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Submission on the Otago Regional Council's Draft Regional Policy Statement

To: Regional Policy Statement Review Team,
Otago Regional Council.
From: Wise Response Society Inc. July 24, 2015.

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- We wish to be heard in support of our submission:
- If others make a similar submission, we will consider presenting jointly with them at the hearing:
- Trade competitors declaration: Wise Response will not gain any trade advantage from this submission

1 BACKGROUND TO WISE RESPONSE

Wise Response was launched in Dunedin in 2012 with the support of 100 notable New Zealanders. Wise Response Society encourages all levels of government as well as all New Zealand citizens to ensure that our way of life and priorities are not leading us, either wittingly or unwittingly, to deny our children the opportunity of a viable and fulfilling future. Specifically the Society seeks to have addressed systematically this key question:

"As demand for growth exceeds earth's physical limits causing unprecedented risks, what knowledge and changes do we need to secure New Zealand's future wellbeing?"

To this end it is calling on the New Zealand Parliament to undertake a formal assessment of the risks arising from the combination of the threats outlined below then to develop and implement cross-party policies to avert any confirmed threats to future generations of New Zealanders.

Risks to New Zealand

The five most significant risks to New Zealand, in our view, are:

1. **Financial security**: the risk of a sudden, deepening, or prolonged global financial crisis.
2. **Energy and climate security**: the risk of continuing our heavy dependence on fossil fuels.
3. **Business continuity** the risk exposure of all New Zealand business, including farming, to a lower carbon economy.
4. **Ecological/Environmental security**: the risks associated with failing to genuinely protect both land-based and marine ecosystems and their natural processes.
5. **Genuine well-being:** the risk of persisting with a subsidised, debt-based economy, preoccupied with maximising consumption and GDP and increasing inequality.

Evidence-based science on several fronts, shows that, due in large part to encountering limits, New Zealand in general and therefore Otago are environmentally, socially and economically vulnerable. Therefore, until we address the implications of limits, planning is unlikely to be realistic; it may even undermine critical needs over the next decade or two.

We see that TLAs can have an important role in responding to these risks rationally through the regional planning process. The skills and technology exist to make the necessary changes. What is lacking and what we hope the Risk Appeal will facilitate is the necessary awareness and political will to create the critical mass required.

Following the Precautionary Principle, Wise Response asks the Otago Regional Council to ensure its revised Regional Policy Statement (RPS) is based on an objective, uncompromising assessment of the relevant science and associated risks. The risks identified need to be prioritised and logical principles and policies developed dispassionately from the consequent outcomes.

From these analyses, we anticipate that the RPS will need to place greater weight on genuinely securing the longer term future and curtailing the excesses of a free market in the interests of our collective good. Plan wording will need to be firm, explicit and unambiguous to make a real difference and minimise legal challenge under implementation.

2 THIS SUBMISSION RELATES TO:

It might be anticipated from the objective of the Society and the scope of the risks we see that our interest in this Plan review will cover a wide range of subjects. Given the large number of changes we wished to propose, it seemed most efficient, all round, simply to make them directly on the document.

This has been done and brief reasons provided in the margins for the more significant changes. Within the framework of the plan we generally seek amendments which might better address the five risk areas set out in the table above. That, however, should not be interpreted as the Society's support for the framework as it stands.

The Society's general areas of concern and the decisions that would be preferred are set out in Section 3 below. Some of them suggest that structural change may be the most efficient and effective way to achieve the emphasis required.

3 THE BROAD PRINCIPLES THAT WE WISH TO SEE MORE CLEARLY REFLECTED IN THE PLAN:

1. Establish a firm platform for the plan of presuppositions and issue identification against which progress can be gauged

Please set out the Council's presuppositions regarding the status and trends in the environment to provide a clear platform for identifying issues, the proposed Plan provisions and the objectives, policies and limits it sets. Presuppositions need to be based on rigorous research and statistics, and the established principles of physics, ecology and environmental management. Some assumptions are already evident from statements in the Plan but need to be brought together in a single section near the beginning. Subjects to be addressed might include

- Biodiversity
- Freshwater
- Coastal environment
- Land and soil
- Energy and carbon emissions
- Climate change and weather
- Stability of the global economy and implications
- Relationship between economic, social and environmental elements
- Employment
- Economic activity
- Social needs

Issues may then become more evident. It should be clear how the provisions in the new RPS are anticipated to reverse negative trends, and result in different environmental outcomes. At present, that is unclear.

2. Give the Plan a global as well as the national context

The plan can not directly address the global context but it can take it into account to give "sustainable management" a fully integrated and defensible bio-physical foundation.

In this respect the primary underling issue for the Plan is one of carbon and thus energy constraint. Fossil fuel is very convenient and to a large extend our society is build around it, but it is also finite and there are growing signs that it will not be so freely and cheaply available in the future. Hence, Plan provisions will need to anticipate and facilitate preparations in the community for this eventuality.

Climate change too is well advanced. Two degrees average global temperature rise on pre-industrial levels has been widely accepted as being a maximum safe limit for the planet. Reliable estimates show that we will be committed to this with the emission of about 900Gt of CO2 emission and on current trends this will occur sometime between 2030 - 2040. The IPCC has indicated that the prospects of life as

we know it continuing at temperatures above this level are small. Indeed, there are already serious concerns that 2 degrees is too large.

We recognise that current legislation makes it difficult for local government to address climate change directly. However, the consequences of the ETS failing and not meeting targets are so dire that we consider the Plan needs to find indirect ways to enable and require everyone in the region to contribute to emissions reduction.

The Society feels strongly that we are already "fiddling while Rome burns" with respect to climate change, and the stakes are so high, we can not take the risk of relying on international negotiations. We must rein in our collective preoccupation with the accumulation of material wealth above other measures of progress and quality of life.

3. Requiring the setting of limits to resource use and discharges that will be ecologically sustainable into the future

The national policy statement on freshwater has been instrumental in moving from a consenting environment when there is always room to take a little more, to one that seeks to set an absolute limit. This concept needs to be extended to other resources and include mechanisms that will ensure those limits will not be breached (eg. GHGs, nutrients, gravel extraction, fish bag limits).

This implies effective monitoring and accounting.

And in a closed system, material growth and limits are on a collision course. It is also clear that our footprint is already above what is sustainable or fair in global terms. We therefore consider the concepts of **resilience** and **development** are more appropriate terms for the Plan than increasing "prosperity" and "growth".

4. The focus of the plan needs to be firmly on building region-wide and integrated resilience

We interpret the RMA as giving Regional Authorities the primary responsibility of controlling the adverse effects on the environment of economic activity in the public interest. Promoting economic activity creates a conflict of interest and undermines trust in Council's activities and motives. It is also risky as the value of particular economic activities can change.

Thus, the Plan (and Council through the Plan), we feel, must shift the focus of activity away from promoting economic development and financial return to sustainably managing of the natural and physical resources, as required under S5, RMA.

To be fully effective this will require integration across land, freshwater, estuarine and marine interfaces as a single ecosystem complex to be optimised and sustainable

5. Securing the environment and biodiversity before considering economic development needs must be reflected in the wording and ranking of policies

If we accept that a healthy "land base" is ultimately an essential platform for a healthy society and economy then it is important that the plan reflects that; i.e. that the plan is first and foremost about securing the environment (i.e. retaining adequately functioning ecosystems) against adverse impacts of human activity. In making development subject to safeguarding the environment the RMA accepts that principle in Section 5.

In this respect we consider the flavour of many of the policies in the Plan need amending to be less anthropocentric - the idea that ultimately we are not in control and the values that we place on ecosystems etc. must be values that are important in ecological terms.

We also consider it is important to acknowledge that we have already lost a lot and so are dealing with the remaining elements of significant landscape, wetland, pristine water, etc. Shifting baselines over the years can mean we lose sight of the seriousness of our loss of healthy functioning ecological systems.

On-going habitat loss as a result of increasing land intensification and conversion to forestry, and degradation through grazing, pest and weed invasion, are the principle threats to indigenous species, habitats and ecosystems. Regional and District Councils have a responsibility to maintain indigenous biodiversity and to provide for the protection of significant indigenous vegetation and significant habitats of indigenous fauna, and also provide for the preservation of the natural character of the coastal environment, wetlands, rivers, lakes and their margins.

Methods for inclusion in the plan include:

a) Manage indigenous vegetation clearance using case by case assessments to determine whether an area of indigenous vegetation or habitat is significant and thus warrants protection
b) Include appropriate regulatory methods that control the clearance or modification of indigenous vegetation and habitats of indigenous fauna.
c) Require ecological assessments to accompany a resource management proposal or plan for an activity or development that may affect areas of indigenous vegetation and habitats of indigenous fauna

6. Promoting agro-ecological resilience at scale as a way to address a range of issues and needs

We think that many of the land and water management issues that are degrading our environment are occurring because Council's policies are too laisses faire. We would like to see a much more proactive approach to defining sustainable land use activities by zone, taking into account ecosystem services and amenity as well. The maximum nitrogen leaching zones proposed by Council in the revised water quality plan are an example.

In this context we consider that the evolving concept of "integrated landscape management" (agroecology), which seeks multi-functional synergies at scale to achieve a diverse set of landscape objectives, needs to be adopted as a practical method of shoreing up both rural and urban resilience, and also identifying activities appropriate for different zones.

And if the landscape is regarded as the main unit of activity, then the main uses that make up the landscape can be integrated to enhance the productive potential of the overall system rather than individual properties. This approach would be a radical shift from current ORC practice which is by and large not to regulate land use.

But there are massive potential gains to individual property owners and the community at large from planning at such a level. Simply focusing on ways to enhance catchment water (in soils, aquifers, wetlands, rivers, etc) and carbon (in soils, vegetation cover, wetlands, etc) will automatically generate other ecosystem services for the catchment and coastline, potentially including improved:

- drought-resistance
- regulation and distribution of water in time
- natural water quality due to improved infiltration
- biodiversity and more diversity in farming practices
- control over erosion and siltation
- synergy between ecology, agriculture and agriforestry
- GHG sequestration
- adaptation for climate change
- independence from fossil fuel derivatives (e.g. fertilizers)
- waste management

7. Achieve sustainable resource management throughout Otago, not just where resources are identified as being 'significant' or 'highly valued'.

The concept that we should ring fence and protect specific parts of our region, while 'consumptive use of resources' occurs elsewhere, is a theme in many parts of the document.

Fragmented habitats are not sustainable, and ecosystem components cannot be managed in isolation. If our region is to have a strong future, sustainable management of resources and protection of ecosystems must be a cornerstone of practice right across the region. And of course, sustainable resource management is also the key tenant of the Resource Management Act.

8. Where there is scientific uncertainty, precaution must prevail

We applaud the inclusion of a **precautionary approach** in the Plan. But we wish to see more specific reference to this principle rather than just an approach. Accordingly, we propose the following (or a similar) definition be included.

"For the purposes of this plan the precautionary principle and approach means that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of extensive scientific consensus that the action or policy is not harmful, the burden of proof that it is not harmful falls on those taking an action."

The principle implies that there is social responsibility to protect the public from exposure to harm, when scientific investigation has found a plausible risk. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result.

9. Wording in the Plan needs to be clear and uncompromising were it addresses primary issues

Social science tells us that humans are not good at responding to risks that are insidious and inconvenient to address. Known risks indicate that we have reached a point where rapid behavioural change is the only option if we are to leave our children and theirs, many options. Therefore wording in the Plan needs to be clear and uncompromising were it addresses primary issues, and the Plan needs to place obligations on Council to achieve certain outcomes. Where the evidence is clear or the stakes are high the Plan needs to make it clear to the community that, at this stage of the game, those who do not adapt to the new imperatives put themselves and potentially others at risk.

Accordingly, suggested wording changes are often simply to give the Plan more teeth (e.g. preferring mitigation to adaptation and prohibit rather than avoid, promoting rather than encouraging)

Complement regulation with incentives and compensation for environmental services.

10. Ensure that key policies and regulations are backed up with monitoring requirements that include sustainability indicators.

Put in place emission-reduction plans or carbon budgets, and for emissions impact assessment for new infrastructure

Life cycle assessment needs to be part of evaluation of the resource use and environmental efficiency of land use and other systems to account for the whole supply chain. Use of the method for the likes of carbon, nutrient and water "foot-printing" will enable evaluation of the potential impacts of products on multiple resource use and environmental indicators for system optimisation.

This may be done by building in the social cost of carbon (SCC) into the assessment of all Council investments (and requiring this in cost-benefit analyses of other projects). See The US EPA produces updated assessments of the SCC for further information.

11. ORC have to be able to be held to account and have targets or reviews

There are many good provisions in the existing RPS that would have us in a much better place had they been implemented during the life of that plan. Thus this new

plan needs to set targets for the ORC so that they can be audited at regular intervals using effective indicators.

Council also need to be required to actively inform the general public of the need for any transformational policy, and explain how citizens can best aid the process of sustainable management of our natural and physical resources, at the same time as improving their personal security and contentment.

12. Plan structure

Integration and strong emphasis on minimising risk and building resilience in the Plan is an advancement. But it seems there may be scope to reduce the number of provisions by altering and simplifying the structure of the Plan. This would make it a more useful and accessible document. The National Standard for Freshwater is a relatively simply document but very effective.

4 SPECIFIC CHANGES REQUESTED FOR THE PLAN

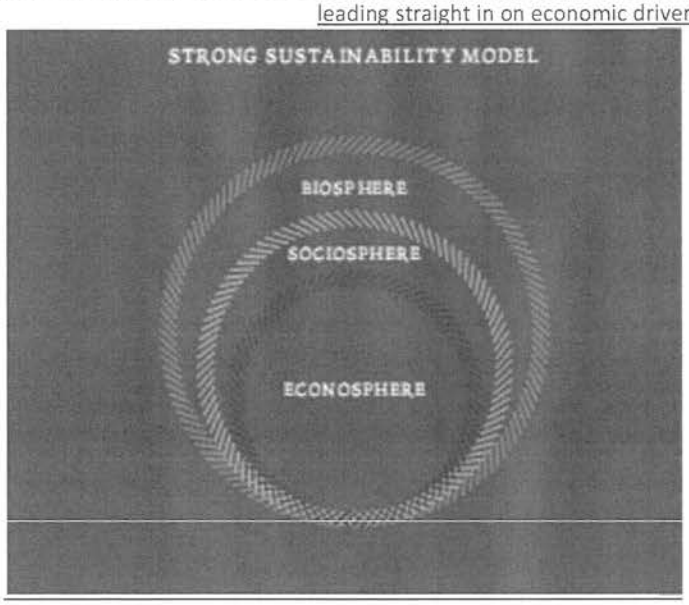
Accompanying this submission is an annotated version of Part B Chapters 2 and 3 of the draft Plan. If there are concerns and implications for the other parts of the Plan, we will provide details later in the process.

Thank you for the opportunity to submit.

PART B Chapter 2 Otago has high? quality natural resources and ecosystems

Establish first concept of social and economic subsets of the biosphere or ecosystem rather than leading straight in on economic drivers

Comment [D1]: Ecosystems are natural resources



Otago's economy is currently driven by three sectors: primary production, tourism and education. The future of the first two sectors, and with this the social and economic well-being of Otago's people and communities, strongly relies on the quantity and quality of Otago's natural resources. Beyond that, our natural resources and our environment have intrinsic values that shape our identity, as individuals and as communities. Some of our natural resources are unique, either to New Zealand or to Otago.

It is critical to recognise the value we place on Otago's natural resources and to manage these resources accordingly. This includes identifying resources which we want to preserve for future generations.

Comment [D2]: Rewrite this section based on the strong sustainability model

Chapter overview:

<table>
<tr><td colspan="2">Objective 2.1
~~The values of~~ Otago's ecosystems including their natural and physical resources are recognised, protected ~~maintained~~ and enhanced to meet as a minimum, system-wide sustainability criteria</td></tr>
<tr><td>Issue:
Degradation of values and natural systems risks loss of complexity, which in turn jeopardises the life sustaining capacity of the environment, and the ecosystem services provided to the community.

Knowledge of these systems and their interdependencies is often imperfect.

Cumulative adverse effects of human activities on the environment may be difficult to pinpoint initially, but over time ~~will cause serious~~ damage may have serious implications.</td><td>Need:
We need to know ~~enough~~ as much as possible about the many values and characteristics of Otago's natural and physical resources, and the ecosystem services they provide for us, to be able to manage the adverse effects of human activities on the environment's life supporting capacity adequately.</td></tr>
<tr><td colspan="2">Objective 2.2
Natural features of Otago's environment with significant or outstanding qualities ~~significant and highly valued natural resources~~ are identified, protection and enhanced to a standard above general sustainability criteria ~~and protected or enhanced~~ so as to maintain their special qualities~~distinctiveness~~</td></tr>
<tr><td>Issue:
Otago has a distinct range of outstanding natural features, landscapes, seascapes, indigenous biodiversity, water bodies and soil which have intrinsic value and help to create the region's identity and support the people~~region~~'s wellbeing.

These highly valued parts of the environment ~~resources~~ risk becoming degraded if they are not adequately protected.

In turn, environmental ~~resource~~ degradation reduces the attractions Otago can offer to tourists, residents and businesses, and could lead to wider adverse economic impacts.</td><td>Need:
It is a matter of regional and national importance to recognise and protect significant and outstanding features of the landscape special protection including associated processes and funtionis~~provide for natural resources systems and processes~~.

We need to recognise the importance of these matters in sustaining Otago's economic advantage and quality of life.</td></tr>
<tr><td colspan="2">Objective 2.3
Land and water ecosystem function and value is ~~Natural systems and interdependencies are~~ recognised and sustained throughout the region</td></tr>
</table>

Comment [D3]: Strongly agree

Comment [D4]: Strongly agree

Comment [D5]: Changes intended to set a baseline driven by sustainability criteria but recognising that some elements in the landscape need a higher level of preservation. Meeting sustainability criteria demands that we maintain the entire environment and dont start picking and choosing on the basis of current values or economic drivers. We therefore prefer the term environment over resource.

Issue:	*Need:*
~~Natural~~ Ecosystems are interconnected, complex and may be easily disrupted or destroyed~~difficult to manage in a consistent and effective way~~. Sometimes, the use of one part of the environment ~~resource~~ adversely affects the function~~value~~ of another. Management may be required to minimise such risk and promote complementarity Sometimes, other relevant legislation results in conflicting management directives. Sometimes, activities affecting a resource are managed by different authorities.	The RMA requires that resources are managed in an integrated way. Integration among interdependent resources, within resources that span management and administrative unit boundaries, and among different decision-makers will reduce the risk of adverse and unintended consequences arising from a proposal.

Objective 2.1

Otago's ecosystems, including their natural and physical resources, are recognised, protected and enhanced to meet as a minimum system-wide sustainability criteria
~~**The values of Otago's natural and physical resources are recognised, maintained and enhanced**~~

Some of the many values of our natural resources may conflict with each other: for example, we depend on water for food production, yet we want water for healthy rivers. Otago's biodiversity is an example of another resource under pressure, in part from indirect consequences of land use, such as the introduction and spread of pest species. A good quality resource management framework addresses all the values attached to our resources, and identifies those which need protection.

Ecosystems and indigenous biodiversity	Policy 2.1.1 Managing for ecosystem and indigenous biodiversity value
Geomorphology & landscape	Policy 2.1.2 Recognising the value of natural features, landscapes and seascapes
Coastal environment	Policy 2.1.3 Managing the value of the coastal environment, its conservation, sustainability of fisheries and natural character
Soil	Policy 2.1.4 Managing for soil value
Water	Policy 2.1.5~~4~~ Managing for freshwater ecosystem function

Comment [D6]: Change of order of policies intended to reflect an acceptance that the baseline considerations are for a healthy ecosystem on which a healthy socio- economic sytem can exist

	and values
	Policy 2.1.62 Managing for the values of beds of rivers and lakes, wetlands, and their margins for ecosystem function and value
	Policy 2.1.73 Managing for coastal water for ecosystem function and values
Air and pollution	Policy 2.1.84 Managing for air quality and pollution for ecosystem function and values
Soil	Policy 2.1.5 Managing for soil values
Ecosystems and indigenous biodiversity	Policy 2.1.6 Managing for ecosystem and indigenous biodiversity values
Geomorphology & landscape	Policy 2.1.7 Recognising the values of natural features, landscapes and seascapes
Natural character	Policy 2.1.8 Recognising the values of natural character in the coastal environment

Policy 2.1.1 Managing for freshwater ecosystem function and value Managing for freshwater values

Recognise freshwater values, and manage freshwater, to:

a) Protect and sustainSupport healthy ecosystem functions and restore degraded ecosystems in all Otago aquifers, and rivers, lakes, wetlands, and their margins; and

b) Enhance hydrological systems and services, by actively promoting land management that retains and improves moisture capture, natural infiltration, soil moisture holding capacity and deep percolation; and

b)c) SusRetain the range and extent of habitats provided by freshwater; and

c)d) Provide additional protection to Protect significant and outstanding water bodies and wetlands; and

d)e) Protect migratory patterns of freshwater species, unless detrimental to indigenous biodiversity; and

e)f) Avoid aquifer compaction, and seawater intrusion in aquifers by maintaining appropriate potentiometric head; and

f)g) Achieve Maintain good water quality that supports sustainable ecological function, including in the coastal marine area, and or enhance it where it has been degraded; and

g)h) Maintain or enhance coastal values supported by freshwater values; and

h)i) Maintain or enhance the natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers; and

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Comment [D7]: This includes retaining infiltration to groundwater beneath urban areas

~~i)~~j) Retain and aim to improve the quality and reliability of raw water for existing drinking water supplies; and

~~j)~~k) Protect Kāi Tahu values; and

~~k)~~l) Provide for other cultural values; and

~~l)~~m) Protect ~~important~~ recreation values including the ability to fish, swim and gather food;; and

~~m)~~n) Maintain the aesthetic and landscape values of rivers, lakes, and wetlands; and

~~n)~~o) Avoid the adverse effects of pest species, prevent their introduction and reduce their spread; and

~~o)~~p) Where possible avoid otherwise m~~M~~itigate the adverse effects of natural hazards, including flooding and erosion; and

~~p)~~q) Maintain the ability of existing infrastructure to operate within their design parameters and promote upgrades or permit new infrastructure that meets forecast impacts of climate change in time.

Method 1: Kāi Tahu Relationships

Method 3: Regional Plans

Method 7: Strategies and Plans (non-RMA)

Policy 2.1.2 Managing of beds of rivers and lakes, wetlands, and their margins for ecosystem function and value ~~Managing for the values of beds of rivers and lakes, wetlands, and their margins~~

Recognise the values of beds of rivers and lakes, wetlands, and their margins, and manage them to:

a) Protect or restore their natural functioning; and

b) Provide additional protection to significant and ~~Protect~~ outstanding water bodies and wetlands; and

c) Achieve water quality that supports sustainable ecological function ~~Maintain good water quality~~, ~~or~~ and enhance it where it has been degraded; and

d) Achieve ~~Maintain~~ ecosystem health and enhance indigenous biodiversity; and

e) Retain the range and extent of habitats supported; and

f) Maintain or enhance natural character; and

g) Protect Kāi Tahu values; and

h) Provide for other cultural values; and

i) Maintain their aesthetic and amenity values; and

j) Avoid the adverse effects of pest species, prevent their introduction and reduce their spread; and

k) Where possible avoid otherwise m~~M~~itigate the adverse effects of natural hazards, including flooding and erosion; and

l) Maintain river bank stability where this will result in unnatural sedimentation or endanger land and property.

Method 1: **Kāi Tahu Relationships**

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Policy 2.1.3 Managing coastal water for ecosystem function and value ~~Managing for coastal water values~~

Recognise coastal water and estuary value and its connected ~~s~~, and manage coastal water, to:

a) Promote~~Support~~ healthy coastal ecosystems; and
b) Retain the range of habitats provided by the coastal marine area; and
c) Protect migratory patterns of coastal water species, unless detrimental to indigenous biodiversity; and
d) Achieve water quality that supports sustainable ecological function ~~Maintain~~ and coastal water quality, or enhance it where it has been degraded; and
e) Maintain or enhance coastal values; and
f) Protect Kāi Tahu values; and
g) Provide for other cultural values; and
h) Protect ~~important~~ recreation values; and
i) Avoid the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 1: **Kāi Tahu Relationships**

Method 3: **Regional Plans**

Method 7: **Strategies and Plans (non-RMA)**

Policy 2.1.4 Managing air quality for ecosystem function and value ~~Managing for air quality values~~

Recognise air quality values, and manage air quality, to:

a) Maintain good ambient air quality that supports human health, or enhance air quality where it has been degraded; and
b) Protect Kāi Tahu values; and
c) Maintain other cultural, aesthetic and amenity values.

Method 1: **Kāi Tahu Relationships**

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: Strategies and Plans (non-RMA)

Policy 2.1.5 Managing soil for ecosystem function and value ~~Managing for soil values~~

Recognise soil value~~s~~, and manage soils, to:

a) Sustain and enhance ~~Maintain~~ their life supporting capacity biological activity soil biodiversity; and

~~b)Maintain soil biodiversity; and~~

~~c)Maintain biological activity in soils; and~~

~~d)~~b) Sustain and enhance ~~Maintain~~ soil's functions in the storage and cycling of water, nutrients, and other elements through the biosphere; and

~~e)~~c) Sustain and enhance ~~Maintain~~ soil's function as a buffer or filter for pollutants resulting from human activities, including aquifers at risk of leachate contamination; and

~~f)~~d) Actively promote sol conservation ~~Retain soil resources for primary production;~~ and

~~g)~~e) Protect Kāi Tahu values; and

~~h)~~f) Provide for other cultural values; and

~~i)~~g) Maintain the soil mantle where it acts as a repository of heritage objects; and

~~j)~~h) Maintain highly valued soil resources; and

~~k)~~i) Avoid contamination of soil; and

~~l)~~j) Avoid the adverse effects of pest species, prevent their introduction and reduce their spread.

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Method 1: Kāi Tahu Relationships

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Method 8: Education and Information

Policy 2.1.6 Managing for ecosystem and indigenous biodiversity value~~s~~

Recognise and manage the value~~s~~ of ecosystems and indigenous biodiversity, ~~and manage ecosystems and indigenous biodiversity~~, to:

a) ~~Main~~Sustain and ~~or~~ enhance land, estuarine and marine ecosystem health and indigenous biodiversity; and

b) ~~Main~~Sustain and ~~or~~ enhance areas of predominantly indigenous vegetation; and

c) Buffer and~~or~~ link existing ecosystems for greater system-wide resilience; and

d) Enhance ~~Protect important~~ hydrological systems ~~services~~, including the services provided by tussock grassland; and

e) Protect natural resources and processes that support indigenous biodiversity; and

f) Maintain habitats of indigenous species ~~that are important~~ for recreational, commercial, cultural or customary purposes; and

g) Protect biodiversity significant to Kāi Tahu; and

h) Avoid the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 1:	**Kāi Tahu Relationships**
Method 3:	**Regional Plans**
Method 4:	**City and District Plans**
Method 6:	**Research, Monitoring and Reporting**
Method 7:	**Strategies and Plans (non-RMA)**
Method 8:	**Education and Information**
Method 11:	**Advocacy and Facilitation**

Policy 2.1.7 Recognising the values of natural features, landscapes, and seascapes

Recognise the values of natural features, landscapes, seascapes and the coastal environment are derived from the following attributes, as detailed in Schedule 4:

a) Biophysical attributes, including:
   i. Natural science factors;
   ii. The presence of water;
   iii. Vegetation (indigenous and introduced);
   iv. The natural darkness of the night sky;

b) Sensory attributes, including:
   i. Legibility or expressiveness;
   ii. Aesthetic values;
   iii. Transient values, including nature's sounds;
   iv. Wild or scenic values;

c) Associative attributes, including:
   i. Whether the values are shared and recognised;
   ii. Cultural and spiritual values for Kāi Tahu;
   iii. Historical and heritage associations.

Method 1:	**Kāi Tahu Relationships**

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 6: **Research, Monitoring and Reporting**

Method 8: **Education and Information**

Policy 2.1.8 Managing the value of the coastal environment, its conservation, sustainability of fisheries and natural character ~~Recognising the values of natural character in the coastal environment~~

Recognise the value~~s~~ of the coastal environment, its conservation, sustainability of fisheries and natural character in the coastal environment are derived from the following attributes and manage the land and coastal environment to sustain or enhance these qualities:

a) Sustainable, functioning estuarine and marine ecosystems that are sustainable

b) Fish stocks that support a viable commercial fishery and valuable recreational fishery

c) Natural elements, processes and patterns;

~~b)~~d) Biophysical, ecological, geological and geomorphological aspects;

~~c)~~e) Natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, estuaries, reefs, freshwater springs and surf breaks;

~~d)~~f) The natural movement of water and sediment;

~~e)~~g) The natural darkness of the night sky;

~~f)~~h) Pristine or highly natural p~~P~~laces or areas that are wild or scenic and not spoilt by built structures or inappropriate activity;

~~g) A range of natural character from pristine to modified;~~

~~h)~~i) Experiential attributes, including the sounds and smell of the sea; and their context or setting.

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Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 6: **Research, Monitoring and Reporting**

Objective 2.2 Natural features of Otago's environment with significant or outstanding qualities are identified, protected and enhanced to a standard above general sustainability criteria, so as to maintain their special qualities ~~Otago's significant and highly-valued natural resources are identified, and protected or enhanced~~

Otago has many unique landscapes, natural features and areas of indigenous biodiversity which are nationally or regionally important. Giving these a higher level of protection above a common baseline of sustainable resource management ensures their special qualities ~~they~~ will be sust~~re~~tained, and activities with the potential for adverse affect will be directed elsewhere ~~while consumptive use of resources will be directed to areas where adverse effects are more acceptable~~.

Remaining s~~S~~ignificant indigenous vegetation and habitats of indigenous fauna	Policy 2.2.1 Identifying remaining areas of significant indigenous vegetation and significant habitats of indigenous fauna
	Policy 2.2.2 Protect and enhance~~Managing~~ remaining significant indigenous vegetation and significant habitats of indigenous fauna
Significant and o~~O~~utstanding natural features, landscapes and seascapes	Policy 2.2.3 Identifying significant and outstanding natural features, landscapes and seascapes
	Policy 2.2.4 Protect and enhance ~~Managing~~ significant and outstanding natural features, landscapes and seascapes
Remaining s~~S~~pecial amenity landscapes	Policy 2.2.5 Identifying remaining special amenity landscapes and highly valued natural features
	Policy 2.2.6 Protect and enhance ~~Managing~~ remaining special amenity landscapes and highly valued natural features
Outstanding and high natural character in the coastal environment	Policy 2.2.7 Identifying the landward extent of the coastal environment

	Policy 2.2.8 Identifying areas of high and outstanding natural character in the coastal environment
	Policy 2.2.9 Protect and enhance ~~Managing~~ the outstanding and high natural character of the coastal environment and afford additional protection to significant and outstanding areas
	Policy 2.2.10 Identifying surf breaks of national importance
	Policy 2.2.11 Managing surf breaks of national importance
Outstanding water bodies	Policy 2.2.12 Identifying outstanding water bodies and wetlands
	Policy 2.2.13 Protect and enhance ~~Managing~~ outstanding water bodies and wetlands
Highly valued soil resources	Policy 2.2.14 Identifying high~~ly~~ value~~d~~ soil resources
	Policy 2.2.15 Protect and enhance ~~Managing~~ high~~ly~~ value~~d~~ soil resources

Policy 2.2.1 Identifying remaining areas of significant indigenous vegetation and significant habitats of indigenous fauna

Identify areas and values of significant indigenous vegetation and significant habitats of indigenous fauna, using the attributes detailed in Schedule 5.

Method 3: Regional Plans

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Policy 2.2.2 Protect and enhance remaining significant indigenous vegetation and significant habitats of indigenous fauna ~~Managing significant indigenous vegetation and significant habitats of indigenous fauna~~

Protect and enhance to a standard above sustainable resource management the values of areas of significant indigenous vegetation and significant habitats of indigenous fauna, by:

a) Avoiding activities with a significant risk of adverse effects on those values which contribute to the area or habitat being significant; and
b) Prohibit~~Avoiding~~ significant adverse effects on other values of the area or habitat; and
c) Assessing the significance of adverse effects on those values, as detailed in Schedule 3; and
d) Remediating, when adverse effects cannot be or have not been avoided; and
e) Mitigating where adverse effects cannot be or have not been avoided or remediated; and
f) Actively promoting and supporting ~~Encouraging~~ enhancement of those areas and values.

Method 3: Regional Plans

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Method 7: Strategies and Plans (non-RMA)

Policy 2.2.3 Identifying outstanding natural features, landscapes and seascapes

Identify areas and values of outstanding natural features, landscapes and seascapes, using the attributes as detailed in Schedule 4.

Method 1: Kāi Tahu Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Policy 2.2.4 Protect and enhance significant and outstanding natural features, landscapes and seascapes ~~Managing outstanding natural features, landscapes, and seascapes~~

Protect, enhance and restore to a standard above sustainable resource management the values of significant and outstanding natural features, landscapes and seascapes, by:

a) Avoiding activities with a risk of adverse effects on those values which contribute to the significance of the natural feature, landscape or seascape; and
b) Avoiding, remedying or mitigating other adverse effects on other values affecting the same locality; and
c) Encouraging enhancement of those areas and values.
~~c)~~d) Assessing the significance of adverse effects on values, as detailed in Schedule 3; and
e) Recognising and providing for positive contributions of existing introduced species to those values; and
~~e)~~f) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread; and
~~f)~~g) ~~Encouraging enhancement of those areas and values.~~

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Method 1: **Kāi Tahu Relationships**

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Policy 2.2.5 **Identifying remaining special amenity landscapes and highly valued natural features**

Identify areas and values of special amenity landscape or natural features which are highly valued for their contribution to the amenity or quality of the environment, but which are not outstanding, using the attributes detailed in Schedule 4.

Method 1: **Kāi Tahu Relationships**

Method 4: **City and District Plans**

Method 6: **Research, Monitoring and Reporting**

Policy 2.2.6 Protect and enhance remaining special amenity landscapes and highly valued natural features ~~Managing special amenity landscapes and highly valued natural features~~

Protect or enhance to a standard above sustainable resource management the values of remaining special amenity landscapes and highly valued natural features, by:

a) Avoiding significant adverse effects on those values which contribute to the special amenity of the landscape or high value of the natural feature; and
b) Avoiding, remedying or mitigating other adverse effects on other values; and
c) Assessing the significance of adverse effects on those values, as detailed in Schedule 3; and
d) Recognising and providing for positive contributions of existing introduced species to those values; and
e) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread; and
f) Encouraging enhancement of those values.

Method 1: **Kāi Tahu Relationships**

Method 4: **City and District Plans**

Method 6: **Research, Monitoring and Reporting**

Policy 2.2.7 **Identifying the landward extent of the coastal environment**

Comment [D8]: Does this have implications for the extent of jurisdiction for the National and regional plans. If so there may need to be other criteria

Identify the landward extent of the coastal environment, using the following criteria:

a) Area or landform dominated by coastal vegetation or habitat of indigenous coastal species; and
b) Landforms and the margins of landforms where active coastal processes, influences or qualities are significant; and
c) Any landscapes or features, including coastal escarpments and ridgelines, which contribute to the natural character, visual quality or amenity values of the coast; and
d) Any physical resource or built form, including infrastructure, that has modified the coastal environment and retains a connection to or derives character from connection to the coast; and
e) The relationship of takata whenua with the coastal environment.

Method 1: Kāi Tahu Relationships

Method 2: Regional, City and District Council Relationships

Method 6: Research, Monitoring and Reporting

Policy 2.2.8 Identifying areas of high and outstanding natural character in the coastal environment

Identify areas and values of high and outstanding natural character in the coastal environment, using the attributes detailed inPolicy 2.1.8.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Policy 2.2.9 Protect and enhance the natural character of the coastal environment and afford additional protection to significant and outstanding areas ~~Managing the natural character of the coastal environment~~

Preserve or enhance to a standard above sustainable resource management the natural character value~~s~~ of the coastal environment, by:

a) Prohibiting activities with ~~Avoiding~~ adverse effects on those values which contribute to the outstanding natural character of an area; and
b) Avoiding significant adverse effects on those values which contribute to the high natural character values of an area; and
c) Encouraging enhancement of those values; and
~~c)~~d) Assessing the significance of adverse effects on those values, as detailed in Schedule 3; and

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~~d)~~e) Avoiding, remedying or mitigating other adverse effects on other values affecting the same locality; and

~~e)~~f) Recognising and providing for the contribution of existing introduced species to the natural character of the coastal environment; and

~~f)Encouraging enhancement of those values; and~~

g) Controlling the adverse effects of pest species, prevent their introduction and reduce their spread.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 11: Advocacy and Facilitation

Policy 2.2.10 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

Policy 2.2.11 Managing surf breaks of national importance

Protect surf breaks of national importance, by:

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

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Policy 2.2.12 Identifying outstanding water bodies and wetlands

Identify outstanding water bodies and wetlands and their values, using the following criteria:

a) A high degree of naturalness;
b) Outstanding aesthetic or landscape values;
c) Significant takata whenua cultural values;
d) Significant recreational values;
e) Significant ecological values;
f) Significant hydrological values.

Method 3: **Regional Plans**

Method 6: **Research, Monitoring and Reporting**

Policy 2.2.13 Protect and enhance outstanding water bodies and wetlands ~~Managing outstanding water bodies and wetlands~~

Protect the values of outstanding water bodies and wetlands to a standard above sustainable resource management by:

a) Avoiding activities with risk of significant adverse effects, including cumulative effects, on those values which contribute to the water body or wetland being outstanding; and
b) Avoiding, remedying or mitigating other adverse effects on the water body or wetland's values; and
c) Assessing the significance of adverse effects on values, as detailed in Schedule 3; and
d) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread; and
e) Promoting ~~Encouraging~~ enhancement of outstanding water bodies and wetlands.

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Method 11: **Advocacy and Facilitation**

Policy 2.2.14 Identifying highly valued soil resources

Identify ~~areas and values of~~ highly valued soil resources, using the following criteria:

a) Degree of versatility for primary production;
b) Significance for providing pollutant buffering or filtering services;
c) Significance for providing water storage or flow retention services;
d) Degree of rarity
e) Susceptibility to damage or erosion.

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Method 2: Regional, City and District Council Relationships

Method 6: Research, Monitoring and Reporting

Policy 2.2.15 Managing highly valued soil resources

Protect ~~the values of areas of~~ highly valued soil resources, by:

a) Avoiding significant adverse effects on ~~those values which contribute to the soil being~~ highly valued soils; and
b) Avoiding, remedying or mitigating other adverse effects on values and availability of those soils; and
c) Assessing the significance of adverse effects on values, as detailed in Schedule 3; and
d) Ensuring all practical alternatives have been considered before permitting ~~Recognising that~~ urban expansion ~~may be appropriate due to location and proximity to existing urban development and infrastructure~~over high value soils.

Method 2: Regional, City and District Council Relationships

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Objective 2.3 Land and water ecosystem function and value is recognised and sustained throughout the region in accordance with the precautionary principle ~~Natural resource systems and their interdependencies are recognised~~

Our resources are interconnected, and the use of one can affect the values of another. Those interconnections are complex, and they are not always reflected in the functions of local authorities, or in the regional, district or city boundaries. An example of this issue is Otago's coastal environment, a highly valued resource at the nexus between land and marine environments that may additionally include freshwater systems. These diverse resources contribute to distinct land- and seascapes and are often integral to ~~support~~ a corresponding range of ecosystems. For management purposes, the coastal environment is often partitioned into separate management units. Moreover, administration of this complex resource is guided by several statutes that are implemented by multiple authorities.

This example illustrates why the management of natural resources needs to be integrated to ensure that resource management decisions are consistent and take account of the linkages between every part of the environment.

Comment [D9]: Strongly support this statement

Integration	Policy 2.3.1 Applying ~~an~~ integrated management ~~approach~~ to all elements of the environment including~~among~~ resources
	~~Policy 2.3.2~~ ~~Applying an integrated management approach within a resource~~
Water	Policy 2.3.3 Applying ~~an~~ integrated management to ~~approach for~~ freshwater catchments
	Policy 2.3.4 Applying ~~an~~ integrated management to ~~approach for~~ the coastal environment
Air	Policy 2.3.5 Applying ~~an integrated~~ management ~~approach~~ to ~~for~~ airsheds

Comment [D10]: Simplification following change to Policy 2.3.1

Comment [D11]: More direct

Policy 2.3.1 Applying integrated management to all elements of the environment including those identified as resources ~~Applying an integrated management approach among resources~~

Comment [D12]: Adjust to meet the above proposals

Apply an integrated approach to the management of Otago's natural and physical resources, to achieve sustainable management, by:

a) Taking into account the impacts of management of one resource on the value~~s~~ of another as elements of the ~~, or on the~~ environment in general; and

b) Recognising that the form and function of a resource within an environment may extend beyond the immediate, or directly adjacent, area of interest.

~~Method 3: Regional Plans~~

~~Method 4: City and District Plans~~

~~Method 7: Strategies and Plans (non-RMA)~~

~~**Policy 2.3.2 Applying an integrated management approach within a resource**~~

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~~Apply an integrated management approach within a natural and physical resource, to achieve sustainable management, by:~~

~~a)~~c) Ensuring that resource objectives are complementary across administrative boundaries; and

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~~b)~~d) Ensuring that effects of activities on the whole of a resource are considered when that resource is managed by sub-units.

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Policy 2.3.3 Applying integrated management to freshwater catchments ~~Applying an integrated management approach for freshwater catchments~~

Comment [D13]: More direct

Apply ~~an~~ integrated management ~~approach~~ to activities in freshwater catchments or landscapes, that ~~by~~:

a) Achieve~~Using~~ consistent freshwater objectives for interconnected water bodies; and

b) Recognise~~ing~~ the importance of river morphology, catchment hydrology, natural processes and land cover in supporting catchment value and services ~~s~~; and

c) Coordinate~~ing~~ the management of land use and freshwater, to:

i. ~~Main~~Sustain and ~~or~~ enhance freshwater values; and

ii. ~~Main~~Sustain and~~or~~ enhance the wetland values; and

iii. ~~Main~~Sustain and~~or~~ enhance the values of beds of rivers and lakes, wetlands, and their margins; and

iv. Reduce the potential for health and nuisance effects

v. Facilitate the achievement of other objectives and policies in this plan.

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Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Policy 2.3.4 Applying integrated management for the coastal environment ~~Applying an integrated management approach for the coastal environment~~

Apply ~~an~~ integrated management ~~approach~~ to activities that impact ~~in~~ the coastal environment, that~~by~~:

a) Recognis~~e~~ing the importance of coastal morphology, coastal processes and land cover in supporting the value and services of the coastal environment- and associated marine ecosystems~~values~~; and

b) Coordinat~~e~~ing the management of land use, freshwater, and coastal water, to:

i. Maintain or enhance coastal values; and

ii. Reduce the potential for health and nuisance effects.

iii. Facilitate the achievement of other objectives and policies in this plan

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Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Policy 2.3.5 Applying management to airsheds ~~Applying an integrated management approach for airsheds~~

Apply ~~an~~ integrated management ~~approach~~ to activities that affect air quality, by:

a) Set~~ting~~ emission standards for airsheds that take into account foreseeable demographic changes, and their effects on cumulative emissions; and

b) Co-ordinat~~e~~ing the management of land use and air quality, to:

i. Maintain or enhance air quality values; and

ii. Reduce the potential for adverse health and nuisance effects.

iii. Facilitate the achievement of other objectives and policies in this plan

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

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

PART B Chapter 3 Communities in Otago are resilient, safe and healthy

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

Ensuring Otago's communities develop having regard to environmental constraints, the effects of activities on the environment, and are designed in way which helps us to prepare for, respond, recover and adapt to such disruptions, will help make Otago's communities more resilient.

Chapter overview:

Objective 3.1 **Protection, use and development of natural and physical resources recognises environmental constraints** and acts according to the precautionary principle	
Issue: Activities that are undertaken without regard to the~~ir~~ wider ~~local~~ environment, including the global context, are at greater risk of overreaching that environment's ~~ability~~capacity to sustain the activity.	*Need:* We need to manage our activities with regard to constraints to improve our resilience.
Objective 3.2 **Risk 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. Sometimes, it is difficult and costly for a community to recover from a hazard event.	*Need:* While many of these events are beyond our control, we need to reduce their potential impacts on people's safety, health and wellbeing and their likelihood.
Objective 3.3 **Otago's communities are prepared for and able to adapt to the effects of climate change**	
Issue: Climate change will~~is expected to~~ bring higher sea levels and an increased frequency of climate-related natural hazard events, ~~which will~~ increasing~~e~~ the risk ~~that~~ Otago's communities face.	*Need:* We need to have consistent guidance on sea level rise and~~,~~ extreme whether events and ~~manage~~management~~ing~~ for adverse effects that will extend~~occur~~ beyond the life of this RPS.
Objective 3.4 ~~Good quality~~ Reliable **infrastructure and services meet community needs**	
Issue: Aging ~~and~~ sub-standard, or inadequate infrastructure risks creating safety, health and access problems, and as a consequence, threatens community resilience.	*Need:* Infrastructure needs to meet community, business, and environmental needs. We need lifeline utilities and essential and emergency services that are able to operate through disruptive events.
Objective 3.5 **Infrastructure of regional and national significance is managed in a sustainable way**	
Issue: Infrastructure of regional and national significance may result in local adverse environmental impacts, or adversely affect other	*Need:* We need infrastructure of regional and national significance that operates efficiently and effectively, and

nationally important values. Some infrastructure can only be located in particular areas, and it may not always be possible to avoid significant adverse effects.	recognises other values, including local impacts.
Objective 3.6 **Energy supplies to Otago's communities are secure 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.	*Need:* To reduce exposure to this issue wWe need to minimise ~~reduce~~ our dependency on fossil fuels and improve our energy resilience and efficiency of use.
Objective 3.7 **Urban areas are well designed, sustainable and reflect local character**	
Issue: In the past, urban development has not always had regard to the local environment, or considered the access and mobility needs for different people or energy efficiency. There are high costs to improve buildings and infrastructure to meet modern standards and new housing is beyond the means of a significant proportion of the community.	*Need:* We need communities that are designed to improve our quality of life and resilience and create more attractive opportunities for sustainable business ~~investment.~~ We need infrastructure that meets modern standards, is energy and material efficient, is future-proofed, and is affordable.
Objective 3.8 **Urban developmentgrowth is well designed and integrates effectively with adjoining urban and rural environments**	
Issue: Unplanned urban growth risks exceeding the carrying capacity of existing infrastructure and services, adversely affecting community resilience. Sometimes, unplanned growth places pressure on adjoining productive land, and risks losing connectivity with adjoining urban areas and undermines rural and landscape amenity.	*Need:* We need urban develoment to be well-designed and integrated ~~urban growth,~~ to achieve effective and affordable infrastructure, and improve resilience. We need to make the best use of our natural and physical resources and reduce the effects of unplanned developmentgrowth.
Objective 3.9 **Hazardous substances and waste materials do not harm human health or the quality of the environment in Otago**	
Issue: Waste materials risk creating adverse effects on the environment. Hazardous substances have adverse effects on community health and safety.	*Need:* We need to make the best use of our resources and minimise the materials disposed of as waste. We need to carefully manage waste

	materials and hazardous substances to avoid creating environmental problems or adversely affecting human health.

Objective 3.1 Protection, use and development of natural and physical resources recognises environmental constraints and acts according to the precautionary principle

As a community, we are highly dependent on the resources available to us. When undertaking activities it is therefore important to consider the environmental context we operate within and develop accordingly. For example, there should be sufficient water supply available for a proposed activity.

Recognition	Policy 3.1.1 Recognising natural and physical environmental constraints and limits and acts accordingly

Policy 3.1.1 Recognising natural and physical environmental constraints and limits and acts accordingly

Identify ~~Recognise~~ the natural and physical environmental constraints and limits likely to affect ~~of~~ an area, the likely effects of those constraints on activities, and the likely effects of those activities on those constraints, including:

a) The availability of natural resources necessary to sustain the activity; and
b) The ecosystem services the activity is dependent on; and
c) The sensitivity of the natural and physical resources to adverse effects from the proposed activity/land use; and
d) Exposure of the activity to natural and technological hazards or risks; and
e) The functional necessity for the activity to be located where there are significant constraints.

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Objective 3.2 Risk that natural hazards pose to Otago's communities are minimised

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

Natural hazards can also be exacerbated. For example, an increase in the extent of hard surfaces increases stormwater runoff, which can exacerbate flooding and erosion. Accordingly it is prudent to act now rather than letting risk increase. Natural hazards should be identified and managed appropriately, so that risk of avoidable social and economic harm to communities is reduced as much as possible.

Assessment	Policy 3.2.1 Identifying and monitoring natural hazards
	Policy 3.2.2 Assessing natural hazard likelihood
	Policy 3.2.3 Assessing natural hazard consequence
Management	Policy 3.2.4 Managing natural hazard risk
	Policy 3.2.5 Assessing activities for natural hazard risk
	Policy 3.2.6 Avoiding increased natural hazard risk
	Policy 3.2.7 Reducing existing natural hazard risk
	Policy 3.2.8 Applying the ~~a~~ precautionary principle across all policies ~~approach~~
Mitigation	Policy 3.2.9 Protecting features and systems that provide hazard mitigation
	Policy 3.2.10 Mitigating natural hazards
	Policy 3.2.11 Locating hard mitigation measures

Policy 3.2.1 Identifying and monitoring natural hazards

Identify natural hazards that may adversely affect Otago's communities, including hazards of low likelihood and high consequence. Monitor the cause, risk and occurrence of natural hazards using appropriate indicators.

Method 2: Regional, City and District Council Relationships

Method 6: Research, Monitoring and Reporting

Policy 3.2.2 Assessing natural hazard likelihood

Assess the likelihood of natural hazard events occurring, having regard to a timeframe of no less than 100 years, including by considering:

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 on the hazard;
e) Using the best available information for calculating likelihood;
f) Exacerbating factors.

Method 2: Regional, City and District Council Relationships

Method 6: Research, Monitoring and Reporting

Policy 3.2.3 Assessing natural hazard consequence

Assess the consequences of natural hazard events, including by considering:

a) The nature of activities in the area;
b) Individual and community vulnerability;
c) Impact on individual and community health and safety;
d) Impact on social, cultural and economic wellbeing;
e) Impact 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.

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Method 2: Regional, City and District Council Relationships

Method 6: Research, Monitoring and Reporting

Policy 3.2.4 Managing natural hazard risk

Manage natural hazard risk, including with regard to:

a) The risk they pose, considering the likelihood and consequences of natural hazard events; and
b) The implications of residual risk, including the risk remaining after implementing or undertaking risk reduction and hazard mitigation measures; and

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; and
d) The changing nature of tolerability and risk; and
e) Sensitivity of activities to risk.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 11: Advocacy and Facilitation

Policy 3.2.5 Assessing activities for natural hazard risk

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

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Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Policy 3.2.6 Avoiding increased natural hazard risk

Avoid increasing natural hazard risk, including by:
a) Avoiding activities that significantly increase risk, including displacement of risk off-site; and
b) Encouraging design that facilitates:
   i. Recovery from natural hazard events; or
   ii. Relocation to areas of lower risk.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 11: Advocacy and Facilitation

Policy 3.2.7 Reducing existing natural hazard risk

Reduce existing natural hazard risk, including by:

a) Promoting ~~Encouraging~~ activities that:
   i. Reduce risk; or
   ii. Reduce community vulnerability; and

b) Discourage~~ing~~ activities that are potentially of low impact and prohibit activities which are of potentially of high impact when those activites:
   i. Increase risk; or
   ii. Increase community vulnerability; and

c) Considering the use of exit strategies for areas of significant risk; and

d) Encouraging design that facilitates:
   i. Recovery from natural hazard events or
   ii. Relocation to areas of lower risk; and

e) Relocating or promoting the relocation of lifeline utilities, and facilities for essential and emergency service, to areas of reduced risk, where appropriate and practicable; and

f) Enabling development, upgrade, maintenance and operation of lifeline utilities and facilities for essential and emergency services that are sustainable; and

g) Re-assessing natural hazard risk, and community tolerance of that risk, following significant natural hazard events and taking these into account in planning decisisons.

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 11: Advocacy and Facilitation

Policy 3.2.8 Applying the ~~a~~ precautionary principle across all policies ~~approach~~

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

For the purposes of this plan the **precautionary principle** and approach means that if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of

extensive scientific consensus that the action or policy is not harmful, the burden of proof that it is *not* harmful falls on those taking an action.

The principle implies that there is social responsibility to protect the public from exposure to harm, when scientific investigation has found a plausible risk. These protections can be relaxed only if further scientific findings emerge that provide sound evidence that no harm will result.

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.2.9 Protecting features and systems that provide hazard mitigation

Protect, restore, enhance and promote the use of natural or modified features and systems, which contribute to mitigating the effects of both natural hazards and climate change.

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.2.10 Mitigating natural hazards

Give preference to risk avoidance or risk ~~management~~ minimization approaches that reduce the need for hard mitigation interventions~~measures~~ or similar engineering interventions, and provide for hard mitigation intervention ~~measures~~ only when:

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

Method 3: Regional Plans

Method 4: City and District Plans

Method 8: Education and Information

Method 10: Service provision

Policy 3.2.11 Locating hard mitigation measures

Enable the location of hard mitigation measures or similar engineering interventions on public land only when:

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

Method 3: **Regional Plans**

Method 4: **City and District Plans**

Method 8: **Education and Information**

Objective 3.3 Otago's communities are prepared for and able to adapt to the effects of physical limits that can not be avoided or mitigated ~~climate change~~

In Otago, climate change will bring higher sea levels and may increase the frequency and severity of climate related natural hazards. 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.

On the other hand there may be benefits from higher temperatures such as opportunities for growing different crops and reduced demand for heating in winter.

The effects of climate change on Otago will result in social, environmental and economic costs, and benefits in some circumstances. Therefore it is prudent that they be considered and planned for now, so that those impacts can be reduced and benefits enhanced.

Mitigation	Policy 3.3.1 Identify physical limits that pose risks
	Policy 3.3.1 Actively mitigate those risks that are serious
Adaptation	Policy 3.3.~~3~~4 Adapting to, or mitigating the effects of, sea level rise
	Policy 3.3.~~4~~2 Adapting to, ~~or mitigating~~ the effects of physical limits that can not be adequately mitigated~~. climate change~~

Comment [D14]: Only adapting to insidious and ongoing trends that pose a risk is living on borrowed time.

Policy 3.3.1 Adapting to, or mitigating the effects of, sea level rise

Comment [D15]: See proposed alternations to the policies in the above table

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.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.3.2 Adapting to, or mitigating the effects of, climate change

Comment [D16]: See proposed alternations to the policies in the above table

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

a) Taking into account the effects of climate change, including by using the best relevant climate change data; and

b) Applying a precautionary approach to assessing the effects of climate change, where there is scientific uncertainty and potentially significant or irreversible effects; and

c) Encouraging activities that assist to reduce or mitigate the effects of climate change.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 6: Research, Monitoring and Reporting

Method 7: Strategies and Plans (non-RMA)

Method 11: Advocacy and Facilitation

Objective 3.4 Sustainable ~~Good quality~~ infrastructure and services meet community needs

It is essential for Otago's economy and the wellbeing and health and safety of its communities, that the people of Otago are serviced by the right infrastructure at the right time. Some infrastructure is provided by local authorities (such as water supply, waste water and stormwater), while others are managed by private companies.
Local authorities have a role to play, to ensure that the local and regional infrastructure needs are being met.

Integration	Policy 3.4.1 Integrating infrastructure with land use
Management	Policy 3.4.2 Managing infrastructure activities to maximise benefit and minimize adverse effects
Lifelines	Policy 3.4.3 Designing lifeline utilities and facilities for essential or emergency services
	Policy 3.4.4 Managing hazard mitigation measures, lifeline utilities, and essential and emergency services

Policy 3.4.1 Integrating infrastructure with land use

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

a) Recognising functional needs of infrastructure of regional or national importance; and
b) Designing infrastructure to take into account:
   i. Actual and reasonably foreseeable land use change; and
   ii. The current population and projected demographic changes; and
   iii. Actual and reasonably foreseeable change in supply of, and demand for, infrastructure services; and
   iv. Natural and physical resource constraints; and
   v. Effects on the values of natural and physical resources; and
   vi. Co-dependence with other infrastructural services; and
   vii. The effects of climate change on the long term viability of that infrastructure; and
c) Managing urban growth:
   i. Within areas that have sufficient infrastructure capacity; or
   ii. Where infrastructure services can be upgraded or extended efficiently and effectively; and
d) Co-ordinating the design and development of infrastructure with the staging of land use change, including with:
   i. Structural design and release of land for new urban development; or

ii. Structural redesign and redevelopment within existing urban areas.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 10: Service Provision

Method 11: Advocacy and Facilitation

Policy 3.4.2 Managing infrastructure activities to maximise benefit and minimize adverse effects

Manage infrastructure activities, to:

a) Maintain or enhance the health and safety of the community; and
b) Reduce adverse effects of those activities, including cumulative adverse effects on natural and physical resources; and
c) Support economic, social and community activities; and
d) Improve efficiency of use of natural resources; and
e) Protect infrastructure corridors for infrastructure needs, now and for the future; and
f) Increase the ability of communities to respond and adapt to emergencies, and disruptive or natural hazard events; and
g) Protect the functioning of lifeline utilities and essential or emergency services.

Method 3: Regional Plans

Method 4: City and District Plans

Method 10: Service provision

Policy 3.4.3 Designing lifeline utilities and facilities for essential or emergency services

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 10: Service provision

Method 11: Advocacy and Facilitation

Policy 3.4.4 Managing hazard mitigation measures, lifeline utilities, and essential and emergency services

Protect the functioning of hazard mitigation measures, lifeline utilities, and essential or emergency services, including by:

a) Restricting the establishment of those activities that may result in reverse sensitivity effects; and

b) Avoiding significant adverse effects on those measures, utilities or services; and

c) Avoiding, remedying or mitigating other adverse effects on those measures, utilities or services; and

d) Assessing the significance of adverse effects on those measures, utilities or services, as detailed in Schedule 3; and

e) Maintaining access to those measures, utilities or services for maintenance and operational purposes; and

f) Managing other activities in a way that does not foreclose the ability of those mitigation measures, utilities or services to continue functioning.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 10: Service provision

Method 11: Advocacy and Facilitation

Objective 3.5 Infrastructure of national and regional significance is managed in a sustainable way

Infrastructure of national and regional significance, including roads, rail, electricity generation and transmission, and telecommunication, are part of a national network, and contribute to the economic and social wellbeing of the nation.
It is important to recognise the benefits of this infrastructure, such as to the economy and to achieving community resilience, as well as managing any adverse effects on Otago's natural resources.

Recognition	Policy 3.5.1 Recognising national and regional significance and effects of infrastructure
Management	Policy 3.5.2 Managing adverse effects of infrastructure that has national or regional significance to minimize adverse effects
	Policy 3.5.3 Protecting infrastructure of national or regional significance where community cost does not exceed community benefit

Policy 3.5.1 Recognising national and regional significance and effects of infrastructure

Recognise the national and regional significance of the following infrastructure:

a) Renewable electricity generation facilities, where they supply the national electricity grid and local distribution network; and
b) Electricity transmission infrastructure; and
c) Telecommunication and radio communication facilities; and
d) Roads classified as being of national or regional importance; and
e) Ports and airports; and
f) Structures for transport by rail.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Policy 3.5.2 Managing adverse effects of infrastructure that has national or regional significance to minimize adverse effects

Minimise adverse effects from infrastructure that has national or regional significance, by:

a) Giving preference to avoiding their location in:
   i. Areas of significant indigenous vegetation and significant habitats of indigenous fauna; and
   ii. Outstanding natural features, landscapes and seascapes; and
   iii. Areas of outstanding natural character; and
   iv. Outstanding water bodies or wetlands; and
b) Where it is not possible to avoid locating in the areas listed in a) above, avoiding significant adverse effects on those values that contribute to the significant or outstanding nature of those areas; and
c) Avoiding, remedying or mitigating other adverse effects on values; and
d) Assessing the significance of adverse effects on those values, as detailed in Schedule 3; and
e) Considering the use of offsetting, or other compensatory measures, for residual adverse effects on indigenous biodiversity.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 11: Advocacy and Facilitation

Policy 3.5.3 Protecting infrastructure of national or regional significance where community cost does not exceed community benefit

Protect infrastructure of national or regional significance, by:

a) Restricting the establishment of activities that may result in reverse sensitivity effects; and
b) Avoiding significant adverse effects on the functional needs of such infrastructure; and
c) Avoiding, remedying or mitigating other adverse effects on the functional needs of such infrastructure; and
d) Assessing the significance of adverse effects on those needs, as detailed in Schedule 3; and
e) Protecting infrastructure corridors for infrastructure needs, now and for the future.

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Objective 3.6 Energy supplies to Otago's communities are secure and sustainable

The social and economic well-being of Otago's people, and their health and safety, is dependent on their energy needs being met by a reliable and secure supply of energy. More efficient energy uses, and a greater diversity of energy sources has the potential to increase community resilience, while increasing our ability to sustain economic development~~growth~~.

In particular, Otago's reliance on fossil-based transport fuels must ~~could~~ be reduced in the medium to long term through more efficient or alternative transport fuels better urban planning for access and public transport.

Supply	Policy 3.6.1 Using ~~existing~~ renewable electricity generation structures and facilities
Promotion	Policy 3.6.2 Promoting and incentivising demand side management and small scale renewable electricity generation
Efficiency	Policy 3.6.3 Protecting the generation capacity of renewable electricity generation activities where community cost does not exceed community benefit
	Policy 3.6.4 Promoting electrification of public transport systems including the main trunk railway ~~Enabling more efficient transport of electricity~~
	Policy 3.6.5 Requiring efficient ~~Protecting~~ electricity distribution infrastructure and effective demand side management
	Policy 3.6.6 Reducing ~~long term~~ demand for fossil fuels

Policy 3.6.1 Using existing renewable electricity generation structures and facilities

Give preference to the use of existing structures or facilities to increase the region's renewable electricity generation capacity over developing new structures in new locations.

Method 3: Regional Plans

Method 4: City and District Plans

Method 11: Advocacy and Facilitation

Policy 3.6.2 Promoting small scale renewable electricity generation

Promote small scale renewable electricity generation activities that:

a) Increase the local community's resilience and security of energy supply; and

b) Avoid, remedy or mitigate adverse effects from that activity.

Method 11: Advocacy and Facilitation

Policy 3.6.3 Protecting the generation capacity of renewable electricity generation activities

Protect the generation capacity of nationally or regionally significant renewable electricity generation activities, by:

a) Recognising the functional needs of renewable electricity generation activities, including physical resource supply needs; and

b) Restricting the establishment of those activities that may result in reverse sensitivity effects; and

c) Avoiding, remedying or mitigating adverse effects from other activities on the functional needs of that infrastructure; and

d) Assessing the significance of adverse effects on those needs, as detailed in Schedule 3.

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.6.4 Enabling more efficient transport of electricity

Enable electricity transmission and distribution infrastructure activities that:

a) Maintain or improve the security of supply of electricity; or

b) Enhance the efficiency of transporting electricity; and

c) Avoid, remedy or mitigate adverse effects from that activity.

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.6.5 Protecting electricity distribution infrastructure

Protect electricity distribution infrastructure, by:

a) Recognising the functional needs of electricity distribution activities; and
b) Restricting the establishment of those activities that may result in reverse sensitivity effects; and
c) Avoiding, remedying or mitigating adverse effects from other activities on the functional needs of that infrastructure; and
d) Assessing the significance of adverse effects on those needs, as detailed in Schedule 3; and
e) Protecting existing distribution corridors for infrastructure needs, now and for the future.

Method 3: Regional Plans

Method 4: City and District Plans

Method 11: Advocacy and Facilitation

Policy 3.6.6 Reducing ~~long term~~ demand for fossil fuels

Comment [D17]: This policy currently proposes a suite of weakly-worded planning measures with very limited emphasis on public transport. It needs a radical rethink to reflect urgent need to reduce GHG and integrate accordingly with other polices

Reduce the ~~long term~~ demand for fossil fuels from Otago's communities, by:

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

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 11: Advocacy and Facilitation

Objective 3.7 Urban areas are well designed, sustainable and reflect local character

The quality of our urban environment can affect quality of life and community viability. We need built environments that relate well to their surroundings, have easy connectivity and access to key services, and reflect the distinctive character of their locality. Poor quality or badly co-ordinated development presents risks socially, environmentally, and economically. Integrating the natural environment into our urban areas has been shown to achieve multiple benefits. Ideally, urban environments are permeable for environmental systems – blue and green corridors and urban design choices can allow natural processes to continue through and around our everyday activities with minimal adverse impact to either.

Design	Policy 3.7.1 Using the principles of sustainable ~~good~~ urban design
	Policy 3.7.2 Requiring ~~Encouraging~~ use of low impact design techniques
	Policy 3.7.3 Requiring d~~D~~esign~~ing~~ for sustainable and energy efficient ~~warmer~~ buildings
	Policy 3.7.4 Requiring d~~D~~esign~~ing~~ for easy ~~good~~ access in public spaces

Policy 3.7.1 Using the principles of good urban design

Encourage the use of good urban design principles in subdivision and development in urban areas, as detailed in Schedule 6, to:

a) Provide a resilient, safe and healthy community, including through use of crime prevention through environmental design principles; and

b) Ensure that the built form relates well to its natural environment, including by:
   i. Reflecting natural features such as rivers, lakes, wetlands and topography; and
   ii. Providing for ecological corridors in urban areas; and
   iii. Protecting areas of indigenous biodiversity and habitat for indigenous fauna; and
   iv. Encouraging use of low impact design techniques; and
   v. Encouraging construction of warmer buildings; and

c) Reduce risk from natural hazards, including by avoiding areas of significant risk; and

d) Ensure good access and connectivity within and between communities; and

e) Create a sense of identity, including by recognising features of heritage and cultural importance; and

f) Create areas where people can live, work and play, including by:
   i. Enabling a diverse range of housing, commercial, industrial and service activities; and
   ii. Enabling a diverse range of social and cultural opportunities.

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

Method 4: **City and District Plans**

Method 5: **Regional Policy Statement**

Method 7: **Strategies and Plans (non-RMA)**

Method 8: **Education and Information**

Method 11: **Advocacy and Facilitation**

Policy 3.7.2 Encouraging use of low impact design techniques

Encourage the use of low impact design techniques in subdivision and development, to:

a) Reduce potential adverse environmental effects, including on water and air quality; or
b) Mitigate the effects of natural hazards and climate change; or
c) Enhance amenity; or
d) Enhance habitat for indigenous species and biodiversity values.

Method 4: **City and District Plans**

Method 8: **Education and Information**

Method 11: **Advocacy and Facilitation**

Policy 3.7.3 Designing for warmer buildings

Encourage the design of subdivision and development to reduce the adverse effects of Otago's colder climate, and higher demand and costs for energy, including by:

a) Maximising passive solar gain; and
b) Insulating to warmer standards than those set under building legislation.

Method 4: **City and District Plans**

Method 8: **Education and Information**

Method 11: **Advocacy and Facilitation**

Policy 3.7.4 Designing for good access in public spaces

Design public spaces, including streets and open spaces, to meet the reasonable access and mobility needs of all sectors within the community, including the young and those with mobility impairments.

Method 4: **City and District Plans**

Method 7: **Strategies and Plans (non-RMA)**

Method 8: **Education and Information**

Method 11: Advocacy and Facilitation

Objective 3.8 Urban development ~~growth~~ is well designed and integrates efficiently~~effectively~~ with adjoining urban and rural environments

Well planned urban growth 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 community infrastructure and supports social infrastructure such as health care and educational facilities. This can also reduce pressure on the surrounding productive and natural environment.

Managing development~~growth~~	Policy 3.8.1 Managing for urban development~~growth~~
	Policy 3.8.2 Controlling development ~~growth~~ where there are identified urban development ~~growth~~ boundaries or future urban development areas
	Policy 3.8.3 Managing fragmentation of rural land

Policy 3.8.1 Managing for urban growth

Manage urban growth and creation of new urban land in a strategic and co-ordinated way, by:

a) Ensuring there is sufficient residential, commercial and industrial land capacity, to cater for demand for such land, projected over at least the next 10 years; and

b) Co-ordinating urban growth and extension of urban areas with relevant infrastructure development programmes, to:
   i. Provide infrastructure in an efficient and effective way; and
   ii. Avoid additional costs that arise from unplanned infrastructure expansion; and

c) Identifying future growth areas that:
   i. Minimise adverse effects on rural productivity, including loss of highly valued soils or creating competing urban demand for water and other resources; and
   ii. Maintain or enhance significant biodiversity, landscape or natural character values; and
   iii. Maintain important cultural or heritage values; and
   iv. Avoid land with significant risk from natural hazards; and

d) Considering the need for urban growth boundaries to control urban expansion; and

e) Ensuring efficient use of land; and

f) Requiring the use of low or no-emission heating systems in buildings, when ambient air quality in or near the growth area is:
   i. Below standards for human health; or
   ii. Vulnerable to degradation given the local climatic and geographical context; and

g) Giving effect to the principles of good urban design, as detailed in Schedule 6; and

h) Giving effect to the principles of crime prevention through environmental design.

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

Method 4: **City and District Plans**

Method 5: **Regional Policy Statement**

Method 6: **Research, Monitoring and Reporting**

Method 7: **Strategies and Plans (non-RMA)**

Policy 3.8.2 Controlling growth where there are identified urban growth boundaries or future urban development areas

Where urban growth boundaries, as detailed in Schedule 8, or future urban development areas, are needed to control urban expansion, control the release of land within those boundaries or areas, by:

a) Staging development, using identified triggers to release new stages for development; or

b) Releasing land in a way that ensures a logical spatial development, and efficient use of existing land and infrastructure before new land is released; and

c) Avoiding urban development beyond the urban growth boundary or future urban development area.

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

Method 4: **City and District Plans**

Method 5: **Regional Policy Statement**

Method 7: **Strategies and Plans (non-RMA)**

Policy 3.8.3 Managing fragmentation of rural land

Manage subdivision, use and development of rural land, to:

a) Avoid development or fragmentation of land which undermines or forecloses the potential of rural land:
   i. For primary production; or
   ii. In areas identified for future urban uses; or
   iii. In areas having the potential for future comprehensive residential development; and

b) Have particular regard to whether the proposal will result in a loss of the productive potential of highly versatile soil, unless:
   i. The land adjoins an existing urban area and there is no other land suitable for urban expansion; and
   ii. Where highly versatile soils are needed for urban expansion, any change of land use from rural activities achieves an appropriate and highly efficient form of urban development; and
   iii. reverse sensitivity effects on rural productive activities can be avoided; and

c) Avoid unplanned demand for provision of infrastructure, including domestic water supply and waste disposal; and

d) Avoid creating competing demand for water or other resources.

Method 2: Regional, City and District Council Relationships

Method 4: City and District Plans

Method 5: Regional Policy Statement

Objective 3.9 Hazardous substances and waste materials do not harm human health or the quality of the environment in Otago

Waste materials are an end product of resource use and must be carefully managed to avoid creating environmental problems. Hazardous substances are dangerous but essential components of some activities. Hazardous substances and their waste should also be managed to avoid creating environmental problems or adversely affecting human health.

Integration	Policy 3.9.1 Integrating management of hazardous substances and waste
Hazardous substances	Policy 3.9.2 Managing the use, storage and disposal of hazardous substances, and the storage and disposal of waste materials
Contaminated land	Policy 3.9.3 Identifying contaminated land
	Policy 3.9.4 Managing the use of contaminated land
	Policy 3.9.5 Avoiding the creation of new contaminated land
Encouragement	Policy 3.9.6 Encouraging use of best management practices for hazardous substance use
	Policy 3.9.7 Encouraging services for hazardous substance collection, recycling and disposal

Policy 3.9.1 Integrating management of hazardous substances and waste

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

Method 7: Strategies and Plans (non- RMA)

Method 11: Advocacy and Facilitation

Policy 3.9.2 Managing the use, storage and disposal of hazardous substances, and the storage and disposal of waste materials

Manage the use, storage and disposal of hazardous substances, and the storage and disposal of waste materials, to avoid accidental spillage or release of those substances and materials, by:

a) Providing secure containment of those substances in case of accidental spillage; and

b) Minimising risk associated with natural hazard events; and
c) Avoiding adverse effects of those substances and materials on the health and safety of people, and on other values; and
d) Providing for the development of facilities to safely store, transfer, process, handle and dispose of hazardous waste and waste materials; and
e) Ensuring hazardous substances are treated or disposed at authorised facilities, in accordance with the relevant disposal instructions; and
f) Restricting the location of activities that may result in reverse sensitivity effects near:
    i. Authorised facilities for hazardous substance treatment or disposal; or
    ii. Waste transfer or disposal facilities.

Method 2: Regional, City and District Council Relationships

Method 3: Regional Plans

Method 4: City and District Plans

Method 7: Strategies and Plans (non-RMA)

Method 8: Education and Information

Method 10: Service provision

Method 11: Advocacy and Facilitation

Policy 3.9.3 Identifying contaminated land

Identify sites of known or potentially contaminated land in Otago.

Method 6: Research, Monitoring and Reporting

Method 8: Education and Information

Policy 3.9.4 Managing the use of contaminated land

Manage the use of contaminated land, to protect people and the environment from adverse effects, by:

a) Prior to subdivision or development of potentially contaminated land, requiring a site investigation is undertaken to determine the nature or extent of any contamination; and
b) Where there is contamination:
    i. Requiring an assessment of associated environmental risks; and
    ii. Remediating land; and
c) Considering the need for ongoing monitoring of contaminant levels and associated risks.

Method 2: Regional, City and District Council Relationships

Method 4: City and District Plans

Policy 3.9.5 Avoiding the creation of new contaminated land

Avoid the creation of new contaminated land.

Method 3: Regional Plans

Method 4: City and District Plans

Policy 3.9.6 Encouraging use of best management practices for hazardous substance use

Encourage the use of best management practices to prevent or mitigate adverse effects of the use of hazardous substances on the environment, including reducing their use.

Method 11: Advocacy and Facilitation

Policy 3.9.7 Encouraging services for hazardous substance collection, recycling and disposal

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

Method 10: Service provision

Method 11: Advocacy and Facilitation