or coastal marine biogeographic region. This may include <i>degraded</i> examples of their type or represent all that remains of indigenous vegetation and habitats of indigenous fauna in some areas. (b) An indigenous marine ecosystem (including both intertidal and sub-tidal habitats, and including both faunal and floral assemblages) that makes up part of at least 10% of the natural extent of each of Otago’s original marine ecosystem types and reflecting the environmental gradients of the region. (c) An indigenous marine ecosystem, or habitat of indigenous marine fauna (including both intertidal and sub-tidal habitats, and including both faunal and floral components), that is characteristic or typical of the natural marine ecosystem diversity of Otago. |
| Rarity | <ul style="list-style-type: none"> (d) An area that supports: <ul style="list-style-type: none"> (i) An indigenous species that is threatened, at <i>risk</i>, or uncommon, nationally or within an ecological district or coastal marine biogeographic region, or (ii) Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent nationally, regionally or within a relevant <i>land environment</i>, ecological district, coastal marine biogeographic region or <i>freshwater environment</i> including <i>wetlands</i>, or (iii) Indigenous vegetation and habitats within originally rare ecosystems, or (iv) The site contains indigenous vegetation or an indigenous species that is endemic to Otago or that are at distributional limits within Otago. |
| Diversity | <ul style="list-style-type: none"> (e) An area that supports a high diversity of indigenous ecosystem types, indigenous <i>taxa</i> or has changes in species composition reflecting the existence of diverse natural features or gradients. |
| Distinctiveness | <ul style="list-style-type: none"> (f) An area that supports or provides habitat for: <ul style="list-style-type: none"> (i) Indigenous species at their distributional limit within Otago or nationally, or (ii) Indigenous species that are endemic to the Otago region, or (iii) Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, or has developed as a result of an |

unusual environmental factor or combinations of factors.

Ecological context

- (g) The relationship of the area with its surroundings (both within Otago and between Otago and the adjoining regions), including:
- (i) An area that has important connectivity value allowing dispersal of indigenous flora and fauna between different areas, or
 - (ii) An area that has an important buffering function that helps to protect the values of an adjacent area or feature, or
 - (iii) An area that is important for indigenous fauna during some part of their life cycle, either regularly or on an irregular basis, e.g. for feeding, resting, nesting, breeding, spawning or refuges from predation, or
 - (iv) A *wetland* which plays an important hydrological, biological or ecological role in the natural functioning of a *river* or coastal ecosystem.

APP3 – Criteria for *biodiversity* offsetting

- (1) *Biodiversity* offsetting is not available if the activity will result in:
 - (a) the loss of any individuals of Threatened *taxa*, other than kānuka (*Kunzea robusta* and *Kunzea serotina*), under the New Zealand Threat Classification System (Townsend et al, 2008), or
 - (b) reasonably measurable loss within the ecological district to an At Risk-Declining *taxon*, other than manuka (*Leptospermum scoparium*), under the New Zealand Threat Classification System (Townsend et al, 2008).
- (2) *Biodiversity* offsetting is available if the following criteria are met:
 - (a) the offset addresses residual adverse *effects* that remain after implementing the sequential steps required by ECO-P6(1) to (3),
 - (b) the offset achieves no net loss and preferably a net gain in indigenous *biodiversity*, as measured by type, amount and condition at both the impact and offset sites using an explicit loss and gain calculation,
 - (c) the offset is undertaken where it will result in the best ecological outcome, and as the first priority be:
 - (i) close to the location of the activity, and
 - (ii) within the same ecological district or coastal marine biogeographic region,
 - (d) the offset is applied so that the ecological values being achieved are the same or similar to those being lost,
 - (e) the positive ecological outcomes of the offset endure at least as long as the impact of the activity and preferably in perpetuity,
 - (f) the offset achieves *biodiversity* outcomes beyond results that would have occurred if the offset was not proposed,
 - (g) the time delay between the loss of *biodiversity* and the realisation of the offset is the least necessary to achieve the best possible outcome,
 - (h) the outcome of the offset is achieved within the duration of the *resource consent*, and
 - (i) any offset developed in advance of an application for *resource consent* must be shown to have been created or commenced in anticipation of the specific *effect* of the proposed activity and would not have occurred if that *effect* was not anticipated.

APP4 – Criteria for *biodiversity* compensation

- (1) *Biodiversity* compensation is not available if the activity will result in:
- (a) the loss of an indigenous *taxon* (excluding *freshwater* fauna and flora) or of any ecosystem type from an ecological district or coastal marine biogeographic region,
 - (b) removal or loss of viability of habitat of a Threatened or At Risk indigenous species of fauna or flora under the New Zealand Threat Classification System (Townsend et al, 2008),
 - (c) removal or loss of viability of a *naturally rare* or uncommon ecosystem type that is associated with indigenous vegetation or habitat of indigenous fauna, or
 - (d) worsening of the New Zealand Threat Classification System (Townsend et al, 2008) conservation status of any Threatened or At Risk indigenous fauna.
- (2) *Biodiversity* compensation is available if the following criteria are met:
- (a) compensation addresses only residual adverse effects that remain after implementing the sequential steps required by ECO–P5(1) to (4),
 - (b) compensation is undertaken where it will result in the best practicable outcome and preferably:
 - (i) close to the location of the activity, and
 - (ii) within the same ecological district or coastal marine biogeographic region,
 - (c) compensation achieves positive *biodiversity* outcomes that would not have occurred without that compensation,
 - (d) the positive *biodiversity* outcomes of the compensation are enduring,
 - (e) the time delay between the loss of *biodiversity* through the proposal and the gain or maturation of the compensation's *biodiversity* outcomes is the least necessary to achieve the best possible outcome,
 - (f) the outcome of the compensation is achieved within the duration of the *resource consent*,
 - (g) *biodiversity* compensation developed in advance of an application for *resource consent* must be shown to have been created or commenced in anticipation of the specific *effect* of the proposed activity and would not have occurred if that *effect* was not anticipated, and
 - (h) the *biodiversity* compensation is demonstrably achievable.

APP5 – Species prone to *wilding conifer* spread

Table 5: Species prone to *wilding conifer* spread

Common name	Botanical name
Big cone pine	<i>Pinus coulteri</i>
Bishops pine	<i>Pinus muricata</i>
Contorta (lodgepole) pine	<i>Pinus contorta</i>
Corsican pine, Black pine	<i>Pinus nigra</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Dwarf mountain pine	<i>Pinus uncinata</i>
Japanese cedar	<i>Cryptomeria japonica</i>
Japanese larch	<i>Larix kaempferi</i>
Larch	<i>Larix decidua</i>
Lawson's cypress	<i>Chamaecyparis lawsoniana</i>
Macrocarpa	<i>Cupressus macrocarpa</i>
Maritime pine	<i>Pinus pinaster</i>
Mountain pine	<i>Pinus mugo</i>
Norfolk Island pine	<i>Araucaria heterophylla</i>
Norway spruce	<i>Picea abies</i>
Patula pine	<i>Pinus patula</i>
Pine	<i>Pinus sp./Pine</i>
Ponderosa pine	<i>Pinus ponderosa</i>
Radiata pine	<i>Pinus radiata</i>
Scots pine	<i>Pinus sylvestris</i>
Sitka spruce	<i>Picea sylvestris</i>
Slash pine	<i>Pinus elliotii</i>
Spruce	<i>Picea sp.</i>
Strobus pine	<i>Pinus strobus</i>
Western red cedar	<i>Thuja plicata</i>
Western white pine	<i>Pinus monticola</i>

APP6 – Methodology for *natural hazard risk assessment*

Undertake the following four step process to determine the *natural hazard risk*.

Step 1 – Determine the likelihood

Using Table 6, assess the likelihood of three *natural hazard* scenarios occurring, representing a high likelihood, median likelihood, and the maximum credible event, using the best available information:

Table 6: Likelihood scale

Likelihood	Indicative frequency
Almost certain	Up to once every 50 years (2% AEP)
Likely	Once every 51 – 100 years (2 – 1% AEP)
Possible	Once every 101 – 1,000 years (1 – 0.11% AEP)
Unlikely	Once every 1,001 – 2,500 years (0.1 – 0.04% AEP)
Rare	2,501 years plus (<0.04% AEP)

Step 2 – *Natural hazard consequence*

Using Table 7 and the matters listed in (1) to (10) below, assess the consequence (catastrophic, major, moderate, minor, or insignificant) of the *natural hazard* scenarios identified in step 1 considering:

- (1) the nature of activities in the area,
- (2) individual and community vulnerability,
- (3) impacts on individual and community health and safety,
- (4) impacts on social, cultural and economic well-being,
- (5) impacts on *infrastructure* and property, including access and services,
- (6) available and viable *risk* reduction and hazard mitigation measures,
- (7) *lifeline utilities*, essential and emergency services, and their co-dependence,
- (8) implications for civil defence agencies and emergency services,
- (9) the changing *natural hazard* environment,
- (10) cumulative *effects* including *multiple* and *cascading hazards*, where present, and
- (11) factors that may exacerbate a *natural hazard* event including the *effects* of *climate change*.

Table 7: Consequence table

Severity of Impact	Built				Health & Safety
	Social/Cultural	Buildings	Critical Buildings	Lifelines	
Catastrophic (V)	≥25% of <i>buildings</i> of social/cultural significance within hazard zone have functionality compromised	≥50% of affected <i>buildings</i> within hazard zone have functionality compromised	≥25% of critical facilities within hazard zone have functionality compromised	Out of service for > 1 month (affecting ≥20% of the town/city population) OR suburbs out of service for > 6 months (affecting < 20% of the town/city population)	> 101 dead and/or > 1001 injured
Major (IV)	11-24% of <i>buildings</i> of social/cultural significance within hazard zone have functionality compromised	21-49% of <i>buildings</i> within hazard zone have functionality compromised	11-24% of <i>buildings</i> within hazard zone have functionality compromised	Out of service for 1 week – 1 month (affecting ≥20% of the town/city population) OR suburbs out of service for 6 weeks to 6 months (affecting < 20% of the town/city population)	11 – 100 dead and/or 101 – 1000 injured
Moderate (III)	6-10% of <i>buildings</i> of social/cultural significance within hazard zone have functionality compromised	11-20% of <i>buildings</i> within hazard zone have functionality compromised	6-10% of <i>buildings</i> within hazard zone have functionality compromised	Out of service for 1 day to 1 week (affecting ≥20% of the town/city population) OR suburbs out of service for 1 week to 6 weeks (affecting < 20% of the town/city population)	2 – 20 dead and/or 11 – 100 injured
Minor (II)	1-5% of <i>buildings</i> of social/cultural significance within hazard zone have functionality compromised	2-10% of <i>buildings</i> within hazard zone have functionality compromised	1-5% of <i>buildings</i> within hazard zone have functionality compromised	Out of service for 2 hours to 1 day (affecting ≥20% of the town/city population) OR suburbs out of service for 1 day to 1 week (affecting < 20% of the town/city population)	1 dead and/or 1 – 10 injured
Insignificant (I)	No <i>buildings</i> of social/cultural significance within hazard zone have functionality compromised	< 1% of affected <i>buildings</i> within hazard zone have functionality compromised	No damage within hazard zone, fully functional	Out of service for up to 2 hours (affecting ≥20% of the town/city population) OR suburbs out of service for up to 1 day (affecting < 20% of the town/city population)	No dead No injured

When assessing consequences within this matrix, the final level of impact is assessed on the 'first past the post' principle, in that the consequence with the highest severity of impact applies. For example, if a *natural hazard* event resulted in moderate severity of impact across all of the categories, with the exception of critical *buildings* which had a 'major' severity of impact, the major impact is what the proposal would be assessed on. If a *natural hazard* event resulted in all of the consequences being at the same level (for example, all of the consequences are rated moderate), then the level of consequence is considered to be moderate.

When this assessment is being undertaken in accordance with HAZ-NH-M3(7)(a) or HAZ-NH-M4(7)(a) the text within Step 2 shall guide the assessment of *natural hazard* consequence.

Step 3 – Assessing activities for *natural hazard risk*

Using the information within steps 1 and 2 above, and Table 8, assess whether the *natural hazard* scenarios will have an acceptable, tolerable, or significant *risk* to people, property and communities, by considering:

- (1) the *natural hazard risk* identified, including *residual risk*,
- (2) any measures to avoid, remedy or mitigate those *risks*, including relocation and recovery methods,
- (3) the long-term viability and affordability of those measures,
- (4) flow on *effects* of the *risk* to other activities, individuals and communities, and
- (5) the availability of, and ability to provide, *lifeline utilities*, and essential and emergency services, during and after a *natural hazard* event.

Table 8: Risk table

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain					
Likely					
Possible					
Unlikely					
Rare					
Green, Acceptable Risk: Yellow, Tolerable Risk: Red, Significant Risk					

Notes:

Table 8 above has been included as a region-wide baseline. As set out in HAZ–NH–M2(1) *local authorities* are required to undertake a consultation process with communities, stakeholders and partners regarding *risk* levels thresholds and develop a *risk* table at a district or community scale. This region-wide baseline is to be used in the absence of a district or community scale *risk* table being developed.

When this assessment is being undertaken in accordance with HAZ-NH-M3(7)(a) or HAZ-NH-M4(7)(a) the text within Step 3 shall guide the assessment of *natural hazard risk*.

Step 4 – Undertake a quantitative *risk* assessment

While Steps 1-3 will qualitatively categorise *natural hazard risk* based on a community's understanding and acceptance level of *risk*, it will not provide quantitative understanding of the *risk* a *natural hazard* presents to the built environment, or health and safety.

If the assessment undertaken in Steps 1-3 determines that one of the three *natural hazard* scenarios generate *risk* that is significant, undertake a quantitative *risk* assessment utilising the following methodology:

- (1) Based on the likelihood of a *natural hazard* event within the hazard zone (see Step 1), and including the potential impacts of *climate change* and sea level rise, select a representative range

of at least five hazard scenarios with varying likelihoods to model,⁵⁰ including the maximum credible event.

- (2) Model the Annual Individual Fatality Risk (AIFR)⁵¹ and Annual Property Risk (APR)⁵² for the range of hazard scenarios across the hazard zone, and create loss exceedance distributions.
- (3) Analyse loss exceedance distributions and determine losses.
- (4) Implementing a first-past-the-post principle for the AIFR and APR:
 - (a) for areas of new development where the greatest AIFR or APR is:
 - (i) less than 1×10^{-6} per year, the *risk* is re-categorised as acceptable,
 - (ii) between 1×10^{-6} and 1×10^{-5} per year, the *risk* is re-categorised as tolerable, or
 - (iii) greater than 1×10^{-5} per year, the *risk* is re-categorised as significant.
 - (b) for areas with existing development, where the greatest AIFR or APR is:
 - (i) less than 1×10^{-5} per year, the *risk* is re-categorised as acceptable;
 - (ii) between 1×10^{-5} and 1×10^{-4} per year, the *risk* is re-categorised as tolerable; or
 - (iii) greater than 1×10^{-4} per year, the *risk* is re-categorised as significant.
- (5) Following the quantitative *risk* assessment, a *risk* level is assigned to the hazard area.

AIFR and APR are the selected *risk* metrics as they represent the likely consequences of a wide range of *natural hazards*. For example, some *natural hazards*, generally, do not have the capacity to cause fatalities, but may result in widespread damage to property, while other *natural hazards* have a high capacity to cause fatalities. A first-past-the-post principle to the re-categorisation of *risk* is applied to ensure that decisions are based on the greatest *risk* present between the two metrics.

If the level of knowledge or uncertainty regarding the likelihood or consequences of a *natural hazard* event precludes the use of Step 4, then a precautionary approach to assessing and managing the *risk* should be applied, as set out in HAZ–NH–P5.

⁵⁰ The model should include an analysis of uncertainty

⁵¹ Annual probability that an individual most at risk is killed in any one year as a result of the hazards occurring

⁵² Annual probability of total property loss (relating to permanent structures) as a result of the hazards occurring

APP7 – Identifying *wāhi tūpuna*

This appendix is a guide to assist in identifying *wāhi tūpuna*. It is not a complete list of all *wāhi tūpuna* in Otago.

Kāi Tahu use the term '*wāhi tūpuna*' to describe landscapes that embody the customary and contemporary relationship of Kāi Tahu and their culture and traditions with Otago. It is important to understand this concept in the context of the distinctive seasonal lifestyle that Kāi Tahu evolved in the south. The sites and resources used by Kāi Tahu are spread throughout Otago. These places did not function in isolation from one another but were part of a wider cultural setting and pattern of seasonal resource use. The different elements of these sites of significance include:

Table 9: Sites of significance to Kāi Tahu

Site of significance	Explanation
Ara Tawhito	Ancient trails. A network of trails crossed the region linking the permanent villages with seasonal inland campsites and along the coast, providing access to a range of mahika kai resources and inland stone resources, including pounamu and silcrete.
Kāika	Permanent settlements or occupation sites. These occurred throughout Otago, particularly in coastal areas.
Nohoaka	These were a network of seasonal settlements. Kāi Tahu were based largely on the coast in permanent settlements and ranged inland on a seasonal basis. Iwi history shows, through place names and whakapapa, continuous occupation of a network of seasonal settlements, which were distributed along the main river systems from the source lakes to the sea.
Wāhi Mahika kai	The places where the customary gathering of food or natural materials occurs. Mahika kai is one of the cornerstones of Kāi Tahu culture.
Mauka	Important mountains. Mountains are of great cultural importance to Kāi Tahu. Many are places of spiritual presence, and prominent peaks in the district are linked to Kāi Tahu creation stories, identity and mana.
Marae	The marae atea and the buildings around it, including the wharenuī, wharekai, church and urupā. The sheltering havens of Kāi Tahu cultural expression, a place to gather, kōrero and to welcome visitors. Marae are expressions of Kāi Tahu past and present.
Repo raupo	Wetlands or swamps. These provide valued habitat for taoka species and mahika kai resources.
Tauraka waka	Canoe mooring sites. These were important for transport and gathering kai.
Tūāhu	Places of importance to Māori identity. These are generally sacred ground and marked by an object, or a place used for purposes of divination.
Taumanu	Fishing sites. These are traditional fishing easements which have been gazetted by the South Island Māori Land Court.
Umu, Umu-tī	Earth ovens. Used for cooking tī-kōuka (cabbage tree), are found in a diversity of areas, including old stream banks and ancient river terraces, on low spurs or ridges, and in association with other features, such as kāika nohoaka.
Urupā	Human burial sites. These include historic burial sites associated with kāika, and contemporary sites, such as the urupā at Ōtākou and Puketeraki marae.
Wāhi kōhatu	Rock outcrops. Rocky outcrops provided excellent shelters and were intensively occupied by Māori from the moa-hunter period into early European settlement during seasonal hikoi. Tuhituhi neherā (rock art) may be present due to the occupation of such places by the tūpuna.

Wāhi pakaka	Battle sites. Historic battle sites occur throughout Otago, such as that at Ohinepouwera (Waikouaiti sandspit) where Taoka's warriors camped for six months while they laid siege on Te Wera on the Huriawa Peninsula.
Wāhi paripari	Cliff areas.
Wāhi taoka	Resources, places and sites treasured by <i>mana whenua</i> . These valued places reflect the long history and association of Kāi Tahu with Otago.
Wāhi tapu	Places sacred to Kāi Tahu. These occur throughout Otago and include urupā (human burial sites).
Wāhi tohu	Features used as location markers within the landscape. Prominent landforms formed part of the network of trails along the coast and inland.
Wai Māori	Freshwater areas important to Māori, including wai puna (springs), roto (lakes) and awa (rivers).

APP8 – Identification criteria for places and areas of *historic heritage*

A place or area is considered to have *historic heritage* if it meets any one or more of criteria below:

- | | |
|-----------------------|---|
| Aesthetic | The place has, or includes, aesthetic qualities that are considered to be especially pleasing, particularly beautiful, or overwhelming to the senses, eliciting an emotional response. These qualities are demonstrably valued, either by an existing community or the general public, to the extent that they could be expected to experience a sense of loss if the qualities which evoke the aesthetic value were no longer there. |
| Archaeological | The place provides, or is demonstrably likely to provide, physical evidence of human activity that could be investigated using archaeological methods. Evidence obtained from an archaeological investigation could be expected to be of significance in answering research questions, or as a new or important source of information about an aspect of New Zealand history. |
| Architectural | The place reflects identifiable methods of construction or architectural styles or movements. When compared with other similar examples, or in the view of experts or relevant practitioners, it has characteristics reflecting a significant development in this country's architecture. Alternatively, or in conjunction with this, the place is an important or representative example of architecture associated with a particular region or the wider New Zealand landscape. |
| Cultural | The place reflects significant aspects of an identifiable culture and it can be demonstrated that the place is valued by the associated cultural group as an important or representative expression of that culture. |
| Historic | The place contributes to the understanding of a significant aspect of New Zealand history and has characteristics making it particularly useful for enhancing understanding of this aspect of history, especially when compared to other similar places. |
| Scientific | The place includes, or is demonstrably likely to include, fabric expected to be of significance in answering research questions or a new or important source of information about an aspect of New Zealand's cultural or historical past through the use of specified scientific methods of enquiry. |
| Social | The place has a clearly associated community that developed because of the place, and its special characteristics. The community has demonstrated that it values the place to a significant degree because it brings its members together, and they might be expected to feel a collective sense of loss if they were no longer able to use, see, experience or interact with the place. |

Spiritual	The place is associated with a community or group who value the place for its religious, mystical or sacred meaning, association or symbolism. The community or group regard the place with reverence, veneration and respect, and they might be expected to feel a collective sense of loss if they were no longer able to use, see, experience or interact with the place.
Technological	The place includes physical evidence of a technological advance or method that was widely adopted, particularly innovative, or which made a significant contribution to New Zealand history OR The place reflects significant technical accomplishment in comparison with other similar examples or, in the view of experts or practitioners in the field, has characteristics making the place particularly able to contribute towards our understanding of this technology.
Traditional	The place reflects a tradition that has been passed down by a community or culture for a long period, usually generations and especially since before living memory, and has characteristics reflecting important or representative aspects of this tradition to a significant extent.

The significance of areas and places with *historic heritage* will be assessed having regard to the following criteria:

- (1) the extent to which the place reflects important or representative aspects of Otago or New Zealand history,
- (2) the association of the place with events, persons, or ideas of importance in Otago or New Zealand history,
- (3) the potential of the place to provide knowledge of Otago or New Zealand history,
- (4) the importance of the place to *takata whenua*,
- (5) the community association with, or public esteem for, the place,
- (6) the potential of the place for public education,
- (7) the technical accomplishment, value, or design of the place,
- (8) the symbolic or commemorative value of the place,
- (9) the importance of identifying historic places known to date from an early period of Otago's or New Zealand's settlement,
- (10) the importance of identifying rare types of historic places, and
- (11) the extent to which the place forms part of a wider historical and cultural area.

APP9 – Identification criteria for outstanding and *highly valued natural features, landscapes and seascapes*

The areas and the values of outstanding and *highly valued natural features, landscapes and seascapes* are identified using the following attributes:

- | | |
|-------------------------------|---|
| Physical attributes | (a) Natural science factors, including geological, topographical, ecological and dynamic components. |
| | (b) The presence of <i>water</i> including in seas, <i>lakes, rivers</i> and streams. |
| | (c) Vegetation (native and exotic). |
| Sensory attributes | (d) Legibility or expressiveness – how obviously the feature, landscape or seascape demonstrates its formative processes. |
| | (e) Aesthetic values including memorability and naturalness. |
| | (f) Transient values, including presence of wildlife or other values at certain times of the day or year. |
| | (g) Wild or scenic values. |
| Associative attributes | (h) Whether the values are shared and recognised. |
| | (i) Cultural and spiritual values for Kāi Tahu, identified by working, as far as practicable, in accordance with tikanga Māori, including their expression as cultural landscapes and features. |
| | (j) Historical and heritage associations. |

APP10 – Housing bottom lines

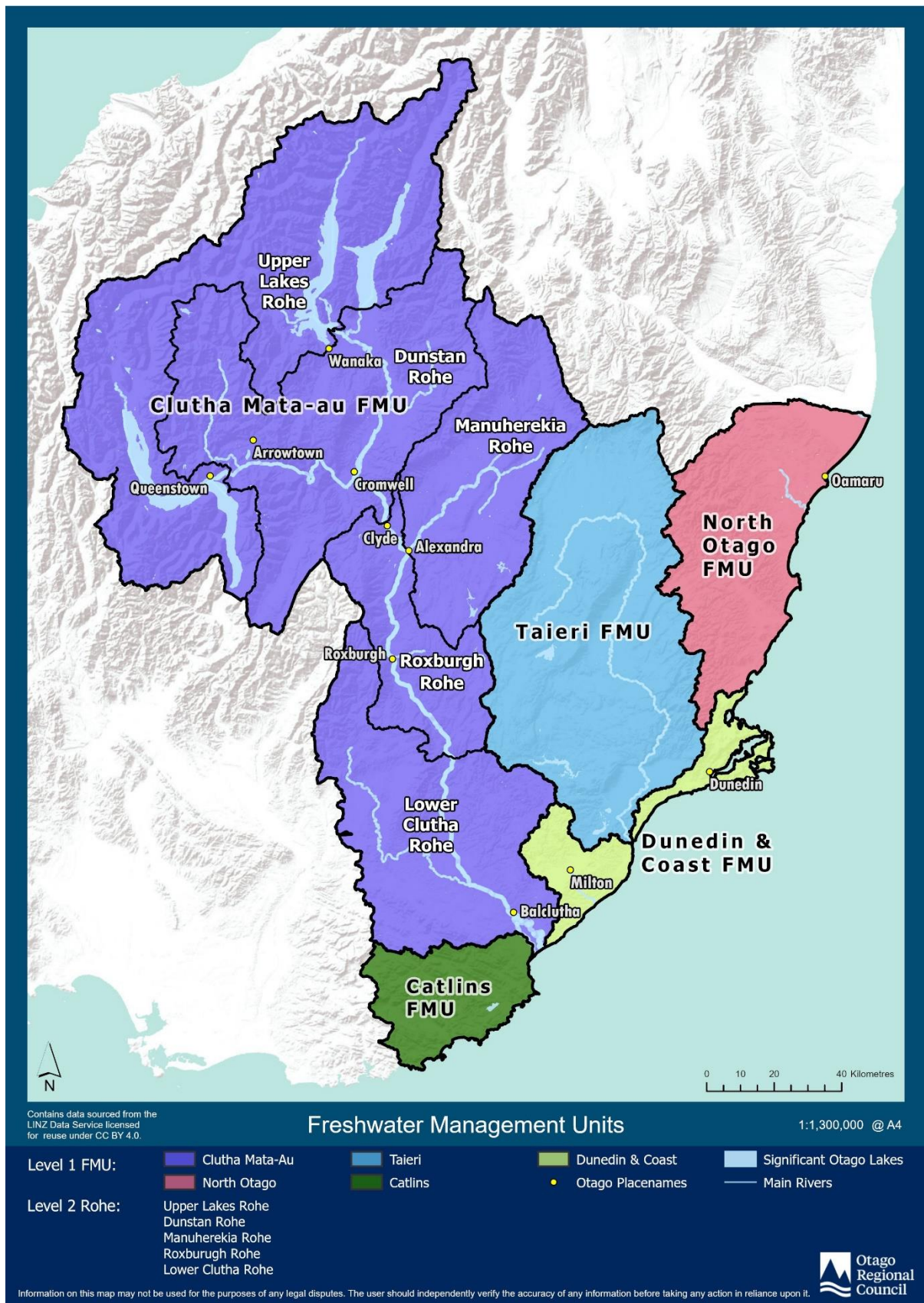
Table 10: Bottom lines for development capacity

Tier 2 Urban Environment	Short- Medium Term (0-10 years)	Long Term (11-30 years)
Queenstown		
Dunedin		

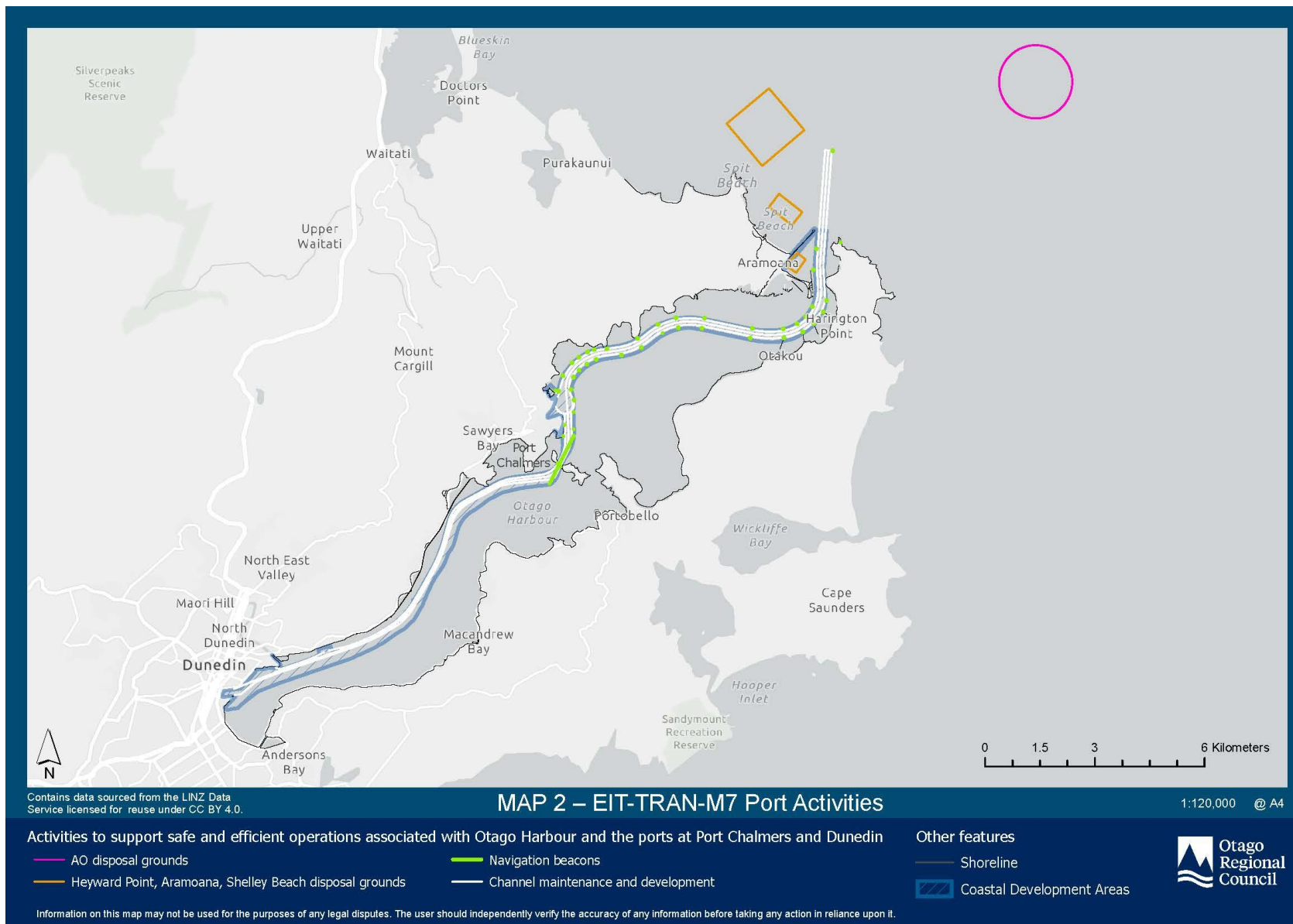
Note: This schedule will be amended or reamended in accordance with the National Policy Statement for Urban Development 2020, without using RMA Schedule 1, as soon as practicable following the publication of any relevant *Housing and Business Development Capacity Assessment*, the first of which is due to be completed by 31 July 2021.

Maps

MAP1 – Freshwater Management Units



MAP2 – EIT-TRAN-M7 Port Activities



This is a true and correct copy of the Regional Plan:
Water for Otago.

This copy of the Regional Plan: Water is deemed
to be operative on Saturday, 5 March 2022

The Common Seal of the Otago Regional Council
was hereto affixed in the presence of:

Andrew Noone

Cr Andrew Noone
Chairperson

HJC
cr Hilary Calvert

Cr Hilary Calvert
Strategy and Planning Committee



