

3. Resource management issues, objectives and summary of policies and methods to achieve the objectives in the Regional Policy Statement

This chapter provides an overview of the issues addressed by the Regional Policy Statement, the objectives sought to be achieved and provides a summary of the policies and methods to achieve the objectives. These are presented under the following topic headings:

- Air quality
- Coastal environment, including public access
- Energy, infrastructure and waste
- Fresh water, including public access
- Historic heritage
- Indigenous ecosystems
- Landscape
- Natural hazards
- Regional form, design and function
- Resource management with tangata whenua
- Soils and minerals

Each section in this chapter addresses a topic then introduces the issues. All the issues are issues of regional significance or have been identified as issues of significance to the Wellington region's iwi authorities. Each section includes a summary table showing all the objectives that relate to that topic and the titles of the policies and methods that will achieve those objectives. The table also includes a reference to other policies that need to be considered alongside to gain a complete view of the issue across the full scope of the Regional Policy Statement.



3.1 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 of air.

Some contaminants in air are associated with people's activities – such as smoke from fires, dust and other emissions – which may produce fumes or odours.

Of those discharges associated with people's activities:

- The most polluting air contaminant in the Wellington region is fine particulate matter. In winter almost all of this comes from domestic fires
- Odours, smoke and dust from people's activities can reduce the amenity of an area, affect people's health and social and cultural wellbeing, create annoyance, and sometimes cause poor visibility
- Our monitoring shows that discharges from motor vehicles in the region do not occur at levels that could adversely affect people's health
- Industrial discharges from sources – such as abrasive blasting and wood processing – can have localised adverse effects. Industries that discharge to air are largely concentrated around Seaview

The amenity value of air depends on how clean and fresh it is. High amenity is associated with good visibility, low levels of deposited dust and people's ability to enjoy their outdoor environment is not impaired. Amenity is reduced by contaminants in the air affecting people's wellbeing – such as when dust and smoke reduces visibility or soils surfaces, or when odour is objectionable.

Reverse sensitivity effects can arise along the interface between areas of differing land uses – such as between residential and industrial or rural areas. Amenity values need to be considered in the context of different environments and they may change temporarily or seasonally. In effect, what constitutes an objectionable odour, or level of smoke or dust is, in part, dependant on the normal conditions experienced in a locality or at a time of year. These effects are most likely to arise where production is adjacent to residential and rural-residential subdivisions or adjacent to areas which can be subdivided. In such circumstances, the new activities would need to accept the effects or incorporate provisions that ensure adequate protection from adverse effects from the established activity.

The National Environmental Standards for Air Quality were introduced in 2004. The standards are breached when the threshold concentration for fine particulate matter (PM₁₀) is exceeded more than once in an airshed, in a 12 month period. The eight airsheds in the Wellington region are Kāpiti, Porirua, Upper Hutt, Lower Hutt, Wainuiomata, central Wellington, Karori and Wairarapa.

Outdoor air quality monitoring has shown that during periods of cold calm weather, levels of fine particulate matter may build up, particularly in the Wairarapa (specifically Masterton), Wainuiomata and Upper Hutt airsheds. On occasions, the levels of fine particulate matter have exceeded the national environmental standard for air quality.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for air quality are:

Table 1: Air quality
Objective 1

1. Impacts on amenity and wellbeing from odour, smoke and dust

Odour, smoke and dust affect amenity values and people's wellbeing. These effects are generally localised and result from the following activities or land uses:

- (a) odour from activities – such as, rendering, spray painting and solvent use, landfills, sewage treatment plants, silage feeding and effluent spreading
- (b) smoke from domestic fires and backyard burning
- (c) dust from land uses or activities – such as, earthworks, quarries, and land clearance.

Table 1: Air quality
Objective 2

2. Health effects from discharges of fine particulate matter

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

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

Objectives	Policy titles	Page	Method titles	Implementation (*lead authority)	Page
Objective 1 Discharges of odour, smoke and dust to air do not adversely affect amenity values and people's wellbeing.	Policy 1: Odour, smoke and dust – district plans	90	Method 1: District plan implementation	City and district councils	153
			Method 6: Information about reducing air pollution	Wellington Regional Council and city and district councils	154
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council* and city and district councils	158
			Also see – Energy, infrastructure and waste (Table 3) policies 7 & 8; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		
Objective 2 Human health is protected from unacceptable levels of fine particulate matter.	Policy 2: Reducing adverse effects of the discharge of odour, smoke, dust and fine particulate matter – regional plans	91	Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 6: Information about reducing air pollution	Wellington Regional Council and city and district councils	154
			Method 26: Prepare airshed action plans	Wellington Regional Council	157
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council* and city and district councils	158
			Also see – Energy, infrastructure and waste (Table 3) policies 7 & 8 and consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		
	Policy 2: Reducing adverse effects of the discharge of odour, smoke, dust and fine particulate matter – regional plans	91	Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 6: Information about reducing air pollution	Wellington Regional Council and city and district councils	154
			Method 26: Prepare airshed action plans	Wellington Regional Council	157
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council and city and district councils	158
			Also see – Energy, infrastructure and waste (Table 3) policies 7 & 8; and consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		



3.2 Coastal environment (including public access)

From Ōtaki around 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 activities. The character ranges from the largely rural Wairarapa coast to the highly developed urban areas around Wellington and Porirua Harbours. The Kāpiti coast has sandy beaches, and is experiencing rapid population growth. 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 Māori are closely intertwined with the coastal environment. Many sites within the coastal environment are associated with iwi histories, traditions and tikanga. For example, mahinga mātaītai (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 causes a loss of 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. It is also the location of many activities and structures that require a coastal location. Significant infrastructure – such as Centreport, the Cook Strait cable and other transmission infrastructure, and several state highway and rail corridors – is located in the coastal environment. This infrastructure is essential to the community's economic and social wellbeing. This region's coastal environment also has significant wind and marine energy resources. There are also other commercial activities that may be appropriate in highly modified coastal areas.

The Regional Policy Statement must give effect to the New Zealand Coastal Policy Statement, which provides a policy framework for both the wet and dry parts of the coastal environment. This framework recognises the ecological, geographical, cultural, social, and economic linkages between land and sea, and the complementary responsibilities that different authorities have for coastal management. Other national policy statements are also relevant.

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 dynamic coastal processes and ecosystems of escarpments, sand dunes, estuaries and salt marshes, significant landscapes and seascapes, geological features and landforms, sand dunes and beach systems, sites of historic or cultural significance, an area's amenity and openness, and in some places its remoteness.

Much of the region's coastal environment is in private ownership and is being actively farmed. This rural land use has had a significant impact on the coastal environment resulting in landscapes which are 'modified but natural' in the continuum of natural character. These pastoral landscapes are valued by people not only for their natural character (aesthetic appeal) but also by landowners for the economic benefits they derive from them. While farming activities have modified the coastal environment, these pastoral "working landscapes", in some cases, have helped to prevent further more intensive development. Reasonable use of the coastal environment, including existing use, should be provided for, while protecting the coast from inappropriate activities and development.

Natural character of the coast is being degraded through incremental loss and damage to coastal ecosystems including estuaries and salt-marshes, e.g. the Waikanae estuary, Pauatahanui Inlet, and Motuwaiareka 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 high natural character are under increasing pressure for development, particularly along the Kāpiti and Wairarapa coasts, and Pauatahanui Inlet.

The maintenance and enhancement of public access to and along the coastal marine area 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. On private land that is not proposed to be subdivided, however, public access is at the discretion and with the permission of the landowner. To date, there has been no region-wide 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. There are circumstances where public access to the coastal marine area, lakes and rivers may not be desirable – such as to provide security for regional infrastructure, allow for farming activities and prevent harm to the public.

The coastal marine area 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 and other toxic substances are building up on the sea bed of Wellington and Porirua harbours to levels that could adversely affect aquatic life. High levels of microbial contamination in sewage and stormwater discharges 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 the natural, physical and ecological processes that underpin the proper functioning of the coastal environment, including the coastal marine area. In some circumstances, some interference may be appropriate, for example extraction of sand or gravel to reduce flood risk, or planting of coastal vegetation as part of dune building programmes.

The implications of sea-level rise on the coastal environment also need to be considered when looking at the potential effects of new subdivisions, use and development.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for the coastal environment are:

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

The natural character of the region's coastal environment has been, and continues to be, adversely affected by activities such as large-scale earthworks for housing developments and roads, changes in land use and the placement of structures.

Table 2: Coastal environment
Objectives 3, 4 & 5

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.

Table 2: Coastal environment
Objective 6
Table 6(a):
Indigenous ecosystems
Objective 16

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:

Table 2: Coastal environment
Objective 7
Table 8(a):
Natural hazards
Objectives
19 & 20

- (a) Seawalls alter sediment movement along beaches and estuaries and can cause erosion problems in some areas and deposition problems in others.
- (b) Sand dunes and dune vegetation can be significantly affected by inappropriate 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 coastal marine area, lakes and rivers (shared with Issue 4 in section 3.4)

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 coastal marine area, lakes and rivers is not always provided, or has been provided in places where people can not take advantage of it. Even where physical access is available, it is not always possible if access ways are not well maintained.

Table 2: Coastal environment
Objective 8
Table 4: Fresh water
Objective 8

Table 2: Coastal environment objectives and titles of policies and methods to achieve the objectives

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
<p>Objective 3 Habitats and features in the coastal environment that have significant indigenous biodiversity values are protected; and Habitats and features in the coastal environment that have recreational, cultural, historical or landscape values that are significant are protected from inappropriate subdivision, use and development.</p>	Policy 4: Identifying the landward extent of the coastal environment – district plans	93	Method 1: District plan implementation	City and district councils	153
			Method 30: Prepare a harbour and catchment management strategy for Porirua Harbour	Wellington Regional Council, Porirua City Council and Wellington City Council	158
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Method 50: Prepare a regional landscape character description	Wellington Regional Council* and city and district councils	161
			Also see – Coastal environment (Table 2) policy 6; Historic heritage (Table 5) policy 21; Indigenous ecosystems (Table 6a) policy 23; Landscape (Table 7) policies 25 & 27; and consider – Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 6: Recognising the regional significance of Porirua Harbour (including Pauatahanui Inlet and Onepoto Arm) – district and regional plans	94	Method 30: Prepare a harbour and catchment management strategy for Porirua Harbour	Wellington Regional Council, Porirua City Council and Wellington City Council	158
			Also see – Coastal environment (Table 2) policies 3 & 5; Freshwater (Table 4) policies 12, 14, 15, 18 & 19; Historic heritage (Table 5) policies 21 & 22; Indigenous ecosystems (Table 6a) policies 23 & 24; Landscape (Table 7) policies 27 & 28; and consider – Coastal environment (Table 2) policies 35, 36, 37 & 53; Freshwater (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 22: Protecting historic heritage values – district and regional plans	104	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 3 (Continued)	Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans	105	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 61; Landscape (Table 7) policies 26 & 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 43 & 53; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 26: Protecting outstanding natural features and landscape values – district and regional plans	107	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 28: Managing special amenity landscape values – district and regional plans	108	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 26 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49		

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 3 (Continued)	Policy 35: Preserving the natural character of the coastal environment – consideration	116	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 7: Information about high natural character in the coastal environment	Wellington Regional Council and city and district councils Wellington Regional Council	153 154
	Policy 38: Identifying the landward extent of the coastal environment – consideration	119	Also consider – Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49 Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
	Policy 64: Supporting a whole of catchment approach – non-regulatory	143	Also consider – Resource management with tangata whenua (Table 10) policies 48 & 49 Method 12: Information about techniques to maintain and enhance indigenous ecosystems Method 29: Take a whole of catchment approach to works, operations and services Method 53: Support community restoration initiatives for the coastal environment, rivers lakes and wetlands Method 54: Assist landowners to maintain, enhance and restore indigenous ecosystems	Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils	155 158 162 162
Objective 4 The natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development.	Policy 3: Protecting high natural character in the coastal environment – district and regional plans	91	Method 1: District plan implementation Method 7: Information about high natural character in the coastal environment Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values Method 50: Prepare a regional landscape character description	City and district councils Wellington Regional Council Wellington Regional Council and city and district councils Wellington Regional Council* and city and district councils	153 154 158 161
			Also see – Coastal environment (Table 2) policies 5 & 6; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 26 and consider – Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 4 (Continued)	Policy 4: Identifying the landward extent of the coastal environment – district plans	93	Method 1: District plan implementation	City and district councils	153	
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158	
			Method 50: Prepare a regional landscape character description	Wellington Regional Council* and city and district councils	161	
	Policy 22: Protecting historic heritage values – district and regional plans	104	Also see – Historic heritage (Table 5) policy 21; Indigenous ecosystems (Table 6a) policy 23; Landscape (Table 7) policies 25 & 27 and consider – Resource management with tangata whenua (Table 10) policies 48 & 49			
			Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158	
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49			
			Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158				
Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans	105	Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6b) policy 62; Landscape (Table 7) policies 26 & 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 43 & 53; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49				
		Method 1: District plan implementation	City and district councils	153		
			Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158	

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 4 (Continued)	Policy 26: Protecting outstanding natural features and landscape values – district and regional plans	107	Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158	
		Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47 Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49				
	Policy 28: Managing special amenity landscape values – district and regional plans	108	Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158	
		Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 17 & 18; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 26 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49				
Policy 35: Preserving the natural character of the coastal environment – consideration	116	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153		
		Method 7: Information about high natural character in the coastal environment	Wellington Regional Council	154		
		Also consider – Coastal environment (Table 2) policy 6; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49				

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 4 (Continued)	Policy 36: Managing effects on natural character in the coastal environment – consideration	117	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 7: Information about high natural character in the coastal environment	Wellington Regional Council and city and district councils Wellington Regional Council	153 154
			Also consider – Coastal environment (Table 2) policy 6; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		
Objective 5 Areas of the coastal environment where natural character has been degraded are restored and rehabilitated.	Policy 38: Identifying the landward extent of the coastal environment – consideration	119	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council and city and district councils	153
	Policy 6: Recognising the regional significance of Porirua Harbour (including Pauatahanui Inlet and Onepoto Arm) – district and regional plans	94	Method 30: Prepare a harbour and catchment management strategy for Porirua Harbour Also see – Coastal environment (Table 2) policies 3 & 5; Freshwater (Table 4) policies 12, 14, 15, 17 & 18; Historic heritage (Table 5) policies 21 & 22; Indigenous ecosystems (Table 6a) policies 23 & 24; Landscape (Table 7) policies 27 & 28; and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 53; Freshwater (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council, Porirua City Council and Wellington City Council	158
	Policy 64: Supporting a whole of catchment approach – non-regulatory	143	Method 8: Information about restoration and enhancement of degraded water bodies and the natural character of the coastal environment Method 27: Integrate management across mean high water springs Method 28: Prepare a coastal and marine ecosystems action plan Method 29: Take a whole of catchment approach to works, operations and services Method 53: Support community restoration initiatives for the coastal environment, rivers lakes and wetlands	Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council Wellington Regional Council * and city and district councils Wellington Regional Council and city and district councils	155 157 158 158 162

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 6 The quality of coastal waters is maintained or enhanced to a level that is suitable for the health and vitality of coastal and marine ecosystems.	Policy 5: Maintaining and enhancing coastal water quality for aquatic ecosystem health – regional plans	94	Method 2: Regional plan implementation Method 35: Prepare a regional stormwater action plan Method 36: Support industry-led environmental accords and codes of practice	Wellington Regional Council Wellington Regional Council* and city and district councils Wellington Regional Council and city and district councils	153 159 159
	Policy 6: Recognising the regional significance of Porirua Harbour (including Pauatahanui Inlet and Onepoto Arm) – district and regional plans	94	Method 30: Prepare a harbour and catchment management strategy for Porirua Harbour Also see – Coastal environment (Table 2) policies 3 & 5; Freshwater (Table 4) policies 12, 14, 15, 17 & 18; Historic heritage (Table 5) policies 21 & 22; Indigenous ecosystems (Table 6a) policies 23 & 24; Landscape (Table 7) policies 27 & 28; and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 53; Freshwater (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council, Porirua City Council and Wellington City Council	158
	Policy 40: Safeguarding aquatic ecosystem health in water bodies – consideration	120	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 35: Prepare a regional stormwater action plan Method 36: Support industry-led environmental accords and codes of practice Also consider – Coastal environment (Table 2) policies 35, 37 & 38; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 41, 42 & 43; Indigenous ecosystems (Table 6a) policy 47; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49	City and district councils Wellington Regional Council* and city and district councils Wellington Regional Council and city and district councils	153 159 159

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 7 The integrity, functioning and resilience of physical and ecological processes in the coastal environment are protected from the adverse effects of inappropriate subdivision, use and development.	Policy 6: Recognising the regional significance of Porirua Harbour (including Pauatahanui Inlet and Onepoto Arm) – district and regional plans	94	Method 30: Prepare a harbour and catchment management strategy for Porirua Harbour Also see – Coastal environment (Table 2) policies 3 & 5; Freshwater (Table 4) policies 12, 14, 15, 17 & 18; Historic heritage (Table 5) policies 21 & 22; Indigenous ecosystems (Table 6a) policies 23 & 24 Landscape (Table 7) policies 27 & 28; and consider – Coastal environment (Table 2) policies 35; 36, 37, 38 & 53; Freshwater (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policies 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council, Porirua City Council and Wellington City Council	158
	Policy 37: Safeguarding life-supporting capacity of coastal ecosystems – consideration	118	Method 4: Resource consents; notices of requirement and when changing, varying or reviewing plans Also consider – Coastal environment (Table 2) policies 6, 34, 37 & 39; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council and city and district councils	153
Objective 8 Public access to and along the coastal marine area, lakes and rivers is enhanced (objective 8 is shared for the coastal environment and fresh water).	Policy 53: Public access to and along the coastal marine area, lakes and rivers – consideration	132	Method 4: Resource consents; notices of requirement and when changing, varying or reviewing plans Method 51: Identify areas for improved public access Also consider – Coastal environment (Table 2) policies 6, 35 & 36; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council and city and district councils	153
				Wellington Regional Council* and city and district councils	161



3.3 Energy, infrastructure and waste

(a) Energy

New Zealand's energy needs have largely been met from coal, oil, gas, hydro and geothermal resources. 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 to meet peak demand and in dry years.

Energy generation operations in the Wellington region include wind, hydro and landfill gas. Resource consent has been granted for a trial marine energy development in Cook Strait.

Energy is distributed to and utilised by five main sectors in the region: transport, agriculture, industrial, commercial and residential. Demand for energy from all sectors continues to grow, with the most significant growth coming from transport.

Traditional energy sources will not be able to meet increasing energy demand. The region is vulnerable to oil supply disruptions (as a result of international circumstances) and fluctuations to hydro generation during dry years.

In the long term, energy prices are likely to rise as global oil demand approaches, and then exceeds, the ability to supply. Many aspects of society – such as transport, agriculture, trade, tourism, and manufacturing – are heavily dependent on oil, and continuing oil price rises and other risks to supply may lead to severe impacts on the Wellington region's economy. Appropriate use and management of such resources will be critical in meeting the region's quality of life in the future.

There is also the challenge of reducing greenhouse gas emissions from fossil fuels to meet international climate change obligations.

The Wellington region faces several major long-term energy challenges, including responding to climate change and tackling carbon emissions, especially from transportation and energy generation. Other challenges are securing clean, renewable energy at affordable prices and using it efficiently, as well as responding to impacts on the region from oil depletion and the rising costs of oil. This means looking to make better use of existing energy resources through energy conservation and efficiency, better utilising the region's renewable energy resources, and looking at ways that the impacts from oil price increases and oil depletion can be mitigated.

The New Zealand Energy Strategy (2007), the New Zealand Energy Efficiency and Conservation Strategy (2007) and the New Zealand Transport Strategy (2008) outline New Zealand's actions on energy and climate change. The objectives, policies and methods on energy in this Regional Policy Statement will assist with making progress towards national targets. There are, however, a number of targets – such as reducing carbon dioxide-equivalent emissions from transport – where the Regional Policy Statement has limited influence.

The region contains significantly greater renewable energy resources than are currently used. Wind, biofuels and solar (for hot water systems), have been identified as possible renewable energy generation sources for the region. There is also the potential for domestic-scale and small-scale distributed renewable energy generation including small-scale hydro in the region. Tidal currents in Cook Strait and, to a lesser extent, wave action in Cook Strait and off the Wairarapa coast are also potentially significant renewable energy resources, but technological advances are required to realise this potential. New Zealand has limited locations appropriate for marine energy development and the Cook Strait has one of the best tidal/ocean current resources in the country.

(b) Infrastructure

The roading network, airports, the port, telecommunication facilities, the rail network and other utilities and infrastructure, including energy generation, transmission and distribution networks, 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. Infrastructure can also have an adverse effect on the surrounding environment. For example, the operation or use of infrastructure can create noise which may adversely impact surrounding communities. These effects need to be balanced to determine what is appropriate for the individual circumstances.

The National Policy Statement on Electricity Transmission (2008) sets out objectives and policies to enable the management of effects on and of the electricity transmission network under the Resource Management Act. The Statement recognises that efficient and secure electricity transmission plays a vital role in the well-being of New Zealand and makes it explicit that electricity transmission is to be considered a matter of national significance.

(c) Waste

Dealing with waste is a mounting problem because some of the resources discarded still have value, landfills use land that could be otherwise productive and landfill disposal has adverse effects on the environment. These can include reverse sensitivity effects, whereby a newly established activity may be adversely affected by an existing landfill and may need to protect itself from these effects.

Landfills should be the 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 10 municipal landfills in the Wellington region, in 2007 there were five, and two more will close over the next ten years.

The amount of waste needs to be reduced to ensure potentially valuable resources are used efficiently, reduce the need to develop new landfills and extend the life of existing landfills. Cleanfills are one way to extend the life of landfills by diverting clean inert waste from the landfill waste stream. In 2007 nearly 400,000 tonnes of material was sent to landfills in the Wellington region. At least 20 per cent and in some areas as much as 60 to 70 per cent could have been recycled or composted. This occurs because there is no market for the final product or there are no facilities in New Zealand to process the materials. While some materials are sent overseas for recycling or resource recovery, this option may not be viable in the long-term, so finding local solutions will become more important.

The Local Government Act requires city and district councils to prepare waste management plans that make provision for the collection and reduction, reuse, recycling, recovery, treatment, or disposal of waste in the district, and provide for its effective and efficient implementation. The Regional Policy Statement has no role in the development or implementation of waste management plans.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for energy, infrastructure and waste are:

1. Energy

The Wellington region is dependent on externally generated electricity and overseas-sourced fossil fuels and is therefore vulnerable to supply disruptions and energy shortages. In addition, demand for energy is increasing. However, significant renewable energy resources exist within the region.

Table 3: Energy, infrastructure and waste Objectives 9 & 10

Table 9: Regional form Objective 22

2. Infrastructure

Infrastructure enables communities to provide for their social, economic and cultural wellbeing. The management, use and operation of infrastructure can be adversely affected when incompatible land uses occur under, over, or adjacent.

Table 3: Energy, infrastructure and waste Objective 10

3. Waste

We cannot continue to generate the current waste volumes because of the costs of disposal, limited space in existing landfills and because it is inefficient to dispose of potentially valuable resources. Developing new landfills also poses significant challenges economically, environmentally and socially.

Table 3: Energy, infrastructure and waste Objective 11

Table 3: Energy, infrastructure and waste objectives and titles of policies and methods to achieve the objectives

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
<p>Objective 9 The region's energy needs are met in ways that:</p> <ul style="list-style-type: none"> (a) improve energy efficiency and conservation; (b) diversify the type and scale of renewable energy development; (c) maximise the use of renewable energy resources; (d) reduce dependency on fossil fuels; and (e) reduce greenhouse gas emissions from transportation. 	<p>Policy 7: Recognising the benefits from renewable energy and regionally significant infrastructure – regional and district plans</p>	95	<p>Method 1: District plan implementation</p> <p>Method 2: Regional plan implementation</p> <p>Also see – Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3 & 5; Energy, infrastructure and waste (Table 3) policies 8 & 11; Fresh water (Table 4) policies 12, 13, 14, 17, 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7), policies 26 & 28; Natural hazards (Table 8a) policy 29 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 44; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49</p>	<p>City and district councils</p> <p>Wellington Regional Council</p>	<p>153</p> <p>153</p>
	<p>Policy 9: Reducing the use and consumption of non-renewable transport fuels and carbon dioxide emissions from transportation – Regional Land Transport Strategy</p>	96	<p>Method 3: Wellington Regional Land Transport Strategy implementation</p> <p>Also see – Energy, infrastructure and waste (Table 3) policy 10; Regional form, design and function (Table 9) policy 33</p>	Wellington Regional Council	153
	<p>Policy 10: Promoting travel demand management – district plans and Regional Land Transport Strategy</p>	97	<p>Method 1: District plan implementation</p> <p>Method 3: Wellington Regional Land Transport Strategy implementation</p> <p>Method 9: Information about travel demand management</p> <p>Also see – Air quality (Table 1) policy 2; Energy, infrastructure and waste (Table 3) policies 7, 8 & 11; Regional form, design and function (Table 9) policies 31 & 32 and consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policies 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49</p>	<p>City and district councils</p> <p>Wellington Regional Council</p> <p>Wellington Regional Council* and city and district councils</p>	<p>153</p> <p>153</p> <p>155</p>
<p>Policy 11: Promoting energy efficient design and small scale renewable energy generation – district plans</p>	97	<p>Method 1: District plan implementation</p> <p>Method 10: Information about energy efficient subdivision, design and building development</p> <p>Also see – Air quality (Table 1) policy 2; Coastal environment (Table 2) policy 3; Energy, infrastructure and waste (Table 3) policies 7, 8 & 10; Freshwater (Table 4) policies 12, 13, 17, 18, 19 & 20; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policies 50; Regional form, design and function (Table 9) policies 54, 56 & 57; Resource management with tangata whenua (Table 10) policies 48 & 49</p>	<p>City and district councils</p> <p>Wellington Regional Council* and city and district councils</p>	<p>153</p> <p>155</p>	

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 9 (Continued)	Policy 39: Recognising the benefits from renewable energy and regionally significant infrastructure – consideration	119	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Coastal environment (Table 2) policies 35, 36, 37 & 38; Fresh water (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council and city and district councils	153	
	Policy 57: Integrating land use and transportation-consideration	135	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 25: Information about the provision of walking, cycling and public transport for development Also consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policies 54, 55, 56 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60	City and district councils Wellington Regional Council	153 157	
Objective 10 The social, economic, cultural and environmental, benefits of regionally significant infrastructure are recognised and protected.	Policy 65: Promoting efficient use and conservation of resources – non-regulatory	144	Method 10: Information about energy efficient subdivision, design and building development Method 33: Identify sustainable energy programmes Method 56: Assist the community to reduce waste, and use water and energy efficiently	Wellington Regional Council* and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils	155 158 162	
	Policy 7: Recognising the benefits from renewable energy and regionally significant infrastructure – regional and district plans	95	Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
	Policy 7: Recognising the benefits from renewable energy and regionally significant infrastructure – regional and district plans	95	95	Also see – Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3 & 5; Energy, infrastructure and waste (Table 3) policies 8 & 11; Fresh water (Table 4) policies 12, 13, 14, 17, 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Natural hazards (Table 8a) policy 29 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 44; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 10 (Continued)	Policy 8: Protecting regionally significant infrastructure – regional and district plans	96	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Also see – Air quality (Table 1) policies 1 & 2; Coastal environment (Table 2) policies 3 & 5; Energy, infrastructure and waste (Table 3) policies 7, 9, 10 & 11; Fresh water (Table 4) policies 12, 13, 14, 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Natural hazards (Table 8a) policy 29 and consider – Coastal environment (Table 2) policies 35, 36, 37 & 38; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 39: Recognising the benefits from renewable energy and regionally significant infrastructure – consideration	119	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Also consider – Coastal environment (Table 2) policies 35, 36, 37 & 38; Fresh water (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49		
Objective 11 The quantity of waste disposed of is reduced.	Policy 65: Promoting efficient use and conservation of resources – non-regulatory	144	Method 17: Information about waste management	Wellington Regional Council and city and district councils	156
			Method 56: Assist the community to reduce waste, and use water and energy efficiently	Wellington Regional Council and city and district councils	162



3.4 Fresh water (including public access)

Fresh water is integral to our health, wellbeing, livelihood and culture. Freshwater is essential for our economy and defines our landscape and sustains ecosystems. People value clean fresh water for many reasons – economic, recreational, aesthetic, ecological and cultural. It is a matter of national importance to protect wetlands, lakes, rivers and streams from inappropriate use and development.

The region's fresh water has to meet a range of uses valued by the community. There is a range of differing uses and values associated with fresh water. The resource needs to be available to meet the needs of both current and future generations. This range of uses and values leads to multiple pressures on the quantity and quality of the fresh water which can cumulatively impact on the availability and value of the resource for use. This is a complex issue that involves multiple resource users with differing values. A whole of catchment approach is particularly useful for understanding and managing these complexities. It is also important that the flow of water is managed appropriately.

Māori consider fresh water to be a significant taonga (valued resource) that plays a central role in both spiritual and secular realms. In the Māori 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, but 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 aquatic health is also poorest in these streams. The adverse effects of erosion and sediment run-off on fresh water are discussed in section 3.11 Soil and Minerals.

Urban streams are affected by stormwater discharges, especially when there are high proportions of impervious cover – such as roofs and roads – in the catchment. Stormwater, which generally has little or no treatment, contains sediments and bacteria, as well as persistent contaminants – like heavy metals – which accumulate in stream sediments and eventually in the coastal environments where the streams discharge. These contaminants affect freshwater fish and invertebrates and can have chronic long-term adverse effects on river and coastal ecosystems. Urban land uses also affect water quality in rivers and streams and can cause other pressures on freshwater habitat by creating the demand to pipe or fill in small streams.

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

Land uses affect the state of rivers and streams and, consequently, the coast. 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 algal growth in late summer, when conditions are driest and warmest and river flows at their lowest. Groundwater around Te Horo, Ōtaki 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. Non-consumptive uses of water can often be undertaken with negligible effects on water bodies. In the Wairarapa, the amount of water taken for farm pasture irrigation has more than doubled over the last 10 years and increasing populations in the region's urban areas means demand for water supply from rivers, lakes and groundwater is expected to increase. The pressure on water resources is also likely to increase as a result of climate change. Some predicted effects are that the central and eastern Wairarapa will become drier, and droughts will occur more frequently and persist for longer periods.

Groundwater levels in some Wairarapa aquifers are declining year by year. Lowered groundwater levels can affect the flow of springs and rivers and streams, 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.

Existing users often have invested in infrastructure in reliance upon consents for the take and/or use of water.

All these matters should be recognised in the efficient management of water.

The introduction and spread of aquatic pests are a threat to the health of aquatic ecosystems. In wetlands, exotic plants such as willows and blackberry can displace wetland plants and do not provide suitable habitat for wetland species. Pests – such as didymo and pest fish – also have potential for significant adverse effects.

It is a matter of national importance to maintain and enhance public access to and along rivers and lakes. There is little information about the state of public access to rivers and lakes in the region. 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 Ruamāhanga, 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. On private land that is not proposed to be subdivided, however, public access is at the discretion and with the permission of the landowner. To date, there has been no region-wide 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. There are circumstances where public access to the coastal marine area, lakes and rivers may not be desirable – such as to provide security for regional infrastructure, allow for farming activities and prevent harm to the public.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for fresh water are:

1. Pollution is affecting water quality in water bodies

The water quality of rivers and streams, lakes, wetlands and groundwater in the region is being polluted by discharges and contaminants arising from urban and rural land uses.

Table 4: Fresh water
Objective 12

2. Poor ecosystem function in rivers, lakes and wetlands

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

Table 4: Fresh water
Objectives 12 & 13
Table 6(a): Indigenous
ecosystems
Objective 16

- (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) works in rivers, particularly during low flows
- (e) the introduction and spread of aquatic pests, including didymo and pest fish, and weeds in wetlands which displace wetland plants
- (f) stock access to river and stream beds, lake beds and wetlands, and their margins
- (g) creating impermeable land within a catchment through asphaltting, concreting and building structures
- (h) taking water from rivers and groundwater connected to rivers, wetlands and springs.

3. There is increasing demand on limited water resources

There is a limited amount of water in water bodies available for human use and demand is increasing. The efficient management of water in the region's water bodies is a matter of vital importance for sustaining the wellbeing of people, communities and the regional economy.

Table 4: Fresh water
Objective 14

An additional issue shared with the coastal environment is:

4. Public access to and along the coastal marine area, lakes and rivers (shared with Issue 4 in section 3.2)

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 coastal marine area, lakes and rivers is not always provided, or has been provided in places where people can not take advantage of it. Even where physical access is available, it is not always possible if access ways are not well maintained.

Table 2: Coastal
environment
Table 4: Fresh water
Objective 8

Table 4: Fresh water objectives and titles of policies and methods to achieve the objectives

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
<p>Objective 12 The quantity and quality of fresh water: (a) meet the range of uses and values for which water is required; (b) safeguard the life supporting capacity of water bodies; and (c) meet the reasonably foreseeable needs of future generations.</p>	<p>Policy 12: Management purposes for surface water bodies – regional plans</p>	<p>98</p>	Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 34: Prepare a regional water strategy	Wellington Regional Council* and city and district councils	159
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159
			Method 36: Support Industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159
			<p>Also see – Coastal environment (Table 2) policies 5 & 6; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 14, 15, 16, 17 & 18; Indigenous ecosystems (Table 6a) policy 24; Soils and minerals (Table 11) policy 15 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49</p>		
	<p>Policy 13: Allocating water – regional plans</p>	<p>98</p>	Method 2: Regional plan implementation	Wellington Regional Council	153
			<p>Also see – Coastal environment (Table 2) policy 5; Energy, infrastructure and waste (Table 3) policies 7 & 8 Fresh water (Table 4) policies 12, 16, 17, 18 & 19; Indigenous ecosystems (Table 6a) policy 24 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 43, 44 & 45; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 59</p>		
	<p>Policy 14: Minimising contamination in stormwater from new development – regional plans</p>	<p>99</p>	Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 34: Prepare a regional water strategy	Wellington Regional Council* and city and district councils	159
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159
			<p>Also see – Coastal environment (Table 2) policies 5 and 6; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 12, 15, 17 & 18; Indigenous ecosystems (Table 6a) policy 24; Soils and minerals (Table 11) policy 15 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49</p>		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 12 (Continued)	Policy 15: Minimising the effects of earthworks and vegetation clearance – district and regional plans	99	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council* and city and district councils	158
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159
			Method 36: Support Industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159
			Also see – Coastal environment (Table 2) policies 5 & 6; Energy, infrastructure and waste (Table 3) policy 7; Fresh water (Table 4) policies 12, 14, 17 & 18; Indigenous ecosystems (Table 6a) policies 24; Landscape (Table 7) policies 26 & 27; Natural hazards (Table 8a) policy 29 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 42, 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 36: Support Industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159
			Also see – Coastal environment (Table 2) policy 5; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 12, 14, 15, 17 & 18; Indigenous ecosystems (Table 6a) policy 24; Soils and minerals (Table 11) policy 15 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Resource management with tangata whenua (Table 10) policies 48 & 49		
			Method 2: Regional plan implementation	Wellington Regional Council	153
Policy 16: Promoting discharges to land – regional plans	100				
Policy 17: Water allocation and use for the health needs of people – regional plans	101				

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 12 (Continued)	Policy 40: Safeguarding aquatic ecosystem health in water bodies – consideration	120	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	153	
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159	
			Method 36: Support Industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159	
		Also consider – Coastal environment (Table 2) policies 6, 35 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 41, 42 & 43; Indigenous ecosystems (Table 6a) policy 47; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49				
	Policy 41: Minimising the effects of earthworks and vegetation disturbance – consideration	121	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and City and district councils	153	
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council* and city and district councils	158	
			Method 36: Support Industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159	
		Also consider – Coastal environment (Table 2) policies 6, 35, 36, 37 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 42, 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60				
	Policy 42: Minimising contamination in stormwater from development – consideration	122	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and City and district councils	153	
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159	
	Also consider – Coastal environment (Table 2) policies 6, 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49					

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 13 The region's rivers, lakes and wetlands support healthy functioning ecosystems.	Policy 18: Protecting aquatic ecological function of water bodies – regional plans	101	Method 2: Regional plan implementation Method 29: Take a whole of catchment approach to works, operations and services	Wellington Regional Council Wellington Regional Council* and city and district councils	153 158
		102	Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and City and district councils	158
		Policy 19: Managing amenity, recreational and indigenous biodiversity values of rivers and lakes – regional plans	Also see – Coastal environment (Table 2) policies 5 & 6; Energy, infrastructure and waste (Table 3) policies 8 & 9; Fresh water (Table 4) policies 12, 14, 15 & 19; Indigenous ecosystems (Table 6a) policy 24; Soils and minerals (Table 11) policy 15 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41 & 43; Indigenous ecosystems (Table 6a) policy 47; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49	Method 2: Regional plan implementation	Wellington Regional Council
Policy 43: Protecting aquatic ecological function of water bodies – consideration	Policy 64: Supporting a whole of catchment approach – non-regulatory	122	Method 4: Resource consents; notices of requirement and when changing, varying or reviewing plans Method 29: Take a whole of catchment approach to works, operations and services	Wellington Regional Council and City and district councils Wellington Regional Council* and city and district councils	153 158
		143	Method 8: Information about restoration and enhancement of degraded water bodies and the natural character of the coastal environment	Wellington Regional Council	155
			Method 11: Information about water conservation and efficient use	Wellington Regional Council and city and district councils	155
		Method 29: Take a whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	158	
Method 53: Support community restoration initiatives for the coastal environment, rivers lakes and wetlands	Wellington Regional Council and City and district councils	162			

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 14 Fresh water available for use and development is allocated and used efficiently.	Policy 19: Using water efficiently – regional plans	102	Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 34: Prepare a regional water strategy	Wellington Regional Council* and city and district councils	159	
			Method 36: Support industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159	
			Method 47: Investigate the use of transferable water permits	Wellington Regional Council	161	
			Also see – Coastal environment (Table 2) policy 5, Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 12, 13 & 18 and consider – Coastal environment (Table 2) policies 37 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 40, 43 & 44; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60			
	Policy 44: Managing water takes to ensure efficient use – consideration	123	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council	153	
	Policy 45: Using water efficiently – consideration	124	Also consider – Coastal environment (Table 2) policy 40, Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 40, 43 & 45; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	153
				Method 36: Support industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159
				Also consider – Coastal environment (Table 2) policy 40, Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 40, 43 & 44; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 59		
	Policy 65: Promoting efficient use and conservation of resources – non-regulatory	144		Method 11: Information about water conservation and efficient use	Wellington Regional Council and City and district councils	155
Method 34: Prepare a regional water strategy				Wellington Regional Council* and city and district councils	159	
Method 48: Investigate the use of transferable water permits				Wellington Regional Council	161	
	Method 56: Assist the community to reduce waste, and use water and energy efficiently		Method 56: Assist the community to reduce waste, and use water and energy efficiently	Wellington Regional Council and City and district councils	162	

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 8 Public access to and along the coastal marine area, lakes and rivers is enhanced (Objective 8 is shared for the coastal environment and fresh water).	Policy 53: Public access to and along the coastal marine area, lakes and rivers – consideration	132	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	153
			Method 51: Identify areas for improved public access Also consider – Coastal environment (Table 2) policies 35 & 36; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 51; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council* and city and district councils	161



3.5 Historic heritage

Historic heritage provides a connection to those who lived before us. It helps us define who we are and contributes to our sense of place. Once destroyed, it cannot be replaced.

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 Māori, 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.

In the Wellington region, there is a wide range of historic heritage resources. The region's built heritage documents important aspects of our past. Archaeological sites contain evidence of how people have lived in the past, perhaps for centuries. For tangata whenua, there are many sites of cultural significance that provide important connections with ancestors.

In the Wellington region, many heritage places still retain high integrity and are in good condition. However, some have suffered from inappropriate subdivision, use and development. Incremental development is resulting in a loss of historic heritage in some of some of the region's towns, particularly in higher density inner centres where heritage buildings are being inappropriately modified or replaced by new buildings. Archaeological sites have been destroyed, sometimes without being properly recorded, and the evidence they contained about life in the past can never be recovered.

Since 2003, Wellington Regional Council and the region's district and city 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. Councils have improved district plan protection for historic heritage since this change. All district and city councils in the Wellington region require resource consent for the demolition, relocation or for substantial alterations of heritage buildings listed in plans. However, more work is still required, particularly for archaeological sites.

The regionally significant issue and the issue of significance to the Wellington region's iwi authorities for historic heritage is:

1. Inappropriate modification and destruction of historic heritage.

Loss of heritage values as a result of inappropriate modification, use and destruction of historic heritage.

Table 5: Historic heritage Objective 15

Table 10: Resource management with tangata whenua Objective 28

Table 5: Historic heritage objective and titles of policies and methods to achieve the objective

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 15 Historic heritage is identified and protected from inappropriate modification, use and development.	Policy 21: Identifying places, sites and areas with significant historic heritage values— district and regional plans	102	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 20: Information to assist with the identification of places, sites and areas with significant historic heritage values	Wellington Regional Council* and city and district councils	156
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 4 & 6; Indigenous ecosystems (Table 6a) policy 23; Landscape (Table 7) policies 25 & 27; Regional form, design and function (Table 9) policies 30 & 31 and consider – Coastal environment (Table 2) policy 36 & 53; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 22: Protecting historic heritage values – district and regional plans	104	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 46: Managing effects on historic heritage values – consideration	124	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Also consider – Coastal environment (Table 2) policies 6, 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		



3.6 Indigenous ecosystems

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

As well as contributing to the region's natural character and having their own intrinsic values, healthy ecosystems provide us with life's essentials – such as plants and animals for food, fibre for clothing, timber for construction. This is true even in an industrialised age, although the connections are less immediately obvious. Healthy ecosystems supply us with 'services' that support life on this planet – such as:

- Processes to 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 diverse natural processes that drive ecosystems are as important as the biodiversity values 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 Māori cultural values, whereby harm to mauri 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 customary purposes.

The Wellington region has a distinctive range of ecosystems – such as forests, mountains, wetlands, lakes, rivers and coastal and marine ecosystems. Some ecosystems have a high degree of indigenesness – such as the Tararua, Rimutaka and Aorangi ranges, while others are dominated by exotic species – such as pastoral farmlands.

The area of indigenous ecosystems has been in decline since humans first settled in our region. This loss greatly accelerated from the time of European settlement. Around 70 per cent of the indigenous forest and more than 90 per cent of the wetlands that existed in 1840, have been cleared for agriculture and urban development. Most of the remaining forest and wetlands and dune systems have been degraded or modified in some way. In addition, many of the processes that ensure ecosystems remain healthy and viable into the future have been compromised, including reproduction, recruitment, dispersal and migration.

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 development
- Draining wetlands and channelling or piping of natural waterways
- Contamination of coastal ecosystems by stormwater and sewage discharges

The restoration of ecosystems relies upon the good will and actions of landowners. There are a number of individuals and organisations throughout the region that are working to restore indigenous ecosystems. The restoration of indigenous ecosystems on private land provides both public and private benefit.

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 and the issues of significance to the Wellington region's iwi authorities for indigenous ecosystems are:

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

The region's indigenous ecosystems have been significantly reduced in extent, specifically:

- (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

The region's remaining indigenous ecosystems continue to be degraded or lost.

Table 6a: Indigenous ecosystems
Objective 16

Table 6a: Indigenous ecosystems
Objective 16

Table 6 (a): Indigenous ecosystems objective and titles of policies and methods to achieve the objective

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 16 Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state.	Policy 23: Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans	104	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 21: Information to assist with the identification of indigenous ecosystems and habitats with significant biodiversity values	Wellington Regional Council* and city and district councils	156
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 4 & 6; Historic heritage (Table 5) policy 21; Indigenous ecosystems (Table 6b) policy 61; Landscape (Table 7) policies 25 & 27 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Fresh water (Table 4) policies 43 & 53; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans	105	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6b) policy 61; Landscape (Table 7) policies 26 & 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 43 & 53; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		
	Policy 47: Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values – consideration	125	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Also consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 43 & 53; Indigenous ecosystems (Table 6a) policy 47 & (Table 6b) policy 61; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54; Resource management with tangata whenua (Table 10) policies 48 & 49		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 16 (Continued)	Policy 64: Supporting a whole of catchment approach – non-regulatory	143	Method 12: Information about techniques to maintain and enhance indigenous ecosystems	Wellington Regional Council and city and district councils	155
			Method 29: Take a whole of catchment approach to works, operations and services	Wellington Regional Council* and city and district councils	158
			Method 53: Support community restoration initiatives for the coastal environment, rivers lakes and wetlands	Wellington Regional Council and city and district councils	162
			Method 54: Assist landowners to maintain, enhance and restore indigenous ecosystems	Wellington Regional Council and city and district councils	162

Table 6 (b): Allocation of functions for indigenous biodiversity in accordance with the Resource Management Act

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Section 62(1)(i)(iii) "Content of regional policy statements".	Policy 61: Allocation of responsibilities for land use controls for indigenous biodiversity	139	Method 5: Allocation of responsibilities	Wellington Regional Council and city and district councils	154
			Also see – coastal environment (Table 2) policy 5; Fresh water (Table 4) policies 12, 18 & 19; Indigenous ecosystems (Table 6) policies 23, 24, 47, 48 & 64		



3.7 Landscape

Landscape is shaped by a combination of natural processes and human actions. The biophysical processes over time – such as plate tectonics, weathering, landslides, water flow, climate and the influence of plants and animals – are overlaid by the effects of a wide range of human activities. Landscape is the cumulative expression of natural and cultural elements, patterns and processes in a geographical area.

Landscapes influence our sense of identity and our experiences of the places in which we live. Landscapes also influence how visitors and other people from other countries perceive us and our country. New Zealand has an international reputation for having a diversity of natural landscapes and Wellington's landscapes are as diverse as those of any region. Wellington's distinctive landscapes range from forested mountain ranges, rolling pastures, crowded urban hills and valleys, river plains and coastal dunelands, to sheltered harbours, estuaries, wild coasts and islands. We attribute different values to these landscapes, depending on their characteristics and our own culture, personal history, relationship with the land and notions about what is significant.

While all landscapes have value, the significance of those values differs. It is important that this is recognised in the way the values of landscapes are assessed and managed. Landscapes are dynamic and landscape change is inevitable, even without human activity or intervention. Some land use activities such as farming have played a pivotal role in shaping certain landscapes that are highly valued by many people. Other land uses such as poorly planned and designed urban subdivision have eroded or compromised some landscapes.

In the Wellington region there is an increasing awareness about the value of the region's landscapes and the way they are managed. The Resource Management Act requires the identification and protection of outstanding natural features and landscapes. The management of landscape more generally is inherent in the concept of sustainable management and maintaining and enhancing amenity and the quality of the environment. Within the region there are landscapes which are not outstanding natural landscapes but are distinctive, widely recognized and highly valued by the community for their contribution to amenity and the quality of the environment. These landscapes tend to be modified urban and rural environments, such as areas of the coast and prominent hilltops and ridgelines. The general amenity provisions of district and regional plans may not be suitably focused to manage the values of these landscapes, and nor would it be appropriate to strain the interpretation of outstanding natural landscapes in order to allow more careful management of these landscapes.

To be able to manage the region sustainably, an understanding of the landscape resource is required. This is an important first step, which describes the intrinsic values of these landscapes and identifies the type and nature of land uses and other changes that could potentially affect these values in either a positive or negative manner.

Landscapes do not start and finish at district and regional boundaries and are often viewed and appreciated from a distance, sometimes across boundaries. Using a consistent process to assess all of the region's landscapes against the same set of factors or criteria enables landscapes to be classified into one of the above categories, and ensures regional consistency in landscape assessment. Consistency is particularly important where landscapes cross territorial authority boundaries and/or are visible from multiple districts.

Landscapes can be broadly categorised into three groupings:

1. The first group covers 'outstanding' natural features and landscapes. These are considered to be exceptional and iconic, and while not necessarily pristine, they are landscapes in which natural elements and processes dominate. The Resource Management Act requires the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.
2. The second group covers special amenity landscapes. These are highly valued for their visual and physical attributes which contribute to landscape amenity and the quality of the environment. While these special 'amenity landscapes' may be more modified than the outstanding natural landscapes and features, they are none the less distinctive, widely recognised and highly valued by the community. Community recognition and value can manifest itself in various ways and an important part of the evaluation process is to describe and articulate the recognition and value of such landscapes. The values of special amenity landscapes should be managed to maintain or enhance these values.
3. The third group covers all other landscapes. These landscapes contribute to the amenity and character of the region and are managed through the general amenity provisions in local authority plans. Impacts on these landscapes are not considered to be a regionally significant issue.

As with many places, distinctive aspects of some of the region's landscapes are at risk of being altered or degraded due to ongoing pressure to utilise and develop the land resource. For example, earthworks and other landform modifications, plantation forestry, poorly planned and designed subdivisions and poorly sited and designed buildings or other structures can impact adversely on landscape values. Current pressures include large-scale earthworks and rural residential developments. Consequently, there is a need to manage landscape change. The management of landscape values may be more problematic where the area is a working environment, as is much of rural Wairarapa, and/or where the area is required for the economic and social wellbeing of the area. There is a need therefore to manage change in a way that allows for ongoing use or development.

The potential pressure on the landscape values of outstanding natural landscapes, special amenity landscapes or other landscapes do not differ in nature. However, the capacity of each landscape grouping to absorb different activities without affecting the landscape values does differ, so each requires different thresholds for management of those activities. For example, the scope for change within special amenity landscapes without losing their landscape values will be greater than for outstanding features and landscapes.

The regionally significant issues and issues of significance to the Wellington region's iwi authorities for landscape are:

1. The inappropriate modification of the characteristics of outstanding natural features and landscapes that make them outstanding and natural.
2. The inappropriate modification of the characteristics of special amenity landscapes that makes them distinctive, widely recognised, and highly valued by the community.
3. Inconsistency in the identification of landscapes across the Wellington region may result in discrepancies in the management of landscapes and landscape values, including those which cross local authority boundaries.

Table 7: Landscape Objectives 17 & 18

Table 7: Landscape objective and titles of policies and methods to achieve the objective

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
<p>Objective 17 The region's outstanding natural features and landscapes are identified and their landscape values protected from inappropriate subdivision, use and development.</p>	<p>Policy 25: Identifying outstanding natural features and landscapes – district and regional plans</p>	<p>106</p>	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Method 50: Prepare a regional landscape character description	Wellington Regional Council* and city and district councils	161
<p>Policy 26: Protecting outstanding natural features and landscape values – district and regional plans</p>	<p>107</p>	<p>Also see – Coastal environment (Table 2) policy 4; Historic heritage (Table 5) policy 21; Indigenous ecosystems (Table 6a) policy 23; Landscape (Table 7) policy 27 and consider – Coastal environment (Table 2) policies 36 & 53; Resource management with tangata whenua (Table 10) policies 48 & 49</p>	Method 1: District plan implementation	City and district councils	153
			Method 2: Regional plan implementation	Wellington Regional Council	153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Also see – Coastal environment (Table 2) policy 3; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 28 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		
<p>Policy 50: Managing effects on outstanding natural features and landscapes – consideration</p>	<p>129</p>	<p>Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans</p>	Wellington Regional Council and city and district councils	153	
			Also consider – Coastal environment (Table 2) policies 6, 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 18 The region's special amenity landscapes are identified and those landscape values that contribute to amenity and the quality of the environment are maintained or enhanced.	Policy 27: Identifying special amenity landscapes – district and regional plans	107	Method 1: District plan implementation Method 2: Regional plan implementation	City and district councils Wellington Regional Council	153 153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values Method 50: Prepare a regional landscape character description	Wellington Regional Council and city and district councils Wellington Regional Council* and city and district councils	158 161
	Policy 28: Managing special amenity landscape values – district and regional plans	108	Method 1: District plan implementation Method 2: Regional plan implementation	City and district councils Wellington Regional Council	153 153
			Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values Also see – Coastal environment (Table 2) policies 3 & 6; Energy, infrastructure and waste (Table 3) policy 8; Fresh water (Table 4) policies 18 & 19; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policy 26 and consider – Coastal environment (Table 2) policies 35, 36 & 53; Energy, infrastructure and waste (Table 3) policy 39; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60	Wellington Regional Council and city and district councils	158



3.8 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, landslide, subsidence, sedimentation, wind, drought, fire, or flooding) which may adversely affect human life, property, or other aspects of the environment. On their own, natural processes do not constitute a hazard. Natural events become hazardous when they may 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 types of natural 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, Kāpiti Coast and towns in Wairarapa District
- **Flooding:** Major river flooding in the Hutt valley, Kāpiti Coast and the central Wairarapa plains. 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 Kāpiti 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 areas – such as Porirua – around tributary streams of the larger rivers – such as the Hutt River – and in areas that have short steep catchments – such as Paekākāriki
- **Coastal erosion and inundation**, often associated with storm surge, affects some seafront and low lying coastal developments in the region. Some sections of the coastline are in long term retreat – such as Paekākāriki 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 the hill suburbs of Wellington city, the Hutt valley, Eastbourne, Wainuiomata, Paekākāriki and in the Wairarapa hill country

- Drought, especially in central Wairarapa and the coastal hills between Flat Point and Castlepoint
- Wild fire, particularly in hill suburbs on urban fringes near heavily vegetated slopes, including western and southern Wellington suburbs, Eastbourne, Wainuiomata, 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 rivers and streams, 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 areas at high risk from natural hazards, can cause or increase the risk from natural hazards. Examples include seawalls or groynes that can cause localised erosion of the adjacent shoreline, and building on landslip prone slopes. Stopbanks and seawalls can also create a sense of security and encourage further development, increasing the extent and value of the assets at risk.

In the medium to long term, climate change effects have the potential to increase both the frequency and magnitude of natural hazard events that already occur in the region.

A major consequence of climate change is sea level rise. The sea level is expected to rise over half a metre by 2100¹. 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 exacerbate 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. Higher 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 central and eastern Wairarapa will become drier over the next 100 years. Droughts will occur more frequently and persist for longer periods. Research suggests that winter rainfall will decline in the long term, which may lead to a reduction in groundwater recharge rates and pressure on water resources. Dry conditions also result in a heightened risk of wild fire.

¹ Intergovernmental Panel on Climate Change (IPCC) (2007), *Climate Change 2007: The Physical Science Basis*. Summary for Policymakers. Contribution of working group I to the fourth assessment report of the IPCC, 18pp.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities 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.

Table 8a: Natural hazards
Objectives 19, 20 & 21

2. Human actions can increase risk and consequences from natural hazards

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

Table 8a: Natural hazards
Objective 21

3. Climate change will increase both the magnitude and frequency of natural hazard events

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

Table 8a: Natural hazards
Objectives 19, 20 & 21

- (a) sea level rise, exacerbating the effects of coastal erosion and inundation and river flooding in low lying areas, especially during storm surge
- (b) increased frequency and intensity of storm events, adding to the risk from floods, landslides, severe wind, storm surge, coastal erosion and inundation
- (c) increased frequency of drought, placing pressure on water resources and increasing the wild fire risk

Table 8(a): Natural hazards objectives and titles of policies and methods to achieve the objectives

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 19 The risks and consequences to people, communities, their businesses, property and infrastructure from natural hazards and climate change effects are reduced.	Policy 29: Avoiding inappropriate subdivision and development in areas at high risk from natural hazards – district and regional plans	109	Method 1: District plan implementation	City and district councils	153	
			Method 2: Regional plan implementation	Wellington Regional Council	153	
			Method 14: Information about natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	155	
			Method 22: Information about areas at high risk from natural hazards	Wellington Regional Council* and city and district councils	157	
	Also see – Coastal environment (Table 2) policy 3; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 14 & 17; Natural hazards (Table 8b) policy 62; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49					
	Policy 51: Minimising the risks and consequences of natural hazards – consideration	130	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 14: Information about natural hazard and climate change effects	Wellington Regional Council and city and district councils Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	153 155	
Objective 20 Hazard mitigation measures, structural works and other activities do not increase the risk and consequences of natural hazard events.	Policy 52: Minimising adverse effects of hazard mitigation measures – consideration	131	Method 22: Information about areas at high risk from natural hazards	Wellington Regional Council* and city and district councils	157	
			Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49			
			Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153	
			Method 14: Information about natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	155	
	Method 23: Information about natural features to protect property from natural hazards		Method 22: Information about areas at high risk from natural hazards	Wellington Regional Council* and city and district councils	157	
	Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49					

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page		
Objective 21 Communities are more resilient to natural hazards, including the impacts of climate change, and people are better prepared for the consequences of natural hazard events.	Policy 29: Avoiding inappropriate subdivision and development in areas at high risk from natural hazards – district and regional plans	109	Method 1: District plan implementation	City and district councils	153		
			Method 2: Regional plan implementation	Wellington Regional Council	153		
			Method 14: Information about natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	155		
			Method 22: Information about areas at high risk from natural hazards	Wellington Regional Council* and city and district councils	157		
			Also see – Coastal environment (Table 2) policy 3; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policies 15 & 17; Natural hazards (Table 8b) policy 62; Regional form, design and function (Table 9) policies 30, 31 & 32 and consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49				
			Policy 51: Minimising the risks and consequences of natural hazards – consideration	130	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
					Method 14: Information about natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	155
					Method 22: Information about areas at high risk from natural hazards	Wellington Regional Council* and city and district councils	157
					Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49		
			Policy 52: Minimising adverse effects of hazard mitigation measures – consideration	131	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
Method 14: Information about natural hazard and climate change effects	Wellington Regional Council*, city and district councils and Civil Defence Emergency Management Group	155					
Method 23: Information about natural features to protect property from natural hazards	Wellington Regional Council* and city and district councils	157					
Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policy 43; Natural hazards (Table 8a) policy 51; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49							

Table 8(b): Allocation of functions for natural hazards in accordance with the Resource Management Act

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Section 62(1)(i) "Content of regional policy statements".	Policy 62: Allocation of responsibilities for land use controls for natural hazards	140	Method 5: Allocation of responsibilities	Wellington Regional Council and city and district councils	154
			Also see – Natural hazards (Table 8a) policies 29, 51 & 52		



3.9 Regional form, design and function

Regional form is about the physical arrangement within and between urban and rural communities. Good urban design seeks to ensure that the design of buildings, places, spaces and networks work well for communities and are environmentally responsive. A compact and well designed regional form enhances the quality of life for residents as it is easier to get around, allows for a greater choice of housing, close to where people work or to public transport, town centres are vibrant, safe and cohesive, and business activity is enhanced. Energy consumption and carbon emissions are also reduced. Communities and businesses are more resilient to oil shortages or crisis, and there is reduced pressure for new infrastructure and more efficient use of existing infrastructure.

Central Wellington city contains the central business district for the region. Its continued viability, vibrancy and accessibility are important to the whole region. There are also a number of other regionally significant centres that are an important part of the region's form. These are the sub-regional city centres of Upper Hutt city centre, Lower Hutt city centre, Porirua city centre, Masterton town centre, Paraparaumu town centre, and the suburban centres in Petone, Johnsonville and Kilbirnie. These centres are significant areas of transport movement and civic and community investment. They also have the potential to support new development and increase the range and diversity of activities. Good quality medium density housing in these centres could increase housing choice and the use of services and public transport. Encouraging use and development of existing centres of business activity can also lead to social and economic benefits. Additional local employment around these centres could also provide people with greater choice about where they work. The physical arrangement of urban and rural communities/smaller centres, the region's industrial business areas, the port, the airport, the road and public transport network, and the region's open space network are fundamental to a compact and well designed regional form.

The region has a strong corridor pattern, yet is generally compact. The transport corridor pattern includes State Highway 1 and the North Island Main Trunk rail line which enters the region near Ōtaki and extends southwards through Kāpiti 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.

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

There are, however, parts of the region where growth pressures exist and where the region's current compact form is beginning to fray at the edges, reducing transport efficiency and the ability of some centres to grow as community service and employment areas. 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.

In certain locations, the region's urban design has also been weakened by poorly designed developments which negatively affect the look, feel, health, safety, vitality and vibrancy of those areas.

The region's form, design and function have been examined by the region's nine local authorities, in conjunction with the region's iwi authorities, central government and business, education, research and voluntary sector interests, as part of the development of the Wellington Regional Strategy (2007), a sustainable economic growth strategy for the Wellington region. The Wellington Regional Strategy focuses on leadership and partnership, growing the region's economy and good regional form. It is recognised that the region's form is a key component to making the Wellington region 'internationally competitive'.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities for regional form, design and function are:

Table 9: Regional form, design and function Objective 22

1. Poor quality urban design

Poor quality urban design can adversely affect public health, social equity, land values, the vibrancy of local centres and economies, and the provision of, and access to, civic services. It can also increase the use of non-renewable resources and vehicle emissions in the region.

Table 9: Regional form, design and function Objective 22

2. Sporadic, uncontrolled and/or uncoordinated development

Sporadic, uncontrolled and/or uncoordinated, development (including of infrastructure) can adversely affect the region's compact form. This can, among other things, result in:

- (a) new development that is poorly located in relation to existing infrastructure (such as roads, sewage and stormwater systems) and is costly or otherwise difficult to service
- (b) development in locations that restrict access to the significant physical resource in the region – such as aggregate
- (c) the loss of rural or open space land valued for its productive, ecological, aesthetic and recreational qualities
- (d) insufficient population densities to support public transport and other public services
- (e) development in locations that undermine existing centres and industrial employment areas
- (f) loss of vitality and/or viability in the region's central business district and other centres of regional significance
- (g) displacement of industrial employment activities from established industrial areas
- (h) adverse effects on the management, use and operation of infrastructure from incompatible land uses under, over, on or adjacent.

3. Integration of land use and transportation

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 private motor vehicles, resulting in:

- (a) increased emissions to 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 (such as walking and cycling), increased community severance, and increased costs associated with upgrading roads
- (d) increased road congestion leading to restricted movement of goods and services to, from and within the region, and compromising the efficient and safe operation of the transport network
- (e) inefficient use of existing infrastructure (including transport orientated infrastructure).

Table 3: Energy, infrastructure and waste

Objective 10

Table 9: Regional form, design and function

Objective 22

Table 9: Regional form, design and function objective and titles of policies and methods to achieve the objective

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 22 A compact well designed and sustainable regional form that has an integrated, safe and responsive transport network and:	Policy 30: Maintaining and enhancing the viability and vibrancy of regionally significant centres – district plans	111	Method 1: District plan implementation	City and district councils	153
		160	Method 42: Develop visions for the regionally significant centres	Wellington Regional Strategy	160
(a) a viable and vibrant regional central business district in Wellington city;	Method 43: Develop principles for retail activities	160	Method 43: Develop principles for retail activities	Wellington Regional Strategy	160
			Also see – Air quality (Table 1) policy 1; Energy, infrastructure and waste (Table 3) policies 7 & 8; Fresh water (Table 4) policy 15; Historic heritage (Table 5) policy 22; Indigenous ecosystems (Table 6a) policy 24; Landscape (Table 7) policies 26 & 28; Natural hazards (Table 8a) policy 29; Regional form, design and function (Table 9) policies 31 & 32; Soils and minerals (Table 11) policy 34 and consider – Coastal environment (Table 2) policies 35, 36, 37 & 38; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49		
(b) an increased range and diversity of activities in and around the regionally significant centres to maintain vibrancy and vitality ² ;	Policy 31: Identifying and promoting higher density and mixed use development – district plans	111	Method 1: District plan implementation	City and district councils	153
(c) sufficient industrial-based employment locations or capacity to meet the region's needs;			Method 16: Information about key locations with good access to the strategic public transport network	Wellington Regional Council*, city and district councils	156
(d) development and/or management of the Regional Focus Areas identified in the Wellington Regional Strategy ³ ;	Policy 32: Identifying and protecting key industrial-based employment locations – district plans	113	Method 1: District plan implementation	City and district councils	153
(e) urban development in existing urban areas, or when beyond urban areas, development that reinforces the region's existing urban form;			Method 44: Analysis of industrial employment locations	Wellington Regional Strategy	160
(f) strategically planned rural development;	Policy 33: Supporting a compact, well designed and sustainable regional form – Regional Land Transport Strategy	113	Method 1: District plan implementation	City and district councils	153
(g) a range of housing (including affordable housing);			Method 44: Analysis of industrial employment locations	Wellington Regional Strategy	160
(h) integrated public open spaces;	Policy 33: Supporting a compact, well designed and sustainable regional form – Regional Land Transport Strategy	113	Method 1: District plan implementation	City and district councils	153
(i) integrated land use and transportation;			Method 44: Analysis of industrial employment locations	Wellington Regional Strategy	160
(j) improved east-west transport linkages;	Policy 33: Supporting a compact, well designed and sustainable regional form – Regional Land Transport Strategy	113	Method 1: District plan implementation	City and district councils	153
(k) efficiently use existing infrastructure (including transport network infrastructure); and			Method 44: Analysis of industrial employment locations	Wellington Regional Strategy	160
(l) essential social services to meet the region's needs.	Policy 33: Supporting a compact, well designed and sustainable regional form – Regional Land Transport Strategy	113	Method 1: District plan implementation	City and district councils	153
			Method 44: Analysis of industrial employment locations	Wellington Regional Strategy	160

² The regional significant centres are the sub-regional centres of Upper Hutt city centre; Lower Hutt city centre; Porirua city centre; Paraparaumu town centre; Masterton town centre and the suburban centres in Petone; Kilmirnie and Johnsonville.

³ The Regional Focus Areas are described on pages 38 to 39 of the Wellington Regional Strategy (2007). They are areas of critical importance to the achievement of the region's compact form and are predicted to either come under significant development pressure or provide significant development opportunity for a range of land use activities.

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 22 (Continued)	Policy 54: Achieving the region's urban design principles – consideration	133	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Coastal environment (Table 2) policies 35, 36, 37 & 38; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 45; Historic heritage (Table 5) policies 46; Indigenous ecosystems (Table 6a) policies 47; Landscape (Table 7) policies 50; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policies 59 & 60	Wellington Regional Council, city and district councils	153
	Policy 55: Maintaining a compact, well designed and sustainable regional form – consideration	133	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 18: Regional structure planning guide	City and district councils Wellington Regional Council*, city and district councils	153 156
	Policy 56: Managing development in rural areas – consideration	135	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Coastal environment (Table 2) policies 6, 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 45; Historic heritage (Table 5) policies 46; Indigenous ecosystems (Table 6a) policies 47; Landscape (Table 7) policies 50; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policies 59 & 60	City and district councils	153
	Policy 57: Integrating land use and transportation – consideration	135	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Coastal environment (Table 2) policies 6, 35, 36 & 37; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 45; Historic heritage (Table 5) policies 46; Indigenous ecosystems (Table 6a) policies 47; Landscape (Table 7) policies 50; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 55, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policies 59 & 60	City and district councils	153
				Method 25: Information about the provision of walking, cycling and public transport for development Also consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policies 54, 55, 56 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60	Wellington Regional Council

Objective	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 22 (Continued)	Policy 58: Co-ordinating land use with development and operation of infrastructure – consideration	136	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Also consider – Energy, infrastructure and waste (Table 3) policy 39; Regional form, design and function (Table 9) policies 54, 55, 56 & 57; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60	City and district councils	153
	Policy 60: Utilising the region's mineral resources – consideration	137	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 52: Identify the region's significant mineral resources Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Fresh water (Table 4) policies 43 & 44; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 56; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council and city and district councils Wellington Regional Council* and city and district councils	153 161
	Policy 67: Maintaining and enhancing a compact, well designed and sustainable regional form – non-regulatory	145	Method 40: Sign the New Zealand Urban Design Protocol Method 41: Integrate public open space Method 45: Develop principles for rural-residential use and development Method 46: Develop strategies or development frameworks for each Regional Focus Area Method 47: Analysis of the range and affordability of housing in the region Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Energy, infrastructure and waste (Table 3) policies 39; Fresh water (Table 4) policies 40, 41, 42, 43 & 45; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policies 51 & 52; Regional form, design and function (Table 9) policies 54, 55, 56, 57 & 58; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policies 59 & 60	Wellington Regional Council and city and district councils Wellington Regional Strategy Wellington Regional Strategy Wellington Regional Strategy Wellington Regional Strategy	160 160 160 161



3.10 Resource management with tangata whenua

Tangata whenua have a special relationship with the land, air, water and natural resources. Various terms are used to describe tangata whenua of the Wellington region, including iwi, hapū, whānau, marae, and iwi authorities. Iwi are tribes, groups of Māori linked by common ancestry and with a common history. Hapū are sub-tribes, social and political units based on descent from a common ancestor. Whānau 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 hapū or whānau 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 Māori 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 this 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 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 and sewage; runoff of contaminants from land; excessive water use; changing the course of water bodies, or diverting water between catchments or rivers. Māori consider that rivers are the life blood of the land and that the wellbeing of natural resources 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 use also threatens mahinga kai (customary food gathering) and natural resources used for customary purposes. Tangata whenua are also sometimes prevented from accessing sites where customary resources are found. Degradation or loss of ngā kai (traditional foods), mātaītai (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 manaakitanga (their responsibilities of care for guests). Foods of traditional 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 led to widespread destruction and degradation of places, sites and areas with spiritual, cultural or historic heritage value of significance to tangata whenua.

The additional resource management issues of significance to iwi authorities in the Wellington region and issues of regional significance 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 mauri, particularly in relation to fresh and coastal waters.

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 spiritual and cultural historic heritage values

Degradation and destruction of places, sites and areas with spiritual, cultural or historic heritage value to tangata whenua.

Table 10: Resource management with tangata whenua Objectives 23, 24 & 25

Table 10: Resource management with tangata whenua Objective 26

Table 10: Resource management with tangata whenua Objective 27

Table 10: Resource management with tangata whenua Objective 28

Table 10: Resource management with tangata whenua objectives and titles of policies and methods to achieve the objectives

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 23 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.	Policy 66: Enhancing involvement of tangata whenua in resource management decision-making – non-regulatory	145	Method 32: Engagement with tangata whenua, stakeholders, landowners and the community in the identification and protection of significant values	Wellington Regional Council and city and district councils	158
			Method 37: Involve tangata whenua in resource management decision making	Wellington Regional Council and city and district councils	159
			Method 38: Iwi authorities prepare planning documents	Iwi authorities*, Wellington Regional Council and city and district councils	159
Consider alongside policies 1 to 60					
Objective 24 The principles of the Treaty of Waitangi are taken into account in a systematic way when resource management decisions are made.	Policy 48: Principles of the Treaty of Waitangi – consideration	125	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Method 19: Information to assist with the application of the Treaty of Waitangi principles in the region	Iwi authorities*, Wellington Regional Council and city and district councils	156
Consider alongside policies 1 to 60					
Objective 25 The concept of kaitiakitanga is integrated into the sustainable management of the Wellington region's natural and physical resources.	Policy 49: Recognising and providing for matters of significance to tangata whenua – consideration	127	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Method 38: Iwi authorities prepare planning documents	Iwi authorities*, Wellington Regional Council and city and district councils	159
Consider alongside policies 1 to 60					
Objective 26 Mauri is sustained, particularly in relation to coastal and fresh waters.	Policy 49: Recognising and providing for matters of significance to tangata whenua – consideration	127	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Method 38: Iwi authorities prepare planning documents	Iwi authorities*, Wellington Regional Council and city and district councils	159
Other topic policies that have an important role in achieving objective 26 are:					
Policy 3: Protecting high natural character in the coastal environment – district and regional plans					
Policy 5: Maintaining and enhancing coastal water quality for aquatic ecosystem health – regional plans					
Policy 12: Management purposes for surface water bodies – regional plans					
Policy 16: Promoting discharges to land – regional plans					
Policy 18: Protecting aquatic ecological function of water bodies – regional plans					

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 27 Mahinga kai and natural resources used for customary purposes, are maintained and enhanced, and these resources are healthy and accessible to tangata whenua.	Policy 49: Recognising and providing for matters of significance to tangata whenua – consideration	127	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Method 38: Iwi authorities prepare planning documents	Iwi authorities*, Wellington Regional Council and city and district councils	159
			Method 39: Prepare protocols for tangata whenua access to mahinga kai and natural resources used for customary purposes on public land	Iwi authorities, Wellington Regional Council and city and district councils	160
	Other topic policies that have an important role in achieving objective 27 are: Policy 3: Protecting high natural character in the coastal environment – district and regional plans Policy 5: Maintaining and enhancing coastal water quality for aquatic ecosystem health – regional plans Policy 12: Management purposes for surface water bodies – regional plans Policy 18: Protecting aquatic ecological function of waterbodies – regional plans Policy 23: Identifying indigenous ecosystems and habitats with significant biodiversity values – district and regional plans Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans				
Objective 28 The cultural relationship of Māori with their ancestral lands, water, sites, wāhi tapu and other taonga is maintained.	Policy 49: Recognising and providing for matters of significance to tangata whenua – consideration	127	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	Wellington Regional Council and city and district councils	153
			Method 13: Information about best practice for earthworks to protect Māori archaeological sites, other significant sites and kōiwi	Iwi authorities, Wellington Regional Council and city and district councils	155
			Method 38: Iwi authorities prepare planning documents	Iwi authorities*, Wellington Regional Council and city and district councils	159
	Other topic policies that have an important role in achieving objective 28 are: Policy 21: Identifying places, sites and areas with significant historic heritage values – district and regional plans Policy 22: Protecting historic heritage values – district and regional plans Policy 23: Identifying indigenous ecosystems and habitats with significant biodiversity values – district and regional plans Policy 24: Protecting indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans Policy 25: Identifying outstanding natural features and landscapes – district and regional plans Policy 26: Protecting outstanding natural features and landscape values – district and regional plans				



3.11 Soil and minerals

(a) Soils

The soils of the Wellington region are an important source of its economic wealth, and overall wellbeing. They perform a range of important functions – such as absorbing, retaining and channelling water; supporting and sustaining vegetation and crops; storing and treating natural, domestic, and industrial waste; providing support for buildings and other structures; and, soils are a source of valuable minerals and construction materials.

As the life-giving base element of the land, soils are a significant taonga to Māori. 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.

Five major management challenges exist for soils and minerals in the region:

- Preventing soil erosion
- Maintaining soil health
- Retaining productive soils for agricultural use
- Preventing unsafe use of contaminated sites
- 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 the formation of scree slopes.

Nearly half the land in the Wellington region has little or no sign of soil erosion. This land does not have a 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 from poor land management practices. 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), and where the removal of native vegetation or the harvesting of plantation forestry are poorly executed on erosion prone land.

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.

Long term predictions of changing weather patterns from climate change also suggest that there could be more frequent and intense rainstorm events in the region, which may cause more widespread damage to erosion prone land.

Soil health refers to the biological, chemical and physical qualities of the soil that support the soil's ecosystems. Unlike soil erosion problems, which are generally obvious, soil health problems are less evident, but no less important. Soils contain the necessary minerals and nutrients to enable plants and animals to grow. Soil health can be compromised or degraded through contamination, compaction and the loss of minerals and nutrients. Soils are resilient and their health can improve over time through certain land management practices.

Some of the land in the region has elevated levels of available phosphate, particularly horticultural land. Phosphate attaches to soil particles and, if washed off land and into rivers, can promote nuisance aquatic weed or algal growth. Some areas are more prone to these problems than others.

On land used for dairying, and to a lesser extent for horticulture, there is evidence of soil compaction and elevated nitrogen concentrations. Soil compaction reduces soil pore spaces, which reduces water infiltration and increases run-off. Soil monitoring to date shows that soil organic matter is slowly declining in arable soils in the region.

The region has a small amount of land that is suitable for multiple uses such as for growing a wide range of crops, pasture and forest, and for supporting grazing animals. This land is described as Class I and II land under the Land Use Capability classification.

Class I and II land in the region is found in the river valleys of the Ōtaki and Ruamāhanga rivers and around the townships of Ōtaki, Featherston, Greytown, Carterton, and Masterton. There is growing pressure to develop some of this land, especially around Ōtaki and Greytown. The total area of Class I land in the region is small, about 0.6 per cent of the total land area (4800 hectares). Class II land is about 1.7 per cent (13,800 hectares).

Contaminated land arises where hazardous substances are found or are reasonably likely to occur at levels that could have significant adverse effects on the environment. 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.

(b) Minerals

In the Wellington region, sand, rock, gravel and limestone are extracted from rivers, seabed, beaches, coastal cliffs and inland quarries. Oil and gas exploration are also ongoing in parts of the seabed of Wairarapa and Kāpiti. As the region's population continues to expand, the demand for mineral resources, particularly aggregate, will increase. A sustained supply of aggregate will be needed to provide for building, construction and roading projects associated with this growth but also to maintain and redevelop existing infrastructure. Resource availability or inefficiencies in obtaining such resources has the potential to impact on the timely and efficient provision of regionally significant infrastructure – in particular new roading projects.

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, processing and transportation are established nearby, the full and efficient future extraction of these resources can be compromised. Additionally, reverse sensitivity effects can arise where a new sensitive activity must either accept or protect itself from the effects associated with the working site. These effects are most likely to arise where working sites and their access routes are adjacent to residential and rural-residential subdivisions or adjacent to areas which can be subdivided. In such circumstances, the new activities would need to incorporate provisions that ensure adequate protection from potential effects such as noise, dust and visual impacts from the established activity.

Similarly, the transportation of mineral resources around, through and out of the region can give rise to adverse environmental effects and can have economic implications. There are benefits to allowing extraction and processing by extractive industries as close as possible to the location of use of the final product to avoid distributing adverse effects across a greater area than necessary to meet the need for these resources.

The regionally significant issues and the issues of significance to the Wellington region's iwi authorities 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 29 & 30

2. Reduction of soil health

Some land use practices are reducing the health and productive capability of soils.

Table 11:
Soils and minerals
Objective 30

3. Highly productive agricultural land under threat from development

Highly productive agricultural land (Class I and II land) is under threat from development, including residential development and the construction of roads.

Table 11:
Soils and minerals
Objective 30

4. Contaminated land

Some land where hazardous substances have been manufactured, used or stored – such as gas works, petrol stations, landfills, and sheep dips – have contaminated soils. Development of that land for new uses may not be safe if soils are contaminated.

Table 11:
Soils and minerals
Objective 30

5. Limited mineral resources

There are limited mineral resources in the region and demand for these will increase. A sustained supply of mineral resources is essential to provide for the well being of the regional and local communities and the people of Wellington, and for the regional economy. There are also benefits from extracting mineral resources locally.

Table 11:
Soils and minerals
Objective 31

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

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page	
Objective 29 Land management practices do not accelerate soil erosion.	Policy 15: Minimising the effects of earthworks and vegetation clearance – district and regional plans	99	Method 1: District plan implementation Method 2: Regional plan implementation	City and district councils Wellington Regional Council	153 153	
			Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council* and city and district councils	158	
			Method 35: Prepare a regional stormwater action plan	Wellington Regional Council* and city and district councils	159	
			Method 36: Support industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159	
			Also see – Coastal environment (Table 2) policies 5 & 6; Energy, infrastructure and waste (Table 3) policy 7; Fresh water (Table 4) policies 12, 14, 18 & 19; Indigenous ecosystems (Table 6a) policies 24; Landscape (Table 7) policies 26 & 28; Natural hazards (Table 8a) policy 29 and consider – Coastal environment (Table 2) policies 35, 36, 37, 38 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60			
		Policy 41: Minimising the effects of earthworks and vegetation disturbance – consideration	121	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 31: Protocols for management of earthworks and air quality between local authorities	Wellington Regional Council and city and district councils Wellington Regional Council* and city and district councils	153 158
				Method 36: Support industry-led environmental accords and codes of practice	Wellington Regional Council and city and district councils	159
				Also consider – Coastal environment (Table 2) policies 35, 36, 37 & 40; Energy, infrastructure and waste (Table 3) policy 39; Fresh water (Table 4) policies 40, 42 & 43; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Natural hazards (Table 8a) policy 52; Regional form, design and function (Table 9) policies 54, 55 & 56; Resource management with tangata whenua (Table 10) policies 48 & 49; Soils and minerals (Table 11) policy 60		
		Policy 68: Minimising soil erosion – non-regulatory	147	Method 15: Information about sustainable land management practices Method 29: Take a whole of catchment approach to works, operations and services Method 36: Support industry-led environmental accords and codes of practice Method 55: Assist landowners to protect erosion prone land	Wellington Regional Council Wellington Regional Council* and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council	156 158 159 162

Objectives	Policy titles	Page	Method titles	Implementation (* lead authority)	Page
Objective 30 Soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses.	Policy 34: Controlling activities on contaminated land – district plans	113	Method 1: District plan implementation Method 24: Database of sites at risk of contamination Method 36: Support industry-led environmental accords and codes of practice	City and district councils Wellington Regional Council Wellington Regional Council and city and district councils	153 157 159
	Policy 59: Retaining highly productive agricultural land (Class I and II land) – consideration	137	Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans	City and district councils	153
	Policy 69: Preventing long-term soil deterioration – non-regulatory	147	Also consider – Regional form, design and function (Table 9) policy 56; Energy, infrastructure and waste (Table 3) policy 39; Resource management with tangata whenua (Table 10) policies 48 & 49	Wellington Regional Council	156
Objective 31 The demand for mineral resources is met from resources located in close proximity to the areas of demand.	Policy 60: Utilising the region's mineral resources – consideration	137	Method 29: Take a whole of catchment approach to works, operations and services Method 4: Resource consents, notices of requirement and when changing, varying or reviewing plans Method 5: Allocation of responsibilities Method 52: Identify the region's significant mineral resources	Wellington Regional Council* and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council and city and district councils Wellington Regional Council	158 153 154 161
			Also consider – Coastal environment (Table 2) policies 35, 36 & 37; Fresh water (Table 4) policies 43 & 44; Historic heritage (Table 5) policy 46; Indigenous ecosystems (Table 6a) policy 47; Landscape (Table 7) policy 50; Regional form, design and function (Table 9) policy 56; Resource management with tangata whenua (Table 10) policies 48 & 49		