# **Draft Regional Policy Statement**

## for the Wellington region

Quality for Life





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### **Chair's foreword**

Many of us think that there are too many policies and regulations in our lives. But every now and again one set makes real sense. I hope that you will find that this draft Regional Policy Statement is one of those exceptions.

Producing the Regional Policy Statement is a requirement of the Resource Management Act, so we had the option of taking a minimalist line and treating the Regional Policy Statement as simply a collection of general policies. However, the law requires that regional and district council plans give effect to the Regional Policy Statement, so the contents of this document will ultimately have a direct bearing on what you can do with (and on) your property and on what your local council does to enhance the environment of your community.

Because of this effect on the lives of all the citizens in our region, we tried to ensure that our approach was integrated and strategic, taking a holistic view of all the different areas of environmental impact.

A core requirement of the Resource Management Act is "sustainable management". We see this as managing natural and physical resources in the Greater Wellington region in a way that provides for the needs of the present without compromising the ability of future generations to meet their own needs. It is about respecting the environment and recognising our dependence on it, protecting the life force – mauri – of the ecosystem for the common good.

Sustainable management is neither anti-development nor anti-environment. It is about striking a balance where environmental, social and economic objectives can be achieved – but not at the expense of one another.

The draft Regional Policy Statement has been prepared following significant work in collaboration with the other councils in the Wellington region, and we are grateful for that input. Now is the opportunity for these councils and all the people of the region to see the draft document and give us further comments.

Hon Fran Wilde QSO Chair, Greater Wellington Regional Council

March 2008

# Chapter **One**

Promoting sustainable management of natural and physical resources in the Wellington region

1. Promoting sustainable management of natural and physical resources in the Wellington region

Hutia te rito o te harakeke. Kei hea te komako e ko?
Ki mai nei ki ahau. He aha te mea nui o te ao?
Maku e ki atu: He tangata, he tangata, he tangata.
If you were to pluck out the centre shoot of the flax bush, where would the bellbird sing?
If you were to ask me "What is the most important thing in the world?" I would reply, "it is people, people, people."

This whakatauki, or proverb, is a metaphor for nurturing and sustainably managing the environment for the good of all. It can be used to symbolise the role of the environment, family and community in nurturing the individual and environment. When harvesting flax, only the outer leaves are harvested to ensure regeneration of the plant. If the flax is not nurtured and protected, the bellbird, which relies on flax for survival, is threatened. Likewise, people are endangered if our natural and physical resources are not properly cared for.

#### 1.1 A sustainable region

The Regional Policy Statement is mandated by the Resource Management Act and it's purpose is to promote the sustainable management of natural and physical resources in the Wellington region. The definition of sustainable management in the Resource Management Act encapsulates the central idea of environmental sustainability — natural resources can be used and developed for people and communities to provide for their material wellbeing, but in a way that ensures resources and ecological systems retain their life-supporting capacity and are not overly degraded.

Since our land was first settled many centuries ago, the need to act in this way has been clear. The tangata whenua understood that the life force — mauri — of natural systems needed to be protected. If it was compromised by unwise resource use, this would also constitute a risk for the people dependent on those resources. The translation of this concept in modern science is reflected in the current approach to sustainability - taking into account the natural balance and interdependence of the many parts of the ecosystem.

There is a wide range of factors — political, social and economic — that can influence the region's move towards or away from sustainability. The Regional Policy Statement helps build sustainability by identifying the significant resource management issues of the region, then setting out objectives, policies and methods to address these issues using the means available under the Resource Management Act.

There are other regional and national policy documents that also play a significant role in contributing towards sustainability and that address social, economic, cultural and environmental issues for the region. Key documents prepared by Wellington Regional Council and the region's city and district councils are the Wellington Regional Strategy (the region's sustainable economic growth framework), the Regional Land Transport Strategy, and the Long-term Council Community Plans prepared by all local authorities.

So what would our region look like if we were managing our natural and physical resources sustainably? The outcomes listed below – and later described in more detail – are key qualities for a sustainable region. A sustainable Wellington region would:

- contain a range of healthy and functioning ecosystems
- sustain the mauri of natural resources in the region
- have clean and plentiful water
- have productive land that supports the region's needs for food and physical resources
- be self sufficient in its renewable energy generation and use
- be carbon neutral
- have well structured, designed, functioning and connected cities and towns that optimise people's sense of place and enhance their economic, social and cultural activities.

**Healthy functioning ecosystems** — In a sustainable region, natural resources and ecological systems are not exhausted and retain their life-supporting capacity for current and future generations. Ecosystems provide a myriad of values, resources and services that support human existence and are thus at the very core of the region's ecological sustainability. Related to ecosystems is biodiversity, which is the variability among living organisms, and the ecological complexes of which they are a part. There is considerable concern at the decline that has been occurring in native biodiversity nationally and regionally, and there are policies and methods in this Regional Policy Statement to address this decline. In the Wellington region we have substantially enhanced our wellbeing by increasing the capacity of ecosystems to provide some of these services (eg food production, farming). But we have also had adverse effects on these same systems.

**Sustaining mauri** — Mauri is the life force that exists in all things in the natural world, including people. It comprises both physical and spiritual qualities. Without mauri, nothing can survive. If the environment and people are to flourish, the mauri within all natural things must be protected and sustained. Mauri can be risked or harmed by resource use and actions. For example, the health and vitality of the sea, streams, and rivers and the plants and animals they support can be threatened by activities such as the discharges of pollutants, stormwater, and sewage. To guard against harm to mauri, management practices must respect this life force.

**Clean and plentiful water** — Clean and plentiful water is essential for people to drink and it is vital for our health. Stock require sufficient clean water and it is used for growing crops, irrigating land and in manufacturing and industrial production. The health of all ecosystems depends on water. It is vital to our region's ecological sustainability and to our future growth and prosperity. People also hold strong views about rivers, lakes, wetlands and streams. They value them highly and want to see them in good condition. Integrated management of water catchments is essential. The way we manage the land and its vegetative covering has the biggest bearing on the health of the region's waterways. Evidence shows a clear correlation between the amount of native bush in a catchment and the condition of its waterway or, to put it another way, the more land in a catchment that is farmed or urban, the poorer is the health of its water. Freshwater quality is also connected to the marine environment; some of our bathing beaches are no-go swimming areas after rain has washed pollution from the land upstream and deposited it in the sea. **Productive land that supports the region's needs for food and physical resources** — The 'productive capacity' of land is the ability of soil to support 'primary' production which, in ecological terms, means the growth of green plants. The productivity of land has a bearing on sustainability in a number of ways. Soil provides a base for growing food, livestock and timber. Carbon is sequestered in soil in amounts that far exceed that in the atmosphere, helping to maintain a stable climate. Soils also absorb, purify, retain, and channel water Land uses such as tree planting will allow us as a community to offset some of the carbon emissions we cannot otherwise reduce. The land is also a source of economic wealth for farmers, communities, and the region at large. Productive and successful farms support rural and urban communities and their way of life.

**Renewable energy generation and use** — Affordable, reliable energy underpins the lifestyle we enjoy: freedom and mobility to go where we want, hot water and heating in our homes, and power to run the many appliances and equipment we use in our domestic and working lives. Growth in demand for the electricity we use in our homes and business has led to greater reliance on fossil fuels to generate power, with resulting increases in greenhouse gas emissions. We are also increasingly vulnerable to energy supply disruptions. The Wellington region has enough renewable energy resources to support the region. However, appropriate use and management of such resources will be critical in meeting our lifestyle needs in the future. The Regional Policy Statement provides direction on the importance of renewable energy generation in the region, while also recognising that when proposals are considered, an overall case-by-case assessment needs to be made appreciating the benefits and the adverse effects on the environment.

**Carbon neutrality** — Climate change associated with global warming is a worldwide concern and is fundamental to global sustainability. It is affecting the social and economic development of the world. Central government is responsible for developing policies in response to issues such as the control of emissions, carbon trading, emissions from animals, and household and business use of fossil fuels. Businesses, households, and individuals must also take responsibility for reducing their own emissions. There are a large number of steps that can be taken, including:

- generating less waste (rotting landfill waste produces methane);
- using energy more efficiently in production processes and around the home (reducing the need for fossil fuel based power generation); and
- greater use of alternative energy sources (solar photovoltaic, solar hot water, employing biofuels in-fleet and private vehicles where available, and using 'carbon neutral' electricity).

Regional policy statements are limited in what they can direct in regard to climate change. We can aim to reduce emissions by reducing the use of fossil fuels for transport (investing in better public transport, encouraging more walking and cycling, reducing the need for travel, and more integrated land use). There are policies in this Regional Policy Statement to this effect. We can also plan for the consequences of climate change and adapt where and how we live to cope with the likely changes.

Well structured, designed, functioning and connected cities and towns — Wellington region's developed form is unusual in that it is relatively compact and development has followed two main transport corridors. This form creates a high quality lifestyle within towns and cities that complements their natural surroundings. However, unless the developed form of Wellington region is sustainably managed, the environmental values that make Wellington unique and attractive will be eroded. For example, if urban expansion is not based on existing or planned transport services, with appropriate densities in cities and towns, then expansion will create scattered communities with fewer local amenities/work opportunities and, consequently, more private vehicle trips. In most cases these will be long trips that will put

further pressure on the regional transport networks, with associated economic, social and environmental costs.

#### 1.2 Integrating management of our natural and physical resources

Management of human activities to sustain the potential of natural and physical resources and to sustain their mauri can only be achieved if there is integrated consideration of multiple resources and processes. One of the prime roles of the Regional Policy Statement is to integrate management of the natural and physical resources of the region as a whole, in response to issues of regional significance, including those issues of significance to iwi authorities.

But what does 'integrated management' really mean, and why is this so important?

Resources co-exist in the region. They interact with one another and are impacted on by the activities we undertake. Kaitiakitanga, the environmental guardianship practiced by tangata whenua and their ancestors, has its foundation in the world view that all life is connected. People are not superior to the natural order, they are part of it. The land, its origins and everything on it is therefore interrelated and connected. Land management, river management, and maintaining and developing transport or housing infrastructure all have effects on different resources and natural processes.

Integration needs to occur on a range of scales. The effects of activities can be local or extensive. For example, an industry may subject a local community to the effects of objectionable odour, while runoff from rural land into streams can have widespread adverse effects throughout the catchment and at the coast as well. Similarly, visual landscape effects may be significant for viewers some distance away. Catchments are often an appropriate scale for assessing effects because the effects are generally contained within a catchment and assume relevance to a definable community of interest. The relationships between resources and their configuration assume importance and meaning on a catchment scale.

Just as it is essential to manage resources in a 'joined up' way, it is also vital to involve people in a connected, meaningful way. Natural and physical resources are better managed when the social, economic and cultural factors that surround and drive them are taken into account. Decisions made about the management of resources are more effective and lasting if they are made on a communal basis. If it is to be successful, integrated management must recognise differing community and customary values, interests and aspirations.

Many agencies share the responsibility for providing direction to ensure resources are sustainably managed. To ensure that their objectives and policies are coherent and mutually supportive, it is essential that a common understanding of resource issues and sustainable management is shared. The processes adopted in dealing with day-to-day issues need to be closely aligned.

Wellington Regional Council and the region's city and district councils manage natural and physical resources on behalf of the community. Although legislation such as the Resource Management Act directs councils to perform certain functions and to manage defined resources, there is considerable discretion in terms of how this is to be achieved. In practical terms, councils make judgements about the appropriateness of a particular activity in a particular place. All places are part of a wider context and community. It is for the community to provide direction to the council on many of the effects arising from new activities. In attributing value to the environments in which people live, councils need to engage with communities and provide opportunity to comment on the management of resources. The Resource Management Act also charges councils with the responsibility of taking into account the principles of the Treaty of Waitangi when managing natural and physical resources. This includes the right of Maori to retain rangatiratanga and manage resources according to kaitiakitanga. The Regional Policy Statement for the Wellington region has a key role in integrating the management of natural and physical resources. It identifies the resource management issues of regional significance, recognising the shared responsibility and the need for a common understanding of issues. It then sets out objectives, policies and methods that recognise the interaction and connection between different resources, the range of scales in which an issue can be addressed and the need to consider the social, economic cultural and environmental factors alongside one another. Ultimately, however, the Regional Policy Statement focuses on the matters that it can influence to make progress towards a sustainable region.

#### 1.3 The Wellington region

The Regional Policy Statement for the Wellington region applies to the whole of the greater Wellington region. The region covers 813,005 hectares of land and has 497 kilometres of coastline. The following city and district councils have boundaries within the Wellington region:

- Kapiti Coast District Council
- Porirua City Council
- Wellington City Council
- Lower Hutt City Council
- Upper Hutt City Council
- South Wairarapa District Council
- Carterton District Council
- Masterton District Council.

A small part of Tararua District is also in the region. The region shares boundaries with Horowhenua District Council, Horizons (Manawatu-Wanganui) Regional Council and Marlborough District Council.

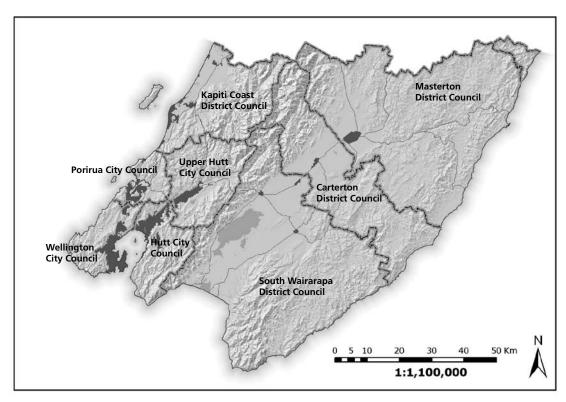


Figure 1: Wellington region and city and district council boundaries

There are five recognised tangata whenua tribal groups in the region. They are Ngati Raukawa, Ngati Toa, Rangitane, Ngati Kahungunu, and Taranaki Whanui, which includes Te Ati Awa, Taranaki, Ngati Tama and Ngati Ruanui.

These tribes are represented by the following seven iwi authorities.

#### Te Runanga o Raukawa Inc

Te Runanga o Raukawa covers the area from the most northern extent of the Ohau River south to Kowhai Stream near Pekapeka. Its tribal boundary extends beyond the Wellington region to Horowhenua and Manawatu districts and into Rangitikei.

#### Te Runanga o Atiawa ki Whakarongotai Inc

Te Runanga o Atiawa ki Whakarongotai covers the area from Pekapeka in the north to the Whareroa Stream in Queen Elizabeth Regional Park (near MacKay's crossing).

#### Te Runanga o Toa Rangatira Inc

Te Runanga o Toa Rangatira covers Porirua and extends north to Whareroa Stream and around the south coast of Wellington city. Ngati Toa also has interests in the top of the South Island.

#### Wellington Tenths Trust

The Wellington Tenths Trust covers the general metropolitan area of Wellington city and the interests of several tribes affiliated to the trust, including Ngati Tama, Taranaki, Ngati Ruanui and Te Atiawa.

#### Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui

Te Runanganui o Taranaki Whanui ki te Upoko o te Ika a Maui covers the interests of the same tribes as the Wellington Tenths Trust; however, they also cover the Hutt area up to the Rimutaka Ranges.

#### Kahungunu ki Wairarapa

Kahungunu ki Wairarapa covers the whole of the Wairarapa area. Kahungunu tribal interests extend as far north as Wairoa.

#### Rangitane o Wairarapa Inc

Rangitane o Wairarapa also covers the entire Wairarapa area. Rangitane also has tribal interests in Wairau (Marlborough), Tamaki Nui a Rua (Tararua) and Manawatu

#### 1.4 The purpose and content of the Regional Policy Statement

The Resource Management Act requires every regional council to prepare a regional policy statement.

The purpose of a regional policy statement is to achieve the purpose of the Resource Management Act by providing an overview of the resource management issues for the region, and policies and methods to achieve the integrated management of the natural and physical resources in the region.

The purpose of the Resource Management Act, as explored in sections 1.1 and 1.2, is to promote sustainable management of natural and physical resources.

Sustainable management is defined in the Resource Management Act as:

Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while:

- (*a*) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Natural and physical resources include land, water, air, soil, minerals and energy, all forms of plants and animals and all structures.

Section 62 of the Resource Management Act sets out the content of regional policy statements, as follows:

- (1) A regional policy statement must state:
  - (a) the significant resource management issues for the region; and
  - (b) the resource management issues of significance to -
    - (i) iwi authorities in the region; and
    - *(ii) the board of a foreshore and seabed reserve, to the extent that those issues relate to that reserve; and*
  - (c) the objectives sought to be achieved by the statement; and
  - (d) the policies in regard to the issues and objectives, and an explanation of those policies; and
  - (e) the methods (excluding rules) used, or to be used, to implement the policies; and
  - *(f) the principal reasons for adopting the objectives, policies and methods of implementation set out in the statement; and*
  - (g) the environmental results anticipated from implementation of the policies and methods; and
  - (*h*) the processes for dealing with issues that cross local authority boundaries, and issues between territorial authorities or between regions; and
  - (i) the local authority responsible in the whole or any part of the region for specifying the objectives, policies and methods for the control of the use of land -
    - (i) to avoid or mitigate natural hazards or any group of hazards;
    - *(ii) to prevent or mitigate the adverse effects of the storage and use, disposal, or transportation of hazardous substances; and*

(iii) to maintain indigenous biological diversity; and

- *(j) the procedures used to monitor the efficiency and effectiveness of policies or methods contained in the statement; and*
- (k) any other information required for the purpose of the regional council's functions, powers and duties under this Act.

## **1.5** The resource management policy and planning framework for Wellington region

The Resource Management Act provides for a framework of policy statements, standards and plans, each of which must achieve the purpose of the Act — promote sustainable management. The Resource Management Act also provides a framework where iwi management plans are taken into account when preparing a regional policy statement or plans. The functions of these various documents are outlined following Figure 2. How issues are handled when they cross jurisdictional boundaries is addressed in section 1.6.

#### National policy statements and national standards

National policy statements provide guidance on matters of national significance and are prepared by central government. A regional policy statement must give effect to a national policy statement.

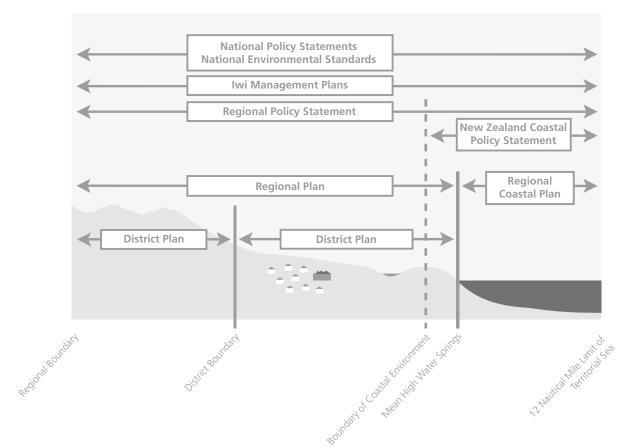


Figure 2: Resource management policy and planning framework for Wellington region

The New Zealand Coastal Policy Statement is the only mandatory national policy statement. It provides specific guidance on the management of the coastal environment and is prepared by the Minister of Conservation.

Central government may also prepare national environmental standards. National environmental standards provide central government with an opportunity to promote the adoption of consistent standards, requirements or recommended practices.

#### lwi management plans

An iwi management plan is a planning document recognised by an iwi authority and lodged with a regional, city or district council. Where relevant, councils must take these into account when preparing a regional policy statement, regional plan or district plan.

#### **Regional plans**

Regional plans must give effect to a regional policy statement and any national policy statement. Regional plans can contain rules that:

- control the use of land:
  - for soil conservation
  - for quality or quantity of water, or for ecosystems in water bodies and the coast
  - to avoid or mitigate natural hazards
  - to prevent or mitigate adverse effects from the storage, use, disposal or transportation of hazardous substances
- control the taking, use, damming, and diversion of water, and control the quantity, level and flow of water in any waterbody

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- control the discharges of contaminants into or onto land, air, or water
- control the harvesting or enhancement of aquatic organisms to avoid, remedy or mitigate effects
- allocate a natural resource.

The Resource Management Act requires a regional coastal plan to be prepared. Rules in a regional coastal plan promote integrated management of the coastal marine area.

All regional plans are prepared by regional councils.

#### **District plans**

All city and district councils must prepare district plans. Rules in district plans control the use of land, including subdivision. District plans must give effect to a regional policy statement and any national policy statements.

#### **1.6 Application of the Regional Policy Statement across physical and** jurisdictional boundaries

Natural and physical resources and processes do not stop at city, district or regional boundaries. Wellington Regional Council, the region's city and district councils, and neighbouring councils need processes to address issues that cross boundaries. Issues can be geographic or jurisdictional.

Wellington Regional Council and the region's city and district councils will promote consistent and integrated application of the objectives, policies and methods contained in this Regional Policy Statement. To this end, they will:

- Encourage agencies in the region to make provision, where appropriate, for the management of regionally significant resource issues in a manner consistent with objectives and policies stated in this document.
- Review district and regional plans to determine whether they have given effect to the Regional Policy Statement.
- Consult, where appropriate, with neighbouring regional councils over the preparation of plans prepared under the Resource Management Act.
- Promote a collaborative approach to managing resource consent applications where the request for a consent involves decisions to be taken by a city or district council, or Wellington Regional Council.
- Promote a collaborative approach to managing resource consent applications where the application site or effects arising from the proposed activity cross regional boundaries and have implications for adjoining local authorities.
- Investigate transferring and delegating powers, functions and duties to other authorities, including iwi authorities, where this will result in more effective or efficient resource management.

Wellington Regional Council and the region's city and district councils share some functions in accordance with the Resource Management Act. This is for the control of the use of land for the avoidance or mitigation of natural hazards; maintaining and enhancing indigenous biodiversity; and preventing or mitigating any adverse effects of the storage, use, disposal, or transportation of hazardous substances. The policies which describe how these responsibilities have been allocated are in chapter 3.3.

# Chapter **Two**

Issues, objectives and summary of policies and methods to achieve the objectives in the Regional Policy Statement



# 2.1 Air quality

Overall, the Wellington region has good air quality. This is because it has a windy climate, and there are few air polluting industries in the region. However, the region does experience localised air quality problems that impact on the amenity and health of the community and the mauri (life force) of air.

Some discharges to air are natural — for example, sea salt and wind blown dust — others are associated with people, for example smoke and gaseous discharges from fires, industries and motor vehicles.

Of those discharges associated with people:

- Our monitoring shows that discharges from motor vehicles in the region are not (so far) at concentrations that could adversely affect people's health.
- Industry discharges from sources such as light industrial plants, abrasive blasting, wood processing and factory farms can have localised adverse effects. Emissions from the industrial sector are concentrated around Seaview but are a minor contributor to air discharges at the regional level.
- Odours, smoke and dust from industry activities can reduce the amenity of an area, affect people's social and cultural wellbeing, create annoyance, and sometimes cause poor visibility. They can also deprive people of sleep and rest if they have prolonged exposure to the discharge, or it occurs frequently.

• The most polluting air contaminant in the Wellington region is fine particulate matter. In winter almost all of this comes from domestic fires.

The National Environmental Standard for Air Quality was introduced in 2005. It allows the threshold concentration for fine particulate matter (PM10) to be exceeded only once in a 12–month period in an airshed. The standard is breached when the threshold is exceeded more than once in a 12 month period.

In 2005, Wellington Regional Council divided the region into eight airsheds. These are Kapiti, Porirua, Upper Hutt, Lower Hutt, Wainuiomata, central Wellington, Karori and the Wairarapa.

Outdoor air quality monitoring has shown that during periods of cold calm weather, levels of fine particles build up in Upper Hutt, Wainuiomata, and the Wairarapa (specifically Masterton). On occasions, the levels of fine particulate material (PM10) have exceeded the National Environmental Standard for Air Quality. The Porirua, Karori and Kapiti airsheds have not been monitored for long enough to indicate whether air pollution there is similar.

The regionally significant issues for air quality are:

1. Impacts on amenity and wellbeing from odour, dust and smoke Reduced air quality from odour, dust and smoke affect amenity values and people's wellbeing. These effects are generally localised and include:

Table 1: Air quality Objective 1

- (a) Odour from industrial activities such as manufacturing and rendering, commercial activities such as spray painting and solvent use, landfills, sewage treatment plants and agricultural activities that reduce amenity.
- (b) Smoke from domestic fires and backyard burning, commercial activities and vehicles that reduce amenity and visibility.
- (c) Dust from earthworks, quarries, land clearance and industry that cause reduced amenity, visibility and the oiling of surfaces.

## 2. Health effects from the discharges of fine particulate matter

Fine particulate matter discharged from domestic fires, transport and industry occasionally reaches levels that can harm people's health. This happens in valleys and areas where levels of fine particles build up during periods of cold calm weather.

Table 1: Air quality Objective 2

Table 1: Air quality objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 1: Discharge of	Policy 1: Discourage new sensitive land		Method 1: District plan implementation	City and district councils	
odour, smoke and dust Discharges of odour, smoke and dust to air do not	uses near activities that emit odour, dust and smoke and land uses that emit odour, dust and smoke near sensitive		Method 6: Information and guidance on best practice techniques to prevent odour, dust and smoke	Wellington Regional Council and city and district councils	
adversely affect amenity values and people's wellbeing.	activities		Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	Wellington Regional Council* and city and district councils	
			Other related policies: Air quality (Table 1) policies 2 & 61; Energy, infrastructure and waste (Table 3) policies 8, 9, 10 & 11; Iwi resource management (Table 7) policies 45 & 46; Regional form (Table 10) policies 29, 30, 51, 52, 53, 54 & 69; Soils and minerals (Table 11) policy 57		
	Policy 2: Manage the discharge of odour, dust and smoke		Method 2: Regional plan implementation	Wellington Regional Council	
			Method 6: Information and guidance on best practice techniques to prevent odour, dust and smoke	Wellington Regional Council	
			Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	Wellington Regional Council* and city and district councils	
			Other related policies: Air quality (Table 1) policies 1 & 61; Energy, infrastruct resource management (Table 7) policies 45 & 46; Reg Soils and minerals (Table 11) policy 57		
Objective 2: Discharge of fine particulate matter	Policy 61: Reduce the effects of fine particulate matter from domestic fires		Method 7: Information and guidance on reducing air pollution and adopting cleaner forms of heating	Wellington Regional Council and city and district councils	
Human health is protected from unacceptable levels of fine particulate matter.			Method 26: Regional Action Plan to reduce fine particulate matter discharges	Wellington Regional Council* and city and district councils	
ine particulate matter.			Other related policies: Air quality (Table 1) policies 1 & 2; Energy, infrastruct	ure and waste (Table 3) policies 12 & 63	



## **2.2 Coastal environment**

From Otaki round to the Wairarapa, the region's coastal environment contains significant habitats for a wide variety of plants and animals, and also provides for a diverse range of human needs. The character ranges from the largely rural Wairarapa coast to the highly developed urban areas around Wellington and Porirua harbours. The Kapiti coast has sandy beaches, is experiencing rapid population growth and is an important recreational resource for the region. The south coast is rugged, yet because of its proximity to the Hutt valley and Wellington city, is a popular place to visit.

Tangata whenua have strong links with the coastal environment, value its mauri, its mana and all it offers. The region's identity and significance to Maori are closely intertwined with the coastal environment. Many sites within the coastal environment are associated with iwi histories, traditions and tikanga, eg mahinga maataitai (places to gather seafood) and tauranga waka (canoe landing places). Some of these sites embody spiritual and sacred values, such as urupa (burial places). Of particular concern to tangata whenua is the discharge of human and other wastes into the coastal environment, which is considered to destroy the mauri of the water body.

As well as its cultural importance, the coastal environment is important to the regional community for recreation and general enjoyment. Significant infrastructure, such as Centreport and the Cook Strait cable, is located in

the coastal environment. This infrastructure is essential to the community's economic and social wellbeing.

The Regional Policy Statement gives effect to the New Zealand Coastal Policy Statement, which provides a policy framework for the wet and dry parts of the coastal environment. This framework recognises the ecological, geographical, cultural, social, and economiclinks between land and sea, and the complementary responsibilities that different authorities have for coastal management.

The preservation of natural character in the coastal environment is a matter of national importance in the Resource Management Act. Matters that contribute to the natural character of the coastal environment include the ecosystems of escarpments, sand dunes, estuaries and saltmarshes; significant landscapes, seascapes, geological features, landforms, sand dunes, beach systems and sites of historic or cultural significance; and an area's amenity and openness, and in some places (such as the Wairarapa) remoteness.

Natural character of the coast is being lost through incremental loss and damage to coastal ecosystems including estuaries and saltmarshes, eg Waikanae estuary, Pauatahanui Inlet, and Motuwaireka Stream estuary at Riversdale. It has largely been lost in the built-up area of Wellington Harbour extending from Kaiwharawhara to the airport, in the reclaimed and highly developed Wellington

city area, and around the Onepoto Arm of Porirua Harbour. Areas that still have significant natural character are under increasing pressure for development, particularly in the Kapiti coast, Pauatahanui Inlet, and the Wairarapa coast.

The maintenance of public access to and along the coast is another matter of national importance in the Resource Management Act. Where land is publicly owned, public access can be enhanced by providing walking tracks and recreational areas. Where land is privately owned, city and district councils can take esplanade reserves or strips as part of subdivisions. To date, there has been no strategic planning in the region that has identified where public access should be enhanced. Where esplanade reserves and strips have been taken for public access, city and district councils sometimes struggle to maintain them. Even where there is legal access, it is not always aligned with access that is physically possible.

The coast is the final receiving environment for contaminants carried in streams and stormwater from rural and urban land uses. In addition there are four discharges of treated sewage effluent from the region's four main cities, numerous sewage 'overflow' discharges and other minor discharges. Sediment from earthworks is affecting coastal water quality and shellfish beds, and stormwater sediments contaminated with heavy metals are building up on the sea bed of Wellington and Porirua harbours to levels that could become toxic to aquatic life. High levels of microbial contamination in sewage and stormwater can make coastal water unsuitable for swimming and could transmit diseases to marine mammals.

Seawalls, vehicle use in the coastal environment, and earthworks are examples of activities that modify dunes, foreshores and the seabed. They cause adverse effects on natural physical and ecological processes that underpin the proper functioning of the coastal environment, including the coastal marine area.

The regionally significant issues for the coastal environment are:

## 1. Adverse effects on natural character of the coastal environment

Natural character of the region's coastal environment has been, and continues to be, adversely affected by activities such as earthworks, changes in land use and the placement of structures.

#### 2. Coastal water quality and ecosystems

Discharges of stormwater, sewage, sediment and other contaminants to the coast are adversely affecting the health of coastal ecosystems, the suitability of coastal water for recreation and shellfish gathering, mauri and amenity.

## 3. Human activities interfere with natural coastal processes

Human activities have modified and continue to interfere with natural physical and ecological coastal processes. For example:

- (a) Seawalls alter sediment movement along beaches and estuaries and can cause erosion problems in some areas, and deposition in others.
- (b) Sand dunes and dune vegetation are being destroyed by development, vehicles, and trampling by people and animals.
- (c) Some land uses and earthworks can cause increased rates of sedimentation in low energy receiving environments, smothering aquatic life, for example in Porirua Harbour.

#### 4. Public access to and along the coast, lakes and rivers

There have been inconsistent approaches to the taking of access strips or esplanade reserves as part of subdivisions. This has meant that public access to and along the coast, lakes and rivers is not always provided, or has been provided in places where people can not take advantage of it. Table 2: Coastal environment Objectives 3, 4 & 5 Table 10: Regional form Objective 27 Table 2: Coastal environment Objective 6 Table 6: Indigenous ecosystems Objective 16

Table 2: Coastal environment Objective 7 Table 9: Natural hazards Objectives 24 & 25

Table 2: Coastal environment Objective 8 Table 4: Fresh water Objective 8 Table 2: Coastal environment objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page		
Objective 3: Protection of	Policy 3: Protection of the values of		Method 1: District plan implementation	City and district councils			
significant areas Sites, habitats and features	nationally and regionally significant areas in the coastal environment		Method 2: Regional plan implementation	Wellington Regional Council			
in the region's coastal environment that are significant because of their			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils			
indigenous ecosystems or habitats of indigenous fauna, scenic, recreational, cultural, historical, scientific or landscape values are protected.			Other related policies: Coastal environment (Table 2) policies 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, waste and infrastructure (Table 3) policies 8 & 9; Fresh water (Table 4) policy 16; Historic heritage (Table 5) policies 20 & 21; Indigenous ecosystems (Table 6) policies 22 & 23; Iwi resource management (Table 7) policies 45 & 46; Landscape (Table 8) policies 24 & 25; Regional form (Table 10) policies 27, 51, 52, 53, 55 & 69; Soils and minerals (Table 11) policy 57				
	Policy 33: Coastal areas, features or landscapes		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils			
			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils			
			Other related policies: Coastal environment (Table 2) policies 3, 4, 5, 6, 7, 34, 3) policy 37; Fresh water (Table 4) policy 40; Historic hu 6) policy 44; Iwi resource management (Table 7) polici form (Table 10) policies 28, 29, 30, 51, 52, 53, 55 & 69;	eritage (Table 5) policy 43; Indigenous ecosys es 45, 46 & 67; Landscape (Table 8) policy 47;	stems (Table		
<b>Objective 4: Preservation</b>	Policy 3: Protection of nationally and regionally significant areas in the coastal environment		Method 1: District plan implementation	City and district councils			
of natural character of the coastal environment			Method 2: Regional plan implementation	Wellington Regional Council			
The natural character of the coastal environment is protected from the			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils			
adverse effects of inappropriate subdivision, use and development.			Other related policies: Coastal environment (Table 2) policies 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, waste and infrastructure (Table 3) policies 8 & 9; Fresh water (Table 4) policy 16; Historic heritage (Table 5) policies 20 & 21; Indigenous ecosystems (Table 6) policies 22 & 23; Iwi resource management (Table 7) policies 45 & 46; Landscape (Table 8) policies 24 & 25; Regional form (Table 10) policies 27, 51, 52, 53, 55 & 69; Soils and minerals (Table 11) policy 57				
	Policy 4: New subdivision, use and		Method 1: District plan implementation	City and district councils			
	development in the coastal environment		<b>Other related policies:</b> <b>Coastal environment</b> (Table 2) policies 3, 5, 7, 33, 34, 45 & 46; <b>Regional form</b> (Table 10) policies 27, 28, 29, 51) policies 32, 56 & 57	35, 36 & 50; <b>Iwi resource management</b> (Tabl 30, 31, 51, 52, 53, 54, 55 & 69; <b>Soils and min</b>	e 7) policies <b>erals</b> (Table		

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
Objective 4: Preservation of natural character of the	Policy 5: Identifying the landward extent of the coastal environment		Method 1: District plan implementation	City and district councils		
<b>coastal environment</b> (Continued)			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils		
			Other related policies:			
			Coastal environment (Table 2) policies 3, 4, 33, 34, 36 (Table 5) policy 20; Indigenous ecosystems (Table 6) po 46 & 67; Landscape (Table 8) policy 24; Natural hazard	licy 22; Iwi resource management (Table 7) poli	cies 45,	
	Policy 33: Coastal areas, features or landscapes		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils		
			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils		
			Other related policies:			
			Coastal environment (Table 2) policies 3, 4, 5, 6, 7, 34, 35, 36 & 50; Energy, waste and infrastructure (Table 3) policy 37; Fresh water (Table 4) policy 40; Historic heritage (Table 5) policy 43; Indigenous ecosystems (Table 6) policy 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policy 47; Regional form (Table 10) policies 28, 29, 30, 51, 52, 53, 55 & 69; Soils and minerals (Table 11) policy 57			
	Policy 34: Landward extent of the coastal environment		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils		
			Other related policies:			
			Coastal environment (Table 2) policies 3, 4, 5, 33, 36 & (Table 5) policy 20; Indigenous ecosystems (Table 6) po 46 & 67; Landscape (Table 8) policy 24; Natural hazard	licy 22; Iwi resource management (Table 7) poli	cies 45,	

Objective	Policies	Page	Methods	Implementation Page (* lead authority)	
<b>Objective 5: Restoration of</b> <b>degraded areas</b> Areas of the coastal	Policy 62: Restoration of natural character in the coastal environment		Method 8: Information and guidance on restoration and enhancement of degraded water bodies and the natural character of the coastal environment	Wellington Regional Council and city and district councils	
environment where natural character has been degraded are restored and rehabilitated.			Method 9: Information and guidance on use of indigenous species in the coastal environment	Wellington Regional Council* and city and district councils	
			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils	
			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	
			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural resources	Wellington Regional Council and city and district councils	
			Method 53: Practical and financial support for community restoration initiatives in the coastal environment and for rivers, lakes and wetlands	Wellington Regional Council and city and district councils	
			Other related policies: Coastal environment (Table 2) policies 3, 4, 5, 33, 34, 36 & 50; Fresh water (Table 4) policy 64; Indigenous ecosystems (Table 6) policy 66; Iwi resource management (Table 7) policy 67; Soils and minerals (Table 11) policy 71		
Objective 6: Maintain or enhance coastal water quality	Policy 6: Maintenance or enhancement of coastal water quality		Method 2: Regional plan implementation	Wellington Regional Council	
The quality of coastal waters is maintained or enhanced to a level that is suitable for contact recreation and the			<b>Other related policies:</b> <b>Coastal environment</b> (Table 2) policies 3, 4, 33, 34, 36 & 40 & 64; <b>Indigenous ecosystems</b> (Table 6) policies 23, 44 & 46; <b>Regional form</b> (Table 10) policies 27, 51, 52, 53, 50	4 & 66; Iwi resource management (Table 7) policies 45	
health and vitality of coastal and marine ecosystems.	Policy 7: Safeguarding the life-		Method 1: District plan implementation	City and district councils	
	supporting capacity of coastal and marine ecosystems		Method 2: Regional plan implementation	Wellington Regional Council	
		Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils		

Objective	Policies	Page	Methods	Implementation Page (* lead authority)
Objective 6: Maintain or enhance coastal water quality	Policy 7: Safeguarding the life- supporting capacity of coastal and marine ecosystems		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural resources	Wellington Regional Council and city and district councils
(Continued)	(Continued)		Other related policies:	
			Coastal environment (Table 2) policies 3, 4, 6, 33, 34, 3 ecosystems (Table 6) policy 22; lwi resource managem 10) policies 27, 51, 52, 53, 55 & 69; Soils and minerals	ent (Table 7) policies 45, 46 & 67; Regional form (Table
	Policy 35: Life-supporting capacity of coastal ecosystems		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils
			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils
			Other related policies: Coastal environment (Table 2) policies 3, 4, 6, 33, 34, 3 ecosystems (Table 6) policy 22; lwi resource managem 10) policies 27, 51, 52, 53, 55 & 69	36 & 50; <b>Fresh water</b> (Table 4) policy 16; <b>Indigenous</b> e <b>nt</b> (Table 7) policies 45, 46 & 67; <b>Regional form</b> (Table
Objective 7: Protection of physical and ecological coastal processes	Policy 36:Protection of physical and ecological processes in the coastal environment		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils
The integrity, functioning and resilience of physical and ecological processes in			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils
the coastal environment are protected from the adverse effects of land use and development.			Other related policies: Coastal environment (Table 2) policies 3, 4, 6, 7, 33, 34, ecosystems (Table 6) policy 22; Iwi resource manageme policy 49; Regional form (Table 10) policies 27, 51, 52, 5	35 & 50; <b>Fresh water</b> (Table 4) policy 40; <b>Indigenous</b> ent (Table 7) policies 45, 46 & 67; <b>Natural hazards</b> (Table 9) 3, 55 & 69; <b>Soils and minerals</b> (Table 11) policies 57 & 70
Objective 8: Enhancing public access to and along the coast, lakes and rivers	Policy 50: Public access to and along the coast, lakes and rivers with significant values		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils
Public access to and along the coast, lakes and rivers is enhanced, with priority			Method 27: Integrated management across mean high water springs	Wellington Regional Council* and city and district councils
given to areas that have significant values.			Method 51: Identification of areas of the coast, lakes and rivers with significant values for public access	Wellington Regional Council* and city and district councils
			Other related policies: Coastal environment (Table 2) policies 3, 4, 6, 7, 33, 34 Historic heritage (Table 5) policy 20; Indigenous ecosy (Table 7) policies 45, 46 & 67; Landscape (Table 8) policy 51, 52, 53, 55 & 69	



# 2.3 Energy, infrastructure and waste

New Zealand's energy needs have historically been met from coal, oil, gas, hydro, geothermal and wind. New Zealand relies on imported oil for around half of its energy needs. Electricity supply has been dominated by hydro generation, with fossil fuels used as a backup when water is short.

In 2007, the Hau Nui wind farm, near Martinborough, was the only power generation site in the Wellington region.

Energy is delivered to five main sectors: transport, agriculture, industrial, commercial and residential. Demand for energy from all sectors continues to grow, with the most significant growth coming from transport. If no changes are made to the way we travel and transport freight, it is anticipated that transport energy use will grow by 40 per cent, by 2030. Three quarters of this growth would be from road transport. Electricity consumption is also expected to grow at approximately 1.3 per cent a year.

Traditional energy sources are no longer able to meet increasing energy demand. Supply is becoming increasingly vulnerable to oil supply disruptions (as a result of international events) and fluctuations (from hydro generation as a result of dry years and water shortages). There is also the additional challenge of reducing greenhouse gas emissions from fossil fuels to meet international climate change obligations. The region, like the rest of New Zealand, faces two major long-term energy challenges. The first is responding to climate change and tackling carbon emissions, especially from transportation. The second is secure, clean energy at affordable prices, and using it efficiently. This means looking to make better use of renewable energy.

The region contains significantly greater renewable energy resources than are currently used. Wind and solar (for hot water systems), have been identified as significant renewable energy sources for the region. Wave and sea currents, particularly in Cook Strait, also have the potential to generate renewable energy in the region, but technological advances are required.

Roading infrastructure, airports, the port, telecommunication facilities, the rail network and other network utilities including electricity transmission and distribution are significant physical resources. This infrastructure forms part of national or regional networks and enables communities to provide for their social, economic, and cultural wellbeing and their health and safety. The efficient use and development of such infrastructure can be adversely affected by development. For example, land development can encroach on infrastructure or interfere with its efficient use.

An additional challenge is how to deal with materials and resources we no

longer want or need. Dealing with waste is a mounting problem because some of the resources discarded still have economic value, because the land used for landfills essentially wastes land that could be used productively, and because landfill disposal has adverse effects on the environment.

Landfills have to be the very last resort for unwanted materials. This is because they produce leachate and methane gas from the degradation of materials and organic matter, and because landfill space is finite. In 2004 there were ten municipal landfills in the Wellington region, in 2007 there were five, and two more will close over the next ten years.

To avoid or reduce the need to develop new landfills, and to extend the life of existing landfills, the amount of waste sent to landfills will need to be reduced. In 2007 nearly 400,000 tonnes of 'waste' was sent to landfills in the Wellington region. At least 20 per cent of the region's solid waste, and in some areas as much as 60 to 70 per cent, currently sent to landfills could be recycled or composted. Some materials are not recycled or composted even when they could be, as there is no market for the final product or no industry with the expertise to do the recycling.

The regionally significant issues for energy, infrastructure and waste are:

## 1. Sources of energy vulnerable to supply disruptions and contribution to climate change

Current sources of energy are vulnerable to supply disruptions. In addition, fossil fuels used to meet increasing demand for energy are contributing to climate change.

#### 2. Regionally significant infrastructure

Infrastructure is a physical resource that enables people and communities to provide for their social, economic and cultural wellbeing. The use and operation of infrastructure can be adversely affected when incompatible land uses occur under, over, on, or alongside.

## 3. Limited space in existing landfills and no land for new landfills

We cannot continue to generate the current waste volumes because of the cost of disposal (in terms of lost resources and environmental damage) and because there is limited space in existing landfills and no suitable land available for new landfills in the region. Table 3: Energy, infrastructure and waste Objectives 9 & 10 Table 10: Regional form Objective 27

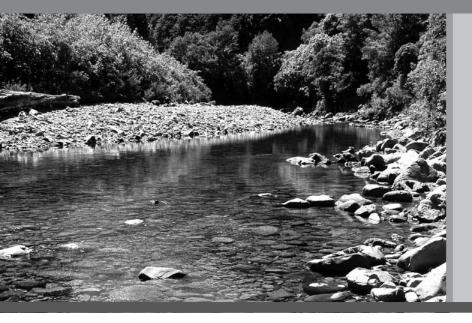
Table 3: Energy, infrastructure and waste Objective 10

Table 3: Energy, infrastructure and waste Objective 11 Table 3: Energy, infrastructure and waste objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
Objective 9: Energy	Policy 8: Recognition of the benefits		Method 1: District plan implementation	City and district councils		
The region's energy needs are met in ways that:	from regionally significant infrastructure and renewable energy		Method 2: Regional plan implementation	Wellington Regional Council		
(a) reduce greenhouse gas emissions from			Method 31: Region-wide renewable energy strategy	Wellington Regional Council* and city and district councils		
transportation; (b) reduce dependency on			Other related policies:			
fossil fuels;			Coastal environment (Table 2) policies 3, 4, 6, 7, 33 8 9, 11, 12 & 37; Fresh water (Table 4) policies 13, 14, 1	& 36; Energy, infrastructure and waste (Table : 16, 18, 19, 38, 39, 40, 41 & 65: Historic heritad	3) policies <b>ce</b> (Table	
<ul> <li>(c) maximise the use of the region's renewable energy resources;</li> </ul>			5) policy 43; Indigenous ecosystems (Table 6) policy 4	5) policy 43; Indigenous ecosystems (Table 6) policy 44; Iwi resource management (Table 7) policies 45 & 46; Landscape (Table 8) policy 47; Natural hazards (Table 9) policy 26; Regional form (Table 10) policies 27, 28,		
<ul> <li>(d) diversify the type and scale of renewable energy development in</li> </ul>	Policy 10: Reduce the consumption of non-renewable transport fuels and emission of carbon dioxide from transportation		Method 3: Wellington Regional Land Transport Strategy implementation	Wellington Regional Council		
the region; and (e) improve the efficiency of energy use.			Other related policies: Energy, infrastructure and waste (Table 3) policy 11; Regional form (Table 10) policy 31			
energy use.	Policy 11: Promote the implementation of travel demand management mechanisms		Method 1: District plan implementation	City and district councils		
			Method 3: Wellington Regional Land Transport Strategy implementation	Wellington Regional Council		
			Method 10: Information and guidance on travel demand management mechanisms	Wellington Regional Council* and city and district councils		
			Other related policies: Air quality (Table 1) policies 1 & 2; Energy, infrastructure and waste (Table 3) policies 8, 10, 12 & 37; Iwi resource management (Table 7) policies 45 & 46; Regional form (Table 10) policies 27, 28, 29, 30, 31, 51, 52, 53, 55 & 69; Soils and minerals (Table 11) policy 57			
	Policy 12: Promote energy efficient design, small scale renewable energy and provide for energy efficient alterations		Method 1: District plan implementation	City and district councils		
			Method 11: Information and guidance on energy efficient subdivision design and building development	Wellington Regional Council* and city and district councils		
			Method 12: Information on barriers to energy efficient alterations and small scale renewable energy generation	Wellington Regional Council* and city and district councils		
			Method 57: Working with business to reduce energy use and waste	Wellington Regional Council and city and district councils		

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
<b>Objective 9: Energy</b> (Continued)	Policy 12: Promote energy efficient design, small scale renewable energy and provide for energy efficient alterations (Continued)		Other related policies: Energy, infrastructure and waste (Table 3) policies 8, Iwi resource management (Table 7) policies 45 & 46;			
	Policy 37: Benefits of regionally significant infrastructure and renewable energy		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council district councils	and city and	
			Other related policies:			
			8, 11 & 12; Fresh water (Table 4) policies 13, 14, 16, 1 policy 43; Indigenous ecosystems (Table 6) policy 44; I	Coastal environment (Table 2) policies 3, 4, 6, 7, 33 & 36; Energy, infrastructure and waste (Table 3) polici 6, 11 & 12; Fresh water (Table 4) policies 13, 14, 16, 18, 19, 38, 39, 40, 41 & 65; Historic heritage (Table 5) 10 olicy 43; Indigenous ecosystems (Table 6) policy 44; Iwi resource management (Table 7) policies 45, 46 & 10 andscape (Table 8) policy 47; Natural hazards (Table 9) policy 26; Regional form (Table 10) policies 27, 28,		
Objective 10: Regionally	Policy 8: Recognition of the benefits from regionally significant infrastructure and renewable energy		Method 1: District plan implementation	City and district councils		
significant infrastructure The social, economic and			Method 2: Regional plan implementation	Wellington Regional Council		
cultural benefits of regionally			Other related policies:			
significant infrastructure are recognised.			<b>Coastal environment</b> (Table 2) policies 3, 4, 6, 7, 33 & & 37; <b>Fresh water</b> (Table 4) policies 13, 14, 16, 18, 19, <b>Indigenous ecosystems</b> (Table 6) policy 44; <b>Iwi resour</b> (Table 8) policy 47; <b>Natural hazards</b> (Table 9) policy 26, 52, 53, 55 & 69	. 38, 39, 40, 41 & 65; Historic ce management (Table 7) pol	heritage (Table 5) policy 43; icies 45 & 46; Landscape	
	Policy 9: Protection of regionally significant infrastructure		Method 1: District plan implementation	City and district councils		
			Method 2: Regional plan implementation	Wellington Regional Council		
			Other related policies: Coastal environment (Table 2) policies 3, 4, 6, 7, 33 & & 37; Fresh water (Table 4) policies 13, 14, 16, 18, 19, Indigenous ecosystems (Table 6) policy 44; Iwi resour (Table 8) policy 47; Natural hazards (Table 9) policy 26, 52, 53, 55 & 69	. 38, 39, 40, 41 & 65; Historic ce management (Table 7) pol	heritage (Table 5) policy 43; icies 45 & 46; Landscape	
	Policy 37: Benefits of regionally significant infrastructure and renewable energy		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council district councils	and city and	
			Other related policies: Coastal environment (Table 2) policies 3, 4, 6, 7, 33 & 8 & 9; Fresh water (Table 4) policies 13, 14, 16, 18, 19 43; Indigenous ecosystems (Table 6) policy 44; Iwi res Landscape (Table 8) policy 47; Natural hazards (Table 30, 31, 51, 52, 53, 55 & 69	9, 38, 39, 40, 41 & 65; Historic source management (Table 7)	heritage (Table 5) policy policies 45, 46 & 67;	

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 10: Regionally significant infrastructure (Continued)	Policy 37: Benefits of regionally significant infrastructure and renewable energy		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
			Other related policies:		
			<b>Coastal environment</b> (Table 2) policies 3, 4, 6, 7, 33 & 36; <b>Energy, infrastructure and waste</b> (Table 3) policies 8 & 9; <b>Fresh water</b> (Table 4) policies 13, 14, 16, 18, 19, 38, 39, 40, 41 & 65; <b>Historic heritage</b> (Table 5) policy 43; <b>Indigenous ecosystems</b> (Table 6) policy 44; <b>Iwi resource management</b> (Table 7) policies 45, 46 & 67; <b>Landscape</b> (Table 8) policy 47; <b>Natural hazards</b> (Table 9) policy 26; <b>Regional form</b> (Table 10) policies 27, 28, 29, 30, 31, 51, 52, 53, 55 & 69		
Objective 11: Waste reduction	Policy 63: Promote efficient use of resources to reduce waste		Method 19: Information and guidance on waste management	Wellington Regional Council and city and district councils	
The quantity of waste disposed of is reduced.			Method 57: Working with business to reduce energy use and waste	Wellington Regional Council and city and district councils	
			Other related policies:		
			Energy, infrastructure and waste (Table 3) policy 12; Fresh water (Table 4) policies 41, 42 & 65; Regional form (Table 10) policies 27 & 51		



## 2.4 Fresh water

Fresh water is integral to our health, wellbeing, livelihood and culture. It helps drive our economy, defines our landscape and sustains ecosystems. People value clean fresh water for many reasons — economic, recreational, aesthetic, ecological and cultural.

Maori consider fresh water to be an essential element of life. It is a significant taonga (valued resource) that plays a central role in both spiritual and secular realms. In the Maori world view, water represents the life blood of the land. The condition of water is a reflection of the state of the land, and this in turn is a reflection of the health of the people.

In their natural state, river catchments and wetlands cleanse and purify water, recharge groundwater and reduce the extremes of flooding. Rivers, lakes and wetlands provide habitat for aquatic life, and when they and their catchments are degraded the water bodies' ability to support healthy functioning aquatic ecosystems is reduced.

Monitoring of the region's rivers shows that many urban and lowland pastoral streams regularly fail water quality guidelines. The most common reasons for failing are high levels of nutrients or bacteria, or poor clarity. Biological monitoring shows that the diversity and abundance of stream life is poorest in pastoral lowland and urban streams.

Urban streams are affected by stormwater discharges, especially when there are high proportions of impervious cover (eg roofs and roads) in the catchment. Stormwater contains persistent contaminants — like heavy metals — which accumulate in stream sediments and eventually in the coastal environments where the streams discharge. Urban land uses also affect water quality in rivers and streams. These contaminants can have chronic long-term adverse effects on river and coastal ecosystems.

There are seven discharges of treated sewage to freshwater in the region — one from the treatment plant at Paraparaumu, with the rest from the Wairarapa towns of Masterton, Castlepoint, Carterton, Greytown, Featherston and Martinborough. Treated sewage contains high levels of nutrients, which promote weed growth, as well as disease-causing organisms that can make the rivers unsafe for recreational use. Discharges of wastes into water bodies are of particular concern to tangata whenua because waste, particularly sewage waste, destroys the mauri (life force) of the water body.

Land uses affect the state of rivers and streams and the coastal environment. Nearly half the land in the region is used for agriculture. Rivers and streams in these catchments have poor biological health and water quality, and are more likely to suffer from algae growth in late summer. Groundwater around Te Horo, Otaki and in the Wairarapa valley is also affected by land uses, and in some areas has elevated levels of nitrate. This could be from farming or from septic tanks.

Accommodating people's needs for water is becoming more and more difficult because some water resources in the region are already fully allocated and others are close to full allocation.

Groundwater levels in some Wairarapa aquifers are declining year by year. Lowered groundwater levels can affect the flow of springs and water levels in wetlands, which can eventually dry up. If continued abstractions keep the groundwater level low, the dependent ecosystems can be permanently affected.

Prolonged low flows in rivers mean there is less habitat available for aquatic life and the adverse effects of contamination are worse because of reduced dilution. Low flows in summer mean water temperatures and algal growths increase, especially if there is no riparian vegetation. Because people's need to take water is greatest at times of low rainfall, abstractions generally lower river flows when aquatic life is already stressed.

It is a matter of national importance to maintain and enhance public access to and along rivers and lakes. There is little information on the state of public access to rivers and lakes in the region, so it is unclear where it is working well and where it is not. Where land is publicly owned, public access has generally been enhanced with the provision of walking tracks and recreational areas. For example, major rivers such as the Hutt, Waikanae and Ruamahanga, which are managed for flood protection or soil conservation purposes, have good access for recreational use.

Where land is privately owned, city and district councils can take esplanade reserves or strips as part of subdivisions. To date, there has been no strategic planning in the region that has identified where public access should be enhanced. Where esplanade reserves and strips have been taken for public access, city and district councils sometimes struggle to maintain them. Even where there is legal access, it is not always aligned with access that is physically possible.

The regionally significant issues for fresh water are:

1. Pollution is affecting water quality in water bodies

The water quality of rivers, lakes, wetlands and groundwater in the region is

being polluted by discharges and by land uses in the catchments.

2. Poor ecosystem function in rivers, lakes and wetlands The ecosystem function of some rivers, lakes and wetlands has been impaired, with ecosystems in wetlands and lowland streams coming under particular pressure. Some activities that can impair ecosystem function are:

- (a) filling in gullies and ephemeral streams and straightening or piping small streams;
- (b) lining stream banks and beds with rock or concrete;
- (c) removing streamside vegetation;
- (d) weeds in wetlands, especially willows and blackberry, which displace wetland plants and do not provide suitable habitat for wetland animals;
- (e) allowing stock access to stream banks and beds;
- (f) creating a large area of impermeable land within a catchment through asphalting, concreting and building structures; and
- (g) abstracting water from rivers and from groundwater connected to rivers, wetlands and springs.

#### 3. There is increasing demand on limited water resources

There is a limited amount of water in rivers and groundwater aquifers available for human use and demand is increasing. In the Wairarapa the amount of water taken for farm pasture irrigation has more than doubled over the last 10 years. Increasing populations in the region's urban areas also mean increased demand for water. Table 4: Fresh water Objective 14

An additional issue shared with the coastal environment (Issue 4) is:

4. Public access to and along the coast, lakes and rivers

There have been inconsistent approaches to the taking of access strips or esplanade reserves as part of subdivisions. This has meant that public access to and along the coast, lakes and rivers is not always provided, or has been provided in places where people can not take advantage of it. Table 2: Coastal environment Objective 8 Table 4: Fresh water Objective 8

Table 4: Fresh water Objectives 12 & 13 Table 6: Indigenous ecosystems

Objective 16

Table 4: Fresh water Objective 12 Table 4: Fresh water objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
	Policy 13: Maintaining and enhancing		Method 2: Regional plan implementation	Wellington Regional Council	
multiple values of water The quantity and quality of fresh water:	rivers for aquatic ecosystem health		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils	
<ul> <li>(a) meet the range of uses and values for which water is required;</li> </ul>			Method 32: Regional stormwater action plan	Wellington Regional Council* and city and district councils	
(b) safeguard the life- supporting capacity of water bodies; and			Method 33: Industry-led environmental accords and codes of practice	Industry	
(c) meet the reasonably foreseeable needs of			Method 54: Pollution prevention programme for industry	Wellington Regional Council and city and district councils	
future generations.			Other related policies:		
			Coastal environment (Table 2) policies 6, 7 & 35; Fresh Indigenous ecosystems (Table 6) policies 23, 44 & 66; I Regional form (Table 10) policy 51; Soils and mineral	wi resource management (Table 7) policies 45	
	Policy 14: Erosion and sediment control from earthworks and vegetation clearance		Method 1: District plan implementation	City and district councils	
			Method 2: Regional plan implementation	Wellington Regional Council	
			Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	Wellington Regional Council* and city and district councils	
			Method 32: Regional stormwater action plan	Wellington Regional Council* and city and district councils	
			Method 33: Industry-led environmental accords and codes of practice	Industry	
			Other related policies:		
			Coastal environment (Table 2) policies 6, 7, 35 & 36; Free ecosystems (Table 6) policies 22, 23 & 44; Iwi resource n (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69; So	nanagement (Table 7) policies 45 & 46; Region	
	Policy 15: Promoting and managing		Method 2: Regional plan implementation	Wellington Regional Council	
	discharges to land		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils	
			Method 54: Pollution prevention programme for industry	Wellington Regional Council and city and district councils	

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
<b>Objective 12: Safeguarding</b> <b>multiple values of water</b> (Continued)	Policy 15: Promoting and managing discharges to land (Continued)		Other related policies: Coastal environment (Table 2) policies 6, 7, 35 & 36; ecosystems (Table 6) policies 23 & 44; Iwi resource m		enous
	Policy 38: Management purposes of fresh water bodies		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	
			Method 32: Regional stormwater action plan	Wellington Regional Council* and city and district councils	
			Other related policies:		
			<b>Coastal environment</b> (Table 2) policies 6, 7, 35 & 36; <b>Indigenous ecosystems</b> (Table 6) policies 23 & 44; Iw <b>Regional form</b> (Table 10) policies 27, 28, 29, 30, 51, 70 & 71	i resource management (Table 7) policies 45, 46	8 67;
	Policy 39: Stormwater management		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	
			Method 32: Regional stormwater action plan	Wellington Regional Council* and city and district councils	
			Method 54: Pollution prevention programme for industry	Wellington Regional Council and city and district councils	
			Method 33: Industry-led environmental accords and codes of practice	Industry	
			Other related policies: Coastal environment (Table 2) policies 6, 7, 35 & 36; F Indigenous ecosystems (Table 6) policies 23 & 44; Iwi Regional form (Table 10) policies 27, 28, 29, 30, 51, 5	resource management (Table 7) policies 45, 46 &	67;
Objective 13: Supporting	Policy 16: Protecting aquatic		Method 2: Regional plan implementation	Wellington Regional Council	
functioning ecosystems in rivers lakes and wetlands The region's rivers, lakes and wetlands support healthy functioning ecosystems.	ecological function		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils	
			Other related policies: Coastal environment (Table 2) policies 6, 7, 35 & 36; 39, 40, 41 & 42; Indigenous ecosystems (Table 6) po policies 45, 46 & 67; Soils and minerals (Table 11) po	licies 22, 23 & 44; Iwi resource management (Ta	
	Policy 17: Defining environmental flows and levels		Method 2: Regional plan implementation	Wellington Regional Council	

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 13: Supporting functioning ecosystems in rivers lakes and wetlands	Policy 17: Defining environmental flows and levels (Continued)		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils	
(Continued)			Other related policies: Fresh water (Table 4) policies 13, 16, 18, 19, 38, 40 & resource management (Table 7) policies 45, 46 & 67	41; Indigenous ecosystems (Table 6) policies 23	3 & 44; Iwi
	Policy 40: Importance of aquatic ecosystem function and other values		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
			Other related policies: Coastal environment (Table 2) policies 6, 7, 35 & 36; 38, 39, 40, 41, 42 & 50; Indigenous ecosystems (Table (Table 7) policies 45, 46 & 67; Regional form (Table 10 minerals (Table 11) policies 14, 70 & 71	e 6) policies 22, 23 & 44; <b>Iwi resource manager</b>	nent
	Policy 64: Restoration and enhancement of rivers, lakes and wetlands		Method 8: Information and guidance on restoration and enhancement of degraded water bodies and the coastal environment	Wellington Regional Council and city and district councils	
			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	
			Method 53: Practical and financial support for community restoration initiatives in the coastal environment and for rivers, lakes and wetlands	Wellington Regional Council and city and district councils	
			Other related policies: Fresh water (Table 4) policies 13, 15, 17, 18, 19, 38, 3 Indigenous ecosystems (Table 6) policy 66; Iwi resour (Table 11) policy 70	39, 40, 41 & 42; Coastal environment (Table 2) rce management(Table 7) policy 67; Soils and i	policy 62; minerals
Objective 14: Efficient use of water	Policy 18: Efficient use and water harvesting		Method 2: Regional plan implementation	Wellington Regional Council	
Water is used efficiently and is not wasted.	water harvesting		Method 46: Investigate the use of transferable water permits	Wellington Regional Council	
			Other related policies: Fresh water (Table 4) policies 13, 16, 17, 19, 38, 40 & resource management (Table 7) policies 45 & 46	41; Indigenous ecosystems (Table 6) policies 23	3 & 44; Iwi
	Policy 19: Priorities for abstraction of		Method 2: Regional plan implementation	Wellington Regional Council	
	water for the health needs of people		Other related policies: Fresh water (Table 4) policies 13, 16, 17, 18, 38, 40 & resource management (Table 7) policies 45 & 46	41; Indigenous ecosystems (Table 6) policies 23	& 44; Iwi

Objective	Policies	Page	Methods	Implementation Page (* lead authority)
Objective 14: Efficient use of water (Continued)	Policy 41: Efficient use of water		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council
			Method 13: Information and guidance on water conservation and efficient use	Wellington Regional Council and city and district councils
			Other related policies: Fresh water (Table 4) policies 38, 39 & 40; Indigenous 6 management (Table 7) policies 45, 46 & 67; Regional f	ecosystems (Table 6) policies 23 & 44; Iwi resource orm (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69
	Policy 42: Water needs for new subdivision and land use consents		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils
			Method 13: Information and guidance on water conservation and efficient use	Wellington Regional Council and city and district councils
			Other related policies: Fresh water (Table 4) policies 38, 40 & 41; Iwi resource form (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 &	e management (Table 7) policies 45, 46 & 67; Regional 69
	Policy 65: Reducing water demand and wastage of water		Method 13: Information and guidance on water conservation and efficient use	Wellington Regional Council and city and district councils
			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils
			Method 46: Investigate the use of transferable water permits	Wellington Regional Council
			Other related policies: Energy infrastructure and waste (Table 3) policy 63; F	resh water ( Table 4) policy 41
Objective 8: Enhancing public access to and along the coast, lakes and rivers	Policy 50: Public access to and along the coast, lakes and rivers with significant values		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils
Public access to and along the coast, lakes and rivers is	ne coast, lakes and rivers is nhanced, with priority iven to areas that have		Method 51: Identification of areas of the coast, lakes and rivers with significant values for public access	Wellington Regional Council* and city and district councils
enhanced, with priority given to areas that have significant values.			64; Historic heritage (Table 5) policy 20; Indigenous e	4, 35, 50 & 62; Fresh water ( Table 4) policies 40, 50 & cosystems (Table 6) policy 22; Iwi resource management y 24; Regional form (Table 10) policies 27, 28, 29, 30, 51,



# 2.5 Historic heritage

Historic heritage is a precious and finite physical resource. Recognising and acknowledging the importance of our historic heritage of the past contributes to our understanding, awareness and our sense of place. Once destroyed, it cannot be replaced.

Historic heritage gives us a connection to those who lived before us. Our history is found in both the tangible physical remains and in the intangible values associated with our ancestors. Historic heritage is not just about history, but also culture, archaeology, architecture, science and technology. For Maori, places of cultural and historic heritage are integral to wellbeing. Historic heritage resources provide continuity between the past and the present that, properly maintained, will continue into the future.

Archaeological sites contain evidence of how people lived, and tracks and roads illustrate transportation history. For tangata whenua, there are many sites of significance that maintain connections with ancestors.

Since 2003, councils have had an obligation under the Resource Management Act to identify and provide for the protection of the region's historic heritage. Until then councils were only required to have "particular regard" to the protection of heritage values.

Many heritage places still retain high integrity and are in good condition.

However, incremental development in urban areas is changing the heritage character of some of the region's towns, particularly in city centres where heritage buildings are being replaced by new commercial or apartment buildings.

All city and district councils in the Wellington region require resource consents for the demolition, relocation or for substantial alterations of heritage buildings listed in plans. Generally all category 1 Historic Places Trust registered buildings are listed in plans, however, fewer category II sites are included and therefore protected.

The condition of archaeological sites in the Wellington region is mixed. There is also poor recognition of where archaeological sites exist across the region. Evidence suggests that a large number of recorded archaeological sites have been destroyed or significantly modified.

The regionally significant issue for historic heritage is:

1. Inappropriate modification and destruction of historic heritage. Loss of heritage values from inappropriate modification and destruction of historic heritage. Table 5: Historic heritage objective and summary of policies and methods to achieve the objective

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page		
Objective 15:	Policy 20: Identification of		Method 1: District plan implementation	City and district councils			
Identification and protection of historic heritage	historic heritage		Method 2: Regional plan implementation	Wellington Regional Council			
The region's historic heritage is identified and protected from			Method 22: User guide for identifying and assessing effects on historic heritage	Wellington Regional Council* and city and district councils			
inappropriate subdivision, use and development.			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils			
			Other related policies: Coastal environment (Table 2) policies 3 & 50; Fresh water (Table 4) policy 50; Historic heritage (Table 5) policies 21 & 43; Indigenous ecosystems (Table 6) policies 22 & 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policies 24 & 47; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69				
	Policy 21: Protection of historic heritage		Method 1: District plan implementation	City and district councils			
			Method 2: Regional plan implementation	Wellington Regional Council			
			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils			
			Other related policies: Coastal environment (Table 2) policies 3, 33 & 34; Energy, infrastructure and waste (Table 3) policies 8, 9 & 37; Historic heritage (Table 5) policies 20 & 43; Fresh water (Table 4) policies 16 & 40; Indigenous ecosystems (Table 6) policies 23 & 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policies 25 & 47; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69				
	Policy 43: Managing effects on historic heritage		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils			
			Method 22: User guide for identifying and assessing effects on historic heritage	Wellington Regional Council* and city and district councils			
			Other related policies: Coastal environment (Table 2) policies 3, 33 & 34; En- 37; Fresh water (Table 4) policies 16 & 40; Historic he (Table 6) policies 23 & 44; Iwi resource management 25 & 47; Regional form (Table 10) policies 27, 28, 29,	ritage (Table 5) policies 20 & 21; Indigenous e (Table 7) policies 45, 46 & 67; Landscape (Table	cosystems		



# 2.6 Indigenous ecosystems

An ecosystem may be described as a community of plants, animals and microorganisms interacting with each other and their surrounding environment.

Ecosystems are not just the natural backdrop to our lives, they are the foundation. Healthy ecosystems provide us with life's essentials — plants and animals for food, fibre for clothing, timber for construction and so on. This is true even in an industrialised age, although the connections are less immediately obvious. Also, healthy ecosystems supply us with 'services' that support life on this planet:

- processes that purify air and water
- decomposition and detoxification of wastes
- creation and maintenance of productive soils
- reduction of the impact of climate extremes
- capture of carbon and maintenance of a functioning atmosphere.

Ecosystems are dynamic (constantly changing) and the many and diverse natural processes that drive ecosystems are as important as the species within them. In addition, all parts of an ecosystem are interconnected. The species that make up an ecosystem, including humans, cannot exist in isolation from the other species and non-living parts of the ecosystem. The primacy of healthy ecosystems is central to Maori cultural values. Harm to mauri, the life force that exists in all things in the natural world, directly affects the wellbeing of the people. More

specifically, degradation of ecosystems threatens mahinga kai (places where food is gathered) and other natural resources used for cultural purposes.

The Wellington region has a distinct range of ecosystems, including forests, mountain ecosystems, wetlands, freshwater ecosystems such as lakes and rivers, coastal ecosystems, and marine ecosystems. Some regional ecosystems have a high degree of 'indigenousness', such as the Tararua and Orongorongo ranges, while others are dominated by exotic species, for example our pastoral farmlands, and there are gradations between these two extremes.

It is the indigenous ecosystems that are focused on in the Regional Policy Statement, as required by the purpose and principles of the Resource Management Act, particularly sections 6(c) and 7(d).

The area of our indigenous ecosystems has been in decline since humans first settled in our region. This loss greatly accelerated from the time of European settlement. For instance, as a result of clearance for agriculture and urban development, 70 per cent of the indigenous forest and more than 90 per cent of the wetlands that existed as recently as 1840, have been destroyed. There is evidence that indigenous forest continues to be lost in some parts of the region. Most of the remaining forest and wetlands and dune systems have been degraded or modified in some way.

Human actions that continue to impact on the remaining indigenous ecosystems include:

- modification, and in some cases destruction, of ecosystems by pest plants and animals, grazing animals and clearance of indigenous vegetation
- contamination of aquatic ecosystems by sediment, pollutants and nutrients
- destruction of ecosystems as a result of urban development
- draining wetlands and channelling or piping of natural waterways
- contamination of coastal ecosystems by stormwater and sewage discharges.

Ecosystem health can be measured in a number of ways, including loss of individual species, loss of overall diversity of species, loss of an ecosystem's ability to function on an ongoing basis, and loss of complete ecosystems and types of ecosystems. While the dramatic collapse of species or whole ecosystems can capture attention, the gradual erosion of ecosystems' sustainability is also a significant issue.

The regionally significant issues for indigenous ecosystems are:

1. The region's indigenous ecosystems are reduced in extent

Table 6: Indigenous ecosystems Objective 16 The region's indigenous ecosystems have been significantly reduced in extent, and this reduction is continuing. This results in the loss of indigenous species, the fragmentation of ecosystems and a reduction in ecosystem resilience. In the region the following ecosystems have been significantly reduced in extent:

- (a) wetlands
- (b) lowland forests
- (c) lowland streams

- (d) coastal dunes and escarpments
- (e) estuaries
- (f) eastern 'dry land' forests.

### 2. The region's remaining indigenous ecosystems are under threat

As a result of human activities, indigenous ecosystems in the Wellington region have been depleted and modified. Many of the ecosystem processes that ensure ecosystems remain healthy and viable into the future have been compromised, including reproduction, recruitment, dispersal and migration.

#### 3. Ecosystem services are under threat

The depleted and modified nature of the region's indigenous ecosystems means that many have ceased to function properly, threatening the many beneficial functions they perform and that society depends upon. Objective 16

Table 6: Indigenous

ecosystems

Table 6: Indigenous ecosystems Objective 16 Table 6: Indigenous ecosystems objective and summary of policies and methods to achieve the objective

Objective	Policies	Page	Methods	Implementation Page (* lead authority)		
Objective 16: Maintenance	Policy 22: Identification of indigenous		Method 1: District plan implementation	City and district councils		
and restoration of significant indigenous	ecosystems, habitats and areas with significant indigenous biodiversity values		Method 2: Regional plan implementation	Wellington Regional Council		
ecosystems and habitats The full range of remaining significant indigenous			Method 23: User guide for identifying and assessing effects on indigenous ecosystems, habitats, and areas with significant biodiversity values	Wellington Regional Council* and city and district councils		
ecosystems and habitats in the Wellington region are maintained and restored to a healthy functioning state.			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils		
			Other related policies:			
			5) policies 20 & 43; Indigenous ecosystems (Table 6) po	vater (Table 4) policies 16 & 50; Historic heritage (Table olicies 23, 44, 58 & 66; Iwi resource management ies 24 & 47; Regional form (Table 10) policies 27, 28, 29,		
	Policy 23: Protection of indigenous		Method 1: District plan implementation	City and district councils		
	ecosystems, habitats and areas with significant indigenous biodiversity values		Method 2: Regional plan implementation	Wellington Regional Council		
			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils		
			Other related policies: Coastal environment (Table 2) policies 3, 6, 7, 33 & 34; Energy, infrastructure and waste (Table 3) policies 8, 9 & 37; Fresh water (Table 4) policies 16 & 40; Historic heritage (Table 5) policies 20 & 21; Indigenous ecosystems (Table 6) policies 22, 44, 58 & 66; Iwi resource management (Table 7) policies 45 & 46; Landscape (Table 8) policies 25 & 47; Natural hazards (Table 9) policy 49; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69			
	Policy 44: Managing effect on indigenous ecosystems, habitats and areas with significant indigenous biodiversity values		Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils		
			Method 23: User guide for identifying and assessing effects on indigenous ecosystems, habitats, and areas with significant biodiversity values	Wellington Regional Council* and city and district councils		
			Other related policies:			
			Coastal environment (Table 2) policies 3, 33, 34, 35 & 8, 9 & 37; Fresh water (Table 4) policies 16 & 40; Histo ecosystems (Table 6) policies 22, 23, 58 & 66; Iwi resou Landscape (Table 8) policies 25 & 47; Regional form (T	ric heritage (Table 5) policies 21 & 43; Indigenous urce management (Table 7) policies 45, 46 & 67;		

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 16: Maintenance and restoration of	Policy 66: Restoration and enhancement of indigenous ecosystems and habitats		Method 14: Information and guidance on techniques to maintain and enhance indigenous ecosystems	Wellington Regional Council and city and district councils	
significant indigenous ecosystems and habitats (Continued)			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	
			Method 55: Incentives to promote maintenance, enhancement and restoration of indigenous ecosystems	Wellington Regional Council and city and district councils	
			Other related policies: Coastal environment (Table 2) policy 62; Fresh water (Table 4) policy 64; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Iwi resource management (Table 7) policy 67; Soils and minerals (Table 11) policies 70		
	Policy 58: Allocation of responsibilities to maintain indigenous biological diversity		Method 5: Allocation of responsibilities	Wellington Regional Council and city and district councils	
			Other related policies: Coastal environment (Table 2) policies 3, 6, 7, 33, 35 ecosystems (Table 6) policies 22, 23 & 44	& 36; Fresh water (Table 4) policies 16 & 40; I	ndigenous



# 2.7 Iwi resource management

Tangata whenua have a special relationship with the land, air, water and natural resources. Various terms are used to describe the tangata whenua of the Wellington region, including iwi, hapu, whanau, marae, and iwi authorities. Iwi are tribes, groups of Maori linked by common ancestry and with a common history. Hapu are sub-tribes, social and political units based on descent from a common ancestor. Whanau are extended family groups. Marae are important cultural institutions, facilities and community meeting places where significant events are held and decisions are made. Usually a hapu or whanau is associated with a marae.

The Treaty of Waitangi guarantees rangatiratanga, the right of tangata whenua to manage their lands and natural resources in accordance with cultural traditions. Tangata whenua today practise the environmental guardianship system, or kaitiakitanga, used by their ancestors. Kaitiakitanga is based on Maori views of the world and its origins, and the principle that everything is interrelated and interconnected. Mauri is the life force that exists in all things in the natural world. Tikanga, or customary practices, are followed in order to protect mauri. Observing tikanga is central to the exercise of kaitiakitanga. Kaitiakitanga is a parallel system of environmental management that should be given equal consideration in resource management.

Tangata whenua of the region consider that the region's natural and physical

resources need to be managed in an integrated and holistic way in order to achieve a sustainable future. As such, all the resource management issues in the Regional Policy Statement are of significance to tangata whenua in the region. The following paragraphs describe additional issues of specific significance to iwi authorities in the Wellington region.

There are currently limited opportunities for ongoing involvement of tangata whenua in decision-making. This is an overarching issue that affects whether and how local authorities and iwi are able to work together. Iwi authorities have identified the following particular concerns:

- the principles of the Treaty of Waitangi are not taken into account in a systematic way in decision-making
- education and awareness of Treaty principles needs to be improved among local authority staff and elected members
- limited availability of resources to enable iwi to effectively engage in resource management processes
- lack of communication with iwi on how their concerns have been taken into account or acted on by local authorities
- a lack of consistency and coordination among local authorities with regard to resource management planning.

Mauri, the life force that exists in all things in the natural world, can be harmed by insensitive resource use. For example, the health and vitality of the sea, streams and rivers and the plants and animals they support can be threatened by activities such as discharges of pollutants, stormwater, sewage and runoff of contaminants from land; excessive water use; changing the course of water bodies or diverting water between catchments or rivers. Maori consider that rivers are the life blood of the land and that the wellbeing of a river is reflected in the wellbeing of people. Similarly, the mauri of the land and air and the plants and animals they support can be harmed by practices such as clearance of vegetation, soil disturbance and disposal of wastes.

Insensitive resource management use also threatens mahinga kai and natural resources used for customary purposes. Tangata whenua are also sometimes prevented from accessing sites where customary resources are found. Mahinga kai (customary food gathering) is important for everyday food needs. Degradation or loss of nga kai (traditional foods), mataitai (areas of importance for food gathering) and flora and fauna compromise the mana (authority) of tangata whenua by impairing their ability to fulfil their role and responsibilities in relation to kaitiakitanga and manakitanga (their responsibilities of care for guests). Foods of traditional cultural importance include, but are not limited to, forest kai, seafood, eels and whitebait.

Growth and development pressure on and around significant cultural heritage sites has lead to widespread destruction and degradation of Maori cultural heritage sites. This includes:

- loss of access for Maori to places of significant cultural and spiritual value
- earthworks and excavation that have resulted in disturbance or destruction of cultural heritage sites
- lack of public understanding of the cultural and spiritual values of specific places, including the importance of wahi tapu (places of sacredness and immense importance);
- loss of Maori names of landscape features
- lack of mechanisms for iwi to exercise their rights to manage their taonga according to their customs and preferences.

The issues of specific significance to iwi authorities in the Wellington region are:

1. Lack of involvement in resource management decision-making

Lack of tangata whenua involvement in resource management decision-making.

2. Loss of mauri

Loss of the mauri of natural resources.

3. Quality, quantity and access to mahinga kai and natural resources used for customary purposes

Continuing loss of quality, quantity, and access to mahinga kai and natural resources used for customary purposes.

**4.** Degradation and destruction of cultural heritage Degradation and destruction of Maori cultural heritage.

Table 7: Iwi resource management Objectives 17, 18 & 19 Table 7: Iwi resource management Objective 20 All objectives in Table 1: Air quality, Table 2: Coastal environment. Table 4: Fresh water, Table 6: Indigenous ecosystems, Table 8: Landscape, Table 11: Soils and minerals Table 7: Iwi resource management Objective 21 Table 6: Indigenous ecosystems Objective 16 Table 7: Iwi resource management Objective 22

Table 7: Iwi resource management objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
Objective 17: Iwi authority involvement in decision-making	Policy 67: Enhanced involvement of tangata in resource management decision-making		Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils		
The region's iwi authorities and local authorities work together under Treaty partner			Method 34: Involvement of tangata whenua in resource consent hearings	Wellington Regional Council and city and district councils		
principles for the sustainable management of the region's environment for the benefit			Method 35: Preparation of iwi management plans	Iwi authorities*, Wellington Regional Council and city and district councils		
and wellbeing of the regional community, both now and in the future.			<b>Other related policies:</b> <b>Coastal environment</b> (Table 2) policies 5, 7, 33, 34, 35 3) policy 37; <b>Fresh water</b> (Table 4) policies 13, 15, 16, 1 5) policies 20, 21 & 43; <b>Indigenous ecosystems</b> (Table policies 45 & 46; <b>Landscape</b> (Table 8) policies 24, 25 & policies 51, 52, 53 & 55; <b>Soils and minerals</b> (Table 11)	17, 38, 39, 40, 41, 42, 50 & 64; Historic herita 6) 22, 23, 44 & 66; Iwi resource managemer 47; Natural hazards 48 & 49; Regional form	age (Table It (Table 7)	
<b>Objective 18: Treaty</b> of Waitangi The principles of the Treaty	Policy 45: Principles of the Treaty of Waitangi, claims, reports and settlement decisions	ngi, claims, reports and	Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils		
of Waitangi are taken into account in a systematic way when resource management			Method 21: Guidance on the application of the Treaty of Waitangi principles in the region	lwi authorities*, Wellington Regional Council and city and district councils		
decisions are made.			Other related policies: Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3, 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, infrastructure and waste (Table 3) policies 8, 9, 11, 12, 37; Fresh water (Table 4) policies 13, 14, 15, 16, 17, 18, 19, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) policies 20, 21 & 43; Indigenous ecosystems (Table 6) 22, 23 & 44; Iwi resource management (Table 7) policies 46 & 67; Landscape (Table 8) policies 24, 25 & 47; Natural hazards 26, 48 & 49; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table 11) policies 14, 32, 56 & 57			
<b>Objective 19: Kaitiakitanga</b> The concept and spirit of kaitiakitanga are integrated	Policy 46: Avoiding adverse effects on matters of significance to tangata whenua		Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils		
into the sustainable management of the Wellington region's natural and physical			Method 35: Preparation of iwi management plans	lwi authorities*, Wellington Regional Council and city and district councils		
region's natural and physical resources.			Other related policies: Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3, 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, infrastructure and waste (Table 3) policies 8, 9, 11, 12, 37; Fresh water (Table 4) policies 13, 14, 15, 16, 17, 18, 19, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) policies 20, 21 & 43; Indigenous ecosystems (Table 6) 22, 23 & 44; Iwi resource management (Table 7) policies 46 & 67; Landscape (Table 8) policies 24, 25 & 47; Natural hazards 26, 48 & 49; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table 11) policies 14, 32, 56 & 57			

Objective	Policies	Page	Methods	Implementation Page (* lead authority)	
Objective 20: The mauri of natural resources is protected	Policy 46: Avoiding adverse effects on matters of		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
and sustained The mauri of natural	significance to tangata whenua		Method 35: Preparation of iwi management plans	Iwi authorities*, Wellington Regional Council and city and district councils	
resources, including fresh and coastal water, air, land and ecosystems, is protected and sustained.			(Table 3) policies 8, 9, 11, 12, 37; Fresh water (Table 4) policies 20, 21 & 43; Indigenous ecosystems (Table 6) 2	nt (Table 2) policies 3, 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, infrastructure and waste policies 13, 14, 15, 16, 17, 18, 19, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) 22, 23 & 44; Iwi resource management (Table 7) policies 46 & 67; Landscape (Table 8) jional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table	
Objective 21: Mahinga kai and natural resources used for	Policy 46: Avoiding adverse effects on matters of		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
customary purposes are maintained and	significance to tangata whenua		Method 35: Preparation of iwi management plans	Iwi authorities*, Wellington Regional Council and city and district councils	
enhanced Mahinga kai and natural resources used for customary purposes,			Method 36: Protocol for access to mahinga kai and natural resources used for customary purposes on public land	Iwi authorities, Wellington Regional Council and city and district councils	
are maintained and enhanced, and these resources are healthy, sustainable and accessible to tangata whenua			(Table 3) policies 8, 9, 11, 12, 37; Fresh water (Table 4) policies 20, 21 & 43; Indigenous ecosystems (Table 6) 2	nt (Table 2) policies 3, 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, infrastructure and waste policies 13, 14, 15, 16, 17, 18, 19, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) 22, 23 & 44; lwi resource management (Table 7) policies 46 & 67; Landscape (Table 8) jional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table	
Objective 22: Adverse effects on Maori cultural heritage are	Policy 46: Avoiding adverse effects on matters of		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
avoided Adverse effects on the cultural and traditional relationship of Maori	significance to tangata henua		Method 15: Guidance on best practice for earthworks to protect Maori archaeological sites, other significant sites and koiwi	Iwi authorities, Wellington Regional Council and city and district councils	
with their ancestral lands,			Method 35: Preparation of iwi management plans	lwi authorities*, Wellington Regional Council and city and district councils	
water, wahi tapu and other sites and taonga are avoided.			Method 47: Investigate use of Maori names for rivers, lakes and places of cultural significance in the region	Iwi authorities, Wellington Regional Council and city and district councils	
				(Table 3) policies 8, 9, 11, 12, 37; Fresh water (Table 4) policies 20, 21 & 43; Indigenous ecosystems (Table 6) 2	nt (Table 2) policies 3, 4, 5, 6, 7, 33, 34, 35, 36 & 50; Energy, infrastructure and waste policies 13, 14, 15, 16, 17, 18, 19, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) 22, 23 & 44; Iwi resource management (Table 7) policies 46 & 67; Landscape (Table 8) jional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table



# 2.8 Landscape

Landscape, is shaped (and constantly re-shaped) by a combination of natural processes and human actions. Our landscape is the result of geological processes over time (such as plate techtonics, landslide and weathering), water flow under and over the surface, the local climate, and the habits of plants and animals, all overlaid by the effects of a wide range of human activities.

The Wellington region has a great diversity of distinctive landscapes, such as wild coasts, sheltered harbours, river plains, crowded urban hills and valleys, forested mountain ranges, islands, rolling pasture and dunelands. We attach different values to these landscapes, depending on their nature, and our culture, personal history, economic relationship, and ideas about what is significant.

Landscape is important to our quality of life — it is the physical resource that underpins our economy, supporting farming, tourism, forestry and urban development. It is the force that shapes much of our cultural identities; for Maori the landscape provides earthly links with ancestors and tribal history, and is intrinsic to the wellbeing of the people of that place. The land defines the rohe, or tribal areas for tangata whenua, and has powerful cultural significance. Within all communities in the region there is an increasing awareness of the distinctive character of local landscapes and natural features, and how this influences the ways people live together and relate to the land around them.

Landscape change is inevitable, even without human action. However, the

speed of change caused by human activities is accelerating, and at the same time its effects are deepening and spreading. Distinctive aspects of the Wellington regional landscape are at real risk of being lost or degraded.

Residential and lifestyle developments are bringing new types and patterns of land use into peri-urban areas (around our main centres), as well as into more rural and remote areas. This particularly affects more sensitive landforms such as on ridgelines and the coast. Modern earth-moving machinery can reshape landscapes so quickly and drastically that natural patterns of landform, drainage and vegetation cover are dramatically altered or destroyed; even small changes in land use and development patterns can have cumulative impacts on natural systems and biodiversity. Such impacts affect the ability of natural systems to sustain our quality of life.

The regionally significant issue for landscape is:

#### Inappropriate modification and destruction of outstanding natural features and landscapes, and notable landscapes

Inappropriate modification and destruction of outstanding natural features and landscapes, and notable landscapes, is causing a loss of the values associated with those landscapes.

Table 8: Landscape Objective 23 Table 8: Landscape objective and summary of policies and methods to achieve the objective

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page		
Objective 23: Identification	Policy 24: Identification of outstanding		Method 1: District plan implementation	City and district councils			
and management of outstanding natural features and landscapes,	natural features and landscapes and notable landscapes		Method 2: Regional plan implementation	Wellington Regional Council			
and notable landscapes The region's outstanding natural features and			Method 24: User guide for identifying and assessing effects on landscapes	Wellington Regional Council* and city and district councils			
landscapes, and notable landscapes, are identified and managed in order to maintain			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils			
and enhance landscape values.			Method 48: Regional landscape character description	Wellington Regional Council* and city and district councils			
			Other related policies:				
			Coastal environment (Table 2) policies 3 & 50; Fresh water (Table 4) policies 16 & 50; Historic heritage (Table 5) policy 20 & 43; Indigenous ecosystems (Table 6) policy 22 & 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policies 25 & 47; Regional form (Table 10) policies 51, 52, 53, 55 & 69				
	Policy 25: Protection of outstanding		Method 1: District plan implementation	City and district councils			
	natural features and landscapes and maintenance and enhancement of notable landscapes		Method 2: Regional plan implementation	Wellington Regional Council			
			Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	Wellington Regional Council and city and district councils			
			Other related policies:				
			Coastal environment (Table 2) policies 3, 33 & 34; End 37; Fresh water (Table 4) policies 16 & 40; Historic her (Table 6) policies 23 & 44; Iwi resource management 24 & 47; Natural hazards (Table 9) policy 49; Regional	ritage (Table 5) policies 20 & 21; Indigenous e (Table 7) policies 45, 46 & 67; Landscape (Table	cosystems		
	Policy 47: Managing effects on outstanding natural features and landscapes, or notable landscapes		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils			

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
and management of Managir outstanding natural natural f	Policy 47: Managing effects on outstanding natural features and landscapes, or notable landscapes (Continued)		Method 24: User guide for identifying and assessing effects on landscapes	Wellington Regional Council* and city and district councils	
			Other related policies: Coastal environment (Table 2) policies 3, 33, 34, 35 & 36 8, 9 & 37; Fresh water (Table 4) policies 16 & 40; Historic ecosystems (Table 6) policies 23 & 44; Iwi resource mana (Table 8) policies 24 & 25; Regional form (Table 10) policies	heritage (Table 5) policies 20 & 43; Indigenous gement (Table 7) policies 45, 46 & 67; Landscap	



# 2.9 Natural hazards

A natural hazard is defined in the Resource Management Act as any atmospheric, earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment. Importantly, natural processes do not, on their own, constitute a hazard. Natural events become hazardous when they adversely affect human lives.

The Wellington region has one of the most physically diverse environments in New Zealand. It is also one of the most populous regions and consequently our communities are affected by a wide range of natural hazards. With the exception of geothermal activity, the region is subject to all of the hazard events. Commonly there are two or more hazards associated with a given event. For example, a rainstorm may cause flooding and landslips.

The three most potentially damaging and costly natural hazards events that can occur in the region are:

- *Earthquake:* High magnitude earthquake (7.0+) from the rupture of a local fault (especially the Wellington Fault) affecting Wellington city, Hutt valley, Porirua, Kapiti coast and towns in the Wairarapa.
- Flooding: Major river flooding in the Hutt valley, Kapiti coast and on the

central Wairarapa floodplains. Flooding is the most frequently occurring hazard event in the region.

• *Tsunami:* Large tsunami (particularly one that is locally generated) affecting low-lying areas around Wellington Harbour and the southern bays, settlements along the southern and eastern Wairarapa coast, Porirua Harbour and the Kapiti coast.

Other natural hazards have more localised impacts but occur more frequently. These include:

- Localised *flooding* and inundation from streams and stormwater overflow. This can occur throughout the region in low-lying developments such as Porirua, around tributary streams of the larger rivers, and areas that have short steep catchments such as Paekakariki.
- *Coastal erosion* and *inundation* often associated with *storm surge* affects some low-lying coastal developments in the region. Some sections of the coastline are in long-term retreat, such as Paekakariki and Te Kopi. Other areas have episodes of erosion that form part of a cycle of erosion and deposition, such as Paraparaumu or Riversdale.
- *Landslips* in hill suburbs of Wellington, the Hutt valley, Eastbourne, Wainuiomata, Paekakariki and in the Wairarapa hill country.

- *Drought,* especially in the central Wairarapa and the coastal hills between Flat Point and Castle Point.
- *Wild fire,* particularly in hill suburbs on urban fringes near heavily vegetated slopes, including western and southern Wellington suburbs, Eastbourne, Wainuiomata, hill suburbs in the Hutt valley and Porirua, and farmland in the eastern Wairarapa hill country.
- *High winds* that can occur throughout the region and cause widespread damage to buildings, infrastructure and forestry.
- *Sedimentation* and *erosion* of water courses, rivers and river mouths and tidal inlets, that can exacerbate the flood risk by raising bed levels and undermining banks.

People's actions, including mitigation measures and ongoing development in hazard prone areas, can cause or increase the risk from natural hazards. Two examples are seawalls that increase coastal erosion, and buildings on landslip prone areas. Stopbanks and seawalls can also create a sense of security and encourage further development, increasing the extent and value of at risk assets.

The effects of climate change in the medium to long term, while not creating any new hazard, have the potential to increase the frequency and magnitude of natural hazard events.

A major consequence of climate change is sea level rise. Sea level is predicted to rise up to half a metre over the next century. The main natural hazards associated with a rise in sea levels are coastal erosion and inundation. Sea level rise will also put increasing pressure on the coastal margin. As the shoreline adjusts, sediment will be redistributed around the coast and may cause shorelines to form new orientations. Beaches that are currently stable may begin to erode as the shoreline adjusts to a higher water level, while those that are currently eroding may experience an increased rate of retreat.

Climate change is expected to increase the intensity and duration of westerly weather systems and reduce easterly conditions. This will enhance differences in the regional climate, by bringing higher rainfall to the west and reducing coastal rains in the east. It will also bring longer periods of northerly gales

to the entire region, particularly in the spring months. Western and southern areas of the region may also have higher rainfall in the winter, increasing the

landslide risk during wet winters, particularly in extreme rainfall events. This will put pressure on stormwater systems and flood protection works. Extreme rainfall may also result in higher rates of sedimentation at river mouths and in estuaries, increasing the flood risk in those areas by raising the base level of the river bed.

It is also expected that the central and eastern Wairarapa will become drier over the next 100 years. Droughts will occur more frequently and persist for longer periods, placing pressure on water resources. This will also result in a heightened wild fire risk over summer months.

The regionally significant issues for natural hazards are:

#### 1. Effects of natural hazards

Natural hazard events in the Wellington region have an adverse impact on people and communities, businesses, property and infrastructure.

### 2. Human actions can increase hazard risk and consequences

People's actions including mitigation measures and ongoing development in hazard prone areas can cause, or increase, the hazard risk and consequences from natural hazards.

#### 3. Climate change will increase natural hazard events

Climate change will increase the risks from natural hazard events that already occur within the region, particularly:

- (a) sea level rise: exacerbating the effects of coastal erosion and inundation, especially during storm surge;
- (b) increased frequency and intensity of rainstorm events: increasing flood and landslide risk;
- (c) increased frequency of drought: placing pressure on water resources and increasing the wild fire risk.

Table 9: Natural hazards Objectives 24, 25 & 26

Table 9: Natural hazards Objective 25

Table 9: Natural hazards Objectives 24, 25 & 26 Table 9: Natural hazards objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 24: Avoiding	Policy 26: Avoiding subdivision and		Method 1: District plan implementation	City and district councils	
or minimising natural hazard risk The risks to people, communities, businesses,	development in high hazard risk areas		Method 16: Information and guidance on natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	
property and infrastructure from natural hazards and			Method 37: Flood hazard memoranda	Wellington Regional Council and city and district councils	
climate change effects are minimised, and development in hazard prone areas is avoided.			Method 49: Identify high hazard risk areas	Wellington Regional Council* and city and district councils	
			Other related policies:		
			Coastal environment (Table 2) policies 4 & 36; Iwi reso hazards (Table 9) policies 48, 49, 59 & 68; Regional fo	ource management (Table 7) policies 45 & 46 orm (Table 10) policies 27, 29, 30, 31, 51, 52, 5	; <b>Natural</b> 53, 55 & 69
	Policy 48: Minimise the effects of natural hazards		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
			Method 16: Information and guidance on natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	
			Method 37: Flood hazard memoranda	Wellington Regional Council and city and district councils	
			Method 49: Identify high hazard risk areas	Wellington Regional Council* and city and district councils	
			Other related policies:		
			Coastal environment (Table 2) policies 4 & 36; Iwi reso Natural hazards (Table 9) policies 26, 49, 59 & 68; Reg 55 & 69		
Objective 25: Activities not to increase the risks of natural hazards	Policy 49: Minimise effects from hazard mitigation measures		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
Hazard mitigation measures, structural works and other activities do not increase the			Method 50: Identification of natural features to protect property from natural hazards	Wellington Regional Council* and city and district councils	
activities do not increase the risk and consequences of natural hazard events.			Other related policies:		
			Coastal environment (Table 2) policies 4 & 36; Iwi reso Natural hazards (Table 9) policies 26, 48, 59 & 68; Reg 55 & 69	ource management (Table 7) policies 45, 46 8 jional form (Table 10) policies 27, 29, 30, 31, 5	67; 51, 52, 53,

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
resilience and preparedness com	Policy 68: Build hazard resilient communities that are prepared for natural hazard events		Method 16: Information and guidance on natural hazards and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	
			Method 37: Flood hazard memoranda	Wellington Regional Council and city and district councils	
of natural hazard events.			Other related policies:		
		Natural hazards (Table 9) policies 26, 48, 49 & 59; Reg 53, 55 & 69	<b>jional form</b> (Table 10) policies 27, 28, 29, 30,	51, 52,	
	Policy 59: Allocation of responsibilities for land use controls for natural hazards	Method 5: Allocation of responsibilities	Wellington Regional Council and city and district councils		
			Other related policies: Natural hazards (Table 9) policies 26, 48, 49 & 68		



# 2.10 Regional form

Good regional form is fundamental to a successful and sustainable region. Regional form is about the physical arrangement of urban and rural communities and how they link together. A well configured and compact form enhances the quality of life for residents and businesses. It is easier to get around, transport costs are lower and suitable housing is available. Each community not only looks good, but also works well, is cohesive and minimises effects on the environment.

The region's current form has a very strong corridor pattern and is generally compact. The transport corridor pattern includes State Highway 1 and the North Island Main Trunk rail line which enters the region near Otaki and extends southwards through Kapiti Coast, Pukerua Bay, Porirua and northern Wellington and through to Wellington city central business district (CBD). State Highway 1 continues through to Wellington International Airport. State Highway 2 and the Wairarapa railway line enter the region north of Masterton and extend southwest through Wairarapa, the Hutt valley and on to merge with State Highway 1 and the North Island Main Trunk rail line at Ngauranga. State Highway 58 provides a vital east — west link between State Highway 1 and 2.

This corridor pattern is a real strength for the region. It reinforces local centres, supports passenger transport, reduces the costs of energy use and makes services more accessible.

There are specific parts of the region where growth pressure exists and where the region's current compact form is beginning to 'fray' at the edges, reducing transport efficiency and the strength of some centres. In certain locations, the region's form has been weakened by poorly designed developments which affect the look, feel, and way in which people move around those areas. The region's urban design practices have been and continue to be mixed. The region also has limited east — west transport linkages, which means freight and commuter movements are focused along the north — south corridors, increasing congestion on some major routes.

The regionally significant issues are:

#### 1. Poor quality urban design

Poor quality urban design in the region can reduce peoples connection with places where they live, work and play and their 'sense of place'.

#### 2. Sporadic and uncoordinated development

Uncoordinated and sporadic development (including of infrastructure) can adversely affect the region's compact corridor form. In the Wellington region this can, among other things, result in:

Table 10: Regional form Objective 27

Table 10: Regional form Objective 27

- (a) Development that is poorly located in relation to infrastructure (such as roads, sewage and stormwater systems) and is costly to service;
- (b) the loss or rural or open space land valued for its productive, ecological and aesthetic qualities;
- (c) insufficient population densities to support public transport and other public services; and
- (d) new infrastructure that can encourage new development in locations which undermine existing centres, industrial employment areas.

#### 3. Integration of land use and transportation

Table 10: Regional form Objective 27 Table 3: Energy, infrastructure and waste Objective 10 A lack of integration between land use and the region's transportation network can create patterns of development that increase the need for travel, the length of journeys and reliance on motor vehicles, resulting in:

- (a) increased emissions to the air from a variety of pollutants, including greenhouse gases;
- (b) increased use of energy and reliance on non-renewable resources;
- (c) reduced opportunities for alternate means of travel, eg walking and cycling; and
- (d) increased road congestion, restricting movement of goods and services across and within the region, and compromising the efficient operation of the transport network.

Table 10: Regional form objective and summary of policies and methods to achieve the objective

Objective	Policies	Page	Methods	Implementation Page (* lead authority)			
A compact, well designed and	orm, major developments ed, safe port ant		Method 1: District plan implementation	City and district councils			
sustainable regional form, served by an integrated, safe and responsive transport network that delivers:			Method 20: Regional structure planning guide	Wellington Regional Council*, city and district councils			
(a) viable and vibrant			Other related policies:				
regional central business district in Wellington city			Air quality (Table 1) policy 1; Coastal environment (Table 2) policies 3, 4, 5, 7, 33, 34, 35, 30 infractructure and water (Table 3) policies 8, 9, 11, 12, 27, 8, 62; Ersch water (Table 4) policies				
(b) viable and vibrant regional centres			infrastructure and waste (Table 3) policies 8, 9, 11, 12, 37 & 63; Fresh water (Table 4) policies 14, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) policies 20, 21 & 43; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policies 24, 25 & 47;				
<ul><li>(c) higher density and mixed use activities within and</li></ul>			Natural hazards (Table 9) policies 26, 48, 49 & 69; Regional form (Table 10) policies 28, 29, 30, 31, 51, 52, 53, 54, 55 & 69; Soils and minerals (Table 11) policies 14, 32, 56 & 57				
around key centres and public transport links	Policy 28: Maintain and enhance the viability and vibrancy of the regional central		Method 1: District plan implementation	City and district councils			
<ul> <li>(d) sufficient industrial- based employment locations to meet the region's needs</li> </ul>	business district and regional centres		Method 40: Development of centre visions for the central business district and regional centres and an overall regional vision	Wellington Regional Strategy			
<ul> <li>(e) sustainable management of the regionally significant Regional Focus Areas</li> </ul>			Method 41: Regional principles for managing retail activities	Wellington Regional Strategy			
(f) strategically planned			Other related policies:				
rural residential development			<b>Coastal environment</b> (Table 2) policies 4, 33 & 50; <b>Energy, infrastructure and waste</b> (Table 3) p 12, 37; <b>Fresh water</b> (Table 4) policies 14, 38, 39, 40, 41, 42 & 50; <b>Historic heritage</b> (Table 5) pol				
(g) an integrated open space network that reinforces the region's form	Policy 29: Identification and promotion of higher density and mixed use development in and around key local centres and public transport links		43; Iwi resource management (Table 7) policies 45	5, 46 & 67; <b>Indigenous ecosystems</b> (Table 6) policies 22, gional form (Table 10) policies 27, 29, 30, 31, 51, 52, 53,	, 23 &		
(h) a range of housing (including increased opportunity for affordable housing) that			Method 1: District plan implementation	City and district councils			
meets the needs of the region's communities			Method 18: Information on key public transport links	Wellington Regional Council*, city and district councils			
<ul> <li>(i) land use patterns that assist the region to achieve the Wellington Regional Land Transport Strategy 2007–2016 key outcomes</li> </ul>							

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page		
Objective 27: Compact, well designed and sustainable regional form (Continued) (j) improved east-west transport linkages (k) efficient use of existing	Policy 29: Identification and promotion of higher density and mixed use development in and around key local centres and public transport links (Continued)		Other related policies: Air quality (Table 1) policy 1; Coastal environment waste (Table 3) policies 8, 9, 11, 12 & 37; Fresh wat heritage (Table 5) policies 20, 21 & 43; Indigenous management (Table 7) policies 45, 46 & 67; Natura form (Table 10) policies 27, 28, 30, 31, 51, 52, 53, 5 56 & 57	ter (Table 4) policies 14, 38, 39, 40, 41, 42 & 50 ecosystems (Table 6) policies 22, 23 & 44; Iwi al hazards (Table 9) policies 26, 48, 49 & 68; Re	; Historic resource gional		
infrastructure (including transport network	Policy 30: Identification and protection of key industrial-based employment locations		Method 1: District plan implementation	City and district councils			
infrastructure)			Method 42: Information about supply and demand of industrial employment locations	Wellington Regional Strategy			
			Other related policies:				
			Air quality (Table 1) policy 1; Coastal environment (Table 2) policies 4, 33 & 50; Energy, inf waste (Table 3) policies 8, 9, 11, 12 & 37; Fresh water (Table 4) policies 14, 38, 39, 40, 41, 4, heritage (Table 5) policies 20, 21 & 43; Indigenous ecosystems (Table 6) policies 22, 23 & 44 management (Table 7) policies 45, 46 & 67; Natural hazards (Table 9) policies 26, 48, 49 & 6 form (Table 10) policies 27, 28, 29, 31, 51, 52, 53, 54, 55 & 69; Soils and minerals (Table 11 56 & 57				
	Policy 31: Regional land transport to support a compact, well designed and sustainable regional form		Method 3: Wellington Regional Land Transport Strategy implementation	Wellington Regional Council			
			Other related policies:				
			Energy infrastructure and waste (Table 3) policies 10 & 11				
	Policy 51: Regional urban design principles for urban development		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council, city and district councils			
			Method 38: Sign the New Zealand Urban Design Protocol	Wellington Regional Council, city and district councils			
			Other related policies: Air quality (Table 1) policies 1 & 2; Coastal environ infrastructure and waste (Table 3) policies 8, 9, 11, 40, 41, 42 & 50; Historic heritage (Table 5) policies 23 & 44; Iwi resource management (Table 7) polici Natural hazards (Table 9) policies 26, 48, 49 & 68; ff 53, 54, 55 & 69; Soils and minerals (Table 11) policies	, 12 & 37; <b>Fresh water</b> (Table 4) policies 13, 14, 20, 21 & 43; <b>Indigenous ecosystems</b> (Table 6) ties 45, 46 & 67; <b>Landscape</b> (Table 8) policies 24 <b>Regional form</b> (Table 10) policies 27, 28, 29, 30	38, 39, policies 22, , 25 & 47;		

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
Objective 27: Compact, well designed and sustainable regional form (Continued)	Policy 52: Development to support a compact, well designed and sustainable regional form		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils		
			Other related policies: Air quality (Table 1) policies 1 & 2; Coastal environm infrastructure and waste (Table 3) policies 8, 9, 11, 41, 42 & 50; Historic heritage (Table 5) policies 20, 1 23 & 44; Iwi resource management (Table 7) polici Natural hazards (Table 9) policies 26, 48, 49 & 68; R 53, 54, 55 & 69; Soils and minerals (Table 11) polici	12 & 37; Fresh water (Table 4) policies 14, 38, 5 21 & 43; Indigenous ecosystems (Table 6) polici ies 45, 46 & 67; Landscape (Table 8) policies 24, Regional form (Table 10) policies 27, 28, 29, 30,	39, 40, es 22, 25 & 47;	
	Policy 53: Development that integrates land use with transportation		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils		
			<b>Other related policies:</b> Air quality (Table 1) policies 1 & 2; <b>Coastal environment</b> (Table 2) policies 3, 4, 6, 7, 33, 35, 36 & 50; <b>Energy</b> , infrastructure and waste (Table 3) policies 8, 9, 11, 12 & 37; <b>Fresh water</b> (Table 4) policies 14, 38, 39, 40, 41, 42 & 50; <b>Historic heritage</b> (Table 5) policies 20, 21 & 43; <b>Indigenous ecosystems</b> (Table 6) policies 22, 23 & 44; <b>Iwi resource management</b> (Table 7) policies 45, 46 & 67; <b>Landscape</b> (Table 8) policies 24, 25 & 47; <b>Natural hazards</b> (Table 9) policies 26, 48, 49 & 68; <b>Regional form</b> (Table 10) policies 27, 28, 29, 30, 31, 51, 52, 54, 55 & 69; <b>Soils and minerals</b> (Table 11) policies 14, 32, 56 & 57			
	Policy 54: Sequencing of land use and coordination with funding		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils		
			Other related policies: Coastal environment (Table 2) policy 4; Energy, inf Regional form (Table 10) policies 27, 28, 29, 30, 31,		37;	
	Policy 55: Management of Regional Focus Areas		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans.	City and district councils		
			Method 44: Planning frameworks for each Regional Focus Area	Wellington Regional Strategy		
				Other related policies: Air quality (Table 1) policies 1 & 2; Coastal environm infrastructure and waste (Table 3) policies 8, 9, 11, 41, 42 & 50; Historic heritage (Table 5) policies 20, 2 23 & 44; Iwi resource management (Table 7) policie Natural hazards (Table 9) policies 26, 48, 49 & 68; R 52, 53, 54 & 69; Soils and minerals (Table 11) policie	12 & 37; Fresh water (Table 4) policies 14, 38, 3 21 & 43; Indigenous ecosystems (Table 6) polici ies 45, 46 & 67; Landscape (Table 8) policies 24, Regional form (Table 10) policies 27, 28, 29, 30,	89, 40, es 22, 25 & 47;

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page	
	Policy 69: Maintain and enhance a compact, well designed and sustainable regional form		Method 38: Sign the New Zealand Urban Design Protocol	Wellington Regional Strategy		
			Method 39: Identify major gaps and opportunities to integrate public open space.	Wellington Regional Strategy		
			Method 43: Regional principles for rural residential development	Wellington Regional Strategy		
			Method 45: Work with private sector developers to increase the range of housing types in the region	Wellington Regional Strategy		
			Other related policies:			
			Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3, 4, 6, 7, 33, 35, 36 & 50; Energy, infrastructure and waste (Table 3) policies 8, 9, 11, 12 & 37; Fresh water (Table 4) policies 14, 38, 39, 40, 41, 42 & 50; Historic heritage (Table 5) policies 20, 21 & 43; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Iwi resource management (Table 7) policies 45, 46 & 67; Landscape (Table 8) policies 24, 25 & 47; Natural hazards (Table 9) policies 26, 48, 49 & 68; Regional form (Table 10) policies 27, 28, 29, 30, 31, 51, 52, 53, 54 & 55; Soils and minerals (Table 11) policies 14, 32, 56 & 57			



# **2.11** Soils and minerals

The soils of the Wellington region are a primary source of its economic wealth, and overall wellbeing. They perform a range of important functions. They absorb, retain and channel water; they support and sustain vegetation and economically important crops; they store and treat natural, domestic, and industrial waste; they provide support for buildings and other structures; and they are a source of economically valuable minerals and construction materials.

As the life-giving base element of the land, soils are a significant taonga to Maori. The condition of the soil is a direct reading of the state of the land, and this in turn reflects the health of the people. This mauri (life force that exists in all things in the natural world) needs to be safeguarded.

Five major challenges exist in terms of the management of soil and minerals in the region: preventing soil erosion, maintaining soil health, retaining productive soils for agricultural use, preventing unsafe use of contaminated sites, and efficient mineral extraction.

Soil erosion leads to land degradation and loss of soil productivity, capability and versatility. Soils are subject to the natural forces of erosion, including rain, high winds, and ice action, which can cause slumping, slips, and formation of scree slopes. Human activities may accelerate soil erosion, particularly where inappropriate land management practices occur.

Nearly half the land in the Wellington region is sustainably managed with little or no sign of soil erosion. This land does not carry a severe or high risk of accelerated erosion in the long term, so long as good management practices prevail.

About one third of the region is erosion prone land, which is more susceptible to accelerated soil erosion if the land is inappropriately managed. Accelerated soil erosion has occurred where there is pastoral grazing on erosion-prone land (predominantly in the eastern Wairarapa hills), wind erosion (as a result of the cultivation of arable soils in the Wairarapa Valley), large scale earthworks associated with subdivisions and roading, removal of native vegetation, and harvesting of plantation forestry on erosion prone land, where the harvesting practices are poorly executed. Off site effects of soil erosion include reduction in water clarity in rivers and streams, degradation of aquatic habitat from sediment deposition on stream beds, downstream flooding, and aggradation of river beds.

Soil health refers to the biological, chemical and physical state of the soil that supports the soil's ecosystems. Unlike soil erosion problems, which are generally obvious, soil health problems are less evident, but are no less important. Soil health can be compromised or degraded through contamination, compaction, and the loss of nutrients. Intensive land use and the desire to increase productivity of arable land has led to the addition of phosphate-based fertilisers. Most of the cropping and horticultural land has elevated levels of available phosphate (known as Olsen-P). Phosphate attaches to soil particles and if washed off into rivers can promote weed growth. Some areas and land uses are more prone to these problems than others.

Of the land used for dairying, and to a lesser extent in the horticultural soils, there is evidence of soil compaction. Soil compaction reduces soil pore spaces, which reduces water infiltration and increases run-off.

Soils contain the necessary minerals and nutrients to enable plants and animals to grow. A consequence of intensive farming is that soils are unable to sustain high levels of growth unless those nutrients are replaced. Investigations show that soil organic matter is slowly declining in arable soils in the region.

The region has a small amount of land that could be described as highly productive in an agricultural sense. This highly versatile land is described under the Land Use Capability classification as Class I & II land. The classification is based on an assessment of five physical factors that sustain agricultural production: rock type, soil type, slope, erosion degree and type, and vegetation. It also takes into account climate, effects of past land use and potential for erosion.

Class I & II land in the region is in the river valleys of the Otaki and Ruamahanga rivers, and around the townships of Otaki, Featherston, Greytown, Carterton, and Masterton. There is a growing pressure to subdivide some of this land, especially around Otaki and Greytown, and it is also vulnerable to roading projects.

Contaminated land is the legacy of poor waste management. There are more than 1,600 sites in the region that have a history of using, storing or manufacturing hazardous substances, including closed landfills. Contaminated land can make land unsuitable or unsafe for future land uses.

In the Wellington region, sand, rock, gravel and limestone are mined from rivers, beaches, coastal cliffs and inland quarries. As the region's population continues to expand, the demand for mineral resources, and particularly aggregate (crushed rock used in building, roading and other construction), will increase. Mineral resources are fixed in location, unevenly distributed and finite. Extraction processes, sites and transportation routes can create adverse environmental effects. If activities sensitive to the effects of extraction and processing are established nearby, 'reverse sensitivity' can arise — meaning the extractive or processing operations may be forced to restrict or change their activities to avoid affecting the new neighbour.

The regionally significant issues for soils and minerals are:

#### 1. Accelerated soil erosion

Some land management practices accelerate soil erosion and reduce soil quality. Soil loss can lead to increased sedimentation of waterways and subsequent effects on the coastal marine area. Soil loss can also decrease farm production, soil biodiversity and ecosystem function. Table 11: Soils and minerals Objectives 28 & 29

#### 2. Reduction of soil health

Some land use practices are reducing the health and productive capability of soil, leading to the loss of its life-supporting capacity.

Table 11: Soils and minerals Objective 29

Table 11: Soils

and minerals

Objective 29

### 3. Highly productive agricultural land under threat from development

The Wellington region has a small total area of highly productive agricultural land (Class I and II land). This land is under threat from development, including residential development and the construction of roads.

#### 4. Soil contamination

Some land where hazardous substances have been used or stored — such as the site of gas works, petrol stations, and sheep dips — has been contaminated by those activities. Development of that land for new uses such as residential or agricultural uses may not be safe if soils are contaminated.

#### 5. Limited mineral resources

There are limited mineral resources in the region and demand will increase. If the region's use of mineral resources is constrained, demand will have to be met from outside the region, with higher social, economic, cultural and environmental costs. Table 11: Soils and minerals Objective 29

Table 11: Soils and minerals Objective 30

#### Table 11: Soils and minerals objectives and summary of policies and methods to achieve the objectives

Objective	Policies	Page	Methods	Implementation (* lead authority)	Page
Objective 28: Minimise	Policy 14: Erosion and sediment control from	n	Method 1: District plan implementation	City and district councils	
soil erosionearthworks and vegetation clearanceLand management practices do not accelerate soil erosion.	earthworks and vegetation clearance		Method 2: Regional plan implementation	Wellington Regional Council	
			Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	Wellington Regional Council* and city and district councils	
			Other related policies:		
			Coastal environment (Table 2) policies 6, 7, 35 & 36; Fresh water (Table 4) policies 13, 14, 16, 38, 39 & 40; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Iwi resource management (Table 7) policies 45 & 46; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53, 55 & 69; Soils and minerals (Table 11) policies 70 & 71		
	Policy 70: Minimise soil erosion		Method 17: Information and guidance on sustainable land management practices	Wellington Regional Council	
			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	
			Method 33: Industry-led environmental accords and codes of practice	Industry	
			Method 56: Soil conservation support to protect erosion prone land	Wellington Regional Council	
			Other related policies: Coastal environment (Table 2) policies 6, 7 & 36; Fresh water (Table 4) policies 13, 14, 16, 38, 39, 40 & 64; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Soils and minerals (Table 11) policies 14, 56 & 71		
Objective 29: Maintain soil ecosystem function and	Policy 32: Management of contaminated land		Method 1: District plan implementation	City and district councils	
range of uses Soils maintain those desirable			Method 25: Database of sites at risk of contamination	Wellington Regional Council	
physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses.			Other related policies: Coastal environment (Table 2) policy 4; Fresh wate management (Table 7) policies 45 & 46; Regional f Soils and minerals (Table 11) policies 14 & 71		

Objective	Policies	Page	Methods	Implementation Page (* lead authority)	
Objective 29: Maintain soil ecosystem function and range of uses (Continued)	Policy 56: Loss of highly productive agricultural land (Class I & II land)		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	
			Other related policies: Coastal environment (Table 2) policy 4; Iwi resource management (Table 7) policies 45, 46 & 67; Regional form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 55; Soils and minerals (Table 11) policies 70 & 71		
	Policy 71: Prevention of long-term soil deterioration		Method 17: Information and guidance on sustainable land management practices	Wellington Regional Council	
			Method 28: Whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	
			Other related policies: Coastal environment (Table 2) policy 62; Fresh water (Table 4) policies 13, 14, 16, 38 & 40; Indigenous ecosystems (Table 6) policies 22, 23 & 44; Soils and minerals (Table 11) policies 14, 32 & 70		
Objective 30: Mineral resource needs are met from within the	resource needs are met from within the Wellington region The need for mineral resources is met from within the		Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	
The need for mineral resources is met from within the Wellington region.			Method 52: Identification of the region's significant mineral resources	Wellington Regional Council	
			Other related policies: Air quality (Table 1) policies 1 & 2; Energy, infrastruc management (Table 7) policies 45, 46 & 67; Regiona	cture and waste (Table 3) policy 10; Iwi resource al form (Table 10) policies 27, 28, 29, 30, 51, 52, 53 & 5	55

# Chapter Three

### **Policies and methods**

# 3. Policies and methods

This chapter presents the policies and methods that, when implemented, will achieve the objectives of the Regional Policy Statement and address the regionally significant issues (including the issues of significance to iwi authorities). The issues and objectives are presented in the previous chapter under topic headings.

The policies, then methods, are listed in numeric order.

This chapter is divided into five sections. The first four sections set out the policies, organised according to their type:

- 3.1 contains policies that direct district or regional plans, or the Wellington Regional Land Transport Strategy
- 3.2 contains policies that are to be considered when processing and deciding on resource consents, notices of requirement, and plan changes or variations
- 3.3 contains policies that allocate responsibilities for indigenous biodiversity, natural hazards and hazardous substances
- 3.4 contains policies that outline non-regulatory actions.

The fifth section of this chapter sets out the methods for implementing the policies. There are two main groups of methods: regulatory methods (implementing policies in sections 3.1, 3.2 and 3.3), and non-regulatory methods that implement the policies in section 3.4 or that *support* the delivery of the other policies.

Each of the five sections includes a summary table showing which policies and methods relate to which key topics.

# 3.1 Policy direction for district and regional plans and the Regional Land Transport Strategy

This section contains policies that must be given effect to by district or regional plans, and policies that the Wellington Regional Land Transport Strategy must not be inconsistent with. Policies are listed in numeric order. The summary table presents the policies under the key topics.

Кеу Торіс	Policy	Page
Air Quality	Policy 1: Discourage new sensitive land uses near activities that emit odour, dust and smoke and land uses that emit odour, dust and smoke near sensitive activities	
	Policy 2: Manage the discharge of odour, dust and smoke	
Coastal environment	Policy 3: Protection of the values of nationally and regionally significant areas in the coastal environment	
	Policy 4: New subdivision, use and development in the coastal environment	
	Policy 5: Identifying the landward extent of the coastal environment	
	Policy 6: Maintenance or enhancement of coastal water quality	
	Policy 7: Safeguarding the life-supporting capacity of coastal and marine ecosystems	
Energy, infrastructure and waste	Policy 8: Recognition of the benefits from regionally significant infrastructure and renewable energy	
	Policy 9: Protection of regionally significant infrastructure	
	Policy 10: Reduce the consumption of non-renewable transport fuels and emission of carbon dioxide from transportation	
	Policy 11: Promote the implementation of travel demand management mechanisms	
	Policy 12: Promote energy efficient design, small scale renewable energy and provide for energy efficient alterations	
Fresh water	Policy 13: Maintaining and enhancing rivers for aquatic ecosystem health	
	Policy 14: Erosion and sediment control from earthworks and vegetation clearance	
	Policy 15: Promoting and managing discharges to land	
	Policy 16: Protecting aquatic ecological function	
	Policy 17: Defining environmental flows and levels	
	Policy 18: Efficient use and water harvesting	
	Policy 19: Priorities for abstraction of water for the health needs of people	
Historic	Policy 20: Identification of historic heritage	
Heritage	Policy 21: Protection of historic heritage	
Indigenous ecosystems	Policy 22: Identification of indigenous ecosystems, habitats and areas with significant indigenous biodiversity values	
	Policy 23: Protection of indigenous ecosystems, habitats and areas with significant indigenous biodiversity values	
Landscape	Policy 24: Identification of outstanding natural features and landscapes and notable landscapes	
	Policy 25: Protection of outstanding natural features and landscapes and maintenance and enhancement of notable landscapes	
Natural hazards	Policy 26: Avoiding subdivision and development in high hazard risk areas	

Кеу Торіс	Policy	Page
Regional form	Policy 27: Structure planning for major developments	
	Policy 28: Maintain and enhance the viability and vibrancy of the regional central business district and regional centres	
	Policy 29: Identification and promotion of higher density and mixed use development in and around key local centres and public transport links	
	Policy 30: Identification and protection of key industrial-based employment locations	
	Policy 31: Regional land transport to support a compact, well designed and sustainable regional form	
Soils and minerals	Policy 32: Management of contaminated land	

# Policy 1: Discourage new sensitive land uses near activities that emit odour, dust and smoke and land uses that emit odour, dust and smoke near sensitive activities

District plans shall include policies, and/or rules that discourage:

- (a) new sensitive activities near land uses that emit odour, smoke or dust and lower the amenity values of the surrounding areas; and
- (b) new land use activities which emit odour, smoke and dust and lower the amenity values of the surrounding areas, near sensitive activities.

### Explanation

New land use activities that generate odour, smoke and dust need to be discouraged away from sensitive areas. In addition, sensitive activities should also be discouraged away from land uses that emit odour, smoke and dust.

Land use activities that affect sensitive activities include:

- Industrial activities such as manufacturing and rendering, commercial activities such as spray painting and solvent use, landfills, sewage treatment plants and agricultural activities that emit odour and reduced amenity.
- Domestic fires and backyard burning, commercial activities and vehicles that emit smoke and reduce amenity and visibility.
- Earthworks, quarries, land clearance and industry that emit dust and reduce amenity, visibility and the soiling of surfaces.

Sensitive activities include any residential activity, any early childhood education centre, and any hotel, motel or other accommodation activity.

Residential activity means the use of a premises for any domestic or related purpose by persons living in the premises alone or in family and/or non-family groups (whether any person is subject to care, supervision or not).

Hotel, motel or other accommodation activity includes hotels, motels, or the use of premises where residential accommodation for five or more persons is offered at a daily tariff or other specified time. Table 1: Air Quality Objective 1 Methods 1, 6 & 29 Related policies 1, 8, 9, 10 11, 29, 30, 45, 46, 51, 52, 53, 54, 57, 61 & 69

# Policy 2: Manage the discharge of odour, dust and smoke

Table 1: Air Quality Objective 1 Methods 2, 6 & 29 Related policies 1, 8, 9, 10, 11, 29, 30, 45, 46, 51, 52, 53, 54, 57, 61 & 69

Table 2: Coastal environment Objectives 3 & 4 Methods 1, 2 & 27 Appendix 1 Related policies 4, 5, 6, 7, 8, 9, 16, 20, 21, 22, 23, 24, 25, 27, 33, 34, 35, 36, 45, 46, 50, 51, 52, 53, 55, 57 & 69

Table 2: Coastal environment Objective 4 Method 1 Related policies 3, 5, 7, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 45, 46, 50, 51, 52, 53, 54, 55, 56, 69 & 57

Table 2: Coastal environment Objective 4 Methods 1 & 30 Related policies 3, 4, 16, 20, 22, 24, 26, 27, 33, 34, 36, 45, 46, 50 & 67

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Regional plans shall include policies and rules that manage the discharge of odour, dust and smoke on the amenity values of neighbouring areas.

### Explanation

This policy requires that the Regional Coastal Plan (2000) and/or the Regional Air Quality Management Plan for the Wellington Region (2000) to manage the discharge of odour, dust and smoke on amenity values of neighbouring areas.

# Policy 3: Protection of the values of nationally and regionally significant areas in the coastal environment.

District and regional plans shall include policies and rules to preserve the natural character of the coastal environment by protecting the values of the sites and areas listed in Appendix 1.

### Explanation

This policy requires the protection of the natural character of those parts of the coast that have values that are at least regionally significant. Many sites listed in Appendix 1 have multiple values, and these are indicated in the columns adjacent to each site name. Where multiple values occur within a cluster, such as around Castlepoint, they have been recognised as a whole, rather than incremental parts as separate places (eg lighthouse, dunes, rock strata etc). The 'statement of significance' for each site provides more specific information about the significance of each site.

An indicative map showing the locations of these sites is also in Appendix 1.

# Policy 4: New subdivision, use and development in the coastal environment

District plans shall include policies that encourage new subdivision, use and development in the coastal environment to be located in areas where the natural character has already been compromised.

#### Explanation

Although it is a matter of national importance to preserve the natural character of the coastal environment, the Resource Management Act does not preclude appropriate use and development. The New Zealand Coastal Policy Statement further establishes the requirement to define what form of subdivision, use, development or occupation would be appropriate in the coastal environment and where it would be appropriate.

# Policy 5: Identifying the landward extent of the coastal environment

District plans shall include policies and/or rules to identify the landward extent of the coastal environment using the following criteria:

- (a) any area dominated by coastal vegetation or habitat;
- (b) any landform affected by active coastal processes;
- (c) any landscapes or features, including coastal escarpments, that contribute to the natural character, visual quality or amenity value of the coast;
- (d) any site, structure, place or area of historic heritage value adjacent to, or connected with, the coastal marine area, which derives its heritage value from a coastal location;
- (e) those sites and areas of regionally significant values listed in Appendix 1; and
- (f) any land adjacent to the coast that is affected by, or could be affected by, storm surge or coastal inundation.

Policy 5 identifies those natural and physical resources which, because of their form, function, or value, give particular parts of the region a coastal character. Policies in the regional policy statement and the New Zealand Coastal Policy Statement that direct how land uses in the coastal environment are to be managed, will apply to activities in the coastal marine area and up to the landward extent of the coastal environment.

This policy does not direct how the use, development and protection of the identified natural and physical resources of the coastal environment should be managed. Other policies provide guidance on this matter.

# Policy 6: Maintenance or enhancement of coastal water quality

The regional coastal plan shall include policies, rules and/or methods to require coastal water quality to be maintained or enhanced so that it is at least suitable for contact recreation, and sustains healthy marine ecosystems.

### Explanation

A high standard of water quality is an essential requirement for maintaining the quality and health of marine ecosystems. Sewage and stormwater are the most common discharges to the coastal marine area. This policy means that these discharges, after reasonable mixing, cannot cause water quality to be unsuitable for contact recreation or marine ecosystems.

Most contaminants and sediments that arrive in the coastal marine area are carried by rivers and streams. Policy 13 sets a bottom line for fresh water quality in rivers. Policy 15 promotes the discharge of contaminants to land rather than water.

# Policy 7: Safeguarding the life-supporting capacity of coastal and marine ecosystems

District and regional plans shall include policies, rules and/or methods that safeguard the life-supporting capacity of coastal and marine ecosystems by maintaining and enhancing:

- (a) any area within the intertidal or subtidal zone that is known to contain unique, rare, distinctive or representative marine life or habitats;
- (b) areas used by marine mammals as breeding, feeding or haul out sites;
- (c) habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;
- (d) habitats and routes important for preserving the range, abundance, and diversity of indigenous and migratory species; and
- (e) any area that contains indigenous ecosystems and habitats that are unique to the coastal environment and particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, rocky reef systems and salt marshes.

### Explanation

This policy describes habitats and types of areas that are typically sensitive and vulnerable to development pressures. Because some of these areas and habitats straddle the land and water interface, they will need to be controlled in both regional and district plans and may need to be protected with buffer areas.

# Policy 8: Recognition of the benefits from regionally significant infrastructure and renewable energy

District and regional plans shall include policies that recognise:

(a) the social, economic and cultural benefits of regionally significant infrastructure; and

Table 2: Coastal environment Objective 6 Method 2 Related policies 3, 4, 13, 14, 15, 23, 27, 33, 34, 36, 38, 39, 40, 44, 45, 46, 50, 51, 52, 53, 55, 57, 64, 66, 69 & 70

Table 2: Coastal environment Objective 6 Methods 1, 2, 27 & 30 Related policies 3, 4, 6, 16, 22, 27, 33, 34, 36, 45, 46, 50, 51, 52, 53, 55, 67, 69 & 70 Table 3: Energy, infrastructure and waste

Objectives 9 & 10

Methods 1, 2 & 31 Related policies 3,4, 6, 7,9,13,14,16,18,19, 26,27,28,29,30,31,33, 36,37,38,39,40,41,43, 44,45,46,47,51,52,53, 55,65,69

- (b) the social, economic, cultural and environmental benefits of renewable energy generation and transmission, including:
  - benefits associated with the security of energy supply within New Zealand, including the diversification of our energy sources;
  - (ii) benefits associated with reducing our dependency on external energy supplies;
  - (iii) benefits associated with reducing the need for non-renewable energy sources, including the benefits associated with reducing greenhouse gas emissions; and
  - (iv) benefits associated with reducing our dependence on the national grid and transmission losses where renewable sources of electricity are located close to demand.

# Explanation

The benefits of renewable energy generation and transmission can occur outside a district or the region. Benefits are also not only generated by large scale renewable energy projects but also smaller scale, distributed generation projects.

Renewable energy means energy powered from solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources.

Infrastructure has the same meaning as defined in section 2 of the Resource Management Act. Regionally significant infrastructure includes:

- pipelines for the distribution or transmission of natural or manufactured gas or petroleum
- strategic telecommunications facilities, as defined in section 5 of the Telecommunications Act 2001
- strategic radio communications facilities, as defined in section 2(1) of the Radio communications Act 1989
- the national electricity grid, as defined by the Electricity Governance Rules 2003
- facilities for the generation of electricity where the electricity generated is supplied to the national electricity grid and infrastructure to transmit the electricity generated into the national electricity grid
- the regional bulk water supply network and water treatment plants
- community wastewater and stormwater networks systems and wastewater treatment plants
- the Strategic Transport Network, as defined in the Wellington Regional Land Transport Strategy 2007–2016
- Wellington City bus terminal and Wellington Railway Station terminus
- Wellington International Airport
- Port of Wellington (including storage tanks)
- Point Howard, Seaview (including storage tanks)
- Burnham Wharf (including storage tanks).

# Policy 9: Protection of regionally significant infrastructure

District and regional plans shall include policies that protect regionally significant infrastructure from incompatible land uses or activities under, over, or alongside.

# Explanation

Regionally significant infrastructure is an important physical resource that enables people and communities to provide for their social, economic and cultural wellbeing, and their health and safety.

Table 3: Energy, infrastructure and waste Objective 10 Methods 1 & 2 Related policies 3, 4, 6, 7, 9, 11, 12, 13, 14, 16, 18, 19, 26, 27, 28, 29, 30, 31, 33, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 51, 52, 53, 55, 65 & 69

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- pipelines for the distribution or transmission of natural or manufactured gas or petroleum
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- strategic radio communications facilities, as defined in section 2(1) of the Radio communications Act 1989
- the national electricity grid, as defined by the Electricity Governance Rules 2003
- facilities for the generation of electricity where the electricity generated is supplied to the national electricity grid and infrastructure to transmit the electricity generated into the national electricity grid
- the regional bulk water supply network and water treatment plants
- community wastewater and stormwater networks systems and wastewater treatment plants
- the Strategic Transport Network, as defined in the Wellington Regional Land Transport Strategy 2007–2016
- Wellington City bus terminal and Wellington Railway Station terminus
- Wellington International Airport
- Port of Wellington (including storage tanks)
- Point Howard, Seaview (including storage tanks)
- Burnham Wharf (including storage tanks).

# Policy 10: Reduce the consumption of non-renewable transport fuels and emission of carbon dioxide from transportation

The Wellington Regional Land Transport Strategy shall include objectives and policies that promote a reduction in:

- (a) the consumption of non-renewable transport fuels; and
- (b) the emission of carbon dioxide from transportation.

#### Explanation

The use of the regional land transport network is a significant and growing contributor to the consumption of non-renewable fuels and the emission of carbon dioxide. In 2004, 86 per cent of the oil consumed in New Zealand was used by the transport sector. Carbon dioxide is a greenhouse gas that contributes to climate change. The transport sector also accounts for around 45 per cent of the country's carbon dioxide emissions.

The Wellington Regional Land Transport Strategy is a statutory document (prepared under the Land Transport Act 1998) that Wellington Regional Council must produce. It is a plan for the development of the region's land transport system over the next 10 years. It provides policies to guide regional transport decisions, and a number of interventions in the form of action programmes, by mode and by corridor.

The Wellington Regional Land Transport Strategy has a significant role in ensuring that the demand for non-renewable energy and the emissions of carbon dioxide are reduced.

There are a number of ways the management of our region's land transport system can play a part in addressing this issue. This includes improving our region's passenger transport network (particularly electric buses and trains), continuing to promote an increased uptake in walking and cycling, managing the demand for travel, and increasing travel efficiency. Table 3: Energy, infrastructure and waste Objective 9 Method 3 Related policies 11 & 31

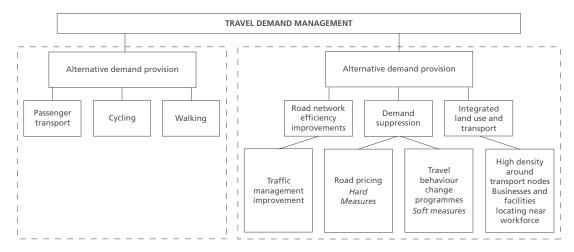


Figure 3: Travel demand management mechanisms

# Policy 11: Promote the implementation of travel demand management mechanisms

District plans and the Wellington Regional Land Transport Strategy shall include policies to promote travel demand management mechanisms.

#### Explanation

Travel demand management mechanisms provide alternatives to single occupancy vehicle travel and address congestion issues. These can include a wide range of mechanisms such as: travel behavioural change programmes; road pricing tools; and improvements to the efficiency of the existing network through various traffic management tools, or by reducing the need to travel through integrated land use development. Figure 3 provides an overview of the different travel demand management mechanisms.

# Policy 12: Promote energy efficient design, small scale renewable energy and provide for energy efficient alterations

District plans shall include policies that:

- (a) promote energy efficient design and the use of small scale renewable energy generation as part of subdivision and developments; and
- (b) provide for energy efficient alterations to existing buildings.

#### Explanation

Orientation, layout and design can have a significant influence on the energy efficiency of developments. Improved energy efficiency can be achieved by:

- ensuring that the location and layout of subdivision and developments enable everyday services such as shops, schools, businesses and community facilities to be accessed by walking and cycling
- ensuring that subdivision and developments are located and designed to enable easy access to public transport services
- ensuring that the layout of subdivisions and orientation of buildings enable the efficient use of the sun as a source of power and heating
- incorporating power generation facilities, such as solar panels, or small scale renewable energy facilities, including domestic scale wind turbines.

Small scale renewable energy facilities include solar generation on domestic or commercial

Table 3: Energy, infrastructure and waste Objective 9 Methods 1, 3 & 10 Related policies 1, 2, 8, 10, 12, 27, 28, 29, 30, 31, 37, 45, 46, 51, 52, 53, 55, 57 & 69

Table 3: Energy, infrastructure and waste Objective 9 Methods 1, 11, 12 57 Related policies 8, 11, 27, 37, 41, 42, 45, 46, 51, 63 & 65

buildings, particularly for water heating; and domestic scale wind turbines that are capable of generating up to 5kW of electricity and up to 20kW of total maximum output per site.

Energy efficient alteration may also include installation of solar water heating systems or domestic scale wind turbines on existing buildings.

# Policy 13: Maintaining and enhancing rivers for aquatic ecosystem health

Regional plans shall include policies, rules and/or methods requiring, as a minimum, that all rivers are managed for the purpose of maintaining or enhancing aquatic ecosystem health.

# Explanation

Policies in a regional plan will set an environmental 'bottom line' for water quality and flows in rivers across the region so that they are at least suitable for aquatic ecosystems. The narrative standards in the Third Schedule to the Resource Management Act will be used as the basis for what is needed for aquatic ecosystem protection in terms of water quality. Some areas of rivers may also be managed for other purposes such as trout fishery, contact recreation, water supply or cultural purposes. The management purpose will also guide decisions on setting environmental flows and managing the aquatic habitat (see Policy 17).

Regional rules that achieve this policy may restrict discharges of certain contaminants, limit or prevent stock access and stock crossings, or control nitrogen loadings for effluent discharges to land.

# Policy 14: Erosion and sediment control from earthworks and vegetation clearance

Regional and district plans shall include policies and rules to control earthworks and vegetation clearance so that erosion and sediment runoff is minimised.

### Explanation

Most land uses, including excavation, are controlled by city and district councils in their district plans. One area of overlapping jurisdiction with regional councils is the ability to control earthworks and vegetation clearance.

Many small scale earthworks (eg for driveways, retaining walls) can cumulatively contribute large amounts of silt to stormwater and waterways and are locally controlled by the city or district councils. Wellington Regional Council will continue to control large scale earthworks on erosion prone land. Some activities, such as major road construction, are likely to require consents from both consent authorities, who will then work together to control the effects of the activity. Vegetation clearance includes harvesting plantation forestry.

# Policy 15: Promoting and managing discharges to land

Regional plans shall include policies, rules and/or methods that promote:

- (a) the discharge of contaminants to land rather than water, particularly discharges of sewage; and
- (b) the use of collective sewage treatment systems that discharge to land for rural residential developments.

### Explanation

To implement this policy, discharges of agricultural effluent to land could continue to be a controlled activity, whereas discharges to water could be classed as discretionary or non-complying activities. Well managed land-based discharges can avoid adverse effects on water and soil, and are generally consistent with Maori views that waste, particularly human

Table 4: Fresh water Objective 12 Methods 2, 30, 32, 33 & 54 Related policies 6, 7, 14, 15, 16, 17, 18, 19, 23, 32, 35, 40, 41, 44, 45, 46, 51, 66, 67, 70 & 71

Table 4: Fresh water Objective 12 Table 11: Soils and minerals Objective 28 Methods 1, 2, 14, 29, 32 & 33 Related policies 6, 7, 13, 16, 22, 23, 27, 28, 29, 30, 35, 36, 38, 39, 40, 44, 45, 46, 51, 52, 53, 55, 69, 70 & 71

Table 4: Fresh water Objective 12 Methods 2, 30 & 54 Related policies 6, 7, 13, 16, 23, 35, 36, 38, 44, 45, 46 & 67 waste however well treated, should not be put into surface water but should be returned to the land.

Collective sewage treatment systems can service groups of houses, removing the need for each of them to accommodate effluent treatment and disposal on site.

Means to avoid significant adverse effects on groundwater, surface and soil, may include requiring consent holders to implement nutrient budgets or plant buffer strips beside water bodies.

# Policy 16: Protecting aquatic ecological function

Regional plans shall include policies, rules and/or methods that:

- (a) promote the retention of instream habitat diversity by retaining features such as pools, runs, riffles, and the stream's natural form;
- (b) promote the retention of natural flow regimes (such as flushing flows);
- (c) promote the protection and reinstatement of riparian habitat, in particular riparian habitat that is important for fish spawning;
- (d) promote the installation of off-line dams over instream dams;
- (e) discourage the reclamation, piping, straightening, or concrete lining of streams;
- (f) prevent stock access to rivers, lakes and wetlands;
- (g) discourage the diversion of water into or from wetlands unless the diversion is necessary to restore the hydrological variation to the wetland;
- (h) prevent the removal or destruction of wetland plants in wetlands;
- (i) protect the significant amenity and recreational values that are associated with the rivers and lakes listed in Appendix 2;
- (j) protect the significant indigenous ecosystems of the river and lake environments that are listed in Appendix 2;
- (k) protect cultural areas, including wahi tapu and other sites, features of historic, spiritual or cultural significance to tangata whenua, and the cultural and spiritual values associated with them; and
- (l) require mitigation where change to the natural ecological function is shown to be necessary, or where adverse effects cannot be avoided.

#### Explanation

Habitat diversity is essential for aquatic ecosystems to survive and be self-sustaining. When areas of habitat in one part of the river, lake or wetland are degraded or destroyed by activities described in clauses (e), (f) and (g), critical parts of the ecosystem may be permanently affected with consequent effects elsewhere in the ecosystem. Specific policies and regional rules can set out where it is important to retain habitat for ecological function.

Off-line dams are constructed out of the river and do not cause adverse effects such as barriers to fish that instream dams can.

The rivers, lakes and wetlands with significant amenity and recreational values listed in Appendix 2 were identified by the community as places that are regularly used for fishing, swimming, picnicking and other recreational activities. These rivers and lakes are listed in Table 17 of Appendix 2. Map 7 in Appendix 2 generally indicates the location of the rivers and lakes in Table 17.

The rivers and lakes with significant indigenous ecosystems were identified using the following criteria: greater than 40 per cent indigenous vegetation cover in the catchment; habitat for threatened indigenous fish species; and habitat for six or more indigenous fish

Table 4: Fresh water Objective 13 Methods 2 & 30 Appendix 2 Related policies 6, 7, 13, 14, 15, 17, 18, 19, 22, 23, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 67, 70 & 71 species. These rivers and lakes are listed in Table 18 of Appendix 2. Map 8 in Appendix 2 generally indicates the location of the rivers and lakes in Table 18.

Matters to be promoted can be achieved through policies, permitted activities and nonregulatory methods in the regional plan. Matters to be discouraged can be achieved by applying high levels of regulation, such as classing a high risk activity as a noncomplying activity.

# Policy 17: Defining environmental flows and levels

Regional plans shall include policies and/or rules that:

- (a) establish environmental flows in rivers that are consistent with their management purpose, and allocation limits that set the total amount of water that can be taken without compromising the environmental flows; and
- (b) establish groundwater levels and abstraction limits that take into account the ecological needs of rivers, lakes and wetlands.

### Explanation

Policy 17 directs the establishment of environmental flows, groundwater levels and allocation limits in a regional plan.

Environmental flows will be based on the management purpose of the river (see Policy 13) so that its ecological, cultural, recreational or amenity values are maintained. Environmental flows accommodate natural flow variations required for functioning ecosystems, establish minimum flows and retain flushing flows.

Groundwater allocation limits, and trigger levels for prohibiting abstractions, safeguard the needs of dependent ecosystems in groundwater-fed streams and wetlands, and prevent saltwater intrusion.

# Policy 18: Efficient use and water harvesting

Regional plans shall include policies, rules and/or methods that:

- (a) promote the efficient use of water; and
- (b) promote water harvesting, including off-line dams.

### Explanation

In all areas, but particularly in water short areas, using water efficiently and harvesting it when it is in abundant supply will make more water available when water supply is short. Efficient use means minimising water wastage during the abstraction, distribution and final use of the water. Water harvesting means taking and storing water from water bodies when the availability is high and using it when there is a water shortage.

# Policy 19: Priorities for abstraction of water for the health needs of people

Regional plans shall include policies and/or rules that give priority to the abstraction of water for the health needs of people, including:

- (a) the taking of water by any statutory authority that has a duty for public water supply under any Act of Parliament;
- (b) the taking of water for reticulation into a public water supply network; and
- (c) the taking of water for domestic and community supplies, and for stock drinking water.

# Explanation

This policy recognises the need to prioritise the taking of water. The Resource Management

Table 4: Fresh water Objective 13 Methods 2 & 30 Related policies 13, 16, 18, 19, 38, 40, 41, 23, 44, 45, 46 & 67

Table 4: Fresh water Objective 14 Methods 2 & 46 Related policies 13, 16, 17, 19, 23, 38, 40, 41, 44, 45 & 46

Table 4: Fresh water Objective 14 Method 2 Related policies 13, 16, 17, 18, 23, 38, 40, 41, 44, 45 & 46 Act, in section 14, gives priority for water to be taken for firefighting purposes, and an individual's reasonable domestic needs or the needs of an individual's animals for drinking water, provided there are no adverse effects on the environment. This policy gives the same priority to the abstraction of water by public authorities for public water supply over other takes of water.

# Policy 20: Identification of historic heritage

Local authorities shall identify historic heritage places, including sites and areas, to be listed in regional and district plans, using one or more of the following criteria:

- (a) Historic values: these relate to the history of a place and how it demonstrates important historical themes, events, people, or experiences.
  - (i) Themes: the place is associated with important themes in history or patterns of development.
  - (ii) Events: the place has an association with an important event or events in local, regional or national history.
  - (iii) People: the place is associated with the life or works of an individual, group or organisation that has made a significant contribution to the district, region or nation.
  - (iv) Social: the place is associated with everyday experiences from the past and contributes to our understanding of the culture and life of the district or region.
- (b) Physical values: these values relate to the physical evidence present.
  - (i) Archaeological: there is potential for archaeological investigation to contribute information about the human history of the place or region.
  - (ii) Architectural: the place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values.
  - (iii) Technological: the place provides evidence of the history of technology, or shows technological innovation in its design.
  - (iv) Integrity: the significant physical values of the place have been largely unmodified.
  - (v) Age: the place is particularly old in the context of human occupation of the Wellington region.
  - (vi) Group or townscape values: the place contributes to the heritage values of a wider townscape or landscape setting, or it is a landmark.
- (c) Social values: these values relate to the esteem that a community or communities has for a place.
  - (i) Shared values: the place is a focus of spiritual, political, social, religious, ethnic, national or other cultural sentiment.
  - (ii) Recognised values: the place is widely known and is highly valued for its contribution to local identity within the immediate and/or the wider community.
- (d) Maori values: the place is sacred or important to Maori for spiritual, cultural or historical reasons.
- (e) Surroundings: the setting or context of the place is compatible, and contributes to an understanding of its history and development.
- (f) Rarity: the place is unique or rare within the district or region.
- (g) Representativeness: the place is a good example of its type or era.

#### Explanation

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Policy 20 provides criteria to ensure significant historic heritage resources are consistently

Table 5: Historic heritage Objective 15 Methods 1, 2, 22 & 30 Related policies 3, 21, 24, 27, 28, 29, 30, 43, 22, 44, 45, 46, 47, 50, 51, 52, 53, 55, 67 & 69 identified in district and regional plans. The decision for determining the threshold of how significant a place must be to be listed is a local one.

The criteria are consistent with the Resource Management Act definition of historic heritage, which includes historic sites, structures, places and areas; archaeological sites; sites of significance to Maori, including wahi tapu; and surroundings associated with the natural and physical resources. They are based on commonly used historic heritage assessment methodologies, and provide the basis for describing and evaluating historic heritage, including the physical, historic, social and other values that people attach to historic heritage.

# Policy 21: Protection of historic heritage

District and regional plans shall include policies, rules and/or other methods to protect historic heritage places and areas identified in accordance with Policy 20, from inappropriate subdivision, use, and development.

### Explanation

Appropriate subdivision, use and development meets functional goals while respecting historic heritage values and character-defining elements. Planning for, developing and using a historic place must be done with full understanding of its values. Policy 21 is not intended to prevent change to historic heritage, but rather to ensure that change is carefully considered and is appropriate. The historic heritage values identified in policy 20, and the levels of significance of those values, will influence what activities would be inappropriate. Policy 21 applies to both the physical aspects of historic heritage and its non-physical associations.

Policy 21 applies to provisions in district plans that control the subdivision, use and development of land, and provisions in regional plans that control activities that destroy, damage or disturb any foreshore and seabed, or the beds of any river of lake, in a manner that is likely to have an adverse effect on historic heritage.

# Policy 22: Identification of indigenous ecosystems, habitats and areas with significant indigenous biodiversity values

District and regional plans shall identify indigenous ecosystems, habitats and areas with significant indigenous biodiversity values using the following criteria:

- (a) Representativeness: high representativeness values are given to particular ecosystems or areas that were once typical and commonplace in a district or in the region, and:
  - (i) have been reduced from their former extent; and/or
  - (ii) are poorly represented in existing protected areas.
- (b) Rarity/special features: the ecosystem or area has biological or physical features that are scarce in a local, regional or national context. This can include individual species, rare and distinctive biological communities and physical features that are unusual or rare.
  - (c) Ecological context of an area: the ecosystem or area:
  - (i) enhances connectivity between fragmented indigenous habitats;
  - (ii) buffers or similarly enhances the ecological values of a specific site of value; or
  - (iii) provides seasonal or core habitat for specific indigenous species.
- (d) Diversity: the ecosystem or areas has a natural diversity of ecological units, ecosystems and physical features within a natural area. Species richness is also taken into account.
- (e) Cultural significance: the ecosystem or area contains indigenous ecosystem characteristics of special spiritual, historical or cultural significance to tangata whenua, identified in accordance with tikanga Maori.

Table 5: Historic heritage Objective 15 Methods 1, 2 & 30 Related policies 3, 8, 9, 16, 20, 23, 25, 27, 28, 29, 30, 33, 34, 37, 40, 43, 44, 45, 46, 47, 51, 52, 53, 55, 67 & 69

Table 6: Indigenous ecosystems Objective 16 Methods 1, 2, 23 & 30 Related policies 3, 16, 20, 23, 24, 27, 28, 29, 30, 43, 44, 45, 46, 47, 50, 51, 52, 53, 55, 58, 66, 67 & 69

Policy 22 sets out criteria as guidance that can be considered in determining and identifying ecosystems, habitats and areas with significant indigenous biodiversity values. These are widely accepted ecological criteria. These criteria need to be considered in all assessments but each will have lesser or greater relevance in individual cases. Conversely, there may be cases where additional criteria to those listed may be justified in order to effectively assess ecological values.

Significance is to be determined with reference to the overall objective of retaining and restoring a full range of remaining indigenous ecosystems and habitats, and not limiting the assessment to retaining only 'high value' areas.

# Policy 23: Protection of indigenous ecosystems, habitats and areas with significant indigenous biodiversity values

District and regional plans shall include policies, rules and methods to protect indigenous ecosystems, habitats and areas with significant indigenous biodiversity values, from inappropriate subdivision, use and development.

#### Explanation

Policy 23 applies to provisions in district plans that control the subdivision, use and development of land. For regional plans it applies to the control activities that destroy, damage or disturb any foreshore and seabed, or the beds of any river of lake, and control the use of land to maintain and enhance ecosystems in water bodies (including wetlands) and coastal water.

Tables 16 and 18 in Appendices 1 and 2 identify ecosystems, habitats and areas with significant indigenous biodiversity values in the coastal environment and in river and lake environments.

# Policy 24: Identification of outstanding natural features and landscapes and notable landscapes

District and regional plans shall identify outstanding natural features and landscapes, and notable landscapes, using one or more of the following criteria:

- (a) Natural science factors: these factors relate to the geological, ecological, topographical and natural process components of the natural feature or landscape.
  - (i) Representativeness: the combination of natural components that form the feature or landscape strongly typifies the character of an area.
  - (ii) Research and education: all or parts of the feature or landscape are important for natural science research and education.
  - (iii) Rarity: the feature or landscape is unique or rare within the district or region, and few comparable examples exist.
  - (iv) Ecosystem functioning: the presence of healthy ecosystems is clearly evident in the feature or landscape.
- (b) Aesthetic values: these values relate to scenic perceptions of the feature or landscape.
  - (i) Coherence: the patterns of land cover and land use are largely in harmony with the underlying natural pattern of landform and there are no significant discordant elements of land cover or land use.
  - (ii) Vividness: the feature or landscape is visually striking and is widely recognised within the local and wider community for its memorable and sometimes iconic qualities.

Table 6: Indigenous ecosystems Objective 16 Methods 1, 2 & 30 Appendices 1 & 2 Related policies 3, 6, 7, 8, 9, 16, 20, 21, 22, 25, 27, 28, 29, 30, 33, 34, 37, 40, 44, 45, 46, 47, 49, 51, 52, 53, 55, 58, 66 & 69

Table 8: Landscape Objective 23 Methods 1, 2, 24, 30 & 48 Related policies 3, 16, 20, 22, 25, 43, 44, 45, 46, 47, 50, 51, 52, 53, 55, 67 & 69

- (iii) Naturalness: the feature or landscape appears largely unmodified by human activity and the patterns of landform and land cover appear to be largely the result of intact and healthy natural systems.
- (c) Expressiveness (legibility): the feature or landscape clearly shows the formative natural processes and/or historic influences that led to its existing character.
- (d) Transient values: the consistent and noticeable occurrence of transient natural events, such as seasonal change in vegetation or in wildlife movement, contributes to the character of the feature or landscape.
- (e) Shared and recognised values: the feature or landscape is widely known and is highly valued for its contribution to local identity within the immediate and wider community.
- (f) Tangata whenua values: Maori values inherent in the feature or landscape add to the feature or landscape being recognised as a special place,
- (g) Historical associations: knowledge of historic events that occurred in and around the feature or landscape is widely held and substantially influences and adds to the value the community attaches to the natural feature or landscape.

Policy 24 requires that district and regional plans identify outstanding natural features and landscapes, and notable landscapes. It also provides criteria to assist with the identification and evaluation of outstanding natural features and landscapes, and notable landscapes. The criteria are consistent with significant case law and commonly used landscape assessment methodologies. They provide the basis for describing and evaluating areas of distinct landscape character, and encompass the combination of natural science, perceptual/scenic and social/cultural factors that people often value in landscapes they regard as special.

To qualify as an outstanding natural feature or landscape, an area would need to be assessed as clearly exceptional and out of the ordinary in terms of one or more of the criteria, and natural components would need to dominate the influence of human activity. This does not mean that evidence of human activity cannot be present, but that it should be subordinate to the natural components.

Notable landscapes are significant amenity<sup>1</sup> landscapes that have:

- important but not clearly exceptional landscape value under one or more of the criteria, in an area where natural components dominate; or
- important (including exceptional) landscape value under one or more of the criteria, in an area where the influence of human activity on landscape character dominates natural components.

# Policy 25: Protection of outstanding natural features and landscapes and maintenance and enhancement of notable landscapes

Where outstanding natural features and landscapes, and notable landscapes, have been identified in accordance with policy 24, district and regional plans shall include policies, rules and/or methods that:

- (a) protect outstanding natural features and landscapes from inappropriate subdivision, use or development; and
- (b) maintain and enhance notable landscapes.

### Explanation

Table 8: Landscape Objective 23 Methods 1, 2 & 30 Related policies 3, 8, 9, 16, 20, 21, 23, 24, 33, 34, 37, 40, 44, 45, 46, 47, 49, 51, 52, 53, 55, 67 & 69

<sup>1</sup> Amenity values are defined in section 2 of the Resource Management Act as "those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."

Policy 25 is not intended to prevent change, but rather to ensure that change is carefully considered and is appropriate to the relevant landscape values. The landscape values identified in policy 24, and the levels of significance of those values, will influence what activities would be appropriate.

Policy 25 applies to provisions in district plans that control the subdivision, use and development of land, and provisions in regional plans that control activities that destroy, damage or disturb any foreshore and seabed, or the beds of any river of lake, within an outstanding natural feature or landscape, or notable landscape.

# Policy 26: Avoiding subdivision and development in high hazard risk areas

District plans shall include policies and rules to avoid subdivision and development in high hazard risk areas, where natural events are likely to cause significant damage to land or property, result in serious injuries, or require large scale hazard mitigation works, including:

- (a) flood hazard areas;
- (b) fault rupture zones;
- (c) erosion and inundation prone shorelines; or
- (d) landslip prone slopes.

#### Explanation

The term 'high hazard risk' refers to events that are likely to happen within the next 100 years and cause moderate to high levels of structural damage or major damage to the site, requiring significant stabilisation or mitigation works. It applies to areas that face a genuine risk of experiencing significant damage in a hazard event, such as fault rupture zones, beaches that experience cyclical or long-term erosion, failure prone hill slopes, or areas that are subject to repeated flooding. The policy will require district plans to prevent new development in areas that will require extensive hazard mitigation works.

Examples of how this may be achieved include fault rupture avoidance zones 20 metres either side of a fault trace, setback distances from an eroding coastline, hazard avoidance zones on floodplains, or requirements for a geotechnical investigation before development proceeds on a hillslope identified as prone to failure.

# Policy 27: Structure planning for major developments

District plans shall:

- (a) describe what constitutes a major development proposal for that district; and
- (b) include policies and rules that require structure plans for major development proposals;

so as to achieve integrated and high quality development.

#### Explanation

What constitutes a major development will vary depending on the character and context of the city or district within which it is located. For this reason policy 27 requires the region's district and city councils to describe what constitutes a major development for their district.

Structure planning prevents sporadic and uncoordinated development. It integrates land use with infrastructure, including transport networks, community services and the physical environment. Structure planning should also deliver high quality design.

The content and detail of structure plans will vary depending on the scale of development. Notwithstanding this, structure plans, as a minimum, should address:

Table 9: Natural hazards Objective 24 Methods 1, 16, 37 & 49 Related policies 4, 27, 29, 30, 31, 36, 45, 46, 48, 49, 51, 52, 53, 55, 59, 68 & 69

Table 10: Regional form Objective 27 Methods 1 & 20 Related policies 1, 3, 4, 5, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57 63, 67 & 69

- development staging
- the integration with existing and proposed infrastructure services
- connections to existing and proposed transportation systems
- the provision of an appropriate mix of land uses and land use densities
- the integration of the development with adjoining land use activities
- how the region's urban design principles will be implemented.

# Policy 28: Maintain and enhance the viability and vibrancy of the regional central business district and regional centres

District plans shall include policies, rules and/or methods that encourage a range of land use activities within the Wellington city central business district and the following regional centres, so as to maintain and enhance their viability and vibrancy: Table 10: Regional form Objective 27 Methods 1, 40 & 41 Related policies 4, 8, 9,

- (a) Masterton town centre
- (b) Upper Hutt city centre
- (c) Hutt city centre
- (d) Petone
- (e) Kilbirnie
- (f) Johnsonville
- (g) Porirua city centre
- (h) Paraparaumu town centre.

### Explanation

The region's central business district in Wellington city and the regional centres were identified in the Wellington Regional Strategy as regionally significant areas for economic development, transport movement, and civic and community investment.

While the Wellington central business district is the major centre, with 73,000 people working there each day, the regional centres of Masterton town centre, Upper Hutt city centre, Hutt city centre, Petone, Kilbirnie, Johnsonville, Porirua city centre and Paraparaumu town centre also provide significant business, retailing and community services. Maintaining and enhancing their viability and vibrancy is important for continuing their prosperity and resilience in the face of social and economic change.

The range of appropriate land uses to be encouraged through this policy will vary depending on the character and context of each centre. For this reason the policy requires the region's district and city councils to determine the range of land uses to be encouraged in the district plan so as to maintain and enhance their viability and vibrancy.

# Policy 29: Identification and promotion of higher density and mixed use development in and around key local centres and public transport links

District plans shall:

- (a) identify key local centres and public transport links suitable for higher density and mixed use activities in that district; and
- (b) include policies, rules and/or methods to encourage higher density and mixed use activities in and around the identified key local centres and public transport links;

so as to maintain and enhance a compact, well designed and sustainable regional form.

Table 10: Regional form Objective 10 Methods 1 & 18 Related policies 1, 4, 8, 9, 11, 12, 14, 20, 21, 22, 23, 26, 27, 28, 30, 31, 32, 33, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 67, 68 & 69

lable 10: Regional form Objective 27 Methods 1, 40 & 41 Related policies 4, 8, 9, 11, 12, 14, 20, 21, 22, 23, 27, 29, 30, 31, 32, 33, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 50, 51, 52, 53, 54, 55, 56, 57, 67, 68 & 69

Policy 29 directs that district and city councils determine, in the manner appropriate for that district, key local centres and public transport links that will reinforce the region's desired form. District plans will then need to include policies, rules and/or other methods to encourage higher density and mixed use activities in these locations to support this form.

Objective 27 outlines the range of elements to be delivered to support the region's desired form. This includes consideration of the context and character of each location and the region's urban design principles.

Higher density and mixed use activities can be achieved through a number of ways. This includes infill development of underdeveloped sites, comprehensive re-development and/or multi-storey developments that support complementary living and retail uses.

Key public transport links are bus stops, train stations and ferry terminals with a high level of service (frequency and hours of operation), or the potential for a high level of service to support higher density and mixed use activities within a reasonable walking distance (ie five to ten minutes walking).

Key local centres include the regional central business district and regional centres identified in policy 28, as well as other significant local centres that are integral to the functioning of the local community.

# Policy 30: Identification and protection of key industrial-based employment locations

District plans should include policies, rules and/or methods that identify and protect key industrial-based employment locations where they maintain and enhance a compact, well designed and sustainable regional form.

### Explanation

This policy uses "should" to recognise that in some locations there is limited information about the supply of and demand for industrial employment activities, and that this makes it difficult for city and district councils to identify key industrial based employment locations.

Objective 27 outlines the range of elements to be achieved by a compact, well designed and sustainable regional form. This includes the role of these areas in achieving the Wellington Regional Land Transport Strategy key outcomes, particularly improved regional freight efficiency.

The introduction of non-industrial uses such as large scale retail, wholesaling activities, showrooms, offices and residential activities into industrial-based employment locations can displace industrial employment activities from established industrial areas. Key industrial-based employment locations that maintain and enhance the region's desired form need to be protected in order to, amongst other matters, reduce the demand for new infrastructure and reduce the need for greater travel to work.

# Policy 31: Regional land transport to support a compact, well designed and sustainable regional form

The Wellington Regional Land Transport Strategy shall contain objectives and policies that maintain and enhance a compact, well designed and sustainable regional form.

#### Explanation

The Wellington Regional Land Transport Strategy provides a policy framework for regional transport decisions that play an important role in the maintenance and enhancement of a compact, well designed and sustainable regional form.

Table 10: Regional form Objective 27 Methods 1 & 42 Related policies 1, 4, 8, 9, 11, 12, 14, 20, 21, 22, 23, 26, 27, 28, 30, 31, 32, 33, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 67, 68 & 69

Table 10: Regional form Objective 27 Method 3 Related policies 10 & 11

The region's current form has a very strong corridor pattern and is generally compact. The transport corridor pattern includes State Highway 1 and the North Island Main Trunk rail line, which enters the region near Otaki and extends southwards through Kapiti coast, Pukerua Bay, Porirua and northern Wellington and through to Wellington city central business district. State Highway 1 continues through to Wellington International Airport. State Highway 2 and the Wairarapa railway line enter the region north of Masterton and extend southwest through Wairarapa, the Hutt valley and on to merge with State Highway 1 and the North Island Main Trunk rail line at Ngauranga. State Highway 58 provides a vital east – west link between State Highways 1 and 2.

Objective 27 outlines the elements that are to be achieved by a compact, well designed and sustainable regional form. Elements of particular relevance will include efficient use of existing infrastructure and improved east west transport linkages.

# Policy 32: Management of contaminated land

District plans shall include policies and rules that do not allow activities on contaminated land if that activity could be adversely affected by the contamination.

#### Explanation

Policy 32 directs city and district councils to include provisions in their district plans to control land uses on contaminated land.

The Ministry for the Environment has compiled a list of 53 hazardous activities and industries capable of contaminating soil and causing adverse effects on the environment, including people. This alerts city and district councils to the likelihood of soil contamination, and therefore the need for further investigation. If land has been used for a hazardous activity or industry, for example a landfill or timber treatment plant, the actual level of any contamination needs to be determined before new land uses are allowed to be established on the site.

The term "contaminated land" has the same meaning as in the Resource Management Act.

Table 11: Soils and minerals Objective 29 Methods 1 & 25 Related policies 4, 13, 14, 16, 27, 28, 29, 30, 39, 40, 45, 46, 51, 52, 53, 55 & 71

# 3.2 Matters to be given particular regard when assessing and deciding on resource consents, notices of requirement, and plan changes, variations or review

This section contains the policies that need to be given particular regard when assessing and deciding on resource consents, notices of requirement, or when changing, varying or reviewing district or regional plans. Policies are listed in numeric order. The summary presents the policies under the key topics.

Key topic	Policy	Page
Coastal environment	Policy 33: Coastal areas, features or landscapes	
	Policy 34: Landward extent of the coastal environment	
	Policy 35: Life-supporting capacity of coastal ecosystems	
	Policy 36: Protection of habitats and processes in the coastal environment	
	Policy 50: Public access to and along the coast, lakes and rivers with significant values	
Energy, Infrastructure and waste	Policy 37: Benefits of regionally significant infrastructure and renewable energy	
Fresh water	Policy 38: Management purposes of fresh water bodies	
	Policy 39: Stormwater management	
	Policy 40: Importance of aquatic ecosystem function and other values	
	Policy 41: Efficient use of water	
	Policy 42: Water needs for new subdivision and land use consents	
	Policy 50: Public access to and along the coast, lakes and rivers with significant values	
Historic heritage	Policy 43: Managing effects on historic heritage	
Indigenous ecosystems	Policy 44: Managing effects on indigenous ecosystems, habitats and areas with significant indigenous biodiversity values	
lwi resource management	Policy 45: Principles of the Treaty of Waitangi, claims, reports and settlement decisions	
	Policy 46: Avoiding adverse effects on matters of significance to tangata whenua	
Landscape	Policy 47: Managing effects on outstanding natural features and landscapes, or notable landscapes	
Natural hazards	Policy 48: Minimise the effects of natural hazards	
	Policy 49: Minimise effects from hazard mitigation measures	
Regional form	Policy 51: Regional urban design principles for urban development	
	Policy 52: Development to support a compact, well designed and sustainable regional form	
	Policy 53: Development that integrates land use with transportation	
	Policy 54: Sequencing of land use and coordination with funding	
	Policy 55: Management of Regional Focus Areas	

Key topic	Policy	Page
Soils and minerals	Policy 56: Loss of highly productive agricultural land (Class I and II land)	
	Policy 57: Significant mineral resources	

# Policy 33: Coastal areas, features or landscapes

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to preserving the natural character of the coastal environment, by:

- (a) protecting the values of the sites and areas listed in Appendix 1;
- (b) avoiding sprawling or sporadic new subdivision, use and development;
- (c) minimising any adverse effects from point source and non-point source discharges on the coastal environment;
- (d) protecting the special value of estuaries and bays, including the unique physical processes that occur as a result of the interaction of coastal and river dynamics, and the importance of estuaries and bays in providing spawning areas and nursery areas for juveniles of aquatic species;
- (e) protecting the special values of beaches and dune systems, including the dynamic interface between land and sea that creates important recreation opportunities and amenity values, as well as being a natural defence against coastal hazards;
- (f) maintaining or enhancing amenity, open space and scenic values, including the use of setbacks from the coastal marine area and other water bodies;
- (g) minimising any significant adverse effects from use of the coast by the public, or on the enjoyment of the coast by the public;
- (h) maintaining or enhancing recreational areas and places or areas of historic or cultural significance;
- (i) maintaining or enhancing biodiversity and the functioning of ecosystems, including the use of buffer zones;
- (j) protecting scientific features;
- (k) protecting cultural areas, including wahi tapu and other sites, features of historic, spiritual or cultural significance to tangata whenua, and the cultural and spiritual values associated with them; and
- (l) encouraging new subdivision use and development in areas where natural character has already been compromised.

# Explanation

These values and features, either in themselves or in combination, are essential or important elements of the natural character of the coastal environment.

Policy 33 applies to development in the coastal environment, the landward extent of which is required to be defined or given particular regard by policies 5 and 34.

33(a) shall cease to have effect when the relevant sites and areas from Appendix 1 are identified and given protection in an operative plan.

# Policy 34: Landward extent of the coastal environment

When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, city and district councils shall have particular regard to whether

Table 2: Coastal environment Objectives 3 & 4 Methods 4 & 27 Appendix 1 Related policies 3, 4, 5, 6, 7, 28, 29, 30, 34, 35, 36, 37, 40, 43, 44, 45, 46, 47, 50, 51, 52, 53, 55, 57, 67 & 69 Table 2: Coastal environment Objective 4 Method 4 Related policies 3, 4, 5, 20, 22, 24, 26, 27, 33, 36, 40, 45, 46, 50 & 67

Table 2: Coastal environment Objective 6 Methods 4 & 27 Related policies 3, 4, 6, 16, 22, 27, 33, 34, 36, 45, 46, 50, 51, 52, 53, 55 67 & 69 the proposal is within the coastal environment using the following criteria:

- (a) the area is dominated by coastal vegetation or habitat;
- (b) the area is within a landform affected by active coastal processes;
- (c) the area is within a landscape or feature, including coastal escarpments, that contribute to the natural character, visual quality or amenity value of the coast;
- (d) the area has a site, structure, place or area of historic heritage value adjacent to, or connected with, the coastal marine area, which derives its heritage value from a coastal location;
- (e) the area is within a site or area with regionally significant values listed in Appendix 1;
- (f) the area is within any land adjacent to the coast that is affected by, or could be affected by, storm surge or coastal inundation.

#### Explanation

Policy 34 identifies those natural and physical resources which, because of their form, function or value, give particular parts of the Wellington region a coastal natural character.

Policy 34 shall cease to have effect when policy 5 is given effect to in an operative plan.

# Policy 35: Life-supporting capacity of coastal ecosystems

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to safeguarding the life-supporting capacity of coastal ecosystems by maintaining and enhancing:

- (a) any area within the intertidal or subtidal zone that is known to contain unique, rare, distinctive or representative marine life or habitats;
- (b) areas used by marine mammals as breeding, feeding or haul out sites;
- (c) habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;
- (d) habitats and routes important for preserving the range, abundance, and diversity of indigenous and migratory species;
- (e) any area that contains indigenous ecosystems and habitats that are unique to the coastal environment and particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, rocky reef systems and salt marshes.

### Explanation

This policy provides a list of matters that must be considered until specific policy is adopted in plans in accordance with policy 7. Policy 35 shall cease to have effect when policy 7 is given effect to in an operative plan.

# Policy 36: Protection of physical and ecological processes in the coastal environment

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to protecting the integrity, functioning and resilience of physical and ecological processes in the coastal environment.

### Explanation

Protecting the integrity, functioning and resilience of habitats and processes in the coastal environment includes having particular regard to activities that affect the dynamic processes and features arising from the natural movement of sediment, water and air, the natural

Table 2: Coastal environment Objective 7 Methods 4 & 27 Related policies 3, 4, 6, 7, 22, 27, 33, 34, 35, 40, 45, 46, 49, 50, 51, 52, 53, 55, 57, 67, 69 & 70

movement of biota, the composition of the natural substrate, and the natural biodiversity, productivity and biotic patterns.

# Policy 37: Benefits of regionally significant infrastructure and renewable energy

When considering an application for a resource consent, notice of requirement or a change or variation to a plan, for regionally significant infrastructure, or the development and transmission of renewable energy, local authorities shall have particular regard to the social, economic, cultural and/or environmental benefits of such activities, including national and regional benefits.

# Explanation

The benefits of renewable energy generation and transmission include:

- benefits associated with the security of energy supply within New Zealand, including the diversification of our energy sources
- benefits associated with reducing our dependency on external energy supplies
- benefits associated with reducing the need for non-renewable energy sources, including the benefits associated with reducing greenhouse gas emissions
- benefits associated with reducing our dependence on the national grid and transmission losses where renewable sources of electricity are located close to demand.

The benefits are not only generated by large scale renewable energy projects but also smaller scale, distributed generation projects.

Renewable energy means energy powered from solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources.

Infrastructure has the same meaning as defined in section 2 of the Resource Management Act. Regionally significant infrastructure includes:

- pipelines for the distribution or transmission of natural or manufactured gas or petroleum
- strategic telecommunications facilities, as defined in section 5 of the Telecommunications Act 2001
- strategic radio communications facilities, as defined in section 2(1) of the Radio communications Act 1989
- the national electricity grid, as defined by the Electricity Governance Rules 2003
- facilities for the generation of electricity where the electricity generated is supplied to the national electricity grid and infrastructure to transmit the electricity generated into the national electricity grid
- the regional bulk water supply network and water treatment plants
- community wastewater and stormwater networks systems and wastewater treatment plants
- the Strategic Transport Network, as defined in the Wellington Regional Land Transport Strategy 2007–2016
- Wellington City bus terminal and Wellington Railway Station terminus
- Wellington International Airport
- Port of Wellington (including storage tanks)
- Point Howard, Seaview (including storage tanks)
- Burnham Wharf (including storage tanks).

Policy 37 shall cease to have effect once policy 8 has been given effect to in an operative district or regional plan.

# Policy 38: Management purposes of fresh water bodies

Table 4: Fresh water Objective 12 Methods 4 & 32 Related policies 6, 7, 13, 14, 15, 16, 23, 27, 28, 29, 30, 35, 36, 39, 40, 42, 44, 45, 46, 51, 52, 53, 55, 67, 69, 70 & 71

When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, city and district councils shall have particular regard to the management class of any fresh water bodies that may be affected.

### Explanation

The management class of a water body describes the purpose for which that water body is managed. For example, it may be managed for the purpose of maintaining the aquatic ecosystems or ensuring its suitability for contact recreation. Water management classes are set in a regional plan.

City and district councils could implement this policy by requiring setback distances between buildings and rivers and wetlands to protect riparian areas, limiting the amount of impervious surfaces allowed in new developments in some catchments, requiring rooftop rainwater collection for gardens, requiring roadside swales and 'raingardens' for stormwater run-off instead of kerb and channelling, encouraging advanced community sewerage schemes rather than septic tanks in areas where groundwater is vulnerable, and encouraging the treatment of stormwater at source in car parks and industrial yards.

### Policy 39: Stormwater management

When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, city and district councils shall have particular regard to reducing the effects of stormwater run-off from new subdivisions, new industrial areas and new car parks, by requiring:

- (a) limitations on the area of new impervious surfaces in the stormwater catchment;
- (b) the use of water permeable surfaces in new developments to reduce the volume of stormwater leaving a site;
- (c) restrictions on zinc or copper roofing materials in catchments with sensitive receiving environments, or requirements to mitigate their effects;
- (d) the collection of water from roofs for domestic or garden use;
- (e) the use of soakpits for the disposal of stormwater, where the soil type is suitable for this purpose, and groundwater will not be adversely affected;
- (f) the use of roadside swales, filter strips and raingardens instead of kerb and channelling;
- (g) the use of constructed wetland treatment areas; and
- (h) the use of in situ treatment devices, for example to remove silt and hydrocarbons.

### Explanation

Reducing the amount of contamination in stormwater at source is generally easier than treating the stormwater at the end of the pipe. The means to manage stormwater contamination given in this policy are more appropriately controlled by city and district councils when they grant land use consents, than by regional councils as conditions of discharge permits for stormwater.

### Policy 40: Importance of aquatic ecosystem function and other values

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to:

Table 4: Fresh water Objective 12 Methods 4, 32, 33 & 54 Related policies 6, 7, 13, 14, 15, 16, 23, 27, 28, 29, 30, 32, 35, 36, 38, 40, 42, 44, 45, 46, 51, 52, 53, 55, 67 & 69

- (a) the functioning of ecosystems in the water body;
- (b) the ecological importance of riparian margins;
- (c) the effect of the proposal on groundwater recharge areas;
- (d) the protection of the significant amenity and recreational values of the rivers and lakes listed in Appendix 2;
- (e) the protection of the significant indigenous ecosystems of the river and lake environments listed in Appendix 2; and
- (f) the protection of the characteristics of special spiritual, historical or cultural significance to tangata whenua, identified in accordance with tikanga Maori.

Policy 40 applies to city and district councils and Wellington Regional Council. Most land uses outside the beds of lakes and rivers are controlled by city and district councils, activities in the beds of lakes and rivers are controlled by regional councils, and land uses in wetlands that affect aquatic ecosystems can be controlled by regional, city and district councils.

Land uses that affect aquatic ecosystems that can be controlled by city and district councils include the establishment of residential and industrial areas over groundwater recharge areas or developments near rivers that affect the streamside vegetation, and the development of roads that affect the hydrology of wetlands.

The rivers, lakes and wetlands with significant amenity and recreational values listed in Appendix 2 were identified by the community as places that are regularly used for fishing, swimming, picnicking and other recreational activities. These rivers and lakes are listed in Table 17 of Appendix 2. Map 7 in Appendix 2 generally indicates the location of the rivers and lakes in Table 17.

The rivers and lakes with significant indigenous ecosystems were identified using the following criteria: greater than 40 per cent indigenous vegetation cover in the catchment; habitat for threatened indigenous fish species; and habitat for six or more indigenous fish species. These rivers and lakes are listed in Table 18 of Appendix 2. Map 8 in Appendix 2 generally indicates the location of the rivers and lakes in Table 18.

# Policy 41: Efficient use of water

When considering an application for a resource consent to take water, Wellington Regional Council shall have particular regard to:

- (a) whether the applicant has demonstrated that the volume of water sought is reasonable and justifiable for the intended use, including consideration of soil and crop type when water is taken for irrigation purposes;
- (b) requiring the consent holder to measure and report the actual amount of water taken; and
- (c) requiring the consent holder to adopt water conservation measures and to demonstrate that water is to be used efficiently.

### Explanation

Efficient water use relies on people taking only the amount of water that is needed and having systems in place to avoid waste. The amount of water taken should be measured and reported on to demonstrate that water allocated through resource consents is actually used. This will allow Wellington Regional Council to assess whether allocation limits and permissible low flows have been set at appropriate levels. It may also mean that unused parts of the allocation could be made available to new users.

Table 4: Fresh water Objective 13 Method 4 Appendix 2 Related policies 6, 7, 13, 14, 15, 16, 17, 18, 19, 22, 23, 27, 28, 29, 30, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 50, 51, 52, 53, 55, 67, 69, 70 & 71

Table 4: Fresh water Objective 14 Methods 4 & 13 Related policies 38, 39, 40, 23, 27, 28, 29, 30, 44, 45, 46, 51, 52, 53, 55, 67 & 69

# Policy 42: Water needs for new subdivision and land use consents

Table 4: Fresh water Objective 14 Methods 4 & 13 Related policies 27, 28, 29, 30, 38, 40, 41, 45, 46, 51, 52, 53, 55, 67 & 69

Table 5: Historic heritage Objective 15 Methods 4 & 22 Related policies 3, 8, 9, 16, 20, 21, 23, 25, 27, 28, 29, 30, 33, 34, 37, 40, 44, 45, 46, 47, 51, 52, 53, 55, 67 & 69 When considering an application for a resource consent, or a change or variation to a district plan, city and district councils shall have particular regard to the benefits of water collection, water demand management options, and water reuse and/or water recycling measures.

### Explanation

Supplying water to new subdivisions and developments increases the amount of water taken from water bodies. Rainwater collection from roofs, water recycling and greywater reuse can reduce this demand, especially in water short areas.

Roof water and recycled water are appropriate for garden irrigation, and can be used for toilet flushing in some circumstances.

# Policy 43: Managing effects on historic heritage

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall use the criteria in policy 20, to determine whether an activity may affect historic heritage places and areas, and in determining whether an activity is inappropriate have particular regard to:

- (a) the degree to which historic heritage values will be lost, damaged or destroyed by the proposed activity;
- (b) the irreversibility of adverse effects on heritage values;
- (c) the opportunities to remedy or mitigate any previous damage to heritage values;
- (d) the degree to which previous changes that have heritage value in their own right are respected and retained;
- (e) the probability of damage to immediate or adjacent heritage values;
- (f) the magnitude or scale of any effect on heritage values;
- (g) the degree to which unique or special materials and/or craftsmanship are retained;
- (h) whether the activity will lead to cumulative detrimental effects on historic heritage; and
- (i) whether the relationships between distinct elements of a historic place are maintained.

### Explanation

Policy 43 provides an interim assessment framework for councils, resource consent applicants and other interested parties prior to the identification of historic heritage in accordance with policy 20 and the adoption of plan provisions for protection in accordance with policy 21. This policy shall cease to have effect once policies 20 and 21 are in place in an operative district or regional plan.

# Policy 44: Managing effects on indigenous ecosystems, habitats and areas with significant indigenous biodiversity values

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall use the criteria in policy 22, to determine whether an activity may affect indigenous ecosystems, habitats and areas with significant indigenous biodiversity values, and in determining whether an activity is inappropriate have particular regard to:

- (a) maintaining connections within, or corridors between, habitats of indigenous flora and fauna;
- (b) providing adequate buffering around areas of significant indigenous ecosystems and habitats from other land uses;

Table 6: Indigenous ecosystems Objective 16 Methods 4 & 23 Related policies 3, 8, 9, 16, 40, 21,22, 23, 25,27, 28, 29, 30, 33, 34, 35, 36, 37, 43, 45, 46, 47, 58, 51, 52, 53, 55, 58, 66, 67 & 69

- (c) maintaining water bodies in their natural state;
- (d) avoiding the incremental loss of indigenous ecosystems and habitats; and
- (e) protecting indigenous biodiversity where avoiding adverse effects is not practicably achievable.

Policy 44 provides an interim assessment framework for councils, resource consent applicants and other interested parties, prior to the identification of ecosystems, habitats and areas with significant indigenous biodiversity values in accordance with policy 22, and the adoption of plan provisions for protection in accordance with policy 23. This policy shall cease to have effect once policies 22 and 23 are in place in an operative district or regional plan.

# Policy 45: Principles of the Treaty of Waitangi, claims, reports and settlement decisions

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to:

- (a) the principles of the Treaty of Waitangi;
- (b) potential impacts of activities on relevant Treaty of Waitangi claims; and
- (c) Waitangi Tribunal reports and settlement decisions relating to the Wellington region.

#### Explanation

The Treaty of Waitangi (the Treaty) is a founding document of New Zealand. It encompasses guiding principles for the engagement of iwi with local authorities in relation to resource management. Tangata whenua of the region maintain the primacy of the Maori version of the Treaty, in accordance with the international rule of *contra preferendum*.<sup>2</sup>

The Treaty principles are derived from the Treaty as a whole, its underlying meaning, intention and spirit. There is no definitive list of Treaty principles. Accordingly, the principles have evolved through statements of the Court of Appeal, Waitangi Tribunal and Government. Many of the principles are directly relevant to resource management matters, as they have

arisen out of claims before the Waitangi Tribunal concerning land, water and other natural resources.

A systematic approach to taking the principles of the Treaty into account involves applying agreed meaning. It also means assessing effect of activities against the Treaty principles. The region's iwi have confirmed that the following principles would assist in promoting dialogue and engagement between iwi and local authorities:

• The Crown's right to govern and make laws (kawanatanga). In signing the Treaty of Waitangi, it is recognised that iwi ceded their right to govern to the Crown, in exchange for the Crown recognising and guaranteeing the exercise of rangatiratanga (self-determination) by iwi and hapu over their resources. In exchange for ceding

sovereignty, Maori are accorded the protection of the Crown. The powers and functions of local authorities are expressions of kawanatanga. This principle requires local authorities and iwi to recognise respective rights.

 Maori to retain rangatiratanga, which refers to the chieftainship and authority over lands, taonga and other valued resources. This includes the ability to manage resources according to Maori cultural preferences (kaitiakitanga). Taonga includes such intangible assets as the Maori language and the mauri of natural resources.<sup>3</sup> Table 7: lwi resource management Objective 17 Methods 4 & 21 Related policies 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57 & 67

<sup>2</sup> Contra preferendum requires that any international treaty that has two interpretations should be recognised in the language of the indigenous people (Charter of Understanding between Te Tangata Whenua o Te Upoko o te Ika a Maui and Wellington Regional Council, (July 2000).

<sup>3</sup> See Report of the Waitangi Tribunal on the Motunui-Waitara Claim (Wai 6), March 1983, section 10; Report of the Waitangi

Government has recognised the right for iwi to organise and to control resources they own. Application of this principle requires those exercising kawanatanga (governance) to recognise the exercise of rangatiratanga (self-determination) and kaitiakitanga (guardianship) by iwi.

- Partnership, including a duty for partners to act reasonably and in good faith. This principle may be expressed through shared decision-making.
- Active protection of Maori in the use of their lands, waters and other resources. This principle requires that the duty of protection of Maori interests in resource management is not simply a passive one, but active to the fullest extent practicable.
- A duty to consult with Maori, including early consultation. While not all matters may in practice require consultation, environmental matters and control of resources as they affect Maori access to mahinga kai require consultation with the iwi or hapu concerned. Local authorities should have regard to the different levels of iwi, hapu, whanau and marae decision-making structures when undertaking consultation. For example, site specific issues may require consultation with hapu, whanau or marae.
- Mutual benefit, that is, iwi and local authorities are able to gain from the relationship and enjoy benefits. Sometimes this is expressed as the need for compromise by parties, and the balancing of competing interests.
- The right of development. Iwi are not just bound by the methods and technologies available at the signing of the Treaty of Waitangi, but have the right to use new methods and technologies.

Waitangi Tribunal reports relating to the region and settlement decisions should be referred to for guidance on resource management issues of significance to iwi. Furthermore, decisions and processes put in place under the Resource Management Act should not result in further grievances pertaining to the management of natural and physical resources.

# Policy 46: Avoiding adverse effects on matters of significance to tangata whenua

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to avoiding adverse effects on:

- (a) cultural values and the exercise of kaitiakitanga by an iwi, hapu, whanau or marae;
- (b) the mauri of natural resources;
- (c) mahinga kai, and areas of natural resources used for customary purposes; and
- (d) cultural heritage areas, including wahi tapu and other sites, features of historical, spiritual or cultural significance to tangata whenua, and the cultural and spiritual values associated with them.

# Explanation

There are several ways of gathering information on matters of significance to Maori, including, but not limited to, the following:

- sending non-notified resource consent applications to the relevant iwi authorities, hapu, whanau or marae for comments
- referring to relevant iwi management plan(s)
- considering information from iwi authorities, hapu, whanau or marae in submissions
- requesting a cultural assessment<sup>4</sup>

Table 7: Iwi resource management Objectives 19, 20, 21 and 22 Methods 4, 15, 35, 36 & 47 Related policies 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57 & 67

Tribunal on the Kaituna River Claim (Wai 4), November 1984, sections 4 and 5; and Report of the Waitangi Tribunal on the Manukau Claim (Wai 8), July 1985, section 8.

<sup>4</sup> A cultural assessment may include, but is not limited to, Maori history, Treaty claims and settlements, presence of significant sites, social effects and recommendations for avoiding, remedying and mitigating adverse effects

- seeking technical assistance
- working with iwi authorities, hapu, whanau or marae to identify potential effects on cultural values and kaitiakitanga.

Kaitiakitanga (guardianship) involves the protection of mauri and a duty to care for the environment so that it remains in as good as, or better, state for future generations. Kaitiakitanga refers to the expression of Maori authority, mana, ethics and guardianship and may be exercised in respect of a particular locality, place or resource.

Kaitiakitanga is linked inextricably to rangatiratanga (self-determination) as it may only be practised by those iwi, hapu or whanau that possess customary authority in their area. Kaitiaki (those who exercise kaitiakitanga) are knowledgeable about the local environment and resources. The ways in which iwi, hapu, or whanau define kaitiakitanga relating to ancestral land, water and other taonga, and how they wish to have their kaitiaki role recognised, is a matter for them to decide and communicate to local authorities. There are various methods of kaitiakitanga through customary regulations, including rahui, or placing a temporary restriction or ban.

Mauri is the life force that exists in all things in the natural world, including people. Mauri comprises both physical and spiritual qualities. Without mauri nothing can survive. If iwi are more actively involved in partnerships with local authorities in resource management, and if Maori environmental management practices such as kaitiakitanga are recognised and implemented, the mauri inherent in natural resources would be better protected and restoration of mauri in degraded sites or resources would be achieved.

Mahinga kai is the customary gathering of food and natural materials and the places where those resources are gathered.<sup>5</sup> Resources used for cultural purposes include, but are not limited to, flora and fauna for rongoa Maori (medicine); flora and fauna for weaving (eg pingao, kiekie, bird feathers); and wood, such as totara, for carving purposes. Access to these resources is important for continuing cultural traditions.

Threats to mahinga kai include degradation of water quality in fresh water and marine environments through poor stormwater, sewage and run-off management; loss of water resources and associated ecosystems through water abstraction, drainage and flood management works; exclusion from access to mahinga kai through the construction of physical barriers such as roads or through changes in ownership, management and control. Major threats to natural resources used for customary purposes are similar to the threats to mahinga kai, including development, changing land use, loss of ecosystems, poor management and disposal of wastes, unsustainable resource use, and exclusion from access to sites where valued cultural resources are found.

Many sites and areas in the region that are associated with Maori histories, traditions and tikanga are sites of cultural heritage. Such sites are valued because of the historical and traditional practices and events associated with them. Cultural heritage areas are important because of their social, cultural and spiritual significance not only to Maori, but to all people of the Wellington region. They are an integral part of the region's heritage and provide links between the past, present and future generations.

Some cultural heritage sites are wahi tapu, or places of sacredness and immense importance. Places can be considered sacred because of past events or activities (such as a battle or ceremony), or where the whenua (placenta) is returned to the earth, or where a valued resource is found.

The identification of Maori cultural heritage rests with iwi, hapu, whanau and marae in accordance with their kaitiaki responsibilities.

<sup>5</sup> Ngai Tahu Claims Settlement Act 1998, Section 167.

Cultural heritage areas and resources of significance to tangata whenua of the Wellington region include, but are not limited to:

- tauranga waka (canoe landing places)
- mahinga mataitai (places for gathering seafood, fishing grounds) and reefs
- taonga raranga (valued plants used for weaving, such as kiekie and pingao)
- wahi tipuna (ancestral sites)
- landscape features referred to in stories and whakatauki (proverbs)
- landscape features that define iwi boundaries, e.g. mountains, streams, rivers, estuaries
- coastal access points
- residential sites such as pa, marae, papakainga
- urupa (burial sites)
- historic battlegrounds.

# Policy 47: Managing effects on outstanding natural features and landscapes, or notable landscapes

Table 8: Landscape Objective 23 Methods 4 & 24 Related policies 3, 8, 9, 16, 20, 23, 24, 25, 33, 34, 35, 36, 37, 40, 43, 44, 45, 46, 51, 52, 53, 55, 67 & 69 When considering an application for a resource consent, notice of requirement or a change or variation to a district or regional plan, local authorities shall use the criteria in policy 24, to determine whether an activity may affect an outstanding natural feature or landscape, or notable landscape, and in determining whether an activity is inappropriate have particular regard to:

- (a) The degree to which landscape values associated with the natural feature or landscape will be modified, damaged, lost or destroyed by the proposed activity.
- (b) The duration and frequency of any effect on landscape values (for example short-term, long-term or recurring effects).
- (c) The magnitude or scale of any effect on landscape values (for example number of sites affected, spatial distribution, the landscape context and potential of the proposed activity to change its character).
- (d) The irreversibility of adverse effects on landscape values (for example loss of unique or rare features, limited or impractical opportunity for avoidance or remediation).
- (e) The resilience to landscape change of the place or area (for example, the ability to assimilate change within the existing landscape, the vulnerability of the natural feature or landscape to the effects of the proposed activity).
- (f) The opportunities to remedy or mitigate existing adverse effects on landscape values (for example restoration, enhancement), where the effects from the proposed activity are not able to be avoided.
- (g) The cumulative effects on landscape values (for example loss of multiple sites of identified landscape value, or potential for the proposed activity to contribute to incremental change in landscape character from successive land use changes in the immediate and wider landscape context).

### Explanation

Policy 47 provides an interim assessment framework for councils, resource consent applicants and other interested parties prior to the identification of outstanding natural features and landscapes, and notable landscapes, in accordance with policy 24 and the adoption of plan provisions for protection in accordance with policy 25. Policy 47 shall cease to have effect once policies 24 and 25 in place in an operative district or regional plan.

# Policy 48: Minimise the effects of natural hazards

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall minimise the effects of natural hazards on people, communities, property and infrastructure, having particular regard to:

- (a) The frequency and magnitude of the range of natural hazards that may adversely affect the development, including residual risk. Natural hazard considerations should include, but are not limited to:
  - (i) flooding and inundation (river, stormwater, coastal)
  - (ii) earthquake (groundshaking, amplification, liquefaction)
  - (iii) coastal hazards (erosion, storm surge, tsunami)
  - (iv) mass movement (landslip, rockfall).
- (b) The potential for climate change and sea level rise to increase the frequency or magnitude of a hazard event and ensure that the location of the development will not foreseeably require hazard mitigation works in the future.
- (c) The potential for natural hazard events to affect the development and the potential for injury or loss of life, damage to property, economic costs, social disruption and emergency management and civil defence implications, such as access routes to and from the site.
- (d) Whether the proposed development will increase the risks of natural hazards on people, communities, property or infrastructure, either within or outside the development site.
- (e) The impact of the proposed development on any natural features that act as a buffer, and that development should not interfere with their ability to reduce the risks of natural hazards.
- (f) Avoiding development in high hazard risk areas.
- (g) The need to locate habitable floor areas and access routes above the 1:100 year flood level, in identified flood hazard areas.

### Explanation

The aim of Policy 48 is to minimise the effects of natural hazard events through sound preparation, investigation and planning prior to development.

The range of hazards listed in 48(a) is not intended to be exhaustive. Other site specific hazards may become apparent during the course of a development; however these are the most serious hazards to consider.

The risk that remains after protection works are put in place is known as the residual risk. Stopbanks, seawalls and revetments and other engineered protection works can create a sense of security and encourage further development. In turn, this increases the extent and value of assets that could be damaged if the protection works fail or an extreme event exceeds the structural design parameters.

48(b) requires that the effects of climate change and sea level rise, which may increase the risks of natural hazards by altering the magnitude and frequency of weather related hazard events or by causing/enhancing coastal erosion and inundation, be given particular regard.

48(c) requires that natural hazards with a wide ranging impact on people, the community and the economy, be given particular regard.

48(d) requires particular regard to be given to whether a development could increase the natural hazard risks to people, communities, property or infrastructure. An example is a building development that diverts flood waters into neighbouring properties, or a building platform that cuts into a hillside increasing the risk of slope failure.

Table 9: Natural hazards Objective 24 Methods 4, 16, 37 & 49 Related policies 4, 26, 27, 29, 30, 31, 36, 45, 46, 49, 51, 52, 53, 55, 59, 67, 68 & 69 48(e) requires particular regard to be given to how development can interfere with natural features that provide a buffer to natural hazards. Examples include sand dunes or gravel beach ridges, river mouth estuaries or wetlands.

48(f) seeks to avoid development if the natural hazard risk is considered unacceptably high. 48(f) will cease to have effect once policy 26 has been given effect to in an operative district plan.

The term 'high hazard risk' refers to events that will likely happen within the next 100 years and cause moderate to high levels of structural damage or major damage to the site, requiring significant stabilisation or mitigation works. It applies to areas that face a genuine risk of experiencing significant damage in a hazard event, such as fault rupture zones, beaches that experience cyclical or long-term erosion, failure prone hill slopes, or areas that are subject to repeated flooding.

48(g) requires that particular regard to be given, in identified flood hazard areas, to the need to locate floor levels above the expected level of a 1 in 100 year flood, to minimise damages. It also recognises that access routes should be located above this level, to allow evacuation or emergency services access to and from a site.

# Policy 49: Minimise effects from hazard mitigation measures

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, for hazard mitigation measures, local authorities shall have particular regard to:

- (a) the need for structural protection works or hard engineering methods;
- (b) avoiding structural protection works or hard engineering methods unless it is necessary to protect existing development or property from unacceptable risk and the works form part of a long-term hazard management strategy that represents the best practicable option for the future;
- (c) the cumulative effects of isolated structural protection works; and
- (d) residual risk remaining after mitigation works are built.

### Explanation

Non-structural and soft engineering methods should be the first option for hazard mitigation. Structural measures or hard engineering methods can have significant environmental effects and should be considered as the least desirable option for natural hazard control. Where there is an unacceptable risk to development or property, there may be a place for structural measures or hard engineering methods, if they are part of a long-term hazard management strategy that includes other measures.

The risk that remains after protection works are put in place is known as the residual risk. Stopbanks, seawalls, and revetments and other engineered protection works can create a sense of security and encourage further development. In turn, this increases the extent and value of assets that could be damaged if the protection works fail or an extreme event exceeds the structural design parameters.

# Policy 50: Public access to and along the coast, lakes and rivers with significant values

When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, city and district councils shall have particular regard to enhancing public access to, and along, areas of the coast, and lakes and rivers with:

(a) outstanding natural features and landscapes;

Table 9: Natural hazards Objective 25 Methods 4 & 50 Related policies 4, 26, 27, 29, 30, 31, 36, 45, 46, 48, 51, 52, 53, 55, 59, 67, 68 & 69

- (b) areas of indigenous ecosystems and habitats, and areas with significant indigenous biodiversity values;
- (c) mahinga kai (customary food gathering areas), or areas of natural resources used for cultural purposes;
- (d) historic or cultural heritage values;
- (e) regionally significant areas in the coastal environment listed in Appendix 1; or
- (f) significant recreational or amenity values, including rivers and lakes identified in Appendix 2.

Providing public access to and along rivers, lakes and the coast is most desirable where that access can contribute to people's enjoyment of the resource. The values listed in policy 50 contribute to people's recreational enjoyment and appreciation of the coast, lakes and rivers.

Policy 50 recognises that city and district councils have a key role to play as they are responsible for requiring the creation of esplanade reserves and strips in any proposed coastal development or development, alongside lakes and rivers, when considering resource consents for the purposes set out in section 229 of the Resource Management Act.

Policy 50 does not specifically define those values that identify areas where public access should be enhanced for all values, for example what outstanding natural features and landscapes are. Policies 3, 16, 20, 22 and 24 provide guidance on the identification of these sites and areas. Tables 16, 17 and 18 in Appendices 1 and 2 identify ecosystems, habitats and areas with significant indigenous biodiversity values in the coastal environment and in river and lake environments.

There may be circumstances where restriction of public access to the coast, lakes and rivers is necessary. Such circumstances include:

- the need to protect sensitive habitats of species, or areas of significant indigenous vegetation and/or significant habitats of indigenous fauna
- the need to protect public health or safety of people
- the need to protect Maori cultural values
- the need to ensure a level of security consistent with the purpose of a resource consent.

# Policy 51: Regional urban design principles for urban development

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, for developments (including infrastructure), local authorities shall have particular regard to achieving the region's urban design principles in Appendix 3.

# Explanation

The region's urban design principles are based on the seven design qualities described in the New Zealand Urban Design Protocol. The region's urban design principles seek to ensure developments consider the following design elements:

- context
- character
- choice
- connections
- creativity
- custodianship
- collaboration.

Table 2: Coastal environment & Table 4: Freshwater Objective 8 Method 4, 27 & 51 Appendices 1 & 2 Related policies 3, 4, 6, 7, 20, 22, 24, 27, 28, 29, 30, 33, 34, 35, 40, 45, 46, 50, 51, 52, 53, 55, 62, 64, 67 & 69

Table 10: Regional form Objective 27 Methods 4 & 38 Appendix 3 Related policies 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 67, 68 & 69 The term infrastructure has the same definition as that in section 2 of the Resource Management Act.

# Policy 52: Development to support a compact, well designed and sustainable regional form

Table 10: Regional form Objective 27 Method 4 Related policies 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 67, 68 & 69 When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, for land use or development (including infrastructure), city and district councils shall have particular regard to maintaining and enhancing a compact, well designed and sustainable regional form.

#### Explanation

Individual developments have the potential to reinforce or undermine a compact, well designed and sustainable regional form.

The region's current form has a very strong corridor pattern and is generally compact. The transport corridor pattern includes State Highway 1 and the North Island Main Trunk rail line which enters the region near Otaki and extends southwards through Kapiti coast, Pukerua Bay, Porirua and northern Wellington and through to Wellington city central business district. State Highway 1 continues through to Wellington International Airport. State Highway 2 and the Wairarapa railway line enter the region north of Masterton and extend southwest through Wairarapa, the Hutt valley and on to merge with State Highway 1 and the North Island Main Trunk rail line at Ngauranga. State Highway 58 provides a vital east — west link between State Highways 1 and 2.

Objective 27 outlines the elements to be achieved by a compact, well designed and sustainable regional form.

### Policy 53: Development that integrates land use with transportation

When considering an application for a resource consent, notice of requirement, plan change or variation, for land use and development, city and district councils shall have particular regard to the following matters, in making progress towards achieving the key outcomes of the Wellington Regional Land Transport Strategy 2007–2016:

- (a) whether the proposal will generate traffic at levels inappropriate for the existing character of the surrounding area and the transport network;
- (b) connectivity with, or provision of access to, public services or activities, open spaces or recreational areas;
- (c) whether it can be effectively served by public transport;
- (d) provision of safe and attractive environments for walking and cycling;
- (e) not compromising the efficiency, reliability or safety of the existing transport network;
- (f) not creating unsustainable demands for new, or upgrades to existing, transport network infrastructure;
- (g) whether the development will encourage uncoordinated urban growth beyond urban areas; or
- (h) whether the development will encourage industrial-based employment beyond existing industrial-based employment sites.

#### Explanation

Progress towards the Wellington Regional Land Transport Strategy key outcomes cannot be achieved by the strategy alone. Land use and development decisions also need to consider impacts on the strategy outcomes. Policy 53 lists matters that need to be given particular regard when considering proposals in terms of their effect on land transport outcomes sought.

Table 10: Regional form Objective 27 Methods 4 & 44 Related policies 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 55, 56, 57, 67, 68 & 69 The Wellington Regional Land Transport Strategy key outcomes are:

- increased peak period passenger transport mode share
- increased mode share for pedestrians and cyclists
- reduced greenhouse gas emissions
- reduced severe road congestion
- improved regional road safety
- improved land use and transport integration
- improved regional freight efficiency.

# Policy 54: Sequencing of land use and coordination with funding

When considering applications for resource consents, notice of requirements, plan changes or variations, for land use and development (including infrastructure), city and district councils shall have particular regard to whether the proposed land use or development is:

- (a) located and sequenced to make efficient use of existing infrastructure (including the region's Strategic Transport Network) capacity; and/or
- (b) coordinated with the funding, development, implementation and operation of new infrastructure.

### Explanation

Land use decisions have a direct relationship to the funding, sequencing and development of new infrastructure, including new infrastructure for the region's Strategic Transport Network. The term infrastructure has the same definition as that in section 2 of the Resource Management Act. The region's Strategic Transport Network is described in the Wellington Regional Land Transport Strategy 2007–2016.

Policy 54 requires the region's city and district councils to consider the infrastructure and transport network implications of land use proposals, including implications within the immediate vicinity of the proposal and those further afield, when making decisions on district plan changes and variations, resource consents and notices of requirement for land use development.

# Policy 55: Management of Regional Focus Areas

When considering applications for resource consents, notices of requirement, plan changes or variations, for land use and development (including infrastructure), city and district councils shall have particular regard to the management goals for the Regional Focus Areas described below:

- (a) Northern Waikanae edge: containing growth at the northern boundary of Waikanae through the introduction of an urban edge in the Kapiti Coast District Plan.
- (b) Pauatahanui (at and around Pauatahanui):
  - (i) managing the significant ecological values in the Pauatahanui Inlet area; and
  - (ii) integrating land use with the proposed Transmission Gully Motorway and SH58 interchange, including recognising the potential for some activities, particularly retail activity in the area, to erode the viability of nearby regional centres.
- (c) Grenada and Gracefield: providing for eastwest road linkages between State Highway 2 and State Highway 1, from Grenada to Gracefield, and the need to integrate transportation with surrounding land use.
- (d) Johnsonville to Wellington International Airport: encouraging residential and economic growth that supports public transport along the Wellington city growth spine, between Johnsonville and Wellington Internation Airport.

Table 10: Regional form Objective 27 Method 4 Related policies 8, 9, 4, 27, 28, 29, 30, 31, 37, 51, 52, 53, 55 & 69

Table 10: Regional form Objective 27 Method 4 Related policies 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 56, 57, 67, 68 & 69

- (e) Paraparaumu town to Paraparaumu beach: avoiding residential and retail development between Paraparaumu and Paraparaumu beach that would undermine intensification of the Paraparaumu town centre.
- (f) Porirua, Aotea and Linden: encouraging transport infrastructure that integrates with development of Aotea, Porirua and Linden.
- (g) State Highway 2/State Highway 58 interchange to Upper Hutt city centre:
  - (i) providing for eastwest road linkages between State Highway 58 and State Highway 2 through to Upper Hutt city centre;
  - (ii) recognition of significant industrial or commercial sites for development in Upper Hutt city; and
  - (iii) encouraging greater housing choice, including intensification around transport nodes in Silverstream, Trentham and Upper Hutt central business district.
- (h) Waingawa: recognising the strategic importance of Waingawa as an employment site and potential site for transferring road freight to rail.

The Regional Focus Areas are predicted to either come under significant development pressure (eg the northern Waikanae edge) or provide significant development opportunities for a range of land use activities (eg Porirua, Aotea and Linden, and Upper Hutt). They are areas of critical importance to the achievement of a compact, well designed and sustainable regional form. The identification of these areas does not mean that they are being promoted for development, without being carefully assessed to ensure the region's good form is to be retained and adverse affects are appropriately managed.

Objective 27 outlines the elements to be achieved by a compact, well designed and sustainable regional form.

# Policy 56: Loss of highly productive agricultural land (Class I & II land)

When considering an application for a resource consent, notice of requirement, or a change or variation to a district plan, Kapiti Coast District Council, Masterton District Council, Carterton District Council and South Wairarapa District Council shall have particular regard to retaining Class I and II land for productive use.

### Explanation

Resource management decision-making needs to consider the irreversible effects of losing highly productive agricultural land (Class I and II land). It is important to retain this land, which is highly suited to food production and primary production, for future generations. The use of high quality soils for some activities, such as residential development and roading projects, will result in what is effectively permanent loss of these soils from productive use.

# Policy 57: Significant mineral resources

When considering an application for a resource consent, notice of requirement, or a change or variation to a district or regional plan, local authorities shall have particular regard to:

- (a) the social, economic, cultural and environmental benefits from utilising significant mineral resources within the region; and
- (b) protecting significant mineral resources from incompatible or inappropriate land uses alongside.

#### Explanation

Policy 57 directs that particular regard be given to the social, economic, cultural and environmental benefits of utilising mineral resources within the region. It also requires that

Table 11: Soils and minerals Objective 29 Method 4 Related policies 4, 27, 28, 29, 30, 45, 46, 51, 52, 53, 55, 67, 70 & 71

Table 11: Soils and minerals Objective 30 Methods 4 & 52 Related policies 1, 2, 10, 27, 28, 29, 30, 45, 46, 51, 52, 53, 55 & 67

particular regard be given to protecting significant mineral resources from incompatible and inappropriate land use alongside. Examples of methods to protect significant mineral resources include the use of buffer areas in which sensitive activities may be restricted, and the use of noise reduction measures and visual screening.

"Significant mineral resource" includes deposits of minerals, the extraction of which is of prime importance in order to meet the current and future mineral needs of the region. An example of this is the region's aggregate resources.

# **3.3** Allocation of responsibilities for indigenous biodiversity, natural hazards and hazardous substances

This section contains the policies that allocate the responsibilities for indigenous biodiversity, natural hazards and hazardous substances between Wellington Regional Council and the region's city and district councils. Policies are listed in numeric order. The summary table presents the policies under key topics.

Key topic	Policy	Page
Indigenous ecosystems	Policy 58: Allocation of regulatory responsibilities to maintain biological diversity	
Natural hazards	Policy 59: Allocation of regulatory responsibilities for land use controls for natural hazards	
Hazardous substances	Policy 60: Allocation of regulatory responsibilities for land use controls for hazardous substances	

# Policy 58: Allocation of regulatory responsibilities to maintain indigenous biological diversity

Regional and district plans shall recognise and provide for the responsibilities below, when developing objectives, policies and methods, including rules, to maintain indigenous biodiversity:

- (a) Wellington Regional Council shall be responsible for developing objectives, policies, and methods in the regional policy statement for the control of the use of land to maintain and enhance indigenous biological diversity.
- (b) Wellington Regional Council shall be responsible for developing objectives, policies, rules and methods in regional plans for the control of the use of land to maintain and enhance ecosystems in water bodies and coastal water. This includes land under and alongside the coastal marine area, lakes, rivers and wetlands.
- (c) City and district councils shall be responsible for developing objectives, policies, rules and methods in district plans for the control of the use of land for the maintenance of indigenous biological diversity.

#### Explanation

In accordance with section 62 of the Resource Management Act, policy 58 sets out the local authorities in the Wellington region responsible for specifying the objectives, policies and methods for the control of the use of land to maintain indigenous biological diversity.

City and district councils in the Wellington region have primary responsibility for controlling the use of land to maintain indigenous biological diversity (other than in the coastal marine area and the beds of lakes and rivers) through the creation of objectives, policies and rules in their district plans.

Wellington Regional Council has the primary responsibility for the control of the use of land to maintain and enhance indigenous ecosystems in water bodies (including wetlands) and coastal water.

# Policy 59: Allocation of responsibilities for land use controls for natural hazards

Regional and district plans shall recognise and provide for the responsibilities listed in Table 12 when developing objectives, policies and methods, including rules, for the control of land use for the avoidance or mitigation of natural hazards.

Table 6: Indigenous ecosystems Section 62(1)(i)(iii) of the Resource Management Act Method 5 Related policies 3, 6, 7, 16, 22, 23 33, 35, 36, 40, & 44

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Table 12: Allocation of responsibilities for land use controls for natural hazards

	Responsibilities for developing objectives	Responsibilities for developing policies	Responsibilities for developing rules	Responsibilities for developing other methods
Land in the coastal marine area and beds of lakes and rivers	Wellington Regional Council	Wellington Regional Council	Wellington Regional Council	Wellington Regional Council
Other land	City and district councils and Wellington Regional Council	City and district councils and Wellington Regional Council	City and district councils	City and district councils and Wellington Regional Council

Table 9: Natural hazards Section 62(1)(i)(ii) of the Resource Management Act Method 5 Related policies 26, 48, 49 & 68

# Explanation

In accordance with section 62 of the Resource Management Act, 1991 policy 59 sets out the local authorities in the Wellington region responsible for specifying the objectives policies, and methods, including rules for the control of the use of land to avoid or mitigate natural hazards or any group of hazards.

Table 12 shows that Wellington Regional Council and city and district councils share responsibility for writing objectives, policies and other methods for the control of the use of land (other than in the coastal marine area and the beds of lakes and rivers) for the avoidance or mitigation of natural hazards.

City and district councils have primary responsibility for writing land use rules (other than in the coastal marine area and the beds of lakes and rivers).

The Wellington Regional Council has the primary responsibility for the control of the use of land for the avoidance or mitigation of natural hazards in the coastal marine area and the beds of lakes and rivers.

# Policy 60: Allocation of regulatory responsibilities for land use controls for hazardous substances

Regional and district plans shall recognise and provide for the responsibilities listed in Table 13 when developing objectives, policies and methods, including rules, for the control of the use of land for the prevention or mitigation of any adverse effects of the storage, use, disposal or transportation of hazardous substances.

Section 62(1)(i)(ii) of the Resource Management Act Method 5

Table 13: Allocation of responsibilities for land use controls for hazardous substances

	Responsibilities for developing objectives	Responsibilities for developing policies	Responsibilities for developing rules	Responsibilities for developing other methods
Land in the coastal marine area and the beds of lakes and rivers	Wellington Regional Council	Wellington Regional Council	Wellington Regional Council	Wellington Regional Council
Other land	City and district councils	City and district councils	City and district councils	City and district councils

# Explanation

In accordance with section 62 of the Resource Management Act, policy 60 sets out the local authorities in the Wellington region responsible for specifying the objectives, policies and methods, including rules, for the control of the use of land for the prevention or mitigation of any adverse effects of the storage, use, disposal or transportation of hazardous substances.

Under this allocation of responsibilities, rules to restrict the use of land for petrol stations in residential areas, or the transportation of hazardous substances through tunnels could only be adopted in district plans, while a rule to restrict the installation of a gas pipe over a river could only be adopted in a regional plan.

This policy applies only to land use controls. Controls on the actual storage and use of hazardous substances are imposed by the Environmental Risk Management Agency. Controls on discharges of hazardous substances to the environment — as with controls on discharges of any contaminant to the environment — are imposed in regional plans.

# 3.4 Non-regulatory policies

This section contains policies that outline non-regulatory actions required to help achieve the objectives of this Regional Policy Statement. Policies are listed in numeric order. The summary table presents the policies under key topics.

Key topic	Policy	Page
Air quality	Policy 61: Reduce the effects of fine particulate matter from domestic fires	
Coastal environment	Policy 62: Restoration of natural character in the coastal environment	
Energy, infrastructure and waste	Policy 63: Promote efficient use of resources to reduce waste	
Fresh water	Policy 64: Restoration and enhancement of rivers, lakes and wetlands	
	Policy 65: Reducing water demand and wastage of water	
Indigenous ecosystems	Policy 66: Restoration and enhancement of indigenous ecosystems and habitats	
lwi resource management	Policy 67: Enhanced involvement of tangata in resource management decision- making	
Natural hazards	Policy 68: Build hazard resilient communities that are prepared for natural hazard events	
Regional form	Policy 69: Maintain and enhance a compact, well designed and sustainable regional form	
Soils and minerals	Policy 70: Minimise soil erosion	
	Policy 71: Prevention of long-term soil deterioration	

# Policy 61: Reduce the effects of fine particulate matter from domestic fires

To maintain and enhance winter air quality to achieve a level that is acceptable or better by reducing the discharge of fine particulate matter from domestic fires.

# Explanation

Wainuiomata, Upper Hutt and Wairarapa (specifically Masterton) are known to be at risk of exceeding the National Environmental Standard for fine particulate matter (PM10) during cold calm winter nights. Domestic fires are the main source of the fine particulate emissions in these airsheds.

An "acceptable" level means that the concentration of fine particulate matter is no more than 66 per cent of the National Environmental Standard.

# Policy 62: Restoration of natural character in the coastal environment

To restore and rehabilitate the natural character of the coastal environment by:

- (a) restoring indigenous habitats and ecosystems where these have been adversely affected and life-supporting capacity has been compromised;
- (b) creating or enhancing habitat for threatened indigenous species;
- (c) encouraging regeneration of indigenous species, and using local genetic stock where practicable, when restoring habitat;

Table 1: Air quality Objective 2 Methods 7, 26 & 28 Related policies 1, 2, 12 & 63

Table 2: Coastal environment Objective 5 Methods 8, 9, 27, 28, 30 & 53 Related policies 3, 4, 5, 33, 34, 36, 50, 64, 66, 67 & 71

- (d) restoring riparian margins, dunes or other natural features; and
- (e) removing redundant structures and materials that lack heritage or amenity value.

### Explanation

Much of the natural character of the coast has been degraded. Restoring and strengthening coastal ecosystems helps restore natural character and enhances people's use and enjoyment of the coastal environment.

# Policy 63: Promote efficient use of resources to reduce waste

To reduce the amount of waste disposed of by promoting the efficient use of resources.

#### Explanation

Using resources efficiently means following the waste hierarchy. First reduce unnecessary use of resources, including reducing packaging. This is followed by reusing unwanted goods that are still 'fit for purpose', recycling new products from waste materials, recovering resources (such as energy) from waste, before disposing of the remaining waste safely. If resources are used efficiently, the amount of unwanted materials disposed of at landfills and at sewage treatment plants will be reduced.

# Policy 64: Restoration and enhancement of rivers, lakes and wetlands

To restore and enhance aquatic ecosystems by remedying the effects of existing and historical activities through the provision of information, support for environmental enhancement initiatives and by taking a whole of catchment approach that recognises the natural values of water bodies.

#### Explanation

A regulatory approach cannot restore aquatic ecosystems from the effects of historical activities. Resource consent holders cannot be obliged to remedy existing effects unless they are caused by their particular activity. Where historical activities have affected an aquatic ecosystem, restoration measures such as riparian planting, or removal of concrete linings or contaminated material, can help restore the habitat but this can only be achieved through community initiatives.

# Policy 65: Reducing water demand and wastage of water

To reduce water demand and wastage by:

- (a) setting targets for reducing leakage from reticulated water supplies within each district;
- (b) providing information to water suppliers and water users on how to conserve water and use it as efficiently as possible;
- (c) providing information about long-term rainfall and drought predictions; and
- (d) investigating the use of transferable water permits.

#### Explanation

Leaks from water reticulation systems can waste over 15 per cent of treated water. Water supply authorities already have programmes for repair and maintenance, and it is vital that targets are set so that development of such programmes continues and water wastage is reduced.

Water efficient household appliances and garden watering tied to garden needs, along with fixing dripping taps and planting locally appropriate plants, are some of the ways that people could make the water delivered to their house go further.

Table 3: Energy, infrastructure and waste Objective 11 Methods 19 & 57 Related policies 12, 27, 41, 42, 51 & 65

Table 4: Fresh water Objective 13 Methods 8, 28 & 53 Related policies 13, 15, 17, 18, 19, 38, 39, 40, 41, 42, 62, 66, 67 & 70

Table 4: Fresh water Objective 14 Methods 13, 28 & 46 Related policies 63 & 41 Weather predictions can help people prepare for possible weather extremes, for example by buying in stock feed or ensuring water reserves are at full capacity. Transferring water permits, or parts of water permits, allows allocated water to be used by as many people as the resource can sustain.

# Policy 66: Restoration and enhancement of indigenous ecosystems and habitats

To restore and enhance indigenous ecosystems and habitats through the provision of information, through support for environmental enhancement initiatives and by taking a whole of catchment approach that recognises the values of indigenous ecosystems and habitats.

# Explanation

Restoration and enhancement of damaged indigenous ecosystems and habitats cannot be achieved through regulatory approaches. Setting right the effects of historical activities that have reduced the extent and quality of indigenous ecosystems and habitats in the region can be facilitated by providing information about the importance of indigenous ecosystems and habitats, and by providing financial incentives to promote their maintenance, enhancement and restoration.

# Policy 67: Enhanced involvement of tangata in resource management decision-making

To enhance involvement of tangata whenua in resource management decisionmaking by improving opportunities for iwi authorities to participate in local authority decision-making.

### Explanation

Active engagement with tangata whenua requires an open mind and a genuine willingness to allow views of tangata whenua to influence decision-making. Maori have a long history of settlement of the Wellington region, known as Te Upoko o te Ika a Maui (the head of the fish of Maui). Iwi authority refers to the body that represents an iwi and is recognised by that iwi as having the authority to do so. Table 14 shows how Wellington region's tangata whenua are represented by iwi authorities:

IwiIwi authorityNgati Raukawa ki te TongaTe Runanga o Raukawa IncTe Atiawa ki WhakarongotaiTe Runanga o Ati Awa ki Whakarongotai IncNgati Toa RangatiraTe Runanga o Toa Rangatira IncTe Atiawa, Ngati Ruanui, Ngati Tama and<br/>TaranakiWellington Tenths Trust (Nga Tekau o Poneke) and Te Runanganui o<br/>Taranaki Whanui ki te Upoko o te Ika a Maui IncNgati KahungunuNgati Kahungunu ki WairarapaRangitaneRangitane o Wairarapa Inc

Table 14: Iwi authority representing tangata whenua in the Wellington region

# Policy 68: Build hazard resilient communities that are prepared for natural hazard events

To build hazard resilient communities by providing information and advice, and by engaging the community in preparing for natural hazard events.

Table 9: Natural hazards Objective 26 Methods 16 & 37 Related policies 26, 27, 28, 29, 30, 48, 49, 51, 52, 53, 55, 59 & 69

Table 6: Indigenous ecosystems Objective 16 Methods 14, 28, 30 & 55 Related policies 22, 23, 44, 62, 64, 67 & 70

Table 7: lwi resource management Objective 17 Methods 34 & 35 Related policies 5, 7, 13, 15, 16, 17, 20, 21, 22, 23, 24, 25, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 57, 62, 64 & 66

### Explanation

An important way to reduce the impact of hazard events is through public education. Policy 67 aims to build hazard resilient communities by raising community awareness of hazard issues through information and advice.

The policy also recognises the need to involve the community in preparing for natural hazards. If people are prepared and able to cope, the impacts from a natural hazard event are effectively reduced.

# Policy 69: Maintain and enhance a compact, well designed and sustainable regional form

To maintain and enhance a compact, well designed and sustainable regional form by:

- (a) implementing the New Zealand Urban Design Protocol;
- (b) promoting best practice guidance on the location and design of rural residential development;
- (c) recognising and enhancing the role of the region's open space network; and
- (d) encouraging a range of housing types and developments (including affordable housing) to meet the community's social and economic needs.

#### Explanation

The New Zealand Urban Design Protocol promotes a national cross-sector commitment to the principles of good urban design. It provides access to resources, training and a network of signatories with a range of urban design experience.

The New Zealand Urban Design Protocol plays an important role in improving the quality urban design in the region.

Rural residential activities simultaneously offer the region economic investment, development and growth opportunities, while presenting challenges in terms of rural productivity, urban development and environmental management. Rural residential housing can:

- attract 'lifestyle' investment into the region
- better utilise areas with poor productivity
- enhance or add value to places and communities
- provide opportunities for enhancing the management of ecological values and some sensitive environments.

Best practice guidance will look at how districts and cities can gain from these benefits while:

- managing, and in some cases protecting, rural economies that are functioning and productive
- protecting and managing sensitive environmental and amenity values
- avoiding natural hazards
- considering infrastructure limitations and requirements
- managing urban sprawl and protecting future urban growth areas.

The region's open space network has helped define the region's existing good urban form and is a fundamental element of quality of life for residents. The region's open space is managed by a number of organisations, including Wellington Regional Council, the region's city and district councils and the Department of Conservation. Policy 69 seeks to enhance the role of the region's open space network in supporting the region's compact form. This will require authorities to work together and identify gaps and opportunities.

Housing design and the quality of housing developments can have a significant role in

Table 10: Regional form Objective 27 Methods 38, 39, 43 & 45 Related policies 1, 2, 3, 4, 6, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 67 & 68 improving housing choice and affordability. Different housing types, particularly those that are less land intensive, can offer greater opportunities for more affordable housing. Likewise, housing developments that incorporate, or are well connected to, transport infrastructure and services, employment opportunities and community centres are likely to enhance the social and economic wellbeing of residents.

Enhanced housing type and affordability should not being achieved at the expense of quality design or local amenity values. Therefore, the promotion of innovative housing forms and development will need to take account of the region's urban design principles.

The range of available housing stock in many areas of the region is limited. Medium and higher density housing, and one-bedroom or two-bedroom homes are difficult to find outside of Wellington central business district, and within walking distance of public transport. There is generally more choice for people wanting lifestyle and lower density housing. This does not fully recognise changing household sizes, the ageing population and changing lifestyle choices within the region.

At present housing in the region generally becomes more affordable with distance from the regional central business district and other places of work. This has negative implications in terms of travel demand, associated living costs, access to employment and community networks. It can also limit economic development opportunities by reducing the ability of businesses to attract and retain a workforce with appropriate skills.

# Policy 70: Minimise soil erosion

To minimise erosion by encouraging sustainable land management practices.

### Explanation

Policy 70 encourages sustainable land use practices that will minimise soil erosion. Sustainable land management practices can apply to activities such as pastoral farming, plantation forestry, subdivisions and roading. It includes conservation soil plantings, land retirement and conservation tilling.

# Policy 71: Prevention of long-term soil deterioration

To retain soil ecosystem function by promoting and encouraging sustainable agricultural practices that do not cause soil contamination, compaction or loss of nutrients.

#### Explanation

Soil compaction, nutrient depletion and residual soil contamination may cause irreversible degradation to soil health. Soil retained on land also minimises contamination to waterways.

Table 11: Soils and minerals Objective 28 Methods 17, 28, 33 & 56 Related policies 6, 7, 13, 14, 16, 22, 23, 36, 38, 39, 40, 44, 56, 64 & 71

Table 11: Soils and minerals Objective 29 Methods 17 & 28 Related policies 13, 14, 16, 22, 23, 32, 38, 40, 44, 62 & 70

# 3.5 Methods to implement policies

This section contains the methods for implementing the policies set out in sections 3.1 to 3.4. It is divided into two main groups of methods: regulatory methods that implement the policies in sections 3.1, 3.2 and 3.3, and non-regulatory methods that implement the policies in section 3.4 or *support* the delivery of the other policies.

The non-regulatory methods are sub-divided into four types:

- information and/or guidance
- integrating management
- identification and investigation
- providing support.

Under each non-regulatory method the key organisations who may implement the methods are indicated. An asterisk (\*) indicates the lead authority responsible for implementation, if this is designated. The delivery and timing of methods is subject to long-term council community plan and annual plan schedules.

Methods are listed in numeric order. The summary table presents the methods under key topics.

Key topic	Method	Page
Air quality	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 6: Information and guidance on best practice techniques to prevent odour, dust and smoke	
	Method 7: Information and guidance on reducing air pollution and adopting cleaner forms of heating	
	Method 26: Regional action plan to reduce fine particulate matter discharges	
	Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	
Coastal	Method 1: District plan implementation	
environment	Method 2: Regional plan implementation	
	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 8: Information and guidance on restoration and enhancement of degraded water bodies and the natural character of the coastal environment	
	Method 9: Information and guidance on use of indigenous species in the coastal environment	
	Method 27: Integrated management across mean high water springs	
	Method 28: Whole of catchment approach to works, operations and services	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
	Method 51: Identification of areas of the coast, lakes and rivers with significant values for public access	
	Method 53: Practical and financial support for community restoration initiatives in the coastal environment and for rivers, lakes and wetlands	
Energy,	Method 1: District plan implementation	
infrastructure and waste	Method 2: Regional plan implementation	
	Method 3: Wellington Regional Land Transport Strategy implementation	

Key topic	Method	Page
Energy, infrastructure and	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
waste (Continued)	Method 10: Information and guidance on travel demand management mechanisms	
	Method 11: Information and guidance on energy efficient subdivision design and building development	
	Method 12: Information on barriers to energy efficient alterations and small scale renewable energy generation	
	Method 19: Information and guidance on waste management	
	Method 31: Region-wide renewable energy strategy	
	Method 57: Working with business to reduce energy use and waste	
Fresh water	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 8: Information and guidance on restoration and enhancement of degraded water bodies and the coastal environment	
	Method 13: Information and guidance on water conservation and efficient use	
	Method 28: Whole of catchment approach to works, operations and services	
	Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
	Method 32: Regional stormwater action plan	
	Method 33: Industry-led environmental accords and codes of practice	
	Method 46: Investigate the use of transferable water permits	
	Method 51: Identification of areas of the coast, lakes and rivers with significant values for public access	
	Method 53: Practical and financial support for community restoration initiatives in the coastal environment and for rivers, lakes and wetlands	
	Method 54: Pollution prevention programme for industry	
Heritage	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 22: User guide for identifying and assessing effects on historic heritage	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
Indigenous	Method 1: District plan implementation	
ecosystems	Method 2: Regional plan implementation	
	Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 5: Allocation of responsibilities	
	Method 14: Information and guidance on techniques to maintain and enhance indigenous ecosystems	

Key topic	Method	Page
Indigenous ecosystems (Continued)	Method 23: User guide for identifying and assessing effects on indigenous ecosystems, habitats, and areas with significant biodiversity values	
	Method 28: Whole of catchment approach to works, operations and services	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
	Method 55: Incentives to promote maintenance, enhancement and restoration of indigenous ecosystems	
lwi resource management	Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 15: Guidance on best practice for earthworks to protect Maori archaeological sites, other significant sites and koiwi	
	Method 21: Guidance on the application of the Treaty of Waitangi principles in the region	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
	Method 34: Involvement of tangata whenua in resource consent hearings	
	Method 35: Preparation of iwi management plans	
	Method 36: Protocol for access to mahinga kai and natural resources used for customary purposes on public land	
	Method 47: Investigate use of Maori names for rivers, lakes and places of cultural significance in the region	
Landscape	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 4: Consideration – resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 24: User guide for identifying and assessing effects on landscapes	
	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources	
	Method 48: Regional landscape character description	
Natural hazards	Method 1: District plan implementation	
	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 5: Allocation of responsibilities	
	Method 16: Information and advice on natural hazard and climate change effects	
	Method 37: Flood hazard memoranda	
	Method 49: Identify high natural hazard risk areas	
	Method 50: Identification of natural features to protect property from natural hazards	
Regional form	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 3: Wellington Regional Land Transport Strategy implementation	
	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 18: Information on key public transport links	
	Method 20: Regional structure planning guide	

Key topic	Method	Page
Regional form (Continued)	Method 38: Sign the New Zealand Urban Design Protocol	
	Method 39: Identify major gaps and opportunities to integrate public open space	
	Method 40: Development of centre visions for the central business district and regional centres and an overall regional vision	
	Method 41: Regional principles for managing retail activities	
	Method 42: Information on supply and demand of industrial employment locations	
	Method 43: Regional principles for rural residential development	
	Method 44: Planning frameworks for each Regional Focus Area	
	Method 45: Work with private sector developers to increase the range of housing types in the region	
Soils and minerals	Method 1: District plan implementation	
	Method 2: Regional plan implementation	
	Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans	
	Method 17: Information and guidance on sustainable land management practices	
	Method 25: Database of sites at risk of contamination	
	Method 28: Whole of catchment approach to works, operations and services	
	Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	
	Method 33: Industry-led environmental accords and codes of practice	
	Method 52: Identification of the region's significant mineral resources	
	Method 56: Soil conservation support to protect erosion prone land	

# 3.5.1 Regulatory methods

Policies 1, 3, 4, 5, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 & 32

### Method 1: District plan implementation

The process to amend district plans to implement policies 1, 3, 4, 5, 7, 8, 9, 11, 12, 14, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 32 will commence on, or before, the date on which the relevant council commences the review of its district plan pursuant to section 79 of the Resource Management Act 1991.

*City and district councils may implement these policies earlier by plan change, and in the case of a 'rolling review' the policies must be implemented at the time of commencing the review of the relevant part(s) of the plan.* 

*City and district councils referred to in method 1 are:* 

- Wellington City Council
- Porirua City Council
- Kapiti Coast District Council
- Hutt City Council
- Upper Hutt City Council
- South Wairarapa District Council
- Carterton District Council
- Masterton District Council.

Policies 3, 4, 5, 6 and 7 with respect to the coastal environment do not apply to Upper Hutt City Council.

Policies 2, 3, 6, 7, 8, 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 & 25	Method 2: Regional plan implementation The process to amend regional plans to implement policies 2, 3, 6, 7, 8, 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25 will commence on, or before, the date on which Wellington Regional Council commences the review of its regional plans pursuant to section 79 of the Resource Management Act 1991.
Policies 10, 11 & 31	Method 3: Wellington Regional Land Transport Strategy implementation The process to amend the Wellington Regional Land Transport Strategy to implement policies 10, 11 and 31 will commence on, or before, the date on which Wellington Regional Council commences the review pursuant to section 176 of the Land Transport Act 1998.
Policies 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 & 57	<ul> <li>Method 4: Consideration — resource consents, notices of requirement and when changing, varying or reviewing plans</li> <li>(a) City and district councils will implement policies 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 57 when assessing resource consents, notices of requirement, and when changing, varying or reviewing district plans.</li> <li><i>City and district councils referred to in method 4 are:</i></li> </ul>
	<ul> <li>Wellington City Council</li> <li>Porirua City Council</li> <li>Kapiti Coast District Council</li> <li>Hutt City Council</li> <li>Upper Hutt City Council</li> <li>South Wairarapa District Council</li> <li>Carterton District Council</li> <li>Masterton District Counci</li> </ul>

• Tararua District Council where a proposal relates to land within the Wellington region.

# Policy 56 only applies to Kapiti Coast District Council, Carterton District Council and Masterton District Council

(b) The Wellington Regional Council will implement policies 33, 35, 36, 37, 40, 41, 43, 44, 45, 46, 47, 48, 49, 51 and 57 when assessing resource consents, notices of requirement, and when changing, varying or reviewing regional plans.

# Method 5: Allocation of responsibilities

Local authorities are responsible for the land use control for biological diversity, natural hazards and hazardous substances, as described in policies 58, 59 and 60. Local authorites will implement these policies when changing, varying or reviewing district or relevant regional plans.

Policies 58, 59 & 60

Local authorities referred to in method 5 are:

- Wellington Regional Council
- Wellington City Council
- Porirua City Council
- Kapiti Coast District Council
- Hutt City Council
- Upper Hutt City Council
- South Wairarapa District Council
- Carterton District Council
- *Masterton District Council.*

### 3.5.2 Non-regulatory methods — information and guidance

# Method 6: Information and guidance on best practice techniques to prevent odour, dust and smoke

Prepare and disseminate information and guidance on best practice techniques to reduce Policies 1 & 2 discharges of odour, smoke and dust.

### Implementation: Wellington Regional Council and city and district councils

	Information and guidance on reducing air pollution and adopting cleaner forms of heating	
Prepare and o	disseminate information and guidance to:	Policy 61
(a) promote to reduce	an understanding of the causes of air pollution and the steps people can take e it; and	
(b) encourag	e homeowners to adopt cleaner forms of heating and warmer houses.	
Implementatio	n: Wellington Regional Council and city and district councils	
	Information and guidance on restoration and enhancement of degraded water bodies and the natural character of the coastal environment	
Prepare and	disseminate information and guidance on the restoration and enhancement of	Policies 62 & 64

Prepare and disseminate information and guidance on the restoration and enhancement of Policies 62 & 64 degraded water bodies and the natural character of the coastal environment.

Implementation: Wellington Regional Council and city and district councils

### Method 9: Information and guidance on use of indigenous species in the coastal environment

Prepare and disseminate information and guidance on the use of indigenous species (with <sup>Policy 62</sup> a further preference for the use of local genetic stock) in all restoration plantings that are carried out in the coastal environment.

Implementation: Wellington Regional Council and city and district councils

Policy 11	Method 10: Information and guidance on travel demand management mechanisms Prepare and disseminate information and guidance on how travel demand management mechanisms can be encouraged through district plans.
	Implementation: Wellington Regional Council* and city and district councils
Policy 12	<ul><li>Method 11: Information and guidance on energy efficient subdivision design and building development</li><li>Prepare and disseminate information and guidance on how to carry out energy efficient subdivision design and building development.</li></ul>
	Implementation: Wellington Regional Council* and city and district councils
	Method 12: Information on barriers to energy efficient alterations and small scale renewable energy generation
Policy 12	Prepare and disseminate information on district plan barriers to energy efficient building alterations and small scale renewable energy generation.
	Implementation: Wellington Regional Council and city and district councils
Policy 65	Method 13: Information and guidance on water conservation and efficient use Prepare and disseminate information and guidance on water conservation and the efficient use of water, including best irrigation practices, crop and soil requirements, irrigation and garden watering management, water efficient household appliances, and planting locally appropriate plants.
	Implementation: Wellington Regional Council and city and district councils
	Method 14: Information and guidance on techniques to maintain and enhance indigenous ecosystems
Policy 66	Prepare and disseminate information and guidance on the importance of indigenous ecosystems, habitats, areas with significant biodiversity values, and the range of techniques to maintain and enhance indigenous ecosystems such as pest control, restoration approaches, revegetation and legal protection.
	Implementation: Wellington Regional Council and city and district councils
	Method 15: Guidance on best practice for earthworks to protect Maori archaeological sites, other significant sites and koiwi
Policy 46	Prepare and disseminate information and guidance on best practice, in consultation with iwi authorities, for resource consent holders, applicants and others undertaking earthworks, to ensure Maori archaeological sites and other significant sites and koiwi (human bones) are appropriately protected.
	Implementation: Iwi authorities, Wellington Regional Council, and city and district councils
Policies 26, 48 & 68	Method 16: Information and guidance on natural hazard and climate change effects Prepare and disseminate information and guidance on natural hazards and climate change effects in order to:
	(a) guide local authority decision-making;
	<ul><li>(b) raise awareness and understanding of natural hazards; and</li><li>(c) raise awareness of measures to reduce risks based on the principles of readiness,</li></ul>
	reduction, response and recovery, and how to adapt to the impacts of climate change.
	Implementation: Wellington Regional Council*, city and district councils, and Civil Defence Emergency Management Group

# Method 17: Information and guidance on sustainable land management practices

Prepare and disseminate information and guidance on sustainable land management <sup>Policies 70 & 71</sup> practices, including:

- (a) soil capability in terms of its limitations and most sustainable use;
- (b) soil conservation methods and techniques, including the retirement of erosion prone land from pastoral farming;
- (c) causes of poor soil health, and practices and techniques that improve degraded soil health; and
- (d) best practice techniques to prevent soil erosion and sediment run-off from vegetation clearance and earthworks.

Implementation: Wellington Regional Council

### Method 18: Information on key public transport links

Prepare and disseminate information on key public transportation links (bus stops, train <sup>Policy 29</sup> stations and ferry terminals) with a high level of service, or the potential for a high level of service, which could support higher density and mixed use activities within a reasonable distance (ie five to ten minutes walking).

Implementation: Wellington Regional Council\* and city and district councils

Method 19: Information and guidance on waste management Prepare and disseminate information and guidance on:	Policy 63
(a) how to carry out waste audits;	
(b) the reuse and recycling of materials; and	
(c) how to carry out composting.	
Implementation: Wellington Regional Council and city and district councils	
Method 20: Regional structure planning guide Prepare a structure planning guide for the region.	Policy 27
Implementation: Wellington Regional Council* and city and district councils	
Method 21: Guidance on the application of the Treaty of Waitangi principles in the region	
Prepare and disseminate guidance, for resource management decision-making, meaning and application of the principles of the Treaty of Waitangi in the Wel region.	
Implementation: Iwi authorities*, Wellington Regional Council and city and district councils	
Method 22: User guide for identifying and assessing effects on historic heritage Prepare a user guide to illustrate and interpret the criteria set out in policies 20 and 42 require the identification and assessment of effects on historic heritage.	
Implementation: Wellington Regional Council* and city and district councils	
Method 23: User guide for identifying and assessing effects on indigenous ecosystems, habitats, and areas with significant biodiversity values Prepare a user guide to illustrate and interpret the criteria set out in policies 22 and 44 require the identification and assessment of effects on indigenous ecosystems, habita	4 which

areas with significant indigenous biodiversity values. *Implementation: Wellington Regional Council\* and city and district councils* 

Policies 22 & 47	Method 24: User guide for identifying and assessing effects on landscapes Prepare a user guide to illustrate and interpret the criteria set out in policies 23 and 45 which require the identification and protection of landscapes.	
	Implementation: Wellington Regional Council* and city and district councils	
Policy 32	Method 25: Database of sites at risk of contamination Maintain a database of sites:	
	<ul> <li>(a) with a history of storing, using or manufacturing hazardous substances;</li> <li>(b) where a major spill involving hazardous substances has occurred; and/or</li> <li>(c) where analysis of soil or water samples has confirmed that it is contaminated land.</li> <li><i>Implementation: Wellington Regional Council</i></li> </ul>	
	3.5.3 Non-regulatory methods — integrating management	
Policy 61	Method 26: Regional action plan to reduce fine particulate matter discharges Prepare a regional action plan to determine how levels of fine particulate matter will be reduced.	
	Implementation: Wellington Regional Council	
Policies 3, 6, 7, 33, 35,	Method 27: Integrated management across mean high water springs Integrate local authority management across mean high water springs by:	
36, 50 & 62	(a) developing and implementing memoranda of understanding for resource management matters that cross mean high water springs; and	
	(b) developing and implementing management plans and other non-statutory plans for areas and issues that impact on the coastal environment.	
	Implementation: Wellington Regional Council* and city and district councils	
Policies 62, 64, 65, 66, 70 & 71	Method 28: Whole of catchment approach to works, operations and services Take a whole of catchment approach that recognises the values of natural resources when undertaking and planning works, operations and services.	
	Implementation: Wellington Regional Council* and city and district councils	
	Method 29: Protocol for management of earthworks and odour, dust and smoke between local authorities	
Policies 1, 2 & 14	Prepare protocols by December 2009 to guide changes to district and regional plans to avoid gaps and unnecessary overlaps in the regulation of:	
	(a) earthworks; and	
	(b) management of odour, dust and smoke.	
	Implementation: Wellington Regional Council* and city and district councils	
Policies 5, 7, 13, 15,	Method 30: Involvement of tangata whenua and community in the identification, protection or management of natural and physical resources Involve iwi, hapu, marae and whanau, and community, in the identification, protection or	
16, 17, 20, 21, 22, 23, 24, 25, 62, 64, 66 & 67	management of:	
	(a) historic heritage;	
	(b) outstanding natural features and landscape, and notable landscapes;	
	<ul> <li>(c) indigenous ecosystems, habitats, and areas with significant indigenous biodiversity values;</li> </ul>	
	(d) the coastal environment; and	
	(e) fresh water.	
	* lead authority responsible for implementation	

Implementation: Wellington Regional Council and city and district councils

# Method 31: Region-wide renewable energy strategy

Prepare a region-wide renewable energy strategy by:

- (a) gathering information (at a broad level) on the potential of sites in the region for renewable energy generation;
- (b) identifying and addressing region-wide information needs on significant environmental constraints; and
- (c) consulting with industry and the community about appropriate renewable energy generation and development sites in the region.

Implementation: Wellington Regional Council\* and city and district councils

### Method 32: Regional stormwater action plan

Prepare and annually review a regional stormwater action plan that is developed and agreed Policy 39 to by the region's local authorities.

Policy 8

Implementation: Wellington Regional Council\* and city and district councils

### Method 33: Industry-led environmental accords and codes of practice

Support industry-led environmental accords and codes of practice, such as the Dairying <sup>Policies 13, 14, 39 & 70</sup> and Clean Streams Accord and the New Zealand Environmental Code of Practice for Plantation Forestry, where these will lead to the achievement of objectives in this Regional Policy Statement.

### Implementation: Industry

### Method 34: Involvement of tangata whenua in resource consent hearings

In consultation with iwi authorities, appoint representatives with recognised expertise in Policy 67 tikanga Maori and current accreditation in the Ministry for the Environment 'Making Good Decisions Programme' to committees that hear applications for resource consents and notices of requirement that affect matters of significance to tangata whenua.

Implementation: Wellington Regional Council and city and district councils

#### Method 35: Preparation of iwi management plans

Prepare iwi management plans, where iwi wish to do so, which support the implementation Policy 46 of Policy 46 and identify:

- (a) sites and resources where mauri has been degraded and the priorities for their restoration;
- (b) values associated with water bodies, including water bodies that should be managed for customary purposes, and criteria for their management;
- (c) mahinga kai (customary food gathering areas) and areas of natural resources used for customary purposes and priorities for their protection and restoration;
- (d) cultural heritage sites, areas and resources, and appropriate behaviours in relation to those areas and resources; and/or
- (e) areas that should be monitored and the indicators to be used to measure the state of:
  - (i) mauri of natural resources;
  - (ii) water bodies managed for cultural purposes;
  - (iii) mahinga kai and areas of natural resources used for customary purposes; and
  - (iv) cultural heritage sites, areas and resources.

Implementation: Iwi authorities\*, Wellington Regional Council and city and district councils

	Method 36: Protocol for access to mahinga kai and natural resources used for customary purposes on public land
Policy 46	Prepare protocols for tangata whenua access to significant mahinga kai and areas of natural resources used for customary purposes on public land managed by local authorities. The protocol would:
	(a) recognise kaitiakitanga; and
	<ul> <li>(b) provide for the involvement of iwi authorities, hapu, whanau or marae that exercise kaitiakitanga, in decisions concerning access to and use of customary resources.</li> <li><i>Implementation: Wellington Regional Council and city and district councils</i></li> </ul>
Policies 26, 48 & 68	Method 37: Flood management memoranda Establish memoranda of understanding detailing responsibilities for flood management.
	These memoranda will outline:
	(a) who gives advice to landowners for specific streams; and
	(b) who maintains those streams to ensure the effective passage of flood flows.
	Implementation: Wellington Regional Council and city and district councils
Policy 69	Method 38: Sign the New Zealand Urban Design Protocol Sign up to the New Zealand Urban Design Protocol and develop a regional urban design action plan.
	Implementation: Wellington Regional Strategy
Policy 69	Method 39: Identify major gaps and opportunities to integrate public open space Identify major gaps and opportunities to improve regional integration of public open space and, if necessary, develop a regionally agreed action plan.
	Implementation: Wellington Regional Strategy
	Method 40: Development of visions for the central business district and regional centres
Policy 28	Complete development visions for each regional centre and Wellington city's central business district, and integrate the individual visions into an overall vision for the region's centres.
	Implementation: Wellington Regional Strategy
Policy 28	Method 41: Regional principles for managing the location of retail activities Develop regional principles to manage the location of retail activities.
	Implementation: Wellington Regional Strategy
Policy 30	Method 42: Information on supply and demand of industrial employment locations Analyse factors and trends affecting supply and demand of industrial based employment areas.
	Implementation: Wellington Regional Strategy
Policy 69	Method 43: Regional principles for rural residential development Develop regional principles to guide the identification of land suitable for sustainable rural residential development and promote best practice rural design.
	Implementation: Wellington Regional Strategy
Policy 55	Method 44: Planning frameworks for each Regional Focus Area Develop planning frameworks for each Regional Focus Area.
	Implementation: Wellington Regional Strategy

# Method 45: Work with private sector developers to increase the range of housing types in the region

Complete an agreement with major private sector developers to explore innovative housing <sup>Policy 69</sup> design and/or developments that increase the range of housing types (including affordability) in the region.

Implementation: Wellington Regional Strategy

# 3.5.4 Non-regulatory methods — identification and investigation

### Method 46: Investigate the use of transferable water permits

Investigate whether allowing water permits to be transferred will provide a more fair and <sup>Policy 65</sup> equitable use of allocated water.

### Implementation: Wellington Regional Council

# Method 47: Investigate use of Maori names for rivers, lakes and places of cultural significance in the region

Investigate ways in which Maori names for rivers, lakes and places of cultural significance in <sup>Policy 46</sup> the Wellington region can be used.

Implementation: iwi authorities, Wellington Regional Council, and city and district councils

# Method 48: Regional landscape character description

Prepare a regional landscape character description that categorises and describes the <sup>Policy 24</sup> region's landscapes.

Implementation: Wellington Regional Council\* and city and district councils

# Method 49: Identify high natural hazard risk areas

Identify high natural hazard risk areas and develop hazard management strategies to guide Policies 26 & 48 decision-making.

Implementation: Wellington Regional Council\* and city and district councils

# Method 50: Identification of natural features to protect property from natural hazards

Identify features in the natural environment that can offer natural protection to property from the effects of erosion and inundation, and disseminate information and guidance on these.

Implementation: Wellington Regional Council \* and city and district councils

# Method 51: Identification of areas of the coast, lakes and rivers with significant values for public access

Identify areas of the coast, lakes and rivers with significant values where public access should <sup>Policy 50</sup> be improved.

Implementation: Wellington Regional Council \* and city and district councils

# Method 52: Identification of the region's significant mineral resourcesIdentify the location of significant mineral resources in the region.Policy 57

Implementation: Wellington Regional Council \* and city and district councils

	3.5.5 Non-regulatory methods — providing support	
Policies 62 and 64	Method 53: Practical and financial support for community restoration initiatives in the coastal environment and for rivers, lakes and wetlands Provide practical and financial support for community restoration initiatives for the coast, rivers, lakes and wetlands.	
	Implementation: Wellington Regional Council and city and district councils	
Policies 13, 15 & 39	Method 54: Pollution prevention programme for industry Provide a pollution prevention programme to industry throughout the region.	
	Implementation: Wellington Regional Council and city and district councils	
	Method 55: Incentives to promote maintenance, enhancement and restoration of indigenous ecosystems	
Policy 66	Provide incentives such as grants, subsidies and rate relief to promote the maintenance, enhancement and restoration of indigenous ecosystems including:	
	(a) assisting with the costs of legally protecting indigenous ecosystems by way of open space covenants with Queen Elizabeth the Second National Trust (QEII);	
	(b) assisting with the costs of controlling pest plants and animals; and	
	(c) supporting landowners to restore significant indigenous ecosystems by fencing and planting.	
	Implementation: Wellington Regional Council and city and district councils	
Policy 70	Method 56: Soil conservation support to protect erosion prone land Provide support for soil conservation plantings to protect erosion prone hill country land.	
	Implementation: Wellington Regional Council	
Policies 12 and 63	Method 57: Working with business to reduce energy use and waste Assist businesses to adopt sustainable business practices by reducing their energy use and their waste.	
	Implementation: Wellington Regional Council and city and district councils	

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# Chapter Four



# 4. Monitoring the Regional Policy Statement

This chapter sets out the procedures to be used to monitor the efficiency and effectiveness of the policies and methods in the Regional Policy Statement. It then lists the anticipated environmental results of the Regional Policy Statement which will be used to measure whether the overall objectives are being achieved.

# 4.1 Procedures for monitoring

# 4.1.1 Integrated monitoring

Wellington Regional Council has developed a Regional Monitoring Strategy that will be reviewed after the Regional Policy Statement becomes operative. A regional monitoring forum will be convened by Wellington Regional Council, which will assist with the review. The Regional Monitoring Strategy will be prepared with the purpose of integrating monitoring of natural and physical resources by local authorities in the region.

An integral part of monitoring will be seeking feedback from iwi authorities, resource consent holders and the community.

# 4.1.2 State of the environment reporting

Monitoring the state of the environment is a key component of checking whether the Regional Policy Statement policies and methods are effective and efficient. Wellington Regional Council will prepare state of the environment reports that measure whether the objectives in the Regional Policy Statement are being achieved. The objectives are long-term goals for the sustainable management of natural and physical resources. Achievement of the objectives will be measured using the anticipated environmental results listed in Table 15 in section 4.2. A state of the environment report for the region will be prepared every six years — the timing will coincide with planning cycles for the Long-term Council Community Plan prepared every three years under the Local Government Act 2002.

Monitoring the state of the environment will include regular monitoring of resources (for example, monitoring water quality at selected sites for selected indicators at monthly intervals) and targeted investigations. It will also include surveys and interviews with people and organisations on their perceptions of the state of the environment.

The Wellington Regional Strategy, the sustainable economic growth strategy for the region has indicators that will monitored to measure its progress, including the Genuine Progress Indicator that will be used to measure progress across economic, environmental, social and cultural sectors. The Genuine Progress Indicator will be used as part of Wellington Regional Council's reporting on the state of the environment. The annual reporting on the Regional Land Transport Strategy will also be used as part of the state of the environment reporting.

When developing monitoring programmes, local authorities will place an emphasis on measuring environmental indicators that enable the anticipated environmental results of the Regional Policy Statement to be assessed. For resources that are not monitored at the time the Regional Policy Statement becomes operative, indicators will be developed as part of the review of the Regional Monitoring Strategy, and monitoring programmes initiated. When deciding on the indicators to be monitored, a priority will be given to the development of indicators that measure 'life supporting capacity' of natural resources (land, air, water and the coast).

# 4.1.3 The efficiency and effectiveness of the Regional Policy Statement and regional and district plans

Wellington Regional Council and the region's city and district councils are required by the

Resource Management Act, at intervals of not more than five years, to compile and make available to the public the results of their monitoring of policies, rules and other methods in policy statements or plans. This requirement applies to the Regional Policy Statement, regional plans and district plans.

Wellington Regional Council will evaluate the Regional Policy Statement and regional plans. City and district councils will evaluate their district plans. The results of monitoring the efficiency and effectiveness of policies, rules and other methods that give effect to the Regional Policy Statement in regional (Wellington Regional Council) and district (city and district councils) plans will be used by Wellington Regional Council to evaluate the Regional Policy Statement.

### 4.1.4 Resource consents

Information on resource consents is necessary to assess whether Regional Policy Statement objectives are being met. The process of applying for resource consents and considering them provides information on the resource being used, where the use takes place, the magnitude of use, how often it occurs and the limits on use (conditions). Wellington Regional Council and the region's city and district councils are required by the Resource Management Act to monitor the exercise of resource consents. This information will be used to monitor the Regional Policy Statement.

# 4.2 Anticipated environmental results

The following table identifies the anticipated environment results of the Regional Policy Statement. The anticipated environmental results are 10–year targets, unless otherwise specified. They will be used to measure whether the objectives are being achieved, as part of the state of the environment reporting. The results are described as specific environmental states or they describe a course of action that will be undertaken.

Торіс	Objectives	Anticipated environmental results
Air quality	<b>Objective 1: Discharge of odour, smoke and dust</b> Discharges of odour, smoke and dust to air do not adversely affect amenity values and people's wellbeing.	The number of odour incidents notified to Wellington Regional Council will be reduced by 25 per cent.
		The number of smoke and dust incidents notified to Wellington Regional Council will be reduced by 50 per cent.
	<b>Objective 2: Discharge of fine particulate matter</b> Human health is protected from unacceptable levels of fine particulate matter.	All gazetted airsheds will achieve the National Environmental Standard for Air Quality for fine particulate matter (PM10) concentrations by 2013.
Coastal environment	<b>Objective 3: Protection of significant areas</b> Sites, habitats and features in the region's coastal environment that are significant because of their indigenous ecosystems or habitats of indigenous fauna, scenic, recreational, cultural, scientific or landscape values are protected.	Areas and sites listed in Appendix 1 will be identified in district and regional plans.
		No loss or degradation of the values associated with the areas and sites listed in Appendix 1.
	Objective 4: Preservation of natural character of the coastal environment The natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development.	All new subdivision, use or development in the coastal environment will be within areas where natural character has already been compromised.

Table 15: Objectives and the anticipated environmental results from implementing policies and methods in the Regional Policy Statement

Торіс	Objectives	Anticipated environmental results
Coastal environment	<b>Objective 5: Restoration of degraded areas</b> Areas of the coastal environment where natural character has been degraded are restored and rehabilitated.	Rehabilitation and restoration will have started on degraded areas of the coastal environment.
	<b>Objective 6: Maintain or enhance coastal</b> <b>water quality</b> The quality of coastal waters is maintained or enhanced to a level that is suitable for contact recreation and the health and vitality of coastal and marine ecosystems.	By 2011, water quality at recognised marine bathing sites will not exceed the 'action level' in the Ministry for the Environment/Ministry of Health (2003) microbiological water quality guidelines for marine recreational areas.
		There will be no decrease in the area of wetlands, estuaries, salt marshes and dunes in the coastal environment.
		There will be no decline in the biodiversity of the intertidal zone (between mean high and mean low water springs).
	<b>Objective 7: Protection of physical and ecological</b> <b>coastal processes</b> The integrity, functioning and resilience of physical and	No reduction in extent of the area of duneland as a result of human activity and development.
	ecological processes in the coastal environment are protected from the adverse effects of land use and development.	No acceleration of coastal erosion as a result of human activities, measured by beach profiles at sites that are being managed with erosion mitigation measures.
	<b>Objective 8: Enhancing public access to and along the coast, lakes and rivers</b> Public access to and along the coast, lakes and rivers is enhanced, with priority given to areas that have significant values.	Public access to and along the coast, lakes and rivers with significant values will be improved.
		Areas with significant values where public access to and along the coast, rivers and lakes should be enhanced will be identified.
		Areas of public access to and along the coast, lakes and rivers will be better connected, and better connected to the region's public open space network.
Energy, infrastructure and waste	<ul> <li>Objective 9: Energy</li> <li>The region's energy needs are met in ways that: <ul> <li>(a) reduce greenhouse gas emissions from transportation;</li> <li>(b) reduce dependency on fossil fuels;</li> <li>(c) maximise the use of the region's renewable energy resources;</li> </ul> </li> <li>(d) Diversify the type and scale of renewable energy development in the region; and</li> <li>(e) improve the efficiency of energy use.</li> </ul>	Regional and district plans will contain policies that recognise the social, economic, cultural and environmental benefits derived from the generation and transmission of renewable energy.
		The number and diversity of renewable energy sources being utilised within the region will be significantly greater than in 2007.
		By 2016, transport related carbon dioxide emissions, for the region, will be below 1,065 kilotonnes per annum (2001 equivalent).
		By 2016, at least 15 per cent of the region's commuters will walk or cycle to work.
		By 2016, at least 21 per cent of the region's commuters will take passenger transport to work.

Торіс	Objectives	Anticipated environmental results
Energy, infrastructure and waste	<b>Objective 9: Energy</b> (Continued)	The number of energy efficient subdivisions and developments will be substantially greater than in 2007.
		Twenty per cent of businesses in the region will have adopted sustainable business practices.
		All district plans will contain policies to promote energy efficient subdivision or development, small scale renewable energy generation and provide for energy efficient alterations.
	Objective 10: Regionally significant infrastructure	All regional and district plans will contain:
	The social, economic and cultural benefits of regionally significant infrastructure are recognised.	<ul> <li>(a) policies that recognise the social, economic and cultural benefits of regionally significant infrastructure; and</li> <li>(b) policies that protect regionally significant infrastructure from incompatible land uses under, over, or alongside.</li> </ul>
	<b>Objective 11: Waste reduction</b> The quantity of waste disposed of is reduced.	The quantity of waste disposed to landfills is reduced by 20 per cent.
		The quantity of material sent for recycling and composting is increased by 20 per cent
		Twenty per cent of businesses in the region have adopted sustainable business practices.
Fresh water	<ul> <li>Objective 12: Safeguarding multiple values of water</li> <li>The quantity and quality of fresh water:</li> <li>(a) meet the range of uses and values for which water is required;</li> <li>(b) safeguards the life supporting capacity of water bodies; and</li> <li>(c) meet the reasonably foreseeable needs of future generations.</li> </ul>	By 2011 the annual median values of at least five of the six water quality indicators (dissolved oxygen, visual clarity, Escherichia coli, nitrite-nitrate nitrogen, ammoniacal nitrogen and dissolved reactive phosphorus) for each river site routinely monitored will comply with guideline values.
		There will be no deterioration of water quality in any lake, river or aquifer.
		No discharges, including stormwater discharges, into fresh water that breach receiving water quality standards set in a regional plan.
		The water catchments for public water supply will be protected so that public health is safeguarded.
	Objective 13: Supporting functioning ecosystems in rivers, lakes and wetlands	There will be no deterioration in macroinvertebrate health in rivers.
	The region's rivers, lakes and wetlands support healthy functioning ecosystems.	Algal growth in rivers and streams managed for trout habitat and recreation will comply with national guidelines.
		There will be no new barriers to fish passage and the number of existing impediments will be reduced.
		There will be no loss of existing fish habitat, and fish populations and diversity will not be reduced.

Торіс	Objectives	Anticipated environmental results
Fresh water	Objective 13: Supporting functioning ecosystems in rivers, lakes and wetlands (Continued)	Aquatic habitats of flora and indigenous fauna in small streams identified as important to the river ecosystem will be protected.
		There will be no decline in the condition and extent of wetlands in the region, and the area of protected wetlands will have increased.
	<b>Objective 14: Efficient use of water</b> Water is used efficiently and is not wasted.	River flows will not have fallen below levels needed to support healthy functioning aquatic ecosystems as specified in a regional plan.
		Groundwater levels will not decline below that required to maintain dependent wetland ecosystems.
		Actual water used by resource consent holders will be within amounts specified in a regional plan.
		There will be increased water harvesting and water storage.
		The amount of water recycled and reused will have increased.
		The amount of water leaking from water reticulation systems will have reduced.
	Repeated objective from Coastal environment Objective 8: Enhancing public access to and along the coast, lakes and rivers	Public access to and along the coast, lakes and rivers with significant values will be improved.
	Public access to and along the coast, lakes and rivers is enhanced, with priority given to areas that have significant values.	Areas with significant values where public access to and along the coast, rivers and lakes should be enhanced, will be identified.
		Areas of public access to and along the coast, lakes and rivers will be better connected, and better connected to the region's public open space network.
Historic heritage	<b>Objective 15: Identification and protection of</b> <b>historic heritage</b> The region's historic heritage is identified and protected	Valued historic heritage will be identified in district and regional plans.
	from inappropriate subdivision, use and development.	District and regional plans will have policies, rules and/or methods to protect historic heritage from inappropriate subdivision, use and development.
		No loss or degradation of heritage values associated with historic heritage identified in a district or regional plan.
	Objective 8: Enhancing public access to and along the coast, lakes and rivers         Public access to and along the coast, lakes and rivers is enhanced, with priority given to areas that have significant values.         Objective 15: Identification and protection of historic heritage         The region's historic heritage is identified and protected	<ul> <li>Public access to and along the coast, lakes and rivers with significant value will be improved.</li> <li>Areas with significant values where public access to and along the coast, rivers and lakes should be enhanced, will be identified.</li> <li>Areas of public access to and along the coast, lakes and rivers will be better connected, and better connected to the region's public oper space network.</li> <li>Valued historic heritage will be identified in district and regional plans.</li> <li>District and regional plans will have policies, rules and/or methods to protect historic heritage from inappropriate subdivision, use and development.</li> <li>No loss or degradation of heritage values associated with historic heritage identified in a district or</li> </ul>

Торіс	Objectives	Anticipated environmental results
Indigenous ecosystems	Objective 16: Maintenance and restoration of significant indigenous ecosystems and habitats. The full range of remaining significant indigenous ecosystems and habitats in the Wellington region are maintained and restored to a healthy functioning state.	Indigenous ecosystems, habitats, and areas with significant indigenous biodiversity values will be identified in district and regional plans. There is a 30 per cent increase in the area of indigenous ecosystems, habitats, and areas that have been identified as 'National Priorities for Protection', that are under active management to reduce threats to their viability.
		District and regional plans will have policies, rules and/or methods to protect indigenous ecosystems, habitats, and areas with significant indigenous biodiversity values from inappropriate subdivision, use and development.
		No loss or degradation of indigenous ecosystems, habitats, and areas with significant indigenous biodiversity values identified in a district or regional plan.
		There is a 20 per cent increase in the area of indigenous ecosystems, habitats, and areas that have been identified as 'National Priorities for Protection', that are legally protected.
		There is a 30 per cent increase in the area of indigenous ecosystems, habitats, and areas that have been identified as 'National Priorities for Protection', that are under active management to reduce threats to their viability.
lwi resource management issues	All objectives and anticipated environmental results are significant to iwi and so will be considered alongside the following objectives and anticipated environmental results.	
Issues	<b>Objective 17: Iwi involvement in decision-making</b> The region's iwi authorities and local authorities work together under Treaty partner principles for the sustainable management of the region's environment for the benefit and wellbeing of the regional community, both now and in the future.	lwi authorities will be satisfied with their level of involvement in resource management decision-making.
	<b>Objective 18: Treaty of Waitangi</b> The principles of the Treaty of Waitangi are taken into account in a systematic way when resource management decisions are made.	There will be guidance on the meaning and application of the principles of the Treaty of Waitangi in the Wellington region.
	<b>Objective 19: Kaitiakitanga</b> The concept and spirit of kaitiakitanga are integrated into the sustainable management of the Wellington region's natural and physical resources.	lwi management plans will have been prepared
	Objective 20: The mauri of natural resources is protected and sustained The mauri of natural resources, including fresh and coastal water, air, land and ecosystems, is protected and sustained.	There will be no further degradation to the mauri of natural resources in the region.

Торіс	Objectives	Anticipated environmental results
lwi resource management issues	Objective 21: Mahinga kai and natural resources used for customary purposes are maintained and enhanced Mahinga kai and natural resources used for customary purposes, are maintained and enhanced, and these resources are healthy, sustainable and accessible to tangata whenua.	There will be better access for tangata whenua to sites with mahinga kai and areas of natural resources used for customary purposes in the region.
	<b>Objective 22: Adverse effects on Maori cultural</b> <b>heritage are avoided</b> Adverse effects on the cultural and traditional relationship of Maori with their ancestral lands, water, wahi tapu and other sites and taonga are avoided.	No destruction of Maori cultural heritage identified in a district or regional plan.
Landscape	Objective 23: Identification and management of outstanding natural features and landscapes, and notable landscapes The region's outstanding natural features and landscapes, and notable landscapes, are identified and managed in order to maintain and enhance landscape values.	Outstanding natural features and landscapes, and notable landscapes, in the region will be identified in district and regional plans. District and regional plans will have policies, rules and/or methods to protect outstanding natural features and landscapes from inappropriate subdivision, use and development.
		District and regional plans will have policies, rules and/or methods to maintain and enhance notable landscapes. No loss or degradation of the values associated with outstanding natural features and landscapes identified in a district or regional plan.
Natural hazards	Objective 24: Avoiding or minimising natural hazard risk The risks to people, communities, businesses, property and infrastructure from natural hazards and climate change effects are minimised, and development in natural hazard prone areas is avoided.	<ul> <li>Risks and effects of natural hazards and climate change on communities will be identified, including: <ul> <li>(i) localised impacts from tsunami;</li> <li>(ii) vulnerability and effects of sea level rise and storm surge on coastal communities;</li> </ul> </li> <li>(iii) potential impacts on communities from local fault ruptures in Porirua, Kapiti and Wairarapa;</li> <li>(iv) effects of climate change on water availability in the region; and</li> <li>(v) risks from flooding.</li> </ul> No new subdivision or development in areas identified by a district or regional plan as having a high natural hazard risk.

Торіс	Objectives	Anticipated environmental results
Natural hazards	Objective 25: Activities not to increase the risks of natural hazards Hazard mitigation measures, structural works and other activities do not increase the risk and consequences of natural hazard events.	No new geotechnical engineering activities or structural mitigation measures will cause or increase the likelihood of a natural hazard event.
	Objective 26: Community resilience and preparedness Community resilience to natural hazard events is increased and people are prepared for the consequences of natural hazards events.	Over 75 per cent of the community surveyed will have an understanding of the likelihood and consequences of natural hazards and they will be better prepared to cope with events.
Regional form	<ul> <li>Objective 27: Compact, well designed and sustainable regional form.</li> <li>A compact, well designed and sustainable regional form, served by an integrated, safe and responsive transport network that delivers: <ul> <li>(a) viable and vibrant regional central business district in Wellington city;</li> <li>(b) viable and vibrant regional centres<sup>6</sup>;</li> <li>(c) higher density and mixed use activities within and around key centres and public transport links;</li> <li>(d) sufficient industrial-based employment locations to meet the region's needs;</li> <li>(e) sustainable management of the regionally significant Regional Focus Areas;</li> <li>(f) strategically planned rural residential development;</li> <li>(g) an integrated open space network that reinforces the region's form;</li> <li>(h) a range of housing (including increased opportunity for affordable housing) that meets the needs of the region's communities;</li> <li>(i) land use patterns that assist the region to achieve the Wellington Regional Land Transport Strategy 2007–2016 key outcomes;</li> <li>(j) improved east — west transport linkages.</li> <li>(k) efficient use of existing infrastructure (including transport network infrastructure).</li> </ul> </li> </ul>	<ul> <li>Wellington Regional Council and all the region's city and district councils will have signed the New Zealand Urban Design Protocol.</li> <li>The average population density of land zoned for urban purposes will not have declined.</li> <li>Ninety per cent of all building development (by number of building consents) will have occurred within land zoned for urban purposes.</li> <li>A regional action plan on urban design will have been jointly prepared by Wellington Regional Council and the region's city and district councils.</li> <li>People's satisfaction with the look and feel of the Wellington central business district and the key regional centres will have increased.</li> <li>The range of land use activities within the Wellington central business district and the key regional centres<sup>3</sup> will have increased.</li> <li>The number of people living within a reasonable walking distances of key local centres and public transport links in the region's needs.</li> <li>Sufficient industrial-based employment areas will be available to meet the region's needs.</li> <li>Principles to guide identification and release of areas for sustainable rural residential will have been developed and implemented.</li> <li>The range of housing choices (including affordable housing) will</li> </ul>

<sup>6</sup> Masterton town centre, Upper Hutt city centre, Hutt city centre, Petone, Kilbirnie, Johnsonville, Porirua city centre, Paraparaumu town centre.

Торіс	Objectives	Anticipated environmental results
Soils and minerals	<b>Objective 28: Minimise soil erosion</b> Land management practices do not accelerate soil erosion.	The area of vegetation cover (includes soil conservation plantings, natural regrowth, and afforestation) on erosion prone land (defined by New Zealand Land Resource Inventory) will have increased by 10 per cent.
	<b>Objective 29: Maintain soil ecosystem function and range of uses</b> Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses.	More than 95 per cent of soils sampled for soil health characteristics will meet soil monitoring targets, as defined by the Landcare Research Soils Monitoring programme.
		City and district councils will not have allowed any unsuitable activities on contaminated land.
		All remaining Class I and II land will be retained in productive land uses.
	<b>Objective 30: Mineral resource needs are met from</b> <b>within the Wellington region</b> The need for mineral resources is met from within the Wellington region.	The location of significant mineral resources in the region will be mapped.
		Demand for aggregate will be met from within the Wellington region.

# Chapter Five

Principal reasons for objectives, policies and methods

# 5. Principal reasons for objectives, policies and methods

This chapter presents the principal reasons for adopting the objectives, policies and methods of the Regional Policy Statement.

Detailed reasons for each provision will be included in a report on the consideration of alternatives, benefits and costs that will accompany the Regional Policy Statement when it is proposed. This report is required by section 32 of the Resource Management Act. It requires an evaluation of the extent to which each objective in the Regional Policy Statement is the most appropriate way to achieve the purpose of the Resource Management Act and whether, having regard to their efficiency and effectiveness, the policies and methods are the most appropriate for achieving the objectives.

### 5.1 Objectives

All objectives in the Regional Policy Statement have been adopted to address the regionally significant resource management issues (including the resource management issues of significance to iwi authorities). These issues were identified from an analysis of the state of the environment, feedback received from city and district councils, the community, and by working with iwi authorities in the region. Achievement of the objectives will promote the sustainable management of natural and physical resources.

### 5.2 Policies

Policies in the Regional Policy Statement set the courses of action that is to be followed to achieve the objectives.

There are two types of policies. The first are policies that are referred to as 'regulatory'. These policies will be delivered through regional plans, district plans, the Wellington Regional Land Transport Strategy, resource consents and notices of requirements. All involve statutory processes. The second type of policies will be implemented through actions that do not involve regulation or statutory processes. These policies are referred to as 'non-regulatory'.

Both regulatory and non-regulatory policies are needed in the Regional Policy Statement to achieve the objectives.

#### 5.2.1 Regulatory

Policies 1–9, 12–30, and 32 direct the matters that shall or should be included in the policies, rules and other methods of regional or district plans. The plans must give effect to these policies. The policies are necessary to achieve the objectives while allowing Wellington Regional Council and each city and district to work out with their communities the most appropriate way of giving effect to the Regional Policy Statement.

Policies 10, 11 and 31 direct the Wellington Regional Land Transport Strategy, which cannot be inconsistent with the Regional Policy Statement. The policies are necessary to provide appropriate direction on the role of land transport in promoting sustainable management.

Policies 33–56 provide direction on the assessment and consideration of resource consent applications, notices of requirement, or plan changes or variations. Particular regard must be had to these policies when decisions are made by Wellington Regional Council and the region's city and district councils.

Policies 58–60 allocate responsibility for the control of the use of land in relation to indigenous biological diversity; natural hazards; and the storage, use disposal or transportation of hazardous substances. These policies are necessary to satisfy the requirements of section 62(1)(i) of the Resource Management Act.

#### 5.2.2 Non-regulatory

Policies 61–71 are non-regulatory policies that direct specific actions to help achieve the objectives, such as the provision of information and works and services. They are needed where regulatory policies alone cannot achieve the objectives.

### 5.3 Methods

Methods in the Regional Policy Statement state the actions needed to implement the policies. As with the policies, there are two types of methods — regulatory and non-regulatory.

### 5.3.1 Regulatory

Method 1 implements the policies that direct what shall or should be included in district plans. Method 2 implements the policies that direct what shall be included in regional plans. These methods are necessary to clarify when regional and district plans must give effect to the Regional Policy Statement.

Method 3 implements the policies with which the Wellington Regional Land Transport Strategy cannot be inconsistent with. The method is necessary to clarify when the Wellington Regional Land Transport Strategy must implement the policies.

Method 4 implements policies that direct the matters to be considered when making decisions on resource consent applications, notices of requirement, plan changes and variations.

Method 5 implements policies that allocate local authority responsibility for the control of the use of land in relation to indigenous biological diversity; natural hazards; and the use, storage, disposal or transportation of hazardous substances. The method is necessary to satisfy section 62(1)(i) of the Resource Management Act.

### 5.3.2 Non-regulatory

Methods 6–25 identify specific information and guidance that will be prepared. Methods 6–19 are needed to provide people and communities with information that will enable them to understand, contribute and actively participate in the sustainable management of the region's natural and physical resources. Methods 20–25 are needed to enable Wellington Regional Council and the region's city and district councils to implement relevant policies in the Regional Policy Statement.

Methods 26–45 identify action that will be taken by Wellington Regional Council and other organisations to manage resources in an integrated way. These methods are needed to ensure that where resources are managed by more than one agency, it is done collaboratively.

Methods 46–52 identify where investigation of natural and physical resources is necessary to implement the policies. The methods address gaps in information that need to be addressed, as a priority, to promote the sustainable management of natural and physical resources.

Methods 53–57 identify where support and assistance is necessary to implement the policies.

### 5.4 Direction and guidance from central and local government

The Resource Management Act requires regional policy statements to give effect to national policy statements. At the time of this draft Regional Policy Statement, the only national policy statement was the New Zealand Coastal Policy Statement 1994. Policies and methods relating to the coastal environment, natural hazards, regional form, iwi management, landscape, and heritage give expression to policies in the New Zealand Coastal Policy Statement.

The National Environmental Standards for Air Quality has contributed to policies and methods on air quality. This national standard is the only one in the country at the time of this draft. Other central government guidance on energy, urban form, and indigenous ecosystems, has informed the development of policies. Documents used include the New Zealand Energy Strategy to 2050 (2007), the New Zealand Energy Efficiency and Conservation Strategy 2006, the New Zealand Urban Form Protocol 2006, and National Priorities for Action for Protecting Biodiversity on Private Land (2007).

A regional initiative that formed the basis for the policies and methods on regional form is the Wellington Regional Strategy — a sustainable economic growth strategy for the region. The Wellington Regional Land Transport Strategy has contributed to policies and methods on energy, infrastructure and regional form. Wellington Regional Council's, and city and district council's Long-term Council Community Plans have also informed a range of policies and methods in the Regional Policy Statement.

# Appendices



# Appendix 1: Sites of regional significance in the coastal environment

Table 16 relates to policies 3, 33 and 50.

In Table 16, the dots identify which sites have particular values of regional significance. The values are landscape, ecological, geological and historic heritage. The statements of significance indicate where particular values lie within the overall extent of a site. The references for the statements of significance follow the table. The location and extent of the sites are indicated in the maps (1–6) at the end of this appendix.

Site name Statement of significance No \_andscape Geology Ecology Historic heritage Otaki dune lake Ecological values: This is a series of scattered dune lakes, wetlands, and wetland and forest remnants including Ngatotara Lagoon, Lake Waiorongomai, complex Lake Huritini, Lake Kopureherehere, Lake Kaitawa, Pukehou Swamp, and Forest Lakes. Representative of rare ecological sequences from coastal forest to sea, and dune lakes to dry forest on alluvial plains. Habitat for rare indigenous flora and threatened fauna. (References 12, 13, 18, 28, 29, 36, 38) 2 Otaki River Ecological values: Although modified through flood control mouth and measures and introduced plant species, the Otaki River mouth, estuary, estuary, and and surrounding gravel beach and bar system provide a regionally Otaki beach representative example of estuarine wetland and river mouth systems adapting to regular habitat change through storm events. Habitat for ridges threatened fauna including banded dotterel and Caspian tern. Geological values: The Otaki beach ridges are localised gravel beach ridges formed by storm waves from gravels transported from the Tararua Ranges to the coast by the Otaki River. These are an anomalous feature in the context of the sandy Kapiti, Horowhenua, and Manawatu coasts, and through their control on littoral sand supply have influenced sand dune formation on the coastal plain to the south of the Otaki River. (References 17, 18, 27, 30, 33, 37, 38, 40, 53) 3 Te Hapua Landscape values: Despite modification to the original vegetation Swamp and cover, the landform remains essentially intact. The area is highly visible from SH1 with expansive views from within the site itself. dune complex The site retains a high degree of naturalness and visual coherence and is a regionally representative example of a coastal dune and wetland system. Ecological values: One of the largest and most diverse wetlands in the Foxton Ecological District. Highly representative example of flax dominated swamp and lagoon vegetation sequences on wet sand country. Representative of rare ecological sequences from coastal foredune to inland dune lakes. Habitat for rare flora and threatened fauna. (References 12, 13, 36, 37, 38, 54) Kawakahia Landscape values: The area displays a high degree of naturalness (formally known with a large swathe of indigenous lowland wetland vegetation still asTe Harakiki) intact. It is a rare and highly representative example of the extensive wetland network of wetlands which once were predominant along the Kapiti and dunes Coast. The area is low lying within the surrounding sand dunes (Kukutauaki) providing a distinctive coastal backdrop.

Table 16: Sites of regional significance in the coastal environment

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
4	Kawakahia (formally known asTe Harakiki) wetland and dunes (Kukutauaki) (Continued)	•	•			<b>Ecological values:</b> This is one of the largest and most diverse wetlands in the Foxton Ecological District. It contains flax and raupo dominated wetlands surrounded by sand dunes on private farmland. Despite modification and being functionally severed by sewage treatment ponds, this area retains a range of ecological values and processes, and provides diverse habitat for a wide range of birdlife and freshwater fish species. (References 12, 13, 17, 30, 36, 38, 54)
5	Waikanae Estuary Scientific Reserve including the Waikanae estuary saltmarsh (Waimeha)	•	•	•		<ul> <li>Landscape values: The estuary displays a relatively high degree of naturalness including important saltmarsh, wetland, and dune vegetation. The area is visually complex, containing various landforms such as the estuary, river and wetlands, rocky coast and contrasting types of vegetation. The estuarine landscape is rare in terms of its substantial size and location.</li> <li>Ecological values: Although modified this is one of the few estuary areas of any size in the southwestern North Island. The site contains examples of nationally under-represented habitat types including vegetation sequences between salt marsh, freshwater wetlands, dune lakes, and dune systems. It provides significant habitat for indigenous avifauna including waders, seabirds, and waterfowl, including international migrants. A number of these species are nationally threatened. The area also contains a number of rare plants and plant communities.</li> <li>Geological values: The landform is an abandoned postglacial sea cliff, 6500 years old, and marks the maximum Holocene marine transgression.</li> <li>(References 13, 18, 30, 31, 36, 38, 40, 53, 57, 61)</li> </ul>
6	Kapiti Island Nature Reserve and Marine Reserve (includes Motungarara, Tokomapuna and Tahoramaurea Islands and whaling station)	•	•	•	•	<ul> <li>Landscape values: The largest island in the Wellington Region. Has a well defined, distinctive landform characterised by steep coastal escarpments and regenerating bush cover. It appears to rise out of the sea as an isolated landform with a large mass and continuous angular ridgeline. Highly visible from the coastal plain and beyond the region. Views of the island from the mainland are highly regarded. The island has high natural character due to its isolation, sense of wildness and predominance of natural processes. There is a high degree of public recognition for the significance of Kapiti Island, with its natural values being well documented in promotional material about the Kapiti Coast.</li> <li>Ecological values: An internationally significant nature reserve. Kapiti is a refuge for a number of nationally threatened flora and fauna species. The oldest nature reserve in NZ, extensively studied, and a nationally important site for conservation research being one of the largest NZ islands that is free of pests and predators. Heavily forested, both successional forest and remnants of original forest cover exist on the island and support an unbroken sequence of plant communities from rocky coastline to high montane summit (521m). There are extensive coastal shrublands and tussocklands on the western cliffs. Large colonies of coastal birds are present and the three smaller islets provide a range of habitats for sea birds. Kapiti Island Marine Reserve enhances the protected status of Kapiti Island, protecting the rich and diverse marine habitat, flora, and fauna between the island and the Kapiti Coast.</li> <li>Historic heritage values: A succession of people have used or occupied Kapiti Island given and for this reason it has strong cultural and historical heritage values. These values have physical representation (in remnants such as ancient dry stone walls near Okupe Lagoon) as well as associations including names of features and events that have occurred there.</li> </ul>

No	Site name	Landscape	Ecology	Geology Historic	Statement of significance
6	Kapiti Island Nature Reserve and Marine Reserve (includes Motungarara, Tokomapuna and Tahoramaurea Islands and whaling station) (Continued)	•	•	• •	The island has been occupied over centuries by Rangitane, Ngati Kahungunu, Ngati Apa, Te Ati Awa and Ngati Toa Rangatira — the name Kapiti is an abbreviation of Te Waewae Kapiti OTara raua ko Rangitane (the meeting place of the boundaries of Tara and Rangitane). It became a Te Rauparaha stronghold following the battle of Waiorua and a strategic location for Maori military activity up to the 1830s. Although the island was a base for European whalers in the early-mid 1800's the first sale of land was for farming activity in 1838. In 1897 the Kapiti Island Reserves Act was passed and acquisition of the land by the crown followed. However, Maori occupation was allowed to remain (and still does to this day) in a small enclave of privately owned land at Waiorua Bay. The island was later home to visionary naturalist, Richard Henry, who arrived as a caretaker on Kapiti in 1908 and the Department of Conservation whare near Rangatira was at one time his home. Kapiti Island has become important as the site of much of the pioneering work on using islands as bird reserves, including being the site of New Zealand's first successful possum eradication project between 1980 and 1986. <b>Geological values:</b> Kapiti Island is an uplifted and tilted fault block composed of basement greywacke and argillite. It is thought that the western cliffs of the Island, a large phyllonite zone of crushed greywacke can be seen in contacts at Rangatira and Kurukohatu Points and on Motungarara and Tahoramaurea Islands. Okupe lagoon has formed on a low lying piece of land uplifted in the most geologically recent faulting events. This uplift has also stranded sea caves and beach ridges around the Island. (References 12, 18, 26, 27, 28, 29, 40, 43, 47, 57, 65)
7	Queen Elizabeth Park Domain (Whareroa)	•	•	•	<ul> <li>Landscape values: The domain forms an important natural buffer between the urban areas of Raumati South and Paekakariki and represents the largest area of natural dunes on the coast, with bush and wetland remnants and sand plain areas. The coastline is very distinctive, with a gentle curvilinear line and sandy beaches along the coastal edge. The area is highly visible from adjacent SH1 and the main trunk line and provides an important mid-ground element between the foreground and distant sea views. The site has a high degree of shared recognition throughout the region.</li> <li>Ecological values: Despite vegetation clearance and a long history of farming this is the most extensive and best representative example of sand dune habitat type in the Foxton Ecological District and a good example of nationally under-represented habitat type. The domain retains an unusually high diversity in vegetation types on the foredune areas compared to other areas in the ecological district. It provides habitat for pingao and Coprosma acerosa. The subject area includes MacKays Crossings Swamp, a regionally significant raupo wetland, and Railways Lakes, a wetland with a high degree of natural character.</li> <li>Historic heritage values: The Park is part of a coastal system of occupation and use by Maori over centuries. For a short time during World War II it was home to American troops. It also has historic heritage values associated with its being made the first significant regional park in the Wellington region. Maori cultural heritage values and remnants include pa sites at Whareroa and Wainui beaches. Its use and occupation by American marine troops during World War II is no longer recognisable, although an interpretation area describes. It is the most popular regional park in Wellington Region.</li> <li>(References 13, 17, 18, 27, 30, 33, 36, 37, 38, 46)</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
8	Kapiti coastal escarpment south of Paekakariki to Pukerua Bay (Includes Fisherman's Table dunes, Paekakariki coastal forest fragments, Kohekohe covenants) (Paripari)	•	•	•		<ul> <li>Landscape values: This is a wild coastal landscape. The coastal escarpment and headlands defining Pukerua Bay are a distinctive landform visible for considerable distance along the Kapiti Coast. The land-sea interface is considered to have high natural character, featuring some of the few remaining regional examples of coastal cliff vegetation, forest, and scrub.</li> <li>Ecological values: This is an extensive escarpment with regionally significant coastal cliff communities. Although modified by grazing, the coastal escarpments include regionally under-represented vegetation communities including kohekohe coastal forest remnants, flaxlands, shrublands, and vinelands. The Fisherman's Table Foredune provides a good example of mahoe and kohekohe treeland on sand dunes — a nationally under-represented habitat type within 100m of the sea and a priority 1 Recommended Area for Protection.</li> <li>Geological values: The Paekakariki alluvial fan and rock fall mass movement deposits formed during the last glacial period. The Kapiti Coastal Escarpment (south of Paekakariki to Pukerua Bay) is a good example of a faulted coast, with the steep coastal escarpment marking the position of the Pukerua Fault. The drainage pattern atop the escarpment is unusual and hints at the tectonic influence, with streams flowing away from the coast and following a rather circuitous route to the ocean. In addition, the escarpment exemplifies the landform effects of cyclic marine regression and transgression, with rockfalls and fans forming during low sea levels, and both these and the bedrock itself being cliffed during periods of high sea level such as at present. Rock outcrops on both sides of SH1 exhibit very well developed interbedding of greywacke sandstone and argillite, as well as examples of graded bedding, current bedding, and flame structures. Pleistocene sediments (glacial loess's and interglacial dune sands) are preserved along the uplifted coastal cliffs.</li> <li>(References 8, 10, 12, 13, 18, 27, 29, 38, 40, 44, 50,</li></ul>
9	Wairaka Rock & Wairaka Point (Te Ana a Hau) including Pukerua Bay Scientific Reserve, and the coastline to Wairaka Rock & Wairaka Point & QEII covenants.		•	•		<ul> <li>Ecological values: Pukerua Bay Scientific Reserve is considered to have the greatest concentration and diversity of lizards in the Wellington Conservancy with five species recorded, including the only mainland population of the rare and highly vulnerable Whitaker's skink. Wairaka Point has regionally representative examples of coastal cliff mosaic communities and beach herbfields with several plant species of note. It is one of the main nesting sites for reef heron in the region.</li> <li>Geological values: Wairaka Ridge is a peneplain remnant separated by the Pukerua Fault from the more extensively fluvially dissected landscape to the east. It is surrounded by a shore platform and coastal cliff exposures of Wellington greywacke. Fossil worm tubes (Torlessia mackayi Bather) occur on the south side of Pukerua Bay.</li> <li>(References 8, 10, 12, 15, 18, 29, 30, 31, 33, 38, 40, 47, 50, 53, 54, 57, 58, 60)</li> </ul>
10	Pukerua Bay Sponge Garden		•			Ecological values: This is a localised sponge garden resulting from a small backwater which causes high local nutrient levels. The sponge gardens are located about 300m offshore from Pukerua Bay at about 30m depth. (References 31)

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
11	Coastal defences: pill boxes Pukerua Bay; Mana; Titahi Bay; tank traps Ration Point Area & Plimmerton, Makara.				•	<b>Historic heritage values:</b> The WWII coastal defences have historical significance as a remnant of New Zealand's local response to wartime and threats of invasion in the South Pacific. The camps housed a large contingent of American troops (some 19,000 men in Wellington camps) based in New Zealand as a conditioning for combat in the Pacific. The pill boxes, traps, and barriers have important group values as they are associated with one another to form a string of planned defences along the region's coast line. The coastal setting of these places is significant as they were intended to repel or delay coastal landings and movement by invading forces. The coastal defences were never put to use and today are in variable states of repair. Little evidence remains of these camps. (References 52)
12	Taupo Swamp (including Whenua Tapu swamp)	•	•			<ul> <li>Landscape values: The swamp forms an important corridor of land that physically and visually connects Plimmerton and Pukerua Bay. The low-lying swamp is largely intact with a distinctive texture characterised predominantly by flax foliage and flowers. The swamp has high natural values being a rare and representative example of lowland freshwater mire.</li> <li>Ecological values: A nationally representative example of topogenous lowland freshwater mire developed by succession from saltmarsh. The area is inhabited by the threatened giant kokopu and the endangered spotless crake.</li> <li>(References 6, 12, 28, 29, 30, 47, 50, 54, 57)</li> </ul>
13	Ngati Toa Domain (including Paremata Barracks)				•	<b>Historic heritage values:</b> Long occupied by Maori, the Domain land is of great value for its association with Maori use and occupation over time — it is of significant interest to local iwi. The Domain also has associations for Pakeha represented by the remains of the Paremata Barracks, its farm history and later military use as well as its long-standing history as a major public reserve area for the Porirua District. It is also the site of moa hunter middens. (References 45, 46, 48, 49)
14	Pauatahanui Inlet: includes (Wildlife Refuge, Wildlife Management Reserve, and Horokiri Wildlife Management Reserve, Duck Creek Scenic Reserve, Gray's Bush & Motukaraka Point, boat sheds and Pauatahanui Village	•	•	•	•	<ul> <li>Landscape values: A distinctive and diverse landscape featuring the Inlet, wetland margins, developed areas and the backdrop of rolling hills. The landscape has a distinctive open character which is highly visible from SH1. There is a high degree of transient features which give the site a special character including the seasonal colour change in salt marsh vegetation, the changing tidal mudflats and changing birdlife. The landscape has a strong sense of place which is significant to the identity of the local community. This identity is linked to the wetland, the wildlife, the surrounding hills, and the heritage buildings on the edge of the Inlet. The Inlet has very high natural character being recognised as the largest unmodified estuarine area in the southern part of the North Island. Despite the presence of a few built elements, the open nature of the landform dominates the landscape character.</li> <li>Ecological values: The inlet and associated saltmarsh is of international and national important for scientific research. It is the largest relatively unmodified estuarine area in the southern half of the North Island and the largest area of saltmarsh vegetation. It provides habitat for a diverse range of flora and fauna. It supports numerous waterfowl and wading birds including international migrants. It is a regionally important spawning area for coastal and marine fish. Gray's bush is a regionally representative example of coastal flat lowland kohekohe forest retaining now rare kowhai and milk tree.</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
14	Pauatahanui Inlet: includes (Wildlife Management Reserve, and Horokiri Wildlife Management Reserve, Duck Creek Scenic Reserve, Gray's Bush & Motukaraka Point, boat sheds and Pauatahanui Village (Continued)	•	•	•	•	<ul> <li>Geological values: This is a drowned river valley, and was the mouth of a river draining the Tararuas before the current phase of faulting and uplift began in the Pleistocene and diverted the course to what is now the Hutt River to the south. Terraces formed in the alluvium of this former river valley can be seen on either side of the inlet. The site is thought to have been little affected by faulting and is thus unusual in Wellington's tectonically uplifted landscape. Beach terraces in the northeastern section of the inlet exhibit an almost complete record of late Quaternary (Holocene) sedimentation and sea level fluctuation and due to the absence of deformation are considered representative of former sea levels.</li> <li>Historic heritage values: The area has been used and occupied by many people over centuries, and remnants, associations, buildings and structures remain in use today. Maori have occupied land around the inlet because of its natural resource base and proximity to open coastal waters. Remnants exist such as the Ngati Ira pa at Motukaraka Point and the pa above Pauatahanui Village (known as Paua-tahanui), which was a point of refuge for those living around the harbour inlet in undefended kainga. In the early 1820s, Ngati Toa expelled Ngati Ira and took control of the area. The land at this stage was heavily forested and had resources sufficient to support a large population. Pauatahanui inlet is the site of a former Marines Camp constructed for the United States Marine Corp in 1942. The camps were considered perhaps the most graphic illustration of the practical success of standardization plus pre-fabrication in respect of the large camps built for the US Forces in the area. The boatsheds have a range of heritage values, one group of which became popularly known as "Bottle Creek" during the 1960s and 1970s, when a small group of artists and writers, including Robin White, Sam Hunt, and Jack Lasenby, lived along the western shoreline. There are few other areas in New Zealand where boatsh</li></ul>
15	Whitireia Peninsula (including Te Onepoto Bay)	•	•	•	•	<ul> <li>Landscape values: The landscape has a high degree of variety featuring coastal karaka-kohekohe forest and tauhinu scrublands which contrast against the distinctive rugged cliffs and rock formations. The site affords spectacular views of the Cook Strait, Mana and Kapiti Islands and the Marlborough Sounds. There is a high degree of naturalness and visual intactness associated with this landscape, in addition to a number of scientific, archaeological, recreational, and historical values.</li> <li>Ecological values: The Peninsula supports regionally representative remnants of coastal cliff vegetation and a coastal forest remnant with karaka and kohekohe. The area is home to two endangered endemic plant species, Hebe elliptica var crassifolia, and the rare small button daisy, of which the Whitireia Peninsula is the largest colony in New Zealand. The area includes the fringe saltmarshes and sedges of the Te Onepoto Bay Wetland which provide habitat for a range of wading bird species.</li> <li>Geological values: The seaward parts of the Whitireia Peninsula exhibit shore platform development and coastal cliff exposures of Wellington greywacke. In the cliffs to the north of Rocky Bay, a large down-fold in beds of greywacke sandstone and argillite, formed during mountain building in the Jurassic and Cretaceous, is exposed. Fossil worm tubes (Torlessia mackayi Bather) occur north of Titahi Bay and west of Kaitawa.</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
15	Whitireia Peninsula (including Te Onepoto Bay) (Continued)	•	•	•	•	<b>Historic heritage values:</b> The Park area has a long history of Maori occupation. The area is associated with the arrival and exploration of Kupe on his waka Matahorua (Matawhaorua). One of his anchor stones was left here as a memorial. The area was heavily occupied and there are Pa on most of the headlands. There is considerable archaeological interest in the area. Also of regional significance is the transmission station. The masts are clearly visible from extensive areas outside of the park from Plimmerton in the north, Paremata, Titahi Bay and from the sea. The station itself provided regional communications since establishment in 1937. (References 6, 12, 18, 20, 29, 49, 50, 60)
16	Titahi Bay fossil forest in beach (Pleistocene)			•		<b>Geological values:</b> At the southern end of Titahi Bay the fossilised remains of a forest are exposed as an intertidal reef. The forest was dominated by podocarps and tree-ferns. Radiocarbon ages, although inconclusive and floral characteristics suggest that it dates from the last interglacial (150,000–70,000 years ago). Elsewhere, folds and interbedding of greywacke and argillite are evident in the cliffs between Titahi Bay and Rukutane Point. (References 12, 27, 28, 29, 40, 49, 56, 58, 60)
17	Titahi Bay boat sheds				•	<b>Historic heritage values:</b> There are three groups of boat sheds in Titahi Bay. The boatsheds date back to 1916 and are unique for being privately owned structures on the public foreshore. These boat sheds have historic importance for their longstanding association with the bay. There are few other known groups of similar beach-front sheds in New Zealand and have regional (if not national) significance for this. (References 24, 48, 51, 52)
18	Mana Island Scientific Reserve and Mana "bridge"	•	•	•	•	<b>Landscape values:</b> Mana is one of the larger islands within the Wellington Region. It is visually distinctive with steep sea cliffs and a flat tableland. It is highly visible within the coastal plain and beyond the region, with views of the island from the mainland being highly regarded. The island has high natural character due to its isolation, sense of wildness and predominance of natural processes. The island also has a high degree of public recognition with its natural values being well documented in promotional material about the Kapiti Coast and a strong source of a local identity.
						<b>Ecological values:</b> Mana is one of the largest NZ islands that are free of pests and predators and it supports large nesting colonies of several seabird species. The island is a nationally important site for conservation research and provides habitat for several rare and threatened fauna and flora species, including the Cook Strait giant weta, McGregor's skink, the gold striped gecko, takahe, little spotted kiwi and the endangered Cook's scurvy grass.
						<b>Geological values:</b> Mana Island is bounded by faults to both the east and west and, while it has been uplifted, it has not been appreciably tilted, unlike much of the uplifted Wellington landscape. Its flat surface is a remnant of the Kaukau erosion surface (peneplain) formed in the Oligocene. At one stage, when sea levels were lower, although not at their lowest glacial extent, an isthmus connected the island to the mainland. Today the "Mana Bridge" lies 7-8m below the surface.

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
18	Mana Island Scientific Reserve and Mana "bridge" (Continued)	•	•	•	•	<b>Historic heritage values:</b> The island provides an important record of the historical settlement of the area. It is recognised as one of New Zealand's earliest pastoral farms, the wool from which is reputed to be among the earliest exported from New Zealand, in June 1836. The European occupation of the island began in the 1830s when a whaling station was established and most of the vegetation was cleared. The woolshed from this era still stands at Shingle Point. A lighthouse was built at the northern end in 1863. It was the second in the province of Wellington. The brick foundations of the lighthouse tower and keeper's gardens dating from 1863 can still be seen today. Artefacts, like fish hooks, spears, and animal remains, found in middens provide evidence of human occupation of Mana back to the 14th century. (References 12, 18, 27, 28, 31, 40, 47, 49, 50, 53, 56, 57, 58, 59, 60)
19	Rock Point			•		<b>Geological values:</b> This is the only site in the region at which fossils of both Torlessia mackayi (Bather) and Titahia corrugata (Webby) occur, and it is the type locality of the latter, i.e. the site at which they were first described. These worm tubes are the fossilised paths left in marine sediments by annelid worms that existed 220–200 million years ago when the muds that eventually became these arglllites were being laid down. Torlessia dates from the mid — to late Triassic, Titahia from the late Triassic. (References 12, 56, 58, 60)
20	Makara Stream estuary, flats & river mouth		•	•		<ul> <li>Ecological values: The Makara river mouth has regionally representative estuarine wetlands that are uncommon in the Wellington Region. The estuary is home to regionally uncommon freshwater invertebrates and fish and nationally threatened birds, including migratory waders. The saltmarsh vegetation is the only remaining example in Wellington City. The Makara foreshore reserve contains threatened plant species.</li> <li>Geological values: This is a faulted coast, maintained in an erosional state because of insufficient sediment available for the building of a protective beach. Fossil worm tubes (Torlessia mackayi Bather) occur in argillites of Ohariu Bay west of Makara Stream, between Ohariu Bay and Pipinui Point, and on the western side of Te Ikaamaru Bay. The mouth of the Makara Stream is partly impounded behind a gravel barrier beach, forming a tidal estuary.</li> <li>(References 4, 6, 10, 12, 15, 16, 18, 28, 31, 47, 55, 58, 60, 61)</li> </ul>
21	Cape Terawhiti from Ohau Point to Oteranga Bay including Black Point and Terawhiti seal haulout		•	•		<ul> <li>Landscape values: Cape Terawhiti is the southwestern most point of the North Island. This headland is the closest point to the South Island, 22.1km to Perano Head on Arapawa Island and was an important reference for travel between the islands. The area has been farmed for many generations but retains a largely un-built, uncluttered landscape with a rugged coastal character.</li> <li>Ecological values: The rocky beach and coastal escarpment have regionally representative wildlife and botanical values. It is an important winter seal haul-out site and has important seabird colonies. The coastal escarpment has a range of specialised plant communities in a natural state that extend in a sequence from rocky coastline to high summit (458m). It retains vegetation on toe slopes which is regionally uncommon due to roading development especially in south Wellington. The area supports one of the few remaining breeding populations of banded dotterel in the Wellington Region.</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
21	Cape Terawhiti from Ohau Point to Oteranga Bay including Black Point and Terawhiti seal haulout (Continued)	•	•	•		<b>Geological values:</b> This coast has been strongly cliffed by marine erosion. There are well preserved interglacial marine terraces with a single terrace on the headland west of Oteranga Bay and up to five terraces distinguishable on the flanks of Terawhiti Hill. The top of Terawhiti Hill is a peneplain remnant tilted to the west by movement on the Pukerua Fault. Fossil worm tubes (Titahia corrugate Webby) occur in arglllites on the western side of Oteranga Bay, while the old gold mine is testament to the gold, silver, and antimony mineralised (unusually) within quartz veins within the greywackes. (References 6, 10, 12, 15, 18, 28, 31, 40, 47, 55, 56, 57, 60, 65)
22	Tongue Point: marine terraces	•	•	•		<b>Landscape values:</b> The area has been farmed for many generations but retains a largely un-built and uncluttered landscape, with a rugged coastal character. The Tongue Point landform is characterised by three distinctive uplifted marine terraces which have high scientific and educational value. This is a distinctive landform in contrast to surrounding shoreline and steep hill country.
						<b>Ecological values:</b> The point is an important winter seal haul-out site and has important seabird colonies. <b>Geological values:</b> Tongue Point exhibits an extremely well defined sequence of uplifted marine terraces spanning the late Quaternary. The lower terrace (elevation: 23–46 m) is extensive and well preserved, and was cut by the sea during the last interglacial (Oturian, 150,000–70,000 years ago). The higher terrace (76–91 m) is eroded and only remnants remain; it was cut by the sea during the penultimate interglacial (Terangian, 240,000–180,000 years ago). A still higher, highly dissected terrace can be distinguished at 133 m. Terrace surfaces slope to seaward and elevation across the surfaces is uneven due to deformation which has therefore occurred subsequent to their formation. (References 6, 8, 10, 12, 15, 23, 27, 28, 29, 40, 47, 53, 55, 56, 57, 58, 60)
23	Sinclair Head from Karori Stream to Owhiro Bay Quarry (The 'Run Around"). Approximately 8 km of coastline that includes Sinclair Head Scientific Reserve, Red Rocks Scientific Reserve, and Speargrass Reserve	•	•	•		Landscape values: The area has a high degree of naturalness which is accentuated by its relative inaccessibility during high tide. The coastal vegetation and rugged landforms have a coherent, dramatic, and rugged character which reflects the harsh coastal and volcanic processes that have formed this landscape. The landforms at Red Rock, the raised platforms and volcanic intrusive/pillow lavas are highly distinctive. The site also has strong heritage, cultural and scientific/educational values including the presence of a seal colony. One of the best regional examples of Wellington's wild cliff and scree landscapes. Ecological values: This is one of the better examples of a relatively unmodified shoreline of the Wellington South Coast. It has a wide range of coastal vegetation communities including mountain flax, coastal scrub, karaka stands, saltmarsh communities, small dune systems, and gravel fans. The coastal screes and escarpments have regionally representative examples of rocky coast, cliff, and scree vegetation. The area is also ecologically important as a winter seal haulout. Sinclair Head Scientific Reserve includes the best example on the Wellington South Coast of a dune system together with its characteristic plants and animals, several species of which are becoming increasingly uncommon. The small and scattered saltmarsh communities west of Sinclair Head are excellent examples. The coastal karaka stand stand is one of extremely few coastal forest remnants remaining on the south western Peninsula. The Speargrass Reserve contains the only North Island populations of two threatened weevils and some rare coastal plants. An unnamed species of lizard is endemic to this coastline.

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
23	Sinclair Head from Karori Stream to Owhiro Bay Quarry (The 'Run Around"). Approximately 8 km of coastline that includes Sinclair Head Scientific Reserve, Red Rocks Scientific Reserve, and Speargrass Reserve	•	•			<b>Geological values:</b> Raised shore platforms are evident between Sinclair Head and Owhiro Bay. In the cliffs folding that occurred during mountain-building in the Jurassic and Cretaceous are visible, as well as soft sediment deformation structures. At Red Rocks, a well exposed sequence of oceanic (basaltic) volcanics can be seen incorporated within Torlesse greywackes exposed on the shore platform. The volcanic rocks are associated with the introduction of volcanic material to sediments that were accumulating in a marine basin during the Triassic (225–195 million years ago). Basaltic pillow lavas were formed by the reaction of hot lava with sea water which broke the lava into a mass of 'pillows'. Radiolaria are small marine organisms, which settle out on death and form cherts. Jaspilite is formed as silica leached by steam from rapidly cooling lava is incorporated into muds. Incorporation of leached iron and manganese into the muds produced the red and green argIllites. This sequence is interpreted as being in thrust contact with a red argIllite and massive sandstone unit to the east. (References 6, 12, 15, 18, 21, 23, 27, 28, 29, 30, 31, 39, 40, 41, 47, 56, 57, 58, 59, 60, 61, 65)
24	Island Bay lawsonite			•		<b>Geological values:</b> The mineral lawsonite is found in veins cutting metabasalt of the prehnite-pumpellyite facies; this is the only reported occurrence of lawsonite in the Torlesse greywackes of the Wellington Peninsula. (References 27, 28, 40)
25	Taputeranga Island	•	•			<ul> <li>Landscape values: An excellent example of an offshore island with a high degree of naturalness as well as an excellent example of raised shore platforms with distinctive costal cliffs and rocky shore environments. The island is celebrated by locals in art and literature and forms an important landmark and sense of local identity for communities along the south coast.</li> <li>Ecological values: This rocky low lying island has diverse shore and cliff habitat with a high proportion of native plant species dominated by flax and shrub herbfields. There is also a large area of relatively unmodified saltmarsh that includes several rare plant species. The island is an important nesting site for little blue penguin, variable oystercatchers and reef heron.</li> <li>(References 6, 12, 15, 28, 29, 31, 47, 55, 57, 65)</li> </ul>
26	Moa Point beach ridges & shore platform			•		<b>Geological values:</b> Extensive shore platforms raised by the 1855 earthquake are evident along this section of coast. At Moa Point a stack, probably a former island is surrounded by this shore platform and a modern storm beach ridge. (References 29, 55, 60)
27	Point Dorset marine terraces, raised beach & rock arch			•		<b>Geological values:</b> Both the shore platform and a rock arch, known as 'the Gap', cut by sea were stranded by uplift in the 1855 earthquake. Higher upslope, there is a small marine terrace remnant, which is especially valuable as it retains deposits of littoral sediments (sand and shells); such deposits, which are evidence that the surface was cut by the sea, are rare in the region. (References 18, 29, 55, 56, 60)
28	Te Aroaro a Kupe (Steeple Rock)	•				Landscape values: Steeple Rock is a rugged, distinctive, and prominent rocky outcrop which provides a sense of scale and identity. It forms an important part of the local landscape character and has been widely recognised and celebrated as a landmark for boaters and local residents alike. (References 31)

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
29	Massey Memorial, Point Halswell				•	<b>Heritage values:</b> The Massey Memorial at Point Halswell commemorates William Ferguson Massey who was Prime Minister of New Zealand from 1912-1925 and is of national significance accordingly. Shortly after Massey's death in 1925 land at Point Halswell was set aside as a burial ground for him and his widow. The design of William Ferguson Massey's tomb underneath the Memorial incorporates an 8" gun emplacement that was constructed on the site in 1886 following fears about Russia's presence in the Pacific following the Crimean War. (References 28, 46)
30	Evans Bay fault/ slump scarp			•		<b>Geological values:</b> This is an offshore tectonic feature produced by deformation of early Holocene sediments and the formation of a scarp feature. It remains unclear whether this is the result of either seismically induced slumping and sediment compaction along an inactive Pliocene fault/shear zone or whether there has been Holocene reactivation of the fault. (References 27, 40)
31	Collection of Wellington waterfront buildings				•	<b>Historic heritage values:</b> A collection of historic waterfront buildings and structures that are representative of a range of historical uses of the Wellington waterfront. They include Wellington Harbour Board Head Office & Bond Store (Museum of City & Sea); Wellington Harbour Board Wharf Office Building (Shed 7); Wellington Harbour sheds 3, 5, 11, 13, 21 and 22; Wellington and Star Rowing Club buildings; ferry building; Odlins; wharf gates; Wellington Free Ambulance Building and the Overseas Passenger Terminal. The activities conducted from the port in terms of transport of goods, migration arrival points for new comers to New Zealand have been significant to the region. The redevelopment of the waterfront begun in the 1980's seeks the retention and reuse of the existing structures for contemporary uses. (References 29, 46, 62, 63)
32	Wellington Harbour Te Whanga nui a Tara	•	•	•		<b>Landscape values:</b> With over 8,100 hectares of deep water, Wellington harbour was a natural choice for settlement. The harbour is visually contained within ridges, a rugged coastline, fault escarpment, and hilly terrain. The harbour is regionally significant for a multitude of reasons including the high landscape diversity of intimate bays, sandy beaches, rocky coastal points, and headlands. It has highly distinctive landscapes with landforms such as Mount Victoria, Tinakori Hill, and Pencarrow Head around it. The vegetation provided by the Town Belt, Eastern Hills, Miramar Peninsula, and Fault Escarpment creates a visually coherent backdrop. It has highly memorable and scenic values associated with expansive views across the harbour and mystery evoked by the islands. The harbour landscape is well represented in national art and literature and is strongly tied to local sense of identity.
						<b>Ecological values:</b> The ecological values of Wellington Harbour have been separated into specific areas that represent coastal estuaries, harbour, islands, and coastal escarpments.
						<b>Geological values:</b> Wellington Harbour is made up of two basins divided by a fault ridge composed of basement greywacke. Matiu/ Somes Island is a surface expression of this feature. West of the fault ridge is a tectonically subducted basin on the downthrown side of the Wellington Fault. The area to the east of this fault is an infilled valley, buried by alluvial and marine sediments. The Harbour was flooded by the sea in the last post-glacial sea level rise. Some specific geological features are covered separately for individual sites. (References 1, 12, 27, 29, 58, 65)

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
33	Hutt River mouth & estuary		•			<b>Ecological values:</b> The Hutt River estuary is the only example of a tidal mud flat in the Wellington area and is regionally representative of this habitat type. It is the most important area for birdlife in Wellington Harbour with a large number of estuary species commonly found feeding and roosting, particularly the mud flat in the western arm. It is also recognised as a stop over for several migratory species. The river mouth provides a substantial food source for fish and birds and is recognised as an important nursery area for juvenile flat fish.
						(References 6, 22, 25, 47)
34	Somes/ Matiu Island (including the marine terraces and Mokopuna Island)	•	•	•	•	<b>Landscape values:</b> This is a well defined landform comprised of a series of marine terraces which correspond to former sea levels. The landscape values associated with Somes/Matiu are attributable to its significance as a major landscape feature and is widely celebrated in local art and literature. The island is highly iconic to the people of Wellington and there is a high degree of shared knowledge associated with its historical uses and conservation values.
						<b>Ecological values:</b> Although highly modified historically, Somes Island has undergone a major revegetation and pest eradication programme since 1981 and vegetation succession is now well advanced. Several threatened bird species breed on the two islands, including the reef heron, variable oystercatcher, and spotted shag. Both are home to rare lizard species that are threatened on the mainland. Somes/ Matiu island is also home to transplanted tuatara and populations of petrel.
						<b>Geological values:</b> There is a well defined series of uplifted marine terraces (30 m, 45 m and 75 m a.s.l) reflecting former sea levels. The shore platform around the island is ~ 1.5 m a.s.l, and was elevated by the 1855 earthquake; and remnants of an older shore platform 2.4–3.0 m a.s.l, which is associated with the 1460 event. There are sea-cut arches and caves now out of reach of the waves.
						<b>Historic heritage values:</b> The island includes a range of regionally significant historical associations including the site of the former quarantine station, as well as the former area where German and other axis nations were interned during WWII.
35	Ward Island Makaro		•	•		(References 18, 25, 27, 28, 29, 40, 47, 53, 56, 57, 60, 65) <b>Ecological values:</b> The rat-free Ward Island is home to four species of lizards that are restricted on the mainland, including the best population of the regionally rare skink, Leiolopisma lineoocellatum. The island is clad in taupata and pohutukawa forest and shrubland. The island is one of only four breeding sites for the white-fronted tern in the Wellington Region and provides an important nesting site for several native bird species, including the little blue penguin and the variable oystercatcher.
						<b>Geological values:</b> There is a well defined series of uplifted marine terraces (30 m, 45 m and 75 m asl) reflecting former sea levels. The shore platform around the island is ~ 1.5 m a.s.l, and was elevated by the 1855 earthquake; and remnants of an older shore platform 2.4–3.0 m a.s.l, which is associated with the 1460 event. There are sea-cut arches and caves now out of reach of the waves. (References 18, 25, 28, 29, 47, 57)

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
36	East Harbour Regional Park and coastline to Pencarrow cliffs & Pencarrow lighthouse (including Butterfly Creek ridges and coastal escarpments)	•	•		•	<ul> <li>Landscape values: Continuous and dramatic harbour entrance extending from the rugged Pencarrow Heads along an undeveloped ridgeline to the north end of East Harbour Regional Park. Butterfly Creek is located between the coastal and inland ridges and is a remnant of intact native forest that contrasts with the surrounding previously cleared ridges.</li> <li>The distinctive escarpment cliffs and knob at Pencarrow Head marks the eastern entrance into Wellington Harbour. The landform obtains its significance largely from its prominent and strategic position within the harbour and through the high degree of shared knowledge and historical recognition associated with the lighthouse. There is a strong sense of coherence between the rugged cliffs, headland, lighthouse and dunes below.</li> <li>Ecological values: The coastal component of the East Harbour Regional Park contains regionally representative examples of original coastal black beech and hard beech forest types, now uncommon along the Wellington coastline. The coastal ridge has a great diversity of coastal forest types in the one area which are uncommon in the Wellington Region. The area provides important corridor linkages with other remnants in the Wellington Harbour area and islands.</li> <li>Historic heritage values: Pencarrow Head was home of New Zealand's first lighthouse which was first lit in 1859. A second lighthouse was added on the dunes below the escarpment in 1906 as the original light was decommissioned. The area includes a range of historical associations with Maori settlement and food gathering, and historic and archaeological sites. East of Lake Kohangatera, the remains of the small steamer "Paiaka" lie beside the road. The ship was wrecked in July 1906 with no loss of life.</li> <li>(References 12, 18, 25, 28, 32, 46, 47, 54, 61, 64, 65)</li> </ul>
37	Kohangapiripiri Lake, Kohangatera Lake (including Gollans Stream and associated wetlands & raised beach)	•	•	•		<ul> <li>Landscape values: Kohangatera Lake and Lake Kohangapiripiri are exceptionally rare examples of relatively unmodified freshwater wetlands despite their proximity to an urban area. Formed within valleys that have been blocked off from the ocean by beach ridges raised through seismic activity, together the lakes, wetland, and raised beaches provide important habitat. The lakes are surrounded by hill landforms which, long stripped of their native vegetation through 150 years of burning and grazing, are still intact and provide a distinctive and striking backdrop to the lakes and wetland. The lakes, wetlands, and surrounding hills have high scenic value and express a high degree of harmony between all visual elements.</li> <li>Ecological values: The lakes and associated wetlands are good examples of under represented 'recent' wetlands as a result of uplifting associated with the 1855 earthquake. The lakes and their wetlands contain examples of freshwater plants existing beside salt marsh plants, many of which are uncommon, and threatened Muehlenbeckia ephedroides and Pimelea urvilleana. The rare sedge, pingao, grows in pockets in the area and the lakes shelter endemic fauna species, including the threatened giant kokopu and the spotless crake. The lakes are an important breeding and feeding area for several bird species, including the black shag, banded dotterel and bittern. The lakes are protected as Wildlife Management Reserves. Lake Kohangatera contains the only record of the freshwater snail Potamogeton ochreatus. Lake Kohangapiripiri contains the only definite siting of the rare daisy, Cotula dispersa, in the region.</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
37	Kohangapiripiri Lake, Kohangatera Lake (including Gollans Stream and associated wetlands & raised beach) (Continued)	•	•	•		<b>Geological values:</b> These lakes were former inlets of the sea, and are lined with marine derived features (caves, raised beaches, wave cut platforms, sea stacks). They were impounded behind east-west oriented gravel barriers and subsequently uplifted prior to 1855; the raised beach ridges, ~ 6–7 m a.s.l, provide a record of a former shoreline, and there has been delta formation and sedimentation within the lakes. Cotton (1942) used the lakes' presence and genesis as evidence in inferring transverse deformation as origin of Port Nicholson rather than it simply being a drowned pre-existing river valley itself. (References 6, 8, 12, 18, 21, 27, 28, 29, 30, 40, 47, 56, 57, 60)
38	Baring Head to Orongorongo River mouth uplifted marine terraces	•	•	•		Landscape values: Like Turakirae Head, Baring Head is considered one of the largest and most distinctive examples of uplifted marine terraces in the Wellington area. At Baring Head two such terraces can be readily identified and are considered of high scientific value. Overall, the landform is very well defined by the coastal escarpment which juts out into the coastal fore dunes and the rolling farmland which stretches between the coastal escarpment and the distant hills. The iconic Baring Head lighthouse and a number of small station sheds located on top of the first terrace, near the edge of the escarpment indicate the strong historical and cultural significance of the site. Ecological values: Baring Head is regionally significant as the only example of a mainland black-backed gull colony in the Wellington Region. The beaches of the area also provide nesting sites for a variety of seabirds, including blue penguins, variable oystercatchers, and black-backed gulls. White-fronted tern and banded dotterel are
						also present. <b>Geological values:</b> The coast between Baring Head and the Orongorongo River exhibits very well defined uplifted interglacial marine terraces. Although there are up to eight of these terraces, up to 431 m and spanning some 250–300,000 years, the two lowest in particular are considered the best and largest in the Wellington. (References 6, 8, 9, 12, 15, 27, 28, 29, 31, 32, 40, 47, 53, 56, 57, 60, 65)
39	Turakirae Head	•	•	•		<ul> <li>Landscape values: The Head is a very well defined landform of scientific and educational value. It is considered one of the most well preserved examples of raised beaches on the Wellington Coast. Turakirae head has a high level of public recognition particularly in so far as the raised terraces reveal a lot about the natural history of the area including dates of major earthquakes, original vegetation cover, and the presence of fur seal colonies.</li> <li>Ecological values: The area supports one of the largest of the several winter colonies of the NZ fur seal in the region. The vulnerable /rare shore spurge, the vulnerable dwarf false musk (Mazus pumilo) and pingao occur on the raised beach systems here. The site supports large populations of endemic lizards, including the common gecko, common skink, copper skin, and reputedly the largest mainland population of the rare spotted skink in the region. The area is partly protected as a Scientific Reserve.</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
39	Turakirae Head (Continued)	•	•	•		<b>Geological values:</b> The uplifted shorelines at Turakirae are amongst the best examples of such features in the world. Movement on the West Wairarapa fault, which runs to the immediate east of Turakirae Head, has a vertical component, with uplift on the western side. Each uplift event raises the shoreline out of reach of marine processes, leaving raised shorelines. The vertical offset between raised shorelines both enables an estimate of the uplift magnitude from past events and contributes to estimates of future movements. Five of these, representing uplift events from the last 7,000 years, are evident at Turakirae Head — one of the best such records in the world. Peat is present behind some of the shorelines, unusually for the Wellington region, and has contributed to dating. The oldest raised shoreline, which is now almost buried by colluvium from the hills, was raised around 2.7 m some 6,500 years ago. The next oldest relates to an uplift of 5.5 m ~4,900 years ago. The third event, 3,100 years ago, produced uplift of 8.2 m. The fourth was the Horowhenua earthquake of 1460 AD (5.8 m uplift), and the most recent was the 1855 earthquake, which raised the shoreline 2.5 m. (References 6, 12, 18, 27, 28, 29, 34, 40, 47, 56, 57, 59, 60, 61, 65)
40	Coastal faces of Rimutaka Ranges and Mt Mathews including parts of Rimutaka Forest Park from Fisherman's Rock to Thrust Creek, including Mukamuka pillow breccia	•	•	•		<ul> <li>Landscape values: Mt Matthews is the tallest peak in the Rimutaka range and the nearest to Wellington. The peak forms a distant focal point from many parts of Wellington and the Hutt Valley. There are several very distinctive features along this coast, including the Rimutaka Forest park, Fisherman's Rock and Thrust Creek that collectively represent an array of landform processes that are highly discernable. The gravel beaches contribute to the wild and remote nature of the area.</li> <li>Ecological values: The ranges here represent one of the last remaining examples in the Wellington Region of a largely unmodified sequence of continuous forest-cover from the mountains to the coastline. These vegetated coastal faces of the Rimutaka Forest Park protect a range of important ecological values.</li> <li>Geological values: Basaltic rock exposed here formed between 140 million and 190 million years ago. In contrast to the pillow lavas formed in similar sites nearby, at Mukamuka the rock is breccia, formed when molten lava reacted explosively with cold water.</li> <li>Thrust Creek marks one of three branches of the West Wairarapa fault, which is a reverse or thrust fault. Crushed greywacke appears to overlie much younger (~ 50,000 years old) alluvial gravels, which have been deformed by fault movement and the bedding appears almost vertical in the exposure at the mouth of Thrust Creek. Some of these gravels have been transported to the coast by alluvial action, and together with the other streams in the area, have contributed to the formation of the dramatic mixed sand and gravel beaches of the Palliser coast. The Palliser Bay coastline has an unbroken stretch of one of the largest mixed sand and gravel coasts in New Zealand.</li> <li>(References 3, 18, 27, 30, 34, 40, 47)</li> </ul>
41	Lake Onoke, and the Ocean Beach cliffs & dunes (part of Lake Wairarapa Wetland Conservation Area S27001)	•	•	•		<b>Landscape values:</b> The Onoke area has moderate to high degree of naturalness despite the presence of the settlements at Whangaimoana and Lake Ferry. These settlements do not directly front the coast so their effect on natural character is reduced. This part of the coast is a diverse and dramatic landscape featuring distinctive coastal terraces, escarpments, beaches, mixed sand and gravel spit and wetlands. The landscape has a high degree of naturalness and memorability with strong contrasting natural textures and patterns.

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
41	Lake Onoke, and the Ocean Beach cliffs & dunes (part of Lake Wairarapa Wetland Conservation Area S27001) (Continued)	•	•	•		<ul> <li>Ecological values: Lake Wairarapa and its adjacent wetlands, including Lake Onoke, form the largest shallow freshwater lake and largest wetland complex in the southern North Island. These wetlands are very important for rare marsh turf plant communities, birds and native fisheries. Although modified, the large size, habitat diversity and near continuum from open lake-marshland-pond, make the wetland of major importance in terms of wildlife habitat and representativeness. The wetlands are considered of international importance to birds, regularly supporting significant populations of rare and threatened bird species, including NZ dabchick, bittern, banded dotterel, variable oystercatcher etc. Lake Onoke Spit is an important breeding site for the Caspian tern and the banded dotterel. The wetlands are habitat for rare and endangered fish species, including giant kokopu, brown mudfish, and marine fish. The Ocean Beach cliffs include a mosaic of unusual vegetation sequences with flaxland, scrubland and shrub and sedges in seepages. The Ocean Beach dunes below the cliffs have pingao present.</li> <li>Geological values: The Lake Onoke 'spit' is in fact a mixed sand and gravel barrier beach that has formed by concurrent processes of marine sedimentation and tectonic uplift. In the process it has impounded an embayment to form a shallow coastal lake. Mixed sand and gravel beaches are uncommon shorelines types and the examples that occur in New Zealand are internationally significant. The shallow coastal lake and gravel barrier system is one the largest of its kind in New Zealand and its relatively unmodified state makes this feature an outstanding example of its type. Together with Ocean Beach, this coast has the largest mixed sand and gravel coast in the region.</li> <li>(References 2, 11, 12, 14, 18, 19, 21, 22, 28, 29, 31, 42)</li> </ul>
42	Hurupi Miocene transgressive sequence diverse macrofauna			•		<b>Geological values:</b> The Hurupi Miocene transgressive sequence (non- marine Putangirua conglomerate, Hurupi formation fossiliferous shelf sandstone and siltstone, and Bells Creek bathyal mudstone) is well exposed at Putangirua. These sediments were eroded from the flanks of the Aorangi Ranges and eventually submerged beneath rising seas. Uplifted and once again exposed to sub-aerial weathering and erosion, especially with anthropogenic vegetation removal, 'badlands' erosion has resulted. The finer sediments are easily removed by erosive rainfall and runoff, but the larger sediments or resistant layers provide a cap protecting sediment beneath. Erosion proceeds to either side, leaving prominent pinnacles, also known as 'hoodoos'. The fluting patterns on the side of many of these pinnacles are the result of rainwater running down their sides. This phase of gullying began some 1,000 years ago, and the main gully here is some 80–90 m deep and has almost incised to the level of the underlying greywacke. (References 12, 18, 27, 34, 39, 40, 53)
43	Whatarangi Bluff Miocene sandstone	•		•		<ul> <li>Landscape values: Whatarangi Buff is a very prominent and distinctive coastal landform because of the strong contrast with its setting. Its prominence is enhanced due to the road that passes through it — the steep eroding bluffs towering above the road and down to the sea. The bluffs provide a threshold between the uplifted marine platforms above Lake Ferry and the more expansive wide coastal platform that extends from Whatarangi settlement to Ngawi.</li> <li>Geological values: The Whatarangi Bluff is an extensively eroded 80,000 year old marine terrace. The Whatarangi Bluff Miocene sandstone — fossiliferous massive grey muddy sandstone is capped by gravels. Where these gravels have been removed, fluvial erosion has been able to rapidly incise the soft and erodable sandstone. Fossils include Glycymerita (Manaia) hurupiensis, Eumarcia (Atamarcia) thomsoni, Dosinia cottoni, Lamprodomina neozelanica, Cominella hendersoni, Zeacolpus taranakiensis, Dentalium solidum, Crepidula radiate, and Struthiolaria (Callusaria) callosa.</li> <li>(References 3, 33, 34, 40)</li> </ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
44	Te Humenga Point (includes dune system)		•			<b>Ecological values:</b> The point is an area of extensive gravel dunes and sandfields with complex variety of grasslands, shrublands, and vinelands dominated by uncommon indigenous vegetation species. Just south of Te Humenga Point is a mosaic of dune blowouts with areas of spinifex, pingao, and unusual rushland species. This dune system is considered nationally significant. The wider area is considered a regionally representative example of uncommon vegetation communities on a wide range of relatively unmodified dune systems, sandfields, and gravelfields amongst rock outcrops. A range of threatened plant communities of the Wellington region can be found on the beaches, dunes, and coastal escarpments of Te Humenga Point. The area provides habitat for threatened fauna, including the endangered katipo spider, the rare moth Notoreas "Wellington", green gecko, and the spotted skink. (References 5, 11, 21, 28, 33)
45	Cape Palliser coastline from Mangatoetoe stream mouth to Te Rakau- whakamataku Point	•	•	•	•	<ul> <li>Landscape values: This is a visually dramatic stretch of coastline characterised by near vertical bluffs backing narrow beaches and rock platforms. The distinctive bluff known as 'Kupe's sail', Ngapotiki Fan, Nga ra A Kupe dune system, and the Cape Palliser Lighthouse are significant landscape features. The landscape has a high degree of distinctiveness and diversity including variation in rocky land cover, and the colour and texture associated with the seasonal change of vegetation. The area around the lighthouse has a high level of natural processes and elements. The Aorangi Ranges form a distinctive backdrop to the lighthouse and Kupe's Sail.</li> <li>Ecological values: The cape here is a diverse rocky coastline with regionally significant sand dune systems and nationally important stands of two rare plants, the rare endemic grass Rytidosperma petrosum and pingao. The Te Kawakawa Rocks near Cape Palliser are also home to Muehlenbeckia ephedroides and the wider area is a substantial fur seal haulout. Common geckos and common skinks also occur in the area. The area is contiguous with Aorangi Forest Park and associated Matakitaki Trust covenant, and forms an important coastal component of this larger protected area with a range of coastal vegetation associations on varying landforms. The area includes good examples of regionally uncommon vegetation communities, including rockland with indigenous herbfields, reedland on coastal terraces, and stonefields with unique successional examples of ground herbs. Habitat for rare flora and threatened fauna.</li> <li>Geological values: Cape Palliser is comprised of volcanic 'pillow lava', formed in an undersea eruption more than 100 million years ago. It remains because it is harder than the older greywacke that forms the hills. The lava incorporates a rock called chert, formed from microscopic Radiolaria. These organisms have silicate skeletons, which can be used to establish the age of the rocks. The narrow coastal strip comprises gravels delivered by streams dr</li></ul>

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
45	Cape Palliser coastline from Mangatoetoe stream mouth to Te Rakau- whakamataku Point (Continued)	•	•	•	•	Ngapotiki Fan is a superb and dramatic example of an alluvial fan. Coarse sediments, easily eroded form the steep coastal catchment, are deposited at the mouth of the stream, forming a conical landform known as a fan. The Ngapotiki Fan is actually an amalgamation of several of these depositional features. With its huge volume of sediment, the fan has extended some distance from the base of the hills. However, there is insufficient accommodation space on the narrow coastal fringe and the sea is actively eroding the base of the fan, implying that contemporary sediment supply may be lower than it has been in the past. The large volume of sediment is partly attributable to the highly erodable nature of the rocks. While anthropogenic removal of vegetation may have been a contributing factor, it cannot have been an ultimate cause as the fan is 1800 years old. <b>Historic heritage values:</b> Cape Palliser features prominently in Maori history and the legends of Kupe. The area also features in the colonisation of New Zealand and the Wellington region — the rugged coast and notorious Cook Strait gales contributing to many early shipwrecks. In 1897, a ship was wrecked within 4 miles of the new tower and 12 of the 21 crew drowned. The light was lit for the first time in 1897, and the keepers were withdrawn in December 1986. (References 3, 11, 12, 18, 27, 28, 29, 30, 33, 34, 35, 40, 46, 47, 53, 54)
46	White Rock Amuri limestone and Whawanui (Whawhanui) River mouth and dunes, and Te Kaukau (Te Kakau) Point Amuri group sediments	•	•	•		<ul> <li>Landscape values: This is a highly distinctive and interesting landform being part of a large scale landscape experienced as a series of coastal flats punctuated by the remnants of a large tilted limestone sheet. Natural characteristics are predominant, particularly a strong rugged character and a high degree of expressiveness revealing the formative process associated with the limestone landform. White Rock is a relatively rare example of this type of geological process, Te Kaukau (Te Kakau) being a similar, yet less distinctive example.</li> <li>Ecological values: There are a range of estuaries in the area that have varying habitat values. Native lizards occur here, including the common gecko, common skink, and spotted skink. Te Kaukau (Te Kakau) Point is a haulout for fur seals and the wider area is habitat for a range of bird species, including banded dotterel, black-backed gull, variable oystercatchers, and pied stilt.</li> <li>Geological values: White Rock is a remnant of the once extensive Amuri limestone that covered southeastern Wairarapa 50-60 million years ago. A fault line runs to the west of the rock, giving an unconformable contact with much older greywacke. The argillaceous limestone has been deformed by fault movement, and extensively folded strata are now steeply inclined. There are well preserved trace fossils of Zoophycos (a soft-bodied deepwater organism).</li> <li>Te Kaukau (Te Kakau) Point is comprised of 50-70 million year old limestone beds, the Te Kaukau Point Palaeocene Amuri Group</li> </ul>
						(turbidity deposits of light green-grey calcilutite, interbedded with laminated sandstone, mudstone and siliceous limestone). On the point below Honeycomb Light there are tilted 95 million year old conglomerates and 70 million year old volcanic intrusions. (References 2, 3, 11, 12, 14, 18, 27, 28, 29, 33, 34, 35, 39, 40)
47	Pahaoa (including Glendhu Rocks, Kairingaringa Reef and Pahaoa Scientific Reserve)	•	•			<b>Landscape values:</b> The Pahaoa area is rated highly in terms of natural character and landscape character. The landscape character is a very distinctive and memorable landscape of contrast and natural beauty. The area contains a range of unique and visually interesting landscape features such as Glendhu Rocks. Although the area does not express a high degree of naturalness in so far as there is very little indigenous vegetation and a number of structures such as the fishing base at Karingaringa Reef are visible, these elements are keeping with the landscape setting.

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
47	Pahaoa (including Glendhu Rocks, Kairingaringa Reef and Pahaoa Scientific Reserve) (Continued)	•	•			<b>Ecological values:</b> One of the largest estuaries on the Wairarapa Coast. The Pahaoa Scientific Reserve includes a range of uncommon vegetation sequences, including coastal treeland, rockfield, and screenland with Muehlenbeckia complexa, sand dunes with spinifex, pingao, and Pimelea, and stonefield successional vegetation. It is an important breeding and feeding area for threatened and rare birds, including banded dotterel and variable oystercatcher. The area is home to common gecko, common skink, and the spotted skink. The Glendhu Rocks are an important fur seal haulout site. (References 2, 12, 18, 21, 28, 31, 40)
48	Honeycomb Rock Te Kahu	•	•	•		<ul> <li>Landscape values: The site represents a rare example of a series of largely unmodified landscape features which clearly portray the coastal and geological processes which have created them. The shoreline is free from buildings, structures, and infrastructure and the effects of human settlement on the coastal platform and coastal setting as a whole is insignificant. The uniqueness of the formative processes which have created Honeycomb rock as well as the distinctiveness of the resulting landform has resulted in a highly memorable and distinctive landscape feature.</li> <li>Ecological values: Although degraded, this site is an important habitat for nationally threatened species and is a representative example of coastal wetland and duneland fragment along the Wairarapa Coast. It contains a diverse range of coastal vegetation, including the largest regional population of the 'nationally vulnerable' Muehlenbeckia astonii. Two other 'nationally threatened' species are present, Isolepis basilaris and pingao on the dunes south of Honeycomb Rock. The site contains a seal haulout, which is one of only two confined breeding sites in the Wellington Conservancy and is a significant breeding site for the red billed gull. The complex reef system of Kahau rocks is the seasonal convergence point of three oceanic current systems, which results in unique and diverse marine flora and fauna communities.</li> <li>Geological values: Once an offshore stack, Honeycomb Rock has been left marooned as a result of geological uplift processes. The rock is composed of quartz-rich sandstone of the Late cretaceous age (about 90 million years ago) and is named after its pitted weathering pattern on sheltered faces. There are a number of other significant geological features on the point opposite Honeycomb Light, including: layers of conglomerate, volcanic dykes, and concretions.</li> <li>(References 7, 11, 12, 15, 18, 34)</li> </ul>
49	Kaiwhata (Kaihoata) River mouth fossil forest			•		<b>Geological values:</b> This fossilised forest comprises totara trees that were living on the coastal plain some ~ 8000 years ago. They were drowned by rising sea level following the end of the last glacial, and buried by associated marine sediments. In the last 6–7000 years sea level has been more or less constant, but the land has been uplifting at around 1.5 mm/a, thus slowly raising the now fossilised trees once more above sea level. (References 3, 7, 11, 12, 27, 28, 31, 34, 40)
50	Te Uruti Point (includes dune system to Riversdale)		•	•		<b>Ecological values:</b> This is one of the largest duneland systems on the Wairarapa Coast, stretching from 3 km south to 1km north of Uruti Point. The dunes include foredunes, slacks, rear dunes, and an estuary. The large and relatively unmodified South Riversdale dunes and wetlands have regionally important native vegetation with pingao, spinifex, sand coprosma and sand daphne on fragile small dune systems and the unusual occurrence of matagouri.

No	Site name	Landscape	Ecology	Geology	Historic heritage	Statement of significance
50	Te Uruti Point (includes dune system to Riversdale) (Continued)		•	•		<b>Geological values:</b> Uplifted marine terraces cut in alternating sandstone / mudstone beds and formed over a period of 125,000 years. 125,000 years ago the shoreline was at the base of the hills 5 km inland. Successive uplift events are recorded by the terraces, the treads of which are marine platforms cut by the sea during periods of stable sea level. The present coastal plain was cut in the early Holocene with the most seaward cliff representing the position of the shoreline some 6,500 years ago. The next highest terrace surface is some 80,000 years old. Throughout these 125,000 years, the area has been uplifting at between 0.5 and 2 m every 1,000 years, with a present rate of 2 mm/a. (References 2, 11, 12, 15, 21, 28, 33, 34)
51	Whareama River mouth		•			<b>Ecological values:</b> The Whareama River mouth and associated dunes are considered one of the more intact areas of coastal wetland and duneland along the Wairarapa Coast. The Whareama River is regionally significant as the only tidal river estuary along the Wairarapa Coast. The river estuary and adjacent duneland and duneslack vegetation extending south from the Whareama River mouth are home to a range of uncommon ephemeral turfs and saltmarsh vegetation. The sand dunes are home to dense populations of sand Coprosma and the area is home to the only occurrence of Nertera scapanioides in the Eastern Wairarapa Ecological District. The river estuary also provides important habitat for the variable oystercatcher, reef herons, banded dotterels, pied stilts, and bar-tailed godwits. (References 11, 28, 33)
52	Castlepoint Rangiwhakaoma Scenic Reserve, including the lighthouse & marine beaches of limestone and marine fossils, dune system	•	•	•	•	<b>Landscape values:</b> This is a highly memorable and unique landscape and the main elements are the huge, dominant rock landform called the 'castle', the reef, lagoon, and the lighthouse which sits precariously upon the "castle". The castle and lighthouse are considered iconic, being well documented in literature and are strongly tied to the local identity. Despite the presence of the lighthouse, there is a high degree of naturalness associated with the site due to the dominance of the landform, its ruggedness, relatively inaccessible position, and exposure to the coastal elements. The distant ridgelines of the Wairarapa hill country and the lagoon are important elements within the wider setting. The ridgeline provides a distinctive backdrop and sense of scale for the lighthouse and Castle Rock landform.
						<b>Ecological values:</b> This is one of the few sites in the Eastern Wairarapa where original coastal vegetation remains. A rare daisy, Brachyglottis compacta, is endemic to the site. The fragile vegetation remnants on Castle Rock and The Lighthouse area are some of the last remaining relatively natural coastal communities in the Wairarapa. Castlepoint reef area is an important feeding area for a range of bird species.
						<b>Geological values:</b> There are two prominent landform features: the Castle (162 m) and the Reef, both formed from shelly limestone overlain by shelly sandstone (coquina limestone). The Castle is underlain by grey Pliocene siltstone formed in deep water. Over 70 species are represented in the fossil record, indicating a transition from colder to warmer conditions as well as shallowing. The reef is bounded by relatively young, but apparently inactive, faults on either side.
						<b>Historic heritage values:</b> Castlepoint was named in 1770 by Captain Cook, who thought the rock formations in the area resembled the battlements of a castle. The site is regionally significant this being Wairarapa's main port until the early 20th century and the site where the missionaries William Williams and William Colenso stepped ashore in 1843. Horse races have been run on Castlepoint beach almost continuously since the late 19th century. The lighthouse was one of the last lighthouses to be automated in New Zealand.
						(References 2, 3, 11, 12, 14, 18, 21, 27, 28, 29, 31, 33, 34, 35, 41, 53, 61)

No	Site name		Statement of significance
53	Whakataki coast: tongue and groove erosion patterns & foreshore	•	<b>Geological values:</b> Parallel lines of rock are visible at low tide. This pattern is a result of the interbedding of sandstone and mudstone with different erodability. Because the mudstone is softer, it is more erodable, and the harder sandstone forms ridges, creating a 'tongue and groove' effect. These sediments were laid down on the sea floor some 20 million years ago, and have been tilted to around 60 degrees from the horizontal. Thousands of years of deposition are recorded in these tilted strata, with the oldest sediments on the edge of the shore platform and the youngest to landward. The unit has been faulted numerous times, producing offsets of the beds. The beds are known as turbidites, and were formed by the deposition of material transported from the continental shelf to the deeper sea floor. As the current transporting the sediment slowed, the heavier sands settled out first followed by the finer muds. Each pair of sand-mud couplet thus represents a single turbidity current transport event. (References 3, 11, 12, 15, 27, 28, 31, 34, 41)
54	Mataikona dunes and shore platform	•	<b>Geological values:</b> The dunes at Mataikona have formed on a old landslide deposit that has slumped in a large sandstone block. They are the largest of their type in the region, reaching to over 100m in height. The basement rocks of the site contain an alternating sequence of sandstone and mudstone that can be seen in the rock shore platform fronting the dunes. These rocks have weathered differentially and been cut by wave activity to produce a striking shore platform with long parallel crest-trough features and revealing micro-scale bedding patterns in the sandstone. The platform is criss- crossed by minor faults and contains olistostromes. The erosion of the platform has produced large quantities of sand that has been blown onshore to produce the dunes. These dramatic geological features provide excellent examples of differential mud/sandstone weathering, shore platform formation, minor faulting processes and dune development. The site displays a high degree of naturalness and is highly expressive of the formative geological processes. (References 3, 33)

## References for statements of significance in Table 16: Sites of regional significance in Wellington region's coastal environment

#### No. Reference

- 1 Begg, JG, Mazengarb, C (1996) Geology of the Wellington area. Institute of Geological and Nuclear Sciences geological map 22. 128p
- Boffa Miskell Ltd (2002) Wairarapa coastal strategy technical report: indigenous ecosystems. Prepared by Boffa Miskell for the Wairarapa Coastal Strategy Group.
   56p + Appendices
- Boffa Miskell Ltd (2002) Wairarapa coastal strategy technical report: landscape.
   Prepared by Boffa Miskell for the Wairarapa Coastal Strategy Group.
   87p + Appendices
- 4 Boffa Miskell Ltd (2005) Project West Wind Wellington: ecological values and assessment of effects
- 5 Boffa Miskell (2006) Palliser Bay Station, ecological assessment. Prepared for Truebridge Callendar Beach Ltd Report No W04080. 16p + Figures
- 6 Wellington Regional Council (1984) Biological resources of the Wellington Region. Wellington Regional Council, Queen Elizabeth II National Trust, N. Z. Biological

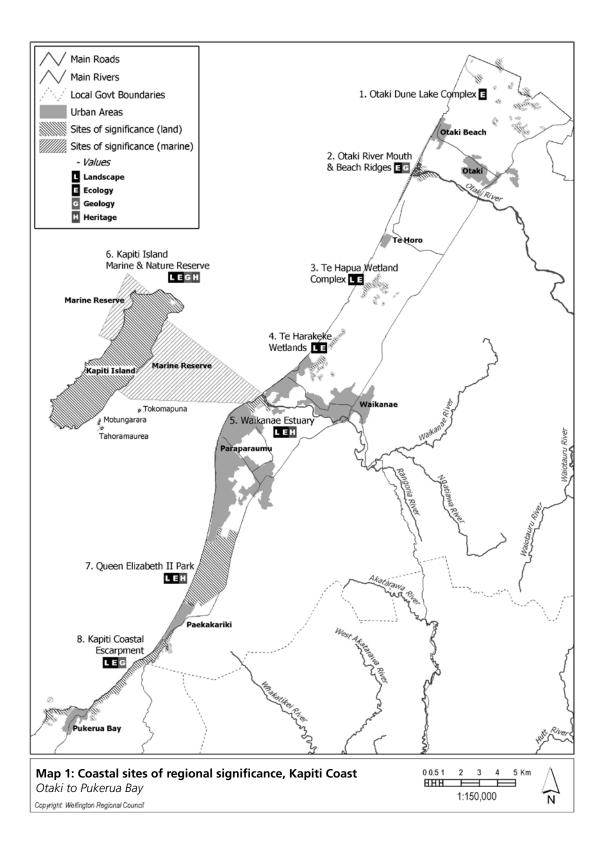
Resources Centre. 1 portfolio

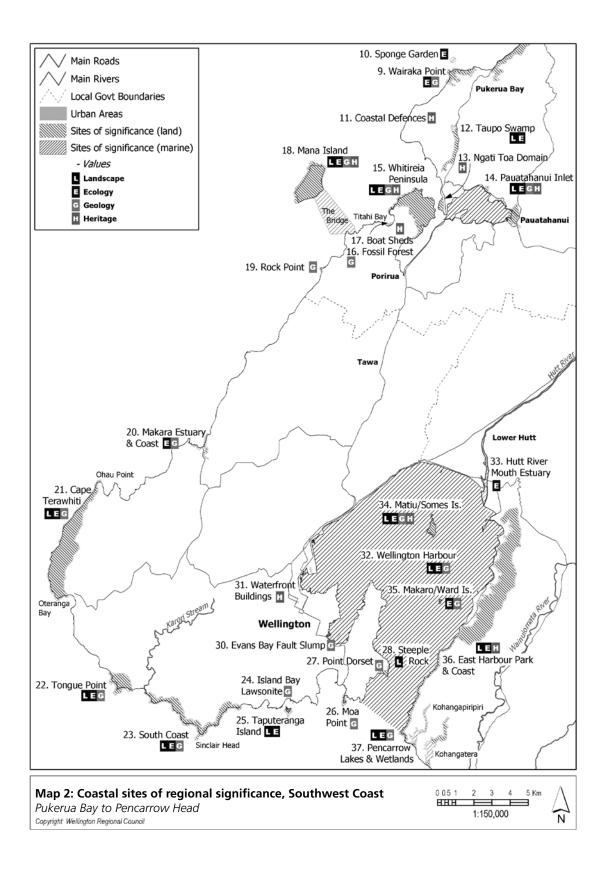
- 7 Carterton District Council (2000) Carterton District Plan. Carterton District Council
- 8 Cotton, CA (1942) Geomorphology: an introduction to the study of landform. 3rd ed. Christchurch. Whitcombe & Tombs Ltd 505p
- 9 Cotton, CA (1945) Earth Beneath: an introduction to geology for readers in New Zealand. Whitcombe & Tombs Ltd 128p
- 10 Cotton, CA (1974) Bold Coasts: annotated reprints of selected papers on coastal geomorphology, 1916–1969 (edited by BW Collins). AH & AW Reed. 354p
- 11 Carterton, South Wairarapa, & Masterton District Councils (2006) Draft Combined Wairarapa District Plan. Carterton, South Wairarapa, & Masterton District Councils
- 12 Department of Conservation (1990) The coastal resources inventory: first order survey: Wellington Conservancy. Department of Conservation, Wellington. 103p: maps
- 13 Ravine, DA (1992) Foxton ecological district: survey report for the Protected Natural Area Programme. No 19. Wanganui, Department of Conservation. 264p: maps
- 14 Department of Conservation (1993) Sites of Special Wildlife Interest (SSWI). Unpublished database
- 15 Department of Conservation (1993) Eastern Wairarapa Plains ecological district: survey report for the Protected Natural Area Programme
- 16 Department of Conservation (1993) Wetlands of ecological and representative importance: wetlands inventory: list of wetlands in the Wellington region. Unpublished database. 297p
- 17 Department of Conservation (1994) Significant indigenous flora & fauna in Kapiti Coast District. Wellington Conservancy. Unpublished report
- Department of Conservation (1996) Conservation Management Strategy for Wellington 1996–2005. Wellington Conservancy Management Planning Series No 2. 2 Vols. maps
- 19 Beadel, S, Perfect, A, Rebergen, A (2000) Wairarapa plains ecological district survey report for the Protected Natural Area Programme. Wellington, Department of Conservation. 201p: maps
- 20 Walton, A (2002) An archaeological survey of Whitireia Park, Porirua. Department of Conservation Science Internal Series 62. Wellington, Department of Conservation. 17p
- 21 Milne, R, Sawyer, JW (2002) Coastal foredune vegetation in Wellington Conservancy: current status and future management. Wellington, Department of Conservation. 82p: maps
- 22 Dowding, JE, Moore, SJ (2006) Habitat networks of indigenous shorebirds in New Zealand. Science for Conservation 261. Department of Conservation. 96p
- 23 ERANZ (1996) Ecological Survey of the Wellington South Coast. Ecological Research Association of NZ. 48p: maps + appendices
- 24 Fordyce, L, Maclehn, K (2000) The Bay: A history of community at Titahi Bay. Titahi Bay Residents and Ratepayers Association. 200p: maps
- 25 Freegard, J, Weeber, V (1986) Vegetation of coasts and islands. Wellington Harbour Maritime Planning Authority. 86p: maps
- 26 Fuller, SA (1985) Kapiti Island Vegetation: report on a vegetation survey of Kapiti

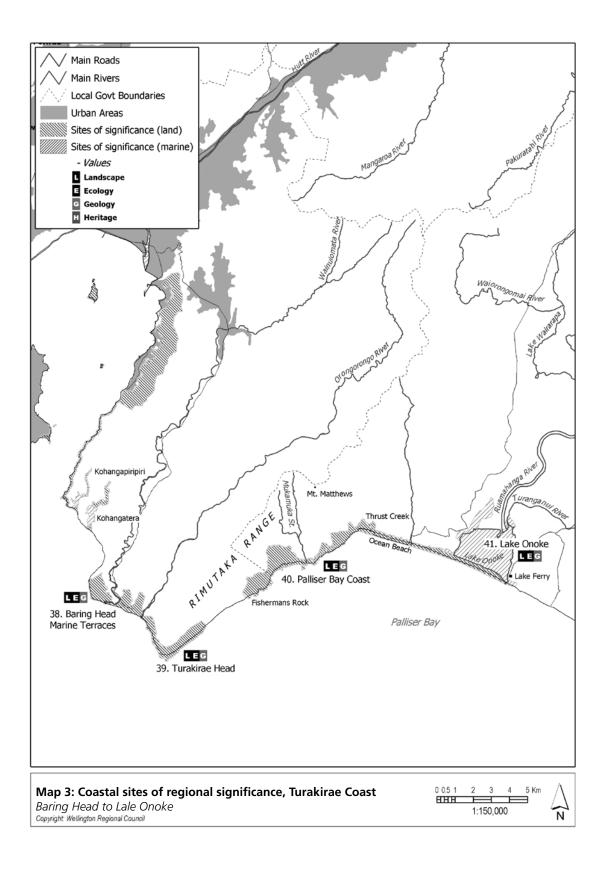
Island 1984–1985. Department of Lands and Survey, Wellington. 43p

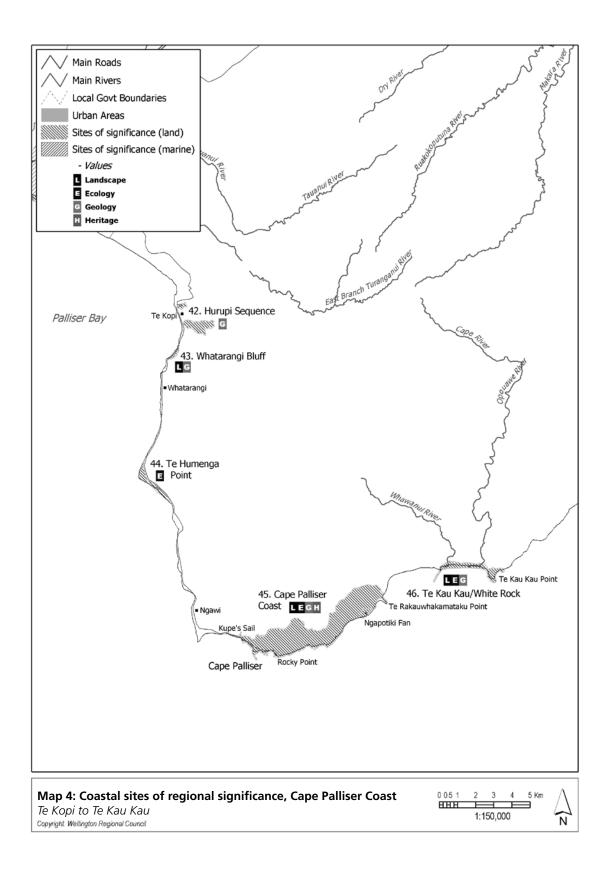
- 27 Geological Society of NZ New Zealand. Geopreservation Inventory. <u>http://homepages.ihug.co.nz/^bw.hayward/NZGI</u> November 2007
- 28 Wellington Regional Council (1995) Regional Policy Statement for the Wellington Region. Publication No WRC/PP-G-95/28. 271p: appendices
- 29 Wellington Regional Council (1997) Proposed Regional Landscape Plan for the Wellington Region. Publication No WRC/PP-G-97/37. 25p: maps + appendices
- 30 Wellington Regional Council (1999) Regional Freshwater Plan for the Wellington Region. Publication No WRC/RP-G-99/31
- 31 Wellington Regional Council (2000) Regional Coastal Plan for the Wellington Region. Publication No WRC/RP-G-00/02. 245p: maps + appendices
- 32 Hutt City Council (2003) Hutt City District Plan. Hutt City Council
- Hilton, M, Macauley, U, Henderson, R (2000) Inventory of New Zealand's active dunelands. Science for Conservation Series 157. Department of Conservation.
   29p: maps + appendices
- 34 Homer, L, Moore P (1989) Reading the Rocks: a guide to geological features of the Wairarapa Coast. Landscape Publications, Boffa Miskell. 64p
- 35 Kamp, PJJ (1992) Landforms of Wairarapa: a geological perspective. In: Sonns, JM, Selby, MJ (eds.) Landforms of New Zealand 2nd edn. Longman Paul, Auckland. pp367–381
- 36 Kapiti Coast District Council (1994) Kapiti Coast District Council Landscape Assessment. Prepared by Works Consultancy Services Ltd
- 37 Kapiti Coast District Council (1999) Kapiti Coast District Plan.
- 38 Kapiti Coast District Council (2003) Kapiti Coast District Council 2002-2003 ecological sites survey. Prepared by Wildland Consultants Ltd 57p: maps: appendices
- 39 Kenny, JA, Hayward, BW (1992) Inventory of New Zealand sedimentary geology sites of international, national and regional significance (1st edition). Geological Society of New Zealand, Lower Hutt. 118p
- 40 Kenny, JA, Hayward, BW (1993) Inventory of important geological sites and landforms in the Manawatu and Wellington regions. Regional Geo-preservation Inventory No 1. Geological Society of New Zealand, Lower Hutt. 43p
- 41 Kenny, JA, Hayward, BW. (1996) Inventory and maps of important geological sites and landforms in the Manawatu and Wellington regions (2nd edition). Geological Society of New Zealand, Lower Hutt. 39p
- 42 Kirk, RM (1980) Mixed sand and gravel beaches: Morphology, processes and sediments. Progress in Physical Geography, 4 (2), 189–210
- 43 MacLean, C, MacLean, J (1988): Waikanae Past and Present. Whitcombe Press. 248p
- 44 Moore, PR, Francis, DA (1988) Geology of Kapiti Island, Central New Zealand. New Zealand Geological Survey, Record 28, DSIR, 23p
- 45 New Zealand Archaeological Association, National Site Recording Scheme, which contains the records of over 50,000 archaeological sites
- 46 NZ Historic Places Trust (1993) The Register of historic places, historic areas, wahi tapu and wahi tapu areas. NZ Historic Places Trust. 1 volume (loose leaf)

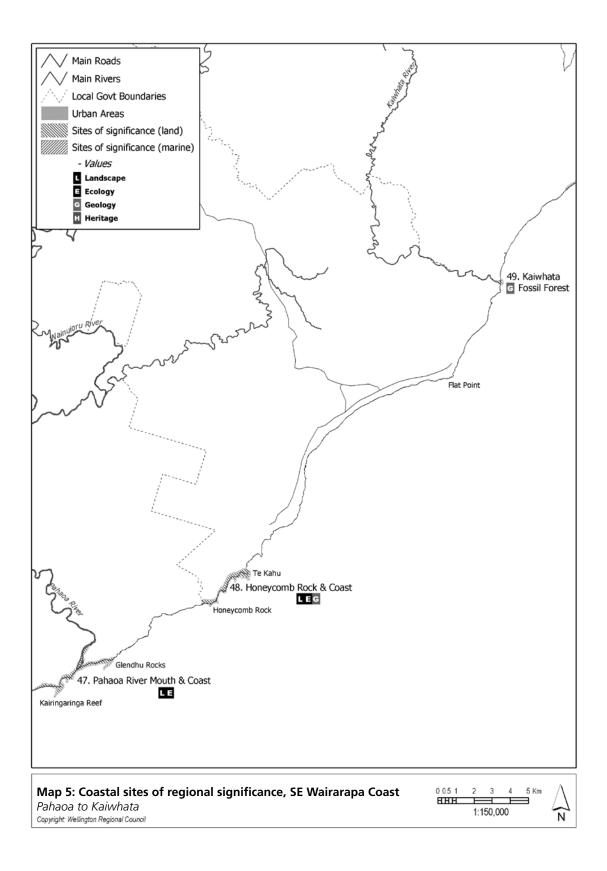
- Parrish, GR (1984) Wildlife and wildlife sites of the Wellington region. Fauna Survey Unit Report No 38. New Zealand Wildlife Service, Department of Internal Affairs.
   56p: maps
- 48 A Resource Issues Paper for the Review of the Porirua District Council Plan
- 49 Porirua City Council (1999) Porirua City District Plan. Porirua City Council.
- 50 Porirua City Council (2001) Inventory of Ecological Sites in Porirua City. Prepared by Boffa Miskell Ltd 76p: maps
- 51 Porirua City Council (2005) Porirua suburban character study. Prepared by Boffa Miskell Ltd
- 52 Porirua City Council (2007) Porirua heritage review (in progress). Prepared by Boffa Miskell Ltd
- 53 Priestley, R, Crozier, MJ (1990) New Zealand landform inventory: second approximation. Occasional Paper No. 4. Research School of Earth Sciences, Victoria University of Wellington. 164p
- 54 Queen Elizabeth II National Trust. National covenant register. Unpublished database.
- 55 Royal Forest & Bird Protection Society of NZ (1991) Natural Wellington: a plan to preserve and enhance the natural treasures of Wellington City. 42p
- 56 Stephenson, G, Hill, M (1975) Geological features of the Wellington region. Sketches by M Hill. Report no 75.56. Wellington Regional Planning Authority. 52p
- 57 Stephenson, G (1977) Wildlife and wildlife areas in the Wellington region. Wellington Regional Planning Authority, Wellington. Report 77.31. 96p
- 58 Stevens, GR (1991) On shaky ground. Guidebook 10. Geological Society of New Zealand. 112p
- 59 Stevenson, ML, Field, KD, Holton, AL, Baxter, AS, Henriques, PR (1987) Regional background discussion paper on areas to be investigated for proposed marine protected areas in the central fishery management area. Ministry of Agriculture & Fisheries, Wellington. 98p
- 60 Turner, M (1985) Geological features of the Wellington region. Wellington Regional Council. 72p: map
- 61 Wassilieff, M, Clark, D, Gabites, I (1986) Biological survey of scenic reserves of the Lower North Island. Biological Survey of Reserves 14. Department of Lands and Survey
- 62 Bowman, I (1995) Heritage building inventory. Wellington, Wellington City Council. 3 volumes
- 63 Wellington City Council (2001) Wellington Heritage building inventory 2001. Prepared by Boffa Miskell Ltd with Chris Cochran. 2 volumes
- 64 Wellington Harbour Maritime Planning Authority (1988) <u>Historical and cultural</u> <u>resources study of the Wellington Harbour maritime planning area</u>. Prepared by Boffa Miskell Partners. 107p: maps
- Urban Research Associates, Wellington Regional Planning Authority, Wellington Harbour Board (1979) Coastal maritime objectives and policies study. Opinion survey: attitudes to coast & harbours. Wellington Regional Planning Authority.
   43p: maps, appendices

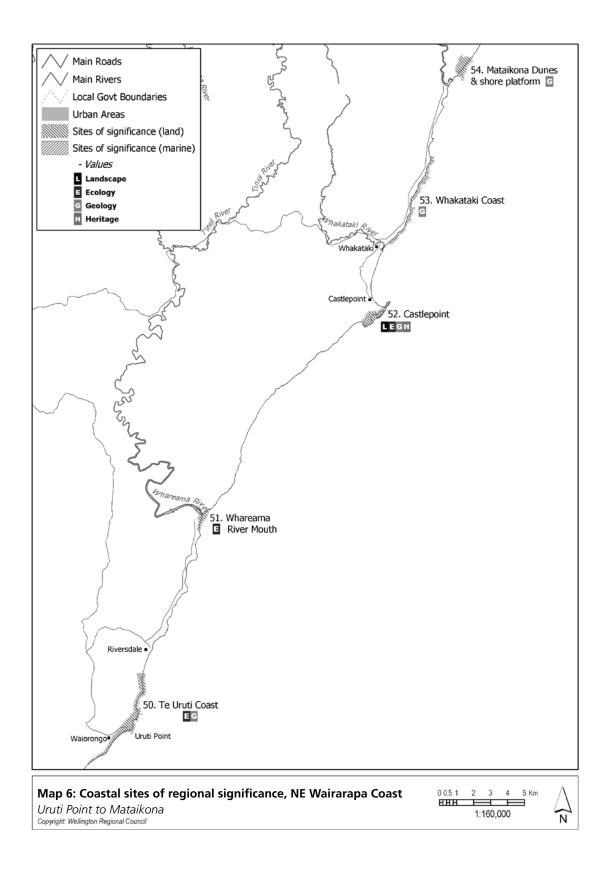












## Appendix 2: Rivers and lakes with significant amenity and recreational values and significant indigenous ecosystems

### Rivers and lakes with significant amenity and recreational values

Table 17 relates to policies 16, 40 and 50.

Examples of recreation carried out in and around the rivers and lakes listed in Table 17 are: fishing, swimming, kayaking, canoeing, tubing, rafting, power boating, dragon boating, radio controlled boats, jet skiing, windsurfing, sailing, picnicking, camping, duck shooting, bird watching, walking, running, mountain biking, trail biking, horse riding, 4-wheel driving. The rivers and lakes were identified from the Regional Freshwater Plan, and from a survey of recreational groups in the Wellington region carried out in November 2007.

The locations of the rivers and lakes are shown on Map 7 at the end of this appendix. Grid references in Table 17 are given for New Zealand Map Series (NZMS) 260 maps. For rivers, the reference is for the river mouth or where the river joins a major river.

River or lake	Amenity or recreational uses	Map reference
Lake Waitawa (Forest Lakes)	kayaking, windsurfing, sailing	S25 935513
Otaki River	fishing, swimming, kayaking, canoeing, tubing, rafting, picnicking, camping	R25 875 485
Waikanae River	fishing, swimming, camping,	R26 790 350
Whitby lakes	radio controlled boats	R27 688 082
Karori Stream	kayaking, canoeing, picnicking, walking, running, mountain biking,	R27 505 830
Kaiwharawhara Stream	picnicking, walking, running,	R27 603 926
Korokoro Stream	walking, running, mountain biking,	R27 660 964
Hutt River	fishing, swimming, kayaking, canoeing, tubing, rafting, power boating, radio controlled boats, jet skis, picnicking, walking, running, mountain biking,	R27 693 950
Pakuratahi River	fishing, swimming, picnicking	S26 944 144
Akatarawa River	fishing, swimming, kayaking, bird watching, picnicking, walking, running, mountain biking, trail biking, horse riding, 4-wheel driving	R26 863 108
Whakatikei River	fishing, kayaking	R27 823 063
Butterfly Creek	picnicking, walking, running	R27 688 865
Wainuiomata River	fishing, swimming, canoeing, kayaking, walking, horse riding	R27 671 755
Kohangapiripiri and Kohangatera Lakes	bird watching, picnicking, walking, mountain biking	R28 662 802
Ruamahanga River	swimming, kayaking, canoeing, tubing, rafting, power boating, jet skiing, picnicking, walking, duck shooting	R27 890800
Tauweru River	running, mountain biking	T26 312 120

Table 17: Rivers and lakes with significant amenity and recreational values

River or lake	Amenity or recreational uses	Map reference
Waingawa River	fishing, swimming, kayaking, tubing, rafting, walking	T26 342 187
Waiohine River	fishing, swimming, kayaking, canoeing, tubing, rafting, camping	S27 205 085
Kopuaranga River	fishing	T26 369 312
Waipoua River	fishing, swimming, running, trail biking	T26 352 241
Kouraura Dam, Gladstone	fishing, swimming, kayaking, canoeing, rafting, picnicking, bird watching	T27 371 095
Henley Lake, Masterton	kayaking, dragon boating, radio controlled boats, picnicking, running, biking	T26 346 252
Lake Wairarapa	fishing, kayaking, canoeing, boating, duck shooting, bird watching, walking, photography	S27

## River and lake environments with significant indigenous ecosystems

Table 18 relates to Policies 16, 23, 40 and 50.

In Table 18, the dots identify which criteria, or combination of criteria, make the indigenous ecosystem of the river or lake environment significant. Map 8 at the end of this appendix indicates the river and lake environments with significant indigenous ecosystems

Table	18: River	and lake	environments	with	significant	indigenous ecos	systems

River or lake environment	River or lake	Criteria that identify rivers and lakes with significant indigenous ecosystems		
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
Kapiti Island	all rivers on Kapiti Island	•	•	
Waitohu Stream catchment	all rivers in the catchment	•	•	•
Otaki River catchment	all rivers in the catchment	•	•	•
Mangaone Stream catchment	all rivers in the catchment		•	
Waimeha Stream catchment	all rivers in the catchment		•	•
Waikanae River catchment	all rivers in the catchment	•	•	•
Wharemauku Stream catchment	all rivers in the catchment		•	•
Whareroa Stream catchment	all rivers in the catchment		•	•
Wainui Stream catchment	all rivers in the catchment		•	•
All rivers flowing to the coast at Hongoeka Bay and Karehana Bay between easting 2664660 and northing 6014720; and easting 266073 and northing 6013078	all rivers in the catchments	•		
Taupo Stream catchment	all rivers in the catchment		•	•
Kakaho Stream catchment	all rivers in the catchment		•	•
Horokiri Stream catchment	all rivers in the catchment		•	•

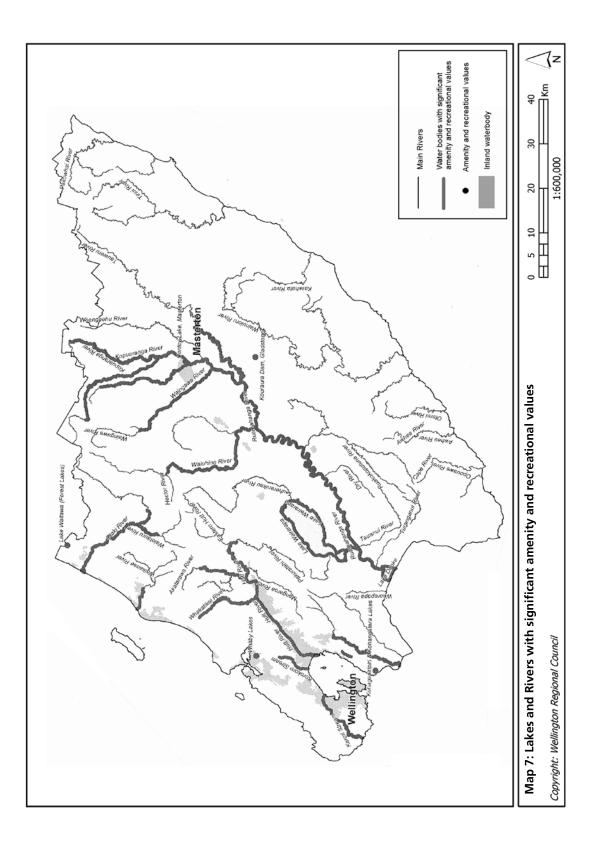
River or lake environment	River or lake	Criteria that ider significant indige	ntify rivers and lak enous ecosystems	es with
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
Little Waitangi Stream catchment	all rivers in the catchment		•	•
Pauatahunui Stream catchment	all rivers in the catchment		•	•
Kakaho Stream catchment	all rivers in the catchment		•	•
Porirua Stream catchment	all rivers in the catchment		•	•
Takapuwahia Stream catchment	all rivers in the catchment	•		
Makara Stream catchment	all rivers in the catchment		•	•
Te Ikaamaru Bay Stream catchment	all rivers in the catchment	•	•	•
Ohau Bay Stream catchment	all rivers in the catchment	•		
Oteranga Stream catchment	all rivers in the catchment	•	•	•
Karori Stream catchment	all rivers in the catchment	•	•	•
Waipapa Stream catchment	all rivers in the catchment	•	•	•
Hape Stream catchment	all rivers in the catchment	•		
Owhiro Bay Stream catchment	all rivers in the catchment	•	•	•
Kaiwharawhara Stream catchment	all rivers in the catchment	•	•	•
Korokoro Stream catchment	all rivers in the catchment	•	•	•
Hutt River catchment	Hutt River	•	•	•
	all rivers in Speedy's Stream catchment	•	•	•
	all rivers in Moonshine Stream catchment	•	•	•
	all rivers in Whakatikei River catchment	•	•	•
	all rivers in Akatarawa River catchment	•	•	•
	all rivers in Pakuratahi River catchment	•	•	•
	all rivers in Mangaroa River catchment	•	•	•
All catchments flowing to the coast between Lowry	all rivers in Days Bay Stream catchment	•	•	•
Bay Stream catchment and the Wharekauhau Stream catchment	Lake Kohangapiripiri and all rivers in Cameron Creek catchment		•	
	Lake Kohangatera and all rivers in Gollans Stream catchment	•	•	•

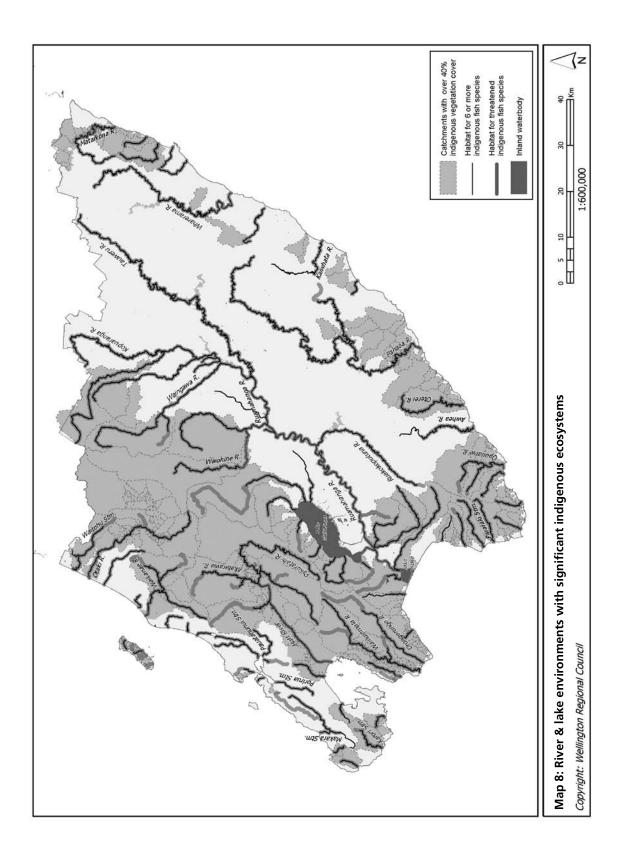
River or lake environment	River or lake	Criteria that iden significant indige	tify rivers and lak enous ecosystems	es with
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
All catchments flowing to the coast between Lowry	all rivers in Wainuiomata River catchment	•	•	•
Bay Stream catchment and the Wharekauhau Stream catchment	all rivers in Orongorongo River catchment	•	•	•
(Continued)	all rivers in Mukamukaiti Stream catchment	•	•	
	all rivers in other catchments	•		
Wharepapa River catchment	all rivers in the catchment	•	•	•
Pounui Stream catchment and Lake Pounui	all rivers in the catchment	•	•	•
Lake Wairarapa catchment	Lake Wairarapa	•	•	•
	all rivers in Manganui Stream	•	•	•
	all rivers in Wairongomai River	•	•	•
	all rivers in Burlings Stream	•	•	•
	all rivers in Brocketts Stream	•	•	•
	all rivers in Cross Creek	•	•	•
	all rivers in Abbots Creek	•	•	•
	all rivers in Tauherenikau River	•	•	•
	Otukura Stream downstream of Stonestead Creek	•		
	all other rivers in catchments on the western			
	side of Lake Wairarapa between Manganui Stream and Abbotts Creek	•		
Ruamahanga River catchment	all rivers in the Ruamahanga River catchment upstream of the Kopuaranga River	•	•	•
	Ruamahanga River downstream of the Kopuaranga River		•	•
	all rivers in Waiohine River catchment upstream of the Mangatarere Stream	•	•	•
	all rivers in Waiohine River catchment from the Mangatarere Stream to the Ruamahanga River		•	•
	all rivers in Mangatarere Stream catchment	•	•	•

River or lake environment	River or lake	Criteria that ider significant indige	tify rivers and lak mous ecosystems	es with
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
Ruamahanga River catchment (Continued)	all rivers in Waingawa River catchment upstream of the Atiwhakatu Stream	•	•	•
(201111100)	all rivers in Waingawa River catchment from the Atiwhakatu Stream to the Ruamahanga River		•	•
	all rivers in Waipoua River catchment		•	•
	all rivers in Kopuaranga River catchment		•	•
	all rivers in Tauweru River catchment		•	•
	all rivers in Ruakokopatuna River catchment		•	•
	all rivers in Oruapouanui Stream catchment	•	•	•
	all rivers in Waihora Stream Whangaehu Stream catch- ment	•	•	•
	all rivers in Tauanui Stream catchment	•	•	•
	all rivers in Turanganui River catchment	•	•	•
All catchments flowing to the coast between the	all rivers in Putangirua Stream catchment	•	•	•
Huripi Stream and the Awheaiti Stream	all rivers in Makatukutuku Stream catchment	•	•	•
	all rivers in Pararaki Stream catchment	•	•	•
	all rivers in Otakaha Stream catchment	•	•	•
	all rivers in Mangatoetoe Stream catchment	•	•	•
	all rivers in Waitetuna Stream catchment	•	•	•
	all rivers in Whawanui River catchment	•	•	•
	all rivers in Opouawe River catchment	•	•	•
	all rivers in other catchments	•		
Awhea River catchment	all rivers in the catchment		•	•
Oterei River catchment	all rivers in the catchment	•	•	•
All catchments flowing to the coast between the Huariki Stream and the Rerewhakaaitu River	all rivers in the catchment	•		
Pahaoa River catchment	all rivers in the Waipunga Stream catchment on the true left bank of the Wainuioru River			

River or lake environment	River or lake	Criteria that ider significant indige	ntify rivers and lak enous ecosystems	es with
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
Pahaoa River catchment (Continued)	all rivers in the catchment of an unnamed tributary on the true left of the Pahaoa River at easting 2742200 and northing 5992169	•		
	all rivers in the catchment of an unnamed tributary on the true left bank of the Pahaoa River at northing 2739983 and easting 5991469	•		
	all rivers in the Mangatoi Creek catchment	•		
	all rivers in the catchment of an unnamed tributary on the true left bank of the Pahaoa River at easting 2733590 and northing 5987956	•		
	all rivers in the catchment of an unnamed tributary on the true left bank of the Pahaoa River at easting 2740217 and northing 5992246	•		
	all rivers in catchments on the true left bank of the Pahaoa River between easting 2732790 and northing 5984194 and the coast.	•		
	all rivers in catchments on the true right bank of the Pahaoa River between easting 2733640 and northing 5981454 and the coast.		•	•
	all other rivers in the catchment	•		
All catchments flowing to the coast between the Waiuru Stream and the Waihingaia Stream	all rivers in the catchments			
Huatokitoki Stream catchment	all rivers in the catchments	•	•	•
Arawhata Stream catchment	all rivers in the catchments	•		
Te unu unu Stream catchment	all rivers in the catchments	•		
Kaiwhata River catchment	all rivers in the catchments		•	•
Awarere Stream catchment	all rivers in the catchments	•		

River or lake environment	River or lake	Criteria that identify rivers and lakes with significant indigenous ecosystems		
		Catchments with greater than 40% indigenous vegetation cover	Habitat for threatened indigenous fish species	Habitat for six or more indigenous fish species
Kaimokopuna Stream catchment	all rivers in the catchments	•		
Motuwaireka Stream catchment	all rivers in the catchments		•	•
Whareama River catchment	all rivers in the catchment of an un-named tributary at easting 2767705 and northing 6025534 on the true left bank of the Whareama River	•		
	all rivers in the catchment of the Waihora Stream on the true right bank of the Whareama River	•		
	all other rivers in the catchment		•	•
Ngakauau Stream catchment	all rivers in the catchment		•	•
Castlepoint Stream catchment	all rivers in the catchment		•	•
Whakatiki River catchment	all rivers in the catchment	•		
Okau Stream catchment	all rivers in the catchment	•	•	•
Mataikona River catchmnent	all rivers in catchments on the true left bank of the Pakowhai River between easting 27776246 and northing 6051198 and the Mataikona River	•		
	all rivers in catchments on the true left bank of the Mataikona River between the Pakowhai River and easting 2785345 and northing 6046718	•		
	all rivers in catchments on the true right bank of the Mataikona River between easting 2784611 and northing 6046207 and the coast.			•





## Appendix 3: Regional urban design principles

The region's urban design principles are adapted from the New Zealand Urban Design Protocol and are as follows:

### 1. Context

Quality urban design sees buildings, places and spaces not as isolated elements but as part of the whole town or city.

In this regard quality urban design:

- (a) takes a long-term view
- (b) recognises and builds on landscape context and character
- (c) results in buildings and places that are adapted to local climatic conditions
- (d) provides for public transport, roading, cycling and walking networks that are integrated with each other and the land uses they serve
- (e) examines each project in relation to its setting and ensures that each development fits in with and enhances its surroundings
- (f) understands the social, cultural and economic context as well as physical elements and relationships
- (g) considers the impact on the health of the population who live and work there
- (h) celebrates cultural identity and recognises the heritage values of a place
- (i) ensures incremental development contributes to an agreed and coherent overall result.

#### 2. Character

Quality urban design reflects and enhances the distinctive character and culture of our urban environment, and recognises that character is dynamic and evolving, not static.

In this regard quality urban design:

- (a) reflects the unique identity of each town, city and neighbourhood and strengthens the positive characteristics that make each place distinctive
- (b) protects and manages our heritage, including buildings, places and landscapes
- (c) protects public open space, and improves the quality, quantity and distribution of local open space over the long term
- (d) protects and enhances distinctive landforms, water bodies and indigenous plants and animals
- (e) provides a positive contribution to the environmental health of urban streams, the harbours, beaches and their catchments
- (f) creates locally appropriate, and where relevant, inspiring, architecture, spaces and places
- (g) reflects and celebrates our unique New Zealand culture and identity and celebrates our multicultural society.

#### 3. Choice

Quality urban design fosters diversity and offers people choice in the urban form of our towns and cities, and choice in densities, building types, transport options, and activities. Flexible and adaptable design provides for unforeseen uses, and creates resilient and robust towns and cities.

In this regard quality urban design:

- (a) ensures urban environments provide opportunities for all, especially the disadvantaged
- (b) allows people to choose different sustainable lifestyle options, locations, modes of transport, types of buildings and forms of tenure
- (c) encourages a diversity of activities within mixed use developments and neighbourhoods
- (d) supports designs which are flexible and adaptable and which will remain useful over the long term
- (e) ensures public spaces are accessible by everybody, including people with disabilities.

### 4. Connections

Good connections enhance choice, support social cohesion, make places lively and safe, and facilitate contact among people. Quality urban design recognises how all networks — streets, railways, walking and cycling routes, services, infrastructure, and communication networks — connect and support healthy neighbourhoods, towns and cities. Places with good connections between activities and with careful placement of facilities benefit from reduced travel times and lower environmental impacts. Where physical layouts and activity patterns are easily understood, residents and visitors can navigate around the city easily.

In this regard quality urban design:

- (a) creates safe, attractive and secure pathways and links between centres and landmarks and neighbourhoods
- (b) facilitates green networks that link public and private open space
- (c) places a high priority on walking, cycling and public transport
- (d) anticipates travel demands and provides a sustainable choice of integrated transport modes
- (e) improves accessibility to public services and facilities
- (f) treats streets and other thoroughfares as positive spaces with multiple functions
- (g) provides formal and informal opportunities for social and cultural interaction
- (h) facilitates access to services and efficient movement of goods and people
- (i) provides environments that encourage people to become more physically active.

## 5. Creativity

Quality urban design encourages creative and innovative approaches. Creativity adds richness and diversity, and turns a functional place into a memorable place. Creativity facilitates new ways of thinking, and willingness to think through problems afresh, to experiment and rewrite rules, to harness new technology, and to visualise new futures. Creative urban design supports a dynamic urban cultural life and fosters strong urban identities.

In this regard quality urban design:

- (a) emphasises innovative and imaginative solutions
- (b) combines processes and design responses that enhance the experience we have of urban environments
- (c) incorporates art and artists in the design process at an early stage to contribute to creative approaches
- (d) values public art that is integrated into a building, space or place
- (e) builds a strong and distinctive local identity
- (f) utilises new technology
- (g) incorporates different cultural perspectives.

### 6. Custodianship

Quality urban design reduces the environmental impacts of our towns and cities through environmentally sustainable and responsive design solutions. Custodianship recognises the lifetime costs of buildings and infrastructure, and aims to hand on places to the next generation in as good or better condition. Stewardship of our towns includes the concept of kaitiakitanga. It creates enjoyable, safe public spaces, a quality environment that is cared for, and a sense of ownership and responsibility in all residents and visitors.

In this regard quality urban design:

- (a) protects landscapes, ecological systems and cultural heritage values
- (b) manages the use of resources carefully, through environmentally responsive and sustainable design solutions
- (c) manages land wisely
- (d) utilises 'green' technology in the design and construction of buildings and infrastructure
- (e) incorporates renewable energy sources and passive solar gain
- (f) creates buildings, spaces, places and transport networks that are safer, with less crime and fear of crime
- (g) avoids or mitigates the effects of natural and man-made hazards
- (h) considers the ongoing care and maintenance of buildings, spaces, places and networks
- (i) uses design to improve the environmental performance of infrastructure
- (j) considers the impact of design on people's health.

#### 7. Collaboration

Towns and cities are designed incrementally as we make decisions on individual projects. Quality urban design requires good communication and coordinated actions from all decision-makers: central government, local government, professionals, transport operators, developers and users. To improve our urban design capability we need integrated training, adequately funded research and shared examples of best practice.

In this regard quality urban design:

- (a) supports a common vision that can be achieved over time
- (b) depends on leadership at many levels
- (c) uses a collaborative approach to design that acknowledges the contributions of many different disciplines and perspectives
- (d) involves communities in meaningful decision-making processes
- (e) acknowledges and celebrates examples of good practice
- (f) recognises the importance of training in urban design and research at national, regional and local levels.

# **Appendix 4: Definitions**

1 in 100 year flood:	
Tin too year nood.	These return period ratios refer to the probability of a hazard event occurring in any given year. A 1 in 100 year probability means that a hazard event has a 1 per cent chance of occurring in a 12-month period. Importantly, this means that more than 1 and 100 year event may occur over the period of a century.
Abstractions:	Taking water from a water body.
Aggradation:	Aggradation is a termed used in geology for the accumulation of sediment in rivers and nearby landforms. Aggradation occurs when sediment supply exceeds the ability of a river to transport the sediment. As an example, the quantity of sediment entering a river channel may increase when the climate becomes drier. The increase in sediment is caused by a decrease in soil binding that results from plant growth being suppressed. The drier conditions cause river flow to decrease at the same time as sediment is being supplied in greater quantities. Hence, the river becomes choked with sediment.
Aggregate:	Aggregate is a broad category of coarse particulate material used in construction, including sand, gravel, crushed stone, slag, and recycled concrete. Aggregates are a component of composite materials such as concrete and asphalt concrete; the aggregate serves as reinforcement to add strength to the overall composite material.
Airshed:	Airshed is a defined area for air quality management purposes.
Amenity values:	As defined by the Resource Management Act.
	Those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.
Biological diversity:	As defined by the Resource Management Act.
	Biological diversity (biodiversity) means the variability among living organisms, and the ecological complexes of which they are a part, including diversity within species, between species, and of ecosystems.
Coastal environment:	Includes the coastal marine area and the adjacent landward environment to the extent determined by Policy 34.
Coastal hazards:	Coastal processes that have the potential to adversely affect human life, property or infrastructure including erosion, sedimentation, storm surge, inundation, tsunami.
Coastal marine area:	As defined by the Resource Management Act.
	The foreshore, sea bed and coastal water, and the air space above the water:
	(a) Of which the seaward boundary is the outer limits of the territorial sea;
	(b) Of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of:
	(i) One kilometre upstream from the mouth of the river; or
	(ii) The point upstream that is calculated by multiplying the width of the river mouth by five.
Coastal processes:	Dynamic natural events, that are uniquely coastal in their occurrence and effects, that act to shape a coastline and form beaches, including processes of: wave formation, breaking and dissipation; swash run-up; nearshore currents; sediment transport, erosion and deposition.
Coastal water:	As defined by the Resource Management Act.
	Sea water within the outer limits of the territorial sea and includes:
	<ul> <li>(a) Sea water with a substantial freshwater component; and</li> <li>(b) Sea water in estuaries, fiords, inlets, harbours, or embayments.</li> </ul>
Coastline short-term erosion:	Natural coastal processes can cause periods of erosion (retreat) and progradation (growth or advancement) in a beach that result in fluctuations in the position of the shoreline over a period of months to a couple of years. A beach may experience an episode of short-term erosion due to storm wave activity or from a temporary reduction in sediment supply. A beach that is stable or advancing in the long term, may experience a short-term episode of erosion and it is important to recognise the difference.

Coastline long-term retreat:	Beaches composed of unconsolidated sediments (silt, sand and gravel) develop a balance between the wave energy and sediment supply. If there is a positive supply of sediment, a shoreline will advance. If there is a negative supply of sediment, a shoreline will erode and retreat landwards. This process can be natural or may result from human activity. A shoreline may also retreat due to sea level rise. Some shoreline types, such as coastal cliffs, are formed by erosional processes, and are permanently in long term retreat.
Contact recreation:	Water-based recreation that involves contact with the water, including swimming and paddling.
Contaminated land:	<ul> <li>As defined by the Resource Management Act.</li> <li>Land of one or more of the following kinds: <ul> <li>(a) if there is an applicable national environmental standard on contaminants in soil, the land is more contaminated than the standard allows; or</li> <li>(b) if there is no applicable national environmental standard on contaminants in soil, the land has a hazardous substance in or on it that <ul> <li>(i) has significant adverse effects on the environment; or</li> <li>(ii) is reasonably likely to have significant adverse effects on the environment.</li> </ul> </li> </ul></li></ul>
Cultural assessment:	A cultural assessment may include, but is not limited to, Maori history, Treaty claims and settlements, presence of significant sites, social effects and recommendations for avoiding, remedying and mitigating adverse effects.
DDT:	Dichloro-Diphenyl-Trichloroethane (DDT) is an organochlorine insecticide. It is a neuro-toxin and suspected carcinogen. It accumulates in the body, is highly persistent in the environment and is extremely toxic to aquatic life.
Ecosystems:	Ecosystem means any system of interacting terrestrial or aquatic organisms within their natural and physical environment.
Ecosystem function:	The interactions between organisms and the physical environment, such as nutrient cycling, soil development and water budgeting.
Ephemeral stream:	A stream that is not permanently flowing, or flows only during and after rain events.
Esplanade reserves:	As defined by the Resource Management Act. A reserve within the meaning of the Reserves Act 1977 which is either a local purpose reserve within the meaning of section 23 of that Act, if vested in the territorial authority under section 239, or, a reserve vested in the Crown or regional council, under section 237D; and which is vested in the territorial authority, regional council, or the Crown for the purpose or purposes set out in section 229 of the Resource Management Act.
Esplanade strips:	As defined by the Resource Management Act 1991. A strip of land created by the registration of an instrument in accordance with
	section 232 of the Resource Management Act for a purpose or purposes set out in section 229 Resource Management Act.
Fault:	A fault is a fracture in the crust or between two large blocks of rock in which one side of the fracture has moved relative to the other. This movement can be vertical, horizontal or a combination of the two. Faults that are active are still moving and can pose a serious hazard to human development. Faults are often associated with tectonic plate boundaries. The large faults in the Wellington region have resulted from stresses and fractures in the earth's crust due to the subduction of the Pacific Plate under the Australian Plate.
Fault rupture:	As stresses build along a fault due to movement either side of the fracture plane, a point is reached when the rocks are unable to accommodate the strain. When the shear strength of the rocks is exceeded, a fault will rupture. If this rupturing occurs rapidly, it results in an earthquake.
Fault trace:	A fault trace (also sometimes referred to as a fault line) is the visible surface expression of a fault that has ruptured the ground surface. Faults do not usually consist of a single, clean fracture and the term <i>fault zone</i> is used when referring to the area of deformation that is associated with the fault plane.
Fine particulate matter (PM10):	Fine particulate matter (PM10) means particulate matter that is less than 10 microns in aerodynamic diameter. A micron is one thousandth of a millimetre.

Flushing flows:	High river flows usually associated with rainfall that flush out the river system. These can be artificially induced as a mitigation measure in rivers where flows have been lowered by dams or large abstractions.
Habitat:	A habitat is an area with the appropriate combination of resources (food, cover, water) and environmental conditions for the survival of a species (may be flora or fauna or any other organism).
Hapu:	Hapu are sub-tribes, social and political units based on descent from a common ancestor.
High hazard risk:	High hazard risk refers to events that are likely to happen within the next 100 years and cause moderate to high levels of structural damage or major damage to the site, requiring significant stabilisation or mitigation works. It applies to areas that face a genuine risk of experiencing significant damage in a hazard event, such as fault rupture zones, beaches that experience cyclical or long-term erosion, failure prone hill slopes, or areas that are subject to repeated flooding.
Indigenous:	Produced by or naturally belonging to a particular region or area.
 Infrastructure:	As defined by the Resource Management Act.
innustracture.	Infrastructure includes:
	(a) pipelines that distribute or transmit natural or manufactured gas, petroleum,
	or geothermal energy; (b) a network for the purpose of telecommunication as defined in section 5 of the Telecommunications Act 2001;
	<ul> <li>(c) a network for the purpose of radiocommunication as defined in section 2(1) of the Radiocommunications Act 1989;</li> </ul>
	(d) facilities for the generation of electricity, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity, excluding facilities, lines, and support structures if a person:
	(i) uses them in connection with the generation of electricity for the person's use; and
	(ii) does not use them to generate any electricity for
	supply to any other person:
	(e) a water supply distribution system, including a system for irrigation;
	(f) a drainage or sewerage system;
	<ul><li>(g) structures for transport on land by cycleways, rail, roads, walkways, or any other means;</li></ul>
	<ul> <li>(h) facilities for the loading or unloading of cargo or passengers transported on land by any means;</li> </ul>
	(i) an airport as defined in section 2 of the Airport Authorities Act 1966;
	(j) a navigation installation as defined in section 2 of the Civil Aviation Act 1990;
	<ul> <li>(k) facilities for the loading or unloading of cargo or passengers carried by sea, including a port related commercial undertaking as defined in section 2(1) of the Port Companies Act 1988;</li> </ul>
	(I) anything described as a network utility operation in regulations made for the purposes of the definition of "network utility operator" in section 166 of the Resource Management Act.
Intertidal zone:	The area of the foreshore between mean low water mark and mean high water mark.
Intrinsic values:	As defined by the Resource Management Act.
	In relation to ecosystems, means those aspects of ecosystems and their constituent
	parts which have value in their own right, including: (a) Their biological and genetic diversity; and
	(b) The essential characteristics that determine an ecosystem's integrity, form, functioning, and resilience.
Inundation:	Inundation is the flooding of a land surface by water. This can result from: surface ponding in heavy rain due to impeded drainage; coastal flooding from storm surge or extreme high tides; sea level rise; tsunami; or river flooding due to prolonged heavy rain.
lwi:	Iwi are tribes, groups of Maori linked by common ancestry and with common history.

lwi authority:	As defined by the Resource Management Act. The authority which represents an iwi and which is recognised by that iwi as having the authority to do so.
lwi management plan:	A planning document that is recognised by the iwi authority.
Kaitiakitanga:	As defined by the Resource Management Act. The exercise of guardianship by tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources. It includes the ethic of stewardship.
Kawanatanga:	Governance.
Koiwi:	Human bones.
Local authority:	As defined by the Resource Management Act. Means a regional council or territorial authority.
Low energy receiving environments:	Aquatic environments with little flushing action from tides, river flows, or wave action. For example, protected harbours and bays.
Macroinvertebrate:	Small animals without backbones. Includes worms, molluscs, crustaceans and insect larvae.
Mahinga kai:	The customary gathering of food and natural materials and the places where those resources are gathered.
Mahinga matatai:	Places to gather seafood.
Mana:	Respect, dignity, influence, authority.
Manakitanga:	Responsibilities for care of guests
Marae:	Marae are important cultural institutions, facilities and community meeting places where significant events are held and decisions are made.
Mataitai:	Area management tool that identifies an area as a place of importance for customary food gathering.
Mauri:	The life force that exists in all things in the natural world, including people.
Mean high water springs:	The average of each pair of successive high waters during that period of about 24 hours in each semilunation (approximately every 14 days), when the range of tides is the greatest.
National Priorities for Protection:	Types of ecosystems identified by central government as priorities for biological protection by local government under the Resource Management Act.
New Zealand Coastal Policy Statement:	A statement issued under section 57 of the Resource Management Act.
New Zealand Urban Design Protocol:	The New Zealand Urban Design Protocol is a voluntary commitment to specific urban design initiatives by signatory organisations, which include central and local government, the property sector, design professionals, professional institutes and other groups. The Protocol aims to make our towns and cities more successful by using quality urban design to help them become: (a) Competitive places that thrive economically and facilitate creativity
	and innovation;
	<ul><li>(b) Liveable places that provide a choice of housing, work and lifestyle options;</li><li>(c) A healthy environment that sustains people and nature;</li></ul>
	(d) Inclusive places that offer opportunities for all citizens; and
	(e) Distinctive places that have a strong identity and sense of place
	(f) Well-governed places that have a shared vision and sense of direction
Nga kai:	Traditional foods
Non-point source discharges:	Diffuse discharges of contaminants to air, water and land often from a range of sources and often not be attributable to an individual site or activity. Pastoral and cropping agriculture, silviculture and development of residential subdivisions (for example, construction of infrastructure, septic tanks) are common activities that generate non-point source discharges.

Natabla landssanasi	
Notable landscapes:	Notable landscapes are significant amenity landscapes that have: (a) important but not clearly exceptional landscape value under one or more of
	the criteria in an area where natural components dominate; or
	(b) important (including exceptional) landscape value under one or more of the criteria in an area where the influence of human activity on landscape character dominates natural components.
Nutrient budget:	An account of nutrients applied to an area of land that balances the uptake by crops on the land.
Pa:	Maori fortified village.
Papakainga:	Maori village, ancestral settlement.
Peri-urban:	Refers to the immediate area around a settlement that is relatively unmodified by urban development and has characteristics associated with a rural landscape.
Point source discharge:	A discharge of contaminants where the point of discharge is identified.
Open space covenants with Queen Elizabeth the Second National Trust (QEII):	An open space covenant with Queen Elizabeth the Second National Trust (QEII) are registered pursuant to section 22 of the Queen Elizabeth the Second National Trust Act 1977 on certificates of title. Open Space Covenants need to be approved by the Trust's Board of Directors, and they are typically fenced from stock and defined by survey prior to registration.
Rahui:	A temporary restriction or ban.
Raingarden:	A planted depression that is designed to absorb rainwater run-off from water impervious urban areas like roofs, driveways, walkways, and compacted lawn areas.
Rangatiratanga:	Self determination
Regional form:	Regional form is about the physical arrangement of our urban and rural communities and how they link together. For example transport, roading, urban design, housing choice and density, open spaces etc.
Reverse sensitivity:	Where a newly established activity may be adversely affected by an existing activity and may need to protect itself from the effects of the existing activity. For example, when a noise-sensitive land use established next to an airport, the new sensitive land use may protect itself with noise insulation, rather than require the existing lawful activity to reduce the noise.
Revetment:	A structure placed either parallel or perpendicular to a shoreline or riverbank in order to protect property or land from erosion. They are designed to be porous and are commonly built with rocks. This allows water to flow through the cavities, slowing and absorbing the energy from the water flow and allowing finer sediments to deposit in the pore spaces. Rip-rap, gabions, groynes and breakwaters are all types of revetment.
Riffles:	A shallow, fast flowing section of a stream or river where the water velocity exceeds the upstream and downstream water velocity because of the steeper gradient or shallow depth.
Riparian:	Land areas beside and connected to streams, rivers and lakes.
Rohe:	Tribal areas for tangata whenua
Sedimentation:	The process of sediment deposition by wind or water, particularly in river, lake or coastal/marine environments. Sedimentation can be both beneficial or a hazard. On coastal beaches it helps build dunes that can protect coastal property, or it can block navigation channels or rivers and become a shipping or flooding hazard.
Sewage:	The liquid wastes of a community, including toilet wastes and sometimes trade waste, before treatment. Sewage effluent is the liquid residue after treatment, and sewage sludge is the solid residue after treatment.
Storm surge:	A temporary elevation in water at the shoreline caused by a combination of low air pressure, large waves (wave set-up) and strong onshore winds (wind set-up). Storm surge can elevate water levels by over one metre. A storm tide occurs when a storm surge coincides with high tide.
Subtidal:	The part of the near shore that is below low water mark.
Swales:	Inter-dune depressions that occur between dune crests. Also refers to concave hollows that are designed to hold stormwater run-off and allow the water to soak into the ground.

Tangata whenua:	Maori with ancestral claims to a particular area of land and resources, "people of the land".
Taonga:	Treasures, valued resources, both tangible and intangible
Taonga raranga:	Valued plants used for weaving, such as kiekie and pingao.
Tauranga waka:	Canoe landing places
Tikanga:	Customary practices and values followed in order to protect mauri.
Tsunami:	A series of waves generated by the sudden displacement of a water surface. The three main generating mechanisms are submarine fault ruptures, landslides or volcanic activity. Most commonly occur in open ocean, but can also occur in harbours and lakes.
Urupa:	Burial sites.
Water harvesting:	Taking water from water bodies when the amount of water is plentiful, and storing it outside the waterbody.
Wahi tapu:	Places of sacredness and immense importance, particularly for tangata whenua.
Wahi tipuna:	Ancestral sites
Wellington Regional Strategy:	The Wellington Regional Strategy is a sustainable economic growth strategy for the Wellington region developed by greater Wellington's nine local authorities, in conjunction with central government and the region's business, education, research and voluntary sector interests. It aims to make greater Wellington "internationally competitive".
Whanau:	Extended family groups.

## **Appendix 5: References**

Carterton District Council (2006) Carterton District Council Long-term Council Community Plan 2006–20016. Carterton

Department of Conservation (1994) New Zealand Coastal Policy Statement. Wellington. ISB 0-478-01589-S

Energy Efficiency and Conservation Authority (2006) Renewable Energy Assessment: Greater Wellington Region. Prepared by Sinclair Knight Merz. Auckland

Greater Wellington Regional Council (2005) Measuring up: the state of the environment report for the Wellington region 2005. Wellington. Publication No. GW/ENV-G-05-278

Greater Wellington Regional Council (2006) Our region – their future: A discussion document on the review of the Regional Policy Statement for the Wellington Region. Wellington. Publication No. GW/RP-G-06/83

Greater Wellington Regional Council (2007) A sustainable region. Detailed information. Amended 2006-16 Ten-Year Plan (incorporating the 2006/7 Annual Plan). Wellington. Publication No. GW/SP-G-07/108

Greater Wellington Regional Council (2007). Wellington Regional Land Transport Strategy 2007-2016. Wellington. Publication No. GW/TSD-G-07/175

Greater Wellington Regional Council (2007). Wellington Regional Strategy: Internationally Competitive Wellington: A Sustainable Economic Growth Strategy for our Region. Prepared by the regions nine local authorities in association with Positively Wellington Business. Wellington. Publication No. GW/SP-G-07/01

Hutt City Council (2006) Hutt City: Your City — Your Say: 2006–2017 Community Plan. Lower Hutt

Kapiti Coast District Council (2006) Kapiti Coast Choosing Futures Community Plan 2006. Paraparaumu

Masterton District Council (2006) Shaping our Future: Masterton District Long-term Council Community Plan. Masterton

Ministry of Economic Development (2007) New Zealand Energy Strategy to 2050. Powering our future: Towards a sustainable low emissions energy system. Wellington

Ministry for the Environment (2005) New Zealand Urban Design Protocol. Wellington. ME579

Ministry for the Environment (2007) Protecting our Places — Introducing the national priorities for protecting rare and threatened native biodiversity on private land. ME799

New Zealand Government (2007) New Zealand Energy Efficiency and Conservation Strategy. ISBN 978-0-478-19502-6

Porirua City Council (2006) Long-term Council Community Plan: Porirua City Council 2006–2016. Porirua City Council

Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004 (SR 2004/309)

South Wairarapa District Council (2007) South Wairarapa Council Community Plan 2006–2016. Martinborough

Upper Hutt City Council (2006) Long Term Council Community Plan (LTCCP) — upperhuttcity@2016. Upper Hutt

Waitangi Tribunal (1983) Report of the Waitangi Tribunal on the Motunui-Waitara claim (Wai 6). Wellington. ISSN 0113-4124. ISBN 0-908810-03-02

Waitangi Tribunal (1984). Report of the Waitangi Tribunal on the Kaituna River claim. Wellington. ISSN 0113-4124P. ISBN 0-908810-04-0

Waitangi Tribunal (1985) Report of the Waitangi Tribunal on the Manukau claim (Wai 8). Wellington. ISSN 0113-4124. ISBN 0-908810-06-7

Wellington City Council (2006) Wellington City Council Long-term Council Community Plan 2006/7 – 2016/7. Wellington

Wellington Regional Council (2000) The charter of understanding between Te Tangata Whenua o Te Upoko o te Ika a Maui and Wellington Regional Council. Wellington

Water, air, earth and energy: elements in Greater Wellington's logo that combine to create and sustain life. Greater Wellington promotes Quality for Life by ensuring our environment is protected while meeting the economic, cultural and social needs of the community.

#### FOR MORE INFORMATION

Greater Wellington Regional Council 142 Wakefield Street P O Box 11646 Wellington 6142

**T** 04 384 5708 **F** 04 385 6960

rps@gw.govt.nz www.gw.govt.nz/rps ISBN 0-909016-93-3

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