

WINDFLOW
LONG GULLY WINDFARM
LANDSCAPE AND VISUAL ASSESSMENT
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LANDSCAPE AND VISUAL ASSESSMENT

EXECUTIVE SUMMARY	4
1.0 INTRODUCTION AND METHODOLOGY	7
2.0 DESCRIPTION OF THE EXISTING LANDSCAPE CONTEXT	9
3.0 DESCRIPTION OF PROPOSED WIND FARM	27
4.0 NATURAL CHARACTER OF THE COASTAL ENVIRONMENT	29
5.0 EVALUATION OF LANDSCAPE SIGNIFICANCE	31
6.0 RELEVANT STATUTORY PROVISIONS	35
7.0 LANDSCAPE EFFECTS.....	41
8.0 VISUAL EFFECTS.....	45
9.0 EFFECTS ON NATURAL CHARACTER OF THE COASTAL ENVIRONMENT.....	51
10.0 CUMULATIVE EFFECTS	58
11.0 CONCLUSIONS.....	55

APPENDICES

APPENDIX 1: LANDSCAPE RELATED PLANNING PROVISIONS	57
APPENDIX 2: NATURAL CHARACTER POLICIES WITHIN RPS	80
APPENDIX 3: PHOTOMONTAGE METHODOLOGY	87
APPENDIX 4: INVENTORY OF VISUAL EFFECTS FROM HOUSES WITHIN 3KM	88

Figures, Site Photographs, Photomontages and Illustrative Material A3 Book Bound Separately

EXECUTIVE SUMMARY

Potential Environmental Effects

The potential landscape and visual effects of the proposed Long Gully Wind farm include the following:

- Effects of the civil engineering on biophysical elements of the landscape and potential modifications of landform features.
- Effects of the wind turbines and civil engineering on perceptual dimensions of landscape; and other values associated with the landscape including historical and Tangata Whenua values.
- Effects of the wind turbines on visual amenity, including public roads and individual properties.
- Cumulative effects of the proposed wind farm in conjunction with other wind farm developments.

Assessments Undertaken

Windflow commissioned Isthmus to prepare an Assessment of Landscape and Visual Effects which covers the following:

- Description of the Existing Landscape taking into account physical, perceptual and associational factors; including an assessment of the natural character of the coastal environment; and an assessment of possible outstanding natural features and landscapes. Landscape effects arising as a result of civil engineering earthworks [RMA s7(c) & (f)].
- Landscape effects arising as a result of the wind turbines, including effects on landscape character, rural character, and amenity [RMA s7(c)].
- Visual effects of the wind farm including analysis of factors affecting visual prominence of turbines; visual effects from public viewpoints and houses within a 3km radius [RMA s7(c)].
- Effects on the natural character of the coastal environment.
- Cumulative effects of the wind farm in conjunction with other existing or consented wind farms in the study area, such as the Brooklyn turbine, Project West Wind, and Mill Creek.

The assessment included observations from publicly accessible land and roads; field visits to areas within the wind farm site; coastline and views from the Inter-island ferry. A computer model of the wind farm and surrounding terrain was used which enabled wire-frame views of the topography and wind farm to be generated from nominated viewpoints.

Assessment Results

The proposal will entail limited earthworks, and the typical landform pattern of long ridges and broad crests and existing tracks lends itself to accommodating the earthworks required, limiting the potential extent of cut faces

and fill batters. The pastoral land-cover means earthworks can also be readily rehabilitated. Nevertheless there are several places where there will be some minor local effects.

There will be only minor effects on vegetation over most of the wind farm because 23 out of the proposed 25 wind turbines and new access tracks will be located in pasture. There will be very limited effects on secondary indigenous vegetation in a small part of the site.

The main but limited effect on the natural character of the coastal environment, as viewed from the sea, will be on visual aspects resulting from some of the proposed turbine structures forming a discrete area of secondary elements slightly inland from the coastal cliffs and escarpment in the south of the site. Although there will be earthworks associated with the wind turbines on the coastal hills, their significance will be low because they are located in the less sensitive 'coastal influence' zone, new track sections being limited in extent and often nearly at grade with existing ground conditions, thus avoiding large cut faces and batters on exposed slopes and ridges. The component ridges of the site leading inland from the coastal environment are predominantly under pastoral management and exhibit less natural character.

There will be visual amenity effects in parts of the north and western suburbs of Wellington. However in the majority of these situations where views are available, they will be limited by the relatively long distance over which the proposed wind farm will be viewed and the modest scale of the proposed turbine type and other components, such as the local electricity network connection of this proposal. Of neighbouring properties (i.e. those not associated with the wind farm) the degree of visual effect was assessed as likely to be high for 2 houses and moderate for 9 houses. The consented 14 lot subdivision at Kinnoul Station has not been assessed in detail as part of this assessment as the house sites had not been developed at the time. However it can be expected that being in close proximity to the proposed wind farm that visual effects from parts of the proposal are likely to be significant to several of the proposed house sites. The extent to which these effects are adverse will depend to some extent on the disposition of viewers toward wind turbines.

There will be a some change to the visual character of the immediate site area. As above, whether it is seen as adverse or not will depend to some extent on the perceptions of the viewer.

In balancing the range of considerations in RMA Part II, it is considered the site is an appropriate landscape for a wind farm for the following reasons:

- The immediate site is off-the-beaten-track and thinly settled, even though it is relatively close to the city, so that any nearby visual effects are very limited; but it is not so remote that it is valued for wilderness qualities
- It is a productive rural landscape
- It has a topography that can accommodate the scale and extent of the components required
- There are no outstanding natural landscapes that would be affected

Suggested Mitigation Approach for Effects Identified

Potential effects have been avoided to a significant extent through the iterative project design process and fine-tuning the location of various site components including the wind turbines and service tracks and iterations of other civil engineering components.

Measures to further remedy or mitigate effects include the following:

- Appropriate micro siting and ground modelling specifications for disposal areas for excess cut material from construction operations
- Ground restoration plan for remediation of disturbed areas
- Drainage management plan for potential offsite effects
- Selection of materials and finish for built features to reduce visibility and reflectivity.

1.0 INTRODUCTION AND METHODOLOGY

1.1 This landscape and visual assessment concerns the Proposed Long Gully Wind farm located within the hill-country to the west of Wellington and is illustrated with reference to **Figure 1**. The wind farm will comprise 25 500kW Windflow wind turbines. The landscape and visual assessment methodology is summarised as follows:

- ***Description of the Existing Landscape.*** The existing character and components of the site and the surrounding Wellington peninsula landscape were investigated covering a radius of up to 10km from the site centre. The 18 landscape character units within or touched by that radius are described in terms of the landscape's physical, perceptual and associational¹ factors.
- ***Description of the Proposed Wind farm.*** A summary description of the constituent features of the proposed wind farm most relevant to a landscape and visual assessment.
- ***Natural Character of the Coastal Environment.*** The extent of the coastal environment was defined by mapping zones of coastal influence. The degree of natural character was assessed in each zone, for each of the coastal landscape units.
- ***Evaluation of Potential Outstanding Natural Features and Landscapes.*** A specific evaluation was made to determine whether landscape units within the area should be classified as 'outstanding natural features or landscapes' in accordance with s6(b) of the RMA 1991 or 'special amenity landscapes' (Section 7 landscapes) in accordance with section 7(c) and 7(f) of the RMA.
- ***Relevant Statutory Provisions.*** A summary was made of those sections of statutory documents considered relevant to landscape and visual matters, including Part 2 of the RMA, the current and Proposed New Zealand Coastal Policy Statements, the Greater Wellington Regional Policy Statement and the Wellington City District Plan.
- ***Assessment of Landscape Effects.*** The assessment considered effects on biophysical, perceptual and associational factors of the landscape. This included an assessment of the effects arising both from civil engineering earthworks and wind turbines on landscape (rural) character and amenity (including 'aesthetic coherence') in terms of s7(c) and s7(f).
- ***Assessment of Visual Effects.*** A baseline analysis of factors influencing the degree of visual effect of the wind farm was supported by computer generated maps of Zones of Theoretical Visibility (ZTVs) which indicate the extent of theoretical visibility. A visual assessment was then carried out from representative public viewpoints, supported by photomontages, as part of the consideration of effects on visual amenity in terms of the RMA s7(c). The likely visual effects were estimated for houses within 3km of the wind farm based on a combination of observations from

¹ Those things associated with a landscape such as historical associations, Tangata Whenua values, local identity or 'sense of place', and recreational attributes.

public roads, and desk-top analysis of the 3D computer model and aerial photos. The 3km radius limit is considered to be the maximum appropriate distance at which, if visible, the scale of the proposed turbines may potentially form a significant component in the view from private properties.

- ***Assessment of Effects on Natural Character of the Coastal Environment.*** An assessment was made of the effects of the wind farm on natural elements, patterns and processes of natural character.
- ***Assessment of Cumulative Effects.*** An assessment was made of the effect of the wind farm in conjunction with other existing or consented wind farms within the region.

1.2 The methodology follows definitions of 'landscape' and 'landscape factors' recognised by the Environment Court.² It is also informed by several guidelines from overseas and New Zealand.³ Assessment methods included observations from public roads and field visits over the site itself; and desk-top tools included a 'WindPRO' digital model of the wind farm and surrounding terrain; photomontages created from representative viewpoints, and an ARC GIS model of the wind farm and regional landscape (including analysis of theoretical visibility). Definitions and methodology are discussed in more detail where relevant under headings below.

² See discussion below under the heading 'Description of Existing Environment'

³ **Krohn, Soren & Damborg Steffen** (1998) On Public Attitudes Towards Wind Power. Renewable Energy 16 (1-4)

Simon, A. (1996) A Summary of Research Conducted into Attitudes to Wind Power from 1990-1996, Planning and Research for British Wind Energy Association

Duddeleston, Anna (2000). Public Attitudes Towards Wind farms in Scotland: Results of a Residents Survey. The Scottish Executive Central Research Unit, Edinburgh

University of Newcastle (2002) Visual Assessment of Wind farms Best Practice. Scottish Natural Heritage Commissioned Report F01AA303A

Simon Brauholtz Mori Scotland, Public Attitudes to Wind farms –A Survey of Local Residents in Scotland, Scottish Executive Social Research 2003

Australian Wind Energy Association and Australian Council of National Trusts (May 2004) Wind farms and Landscape Values: Draft Issues Paper

Parliamentary Commissioner for the Environment, New Zealand,(2006) "Wind Power, People, and Place"

UMR Research (2004)

2.0 DESCRIPTION OF THE EXISTING LANDSCAPE⁴ CONTEXT

2.1 The landscape has been mapped into units of landscape character which reflect its structural features and other landscape attributes. These units⁵ are illustrated with reference to **Figure 5** and described below.

Physical Factors

Landform

2.2 Four major faults in the area of the site and the wider Wellington peninsula have resulted in the major landform and topographic features that can be seen in the terrain today. These faults are continuations and branches of the Alpine Fault which is the largest fault known in New Zealand which runs through the peninsula at Long Gully itself, from the South Island to Cook Strait and continuing on across the North Island.

2.3 As a result the landscape of the Wellington peninsula is characterised by a faulted and folded landform that has a distinctly crumpled appearance, due to the dynamic underlying geological situation. The landform has been honed further by geomorphological and coastal processes in an environment of extreme exposure to frequent south westerly weather patterns. This crenulated landform is characterised by both simple and complex valley and gully systems, defined by prominent northeast/southwest aligned ridges and further punctuated by an array of smaller ridges, spurs and gullies perpendicular to the main ridge systems. 'Urban' Wellington (considered to be the land east of the Te Kopahou/Hawkins Hill Ridge, Wrights Hill, Makara Hill and Te Wharangi Ridge through to Mt Kaukau) is further characterised by low lying areas of uplifted marine and alluvial sediments and large areas of reclaimed land.

2.4 The coastline of the peninsula is particularly distinctive displaying a series of small bays, prominent headlands, sheer coastal cliffs and escarpments, uplifted marine benches and rocky outcrops providing a dramatic natural façade along the west and south coasts especially evident when travelling to and from Wellington by sea or air.

⁴ Landscape is referred to in RMA s6(b), protection of outstanding natural features and landscapes, and comprises an aspect of amenity under s7. Consideration of landscape and visual effects is required under RMA Fourth Schedule. 'Landscape' is not defined in the RMA but certain definitions and principles have been accepted through case law. The single most seminal discussion is in C180/99 Wakatipu Environmental Society vs Queenstown-Lakes District Council: Landscape is a broad subset of the environment. Landscape is an integrating concept. Landscape is more than merely visual. It includes factors relating to the physical landscape, people's perceptions of the landscape, and the values or meanings that people associate with landscape. Seven factors (known as the 'Pigeon Bay' criteria) have been accepted that should be considered as follows: Natural Science Factors, Aesthetic Values, Expressiveness, Transient Values, Whether the Values are Shared or Recognised, Value to Tangata Whenua, Historical Associations

⁵ Structural elements used to delineate landscape units include such things as geomorphology (main faults and boundaries between rock types); leading ridges and escarpments; valleys & watercourses; landuse (often relating to soil and underlying geology); vegetation cover; and main cultural features such as roads.

Geopreservation Inventory

- 2.5 The New Zealand Geopreservation Inventory records seven features within a 5 kilometre radius of the site. Apart from the Wellington Fault running along Long Gully itself, there are no other identified features within the wind farm site. The majority of features are found within the coastal environment, relating to uplifted marine terraces or the Wellington Fault.

Table 1: New Zealand Geopreservation Society Inventory

Feature	Comments	Category
Island Bay lawsonite	Only occurrence of lawsonite within greywacke	B
Red Rocks	Exposed sequence of red rocks	B
Tongue Point Uplifted Marine Terraces	Sequence of three main uplifted marine benches that age-wise span much of the Late Quaternary	B
Terawhiti Hill, Black Gully Uplifted Marine Terraces	Sequence of 7 raised marine benches that record uplift history of the south west Wellington coast	C
Island Bay Prehnite-Pumpellyite Facies	Continuous sequence of exposed pillow lava melange.	C
Wellington Fault – Long Gully	Late Quaternary trace of the Wellington Fault	C
Wellington Fault (Displaced Spurs)	Clear example of displaced spurs on upthrown side of Wellington Fault	C

Vegetation

- 2.6 This part of the North Island falls within the Sounds-Wellington Ecological Region, with the majority of the study area in the Wellington Ecological District apart from the coastal area which is within the Cook Strait Ecological District. The area was originally forested but is now extensively urbanised and developed, with the vegetation in the remaining unbuilt areas having been highly modified by farming, grazing and land clearance activities, resulting in an assemblage of coastal scrub vegetation with small areas of remnant bush found mainly in gullies and the more extensive fenced area of Karori Sanctuary. More detail on the vegetation and habitat pattern of the application site can be found in the Ecological Assessment Section of the AEE.

Settlement Pattern

- 2.7 Urban Wellington has a rich history of early Maori and European settlement with an array of significant heritage sites present across the city and within Te Aro and Miramar peninsula in particular. There are also a number of heritage sites and associations with the coastline by way of various pa sites and mahinga kai (food gathering areas). European settlement along the coastline was limited and largely associated with gold prospecting on and around Terawhiti Hill and isolated farming homesteads and small communities.
- 2.8 Urban Wellington is now characterised by medium to high density commercial development along major arterial roads and the CBD with isolated industrial sites in Miramar and the northern end of Lambton

Harbour (i.e. Wellington Port). Waterfront development adjacent to the CBD provides for public interaction with the coastal edge and is a highly valued area of Wellington for this purpose. Public open spaces and reserves are prolific across urban Wellington and include valued assets such as Otari – Wilton Bush, Karori Wildlife Sanctuary and the wider Town Belt. All of these elements sit within a broader framework work of low – medium density residential development within the outer suburbs and higher density living in the inner city in particular.

- 2.9 Rural Wellington has a relatively small population with the main concentration of settlement being rural – lifestyle properties within the Makara Valley and along Makara Road and at Makara Beach. The remainder of the study area has a scattering of a very few isolated dwellings with a small group of baches on the south coast.

Land Use Patterns

- 2.10 The pattern of landuse is predominantly urban in the east of the study area, with the suburban residential north western side of Wellington grading to the CBD towards the harbour, with larger areas of public open space often on higher ground, such as Mount Victoria, the Town Belt and Mount Crawford. To the south west of the city a substantial landfill facility is located on the lower slopes of Hawkins Hill with a network of mountain biking and walking routes in the Waipapa Stream catchment. Long Gully Station itself is used for various recreational activities served by various existing tracks, which often follow ridgelines and gullies. To the west the land is predominantly open pastoral and scrubland with occasional areas managed for recreational facilities, such as the mountain bike and walking tracks of Makara Hill and the Karori Sanctuary and the drifting track with various utility installations on higher ground such as the radar station at Hawkins Hill and the telecommunication masts on Wrights Hill.

Perceptual Factors

Legibility

- 2.11 In terms of legibility, the sub-regional landscape can be characterised as an exposed peninsula on the extreme south western corner of the North Island, exhibiting a distinctive south west to north east oriented steep graded topography, bounded by a rugged remote coastline to the south and west extending to Cape Terawhiti. For the most part, access to the coastal edge is very limited and deemed to be remote and wild, until around Sinclair Head where public road/track access commences and from where the perception of remoteness diminishes and then abruptly ends at Owhiro Bay with the start of the urbanised coast with sheltered bays, then commercial harbourside and the airport hub areas of downtown Wellington.
- 2.12 Within the study area there are local landmarks and characteristic features. These include various ridges and hills, coastal headlands, raised beaches and localised rock features.

Table 2: Local Landmarks Within the 10km Study Area

Name	Summary and Description of feature
Inland Features	
Te Kopahou/Hawkins Hill Ridge (including Te Kopahou, Hawkins Hill and Polhill)	Prominent ridge forming the backdrop to Wellington City
Mt Misery/Outlook Hill Ridge	Prominent peak and ridge
Quartz Hill	Broad, table-top feature with steep vegetated slopes
Makara Hill	Prominent local landmark. Visible from Karori, Makara Valley, Outlook Hill/Quartz Hill Ridge and Te Wharangi Ridge.
Te Wharangi Ridge	Prominent ridge providing a visual backdrop to views from Northern Suburbs (looking west) and the Makara Valley (looking east). Includes prominent hilltops including Mt Kaukau, The Crows Nest and Johnsons Hill.
Mount Kaukau	Prominent landscape feature from a wide area including Makara Valley, Ohariu Valley, Northern Suburbs,
Wrights Hill	Prominent local landmark. Provides visual backdrop to Karori. Heavily vegetated, Open space.
Rugged South Coast (Sinclair Head to northern Opau Bay)	
Sinclair Head	Prominent headland with a steep coastal escarpment separating 'urban coastline' from rugged South Coast
Tongue Point	Significantly raised marine terraces
Outlook Hill	Prominent hill
Oteranga Head	Rocky spur
Terawhiti Hill	Prominent hill
Ohau point	Rocky spur
Rugged South Coastline	Dramatic coastal escarpments, cliffs and beaches
Urban Coastline (Sinclair Head to Wellington Harbour)	
Point Jerningham	Rocky coast dividing Oriental Bay from Evans Bay
Point Halswell	Prominent vegetated spur at northern end of Miramar Peninsula housing Massey Memorial
Point Gordon	Rocky point on north-eastern side of Miramar Peninsula
Point Dorset	Rocky point
Palmer Head	Series of exposed rocks. Heritage site.
Moa Point	Series of exposed rocks
Te Raekaihau	Exposed rocky shoreline
The Sirens Rocks	Prominent rocky outcrops
Red Rock	Highly visible coastal escarpment and ridge-top.
Urban Coastline	Highly modified interface

Aesthetics and Character

- 2.13 From a regional perspective, the whole of the area between Wellington and the coast has a relatively homogenous rural character, comprising hill country with long ridgeline features and extensive areas of pastoral farming and areas of regenerating bush and scrub. The exception is the Makara Valley where the village forms a particular rural focus. Characteristic features include station homesteads, woolsheds, shelter belts, extensive pasture, and occasional structures on the ridgeline such as the radar station. Vegetation cover is characterised by coastal scrub, exotic and native grasslands with limited areas of indigenous bush in isolated gullies or protected enclaves such as the Kaori Sanctuary.

Associational Factors

Tangata Whenua

- 2.14 Tangata Whenua is covered in detail in the Cultural section of this AEE. The report in that section concludes that with regard to landscape features of interest to Tangata Whenua in the general vicinity of the application site that “the sparse collection of sites of significance to Maori are generally found close to the coastal ridge or on the coastal margin”. With some exceptions the majority of sites are included within the area covered by the Rimurapa Landscape Feature Precinct. However the report also considers that although the proposal has few direct impacts on Maori cultural sites, there is some concern as kaitiaki of the environment generally. The report identifies landscape features of interest to include (p7):Te Kopahou not only as a ridge but a route to the sea for kaimoana, various kainga along the coastal edge between South Karori Stream and Oterango Bay with smaller hamlets up to Owhiro Bay. The coastal features of Pari-where/Red Rocks and Te Rimurapa/Sinclair Head are specifically mentioned as frequently visited and named by early Maori according to various legends. Any additional but as yet unknown sites/features that might be discovered if the wind farm proposal proceeds are to be covered by a protocol that would be required by a condition of consent.

Historical Associations

- 2.15 The local history of the wider area is connected with both early Maori settlement and activity and later some of the earliest European coastal settlements and colonisation with sites such as Wrights Hill Fortress only being constructed in connection with WWII defences.

Recreational Attributes

- 2.16 The land to the north, east and south of Long Gully Station is popular for various recreational activities both casually and through organised clubs, including walking, mountain biking, orienteering and four-wheel driving. This is due partly to the nature of the terrain but also its close proximity to Wellington. Long Gully Station itself is private land but public access is by arrangement with the landowner. On the coast to the south of the proposal site, boating, fishing and various watersports are popular activities and several groups of baches are scattered along the coastal edge, accessible by an existing track from Red Rocks and Owhiro Bay. Various areas of public open space providing a diversity of facilities for both active and passive recreation are located around the western side of the city often on elevated ground, with the Karori Wildlife Sanctuary located between Long Gully Station and the city.

Identity and Sense of Place

- 2.17 The proposal site and surrounding area has a strong identity both topographically and culturally being part of the peninsula that forms the southern tip of the North Island and strongly connected with New Zealand’s capital city. Wellington is an international and national cultural centre, seat of government,

intellectual focus, platform for & stepping stone to the South Island, and a maritime shipping and commercial centre.

Landscape Character

- 2.18 The landscape character of the wider peninsula area has been assessed and includes the site and surrounding land up to 10 km from the site or to the coastal edge, if that is nearer. The 10km distance is considered appropriate for the scale of the proposal. This study area is found to be composed of 18 units of landscape character which are identified as Landscape Character Areas (LCAs). These are described below and illustrated with reference to **Figure 5**. Due to the layout and position of the different constituent elements of the Long Gully proposal, different parts of the development are found either within or towards the boundaries of 5 LCAs, namely Long Gully, Southern Long Gully, Waipapa / Kopahou, South Karori and Coastline. In addition, and according to the ZTVs illustrated in **Figures 8 and 9**, parts of the proposed wind farm could potentially be seen from limited parts of other LCAs in the wider area. In order to fully assess the potential landscape and visual implications of the proposal, it is appropriate to assess the landscape context of the wider area as determined by the 10km radius limit. The 18 LCAs are described below.

Happy Valley Landscape Character Area

- 2.19 The Happy Valley LCA is bound by the Te Kopahou/Hawkins Hill Ridge to the west and the Tawatawa Ridge to the east and stretches to Owhiro Bay in the south and the suburb of Brooklyn to the north.
- 2.20 This unit encompasses the suburbs of Brooklyn and Vogeltown which are characterised by low – medium density residential development and a small number of commercial and public amenity buildings along Ohiro Road. The relatively hidden but sizeable Wellington southern landfill is located to the west of Happy Valley/Ohiro Road at the end of Landfill Road.
- 2.21 The steeply sloping, fragmented series of small ridges and spurs that adjoin the eastern margin of the Te Kopahou/Hawkins Hill Ridge are blanketed in native vegetation and form part of the Outer Town Belt, although gorse is also prolific in this area. Patches of native vegetation exists across the western face of Tawatawa Ridge although residential development is more notable on elevated areas such as Mornington and Brooklyn.
- 2.22 Views into the Happy Valley character unit are extensive from elevated locations, particularly along Te Kopahou/Hawkins Hill Ridge. Views from Happy Valley/Ohiro Road are limited due to the elevation of the adjacent ridges and spurs.
- 2.23 Happy Valley/Owhiro Road provides the access through this character unit from Owhiro Bay in the south through to Brooklyn and Wellington City to the north. There are a number of public open space areas along Tawatawa Ridge and mountain bike tracks across the western hill faces.

- 2.24 The Tawatawa Ridge Conservation Site is located to the south of Quebec Street and there are three sites of significance (medium – high) to Tangata Whenua towards the end of Happy Valley Road. The coastal edge of the LCA meets with the Coastal Marine Area in Owhiro Bay.

Waipapa / Te Kopahou Landscape Character Area

- 2.25 The Waipapa/Te Kopahou character unit is bound by the Happy Valley, Long Gully and Southern Long Gully units to the north and west and the Coastline unit to the south.
- 2.26 The predominantly south facing slopes are characterised by a series of small ridges and spurs and intertwined gullies with small streams (Waipapa being the most notable) flowing down to the coastal edge. The landform is elevated and highly exposed to the severe south tending winds.
- 2.27 Due to this degree of exposure vegetation across this character unit is predominantly wind-pruned regenerating native scrub interspersed with patches of gorse and pasture. There are examples of more substantial stands of native trees and bush in sheltered locations.
- 2.28 Views of upper reaches of the unit are extensive from the air and sea, with land based views available from residential suburbs and elevated locations to the east, such as Island Bay and Southgate.
- 2.29 Access to this area is limited to a few unformed vehicle accesses, mountain bike, walking routes such as the Rimurapa track and former farm tracks. Aside from these tracks development within this character unit is non-existent.
- 2.30 This LCA unit has several identified cultural heritage and/or conservation sites associated with the area around the outlet to Waipapa Stream which is located within the Rimurapa Landscape Feature Precinct.

Long Gully Landscape Character Area

- 2.31 The landform within the Long Gully character unit is typified by steep slopes on both the left and right of Silver Stream, but particularly to the east from the Te Kopahou/Hawkins Ridgeline to the gully floor below. This side of the gully is further characterised by exposed rock outcrops with isolated scree slopes on the western side of the gully. These typical features are the result of the Wellington Fault passing from Cook Strait through Long Gully and beyond with a strong southwest to northeast alignment.
- 2.32 The Long Gully unit is one of three units that do not directly adjoin the coastline and is characterised by a simple valley system aligned with the flow path of Silver Stream; a somewhat unique water course as a result of its flow path from the coastline to inland where it joins the Karori Stream in the proximity of the end of South Karori Road.
- 2.33 Built development within the site is limited to two residential dwellings at the northern and southern ends of the unit, with a number of other structures located along Te Kopuhau/Hawkins Hill Ridge and western

boundary of the unit, including: Hawkins Hill Radar Station; air traffic control buildings; trigs; wind monitoring masts and a two storey dwelling (the Castle).

- 2.34 Land cover across the unit is predominately regenerating native scrub with isolated patches of pastoral grass and patches of well established native bush. A substantial area of native bush, located along the north-facing hill slopes at the northern end of the site, has recently been fenced and managed by Council for ecological regeneration purposes and to contribute to the establishment of a link with the Karori Wildlife Sanctuary.
- 2.35 An unformed private road links along the main ridge of this unit to the publicly accessible road that serves the Brooklyn Turbine. There is also a steep unformed access track off the end of the Hawkins Hill Ridge Road, which provides access to the Hawkins Hill Radar Station.
- 2.36 These private roads restrict access although the existing land owner does allow access to the site for mountain bikers and car enthusiasts that use the private drift track. The access track along the floor of the gully also provides for access to the small dwellings and farm buildings located at the southern end of the unit and beyond via a gated track section to the adjoining unit and the south coast of the peninsula. Although these access roads are largely unsealed, they are well established and are wide enough for two vehicles to pass.
- 2.37 The upper slopes and summit of the Te Kopahou/Hawkins Hill Ridge are the most visually prominent portions of this unit with the ridgeline itself being a well known and prominent feature of the Wellington landscape; being visible from a wide area. The summit of the western ridge is also visible from a number of areas including Karori and the sea. Views of the lower elevations and gully floor are limited to elevated areas adjacent to the site.
- 2.37 The Long Gully character unit does not have any notable heritage associations or values except for the Te Kopahou/Hawkins Hill ridge mentioned in the Cultural Report as a coastal access route to the coast.

Southern Long Gully Landscape Character Area

- 2.38 The Southern Long Gully character unit is bound by the South Karori, Long Gully, Waipapa/Te Kopahou and Coastal units and can also be described as a simple valley system that is aligned with two small streams that flow south toward the coastal edge. These streams are flanked by steep ridges that are characterised by exposed rock outcrops, scree slopes and fragmented rock faces. Vegetation consists of regenerating native vegetation and areas of well-established native trees and shrubs, particularly in lower sheltered areas. There is a flat area at the confluence of the two streams that consist of pasture and sheep yards. Grazing of this area is similar to that of Long Gully and is limited to a small number of horses and cattle, with a prolific number of goats. Built structures within this unit is limited to two small baches/dwellings located along the well formed access track that leads from Long Gully to the coast. Access arrangements to this area are similar to that for the Long Gully LCA.

- 2.39 Views to the sea are framed by the adjacent ridges and coastal escarpments. Views into this area are equally restricted by the surrounding landform.
- 2.40 The Rimurapa Landscape Feature Precinct covers the southern end of the Southern Long Gully LCA. Outside of this feature the unit does not have any notable heritage associations or values.

Wrights Hill Landscape Character Area

- 2.41 Like Southern Long Gully, the Wrights Hill unit consists of a simple valley system that is bound by Wrights Hill to the west and the Hawkins Hill/Polhill Ridge to the east.
- 2.42 The Wrights Hill character unit contains the majority of the Karori Wildlife Sanctuary which displays a broad array of well established native and exotic vegetation that provides habitat for a range of native fauna. The area is highly valued and frequently visited by the public of Wellington.
- 2.43 This relatively small catchment is designated for water supply purposes and provides water for the Karori reservoir which consists of two dams located towards the centre and northern end of the valley.
- 2.44 Access into the valley is controlled via the Sanctuary Visitor Centre and is restricted by a predator proof exclusion fence that encompasses the entire sanctuary area. A well used pedestrian and mountain biking track runs adjacent to the predator proof fence.
- 2.45 The southern most edge of Karori suburb is included in this unit, with views into the valley from this residential area and portions of Mitcheltown and Highbury to the east. Outside of these locations views into the valley are limited. The Wrights Hill character unit contains the Wrights Hill Fortress, a Grade 1 historic site which is predominantly underground, but no other notable heritage associations or values.

North Karori Landscape Character Area

- 2.46 The North Karori unit is characterised by urban/residential Karori and the area generally described as the Karori basin (as illustrated in **Figure 5**). Aside from the broad, flat basin floor the elevated areas surrounding Karori (and within the North Karori character unit) are characterised by heavily vegetated, gently sloping and rolling hills (e.g. Makara and Wrights Hill) that are part of the outer town belt (public open space) and adjoin the Karori Wildlife Sanctuary to the east.
- 2.47 Access to these elevated areas is extensive with the wider Karori area well-known for its walkways and mountain bike trails. As a result views into and across the Karori basin are expansive and open. Conversely views of the wider landscape from the basin are limited and largely restricted where they do exist.
- 2.48 There are various heritage sites, particularly heritage trees and designations across the North Karori unit. There are also a number of historical European and Maori settlement associations with the area.

South Karori Landscape Character Area

- 2.49 The South Karori character unit is bound by the Kinnoull and East Waiariki Ridges to the east and west with the coastline to the south and Makara Valley and North Karori units to the north.
- 2.50 There is a small cluster of baches at the coast below Te Kopahou, at the southern end of this unit, with access being via the coastal 4WD track or the unformed access track that links through to the end of both South Makara and South Karori Roads. The unformed access roads are gated and access is restricted. In addition, an existing farm track has recently been upgraded and widened along a ridgeline that links Kinnoull Station to Long Gully, to provide access to a recently consented 14 lot subdivision located to the north west of Long Gully towards Karori Stream.
- 2.51 The Western Sewerage Treatment Plant is located in the northeast corner of this unit, at the end of South Karori Road. Otherwise development within this unit is virtually non-existent.
- 2.52 The Karori Stream meanders its way through this character unit from the end of South Karori Road to the coast with a sewer outfall adjacent to the mouth of the stream. Vegetation consists largely of regenerating native scrub which is reverting from pasture, which still exists in isolated patches across the slopes and summits of ridges and spurs and along the margins of Karori Stream and valley floor.
- 2.53 Views to the central portions of this unit are limited due to the restricted public access to this area and to other areas to the east and west. However, views from Makara Hill to the northern areas adjacent to the confluence of Karori and Silver Stream do exist, as do views into the southern portions of the unit from the sea which are framed by the steep coastal escarpment and cliffs within the coastline unit.
- 2.54 With access to this unit being largely restricted there are very limited opportunities for recreation. There are no registered heritage or conservation sites within this character unit.

Makara Valley Landscape Character Area

- 2.55 The Makara Valley LCA is a large unit extending from the confluence of the Karori and Makara Streams in the south to Makara Beach in the north. This broad character unit is bound to the east by the Te Wharangi Ridge and the Mt Misery/White Rock Hill Quartz Hill Ridge to the west, both of which provide significant backdrops to the Makara Valley.
- 2.56 Quartz Hill is arguably one of the more recognisable natural features of the Wellington landscape and is highly valued by the residents of Makara Valley.
- 2.57 Land use within the Makara Valley unit varies primarily between pasture, golf course fairways, production forestry and rural-lifestyle with a predominance of horse grazing. Infrastructural uses such as radio and electricity transmission have historical and current associations with the Makara LCA, which will increase in the future with the construction of the West Wind wind farm to the south and west.

- 2.58 The Makara Valley unit exhibits a wide variety of rural residential, agricultural and recreational development. Access along the full length of the valley is via Makara and South Makara Roads which provides links to Karori and Wellington City to the east and the Ohariu Valley and Johnsonville to the north.
- 2.59 The Makara Stream flows along the majority of the valley floor from the Makara Golf Course through to Makara Beach.
- 2.60 Vegetation patterns are closely associated with the primary land uses and consist of open pasture, productive forestry blocks, wildling pines, shelter belts, gardens and amenity planting and remnant and regenerating native scrub and bush.
- 2.61 Viewsheds are often quite confined when moving through the valley, but views down into the valley from elevated vantage points are numerous particularly to the east from Makara Hill and the skyline walkway.
- 2.62 The coastal part of the Makara character unit is contained within the Ohariu – Te Ika a Maru Heritage Precinct and there are number of sites of significance to Tangata Whenua in close proximity to Makara Beach. The Owhariu – Thorndon Track also passes through this unit and is of significance to Tangata Whenua. The Makara Estuary is also a registered Conservation Site although located just outside the immediate study area.

Waiariki Landscape Character Area

- 2.63 The Waiariki unit is characterised by a relatively small but steeply sloping inland ridge that is bound by Outlook Hill and Mt Misery to the west and a broad low ridge that stretches out above the Tongue Point as illustrated in **Figure 5**.
- 2.64 The landform in this unit is dominated by the inland slopes of Outlook Hill, which are subject to localised wind erosion and there are a number of medium sized areas of scree across this face. The remainder of the unit is characterised by steep exposed slopes.
- 2.65 Built development within this unit is noticeably lacking although more recently a significant amount of earthworks have been undertaken along the eastern Waiariki ridgeline to provide for the construction of the turbines as part of the broader Project West Wind wind farm development.
- 2.66 The 350 kV transmission line that conveys electricity north from the power cable terminal at Oteranga Bay passes through the northern portion of Waiariki unit. The Waiariki Stream is fed by a handful of tributaries and flows along the valley floor in to the sea at the north western end of Tongue Point.
- 2.67 The Waiariki character unit is isolated. A solitary track extends from the Old Terawhiti Station buildings for a short distance up the valley.
- 2.68 Vegetation in this unit is characterised by the proliferation of regenerating native scrub over pasture grass, particularly across lower elevations towards the coastline and becoming more widespread further

inland, although gorse is also prevalent. The upper elevations of Outlook Hill are relatively devoid of any vegetation of note with exposure to wind and associated coastal processes resulting in suppressed growth and isolated and often substantial areas of erosion.

- 2.69 The Waiariki unit has restricted access for recreation pursuits. A number of sites of significance to Tangata Whenua are located along the margins of the Waiariki Stream. The margins of the stream are also identified as a Hazard (Fault line) Area under the District Plan.

Oteranga/ Shepherds Gully Landscape Character Area

- 2.70 Oteranga is a visually discrete landscape unit that is located to the east of Black Gully and includes the low lying ridgelines and associated slopes to the true right of the Oteranga Stream. The Steep west facing slopes of the Outlook Hill/Mt Misery/White Rock Hill Ridge dominate this landscape unit, which is otherwise characterised by a number of steep spurs and tributaries to the Oteranga Stream that result in an incised and eroded landform (as illustrated in Figure 5).
- 2.71 Built development within this unit includes the 350 kV transmission line that conveys electricity north from the power cable terminal at Oteranga Bay.
- 2.72 As a result of the more fragmented and folded landform the lower elevations of the Oetranga landscape unit are relatively sheltered from the often severe winds that buffet the south coast.
- 2.73 Vegetation within this unit is characterised by patches of pasture along the tops of ridges and spurs and the margins of Oteranga Stream and gully floor. There is also prolific regenerating native scrub across the steep faces of ridges and spurs with isolated patches of more well established native trees on the flanks of inland spurs at the heads of waterways.
- 2.74 The main access road to the terminal is located along the eastern edge of the landscape unit (along the Mt Misery/White Rock Hill ridgeline), public use of this road is restricted. There is an unformed access track along the gully floor that provides a link between the adjoining Ohau/Te Ika a Maru/Opau Bay character unit.
- 2.75 Due to the restricted access to this area recreation values are low. There are no notable heritage sites or values recorded under the District Plan. The Shepherds Gully Fault is recognised as a Hazard (Fault line) Area under the District Plan.

Black Gully Landscape Character Area

- 2.76 Like Oteranga, Black Gully is a visually discrete landscape unit that includes the southern two-thirds of the eastern Terawhiti ridge and adjacent hill face to the true left of the Black Gully Stream and stretches from the coastline to the low-lying ridge that spans between Terawhiti and White Rock Hill.

- 2.77 Black Gully is a simple valley system that flanks the Black Gully Stream, which forks at the northern end of the Gully. The inland slopes of Terawhiti hill are very steep and the Gully is exposed to both northerly and southerly winds.
- 2.78 The distribution of vegetation within this unit is heavily influenced by the prevalence of a high degree of wind exposure with the landform providing a funnelling effect. As a result Black Gully is characterised by areas of pasture grass across the summit of the ridges and numerous spurs with both exposed and sheltered slopes covered by regenerating native scrub and isolated pockets of native trees such as *Melicytus ramiflorus* (Mahoe/Whiteywood). This is typical of vegetation distribution to the west of the Outlook Hill/Mt Misery/White Rock/Quartz Hill Ridge.
- 2.79 Access to the Gully is via a road that passes along the gully floor from Oteranga Bay through to Ohau Bay. This provides access for farm vehicles and both ends of Terawhiti Station as well as providing a link to the access road to the Power Cable Terminal at Oteranga Bay. Outside of these uses access to the area is restricted.
- 2.80 Black Gully has historical values associated with former gold mining and prospecting with a historic stamping mill located at the confluence of the Black Gully Stream and upper tributary. There are also two stands of Karaka (*Corynocarpus laevigatus*) within the gully that are significant to Tangata Whenua. The Terawhiti Fault is recognised as a Hazard (Fault line) Area under the District Plan.

Ohau/Te Ika a Maru/Opau Bays Landscape Character Area

- 2.81 The Ohau/Te Ika a Maru/Opau Bays character unit includes the area adjacent to the coastline of the respective bays, between the north summit of Terawhiti and Quartz Hill and inland to the low-lying ridge that spans between the Terawhiti and White Rock Hill.
- 2.82 The inland backdrop to Ohau, Te Ika a Maru and Opau Bays are grouped together under this character unit due to their lower, fragmented, predominantly NE/SW faulting and northern orientation.
- 2.83 Built development is limited to a small number of rural dwellings, a number of unformed access roads and tracks. The recent development of the Project West Wind wind farm and associated laydown, foundations and access roads is particularly evident.
- 2.84 There are a number of small streams and tributaries that flow into each of the bays with the main Sheep Gully and Opau Streams being the largest and most notable.
- 2.85 The vegetation within this unit is characterised by grazed pastoral areas across low lying basins, elevated spurs and ridgetops with large areas of regenerating native scrub across valley sides and gully margins. Gorse is prolific in these regenerating areas. There are also high numbers of goats grazing in this area.

- 2.86 Access to this character unit is provided by two unformed legal roads as defined under the District Plan, however, use of these roads is restricted.
- 2.87 Views into and out of this unit from the sea are unrestricted. This is due to the relatively low topography and broad open nature the landform of this unit. Views of the unit from Quartz Hill and across from Far Point are also relatively unrestricted unless partially obscured due to viewing location.
- 2.88 There are a number of sites and features that are of significance to Tangata Whenua including Te Ika a Maru Pa and Te Rama a paku Pa at Te Ika a Maru Bay. A significant portion of the character unit's coastal edge falls within the Ohariu – Te Ika a Maru Precinct. The Terawhiti Fault is recognised as a Hazard (Fault line) Area under the District Plan.

Coastline Landscape Character Area

- 2.89 The coastline of Wellington is widely regarded and valued for its rugged and dramatic characteristics which are the result of dynamic underlying geomorphology and often severe coastal processes such as wave and wind erosion.
- 2.90 The area that has been identified as Coastline under Figure 5 generally relates to the area between MHWS and the summit of the first adjacent ridge, which is the generally accepted approach to identifying the coastal environment under Section 6(a) of the RMA.
- 2.91 On occasions the Coastline unit deviates from the definition due to the folded and faulted nature of Wellington's landscape and the change from elevated, stand alone ridges aligned perpendicular to the sea (e.g. Hawkins Hill/Te Kopahou, and Terawhiti) to lower more complex ridges and hills (e.g. inland from Ohau and Te Ika a Maru Bays and the Karori Stream mouth) and dramatic coastal escarpments and cliffs such as Sinclair Head, Red Rocks and Opau Bay.
- 2.92 Built development within the Coastline unit is limited to a number of small clusters of baches along the south coast between Sinclair Head and Waiariki Stream. The Old Terawhiti Station Homestead is the most well known and significant example of residential development along the Coastline. Historical gun emplacements at the northern end of Opau Bay now join the radar dome (Outlook Hill) and power cable terminal (Oteranga/Cable Bay) as the more notable current built elements within the Coastline Unit.
- 2.93 The close association of this unit with the sea is clear. The exposed nature and severity of both wave and wind processes results in limited vegetation, restricted to a few hardy native grasses, flaxes, trees and shrubs and gorse. The often sheer costal escarpments and erosion prone hill faces have limited plant life.
- 2.94 Views of the entire Coastline are unrestricted from the sea with the South Coast forming a wild and rugged coastal gateway to Wellington when arriving or departing from the sea (e.g. Inter-island Ferry). Views of the south coast are also prevalent on approach to the Wellington airport from the south. Views of the Coastline from inland locations are limited and often non-existent from urban Wellington.

- 2.95 Vehicle access to the coastline is predominantly limited to farm tracks although a 4WD track does provide access along the south coast from the Owhiro Bay Quarry through to Cave Bay.
- 2.96 There are a number of sites and features within the Coastline unit that are of heritage and conservation value. These include: South West Coastline and Wellington South Coast Conservation Areas; Rimurapa Landscape Feature Precinct and Ohariu – Te Ika a Maru Precinct; and a number of specific sites and feature of significance to Tangata Whenua.

Island Bay Landscape Character Area

- 2.97 The Island Bay character unit includes the extensive residential (Island Bay, Southgate and Houghton Bay) and open space areas to the south of the suburb of Berhampore to the coast and between Tawatawa Ridge and the Ridge line extending inland from Te Raekaihau.
- 2.98 This area is characterised by low density residential/suburban development across the broad valley floor, elevated slopes and ridgetops and coastline, although the latter is on the inland side of the coastal road. Eastward from Island Bay development becomes sparser and east of Houghton Bay development along the coastal edge is virtually non-existent.
- 2.99 The rugged and exposed character of the broader south coast, which is part of the Coastal Marine Area (see **Figure 7**), is reflected along the coastal edge of this landscape unit by way of rocky outcrops and raised marine benches such as Te Raekaihau and The Sirens Rocks. Taputeranga Island (and adjoining marine Reserve) is also a well known landmark and natural feature of the area.
- 2.100 With access to the coastal portion of this unit being readily available from central Wellington (via Adelaide Road and The Parade) and eastern suburbs (via The Esplanade) the area is well used for recreational activities such as fishing, diving and general sight seeing. Equally, inland portions of the unit provide a well used recreation and open space resource by way of the Berhampore Golf Course, Wakefield Park and Mt Albert Park and various public reserves.
- 2.101 Views of this unit from the sea are unrestricted and views out to the sea from elevated inland areas are relatively unrestricted. Views from lower inland areas are often obstructed by suburban development and/or landform.
- 2.102 There are a number of sites and features of significance to Tangata Whenua in the Island Bay LCA, including: Uruhau Pa and Motu-haku Pa/Kaianga and a number of unnamed sites. A significant portion of the seaward end of the unit falls within the bounds of the Taputeranga – Haewai Precinct. The Owhiro Bay and Houghton Bay Conservation sites are also located within this unit.

Lyall/Evans Bay Landscape Character Area

- 2.103 The Lyall/Evans Bay LCA unit includes the area between the Wellington Airport and the Mt Albert/Mt Victoria ridgeline. It includes the suburbs of Roseneath, Hataitai, Kilbirnie and Rongotai and is characterised by the matrix of low – medium density residential development and moderately sloping

vegetated slopes; the natural 'bay' features (including a series of small bays along western edge of Evans Bay) and the Wellington Airport.

- 2.104 Both Bays' are well known for the recreation opportunities they provide with Evans Bay used frequently by sailing boats and wind surfers, whilst Lyall Bay is a highly frequented swimming and surfing beach. Evans Bay Parade is a well used cycling and running/walking route that links with Oriental Bay and Lambton Harbour.
- 2.105 Rongotai and Kilbirnie are well serviced by amenities such as schools and public open space/playing fields with an associated road and public transportation network to support these various uses. Vehicle access to the Wellington Airport is via Cobham/Calabar Drive (SH1) and Lyall Bay Parade and Moa Point Road.
- 2.106 Views from elevated areas within this unit are often expansive and include views north of Wellington harbour and south to Cook Strait. Views from lower elevations are generally more confined and framed by Moa Point and Te Raekaihau to the south and Points Halswell and Jerningham to the north.
- 2.107 The Lyall/Evans Bay character unit does not have any notable associations to Tangata Whenua. Historical associations with the construction of the airport and development of the isthmus following uplift and reclamation are significant events of more recent times.

Miramar Peninsula Landscape Character Area

- 2.108 The Miramar Peninsula character unit is defined by the distinct coastal ridge system that spans from Palmer Head/Moa Point in the south to Point Halswell in the north, and back to the northern end of the airport. This 'U' shaped ridge system is separated by the low lying Miramar basin which was once a significant wetland and mahinga kai (food gathering area) for local iwi and is characterised by underlying alluvium and marginal marine sediment deposits.
- 2.109 Miramar is further characterised by a mix of industrial, commercial, low – medium density residential development interspersed with private amenity and coastal native vegetation; parks and reserves and public open space. The peninsula is bound on all sides (with the exception of the isthmus mentioned above) by the sea with Lyall and Evans Bays to the east and the entrance to Wellington harbour to the west. With this extensive relationship with the sea comes a series of bays, headlands, beaches rock outcrops and uplifted marine benches which provide for a variety of residential, recreational and visual experiences.
- 2.110 Residential development across the peninsula is characterised by low – medium density housing throughout the suburbs of Miramar, Maupuia, Seatoun, Strathmore park and various bays (e.g. Breaker Bay and Worsler Bay). The elevated areas within these suburbs are afforded relatively unimpeded views out to sea with those to the north enjoying views into Wellington Harbour and across to Petone

and Eastbourne whilst those to the south enjoy views towards Pencarrow Head, Te Raekaihau and the Cook Strait in general.

- 2.111 In a recreational sense, the Miramar Peninsula unit is similar to that of Island Bay, with sandy beaches at Breaker Bay, Seatoun and Worsler Bay and the largely rocky foreshore and adjacent seabed providing highly regarded opportunities to dive and fish. Access to these areas is via the road that follows the coastline of the peninsula.
- 2.112 A series of public open space areas are located across the peninsula with well used public walkways linking Ataturk Park and Beacon Hill reserve in the south; Maupuia Walkaway to the west and two smaller walkways to the north at Point Halswell and Point Gordon. There are a number of significant heritage sites (e.g. Massey and Wahine Memorials and sites of significance to Maori) across the peninsula as well as several identified conservation sites, particularly at the southern end.

Wellington City Landscape Character Area

- 2.113 The Wellington City character unit includes the central city and harbour edge and the central suburbs of Mt Victoria, Mt Cook, Kelburn, Te Aro, Newtown and Berhampore. The general trend of development across this unit is from high-density commercial and residential development in the inner city with increasing medium – high density residential development in the outer lying suburbs.
- 2.114 The character of vegetation across this LCA varies considerably and includes a complete lack of vegetation in built up urban areas to the highly valued native and exotic vegetation found within the Town Belt and various parks and open spaces across the city.
- 2.115 Access across this character unit is extensive with public roads providing for private vehicles and buses. There is also significant variation in views from within the LCA with higher elevations such as Mt Victoria, providing expansive and panoramic views of the harbour whilst views from lower elevations are often hindered by built development and surrounding hills and ridges.
- 2.116 There are various sites and features of conservation, heritage and Tangata Whenua values across the Wellington City LCA.

Northern Suburbs Landscape Character Area

- 2.117 The Northern Suburbs character unit includes the suburbs of Northland, Wilton, Wadestown, Ngaio and Kandallah and is characterised by dense residential development intertwined with dense native vegetation and areas of public open space such as Tinakori Hill and Otari Bush, across moderately steep hill sides and ridges.
- 2.118 The unit is bound by the Johnsons Hill/Crows Nest/Mt Kaukau ridge to the west, State Highway 1 and the Wellington fault scarp to the east and Ngauranga Gorge and Karori to the north and south respectively with extensive subsidiary public road access across the LCA unit.

- 2.119 Views of the Johnsons Hill/Crows Nest/Mt Kaukau ridge are extensive from Northland, Upper Wilton and Wadestown, eastern Ngaio and Kandallah, with views out towards Wellington harbour from Northland, Wadestown and Kandallah equally extensive. Views from lower lying areas are more confined due to the surrounding landform.
- 2.120 The Northern Suburbs character unit does not have any notable heritage associations or values. Kandallah Park Conservation Site covers a large portion of Te Wharangi Ridges eastern face.

3.0 DESCRIPTION OF PROPOSED WIND FARM

- 3.1 The details of the components and layout of the proposed wind farm is described in the main body of the consent application AEE. In summary the main features relevant to landscape and visual assessment are the wind turbines, electrical network connections, ancillary structures such as the operations and maintenance building, ring mains units and transformers. The details of the civil engineering earthworks associated with new access tracks and construction pads for each turbine as found in the Civil Assessment Report of the AEE have also been considered in this assessment.

Wind Turbines

- 3.2 The proposed 12.5MW wind farm will be comprised of 25 Windflow 500 2 bladed turbines, which consist of a tubular steel tower of 29 metres and 46.6 metres from base to blade tip. The rotor diameter of 33.2m will be comprised of two 16.6m long blades mounted on a tower of 30m overall height. The width of the turbine base will be 2.2m, tapering to 1m at the tower top. The turbines will be painted Jungle Mist, a light grey to duck egg blue colour, with the Windflow logo in blue, green and white on one side of the nacelle hub at 30m above ground. Each turbine will require a transformer which will be placed between 2-15m of each turbine base with ground dimensions of approximately 1.45m by 1.51m and 1.42m in height.

Internal Access Roads and Earthworks

- 3.3 Due to the network of existing tracks and roads within the vicinity of the wind farm, there will be a limited number and length of new tracks needed to service each turbine and to connect with the existing access network. Minor widening and trimming of the existing road in a small number of areas will also be needed, principally to allow for construction traffic to gain access to the ridgeline. Disposal sites for limited amounts of excess cut material will be located at various locations close to the track network.

The construction of each wind turbine will require a relatively flat construction pad of approximately 140m² to allow for turbine assembly. The turbines will be constructed on single pile foundations of 2.4m in diameter and 7-10m deep, depending on individual site location, which corresponds to an excavated volume of between 32-45m³. Following construction, the turbine platform areas will be rehabilitated to achieve a balance between revegetation and continued areas for maintenance. The works may include, to a greater or lesser extent, backfilling and revegetation.

Power Lines and Ring Main Units

- 3.4 The routing for the new 11kv power lines needed to connect the wind farm to the local network are in three locations, two of which connect the north and south groups of turbines to an existing line in Long Gully itself, and the third line runs down the slope and spurs from Hawkins Hill to the south east towards Landfill Road. The existing Long Gully line would also be upgraded, as far as Wrights Hill, with the addition of three further overhead cables and the possible replacement of existing poles with new ones.

The poles to support all of the lines will be wooden or concrete between 8m and 12m in height. Instead of using a substation, it is proposed to use three modular Ring Main Units (RMUs) to connect three groupings of turbines. The height of the RMU is proposed to be 1.53m, with a width of 0.95m and a length of 1.4m.

4.0 NATURAL CHARACTER OF THE COASTAL ENVIRONMENT

4.1 RMA s6(a) identifies as nationally important, the preservation of the natural character of the coastal environment and its protection from inappropriate subdivision, use and development.⁶

Extent of the 'Coastal Environment'

4.2 The coastal environment is that area *'in which the coast is a significant part or element'* (Report and Recommendations of the Board of Inquiry into the NZ Coastal Policy Statement, 1994). In a landscape such as the south Wellington coast, there is no clear inland boundary. The study area can be mapped into two zones and is illustrated with reference to **Figure 6: Landscape Character and Coastal Influence Areas**.

- **Coastal Dominance Zone:** The zone in which the coast is the dominant element, and primary influence on coastal landform, vegetation, and perception. It clearly comprises the beaches, rocky outcrops and wave-cut cliff escarpments, maritime vegetation and if present, the band of dunes inland of MHWS. The extent to which this zone extends inland varies according to location, but generally it extends to the back of the beach or first ridge back from the coastal edge which is more often the case in the Wellington peninsula.
- **Coastal Influence Zone:** This area is not easily demarcated in the south Wellington coastal landscape due to the multiplicity and complexity of landforms. It extends inland from the edge of the coastal dominance zone, with the degree of coastal influence gradually diminishing. This influence is assisted by the orientation of the peninsula's topography and the frequency of southwesterly maritime weather conditions penetrating well inland. This area is essentially a modified pasture landscape, comprising rough grass or coastal scrub with some remnant indigenous bush in sheltered gullies. Turbine numbers 12 to 17 of the southern group of turbines are located within this zone. However, coastal influence decreases in relation to each turbine site being further from the coastline (i.e., coastal influence is less for T16 than T17, T15 is less than T16 etc.) Turbines 10 and 11 are nearby this group, but lie outside the coastal influence zone.

⁶ RMA s6(a) refers to "preservation of the natural character of the coastal environment, wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development."

The RMA does not define 'coastal environment'. The NZ Coastal Policy Statement defines it as "an environment in which the coast is a significant part or element". This includes the coastal marine area, the active coastal zone, and the land backdrop. The extent to which the coastal environment extends inland is not clear with each particular area requiring a particular consideration" (Northland Regional Council vs Whangarei District Council 463/76). As a guide that decision indicated that "Where there are hills behind the coast, it will generally extend up to the dominant ridge behind the coast"

The RMA also does not define 'natural character'. (Kuku Mara vs Marlborough District Council W37/05). Held that "*Natural character is a term used to describe the naturalness of all coastal environments. The degree or level of natural character within an area depends on: (1) the extent to which natural elements, patterns and processes occur (2) The nature and extent of modifications to the ecosystems and landscape/seascape. The highest degree of natural character (greatest naturalness) occurs where there is least modification. The effects of different types of modification upon the natural character of an area varies with the context, and may be perceived differently by different parts of the community.*"

Degree of Natural Character

4.3 The natural character of the coastal environment was assessed against the criteria below for each of the LCAs with coastal components or influence (refer to **Figure 6**):

- Extent to which natural landform or water-courses/water-bodies are unmodified
- Extent to which vegetation is unmodified (i.e. indigenous vegetation cover)
- Relative absence of human structures and infrastructure
- Extent to which natural features and patterns are visually dominant
- Extent to which vegetation and landuse patterns are coherent with landform
- The extent to which natural geomorphic and ecological processes are intact.

4.4 In summary, the coastal environment within the coastal dominance zone (i.e. the area between the sea and the first coastal ridge) in most cases has a **high** degree of natural character.⁷ The dominant elements are the surf, beach and wave cut cliffs, the active sand dunes area and the stream mouth areas. It is not pristine: the vegetation cover has been extensively modified along the coast⁸ and in many places stock still have access to the coastal escarpment. However the landforms are formed by coastal erosion processes and the vegetation influenced by coastal exposure; the landforms and ocean itself are the dominant visual elements; vegetation patterns follow the underlying landform; and with one or two exceptions there are limited structures and only occasional farm tracks.⁹

4.5 The Coastal Influence Zone in the vicinity of the site generally has a **moderate** degree of natural character. Due to the topography, it is difficult to demarcate the extent of this zone, but it is evident that the southern group of turbines will be most influenced by salt laden air and maritime weather conditions. The sea is visible from different parts of the site area, principally from the inland ridgelines but it is not the dominant element, but more of a backdrop. The vegetation is mostly improved and managed pasture and the landscape is essentially settled farmland, with occasional shelterbelts, stock-proof fencing, unsealed roads, with a scattering of farmhouses, associated rural buildings and transmitter structures.

⁷ The Coastal Marine Area itself has a high degree of natural character

⁸ The main area in which there is indigenous vegetation in this zone is immediately adjacent to the beaches and within occasional deep gullies.

⁹ There are two groups of baches on the southern coast, generally orientated towards the sea.

5.0 EVALUATION OF LANDSCAPE SIGNIFICANCE

5.1 An assessment was made to determine the extent to which the wind farm site constitutes an 'outstanding natural feature or landscape' in terms of s6(b) of the RMA, or a 'special amenity landscape' in terms of s7(c) of the RMA. The Environment Court in *Wakatipu Environment Society vs Queenstown Lakes District Council* [2005] NZRMA 59 established a number of principles that assist when considering landscape and visual matters, which included a set of factors referred to as the 'Pigeon Bay Criteria' to be considered when assessing landscapes. That decision also noted that landscapes can be classified into three categories:

1	'Outstanding natural features and landscapes' in terms of RMA s6(b)
2	'Special Amenity Landscapes', to help achieve the requirements of RMA s7(c)
3	Other Landscapes

Outstanding Natural Features / Landscape Status

5.2 To meet the requirements of s6(b) a landscape should have both a high degree of naturalness and be 'outstanding'. For instance it should be "*conspicuous, eminent, especially because of excellence*".¹⁰ It was considered by the Environment Court in *Meridian Energy Ltd vs Wellington City Council* [W031/2007] that "*overall, the coastal environment from Ohariu Bay southwards to the boundary of ... Tongue Point...is an outstanding natural landscape punctuated by a smattering of outstanding natural features*".¹¹ Although the Environment Court for this particular decision concluded that the coastline between Ohariu Bay to Tongue Point is outstanding, the extent of this feature is not delineated on any map. In addition, the Court made no finding about whether the ONL extended eastwards beyond Tongue Point, to include the coastal landscape adjoining the Long Gully wind farm site. This raises the question of its extent, and whether the Site, or part of it, might be regarded as part of an ONL. Therefore the following analysis is made of the local area in terms of factors set out in the 'Pigeon Bay criteria':

- The natural sciences factors – *the geological, topographical, ecological and dynamic components of the landscape*; There are a number of sites in the vicinity of the proposed wind farm which are included within the Inventory of Important Geological Sites, although none are in the immediate vicinity of the proposed turbines. The proposal Site occupies part of the eastern and western ridges of Long Gully, two of the highest ridges closest to Wellington. Long Gully also acts as the axial Wellington fault, continuing southwards into the Cook Strait. Exposed rocky outcrops and isolated steep scree slopes characterize the upper portions of the gully. Landcover is predominantly regenerating bush, with substantial areas fenced off.

¹⁰ *WESI v Queenstown-Lakes District Council* (C180/99), para. 82

¹¹ *Meridian Energy v Wellington City Council* (W031/2007), para 412

- Its aesthetic values including memorability and naturalness; The Site itself provides a backdrop to views from limited areas within Wellington city and is highly visible from the sea especially the ferry route that crosses Cook Strait. The Te Kopahou Ridge (encompassing Hawkins Hill and Polhill Ridge) also house the Hawkins Hill radar station and the Brooklyn Wind Turbine, which are well known local landmarks in Wellington;
- Its expressiveness (*legibility*): how obviously the landscape demonstrates the formative processes leading to it; Long Gully is highly legible, due to its obvious geomorphic expressiveness. The coastal cliffs and escarpments rise dramatically and provide a timeline to the geology especially where there are exposed rock sections along the unvegetated coastal edge.
- Transient values: *occasional presence of wildlife; or its values at certain times of the day or year*; The area receives frequent-dramatic weather changes, such as southerlies or south-westerlies, where the play of light and atmospheric conditions accentuate the landform and landscape pattern; according to the Ecological Report of this AEE, there is limited indigenous bird use of the Site with probably only sporadic visits by some notable species known from the surrounding area.
- Whether the values are shared and recognised; The area appears to be moderately recognised and shared and is frequented by walkers and cyclists. Access is also obtainable to the coast, via a network of tracks to baches;
- Its value to Tangata Whenua; Te Kopahou ridge was known to early Maori as providing a route to the sea for food gathering and where other sites of interest such as pa, karaka groves and kainga sites near to the coast close to Sinclair Head/Te Rimurapa and Pariwhero/Red Rocks and which form part of the Rimurapa Precinct. The full details of Tangata Whenua interests are found in the Cultural Report elsewhere in this AEE.
- Its historical associations. There are a number of historical associations, including the nearby WWII defensive sites, at Polhill and Wrights Hill.

Summary of Site and Broader Landscape Significance

- 5.3 From this analysis, although scoring relatively highly by some criteria, it is considered that the Site is not an outstanding natural landscape when considered against the requirements for Section 6(b) of the RMA. To establish the landscape significance of the wider area and the coastline the same methodology was applied to each of the Landscape Character units outlined within **Figure 5**.
- 5.4 These units are primarily based on geomorphological and hydrological characteristics (i.e. major landforms, streams and associated tributaries) and were refined to reflect visual qualities and in the

case of the urban units (i.e. Units 14 – 18) key settlement patterns and suburban characteristics were also considered.

- 5.5 Any notable natural features located within a particular unit or on the boundary of multiple units were identified to allow for their consideration under Section 6(b) of the RMA. Additionally, zones of coastal dominance and coastal influence were placed over the identified character units to provide for the assessment of areas (i.e. individual or a combination of units) and specific features in the context of Section 6(a) of the RMA. The consideration of these areas and features took into account the range of Pigeon Bay factors and a judgement was then made as to whether the landscape has such qualities it should be considered an 'outstanding natural landscape' in terms of RMA s6(b); whether it fits a second tier 'special amenity landscape' in terms of RMA s7(c); or whether it fits within the 'ordinary' range of most landscapes.

Table 3 Assessment of Existing Landscape Character Units with 'Pigeon Bay Criteria'

		Category			Physical			Perceptual			Associations		
		Outstanding (s6)	Special Amenity (s7c)	Ordinary	Natural Science : Land/ Water	Natural Science : Vegetation	Natural Science: Dynamic qualities	Legibility and memorability	Expressiveness	Transient	Tangata Whenua	Historical	Recognition, Identity
1	Happy Valley				ML	ML	M	MH	M	M	M	L	M
2	Waipapa/ Te Kopahou				MH	M	H	M	M	MH	L	L	MH
3	Long Gully				H	M	M	MH	H	MH	L	L	H
4	Southern Long Gully				MH	M	M	M	H	MH	L	L	L
5	Wrights Hill				MH	VH	M	MH	MH	H	L	M	MH
6	North Karori				ML	ML	M	ML	MH	M	M	M	M
7	South Kaori				MH	M	MH	MH	MH	MH	L	L	M
8	Makara Valley				M	M	MH	M	M	M	MH	M	M
9	Waiariki				MH	MH	M	M	MH	MH	M	L	L
10	Oteranga/ Shepherds Gully				MH	M	M	M	M	M	L	L	L
11	Black Gully				H	MH	H	VH	VH	H	ML	MH	H
12	Ohau/ Te Ika a Maru/ Opau Bays				MH	M	M	H	H	MH	MH	M	H
13	Coastline				VH	H	VH	VH	VH	H	H	H	VH
14	Island Bay				M	ML	ML	M	ML	M	H	M	M
15	Lyall/ Evans Bay				M	VL	ML	M	ML	ML	L	H	H
16	Miramar Peninsula				M	VL	M	MH	M	M	U	U	M
17	Wellington City				M	L	M	M	L	M	VH	H	VH
18	Northern suburbs				M	M	M	L	L	M	L	L	ML

Notes: Assessment of significance is based on a five point scale: Very High (VH), High (H), Moderate (M), Low (L) and Very Low (VL). There are instances where the values cross-over (such as ML: Moderately Low) and values which are unknown (U).

5.6 Table 3 outlines that the Coastline and Black Gully Landscape Character Areas should be considered as an outstanding natural landscape due to their high levels of natural character, legibility and geomorphology. The majority of the west Wellington landscape, including the Long Gully Landscape Character Area should be regarded as a Section 7(c) Special Amenity landscape, due to its medium to high levels of expressiveness and natural science values.

6.0 RELEVANT STATUTORY PROVISIONS

6.1 The provisions of the relevant statutory documents most relevant to landscape and visual matters are outlined in **Appendix 1** of this assessment and explained further below. Relevant statutory provisions include Part 2 of the RMA 1991; the current and Proposed New Zealand Coastal Policy Statements, the operative and draft Regional Policy Statements for the Wellington Region; the Wellington City District Plan; Plan Changes 32 and 33; and the Rural Area Design Guide.

Resource Management Act Part 2

6.2 Section 5 sets out the single purpose of the Act as the promotion of sustainable management of natural and physical resources, and defines sustainable management to mean managing the use and development of natural and physical resources in a way which enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety. Sustainable management requires safeguarding the life-supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating adverse effects of activities on the environment.

6.3 Section 6(b) of the RMA identifies, as a matter of national importance, the protection of outstanding natural landscapes and features from inappropriate subdivision, use and development.

6.4 Section 7(c) notes that particular regard must be given to amenity values, which is defined in Section 2 of the RMA to include *“those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes”*.

6.5 Section 7(f) notes that particular regard must be given to maintaining and enhancing the quality of the environment.

New Zealand Coastal Policy Statement

6.6 The purpose of the NZCPS is to state policies in order to achieve the purpose of the RMA in relation to the coastal environment. In other words it is to help achieve the purpose as set out in Section 5 of the RMA which in turn cannot be read in isolation from the rest of Part II of the RMA.

6.7 The NZCPS sets out 14 general principles in addition to Part II of the RMA. Of relevance in particular to this application is Principle 2, *“The protection of the value of the coastal environment need not preclude appropriate use and development in appropriate places.”*

6.8 Policies 1.1.1 and 1.1.3. are also relevant to landscape and visual issues.

6.9 Policy 1.1.1 states;

“It is a national priority to preserve the natural character of the coastal environment by:

- (a) *encouraging appropriate... development in areas where the natural character has already been compromised and avoiding sprawling or sporadic... development...;*
- (b) *taking into account the potential effects of ...development on the values relating to the natural character of the coastal environment...;*
- (c) *avoiding cumulative adverse effects..."*

6.10 Policy 1.1.3 states;

"It is a national priority to protect the following features, which in themselves or in combination, are essential or important elements of the natural character of the coastal environment:

- (a) *landscapes, seascapes and landforms, including:*
 - (i) *significant representatives of each landform which provide the variety in each region;*
 - (ii) *visual or scientifically significant geological features; and*
 - (iii) *the collective characteristics which give the coastal environment its natural character including wild and scenic areas;*
- (b) *characteristics of special spiritual, historical or cultural significance to Maori identified in accordance with tikanga Maori; and*
- (c) *significant places or areas of historic or cultural significance.*

6.11 Other policies include aspects such as protecting biophysical and ecological processes, protecting significant habitat, and promoting public access.

The Proposed New Zealand Coastal Policy Statement

6.12 The Proposed NZ Coastal Policy Statement, for which submissions closed on 7 May 2008, describes in Policy 1 the coastal environment, and continues to promote the sustainable management of this environment. Policy 32 sets out to preserve outstanding natural features and landscapes of the coastal environment through appropriate subdivision, use and development.

6.13 The Proposed NZ Coastal Policy Statement recognises assessment criteria developed in the Environment Court for assessing the natural character of the coastal environment and assessment criteria referred to as the 'Pigeon Bay Criteria' for assessing a landscape. These criteria have been used within the assessment.

Regional Policy Statement for the Wellington Region 1995

6.14 Chapter 7 – The Coastal Environment and Chapter 10 – Landscape and Heritage are both relevant to the assessment of the proposed wind farm and the protection and preservation of the natural character of the coastal environment and nationally and regionally outstanding landscapes and features in

particular. The objectives, policies and anticipated environmental outcomes that are relevant to this assessment are attached as **Appendix 1**.

- 6.15 *Sites of National or Regional Significance for Indigenous Vegetation or Significant Habitats for Indigenous Fauna; Landscapes and Seascapes of National or Regional Significance; and Outstanding Natural Features, Landforms and Sites of Historical Importance* are identified under Tables 8, 9 and 10, Chapter 7 of the RPS. Whilst no maps of these areas and features are included in the RPS each relates to one or more references to external documents that provide a basis for their inclusion in the respective tables. In some cases these external documents provide mapped information, of varying accuracy, as to the extent and locations of these areas and features.
- 6.16 The wind farm site does not include any areas or features identified in these tables, although both Red Rocks¹² and Sinclair Head¹³ are located in relatively close proximity to the site with the *Coastal escarpments and small beaches from Paekakariki to Owhiro Bay* as referenced in Table 9¹⁴ adjoining the southern boundary of the site to the south of turbine 17. This regionally significant landscape/seascape is therefore relatively close to the proposal site and is worthy of further consideration in relation to the overall extent and methods used to identify the area.
- 6.17 From the description provided for the *Coastal escarpments and small beaches from Paekakariki to Owhiro Bay* on pages 28 – 30 of *The Coastal Resources Inventory: First Order Survey*¹⁵ it appears that the coastal area highlighted on map 8.3 – 1 of the Inventory, is an attempt to illustrate the extent of this regionally significant landscape. A digitised version of this area was provided by Greater Wellington Regional Council¹⁶ and is shown as the red line on **Figure 7** of this assessment.
- 6.18 It is clear from this line that the area includes more than just coastal escarpments and small beaches and extends both seaward and inland by varying distances. It is also inconsistent with the widely accepted view that the coastal environment *will generally extend up to the dominant ridge behind the coast*¹⁷ when considering natural character under the RMA, NZCPS and RPS frameworks.
- 6.19 The reality is that Wellington's South Coast is a complex landscape and the identification of the extent of the coastal environment is often difficult due to the folded and faulted nature of the landform and the fact that many of the inland gullies run perpendicular to the coastline resulting in coastal processes being evident further inland than would otherwise be expected. As a result of this relationship between coastal processes and landform the identification of Coastal Influence and Coastal Dominance Zones under **Figure 6** of this assessment is considered to be a more appropriate way of considering the

¹² Table 8 (Red Rocks – Scientific Reserve) and Table 10 (Red Rocks – volcanic intrusions)

¹³ Table 8 (Sinclair Head – Scientific Reserve) and Table 9 (Sinclair Head)

¹⁴ See Department of Conservation, 1990, *The Coastal Resources Inventory: First Order Survey*, Wellington Conservancy, Department of Conservation, Wellington, pg's 28-30 and sheet 8.3-1

¹⁵ *Landscapes & Seascapes of National or Regional Significance. See Chapter 7 of the RPS, Table 9 lists these areas. These are part of DoC's Coastal Resources Inventory (1990). See also Wellington Regional Strategy, Report 2.14 (2005), p.48.*

¹⁶ *Ibid*

¹⁷ *Northland Regional Planning Authority v Whangarei County Council (1977) D A4828 at p 4831*

preservation and protection of the natural character of the coastal environment under Policies 1 and 2 of the RPS and with reference to the NZCPS and Section 6(a) of the RMA. A discussion regarding the significance of the site and surrounding landscape is provided in paragraphs 5.3-5.5 in Section 5 of this assessment.

- 6.20 It is appropriate at this stage to acknowledge that the Greater Wellington Regional Council (GWRC) undertook to prepare a Regional Landscape Plan with the purpose of recognising and providing for the maintenance and enhancement the region's highly valued landscapes. The Proposed Regional Landscape Plan for the Wellington Region was publicly notified in 1997 with an amended version prepared in 1998. Portions of the proposed wind farm site were identified as outstanding landscapes¹⁸ in the Wellington harbour context. Following the public consultation process the GWRC decided to withdraw the proposed plan and therefore it is no longer regarded as relevant in considering the management of the region's highly valued landscapes.
- 6.21 In the absence of identified regionally outstanding landscapes it not easy to see how the management of such areas are to be considered in the context of Chapter 10 of the RPS and Policies 2 and 4 in particular. As stated previously there are no identified *nationally and regionally outstanding landforms, geological features, soil sites and other natural features*¹⁹ within the proposed wind farm site.

Draft Regional Policy Statement for the Wellington Region 2008

- 6.22 Despite the latest version of the RPS being at a 'draft' stage the GWRC has indicated that their intention is to publically notify the Draft Regional Policy Statement for the Wellington Region early in 2009. Therefore the consideration of the landscape related provisions of this document is relevant to this assessment, with the identification (i.e. description and mapping) of Sites of Regional Significance in the Coastal Environment under Appendix 1 being of relevance, despite GWRC deciding to withdraw it from the draft document amidst concerns that the methodology used to prepare the appendix was not robust enough to provide the basis for management of these proposed areas of significance.
- 6.23 The anticipated environmental results that have been outlined at the end of Chapter 2.2 – Coastal Environment in relation to Objectives 3 and 4 states:
- "Areas and sites listed in Appendix 1 will be identified in district and regional plans;*
- No loss or degradation of the values associated with the areas and sites listed in Appendix 1; and*
- All new subdivision, use or development in the coastal environment will be within areas where natural character has already been compromised".*

¹⁸ *Proposed Regional Landscape Plan, 1997*. Figure B1.1 – Wellington Harbour Outstanding Landscape.

¹⁹ Policy 2, Chapter 10. RPS.

- 6.24 Under Appendix 1, a series of sites were identified and mapped with an account of their individual values provided by way of a Statement of Significance. No sites or areas that were identified are within the wind farm site, the closest being site No. 23 – Sinclair Head.²⁰
- 6.25 The withdrawal of Appendix 1 from the Draft RPS tends to highlight the ‘gap’ in the regional policy that is created by the inconsistencies/inaccuracies in the operative RPS (as described in 6.18 and 6.19 above) and the resulting difficulties in applying those policies that relate to the identification and management of the Region’s significant landscapes. A practical example of this relates to the requirement for local authorities to *protect(ing) the values of the sites and areas listed in Appendix 1* under Policy 33(a) when considering an application for resource consent. Granted the remaining sections under Policy 33 still apply but their focus is not so much on protection but rather, avoidance, maintenance and encouraging certain outcomes.
- 6.26 Policy 34 of the Draft RPS provides a useful list of criteria when considering whether a proposal is within the coastal environment for the purposes of protecting natural character. In considering the appropriateness of the proposed wind farm this assessment considers all of these criteria, particularly under Sections 4 and 5.
- 6.27 With regard to the status of outstanding natural features and landscapes and their consideration under Section 6(b) of the RMA, Policy 24 provides a comprehensive and widely recognised list of criteria that are to be used to identify outstanding natural feature and landscapes in district and regional plans. The consideration of the significance of the site and surrounding landscape has been carried out using these criteria and is explained under Section 5 of this assessment.

Wellington City District Plan

- 6.28 The proposed wind farm is to be constructed within the Rural Zone under the Wellington City District Plan (District Plan). However, it is the provisions of Chapter 26 (Renewable Energy) that are predominantly relevant to the assessment of this wind farm, as they override the Rural Zone provisions²¹
- 6.29 Of particular note are the assessment criteria outlined under Rules 26.3.1.2 to 26.3.1.13 which relate to the amenity, landscape and visual effects of a proposed wind farm. These criteria have been outlined under Appendix 1 of this assessment²² with the discussion under Section 7 – Landscape Effects providing further consideration of the issues.
- 6.30 Assessment Criteria 26.3.1.3 refers specifically to the ridgelines and hilltops overlay shown on the District Plan maps. The eastern group of turbines, along the Hawkins Hill/Te Kopahou Ridge, are located within the overlay. The inland group of turbines are not.

²⁰ 23 Sinclair Head from Karori Stream to Owhiro Bay Quarry (The “Run Around”). Approximately 8km of coastline that includes Sinclair Head Scientific Reserve, Red Rocks Scientific Reserve, and Speargrass Reserve.

²¹ See Appendix 1.

²² See Appendix 1.

- 6.31 Assessment Criteria 26.3.1.10 requires an assessment of the extent to which access and buildings (excluding wind turbines) will meet the relevant aspects of the Rural Design Guide. Again, these criteria and associated issues are discussed further on the following pages, under Section 7 – Landscape Effects.

Rural Area Design Guide

- 6.32 Whilst the Rural Design Guide *applies to subdivisions and residential buildings and associated residential accessory buildings in the Rural Area* it also applies to *access tracks, roads and buildings (excluding wind turbines or wind energy generators) associated with wind energy facilities.*

- 6.33 Of those objectives established under the Rural Area Design Guide those that are most relevant to this assessment include:

Section 3.0 Natural Features, Ecosystems and Habitats – Objective O1.

To protect and enhance the distinctive natural character of prominent landforms, the coastal environment, wetlands, streams and their margins; and

Section 6.0 Access – Objective O2.

To ensure that roads and access-ways are designed to minimise visual intrusion and that their construction is of a rural character.

- 6.34 The protection and enhancement of the Hawkins Hill/Te Kopahou Ridge as a prominent landform in the south coast and eastern Wellington landscape the consideration of this objective and the intent to *minimise the intrusion of 'cultural' elements into very natural/wilderness environments* under associated Guideline 5 is relevant to the proposed wind farm development. Given the nature of the Hawkins Hill/Te Kopahou Ridge and its geomorphologic character in particular Guideline 7 also requires consideration. Again, this has been undertaken by way of the following commentary under Section 7 – Landscape Effects.

7.0 LANDSCAPE EFFECTS

- 7.1 Potential effects from wind farms derive from the wind turbines themselves, which are the main structural component, with ancillary structures and the civil engineering earthworks which can likewise be prominent but which also have potential biophysical effects on the landscape resource, arising from factors such as vegetation clearance or landform modification. All wind farm components can influence the scale and magnitude of **landscape effects** which can have direct and indirect effects on physical and perceptual landscape factors. Section 8 will examine the **visual effects** of the proposal including views available from public locations, roads and private houses while Section 9 will assess the **effects on natural character of the coastal environment**.
- 7.2 All these effects are relevant when considering the proposal in the context of RMA s6(a) preservation of the natural character of the coastal environment (including the coastal marine area) from inappropriate subdivision, use and development; s6(b) protection of outstanding natural features and landscape from inappropriate subdivision, use and development; s7(c) maintenance and enhancement of amenity values and s7(f) maintenance and enhancement of the quality of the environment.

Construction Phase

Effect on Landscape Character

- 7.3 Due to the close relationship between the topography and both the proposed layout of turbines and the boundaries of several Landscape Character Areas (LCAs), the construction (and operation) of the proposed wind farm will have a limited direct effect on the landscape of 5 LCAs. These are identified and described in Section 2, namely Long Gully, Waipapa/ Te Kopahou, Long Gully South, South Karori and Coastline (see **Figure 5**). The majority of these direct effects will be on the Long Gully LCA unit, with the other four LCAs being affected much less and only along limited parts of their common boundaries with the Long Gully LCA. Boundaries between LCAs often tend to be zones of transition between one LCA and another, rather than definitive lines or features on the ground. In this case, because landform is such a dominant landscape attribute, it provides a rapid transition between LCAs, and so for completeness all the adjacent four LCA units are considered to experience some, but much more limited effects on their landscape character.
- 7.4 In summary the scale of the proposal's construction effects on the landscape character of the Long Gully LCA are considered to be moderate which, with mitigation through ground restoration, will reduce to minor at the operational phase. With respect to the other four LCAs the construction effects are considered to be minor to negligible on a decreasing scale on LCAs as follows; Waipapa/Te Kopahou, Southern Long Gully, South Karori, Coastline.

Effects Arising from Earthworks

- 7.5 Effects arising from earthworks were assessed for all components of the wind farm. This included:
- Extent and location of cut faces and fill batters
 - Likely visibility of earthworks
 - Extent of any vegetation clearance and the quality of vegetation
 - Extent of encroachment into watercourses and streams
 - Extent to which earthworks follow the landform pattern
- 7.6 The details contained in the Civil Assessment of Environmental Effects provided the baseline information for the assessment of the likely landscape and visual effects arising from earthworks related to the farm road upgrades and the laydown / construction pads needed for development of the proposed wind farm. Due to the fact that the majority of the access roads are already in place and require relatively minor 'trimming' to allow construction traffic access, it is considered that the visible effect of earthworks on existing tracks will be relatively minor or none.
- 7.7 For the new track sections that are needed to access each turbine base and to create turbine construction pads there will be limited areas of cut and fill with several disposal areas for excess overburden placement, as detailed in the AEE Civil Report; Drawings SK01-SK10. The turbines that will require new track sections with approximate lengths in brackets are T1 (75m), T2 (55m), T3 (35m), T4 (30m), T5 (25m), T6 (55m), T8 (45m), T9 (35m), T15 (50m), T16 (20m) T20 (20m), T21 (20m), T22 (20m) and T25 (85m). The majority of these new track sections run with the ground contours and the line of the existing track as far as possible with T1 and T2 partially crossing the grade of the land which faces towards the direction of possible visibility from the outer suburbs of Wellington. However in reality the limited scale of the earthworks, their mitigation post construction, the viewing distance and the likely screening by intervening vegetation and other features will mean that these works are highly unlikely to be visible to the naked eye by residents and other receptors except those in the immediate vicinity of less than 1km or viewing from higher ground. Disposal areas for limited amounts of excess overburden of up to 1m height are located relatively close to turbines T3, T9, T14, T17, and T20, with one larger area identified at the north western end of the old airstrip located at the base of the gully. As for new sections of tracks, these are unlikely to be discernable to the naked eye once revegetated, except within the immediate area of the site or at distances closer than 1km.
- 7.8 The overall effects on the landscape, for the majority of the site, will be relatively minor in the construction phase. Those effects that do occur will be further reduced by mitigation measures such as ground restoration and revegetation. The limited extent of adverse effects also relates to the nature of the topography, land use pattern, existing track provision and other ground modifications on the site, and the limited scale, placement and volume of proposed earthworks. The western Wellington hill

country has a relatively easy topographic hard rock surface on which to construct the proposed turbines. The ridgelines and gullies provide relatively good locations for turbines and access roads. While a number of features interrupt the surface, such as small knolls and steep-sided stream valleys, the turbine locations and proposed modifications to access roads avoid these features, following the ridges and existing network of access.

Effects on Vegetation

- 7.9 The pastoral landcover of the majority of the Site area, with indigenous secondary scrub present in the area of turbines T16-T17 with indigenous and exotic shrubland adjacent to T15, means that indigenous vegetation clearance is not a significant issue. The indicative earthworks for access roads and turbine platforms do not encroach into areas of primary native bush. Where they exist nearby, stormwater management and erosion and sediment control will prevent the encroachment of offsite effects into any adjacent areas of remnant vegetation. The detailed design of these provisions will provide opportunities for mitigation.

Effects of Construction Foundations for Other Built Features

- 7.10 There will be some effects during construction due to ground preparations for the foundations of built structures in order to construct turbines, the operations and maintenance building, ring main units and transformers. The landscape effects of these foundation works will be minor and short term, subject to appropriate restoration of the surrounding ground. The majority of the proposed wind farm is in open pasture, and while this means temporary construction works will be more evident, it also means they can be quickly rehabilitated by re-grassing. Care will be applied in managing topsoil and runoff which is detailed in the Civil Assessment Report of this AEE.

Assessment of Effects of the Extension and Upgrading of the Local Electricity Network

- 7.11 The layout of the proposed and upgraded local electricity network to connect to the proposed wind farm at Long Gully is shown in **Figure 6.1**, with different colours denoting different parts of the network.
- 7.12 This local network is all 11kV rated and will comprise of an existing line running along Long Gully which will be upgraded from a single to double circuit 11kV line. There will also be two new pole line routes to connect the proposed wind farm to the offsite local network at Wrights Hill. These new pole line routes (OH2 and OH4) are of a limited length (720m and 430m respectively) and connect the north and south groups of turbines to the existing, but to be upgraded 11kV line in Long Gully. The third proposed new line (OH1 and OH1 extension) connects the northerly turbines of the Te Kopahou 'string' via a series of smaller spurs towards Landfill Road, meeting the road at a point near the landfill site. An existing 11kV branch line connects Hawkins Hill to the Long Gully line approximately 300m north of the airstrip and this poled route will remain unchanged (shown in black on **Figure 6.1**)

Effect of New Lines

- 7.13 All new lines (OH1 and OH1 extension, OH2 and OH4) will be 11kV routes, with relatively small scale construction effects from the erection of approximately 9.2m high concrete poles for all lines, each carrying 3 lines on single bracket pole top fixings as standard for single circuit lines. OH2 is 720m long and connects the southern group of turbines, nearest to turbine 12, with the existing seaward end of the Long Gully line, while OH4 will be a short new line only 432m in length, connecting the northern turbine group from directly in between turbines 22 and 23 with the existing Long Gully line. Each of these 3 new branch lines will terminate in a ringmain unit located at the wind farm end of each new line to service the connection between the turbines and the local electricity network. These RMU's will consist of small scale muted colour metal boxes which will be approximately 1.4m long, 0.95m wide and 1.53m high.
- 7.14 The landscape and visual effects of OH2 and OH4 will be limited both in the construction and operative phases due to the limited lengths of these lines, the scale of features, their position in the gully landscape and the very limited visual access to these routes and the very low numbers of potential recreational or residential receptors.

Effects of New Line OH1 and OH1 Extension

- 7.15 **Figures 6.2 and 6.3** show maps of the Zone of Theoretical Visibility of this line route and the potential short extension line along the ridge. It can be seen from these figures that the range of potential visibility is mainly focused on the south west facing slopes below Hawkins Hill in short distance views, limited areas of the suburbs of Kingston and Kowhai Park in middle distance views and limited higher ground areas of Island Bay and Newtown in long distance views. There is very limited visibility of OH1 to the north and west of the area apart from within Long Gully itself. Naked eye visibility of a poled line route of the proposed component size will be extremely limited, or unlikely beyond 3km. In reality within the 3km radius, due to the distance over which these line features will be viewed, the range and distribution of intervening structures and vegetation, there will be limited areas where the new line will be discernible to the naked eye, except possibly in the Kingston area. A viewpoint was selected on the Tawatawa Walkway, just south of Kingston to illustrate this as shown in the existing view in **Figures 6.4 and Figure 6.5** providing a 3D simulated model with and **Figure 6.6** illustrating a photosimulation of the potential view of OH1 and the extension.
- 7.16 From these figures it can be seen that the pole route will appear intermittently as a limited minor feature in this view as the line gradually climbs the lower slopes, with only two poles appearing on the skyline in the middle to long distance, and a group of poles of the extension line just visible on the Hawkins Hill skyline at a long distance. The OH1 line in the majority follows the route of an existing track, which is one of several in this area, as it winds up the spurs from Landfill Road towards the ridge, with the overhead lines only occasionally deviating from close to this track, where it is necessary to swing over steep slopes and minor gullies.

- 7.17 From the illustrations provided and considering that this viewpoint was selected to indicate the view from an area with as relatively close a public view as practical and of the majority of the route as possible, and where there may be a higher number of potential local receptors, it can be concluded that the new line feature would be a less than minor potential alteration to the existing view.
- 7.18 In consideration of the OH1 Extension line and its location within the more sensitive Ridgelines and Hilltops Overlay policy area it is concluded that there is slightly more landscape effect than the main new line to Landfill Road, but since it is seen at a relatively long distance and possibly hardly discernible to the naked eye the rating of overall effect is still no more than minor.

Effects of Upgrading the Long Gully Line

- 7.19 The existing Long Gully line will be upgraded to a double circuit system carrying 6 lines, 4 below and 2 above on double bracket pole top fixings. The carrying poles for the double circuit upgrade along Long Gully will remain as existing with only the bracket fixing changed to give an overall pole height of 10.2m. Below Wrights Hill there are 3 'H' frame pole existing locations which are needed to cross gullies there and which will remain, but again upgraded to approximately 10.2m in height to carry 6 lines of the double circuit, plus there is a short underground section close to the southern edge of the airstrip which will also remain as existing. The resulting landscape and visual construction effects of the upgrading of the line along Long Gully will be extremely limited or negligible in terms of ground disturbance and very limited in terms of visibility. Human receptors of the visual changes to the existing line within the gully are limited with the exception of the Wrights Hill open space area and the edge of part of Karori suburb where the changes in the available view will still be less than minor due to the nature of the upgrade works.

Conclusions on Effects of the Proposed Network.

- 7.20 In conclusion the construction and operational phase effects of the new pole line routes of OH2 and OH4 on the landscape and visual amenity are considered to be less than minor. The OH1 route and OH1 extension to Hawkins Hill are also considered to be less than minor overall. The operational phase effects of the OH3 upgraded route to Wrights Hill and the urban edge at Karori, will be also be less than minor, with even less perceived effect within the gully environment.

Operational Phase

Perceptions of Wind farms

- 7.21 The likely polarisation of people's perceptions of wind farms needs to be taken into account when assessing landscape and visual effects. As part of assessing landscape effects, how people experience the landscape through the senses such as sight, sound, smell, is part of how people perceive a place or landscape or possible changes to it. With regard to the introduction of a wind farm into a landscape setting, some people see wind turbines as unsightly structures that are out-of-place in rural landscapes.

Others see them as sculptural structures with favourable associations of clean / sustainable technology. Opinion surveys suggest that around 20-30% of people hold the former view and around 70-80% hold the latter, although this varies and depends on context.²³

Landscape Character and Amenity

- 7.22 The landscape of the Site and the surrounding countryside has an extensive and open pastoral rural character with a typically steeply sloping large scale terrain as described in Section 2, which is characteristic of the hill country along the lower-western side of the North Island. The proposed wind farm consisting of 25 turbines, each of 47m height will become a landmark within that landscape. How this is perceived will depend on perceptions of individuals, but some general observations can be made of the type and degree of effect on rural landscape character and amenity.
- 7.23 A wind farm of the scale of the Long Gully proposal can be accommodated relatively readily in conjunction with the existing land uses and landscape characteristics of the site and the surrounding landscapes. The landscape character of Long Gully, Waipapa / Te Kopahou, Long Gully South, South Karori and Coastline (see **Figure 5**). LCA units will not be unacceptably affected by the introduction of the operating wind farm. The landscape effect on the Long Gully LCA will be moderate due to the necessary position of the proposed turbines in relation to the topography, i.e. prominent ridges in the landscape. In the four other LCAs affected, the effect of the turbines will be minor to negligible, as will the construction phase effects (see para 7.3). Wind farms are most commonly found in such rural landscapes and relate well to their intrinsic characteristics. The landscape of the Site area is also relatively close to the major urban area of Wellington, yet due to the topographic pattern of the peninsula area, a substantial part of the proposal area has a quality of 'off-the-beaten-track', yet not so remote that it is valued for wilderness qualities. Several areas close to the site are valued recreational

²³ A number of **European** surveys of public perception of wind farms have been carried out on behalf of the wind energy industry and government agencies, and several articles have summarised the results of these surveys; for instance Damborg (1998), Simon (1996), Duddleston (2000), and University of Newcastle (2002). The format of these surveys varies so results cannot be directly correlated; nevertheless the following trends appear to be consistent between the surveys:

- There is a spectrum of perceptions between people who view wind farms as positive landscape features, others who dislike them, and those who appear to not have strong feelings one way or the other.
- A majority of people approve of wind power as a concept (generally about 80%).
- A majority of people living near existing wind farms approve of those wind farms (generally 70%-80%), although around 20%-30% disapprove of them.
- In before-and-after surveys of actual wind farm developments, the level of support appears to drop prior to construction (perhaps apprehension of anticipated effects) and then to rebound substantially following construction. This trend was also evident in a survey that asked people to recall the anticipated effects compared with the actual effects of a new wind farm²³.
- A range of factors may influence perceptions of the visual effects of a wind farm, including such things as the opinions of a person toward wind energy in general, the presence of existing wind farms in a region, and the ownership of a wind farm (for instance whether it is owned by a public or private body).

A **New Zealand** nationwide survey, carried out by UMR Research Ltd in 2004 for the Energy Efficiency and Conservation Authority (EECA) on public perceptions toward different electricity generation methods recorded similar polarisation and patterns as overseas surveys. The New Zealand survey found that wind was the most favoured generation method with 82% "total approval". In response to questions about advantages and disadvantages of wind farms, 25% said they regarded them as "unsightly". In response to questions about potential wind farms in their area, 60% said they would support such a wind farm, 18% said they would oppose it, and 22% were either neutral or undecided.

Anecdotal evidence generally supports the surveys. The main concentration of existing wind turbines in New Zealand is on the Tararua Ranges between Palmerston North and Woodville, where they appear to have wide acceptance as evidenced to the extent they are used as an icon of regional identity, although there has been some opposition to all wind farm applications in that area.

areas, such as Karori Wildlife Sanctuary and Makara Hill. However it is considered that the recreational experience of the landscape in these areas will not be unacceptably altered so as to change the nature of the current amenities.

- 7.24 The landscape of the hill country to the west of Wellington has an overall large scale quality, and the wind farm will constitute a relatively compact clustering on a distinct landform. From the Wellington side, other vertical structures of a similar scale to the proposed turbines, such as pylons and telecommunication masts, are evident in the peri urban landscape and often on high ground and ridges around the city. Therefore where they are visible, the limited number of the proposed turbines that will be visible will not appear as features that are out of character with the wider Wellington area.
- 7.25 The RMA definition of amenity values makes specific reference to 'aesthetic coherence'. The west Wellington landscape has a high degree of aesthetic coherence to the extent that it has an expansive and mostly uniform pasture cover²⁴. In this regard wind turbines are 'point' features. While they will form a landmark, the underlying extensive pastoral rural character and patterns will continue uninterrupted. If the wind turbines were to be removed in the future the landscape would regain its existing character.
- 7.26 The wind turbines are grouped in response to the linear landform, arranged in two 'strings' on ridges either side of the linear Long Gully which assists in maintaining the aesthetic coherence of the proposed wind farm. The wind turbines will be of the same design which also provides consistency and aesthetic coherence between the structures in relation to the character of the landscape.
- 7.27 The proposed wind farm is located in an area identified in the Te Kopahau Ridge area of the approved Plan Change 33 Overlay of Ridges and Hill Tops in the Wellington City Council District. In the Summary of Values, this area is noted for its " well known skyline and rugged backdrop south west of the city that contrasts with the city's urban character. Wind turbine and Hawkins Hill 'golf ball' are landmarks." The scale of the proposed turbines is in scale and of a similar character as these features, without compromising the integrity of the landscape character of the Overlay area.

²⁴ Although other aspects that might have contributed to coherence such as natural vegetation reinforcing natural watercourse are absent

8.0 VISUAL EFFECTS

- 8.1 Visual effects are a narrower sub-set of landscape effects, entailing an assessment of visibility, the numbers and sensitivity of the viewing audiences, and analysis of effects from representative viewpoints.
- 8.2 There will be significant visual effects during construction as a result of the extent of exposed ground and scale of the earthworks. These visual effects will be short term. All of the wind farm is in open pasture, and while this means temporary construction works will be more visible, it also means they can be quickly rehabilitated by re-grassing.
- 8.3 Wind turbines must necessarily be located on open and usually elevated landforms. This contributes to their visibility, but in this case the proposed turbines are considerably smaller than most turbines seen in applications to date. The degree of visual effect²⁵ is determined largely by factors such as distance, screening in the intervening landscape, orientation of views, and complexity of the intervening landscape. These factors can be summarised as follows:

Table 4: Factors Influencing Visual Prominence of Wind Turbines (based on 46m high turbines (from base to blade tip))

Factor	◀ less prominent	more prominent ▶
Distance	Distant (e.g. > 9km – 10km)	Very Close (e.g. <1 km)
Orientation of views	Focused away from site	Focused toward site
Complexity of intervening landscape	Seen beyond complex foreground landscape (increased depth perception)	Seen across open, simple landscape (decreased depth perception)
Screening	Screening behind trees	Clear views
Visual anchoring	Towers set back from edges of hills	Full extent of tower seen proud on ridgeline
Relative Elevation and visual anchoring	Turbines below viewpoint,	Turbines above viewpoint - especially from close proximity
Number and extent of wind turbines visible	Few	Many
Light conditions	Low contrast with backdrop sky (e.g. when the light is behind a viewer)	High contrast with backdrop sky (e.g. when the wind turbines are silhouetted against the light)
Atmospheric conditions	Hazy	Clear
Rotor orientation	Side on	Front on

²⁵ Which may be positive or negative depending on context and the disposition of the viewer.

Visibility

- 8.4 The theoretical extent of visibility is illustrated by Zone of Theoretical Visibility (ZTV) diagrams (**Figures 9 and 10**). These indicate line-of-sight visibility determined on the basis of topography but ignoring the screening effect of vegetation and other surface features. The diagrams are colour coded to indicate the number of turbines or parts of turbines potentially visible and illustrate the pattern of visibility across the area and how it relates to elevation and landform . The ZTVs are based on the 47 metre high 500kW turbines and presented on two figures; **Figure 9** indicating visibility of the hubs (nacelles) at 30m and in **Figure 10**, the tips of the rotor blades at 47m²⁶. The actual visibility will in reality be reduced by vegetation and other obstructions in the landscape. The third Figure (**Figure 11**) illustrates the cumulative effect of the wind farm proposal with other wind farms in the area. This is commented on later within this assessment.
- 8.5 As a guide it is considered the turbines of this moderate scale in an elevated location will have the capacity to appear dominant up to between 0.5km-1km (taking into account other factors), with the potential to be prominent up to about 1km-1.5km. Between about 2km and about 3km the wind farm may still be reasonably prominent but will be in the middle-distance. From further away the wind turbines may still be recognisable but will appear relatively distant as part of the background landscape. In ideal visibility conditions it will be possible to discern the wind turbines from considerable distances, at 11km for instance, although in such instances they would appear very small, distant and faint.²⁷
- 8.6 Delineating such visibility bands is necessarily arbitrary and the degree of prominence is influenced by other factors, but it is a starting guide to help quantify potential likely effects.
- 8.7 The photomontages are an additional tool to help assess visual effects. Thirteen viewpoint locations were selected to represent the range of publicly available situations from where the wind farm would be seen, with the locations identified on **Figure 8**. They do not include views from private land. In Section 2 of the figures, each photomontage is presented over two pages, showing the existing view and proposed view towards the wind farm with the turbines superimposed on to the photopanoramas to produce photosimulations. The photographs have been scaled, so that they represent a correct scale when viewed from a 'reading distance' of 400mm. The methodology for producing photomontages is specified in **Appendix 3**.
- 8.8 For the purposes of clarity of the location of each turbine, a series of enlargements of the viewpoint photographs was produced as **Section 3 of the Figures**. **These views are not possible with the naked eye** and are produced as turbine position clarification images only.

²⁶ That is, the area from where the blades but not the towers are theoretically visible

²⁷ This delineation is similar to that included in Planning Advice Note 45 Scottish Executive.

8.9 The visual assessment methodology uses an industry good practice standard which has been developed to assist in the process of informing judgements on the significant effects of a proposed wind farm on the landscape and visual resource. According to the publication "Visual Representation of Windfarms Good Practice Guidance" Scottish Natural Heritage 2006 "The accuracy of these illustrations is often questioned. Sometimes this is due to unfamiliarity and thus a misunderstanding regarding their specific purpose, and the limitations of visibility maps and visualisations to depict what can actually be seen by the naked eye." What can be seen by the naked eye will also vary according to local conditions of clarity, weather patterns, time of day, season and light conditions. This is particularly true in maritime environments such as the Wellington area where local visibility can vary enormously within a 24 hour period and more so at certain times of the year. A photograph taken for visualisation purposes is a point in time and can only represent that time, date, weather, light conditions and season but will be representative of a view. Bearing this in mind reiterates the issue of the place such tools have in the assessment process and the need for application of sound professional judgement in their use as part of a suite of assessment tools.

View Point	Location	Direction of View	Distance to nearest turbine	Turbine components visible	Receptors and Sensitivity	Magnitude of change to view	Significance of Effect
1	Makara Hill	SE	3.3km	1-25 i.e. all turbines	High to Medium Recreational users	Moderate To Slight	Moderate
2	Montgomery Avenue, Karori North	S	4.4km	All tower - 18 19 23 24 25 partial tower 1-6, 21, 22 Hub/blades 7-11, 20	High Residents	Slight	Moderate
3	Buckley Road, Island Bay	W	5.1km	Full & partial Tower 1, 4, 5, 8, 9, 10, 11 Hub/blades 2 & 6 Blades 3, 7, 12	High Residents	Slight	Minor
4	Hawkins Hill	SW	2.3km	Full tower 18,19, 20, 21, 22, 23, 24, 25 Hub 1, 3, 4 Blade 2	Medium Road users	Moderate	Moderate
5	Woodhouse Avenue Karori South	S	2.9km	Tower 4 18 19 24 25 Hub/blades 1 2 3 20 21 22 23	High residents Medium – road users	Moderate	Moderate
6	Moa Point	W	7.6km	Tower 1, 4, 6, 8, 9, 10,11 Hub/blades 2, 5, 7, 12	High recreational users	Slight	Minor
7	Cook Strait Ferry	NE	6.6km	Full tower 11, 12, 14, 15, 16, 17 Partial tower 10, 13 Hub/blades 8, 9, 24, 25	Medium Ferry passengers	Slight	Minor
8	Miramar Walkway entrance	W	8.1km	Tower 10, 11 Hub/blades 12, 19, 20, 21, 22	Medium Residents at distance	Negligible	Minor
9	Mount Albert Reserve Car Park	SW	5.1km	Tower(part) 10, 11, 12 Blades 8, 13	Medium Recreational and road users	Negligible	Minor

View Point	Location	Direction of View	Distance to nearest turbine	Turbine components visible	Receptor s and Sensitivity	Magnitude of change to view	Significance of Effect
10	Kekeranga Street, Strathmore	W	7.9km	Partial Tower 1, 2, 4, 5, 6, 7, 8, 9, 10 Hub/blades 11, 12	Medium residents at distance Low road users	Slight	Moderate/ minor
11	Orangi Kaupapa Road	SW	5.9km	Tower 2, 3, 4, 5, 6, 7, 8, 9 Hub/blades 1, 13, 14, 15, 16, 17	Medium residents at distance Low road users	Slight	Moderate/ minor
12	Pencarrow Head Lighthouse	W	11.2km	Tower 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 Hub/blades 1, 2, 3, 16	High Recreation at coast	None perceived	None
13	South Karori Road	SE	1.5km	Tower 19 Blade 18	High residential Low road users	Variable visibility	Major when seen. Otherwise None

Public Views

- 8.10 The main receptors of views of the proposed wind farm at medium and far distance will be local residents in the suburbs of west and north Wellington, but according to the ZTVs in **Figures 9 and 10** only certain parts of those areas around Karori, Brooklyn and Island Bay and which currently have a private view towards the Hawkins Hill skyline will have potential views of components of the proposal. The public 'audience' will be those people travelling on local roads, most of whom are anticipated to be local residents. Generally the immediate site area has low visibility to the wider residential community and it is relatively remote from state highways or main roads. The site is traversed only by private local roads (many of which are unsealed) but has several nearby specific recreation destinations with considerable networks of mountain bike and walking tracks at Makara Hill and the slopes below Hawkins Hill and the outdoor facilities of the Karori Wildlife Sanctuary.
- 8.11 Local roads that pass close to the site include South Karori Road (approximately 2km to the north), Waterhouse Road (leading to the southern group of turbines, past Hawkins Hill and past the Brooklyn wind turbine) and South Makara Road (approximately 3-4km north-west of the northern group of turbines).
- 8.12 A number of residential roads to the north within the Karori suburb of north-western Wellington will experience views. The majority of the views will be obtained from the eastern part of Karori, east of South Karori Road and including Hazlewood Avenue, Fiona Grove, Woodhouse Avenue and Landsdowne Terrace.
- 8.13 From these roads the wind farm will be experienced as a local landmark with turbine design and render details including the company logo only discernible at close quarters. The low reflectivity, Jungle Mist colour finish of the turbine tower and blades with the low key and natural colours of the nacelle logo 30m above ground will contribute to this effect. Apart from the elevated and nearest parts of South Karori Road and Messines Road which afford open views to the site, views of the wind farm from other places will be an intermittent series of brief views interrupted by intervening topography. Those passers-by with a negative disposition toward wind farms will see it as detracting from the rural landscape, those with positive disposition are likely to see it as a local landmark.
- 8.14 It is anticipated from the ZTVs in **Figures 9 and 10** that the wind farm will not be visible from the majority of central Wellington, its northern and western suburbs and from the township of Makara, due to topographical variation and intervening structures and elements such as buildings and vegetation.
- 8.15 The broken nature of the terrain limits visibility in longer distance views from hill country to the west and north west of the wind farm. Views will be restricted from many valleys, which is where settlement is clustered. In general, the wind farm will be more visible from hilltops on open elevated farmland and from where residential areas obtain elevated views. Due to the limited height and scale of the turbines the wind farm will only be discernable up to a maximum distance of approximately 10km as

demonstrated by the Site Photograph and photomontage from **View Point 12** and, depending on weather conditions, often much less. Transitory views of part of the wind farm will also be available from boats using the Cook Strait as demonstrated by **View Point 7**, from the Inter-island Passenger Ferry.

Private Views

8.16 All houses and groups of houses within 3km of the wind farm were identified and the likely visual amenity effects estimated based on observations from public roads and desktop work including analysis of aerial photos and digital terrain model. The significance of effect for each house was estimated taking into account the distance from the nearest turbines, number of turbines visible, apparent orientation of outlook from the house, complexity of intervening landscape, and extent of any screening vegetation. This is tabulated in **Appendix 4** and illustrated in **Figure 12**.

Table 6: Summary Estimated Degree of Visual Effects For Houses Within 3km of Proposed Wind farm

Significance of Effects	Affected houses
Very High	None
High	2
Moderate	9
Low	20
Very Low	21

Figures 9 and 10 illustrate the fractured nature of the Zone of Theoretical Visibility overall, and where the wind farm is likely to be visible assuming a bare ground landscape. The principal sector of residential visibility within 3km of the wind farm is to the north, around the southern fringe of Karori.

- 8.17 The following observations are made in regards to visual effects from houses:
- The majority of houses are orientated away from the wind farm, although a small number of elevated houses do face south to take advantage of the valley views;
 - Of those properties that receive open views towards the wind farm, these tend to be elevated and located on the southern or western side of the road such as those houses on Landsdowne Terrace, the eastern extents of Woodhouse Avenue and parts of Fiona Grove;
 - Many houses have surrounding vegetation which provides localised screening of views towards the wind farm site;
 - Houses to the east, south and northwest [i.e. those on Waterhouse Drive, Forsyth Grove, those on Happy Valley Road and those within the Makara Valley] would not receive views towards the wind farm due to intervening topography.

Summary of Effects Relating to Amenity (s7(c)) and Quality of the Environment (s7(f))

8.18 While there will be landscape and visual effects as with any wind farm, the proposal is considered to have few and relatively minor adverse effects in terms of landscape amenity [s7(c)] and quality [s7(f)]:

- The wind farm will be a local landmark within the rural landscape, but it is considered that the scale and character of the existing landscape can accommodate the wind farm, and that the underlying rural character and amenity will be retained.
- Biophysical effects as a result of civil engineering will be minor as a result of the topography, pastoral land cover, and wind farm layout.
- There will be visual effects from some houses in the area, although these will be constrained to a small area to the north.
- Due to the scale and layout of the windfarm and its resultant limited visibility in the wider area and the characteristics of the receiving landscape that the landscape and visual effects will be **no more than minor**.

9.0 EFFECTS ON NATURAL CHARACTER OF THE COASTAL ENVIRONMENT

- 9.1 The layout of the proposed wind farm at Long Gully is essentially composed of two strings of turbines located on two separate ridgelines which run south west to north east from the steep coastal slopes west of Sinclair Head.
- 9.2 Much of the area of the Site experiences maritime and therefore coastal influences in terms of air quality, weather and exposure conditions, plus views of the sea are common here from higher ground or in gully framed views through to Cook Strait. **Figure 6** illustrates the extent of the zone of coastal dominance and the zone of coastal influence, which decreases as one moves inland. In the particular landscape setting of the Wellington peninsula, the Coastal Dominance Zone is tightly confined by topography and 'the rule of thumb' applied previously to define the coastal environment (in RMA case law) is the first ridgeline from the coastal edge and MHWM. The four most southerly turbines (T14-17) of the southern 'string' are located nearest to what is considered to be the Zone of Coastal Dominance but are well set back from the boundary between the two zones. None of the proposed turbines are located within the Coastal Dominance Zone of the coastal environment and according to the ZTVs, limited parts i.e. blades, of between 1-6 turbines will be seen from very limited areas within this zone. In reality with the steepness of the terrain at the coast it is likely that intervening factors of small scale but close-to topographic variations, features or vegetation will further reduce the actual visibility and in a situation where the tendency of viewer orientation is towards the coastal edge and the sea.
- 9.3 The effects of the wind farm on the **elements, patterns and processes** of each zone are considered as follows:
- 9.4 The proposed wind turbine locations are outside the Coastal Dominance Zone, with the nearest turbine being located no closer than 400m to the first coastal ridge. The natural character of the coastal environment will be not compromised by the proposed layout and turbine placement has been deliberately restricted in a seaward direction. Where earthworks are required they are wherever possible restricted to the landward side of the topography. In applying these measures there will essentially be minimal effects on natural **elements and processes** within the Coastal Influence Zone. Some of the turbines will be apparent to those viewing the natural character of the coast from the sea at a distance, but they will appear as very limited scale features on a small section of the horizon and will therefore have a **minor** effect on the **appearance of natural character**.
- 9.5 From very limited parts of the **beach and coastal edge**, hubs and blades of up to six turbines will be experienced as a changing sequence of views with occasional glimpses of parts of turbines emerging or disappearing over the brow of the hill. The extent to which they would be visible varies along the coast depending on the steepness of the coastal escarpment and proximity of the turbines. There are many sections with steep cliffs/escarpments and narrow beaches where the turbines will be screened from

view. At places where the beach is wider and the escarpment is less steep, the nearest turbines will be visible above the escarpment skyline.²⁸

- 9.6 From **offshore** only parts of the wind farm will be potentially visible. There will be very limited views of hubs and blades of some of the northerly group of turbines, exemplified by View Point 7 where only hubs and blades of 2 turbines of this group are potentially visible in clear conditions. From vessels travelling along the south coast of the peninsula it will be possible to see variable parts of turbines 8-17 of the southerly group as small components in the view of the coast from the sea. Naked eye visibility of a structure that is 1m wide (width of top of tower of proposed turbine type) is around 11km, which would exclude the blades. The turbines will be seen in the context of a dominant, bold and large scale, exposed landscape demonstrating a high degree of physical natural character in a coastal setting.
- 9.7 All the turbines will be located in areas with a variety of levels of Coastal Influence. There will be some earthworks associated with installation of the turbines, but as discussed above, the relatively flat and broad nature of the ridges will limit the cuts and fills required beyond the basic formation works, and the pastoral land use means impacts on vegetation are minimised and that the earthworks can be readily rehabilitated to merge with the land surface. In other words the extent of the impacts on natural **elements and processes** of coastal natural character will generally be of a limited magnitude.
- 9.8 The turbines will obviously have a significant effect on the **appearance of natural character** (i.e. **natural patterns**), introducing medium sized structures onto the ridges and hills. Turbines are point features that rise as counterpoints to the underlying landscape, the layout of which in this case reflects the pattern of ridgelines locally. Although they will change the total landscape, it will still be possible to 'read' and appreciate the underlying landscape as a separate and coherent layer. If the turbines are removed, the landscape would return more or less to its earlier appearance. Wind turbines also do not domesticate a landscape in the way dwellings do, and can be seen as engaging with natural coastal and elemental processes.

²⁸ An issue that arises is the extent to which the inaccessibility of the coast affects its natural character. At present there is no formal public access to the coast in the area of the wind farm, although it is clear that people do access the coast across private land at one or two locations. The principle has been established that the number of people experiencing a place is not relevant in assessing the degree of natural character. Remoteness may contribute to natural character when it is only experienced by a few. *Browing v Marlborough District Council* (W20/97).

10.0 CUMULATIVE EFFECTS

10.1 Cumulative effects concern the effects of the proposed wind farm in conjunction with other wind farms in the region and can arise in various ways as follows:

- By simple numerical addition of turbines in a landscape.
- By increasing the extent of a skyline or landform or landscape occupied.
- By increasing the number of separate wind farms visible within a view, or in views in different directions from a single viewpoint.
- By increasing the number of wind farms experienced in sequence when travelling through a landscape.

10.2 Wind farms that might potentially contribute to cumulative effects are as follows all of which are located within the west-Wellington hill-country:

Table 7: Wind farms Consented in the Region

Wind farm	Distance from Proposed Long Gully Wind farm	# Turbines	Estimated capacity (MW)	Status
Brooklyn	Less than 1km	1	250kW	Built
Project West Wind	5km	62	143MW	Consented with construction commenced
Mill Creek	More than 10km	29	67MW	Consented

10.3 Brooklyn and West Wind have both been assessed in conjunction with the proposed wind farm at Long Gully from a range of locations and illustrated by the photomontage model images generated in GoogleEarthPro from two key positions, one from the sea and the other from an elevated position on land.

10.4 The consented wind farm at Mill Creek to the north of the study area has not been assessed in this exercise as it was considered to be too distant from the proposal, not visible from the site area and therefore not relevant to an assessment of cumulative effects.

Cumulative Viewpoints

From the Inter-island ferry (VP7)

10.5 According to the simulation which takes in a 180 degree panorama, it will be possible to view both wind farms for a section of the journey across Cook Strait. Depending on the position and orientation of the viewer to the coast, these features may be seen concurrently or sequentially. Due to the scale and number of the component turbines of Project West Wind, which have towers of 67 metres high with blade tips 111 metres above ground level so these will form a substantially more visible and dominant

part of the view than the components of the Long Gully proposal. The schemes are at a sufficient distance from each other (and use such different scale turbines) that that will not read as different parts of one scheme. The limited portion of the horizon that is affected by the proposed turbines at Long Gully is very limited by comparison to West Wind, with only parts of three turbines of the northern string of turbines being faintly visible and much more recessive. It is considered that the cumulative effect of the introduction of the Long Gully proposal, when viewed from Cook Strait, will be minor.

From Makara Hill (VP1)

- 10.6 From Makara Hill the majority of the turbines of the Long Gully proposal are visible in the mid to long distance with those of parts of the West Wind scheme being visible in the distance to the north east. Even though the West Wind turbines are at a greater distance they are of a large scale and present substantial components in the view from this location. By contrast even though the Long Gully turbines are evident and much closer, they do not appear to dominate the landscape due to their scale and relationship with the topographic form of this area. The majority of viewers in this location will be recreational users, such as mountain bikers and walkers but it is not considered that their experience of the landscape will be overly affected by the cumulative effect of the introduction of the Long Gully proposal.

CUMULATIVE LANDSCAPE EFFECTS

- 10.7 The potential cumulative effects of several windfarm developments on the landscape resource of the wider Wellington area has been considered. The landscape character situation and orientation of the following proposals which are either constructed, consented or proposed windfarm schemes has been investigated where information has been available on each:

- Brooklyn Turbine,
- Project West Wind
- Mill Creek,
- Puketiro

These schemes have been looked at collectively and sequentially in conjunction with the proposed Long Gully Wind Farm as part of the cumulative landscape assessment. **Figure 4.9** shows the location of these schemes and turbine positions where available.

- 10.8 It is understood that two schemes, one at Belmont Hills Regional Park and another at Wainui south of Wainuiomata which are both on Water Catchment Board land owned by Greater Wellington Regional Council (GWRC), and initiated by them have not proceeded any further and have therefore not been included as part of the cumulative assessment. However a wind farm proposal at Puketiro north east of

Porirua, also on GWRC land is at an early stage, not yet lodged as a Resource Consent application but has been considered as part of this cumulative assessment with a draft layout as shown on **Figure 4.9**.

- 10.9 Within the Long Gully study area it can be seen from **Figure 4.10** that the area is composed of 18 different units of landscape character with only 8 units containing turbine elements of Long Gully, West Wind and Brooklyn schemes. With the scale and character of these areas and the distances between the different projects it is considered that the wider landscape of the study area has the capacity to accommodate the scale of the Long Gully proposal without compromising the landscape character of Wellington peninsula landscapes.
- 10.10 Within the wider sub regional area which includes the study area, the presence of Mill Creek wind farm does not unduly affect the diversity of landscape character present in the sub region and with cumulative intervisibility limited to discrete areas mainly oriented away from the Wellington urban area. The nearest Mill Creek turbines to the Long Gully proposal are at a long distance of approximately 11km and are only seen in conjunction with West Wind and Long Gully proposals on limited north west facing slopes as shown in **Figure 4.11**. The Puketiro proposal is located at a much greater distance of approximately 70km with very limited implication for compromising regional landscape character due to the nature of the intervening terrain and negligible or no cumulative intervisibility possible to the naked eye.
- 10.11 Having regard to the matters outlined above, it is considered that any potential cumulative landscape effects arising from the construction and operation of the proposed Long Gully wind farm in conjunction with other schemes in the wider Wellington peninsula area will be minor.

11.0 CONCLUSIONS

Assessment Results (As recorded in the Executive Summary)

- 11.1 The proposal will entail limited earthworks, and the typical pattern of landform of long ridges and broad crests and existing tracks lends itself to accommodating the earthworks needed, limiting the potential extent of cut faces and fill batters. The pastoral land-cover means earthworks can also be readily rehabilitated. Nevertheless there are several places where there will be some minor local effects.
- 11.2 There will be only minor effects on vegetation over most of the wind farm because 23 out of the proposed 25 wind turbines and new access tracks will be located in pasture. There will be very limited effects on secondary indigenous vegetation in a small part of the site.
- 11.3 The main effect on the natural character of the coastal environment will be on visual aspects resulting from structures forming limited elements behind the coastal cliffs and escarpment in the south of the site. Although there will be earthworks associated with the wind turbines on the coastal hills, their significance will be low because they are located in the less sensitive 'coastal influence' zone, with the site component ridges leading away from the coastal topography and predominantly in pastoral management.
- 11.4 There will be visual amenity effects on houses in the wider area, although these effects will be relatively minor due to the relatively long distance from the proposed wind farm and the small scale of the proposed turbines. Of neighbouring properties (i.e. those not associated with the wind farm) the degree of visual effect was assessed as likely to be high for 2 houses and moderate for 9 houses. The extent to which these effects are adverse will depend to some extent on the disposition of viewers toward wind turbines.
- 11.5 There will be some change to the visual character of the immediate site area. As above, whether it is seen as adverse or not will depend to some extent on the perceptions of the viewer.
- 11.6 With regard to cumulative issues the main consideration issue is the combined effect of the Long Gully proposal with Project West Wind. Due to the proposed Long Gully turbines being of a considerably smaller scale at 47 metres and of comparably limited extent in the wider landscape, than the consented scheme for project West Wind, which has turbines with a tower height of 67 metres and 111 metres to blade tip from ground level, the additional cumulative landscape and visual effect created by the introduction of the Long Gully proposal will be minor. In considering the cumulative effect of Long Gully with the consented but under appeal project at Mill Creek, whose turbines are the same size as West Wind, it is considered that due to the considerable distance between the two schemes there is negligible additional effect due to the introduction of the Long Gully proposal. The only other currently plausible project in the region is at Pukatiro, which is at a very early stage and at very long distance with the

resulting conclusion that there will be no potential cumulative effect due to the introduction of Long Gully.

11.7 Where the cumulative effects of Project West Wind and Mill Creek with the introduction of Long Gully are considered together it has been concluded that the additional effects of this proposal are minimal and no more than minor. Considering the Brooklyn Turbine in this context which has a unique and different relationship with the landscape in that it is a single turbine scheme and very much part of the suburban Wellington landscape, recognised as a local icon feature and a focal point for many. The turbines of the proposed scheme at Long Gully while being of similar scale and therefore not challenging this existing feature, is located in a much more rural zone context along with other point features on higher ground, such as the radar dome and groups of telecom and other mast features and so the issue of cumulative effects due to the introduction of the Long Gully proposal into this environment is less apparent and considered to be less than minor.

11.8 In balancing the range of considerations in RMA Part II, it is considered the site is an appropriate landscape for a wind farm for the following reasons:

- The immediate site is off the beaten track and thinly settled, even though it is relatively close to the city, so that any close by visual effects are very limited; but it is not so remote that it is valued for wilderness qualities
- It is a productive rural landscape
- It has a topography that can accommodate the scale of the components required
- There are no outstanding natural landscapes that would be affected

Suggested Mitigation Approach for Effects Identified

11.9 Potential effects have been avoided to a significant extent through the iterative project design process and fine-tuning the location of various site components including the wind turbines and service tracks and iterations of other civil engineering components.

11.10 Measures to further remedy or mitigate effects include the following:

- Careful siting of disposal areas and groundform shaping of excess cut material from construction operations
- Ground restoration plan for remediation of disturbed areas
- Drainage management plan for potential offsite effects
- Selection of wind turbine colour and built features materials and finish to reduce visibility and reflectivity

APPENDIX 1: LANDSCAPE RELATED PLANNING PROVISIONS

The following documents have been reviewed to identify relevant landscape related policies that have been considered for the proposed Long Gully wind farm:

- Regional Policy Statement for the Wellington Region (1995)
- Draft Regional Policy Statement for the Wellington Region (2008)
- Wellington City District Plan
- Proposed District Plan Change 32 - Renewable Energy
- Proposed District Plan Change 33 – Ridgelines and Hilltops (Visual Amenity) and Rural Area
- Proposed Rural Area Design Guide

Areas highlighted are particularly relevant to this assessment

Regional Policy Statement for the Wellington Region (May 1995)

The following chapters and associated objectives, policies and anticipated environmental results are relevant to the assessment of the proposed wind farm and its potential effects on the landscape in the regional context. A considered response to these provisions is provided under Section 6 of this assessment.

7. THE COASTAL ENVIRONMENT

7.3 Objectives

Objective 1

The natural character of the coastal environment is preserved through:

- (1) *The protection of nationally and regionally significant areas and values;*
- (2) *The protection of the integrity, functioning and resilience of physical and ecological processes in the coastal environment;*
- (3) *The restoration and rehabilitation of degraded areas; and*
- (4) *The management of subdivision, use and development, and the allocation of resources in the coastal environment so that adverse effects are avoided, remedied or mitigated.*

Objective 1 seeks to preserve the natural character of the coastal environment in the Wellington Region. The term "natural character" is not defined in the Act or the New Zealand Coastal Policy Statement 1994. Natural character can be thought of as the extent to which the naturally occurring ecology and/or physical processes of a place or resource remain intact. It does not exclude structures or other human induced changes — a place may retain some of its natural character even with a building on it — but it is reduced by their presence.

As natural character is not an absolute concept, its absolute preservation is not required in every case. It is appropriate therefore that the policy prescription of "avoid, remedy or mitigate" should apply, depending on the degree of natural character of the area or site in question. In places where the natural character is largely intact the emphasis of management should be on avoiding adverse effects. Where human activities have already modified the natural character, a more flexible approach may be appropriate. Where substantial deterioration of natural character has occurred, some effects might still need to be avoided but remedying or mitigating adverse effects may have a more prominent role.

The objective recognises that specific sites and particular values help make up natural character in the Wellington Region. Clauses (1)-(3) seek to protect these places, values and physical and biological processes, and to restore or rehabilitate them where they have been diminished in some way.

The wording of clause (4) of the objective is intended to convey a message that the coastal environment should also be available for use. There are particular areas that do warrant higher levels of protection. However, there are also areas where the qualities and values that help comprise natural character would not be seriously compromised by use or development, so long as any adverse effects can be properly managed. Clause (4) also acknowledges the fact that land and other resources in the coastal environment are limited, and that there is a need to allocate these resources.

Objective 1 is necessary because preservation of the natural character of the coastal environment is identified as a matter of national importance in s. 6 of the Act. The objective is also needed for consistency with the New Zealand Coastal Policy Statement 1994.

7.4 Policies

Policy 1

To give effect to the following matters when planning for and making decisions on subdivision, use and development in the coastal environment:

- (1) *Protection, from all actual or potential adverse effects, of areas of nationally or regionally significant indigenous vegetation and significant habitats for indigenous fauna, including those listed in table 8;*
- (2) *Protection of the values associated with nationally or regionally outstanding landscapes, seascapes, geological features, landforms, sand dunes and beach systems and sites of historical or cultural significance, including those listed in tables 9 and 10;*
- (3) *Protection of sensitive, rare or unusual natural and physical resources, habitats, amenity values and ecosystems which are unique to the coastal environment (including estuaries, coastal wetlands, mangroves and dunes, and their margins) by avoiding, remedying or mitigating adverse effects so as to preserve the natural character of the coastal environment.*
- (4) *Protection of the integrity, functioning and resilience of the coastal environment in terms of the:*
 - (a) *Dynamic processes and features arising from the natural movement of sediments, water and air;*
 - (b) *Natural movement of biota;*
 - (e) *Natural biodiversity, productivity and biotic patterns; and*
 - (f) *Intrinsic values of ecosystems.*

Policy 1 provides guidance for district and regional plans and for resource consent decisions to ensure that important aspects of the coastal environment are recognised and potential adverse effects are avoided, remedied or mitigated.

The policy distinguishes in clause (1) those areas where, because of their national or regional significance, all adverse effects have to be avoided and not simply remedied or mitigated. The policy does not aim to prevent all use or development in these areas. By requiring that adverse effects must be avoided, the policy is acknowledging that such areas can be used, but with great care.

Clause (2) identifies landforms, landscapes, seascapes, natural features and sites of historical or cultural significance that have special values associated with them. The policy aims to ensure that if any subdivision, use

or development takes place, that the values that make the features significant in some way are protected from any adverse effects that may arise.

Clauses (3) and (4) provide a general requirement for the protection of specific components of natural character through the management of adverse effects of activities in all parts of the coastal environment.

The areas, sites and features currently listed in tables 8 to 10 are derived from a variety of sources. Some of these sources have used databases that are periodically updated and other sites or features may be identified to which the provisions of **Policy 1** would also apply. The number of sites and features listed in the tables may therefore be added to and amendments will be incorporated in future reviews or changes to the Regional Policy Statement.

Policy 1 is included to give effect to s. 6(a) of the Act and policies for the preservation of the natural character of the coastal environment set out in the New Zealand Coastal Policy Statement 1994.

NB: Tables 8, 9 and 10 that relate to Policy 1 (1) and (2) are contained on pages 121 – 124 of the Regional Policy Statement.

Policy 2

To consider, where relevant and to the appropriate extent, the following matters when planning for and making decisions about subdivision, use or development in the coastal environment:

- (1) *The degree to which the proposed activity will impose effects additional to those resulting from existing subdivision, use and development, and the extent to which such cumulative adverse effects on natural character may be avoided, remedied or mitigated;*
- (2) *The extent to which natural character has already been compromised in an area and the need to avoid sprawling or sporadic subdivision, use or development;*
- (3) *The efficient use of finite resources in the coastal environment and the viability of alternative sites outside the coastal marine area and outside of the coastal environment for the proposed activity;*
- (5) *The actual or potential adverse effects of subdivision, use or development on areas of cultural or spiritual significance, heritage resources and on scenic, scientific, recreation, open space or amenity values; and*

Policy 2 identifies some matters for consideration when planning for or making decisions about subdivision, use and development in the coastal environment. The policy recognises that the provision of adequate information is crucial, if the evaluation of adverse effects on the natural character and the integrity, functioning and resilience of the coastal environment is to be effective.

The considerations identified are not exclusive. They relate to the qualities and characteristics that have been noted in the New Zealand Coastal Policy Statement 1994 and this Regional Policy Statement as being part of natural character. The matters listed also indicate the need to recognise that land and other resources in the coastal environment are limited in their extent or quantity.

Clause (2), for example, highlights the need to consider how far natural character may already have been compromised and the need to avoid sporadic or sprawling development. Clause (3) points to the requirement for proposals that involve activities in the coastal marine area to include an assessment of alternative sites. Such sites may be outside of the coastal marine area but in the coastal environment or they may need to be inland of the coastal environment. All assessments should be clear in identifying how any adverse effects are to be avoided, remedied or mitigated.

Clause (5) recognises the importance of areas of historical, cultural or spiritual significance and of scenic, scientific, recreation, open space and amenity values in the coastal environment, and the need to give such areas and values appropriate protection.

The principal reason for adopting **Policy 2** is to encourage better estimation of adverse effects on coastal processes, systems, and values, and assessment of the degree to which it is necessary to locate an activity in the coastal environment.

Policy 2 is consistent with and helps implement the provisions of the New Zealand Coastal Policy Statement 1994.

Policy 3

To restore and rehabilitate the natural character of the coastal environment where appropriate.

Policy 3 seeks to repair significant damage to the natural character of the coastal environment caused by existing or past activities. Examples include damage to coastal dune systems from development, inappropriate vehicular use, and modification of vegetation.

However, the policy also acknowledges in the use of the words "where appropriate" that certain significant changes may have legitimately taken place in the past. An example would be changes brought about through the development of port facilities. The policy is not intended to enforce or require restoration or rehabilitation in such circumstances, nor to prevent further site specific changes, including rehabilitation, associated with appropriate new uses or development.

When deciding which areas require restoration and rehabilitation, priority should be given to nationally and regionally significant areas, habitats or places and sites having special values specified for protection in Policy 1. Matters to be considered in assessing whether other areas should be restored or rehabilitated, and their priority, will relate to the extent to which the qualities that comprise "natural character" have been modified or degraded.

Policy 3 is included to give effect to policies for restoration and rehabilitation of the natural character of the coastal environment contained in the New Zealand Coastal Policy Statement 1994.

7.6 Anticipated Environmental Results

- (1) The natural character of the coastal environment is preserved and protected from the adverse effects of inappropriate subdivision, use and development; where appropriate, sites of national and regional significance are protected and degraded areas are restored.

10. LANDSCAPE AND HERITAGE

10.3 Objectives

Objective 1

Nationally and regionally outstanding geological features, landforms, soil sites and other natural features of the Region are protected from inappropriate subdivision, use and development.

Objective 2

Adverse effects of human activities on the Region's natural and physical resources are avoided, remedied or mitigated so that the quality of any regionally outstanding landscapes which those resources contribute to is maintained.

Objective 4

The attributes of natural and physical resources which provide for regional recreational opportunity, and for the appreciation and enjoyment of those resources by the regional community, are maintained or enhanced.

Objective 1 refers to outstanding natural and geological features. S. 6(b) of the Act requires the Regional Policy Statement to recognise and provide for the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development.

The term "natural feature" is not defined by the Act, nor is its meaning differentiated from the term "landscape". In broad terms, a natural feature is likely to be more a defined entity (such as a wetland, river, dune, rock formation or bush remnant) than the combination of land, water, vegetative, and human elements that might make up a landscape. Geological features, landforms, and soil sites of an outstanding quality are "outstanding natural features" and should be provided for under s. 6(b). Such features also have scientific and educational value (i.e., amenity values) under s. 7(c) and some may have "finite characteristics" (depending on the land use proposed for them) under s. 7(g) of the Act. Policy 2 in this chapter identifies the nationally and regionally outstanding landforms, geological features, and soil sites to which this objective applies.

The term "outstanding" is also not defined by the Act. An outstanding landscape or natural feature is one which, more than others, has a value (e.g., rarity, educational value, cultural value, scientific value) which is special and requires recognition at the relevant level of planning (i.e., local, regional, national). As the natural and geological features in **Objective 1** are land based entities, the Regional Policy Statement may only contain objectives and policies in relation to them where any adverse effect on them would be of significance to the Region (or, by implication, to the nation).

In the Wellington Region there are many nationally or regionally outstanding geological features (e.g., the beach terraces at Turakirae Head and the Putangirua Pinnacles). Their protection from inappropriate use is important for a number of reasons. In addition to meeting recreational and other amenity needs for people, these sites contribute to our understanding of the geological history of the Region and the evolution of its biota, and allow for continued research into earth science.

This objective does not preclude the use of these features; rather it seeks their protection from "inappropriate" use. In determining the appropriateness of any use, reference should be made, amongst any other considerations, to the values that make these features important.

Objective 2 refers to regionally outstanding landscapes. Landscapes are predominantly made up of land and activities on the land. As with natural features, under the Act these matters are the responsibility of territorial authorities. The Regional Policy Statement may only provide objectives and policies for them where any adverse

effects on them would affect the regional community, that is, where the effects are of regional significance. It is therefore necessary to identify landscapes which are outstanding at a regional level to which objectives and policies may apply. This objective applies to those landscapes identified through the operation of Method 1 (the preparation of a regional plan).

The quality of regionally outstanding landscapes is a dynamic characteristic and is subject to change. It reflects the impacts of human activity and the normal interactions of natural and physical resources. **Objective 2** seeks to ensure that human activities are managed in ways which maintain those values that contribute to the quality of the landscape, whilst allowing for natural and human induced change.

The amenity aspects of landscape are also referred to in the Act (s. 7(c)); relevant authorities must have regard to these when making decisions or preparing policies and plans. **Objective 4** recognises that one of the most important aspects of landscapes (and the natural and physical resources which make them up) is their capacity to provide recreational opportunities. Increasingly, recreational activity is taking on a regional dimension, as more people than ever move about the Region to enjoy its recreational opportunities. Landscapes that combine elements of the coastal, urban, and natural environment are the most popular. These landscapes include the Kapiti Beaches, the Catchpool, Orongorongo, Kaitoke and Akatarawa Valleys, the Wairarapa coast and, perhaps supreme amongst these, the beaches and waters of Wellington Harbour (Eastbourne, Wellington City, and Petone) and the southern coastline.

These opportunities, and other amenity values of the landscape which people enjoy, need to be maintained for the regional community and for future generations. The principal reasons for adopting these objectives are the following: to ensure the continued healthy functioning of ecosystems; to allow use and activity for the achievement of human social and economic needs; and to meet community aspirations for aesthetically pleasing regional landscapes of high quality, and the protection of regional heritage and amenity values.

10.4 Policies

Policy 1

To manage the use, development, and protection of natural and physical resources in ways which recognise and respect their contribution as elements of regionally outstanding landscapes.

The purpose of Policy 1 is to ensure that consideration is given to the contribution that resources make to regionally outstanding landscapes when decisions are made about their use, development and protection.

The emphasis of the policy is on the management of landscapes, rather than their preservation, because of the need to recognise the dynamic nature of the processes which constitute the landscape. In some cases, however, preservation might be the appropriate response.

Other chapters in this Policy Statement contain policies for the management of resources (e.g., freshwater, soil, ecosystems and the coastal environment) but those policies do not provide for the management of those resources for their landscape value. This is the purpose of this policy.

Policy 2

To avoid, remedy, or mitigate the adverse effects of subdivision, use, and development on regionally outstanding landscapes, and nationally and regionally outstanding landforms, geological features, soil sites and other natural features.

This policy requires those wishing to carry out activities with effects on regionally outstanding landscapes and natural features to avoid any adverse effects of their activities where possible, but otherwise to remedy or mitigate those effects.

The appropriateness of avoiding, remedying or mitigating will depend on the vulnerability of the landscape to damage and the value attached to it by people. Landscapes which are highly vulnerable to change or of special significance to the regional community will require a management response towards the top of this hierarchy. More robust landscapes will not require the same degree of attention to the effects of activities.

Mitigation of effects will include a range of actions which will depend on the nature of the effect. However, they could include consideration of the impact on an area's natural character, limiting activities to a scale appropriate to the landscape, giving particular attention to any significant natural features, minimising the risk of natural hazards, maintaining the quality of the environment as far as possible, and ensuring iwi values are adequately provided for.

Nationally and regionally outstanding landforms and geological features are listed in Kenny, J A and B W Hayward, *Inventory of Important Geological Sites and Landforms in the Manawatu and Wellington Regions*, First Edition, 1993. Those to which the Policy applies are those in the Wellington Region which have an importance assessment of A to C and a vulnerability assessment of 1 and 2 (but excludes any buildings or other structures as these are not natural features). Nationally and regionally outstanding soil sites are listed in Arand, J (*et al*) *Inventory of New Zealand Soil Sites of International, National and Regional Importance*, Part Two, November 1993. Those to which the Policy applies are those in the Wellington Region which have an importance assessment of 1 to 3 and a vulnerability assessment of 1 to 3. Other regionally outstanding natural features may be identified by the Council through the operation of Method 1 (the preparation of a regional plan).

Policy 4

To promote the maintenance and enhancement of the amenity and intrinsic values of regionally outstanding landscapes, and of nationally and regionally outstanding landforms, geological features, soil sites, and other natural features.

Landscapes are valued in different ways by different people. Recognition of this is required by s. 7 of the Act which refers to amenity values. Amenity values are defined in s. 2 of the Act. The nationally and regionally outstanding landforms, geological features and soil sites are the same as those in Policy 2. The amenity aspects of these features include their scientific and educational values.

The Act requires the Policy Statement to have particular regard to the intrinsic values of ecosystems (s. 7(d)). In this policy intrinsic values means the intrinsic values of the ecosystems that make up the regionally outstanding landscapes of the Region.

Policy 8

To promote on behalf of future generations, the protection of the potential for recreation of open space, indigenous and exotic vegetation, water bodies, the coast, and regionally outstanding landscapes, and any other regionally or nationally outstanding natural features.

The purpose of this policy is to ensure that, as far as is practicable, future needs for recreational amenity are safeguarded in any decisions affecting regionally significant recreational opportunities, Regionally and nationally outstanding natural features include such features as landforms, geological features and soil sites (as described in Policy 2)

This policy is not designed to preclude the use of land and development of sites in the name of future generations' recreational needs. Rather it is to ensure that the quality of the environment, which is handed on to succeeding generations offers the **potential** to meet their reasonable foreseeable needs. In particular, this means considering future generations in any decision relating to regional sites vulnerable to irreversible loss, for example, sites which are unique in the Region.

10.6 Anticipated Environmental Results

- (1) The adverse environmental effects of activities on regionally outstanding landscapes and nationally and regionally outstanding natural features are avoided, remedied or mitigated.

Draft Regional Policy Statement for the Wellington Region (May 1995)

The following chapters and associated objectives, policies and anticipated environmental results are relevant to the assessment of the proposed wind farm and its potential effects on the landscape in the regional context. A considered response to these provisions is provided under Section 6 of this assessment.

2.2 COASTAL ENVIRONMENT

Under Chapter 2.2 – Coastal Environment of the Draft Regional Policy Statement the “*Adverse effects on the natural character of the coastal environment*” is considered to be a regionally significant issue for the management of the coastal environment.

The following objectives and policies relate to this key resource management issue and this assessment in particular:

Objectives

Objective 3 – Protection of significant areas

Sites, habitats and features in the region's coastal environment that are significant because of their indigenous ecosystems of habitats of indigenous fauna, scenic, recreational, cultural, historical, scientific or landscape values are protected.

Objective 4 – Preservation of the natural character of the coastal environment

The natural character of the coastal environment is protected from the adverse effects of inappropriate subdivision, use and development.

Policies

Policy 3 – Protection of the values of nationally and regionally significant areas in the coastal environment

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

Explanation

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

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

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

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

Explanation

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

Policy 5 – Identifying the landward extent of the coastal environment

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

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

Explanation

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

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

Policy 33 – Coastal areas, features or landscapes

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

- (a) protecting the values of the sites and areas listed in Appendix 1;*
- (b) avoiding sprawling or sporadic new subdivision, use and development;*
- (f) maintaining or enhancing amenity, open space and scenic values, including the use of setbacks from the coastal marine area and other water bodies;*
- (h) maintaining or enhancing recreational areas and places or areas of historic or cultural significance;*
- (i) maintaining or enhancing biodiversity and the functioning of ecosystems, including the use of buffer zones;*
- (k) protecting cultural areas, including wahi tapu and other sites, features of historic, spiritual or cultural significance to Tangata Whenua, and the cultural and spiritual values associated with them; and*
- (l) encouraging new subdivision use and development in areas where natural character has already been compromised.*

Explanation

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

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

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

Policy 34 – Landward extent of the coastal environment

When considering an application for a resource consent, notice of requirement, or change or variation to a district plan, city and district councils shall have particular regard to whether the proposal is within the coastal environment using the following criteria:

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

Explanation

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

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

Anticipated environmental results

The following anticipated environment results relate to Objectives 3 and 4 as listed above:

Objective 3

Areas and sites listed in Appendix 1 will be identified in district and regional plans.

No loss or degradation of the values associated with the areas and sites listed in Appendix 1.

Objective 4

All new subdivision, use or development in the coastal environment will be within areas where natural character has already been compromised.

2.8 LANDSCAPE

The regionally significant issue for landscape is *“Inappropriate modification and destruction of outstanding natural features and landscapes, and notable landscapes”*

The following objectives and policies are relevant to this assessment:

Objectives

Objective 23 – Identification and management of outstanding natural features and landscapes, and notable landscapes

The region's outstanding natural features and landscapes, and notable landscapes, are identified and managed in order to maintain and enhance landscape values.

Policies

Policy 24– Identification of outstanding natural features and landscapes and notable landscapes

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

- (a) Natural science factors: these factors relate to the geological, ecological, topographical and natural process components of the natural feature or landscape.
 - (i) Representativeness: the combination of natural components that form the feature or landscape strongly typifies the character of the area.*
 - (ii) Research and education: all or parts of the feature or landscape are important for natural science research and education.*
 - (iii) Rarity: the feature or landscape is unique or rare within the district or region, and few comparable examples exist.*
 - (iv) Ecosystem functioning: the presence of healthy ecosystems is clearly evident in the feature or landscape.**
- (b) Aesthetic values: these values relate to scenic perceptions of the feature or landscape.
 - (i) Coherence: the patterns of land cover and land use are largely in harmony with the underlying natural pattern of landform and there are no significant discordant elements of land cover or land use.*
 - (ii) Vividness: the feature or landscape is visually striking and is widely recognized within the local and wider community for its memorable and sometimes iconic qualities.*
 - (iii) Naturalness: the feature of landscape appears largely unmodified by human activity and the patterns of landform and land cover appear to be largely the result of intact and healthy natural systems.**
- (c) Expressiveness (legibility): the feature or landscape clearly shows the formative natural processes and/of historic influences that led to its existing character.*
- (d) Transient values: the consistent and noticeable occurrence of transient natural events, such as seasonal change in vegetation or in wildlife movement, contributes to the character of the feature or landscape.*
- (e) Shared and recognized values: the feature or landscape is widely known and is highly valued for its contribution to local identity within the immediate and wider community.*
- (g) Historical associations: knowledge of historic events that occurred in and around the feature or landscape is widely held and substantially influences and adds to the value the community attaches to the natural feature or landscape.*

Explanation

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

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

Notable landscapes are significant amenity landscape that have:

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

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

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

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

Explanation

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

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

Wellington City District Plan

The proposed turbines are located within the Rural Zone under the operative District Plan. The following provisions of the District Plan are relevant to this assessment. A considered response to these provisions is provided under Section 6 of this assessment. A more detailed consideration of the provisions below has been carried out under Section 4 of this Resource Consent Application.

14. Rural Area

Objectives

Objective 14.2.2 – To maintain and enhance the character of the Rural Area by managing the scale, location and rate and design of new building development

Objective 14.2.3 – To maintain and enhance the amenity values and rural character of the Rural Areas

Objective 14.2.5 – To maintain and enhance natural features (including landscapes and ecosystems) that contribute to Wellington’s natural environment

Objective 14.2.6 – To maintain and enhance the quality of the coastal environment within and adjoining the Rural Area

Policies

Policy 14.2.1.3 – Encourage energy efficiency and where appropriate, the development and use or renewable energy within the Rural Area.

METHOD

- Advocacy
- Rules

Council has, through its Sustainable Development Strategy, made a commitment to encourage energy efficiency and the use of forms of renewable energy. With respect to the Rural Area this may be for example in the form of new development incorporating sustainable and energy efficient building design principles or renewable energy sources for heating. Alternatively it may involve more simple energy efficiency design principles such as orientation to the sun. Many of these activities may not require resource consent, but the Council recognises its responsibility in terms of role model and advocate to encourage the use of renewable energy and energy efficiency.

Note: for all applications relating to or involving renewable energy under this chapter the objectives and policies in Chapter 25 should also be considered.

Policy 14.2.2.1 – Control the number and location and design of new building developments and activities to avoid, remedy or mitigate their adverse effects of the rural character and landscape

METHOD

- Rules
- Design Guide (Rural Area)
- Other mechanisms (Rural Community Plans)

Policy 14.2.2.2 – Control the construction and siting of new buildings, structures and earthworks on identified ridgelines and hilltops in ways that avoid, remedy or mitigate adverse visual effects on the rural character.

METHOD

- Rules
- Design Guide (Rural Area)

Policy 14.2.3.1 – Control non-rural activities to ensure that their potential adverse effects on the rural environment are avoided, remedied or mitigated

METHOD

- Rules
- Design Guide (Rural Area)
- Other mechanisms (Rural Community Plans)

Policy 14.2.5.1 – Protect significant escarpments and coastal cliffs from development and visual obstruction

METHOD

- Rules

Policy 14.2.5.2 – Ensure that any approved earthworks are designed and engineered to reflect natural landforms.

METHOD

- Rules
- Design Guide (Rural Area and Subdivision)
- Other mechanisms (WCC Bylaws)

Policy 14.2.5.3 – Encourage retention of existing vegetation, especially established trees and existing native vegetation.

METHOD

- Rules
- Design Guide (Rural Area and Subdivision)
- Wellington Wet and Wild: Bush and Steams Restoration Plan
- Open Space Strategy
- Other mechanisms (Rural Community Plans)

Policy 14.2.6.2 – Enhance the natural values of the rural coastal environment by requiring developers to consider the ecological values that are present, or that could be enhanced, on the site

METHOD

- Rules
- Design guide (Rural Area)
- Advocacy
- Other mechanisms (New Zealand Coastal Policy Statement, Regional Coastal Plan)

16. Open Space

Objectives

Objective 16.5.2 – To maintain and enhance natural features (including landscapes and ecosystems) that contribute to Wellington’s natural environment

Policies

To achieve this outcome, Council will:

Policy 16.5.2.1 – Identify and protect from development and visual obstruction landforms and landscape elements that are significant in the context of the Wellington landscape, and in particular significant escarpments and coastal cliffs.

METHOD

- Rules
- Operational activities (reserves management, management plans)

The Wellington faultscarp, coastal cliffs, skylines, areas of open space and areas of existing native vegetation are important components of Wellington’s visual character. Where these are not protected by public ownership Council aims to restrict, and avoid, remedy or mitigate the visual impact of any development.

The environmental result will be the protection of the significant features of the Wellington landscape.

Policy 16.5.2.2 – Restrict the construction of buildings, structures and earthworks on identified ridgelines and hilltops.

METHOD

- Rules
- Operational activities (reserves management, management plans)

The Council has undertaken a city wide study to identify which important ridgelines and hilltops should be afforded greater protection than less prominent landforms in the city. Visual values were paramount in determining the important ridgelines and hilltops but other natural, recreational and heritage values were also recognized. The important ridgelines and hilltops are identified on the District Plan maps as identified ridgelines and hilltops.

Undeveloped ridgelines and hilltops are an important contributor to the landscape of the city. The visual intrusion caused by buildings, structures and earthworks can be detrimental to the visual amenity of the open space zone and the surrounding area, and for this reason Council seeks to control development to ensure that any adverse visual effects can be avoided, remedied or mitigated.. To prevent such effects, development on identified ridgelines and hilltops will be assed to ensure that were buildings, structures and earthworks are to be located within identified ridgelines and hilltop overlay map, they are visually integrated into the landscape.

Excavations or earth fills can leave unnatural forms and unsightly scars which detract from the amenities of an area. The city bylaws control earthworks to ensure that they are properly engineered, but the District Plan provisions consider the potential for effects on amenity. Council's aim is to ensure that earthworks do not cause any visual detracton from the landscape.

The environmental result will be the protection of significant skylines from intrusive new development.

Policy 16.5.2.3 – Encourage retention of existing native vegetation and where appropriate re-introduce native cover.

METHOD

- Rules
- Operational activities (reserves management, management plans)

Many open space areas have areas of indigenous vegetation. Existing indigenous vegetation and established trees are an important element in Wellington's landscape and can also have importance as wildlife habitat, as linking corridors and buffer zones, and for soil and water conservation values. Areas of native vegetation will be retained as far as possible.

The environmental result will be the greater protection of indigenous ecosystems.

22. Utilities

Objectives

Objective 22.2.1 – To provide for the efficient development and maintenance of utility networks throughout the city while avoiding, remedying or mitigating any adverse effects of activities on the environment.

Policies

Policy 22.2.1.1 – Avoid, remedy or mitigate any adverse environmental effects of utility networks by requiring resource consents for structures and activities with a significant impact.

23. Utility Rules

Rule 23.3.4 – New or additional overhead lines that are not provided for as a Permitted Activity or do not meet the Permitted Activity conditions are Discretionary Activities (Restricted) in respect of:

- 23.3.4.1 – visual effects

Rule 23.4.2 – New or additional overhead lines and cables that are not provided for as Permitted or Discretionary (Restricted) Activities or that do not meet the conditions or standards and terms for Permitted Activities or Discretionary (Restricted) Activities are Discretionary Activities (Unrestricted)

Assessment Criteria

23.4.2.3 – Whether the location of new or additional overhead lines will have an impact upon:

- amenity values of the area, including rural and residential amenity
- significant public views
- areas of landscape or open space values
- streetscape.

23.4.2.5 – The cumulative effects of any additional overhead lines on the surrounding environment.

25. Renewable Energy

Policies

Policy 25.2.1.1 – Provide for renewable energy development, while at the same time avoiding, remedying or mitigating adverse effects on the environment.

METHOD

- Advocacy
- Rules

Pursuant to s7 of the RMA, Council is to have particular regard to the benefits to be derived from the use and development of renewable energy. This is to be considered within a wider context of central government project and policy frameworks to address climate change, which includes a focus on both continued improvement in energy efficiency, and an increase in consumer energy to be supplied from renewable sources. Parts of Wellington City provide a nationally significant wind resource, including its coastal areas and its ridgelines and hilltops. These areas have the potential to contribute significantly to renewable energy development in New Zealand.

Renewable energy provides recognized environmental and economic benefits. But renewable energy developments, such as wind energy facilities can have adverse effects that must be carefully considered. Wind energy facilities often need to be sited on ridgelines, hilltops or other elevated positions. This can lead to potential conflict with landscape and amenity values. It is considered that renewable energy developments such as wind energy facilities can successfully exist within the Wellington City boundary if adverse effects on the environment, including the natural character of the coast, ecological, heritage and amenity value, and cumulative impacts are avoided, remedied or mitigated. This potential conflict needs to be carefully managed and assessed on a case by case basis. The Discretionary (Unrestricted) rule will ensure that the effects and benefits of any application are given full consideration through the resource consent process.

26. Renewable Energy Rules

Rule 26.1.1 – Where the rules in this chapter apply to any proposal the relevant area based rules do not apply to that proposal

Rule 26.3.1 – Wind energy facilities in the Rural Area are Discretionary Activities (Unrestricted)

Assessment Criteria

In determining whether to grant consent and what conditions, if any, to impose, Council will have regard to the following criteria:

26.3.1.2 *The extent to which the proposal will effect the amenity values of the surrounding environment. With particular regard to the affects on residential locations including any potential 'nuisance' effects on communities including:*

- *Blade shadowing, glint – resulting from the reflection of the sun from the turbine blades*
- *Shadow flickering – occurring when the blades of an operating wind turbine pass between the sun and the observer, generating flickering light.*

26.3.1.3 *The visual effects of the proposal, including:*

- *The extent to which the proposal will impact on rural character*
- *The extent to which the proposal will be visible from residencies, key public places including roads, and recreation areas*
- *The relationship of the proposal to the Ridgeline and Hilltop overlay*
- *The visibility of the proposed development*
- *The extent to which the proposal will impact on the natural character of the coastal environment, including on cliffs and coastal escarpments*
- *The extent to which any aspects of the proposal can be sited underground*
- *The scale of any proposed development, including the number of turbines, their height, and the cumulative visual effect of the development as a whole.*

26.3.1.4 *The ecological impact of the proposal – in particular:*

- *The extent to which vegetation will be removed or disturbed during construction and operating of the wind energy facility*
- *The sensitivity of the site to disturbance*

26.3.1.6 *The resulting effects of any alteration to natural landforms required, including earthworks, access tracks and roads, turbine platforms and the rehabilitation proposed.*

26.3.1.7 *The extent to which the proposal will impact on:*

- *Open space values*
- *Landscape features*

26.3.1.9 *The cumulative effects of the proposal.*

26.3.1.10 *The extent to which the access track, roads and buildings (excluding wind turbines or wind energy generators) are consistent with the Rural Area Design Guide.*

Proposed Rural Area Design Guide

The Proposed Rural Area Design guide was publically notified by the Wellington City Council in 2004 to give effect to the provisions that were proposed under proposed Plan Change 33. Public submissions were received and a Council Hearing held in January 2005. The Hearing Panel recommended that the Rural Design guide be approved subject to a limited number of alterations, deletions and amendments that were born out of the submission and hearing processes. This decision was subsequently appealed to the Environment Court with a hearing being held in December 2008. The Courts decision is currently pending.

The following sections of the Rural Design guide are relevant to the proposed Wind farm development and this assessment in particular.

1.0 Introduction

Intention of the Design Guide

This Design Guide applies to subdivisions and residential buildings and associated residential accessory buildings in the Rural Area. Its intention is to provide for sustainable rural living while enhancing and protecting rural character and amenity.

It is intended that subdivisions and residential buildings will be:

- sensitive to the unique rural landscapes of Wellington;
- environmentally sustainable;
- attractive places to live; and
- efficiently integrated into the infrastructure of services.

When planning new development the amenity of both existing residents as well as newcomers must be considered. Privacy, shelter, access to open space, the maintenance of a quiet environment, and security need to be thought about to ensure the quality of lifestyle is sustained for existing residents while offering the same for newcomers.

The Design guide also applies to access tracks, roads and buildings (excluding wind turbines or wind energy generators) associated with wind energy facilities.

Natural and Rural Character

Any new development should seek to endorse and enhance the existing natural and rural character. In rural areas there is a blending of the functional and the aesthetic, the natural and the cultural. Rural environments are most valued for their natural and open pastoral character and it is this character which new development can threaten. The challenge for developers is to provide for a balance, to ensure that development does not overwhelm the natural and rural character with geometric and fragmenting patterns and prominent built structures.

Most of Wellington's rural landscapes have been subject to varying degrees of human modification. Rural settings commonly offer a mix of managed and cultivated landscapes and wild natural areas. Individual preferences vary; some people prefer more ordered settings while others enjoy unstructured wild places.

The appendices provide an overview of the character and qualities of rural landscapes around Wellington. They include the perceptions of the communities who live in these places, what they appreciate and what they regard as important.

The Design Guide and the District Plan

This Design Guide provides the objectives and criteria against which resource consent applications for subdivision and residential buildings provided for as discretionary activities in the District Plan rules will be assessed. Applicants seeking resource consent approvals will be required to demonstrate that the requirements of the Design Guide have been satisfied when formulating their proposal. As such the Design Guide is an important reference document.

Proposals must recognize and respect the existing character and qualities of a site as well as demonstrate a commitment to developing quality rural residential living environments.

No precise formula exists for the skilful planning and design of rural development so the Guideline allows considerable flexibility in terms of detailed design. It outlines clear design principles that new developments are expected to observe, but these should not be considered as rigid rules. The illustrations in the Guide are intended to support the text by explaining principles. They are not intended to represent actual design solutions.

3.0 Natural Features, Ecosystems and Habitats

Analysis

The visual coherence of the landscape is important. Views of long stretches of natural coastline and open ridges and spurs can be highly valued, especially when built structures are minimal and their impact is minor. Natural patterns of woody vegetation and pasture establish character, provide coherence and add interest.

Prominent natural landforms

Prominent landforms contribute to local character. Landforms unique to Wellington and of particular interest and concern include the coastal escarpment and terraces, and all main hilltops, ridges and spurs.

The coastal environment

The coastal environment has a wild and expansive character. Pasture is often interspersed with scrub and along some parts of the coast a reversion to an indigenous plant cover is occurring. Indigenous regrowth is most prolific on steep southern faces. Settlement is generally tightly contained and the wild and natural landscape dominates farming infrastructure.

Wetlands and waterways

The wetlands and waterways of rural Wellington are frequently associated with access and settlement. Wetlands and waterways are of significance to wildlife as well as to human welfare. Water as a feature is very important to character and amenity.

Ecosystems and Habitats

Features of ecological value include wetlands, streams, native vegetation, and groups of mature exotic trees. Indigenous vegetation is particularly important as native birds often return with the re-establishment of indigenous cover and this contributes to enhanced biodiversity. Waterways and their associated vegetation contribute to a visual and ecological connectedness and coherence. Rebuilding wildlife corridors is particularly important as a means of re-establishing habitats. An extended framework of habitat is more sustainable than isolated pockets.

Objectives

- O1 To protect and enhance the distinctive natural character of prominent landforms, the coastal environment, wetlands, streams and their margins.
- O2 To provide for the long term sustainability of ecosystems and habitats by recognising and providing for natural processes.

Guidelines

- G1 Maintain streams, wetlands, and associated vegetation.
- G3 Protect and enhance waterways and drifts of vegetation running through the development site, particularly those making connections with the surrounding landscape.
- G4 Protect significant indigenous vegetation and habitat. This may require fences and ongoing weed and pest control.
- G5 Link existing habitats and vegetation with additional planting.
- G6 Minimise the intrusion of 'cultural' elements into very natural/wilderness environments
- G7 Protect any features of geological interest such as terraces, escarpments, and rock outcrops.
- G8 Minimise any earthworks disturbance to the natural ground form.

4.0 Planting

Objectives

- O1 To reinforce, extend, and complement established patterns of planting.
- O2 To provide shelter, privacy, and screening to enhance living environments and minimise the adverse visual impacts of structures as viewed from neighbours houses and public roads.

Guidelines

- G1 Use species and planting combinations characteristic of the local area. Take cues from existing species and patterns of vegetation associated with buildings, access-ways, hilltops, ridges and spurs.
- G3 Encourage the natural regeneration of natives and plant natives where this is consistent with the established rural character.
- G6 Where contour modification is necessary for building platforms and access roads use planting to soften visual impacts.
- G7 Use planting around building sites to screen and soften structures and to create shelter and private space. Take cues from established plantings in the area.

6.0 Access

Analysis

Travel on rural roads is an important part of the rural experience, for those who live in rural areas as well as for visitors. Safe access ways for walkers, cyclists and horse-riders needs to be provided. A network of walkways and cycle ways connecting amenities such as schools and public open space may also fulfill a wider recreational purpose.

Roads and access ways

Roads have significant impacts on natural character and amenity. Roads can have major visual as well as ecological impacts and vehicle noise can be intrusive. Narrow roads that follow the contour, involve a minimum of cut and fill, and have rough grass verges with an absence of shoulders sit most comfortably in a rural setting. Wide verges, formed footpaths and kerbing and channeling are out of character in such settings. Numerous side roads and property entrances can be difficult to see, dangerous and distracting. New entrances off main roads should be minimised, with one access-way being provided to serve groups of buildings where possible.

Walkways and cycle ways

Formal walkways, cycle ways, and possibly bridle paths need to be considered, particularly in relation to larger subdivisions. Easy and safe access in attractive settings is one of the traditional expectations of rural areas. New development also allows the possibility of adding to the range of characteristic rural recreational opportunities already existing. Access to natural areas along lake and stream edges and onto hills and ridges can add to the amenities for residents as well as expanding recreational networks for visitors.

Objectives

- O2 To ensure that roads and access-ways are designed to minimise visual intrusion and that their construction is of a rural character.

Guidelines

- G2 Align roads and access ways to follow contours and respect landforms in order to avoid unnatural patterns in the landscape and to minimize earthworks and their visual impacts.

APPENDIX 2: NATURAL CHARACTER POLICIES WITHIN RPS

Appendices – Policy 1 Policies on Natural Character Regional Policy Statement for the Wellington Region (May 1995)

Summary to complete & to go in main part of document

Site is within coastal environment not coastal marine area. Address views from offshore, visual effects to be addressed as a subset of natural character.

7. THE COASTAL ENVIRONMENT

7.3 Objectives

Objective 1

The natural character of the coastal environment is preserved through:

- (1) *The protection of nationally and regionally significant areas and values;*
- (2) *The protection of the integrity, functioning and resilience of physical and ecological processes in the coastal environment;*
- (3) *The restoration and rehabilitation of degraded areas; and*
- (4) *The management of subdivision, use and development, and the allocation of resources in the coastal environment so that adverse effects are avoided, remedied or mitigated.*

Objective 1 seeks to preserve the natural character of the coastal environment in the Wellington Region. The term "natural character" is not defined in the Act or the New Zealand Coastal Policy Statement 1994. Natural character can be thought of as the extent to which the naturally occurring ecology and/or physical processes of a place or resource remain intact. It does not exclude structures or other human induced changes — a place may retain some of its natural character even with a building on it — but it is reduced by their presence.

As natural character is not an absolute concept, its absolute preservation is not required in every case. It is appropriate therefore that the policy prescription of "avoid, remedy or mitigate" should apply, depending on the degree of natural character of the area or site in question. In places where the natural character is largely intact the emphasis of management should be on avoiding adverse effects. Where human activities have already modified the natural character, a more flexible approach may be appropriate. Where substantial deterioration of natural character has occurred, some effects might still need to be avoided but remedying or mitigating adverse effects may have a more prominent role.

The objective recognises that specific sites and particular values help make up natural character in the Wellington Region. Clauses (1)-(3) seek to protect these places, values and physical and biological processes, and to restore or rehabilitate them where they have been diminished in some way.

The wording of clause (4) of the objective is intended to convey a message that the coastal environment should also be available for use. There are particular areas that do warrant higher levels of protection. However, there are also areas where the qualities and values that help comprise natural character would not be seriously compromised by use or development, so long as any adverse effects can be properly managed. Clause (4) also acknowledges the fact that land and other resources in the coastal environment are limited, and that there is a need to allocate these resources.

Objective 1 is necessary because preservation of the natural character of the coastal environment is identified as a matter of national importance in s. 6 of the Act. The objective is also needed for consistency with the New Zealand Coastal Policy Statement 1994.

Objective 2

Existing provisions for public access to and along the coastal marine area remain and appropriate opportunities are taken to enhance public access.

There are a variety of ways to provide public access to and along the coastal marine area, and "access" can take a number of forms. Pedestrian access and vehicular access (e.g., to launch boats, fish, and for various forms of active or passive recreation) are familiar forms of access. Other aspects of access relate to Tangata Whenua use of coastal resources, and to visual access — access to views of the sea from the coastal environment, and views of the coast from offshore. These are all forms of "access" which people would like to have, but which may not always be possible or appropriate. Exceptional circumstances when access may need to be limited are set out in the explanation of Coastal Environment Policy 4.

Objective 2 seeks to retain, as a minimum, the quality of existing legal access to and along the coastal marine area. "Quality" is interpreted in the explanation of Coastal Environment Policy 4. The objective also seeks to provide for improvements to access by taking appropriate opportunities. Improved access could take the form of an increased number of access points. It might also find expression in a lower number of more convenient access points to and along the coastal marine area but, subject to Policy 4, the quality of existing legal access must be retained.

Objective 2 is necessary because s. 6 of the Act identifies as a matter of national importance the need to recognise and provide for public access to and along the coastal marine area. While public access is a matter of national importance, there is also a need for those enjoying such access to avoid, remedy or mitigate effects of their access that threaten the preservation of the natural character of the coastal environment. Preservation of natural character and the maintenance and enhancement of public access to and along the coastal marine area are both requirements of the New Zealand Coastal Policy Statement 1994 that together need to be met.

7.4 Policies

Policy 1

To give effect to the following matters when planning for and making decisions on subdivision, use and development in the coastal environment:

- (1) Protection, from all actual or potential adverse effects, of areas of nationally or regionally significant indigenous vegetation and significant habitats for indigenous fauna, including those listed in table 8;*
- (2) Protection of the values associated with nationally or regionally outstanding landscapes, seascapes, geological features, landforms, sand dunes and beach systems and sites of historical or cultural significance, including those listed in tables 9 and 10;*
- (3) Protection of sensitive, rare or unusual natural and physical resources, habitats, amenity values and ecosystems which are unique to the coastal environment (including estuaries, coastal wetlands, mangroves and dunes, and their margins) by avoiding, remedying or mitigating adverse effects so as to preserve the natural character of the coastal environment.*

- (4) *Protection of the integrity, functioning and resilience of the coastal environment in terms of the:*
- (b) *Dynamic processes and features arising from the natural movement of sediments, water and air;*
 - (b) *Natural movement of biota;*
 - (c) *Natural substrate composition;*
 - (d) *Natural water quality and quantity, and air quality;*
 - (e) *Natural biodiversity, productivity and biotic patterns; and*
 - (f) *Intrinsic values of ecosystems.*

Policy 1 provides guidance for district and regional plans and for resource consent decisions to ensure that important aspects of the coastal environment are recognised and potential adverse effects are avoided, remedied or mitigated.

The policy distinguishes in clause (1) those areas where, because of their national or regional significance, all adverse effects have to be avoided and not simply remedied or mitigated. The policy does not aim to prevent all use or development in these areas. By requiring that adverse effects must be avoided, the policy is acknowledging that such areas can be used, but with great care.

Clause (2) identifies landforms, landscapes, seascapes, natural features and sites of historical or cultural significance that have special values associated with them. The policy aims to ensure that if any subdivision, use or development takes place, that the values that make the features significant in some way are protected from any adverse effects that may arise.

Clauses (3) and (4) provide a general requirement for the protection of specific components of natural character through the management of adverse effects of activities in all parts of the coastal environment.

The areas, sites and features currently listed in tables 8 to 10 are derived from a variety of sources. Some of these sources have used databases that are periodically updated and other sites or features may be identified to which the provisions of **Policy 1** would also apply. The number of sites and features listed in the tables may therefore be added to and amendments will be incorporated in future reviews or changes to the Regional Policy Statement.

Policy 1 is included to give effect to s. 6(a) of the Act and policies for the preservation of the natural character of the coastal environment set out in the New Zealand Coastal Policy Statement 1994.

Policy 2

To consider, where relevant and to the appropriate extent, the following matters when planning for and making decisions about subdivision, use or development in the coastal environment:

- (1) *The degree to which the proposed activity will impose effects additional to those resulting from existing subdivision, use and development, and the extent to which such cumulative adverse effects on natural character may be avoided, remedied or mitigated;*
- (2) *The extent to which natural character has already been compromised in an area and the need to avoid sprawling or sporadic subdivision, use or development;*
- (3) *The efficient use of finite resources in the coastal environment and the viability of alternative sites outside the coastal marine area and outside of the coastal environment for the proposed activity;*
- (4) *The potential impact of projected sea level rise;*

- (5) *The actual or potential adverse effects of subdivision, use or development on areas of cultural or spiritual significance, heritage resources and on scenic, scientific, recreation, open space or amenity values; and*
- (6) *The adequacy of provision of infrastructure services (particularly for the disposal of waste).*

Policy 2 identifies some matters for consideration when planning for or making decisions about subdivision, use and development in the coastal environment. The policy recognises that the provision of adequate information is crucial, if the evaluation of adverse effects on the natural character and the integrity, functioning and resilience of the coastal environment is to be effective.

The considerations identified are not exclusive. They relate to the qualities and characteristics that have been noted in the New Zealand Coastal Policy Statement 1994 and this Regional Policy Statement as being part of natural character. The matters listed also indicate the need to recognise that land and other resources in the coastal environment are limited in their extent or quantity.

Clause (2), for example, highlights the need to consider how far natural character may already have been compromised and the need to avoid sporadic or sprawling development. Clause (3) points to the requirement for proposals that involve activities in the coastal marine area to include an assessment of alternative sites. Such sites may be outside of the coastal marine area but in the coastal environment or they may need to be inland of the coastal environment. All assessments should be clear in identifying how any adverse effects are to be avoided, remedied or mitigated.

Clause (5) recognises the importance of areas of historical, cultural or spiritual significance and of scenic, scientific, recreation, open space and amenity values in the coastal environment, and the need to give such areas and values appropriate protection.

The principal reason for adopting **Policy 2** is to encourage better estimation of adverse effects on coastal processes, systems, and values, and assessment of the degree to which it is necessary to locate an activity in the coastal environment.

Policy 2 is consistent with and helps implement the provisions of the New Zealand Coastal Policy Statement 1994.

Policy 3

To restore and rehabilitate the natural character of the coastal environment where appropriate.

Policy 3 seeks to repair significant damage to the natural character of the coastal environment caused by existing or past activities. Examples include damage to coastal dune systems from development, inappropriate vehicular use, and modification of vegetation.

However, the policy also acknowledges in the use of the words "where appropriate" that certain significant changes may have legitimately taken place in the past. An example would be changes brought about through the development of port facilities. The policy is not intended to enforce or require restoration or rehabilitation in such circumstances, nor to prevent further site specific changes, including rehabilitation, associated with appropriate new uses or development.

When deciding which areas require restoration and rehabilitation, priority should be given to nationally and regionally significant areas, habitats or places and sites having special values specified for protection in Policy 1. Matters to be considered in assessing whether other areas should be restored or rehabilitated, and their priority, will relate to the extent to which the qualities that comprise "natural character" have been modified or degraded.

Policy 3 is included to give effect to policies for restoration and rehabilitation of the natural character of the coastal environment contained in the New Zealand Coastal Policy Statement 1994.

7.6 Anticipated Environmental Results

- (1) The natural character of the coastal environment is preserved and protected from the adverse effects of inappropriate subdivision, use and development; where appropriate, sites of national and regional significance are protected and degraded areas are restored.
- (2) Public access to and along the coastal marine area is maintained and enhanced, except in those circumstances in which access is constrained to protect ecological or cultural values, provide for property rights and security for property, meet the requirements for Customs or quarantine facilities, or to provide for the safety of people.
- (3) There is no further degradation of the quality of water in the coastal marine area and, where possible, water quality is improved.
- (4) Finite coastal resources are used efficiently.
- (5) The characteristics of the coastal environment of special value to the Tangata Whenua are protected, where appropriate.

10. LANDSCAPE AND HERITAGE

Objective 4

The attributes of natural and physical resources which provide for regional recreational opportunity, and for the appreciation and enjoyment of those resources by the regional community, are maintained or enhanced.

Objective 1 refers to outstanding natural and geological features. S. 6(b) of the Act requires the Regional Policy Statement to recognise and provide for the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development.

The term "natural feature" is not defined by the Act, nor is its meaning differentiated from the term "landscape". In broad terms, a natural feature is likely to be more a defined entity (such as a wetland, river, dune, rock formation or bush remnant) than the combination of land, water, vegetative, and human elements that might make up a landscape. Geological features, landforms, and soil sites of an outstanding quality are "outstanding natural features" and should be provided for under s. 6(b). Such features also have scientific and educational value (i.e., amenity values) under s. 7(c) and some may have "finite characteristics" (depending on the land use proposed for them) under s. 7(g) of the Act. Policy 2 in this chapter identifies the nationally and regionally outstanding landforms, geological features, and soil sites to which this objective applies.

The term "outstanding" is also not defined by the Act. An outstanding landscape or natural feature is one which, more than others, has a value (e.g., rarity, educational value, cultural value, scientific value) which is special and requires recognition at the relevant level of planning (i.e., local, regional, national). As the natural and geological features in **Objective 1** are land based entities, the Regional Policy Statement may only contain objectives and policies in relation to them where any adverse effect on them would be of significance to the Region (or, by implication, to the nation).

In the Wellington Region there are many nationally or regionally outstanding geological features (e.g., the beach terraces at Turakirae Head and the Putangirua Pinnacles). Their protection from inappropriate use is important for a number of reasons. In addition to meeting recreational and other amenity needs for people, these sites contribute to our understanding of the geological history of the Region and the evolution of its biota, and allow for continued research into earth science.

This objective does not preclude the use of these features; rather it seeks their protection from "inappropriate" use. In determining the appropriateness of any use, reference should be made, amongst any other considerations, to the values that make these features important.

Objective 2 refers to regionally outstanding landscapes. Landscapes are predominantly made up of land and activities on the land. As with natural features, under the Act these matters are the responsibility of territorial authorities. The Regional Policy Statement may only provide objectives and policies for them where any adverse effects on them would affect the regional community, that is, where the effects are of regional significance. It is therefore necessary to identify landscapes which are outstanding at a regional level to which objectives and policies may apply. This objective applies to those landscapes identified through the operation of Method 1 (the preparation of a regional plan).

The quality of regionally outstanding landscapes is a dynamic characteristic and is subject to change. It reflects the impacts of human activity and the normal interactions of natural and physical resources. **Objective 2** seeks to ensure that human activities are managed in ways which maintain those values that contribute to the quality of the landscape, whilst allowing for natural and human induced change.

Objective 3 gives effect to the requirement of s. 7(e) of the Act to have regard, in the preparation of policies and plans, to the recognition and protection of the heritage value of sites, buildings, places or areas.

The cultural heritage of the Region comprises buildings, structures, sites, areas, waahi tapu and waahi tapu areas associated with human activity, which are inherited from the past, or are of value to future generations, and which are considered to be of special value. As with landscapes, the planning and control of the use of any aspect of our cultural heritage is primarily the responsibility of territorial authorities. This is because such places are usually comprised of land and vegetation or are built on land. The Regional Policy Statement may only provide objectives and policies for these structures or places where any adverse effects on them would affect the regional community, that is, where they are of regional significance. In this Objective, the meaning of "conserved" has the same meaning as "conservation" in the Historic Places Act 1993, namely the process of preserving, maintaining and restoring historic or special places and areas to safeguard their values.

The amenity aspects of landscape are also referred to in the Act (s. 7(c)); relevant authorities must have regard to these when making decisions or preparing policies and plans. **Objective 4** recognises that one of the most important aspects of landscapes (and the natural and physical resources which make them up) is their capacity to provide recreational opportunities. Increasingly, recreational activity is taking on a regional dimension, as more people than ever move about the Region to enjoy its recreational opportunities. Landscapes that combine elements of the coastal, urban, and natural environment are the most popular. These landscapes include the Kapiti Beaches, the Catchpool, Orongorongo, Kaitoke and Akatarawa Valleys, the Wairarapa coast and, perhaps supreme amongst these, the beaches and waters of Wellington Harbour (Eastbourne, Wellington City, and Petone) and the southern coastline.

These opportunities, and other amenity values of the landscape which people enjoy, need to be maintained for the regional community and for future generations. The principal reasons for adopting these objectives are the following: to ensure the continued healthy functioning of ecosystems; to allow use and activity for the achievement of human social and economic needs; and to meet community aspirations for aesthetically pleasing regional landscapes of high quality, and the protection of regional heritage and amenity values.

Policy 2

To avoid, remedy, or mitigate the adverse effects of subdivision, use, and development on regionally outstanding landscapes, and nationally and regionally outstanding landforms, geological features, soil sites, and other natural features.

This policy requires those wishing to carry out activities with effects on regionally outstanding landscapes and natural features to avoid any adverse effects of their activities where possible, but otherwise to remedy or mitigate those effects.

The appropriateness of avoiding, remedying or mitigating will depend on the vulnerability of the landscape to damage and the value attached to it by people. Landscapes which are highly vulnerable to change or of special significance to the regional community will require a management response towards the top of this hierarchy. More robust landscapes will not require the same degree of attention to the effects of activities.

Mitigation of effects will include a range of actions which will depend on the nature of the effect. However, they could include consideration of the impact on an area's natural character, limiting activities to a scale appropriate to the landscape, giving particular attention to any significant natural features, minimising the risk of natural hazards, maintaining the quality of the environment as far as possible, and ensuring iwi values are adequately provided for.

Nationally and regionally outstanding landforms and geological features are listed in Kenny, J A and B W Hayward, *Inventory of Important Geological Sites and Landforms in the Manawatu and Wellington Regions*, First Edition, 1993. Those to which the Policy applies are those in the Wellington Region which have an importance assessment of A to C and a vulnerability assessment of 1 and 2 (but excludes any buildings or other structures as these are not natural features). Nationally and regionally outstanding soil sites are listed in Arand, J (*et al.*) *Inventory of New Zealand Soil Sites of International, National and Regional Importance*, Part Two, November 1993. Those to which the Policy applies are those in the Wellington Region which have an importance assessment of 1 to 3 and a vulnerability assessment of 1 to 3. Other regionally outstanding natural features may be identified by the Council through the operation of Method 1 (the preparation of a regional plan).

APPENDIX 3: PHOTOMONTAGE METHODOLOGY

- Photos were taken with a 50mm fixed lens on Nikon D40X Digital SLR camera. Locations identified were fixed using GPS with accuracy of 5m. Reference points in the landscape were also located to assist referencing of the photo to the digital terrain model.
- A sequence of photos was taken from each viewpoint and later stitched together to form a panorama. Photos were overlapped by approximately 30%, edges cropped prior to stitching to eliminate edge distortion, and stitching was undertaken manually.
- A digital terrain model was created incorporating 3D models of the wind turbines using WindPRO software. The model used 5m contour information within the wind farm area, and 20m contour for the surrounding landscape.
- Computer images were generated within the digital model from the same locations as the photographic viewpoints. The image was overlaid and aligned with the photo using reference points and visual terrain matching.
- The time and weather when the photo was taken was entered to the programme in order to replicate lighting conditions. Photos represent a range of conditions including blue and overcast skies, and a range of backlit and front lit situations.
- The wire-frame digital terrain was then switched off leaving the wind turbines in their correct location and scale relative to the photo. Lower parts of wind turbines were erased where they would be behind foreground topography or vegetation, using 'Photoshop' software.
- Photos were imported in RAW format to ensure high resolution.
- The completed photograph and photomontage are presented over two pages, as before and after images shown at the same scale.
- The photomontages are reproduced so that the image appears similar in scale when viewed from the specified 'reading distance' (i.e. 400mm) as the view would appear in reality. This is calculated as a function of lens field of view, digital sensor size, and 'reading distance'.
- A set of enlarged photograph simulation images have been created to provide further clarification as to where each turbine is located within the photomontages. These images are to be used as a reference guide only and do not portray what would be seen by the human eye.

APPENDIX 4: INVENTORY OF VISUAL EFFECTS FROM HOUSES WITHIN 3KM

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
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Houses north of Wind farm (Karori area)								
1	169 South Karori Road	1.66km	19	0	Slightly elevated above road, pine trees to road side (west of property). Single storey house partially visible from road, brown roof	Northwest (Orientated away from wind farm)	Intervening hills and trees curtail views	Very Low
2	183 South Karori Road	1.64km	19	0	Elevated above road, set with bush. Light coloured roof.	Northeast (Orientated away from wind farm)	Intervening hills curtail views	Very Low
3	216 South Karori Road	1.82km	19	0	Set back from road with long driveway and a number of ancillary buildings. Single Storey, grey roof.	East (Orientated away from wind farm)	Glimpse views towards Views down local scrub-clothed valley	Very Low
4	235 South Karori Road	1.69km	19	0	White roof, slightly elevated, close to road. Victorian style house. Property also has a number of ancillary structures – light coloured roofs.	East (Orientated away from wind farm)	Possible glimpse oblique views, although views centred within scrub and occasional pine trees flanking valley sides.	Very Low
5	246A South Karori Road 'Ruaka'	1.75km	19	0	Set in bush and barely visible from road. White pitched	Unknown	Mature trees surrounding house assist in screening view.	Very Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
					house, set low in valley			
6	246 South Karori Road	1.71km	19	0	Recently constructed single storey house with dark brown roof and dark brown cladding adjacent to road	Northwest (Orientated away from wind farm)	Topography assists in screening turbines from view.	Very Low
7	(House with red roof-no number) South Karori Road	1.43km	19	1	Single storey house. Red roof with dark windows.	Northeast (Orientated away from wind farm)	Intervening hills and trees screen views	Very Low
8	290 South Karori Road	1.58km	19	1	Two storey house	Northeast (Orientated away from wind farm)	Intervening hills and trees assisting in screening views. Potential for upper storey oblique partial views towards turbines.	Very Low
9	295 South Karori Road	1.44km	21	0	Single storey house, set back from road, grey roof, dark brown weatherboard.	Eastwards (Orientated away from wind farm)	Minor undulation in local topography may assist in screening wind farm, coupled with intervening stands of mature trees.	Very Low
10	300 South Karori Road	1.51km	21	3	Two storey house with green roof and white weatherboard	North-eastwards (Orientated away from wind farm)	Due to intervening hills and mature trees, views towards wind farm would be limited. View foreshortened by vegetated spur.	Low
11	300A South Karori Road	1.53km	21	4	One storey house with green roof and white weatherboard	North-eastwards (Orientated away from wind farm)	Due to intervening hills and mature trees, views towards wind farm would be limited. View foreshortened by vegetated spur.	Low
12	320 South Karori Road	1.54km	21	5	House not visible from road	Unknown	Localised spur would effectively screen the majority of the wind farm, although potential to view blade tips.	Low
	330 South Karori	1.59km	21	0	House not visible	North-westwards (from	No views	Very Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
13	Road				from road	observing aerial)		
14	Houses located on southernmost part of Hazlewood Avenue (Nos. 84-105)	2.03km (No. 84) - 2.19km (No. 105)	19	0	Mix of one and two storey weatherboard-clad houses	Houses generally front road with even-numbered houses (on western side of road) orientated westwards	No views towards the proposed wind farm are received due to low-elevation and intervening valley hills curtailing views.	Very Low
15	Houses located on Hazlewood Avenue immediately south of Fitzgerald Place (Nos.68-83)	2.28km (No.68) – 2.17km (No. 83)	19	3-4	Typically a mix of one and two-storey suburban houses, with even-numbered houses two-deep. Nos. 72A-72G are small-two storey townhouses.	and odd-numbered houses (on eastern side of road) orientated eastwards)	Potential oblique and upper storey views southwards towards wind farm. Any views would be towards the tips of the turbines with the intervening landscape relatively complex due to a series of interlocking hills and valley systems.	Low
16	Houses on Fitzgerald Place (7 Houses)	2.23km	19	0	Mix of suburban-style one and two storey houses located on an easterly spur road.	Houses front street	No views due to hill immediately south of road truncating views	Very Low
17	Even-numbered houses on western side of Hazlewood Avenue (Nos.22-62)	2.57km (No. 22) - 2.22km (No. 62)	19	10	Typically a mix of one and two-storey suburban houses, with some houses two-deep.	Houses generally front road with even-numbered houses (on western side of road) orientated westwards and odd-numbered	Potential oblique and upper storey views southwards towards wind farm. Any views would be towards the tips of the turbines with the intervening landscape relatively complex due to a series of interlocking hills and valley systems.	Low
18	Odd-numbered houses on eastern side of Hazlewood Avenue (Nos. 33-63)	2.55km (No.33)- 2.23km (No. 63)	19	10	Typically a mix of one and two-storey suburban houses, with some houses two-deep.	houses (on eastern side of road) orientated eastwards)	Oblique views would generally be curtailed by adjacent houses, although occasional southerly viewshaft may be obtained by some houses, especially those on small rise.	Low
19	Units 1-82, Saddleback Grove (off Hazelwood	2.57km	19	10	Compact three-storey residential units currently	Due to topography, the majority of units face southwards, with	A number of these elevated units will receive open views towards the wind farm, although a number of units will have	Moderate

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
	Avenue)				under construction	balconies facing west and south	their views curtailed by intervening units. View are down bush-covered valley with interlocking foothills.	
20	Houses on Emily Way (3No. elevated properties)	2.72km	19	10	One and two storey elevated houses		Elevated properties views' are foreshortened by Saddleback Grove development.	Low
21	Even numbered houses on western side of northern extent of Hazelwood Avenue (Nos. 2-20)	2.71km (No. 2)- 2.59km (No. 20)	19	10	One and two-storey houses on northern side of road. Limited garden vegetation. Steep bush-covered hill to north.	Houses generally orientated towards the road, with limited garden spaces to the east due to sharply rising hill.	The view from these houses would be largely curtailed by the houses and associated garden vegetation on the opposite side of the road.	Very Low
22	Odd numbered houses on western side of northern extent of Hazlewood Avenue (Nos. 3-27)	2.75km (No. 3)- 2.58km (No. 27)	19	10	One and two-storey houses on western side of road. Limited garden vegetation. Steep bush-covered hill to south.	Houses front road, although majority are orientated south-westwards to maximise views.	Slightly-elevated rear views southwards towards tips of wind farm are obtained from these properties. Southern parts of Karori would be evident as would interlocking bush-clad hills on horizon.	Low
23	Odd -numbered houses on the southern side of Fiona Grove (Nos. 3-33)	2.70km (No. 3)- 2.88km (No. 33)	19	10	One and two-storey houses on western side of road. Limited garden vegetation. Steep bush-covered hill to south.	Houses front road, although are generally orientated westwards and southwards to maximise views of valley.	Slightly-elevated rear views southwards towards tips of wind farm are obtained from these properties. Northern most properties in this group are slightly elevated. Southern parts of Karori would be evident as would interlocking bush-clad hills on horizon.	Low
24	Houses on Debra Way (Nos. 1-6)	2.80km	19	12	Mix of one and two storey houses located on western flank of hill. Down a right of way. Large trees to west.	Houses orientated to best suit the topography and vary from east to west.	Houses located off Fiona Grove via right of way, with mature trees flanking western end of hill curtailing views westwards and southwards. Possible partial and glimpsed views may be visible, through to southern area of built-up Karori and bush-clad valley.	Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
25	Even –numbered houses on the northern side of Fiona Grove (Nos. 10-38)	2.73km (No. 10)- 2.89km (No. 38)	19	11	Mix of one and two storey houses located on western flank of hill.	Houses generally orientated towards the road, with limited garden spaces to the east due to sharply rising hill.	Majority of houses will receive partial south-westwards views towards the wind farm, although the majority will be blocked by houses on the opposite side of the road.	Low
26	Houses on Lydia Way (Nos. 1-9)	2.91km	19	13	Mainly two-storey houses with Nos. 1, 3, 5, 7, and 9 being townhouses. Elevated on western side of hill.	Houses facing predominantly westwards, towards valley, away from wind farm	Potential oblique rear partial views obtained from the townhouses, due to their elevated nature. View would extend over lower sections of south Karori urban area. Remaining houses views would be partially curtailed by the townhouses. Limited vegetation to screen.	Moderate
27	Houses on Hathaway Avenue (all houses)	2.70km	19	0	One and two storey houses	Houses generally front road with gardens located towards east/ west of house.	Due to location of houses intervening spurs block views.	Very Low
28	Even numbered houses at southern end of Woodhouse Avenue (Nos.82, 80A, 80, 78A, 78, 74)	2.72km	19	10	Generally two-storey houses on elevated spur at terminus of road. Bush-covered hill to south.	Houses front road, with gardens generally located to the east of the house.	Open views southwards to rear of houses towards majority of wind farm, although views of southern parts of Karori and new Saddleback Grove evident within foreground.	Moderate
29	Odd-numbered houses at southern end of Woodhouse Avenue (Nos 75, 75A, 73, 73A)	2.77km	19	10	Generally two-storey houses on elevated spur at terminus of road. Bush-covered steep hill to north.	Houses front road, with gardens generally located to the east or north of the house.	Due to the lack of intervening houses on opposite side of the road, these houses would receive open views eastwards although only partial views towards the wind farm may be obtained due to intervening Receptors No.28.	Low
30	Odd-numbered houses at southern end of Woodhouse Avenue (Nos 77, 77A, 79, 79A)	2.73km	19	10	Generally two-storey houses on elevated spur at terminus of road. Bush-covered steep hill to north.	Houses front road, with gardens generally located to the east or north of the house.	Views eastwards with views towards the wind farm are generally partial or curtailed due to houses on opposite side of the road [Receptor No. 28].	Low
31	Houses on	2.90km	19	0 for	Houses located in	Houses front road, with	The majority of houses would not receive	Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
	Parsons Glen (19 houses)			remaining 3 for No. 8 9 for No. 6	local valley spur, with relatively steep bush-clad sides. Houses generally one and two storeys	most houses having northerly orientated gardens. Even numbered houses face wind farm.	views towards the wind farm due to their location within the localised valley. Houses such as No. 6 may receive partial upper storey views. Most houses views are curtailed by adjoining houses, vegetation or topography.	
32	Even numbered houses on Woodhouse Avenue (Nos. 72-60)	2.85km	19	10	One and two-storey houses on western side of road. Limited garden vegetation. Bush-covered hill to south.	Houses front road, with gardens generally located to the north/ west of the house.	Elevated rear views southwards are obtained from these properties. Northern most properties in this group are slightly elevated. Southern parts of Karori would be evident as would interlocking bush-clad hills on horizon.	Moderate
33	Even numbered houses on Woodhouse Avenue (Nos. 57-67)	2.88km	19	15	One and two-storey houses on eastern side of road. Limited garden vegetation. Bush-covered steep hill to north.	Houses front road, with gardens generally located westwards due to steep hill behind houses.	Majority of houses would have their views south and westwards curtailed by intervening houses on opposite side of road. Occasional glimpses through the houses may reveal small portions of the wind farm.	Low
34	Southernmost houses on Parklands Drive (Nos. 26-40)	2.97km	19	15	Houses are typically one and two storeys, located on a relatively steep hill	Houses tend to front the road, with rear gardens located towards the east or west. Most houses are orientated away from the wind farm.	Oblique partial views would be experienced from most houses southwards towards the wind farm. Wind farm will be seen in context to remaining southern built-up area of Karori.	Low
35	Even numbered houses on southern side of Landsdowne Terrace (Nos. 2-48)	2.99km	19	21	Houses are typically one and two storeys, located on a ridge, with southern facing hill clad in bush. Limited garden vegetation.	Houses tend to be orientated towards the south-east/ south-west, towards the wind farm to take in views of the valley, although front the road to the north. Occasionally a property has its garden area to	All houses will receive elevated open southerly rear views, with the majority of the wind farm noticeable from all properties. Some properties [Nos. 40-48] may experience partial views due to an intervening ridge located close to the terminus of the road. Relatively complex intervening landscape.	Moderate

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
						the north.		
36	Odd numbered houses on northern side of Landsdowne Terrace (Nos. 1-51)	3.05km	19	21	Houses are typically one and two storeys, located on a ridge, with southern facing hill clad in bush. Limited garden vegetation.	Houses tend to be orientated towards the north-east/ north-west, to take in views towards the city, although front the road to the south.	All properties will receive partial views towards the south and the wind farm, with houses on the southern/ opposite side of the road often curtailing or foreshortening views. Those that do receive elevated views, will be constrained by houses.	Low
37	Remaining even-numbered houses on southern side of Woodhouse Avenue (Nos. 38-58)	2.9km	19	0-10	Elevated houses generally a mix of one and two storeys	Houses face road, although tend to be orientated in an east/ west direction. Southernmost houses [Nos. 52, 54, 56 & 58] more north and eastwards.	Majority of this group would be orientated away from wind farm, receiving only partial views of the tips of the blades. Relatively complex intervening landscape due to southern extent of Karori. Southernmost properties would receive occasional open and partial views towards wind farm.	Moderate
38	Remaining odd-numbered houses on northern side of Woodhouse Avenue (Nos. 43-49)	2.97km	19	0	Mix of one and two storey houses, with heavily vegetated hillside to the east.	Houses front road, although tend to be orientated in an east/west direction, away from the wind farm	Limited views due to orientation and due to intervening hillside curtailing views. Localised groups of vegetation would further screen wind farm.	Very Low
39	Houses on eastern side of South Karori Road (69-113)	2.61km	19	3	Mix of one and two storey houses within area heavily treed to east up hillside. Occasional large tree flanking road	Houses front road, although tend to be orientated eastwards, or away from wind farm	Houses located on valley bottom. Potential for oblique glimpse or partial views southwards down valley towards hill tops and the wind farm. If seen, it would be only the tips of the blades of only a small number.	Low
40	Houses on western side of South Karori Road (74-96)	2.62km	19	0	Mix of one and two storey houses within area heavily treed	Varies, but generally away from wind farm	No views due to intervening hills truncating views towards wind farm.	Very Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
41	Houses on South Karori Road (63, 65, 38-62 even)	2.82km	19	1	Mix of one and two storey houses	Varies, but generally away from wind farm	Limited views obtained from these properties due to their orientation (i.e. away from wind farm) or their intervening features such as vegetation, adjacent houses or topography. If seen, it would be only the tips of the blades of only a small number.	Low
42	Remaining houses in Karori west of South Karori Road on Williamson Way, St. Albans Avenue, Swadel Way, Allington Road.	Distance varies, with closest house being 2.70km	19	0	Typically one and two storey houses located within the western suburb of Karori (off Allington Road)	Varies, but generally away from wind farm	No views due to intervening hills truncating views towards wind farm.	Very Low
Houses East of Wind farm								
43	Properties on Waterhouse Drive, Forsyth Grove and Ashton Fitchett Drive	2.98km	19	0	Mix of two and one storey houses, recently built and set on a localised ridge	Varies, with houses fronting road. House to east of roads are orientated eastwards to maximise views of city	No views	Very Low
44	House off road leading to Brooklyn turbine	2.96km	19		House located on small hill and difficult to view from road	Eastwards (away from wind farm)	Due to elevated nature, house would receive open-partial views along ridge-tops towards wind farm	Moderate
Houses to South East of Wind farm								
45	Houses on Happy Valley Road/ Landfill Road	2.98km	1	0	Mainly non-residential houses, set within valley	Varies	No views	Very Low
Houses to North West of Wind farm								
46	Houses within Makara Valley and fronting South Makara Road	3.58km	27	0	Mix of single and two storey houses set on valley bottom	Generally west/ east orientation	Glimpse to no views due to houses set within valley with intervening Makara hills curtailing views south-eastwards	Very Low

Receptor Number	Address	Distance to nearest turbine (m) (Average for group)	Nearest turbine (Average for group)	No. of turbines theoretically visible (Average for group)	Distinguishing features of house/ groups of houses	Apparent Orientation	Nature of view and Apparent Nature and complexity of intervening landscape	Level of Visual Effects
Houses within Site								
47a	Houses within the Site: House 1	1.76km	19	28	Elevated house	North and east aspect (Away from wind farm)	Elevated, rear southerly views towards wind farm.	High
47b	Houses within the Site: House 2	502m	9	12	House located at base of spur, adjacent to track with stand of trees to the south.	Northerly aspect (Away from wind farm)	Potential turbines would appear above brow of hill, appearing close. Vegetation associated with hill would also assist in blocking some views	Moderate
47c	Houses within the Site: House 3	527	13	12	Elevated position. Vegetated gully to west.	Westerly aspect (Away from wind farm)	Lack of intervening vegetation would largely curtail views to majority of wind farm, although tops of the moving blades would be evident above the ridgeline.	Moderate
47d	Houses within the Site: House 4	366m	16	0	House located within grass glade adjacent to unsealed track leading to beach. Vegetated gully to west.	South westerly towards sea	Steep sided hill-face to east which assists in curtailing views.	Very Low
48	The Castle	988m	1	10	Bespoke, architecturally-designed house, set on ridge	360 degree panoramic view	Open, elevated views across all areas of the landscape.	High
49	Baches by the coast	645m to 2km	18	0-4	Typical NZ-style coastal baches (in two groups)	Varied orientation, although mainly south towards Cook Strait	Possible oblique glimpsed views of the top of the southernmost turbines.	Low

