

A5.1.1 Highcliff - Pudneys Cliff

A5.1.1.1 Description of area

The Highcliff/Pudneys Cliff area extends from Boulder Beach to Smaills Beach and is a basalt headland with coastal cliffs, offshore reefs, minor headlands and coves.

There is high geological and hydrological naturalness, but water quality may be affected by the waste water treatment plant outfall. There is high ecological naturalness with some adverse effects from erosion. There is high perceptual naturalness and high wild and scenic value.

This area is also part of the Peninsula Coast Outstanding Natural Landscape - see Appendix A3.2.3.

A5.1.1.2 Values

- a. Essentially natural basalt headland with coastal cliffs, offshore reefs, minor headlands and coves.
- b. Largely unmodified vegetation on very steep slopes and cliffs with a thin strip of highly modified farmland along clifftops.
- c. Extensive patches of remnant/regenerating indigenous forest.
- d. Forest and cliffs likely provide habitat for a diversity of terrestrial invertebrates, lizards, bush and seabirds.
- e. Undomesticated character provides high level of wildness. Drama of cliffs provides high scenic qualities.
- f. No buildings, structures or earthworks to detract from natural character.

A5.1.1.3 Threats

- a. Buildings, structures or earthworks.
- b. Vegetation clearance.

A5.1.2 Green Island

A5.1.2.1 Description of area

Green Island is a small basalt island off the coast near the Kaikorai Stream mouth, with intertidal reefs.

A highly natural offshore island with high perceptual naturalness and wild and scenic value.

Green Island is also an outstanding natural feature - see Appendix A3.1.4. It is also identified as a wāhi tūpuna - see Appendix A4.53.

A5.1.2.2 Values

- a. Small offshore basalt island with intertidal reefs.
- b. Processes are predominantly erosional and relatively unmodified.
- c. Almost exclusively indigenous vegetation, dominated by *Coprosma repens* (taupata), also habitat for rare *Lepidium oleraceum*, Cook's scurvy grass. Some exotic grasses. Relatively natural.
- d. Nature reserve - fur seals haul out, seabirds roost on islet. Breeding site for yellow-eyed penguin, fairy prion and little blue penguin.
- e. No earthworks, buildings or structures.
- f. Values of significance to Manawhenua. See Appendix A4.53

A5.1.2.3 Threats

- a. Buildings, structures and earthworks.

A5.1.3 Sandymount

A5.1.3.1 Description of area

The Sandymount area encompasses the summit of Sandymount along with the slopes and cliffs on its southern side. It is differentiated from the adjacent Sandfly Bay area because it is much less impacted by wind-blown sand. It is a basalt headland with high, steep coastal cliffs, subtidal reefs, caves and stacks, minor headlands and coves. The dramatic landform features of the Chasm and Lovers Leap are within this area, which are also classed as outstanding natural features - see Appendix A3.1.18.

Geological, hydrological and ecological processes are largely intact. Indigenous vegetation is present, but modified by pasture grasses. There is high perceptual naturalness and wild and scenic value.

The area is identified as a wāhi tūpuna - see Appendix A4.40. Most of the area (excluding the outstanding natural features) is also part of the Peninsula Coast Outstanding Natural Landscape - see Appendix A3.2.3.

A5.1.3.2 Values

- a. Basalt headland with high steep coastal cliffs, sub-tidal reefs, caves and stacks, minor headlands and coves, which are essentially natural.
- b. Seabirds roost on headlands and offshore stacks. Sooty shearwater may be present.
- c. High degree of naturalness of macroalgal beds on subtidal reefs.
- d. Medium to high naturalness of tops which are grazed, and cliffs.
- e. Patches of remnant/generating indigenous forest on tops and cliffs, some large. Mixed rough exotic grassland and tussockland, with patches of wetland vegetation on easier slopes.
- f. Ruggedness and lack of modification provide undomesticated wildness. Highly scenic.
- g. No structures or earthworks to detract from its natural character.
- h. Values of significance to Manawhenua. See Appendix A4.40.

A5.1.3.3. Threats

- a. Buildings, structures and earthworks.
- b. Vegetation clearance.
- c. Has a low threat from sedimentation and farming run-off.

A5.1.4 White Island

A5.1.4.1 Description of area

White Island is a small basalt island with subtidal reefs off the St Clair coast.

It has high geological and ecological value and is very wild, but has little scenic value.

The island is identified as a wāhi tūpuna. See Appendix A4.53.

A5.1.4.2 Values

- a. Small island with sub-tidal reefs. Largely natural.
- b. Sub-tidal reefs valued as rich and diverse habitat. Feeding and spawning area for a variety of finfish. Paua, rock lobster and kina habitat.
- c. Rich and diverse rocky intertidal epifauna, typical of exposed southern coasts.
- d. Devoid of vegetation.
- e. Values of significance to Manawhenua. See Appendix A4.53.

A5.1.4.3 Threats

- a. Buildings, structures and earthworks.
- b. Possibly some contamination from the Tahuna waste water treatment plant outfall at times.

A5.2.1 Aramoana Salt Marsh

A5.2.1.1 Description of area

The Aramoana salt marsh encompasses tidal flats, salt marsh and relict transgressive dunes, near the north-western head of the Otago Harbour and adjacent to the settlement of Aramoana. The salt marsh is extensive and largely intact. The area includes the second largest representation of dune slacks and associated vegetation in New Zealand. Whilst its natural character is modified to some extent on its landward edge by agricultural land use and Aramoana Road, its eastern portion is essentially unmodified.

The water quality in the wetland is generally good, reflecting the overall quality of water in the harbour. Nutrient addition associated with runoff from the farm adjacent to the wetland is unlikely to be high given the gradient and low intensity of farming.

Modified by the mole and by harbour dredging, the salt marsh nonetheless has moderately high geomorphological and hydrological integrity. It has high ecological value, with largely indigenous vegetation. The salt marsh has a high degree of perceptual naturalness and exhibits a moderately high degree of wildness, with some scenic value.

The salt marsh is identified as a wāhi tūpuna - see Appendix A4.22. It is also identified as an Outstanding Natural Feature - see Appendix A3.1.1. It is also within an Area of Significant Conservation Biodiversity Value **{NatEnv 958.60}** - see Appendix A1.2.

A5.2.1.2 Values

- a. Tidal flats, salt marsh and relict transgressive dune forms.
- b. High indigenous vegetation cover. Salt marsh species include *Selliera*, *Samolus*, rushes and *Sarcocornia*. *Zostera* beds are present in sparse patches at lower tide levels.
- c. Provides habitat to diverse species of fauna. Feeding area for wading birds and waterfowl.
- d. A sense of wildness and lack of domestication.
- e. High naturalness values due to the minimal influence of buildings, structures and earthworks.
- f. Values of significance to Manawhenua. See Appendix A4.22.

A5.2.1.3 Threats

- a. The supply and redistribution of sediments is likely to be altered by Port of Otago channel works and port activities (including the wakes of large vessels).
- b. The margins of the wetlands have been drained or infilled by farming practices.
- c. In parts, the salt marsh is modified by drainage channels, vehicle tracks, roads and conversion to agricultural land.
- d. The wetlands are vulnerable to fuel spills.
- e. Buildings, structures, roading and earthworks.

A5.2.2 Cape Saunders

A5.2.2.1 Description of area

The Cape Saunders area encompasses the coast at the eastern extremity of the Otago Peninsula, extending from the mouth of Papanui Inlet to Allans Beach. It includes Wharekakahu Island and Papanui Beach. It is a predominantly basalt headland with some trachyte, with landforms comprising sea cliffs, intertidal reefs, sea stacks and sandy coves, some with small dune systems. The active coastal sand-system is intact, albeit dune processes are modified by marram.

The cleared land is currently grazed. The foredunes are largely covered in marram, muehlenbeckia and lupin, with occasional indigenous shrubs at the pocket beach (Papanui Beach).

There has been some reduction of naturalness through human activity, particularly farming. The intertidal and aquatic habitats are of high quality and the area is important for wildlife habitat. The subtidal reefs are valued as rich and diverse habitat, providing a feeding and spawning area for a variety of finfish. Paua, rock lobster and kina are present. The marine community is largely intact.

One dwelling and curtilage, plus a single penguin hide and the lighthouse are the only built form to detract from the natural character of the area. Almost no earthworks are discernible, except the road to the lighthouse and some farm tracks. Together these have a very small influence on the natural character of the landscape.

There are several wāhi tūpuna identified in the area - see Appendices A4.53, A4.37 and A4.69. Wharekakahu has been identified as an Outstanding Natural Feature - see Appendix A3.1.21. Other parts of the area are also within the Peninsula Coast Outstanding Natural Landscape - see Appendix A3.2.3.

The area has high perceptual naturalness and high wild and scenic value.

A5.2.2.2 Values

- a. Basalt headland, including sea-cliffs, intertidal reefs, sea-stacks and sandy coves.
- b. Some indigenous vegetation on dunes.
- c. High degree of naturalness of macroalgal beds on subtidal reefs.
- d. Nesting habitat for spotted shags. Breeding area for yellow-eyed penguin and spotted shags.
- e. Wharekakahu has high habitat values for sooty shearwater, fairy prion and shag species, and as a haul out site for seals.
- f. A high degree of undomesticated wildness. Highly scenic.
- g. Values of significance to Manawhenua. See Appendices A4.53, A4.37 and A4.69.

A5.2.2.3 Threats

- a. Low threat from sedimentation and farming runoff.
- b. Reduction in water quality resulting from outflow from streams and non-point source sediment and nutrient inputs associated with the surrounding land use.
- c. Buildings, structures or earthworks that detract from the natural character.
- d. Vegetation clearance.

A5.2.3 Lower Taieri River Gorge

A5.2.3.1 Description of area

The lower Taieri River Gorge area encompasses the seaward end of the Taieri River Gorge. The coastal environment boundaries are defined by the extent of the gorge landform. Only part of the area is within the Dunedin city boundaries; the bulk is in Clutha District.

The area is described as a highly natural schist gorge, with regenerating indigenous vegetation along both sides. Hydrological processes are affected by upstream activities, with a consequent reduction in the integrity of ecological processes within the river. The area is highly scenic.

The area is identified as a wāhi tūpuna - see Appendix A4.60. It has also been identified as an Outstanding Natural Feature - see Appendix A3.1.8.

A5.2.3.2 Values

- a. Relatively unmodified schist gorge.
- b. Habitat for various water birds. Spawning site for galaxiids.
- c. High percentage cover of indigenous vegetation upstream of the Taieri Mouth bridge.
- d. A sense of wildness (i.e. lack of domestication). High scenic qualities.
- e. Values of significance to Manawhenua. See Appendix A4.60.

A5.2.3.3 Threats

- a. Hydrologic processes, including flow and sediment transport, may be affected by development and land use upstream.
- b. Water quality may be adversely affected by point discharges, runoff and drainage upstream.
- c. Buildings, structures and earthworks that detract from the natural character.

A5.2.4 Sandfly Bay

A5.2.4.1 Description of area

This area comprises a headland by-passing a transgressive (mobile) dune system with multiple phases that extends to Hoopers Inlet. The youngest dune phase remains largely mobile with low vegetation cover, Aeolian sand transport and active transverse dunes. The foredunes are marram covered, backed by *muehlenbeckia*, lupins, and exotic grasses. The older dune phases are stable, some with indigenous hardwood/broadleaf forest.

Sea lions haul out on the beach. Fur seals breed at eastern end of beach. The area is likely to provide valuable habitat for terrestrial invertebrates, lizards and birds. It is a breeding area for yellow-eyed penguin and little blue penguin. Sooty shearwater may breed here.

There are no discernible structures within this area. A track down to the beach is the only evidence of earthworks. This area has high to medium high natural character. Geological and ecological processes are adversely affected to a small degree by the presence of marram.

The area is identified as a wāhi tūpuna -see Appendix A4.40. It is also identified as an Outstanding Natural Feature - see Appendix A3.1.15.

A5.2.4.2 Values

- a. Partly mobile dune system, characterised by low vegetation cover and high sand transport.
- b. Largely unmodified indigenous broadleaf/hardwood forest at the Hoopers Inlet end, and around the active

dunes of Sandfly Bay.

- c. Remnant and regenerating indigenous broadleaf/hardwood forest, continuous at the eastern end, grading to scattered at western end. Pikao survives here.
- d. Sea lion haul out and fur seal breeding area.
- e. Probable valuable habitat for terrestrial invertebrates, lizards and birds.
- f. Breeding area for yellow-eyed penguin and little blue penguin, and possibly sooty shearwater.
- g. A sense of undomesticated wildness. Moderately high scenic qualities.
- h. Values of significance to Manawhenua. See Appendix A4.40.

A5.2.4.3 Threats

- a. Reduction in water quality resulting from outflow from streams and non-point source sediment and nutrient inputs associated with the surrounding land use.
- b. Buildings, structures or earthworks that detract from the natural character.
- c. Vegetation clearance.

A5.2.5 Tunnel Beach

A5.2.5.1 Description of area

The Tunnel Beach area encompasses the section of sandstone cliffs between the basalt cliffs and headlands of Blackhead and St Clair. Its inland extent is a relatively distinct change in slope back from the clifftops. It is comprised of sandstone cliffs with sea stacks, an arch and coves with narrow sandy beaches.

The only notable earthworks are the track down to Tunnel Beach, and a dewatering system close to the St Clair cliffs. Dwellings at the inland boundary diminish the undomesticated wildness to a degree. There are some very small patches of regenerating indigenous vegetation. A moderately extensive salt-tolerant herb field exists on the headland.

Highly natural coast with naturalness diminishing towards the landward boundary of the area due to the almost complete replacement of the indigenous vegetation with pasture.

Tunnel Beach has been identified as an Outstanding Natural Feature - see Appendix A3.1.20.

A5.2.5.2 Values

- a. Sandstone cliffs with sea stacks, an arch and coves with narrow sandy beaches.
- b. Small patches of regenerating indigenous vegetation. Salt-tolerant herb field on headland.
- c. Fairy prion nest on cliffs.
- d. The sandstone cliffs and their convolutions plus the surf provide a high degree of tumultuous wildness. Very high scenic quality.

A5.2.5.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Low threat from sedimentation.

A5.3.1 Aramoana Beach

A5.3.1.1 Description of area

This area comprises the eastern part of the beach at Aramoana, from the rock outcrops on the beach near the western end of Aramoana settlement to the mole.

The central dunes have been levelled for housing. Shore protection works (the mole) and marram have affected dune processes. Sand accumulation northwest of the mole has formed a prograded barrier (i.e. extending into the sea). Structures and earthworks have interrupted alongshore sediment transport. Deposition of spoil dredged from the Otago Harbour has also altered natural processes.

The integrity of the terrestrial ecology has been compromised but the intertidal and aquatic habitats are more natural. There is moderately low indigenous vegetation cover, with marram, muehlenbeckia, lupins, exotic trees, exotic grasses. Efforts are being made to replant with indigenous shrubs and grasses. Fur seals and sea lions are present from time to time.

The area is identified as a wāhi tūpuna. See Appendices A4.22 and A4.32.

A5.3.1.2 Values

- a. The active coastal sand-system.
- b. The Spit is a surf break of national significance. {NatEnv 908.14}
- c. Indigenous vegetation cover, where present.
- d. Sea lion and fur seal habitat.
- e. Values of significance to Manawhenua. See Appendices A4.22 and A4.32.

A5.3.1.3 Threats

- a. Levelling of dunes for housing.
- b. Buildings, structures or earthworks that detract from the natural character.
- c. Moderately low threat from sedimentation and farming runoff.
- d. Low threat from dredge spoil dumping.

A5.3.1.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See <u>A3.4.1 Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut.

A5.3.2 Aramoana Spit

A5.3.2.1 Description of area

A narrow, re-curved spit formed between groynes and the dredged harbour channel. It has eroded following construction of the mole, although this has been somewhat mitigated in recent years due to deposition of dredge spoil in the nearshore environment.

There is moderately low indigenous vegetation cover, including marram, muehlenbeckia, lupins, exotic trees, exotic grasses. Efforts are being made to clear exotics along the spit and replant with indigenous shrubs and grasses.

Marram grass combined with engineering efforts, both amateur and professional, have modified the natural processes of the spit and compromised its ecological integrity. The intertidal and aquatic habitats have higher integrity. While structures (including cribs located on the dunes) and road works diminish perceptual naturalness somewhat, it retains this a high degree.

The Spit is extremely exposed to the elements which ensures that it has a high degree of tumultuous wildness. The buildings reduce its undomesticated wildness. It has high scenic qualities.

The area is identified as a wāhi tūpuna. See Appendices A4.22 and A4.32.

A5.3.2.2 Values

- a. The sense of tumultuous wildness.
- b. The Spit is a surf break of national significance {NatEnv 908.14}
- c. Indigenous vegetation cover, where present.
- d. High scenic qualities.
- e. The area is identified as a wāhi tūpuna. See Appendices A4.22 and A4.32.

A5.3.2.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Structures, dredging of the harbour channel and associated dumping of the dredge spoil affect alongshore sediment transport processes and hydrology
- c. The Spit is vulnerable to erosion and breaching.
- d. Moderately low threat from sedimentation and farming runoff.

A5.3.2.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. Shelterbelt planting should be avoided in this highly visible area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.

A5.3.3 Blueskin Bay

A5.3.3.1 Description of area

Blueskin Bay is a large estuary at the mouth of the Waitati River and Carey's Creek, and is protected from the open ocean of a sand spit extending from its northern shore. The bay is shallow, characterised by sand flats and channels. Orokonui Estuary is a small arm of the main estuary at its south-west corner. Alluvial fans are present at the mouths of the Waitati River and Carey's Creek but in other areas, the shoreline of the estuary is characterised by a low scarp which usefully defines the extent of the coastal environment.

Blueskin Bay is very modified by settlement and transportation infrastructure. The township of Waitati is located on flats at the mouth of the Waitati River. Scattered residential development extends from Waitati around the southern shoreline to Doctors Point.

Blueskin Bay is assessed as modified to a moderately high degree by sedimentation and water quality degradation. Nonetheless it has high value as a feeding and breeding ground for wading birds, including migratory species, and its cockle beds sustain a commercial harvest. It has moderately high perceptual naturalness and is an important scenic asset.

The area is identified as a wāhi tūpuna. See Appendices A4.14 and A4.18.

A5.3.3.2 Values

- a. Tidal estuary with conspicuous flood-tide sand delta and tidal flats. **{NatEnv 220.3 and others}**
- b. Isolated patches of salt marsh.
- c. Important feeding area for seabirds, **{NatEnv 220.3 and others}** wading birds, including trans-equatorial

migrants.

- d. Commercial cockle harvesting and recreational amenity. **{NatEnv 220.3 and others}**
- e. Important nursery ground for flatfish, and habitat for shellfish (including cockles). **{NatEnv 220.3 and others}**
- f. The area is identified as a wāhi tūpuna, with kai moana values. See Appendix A4.14 and A4.18.

A5.3.3.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Water degradation due to nutrient runoff, infiltration from septic tanks and, to a lesser extent, contamination from water-fowl.
- c. Sedimentation caused by run-off.

A5.3.3.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut.
Shelterbelts	a. Shelterbelt planting should be avoided in this highly visible area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Forestry Blocks	a. Forestry blocks should be avoided in this highly visible area. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.4 Brighton

A5.3.4.1 Description of area

This area includes the coastline adjacent to the urban area of Brighton, including coastal cliffs with coves, sandy beaches and intertidal reefs. The coast is characterised by small beaches divided by low rocky headlands with associated stacks and reefs. There is a small marram covered dune system at the mouth of Otokia Creek which has been modified by the development of the Brighton Surf Club building and the associated parking area. This area is being replanted in indigenous dune species. At the northern end of the area, the beaches are backed by a steep scarp covered in native and exotic coastal scrub.

Back from the immediate coastal edge is the main coastal road and the urban area of Brighton. A large area of open parkland occupies the top of the uplifted marine terrace to the south of Brighton Beach.

The geomorphology of this area is largely unmodified. There is an active coastal sand-system (nearshore-beach-foredune sand exchange) intact in dune system. Main processes elsewhere are erosional and are largely unmodified.

Ecological processes are modified by residential occupation and related developments. The marine community is largely intact. Subtidal reefs have a rich and diverse habitat. They provide a feeding and spawning area for a variety of finfish. There is paua, rock lobster and kina habitat.

The area identified as a wāhi tūpuna. See Appendix A4.59.

The area has a low perceptual naturalness but some wild and scenic value. It is very domesticated, except for the headland.

A5.3.4.2 Values

- Coastal cliffs with coves, sandy beaches and intertidal reefs.
- Largely natural rocky intertidal zone.
- Patches of regenerating indigenous vegetation.
- Active coastal dune system.
- Sub-tidal reefs with rich and diverse habitat.
- Moderately high scenic value.
- Values of significance to Manawhenua. See Appendix A4.59.

A5.3.4.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Sedimentation from run-off.
- Erosion.

A5.3.4.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 Appendix A11 {NatEnv cl.16} for design guidelines for buildings and structures.

Threat	Key design elements
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible areas, otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the landscape. b. See A3.4.3 Appendix A11 <i>{NatEnv cl.16}</i> for design guidelines for shelterbelts.

A5.3.5 Brighton Road Beach South

A5.3.5.1 Description of area

This area extends from approximately 1 km south of Big Stone Road north to Bath Street, Brighton. It is characterised by a series of coastal terraces of schist geology, with outcrops of exposed schist, and sandy beaches in between. The coastal environment is defined by the top of the first terrace back from the coastal highway.

There are late Holocene-era foredune ridges, seaward of a Pleistocene coastal terrace. Several small streams bisect the dunes. These are likely to have been channelised by foredune development in association with marram. The active coastal sand-system (nearshore-beach-foredune sand exchange) is intact, albeit dune processes are modified by marram.

Vegetation along the beach margin is largely marram grass and tree lupin, with extensive indigenous shrubs along cliff tops. The landscape behind the beaches is characterised by pasture cover with exotic shelter plantings, and where gullies cut through the coastal terrace, by remnant or regenerating indigenous vegetation. This indigenous vegetation is likely to support indigenous invertebrates, lizards and bush birds. The beach and cliffs provide suitable habitat for shore birds.

The Taieri Mouth-Brighton Road forms a lineal connection running along the beach margin. Residential development is scattered along the road margins, mainly on the inland side. The road, occasional car parks and walking tracks have modified the environment.

The intertidal and subtidal reefs harbour rich and diverse flora and fauna. Finfish are common offshore.

The area has moderately high geomorphological and hydrological naturalness but its terrestrial ecology is modified by exotic vegetation. Perceptual naturalness is moderately low and it lacks wild or scenic value.

A5.3.5.2 Values

- a. Schist outcrops and sandy beach with active coastal sand-system.
- b. Indigenous vegetation along cliff tops, providing habitat for terrestrial invertebrates, lizards and bush birds.
- c. Intertidal and subtidal reefs with rich and diverse flora and fauna.
- d. Values of significance to Manawhenua. See Appendix A4.59.

A5.3.5.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Possible reduction in water quality resulting from farming runoff.
- c. Vegetation clearance.

A5.3.5.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible areas, which applies to most of this area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Forestry blocks	a. Highly visible areas should be avoided for forestry planting, which applies to most of this area. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.6 Island Park

A5.3.6.1 Description of area

This area encompasses the beach and dune system west and east of Kaikorai estuary, then extending between Waldronville and Blackhead Beach to just west of Blackhead quarry.

Whilst the geology of the surrounding hills is sedimentary, the area within the coastal environment is largely sandy marine deposits. The active coastal sand-system is intact, albeit the transgressive (mobile) dune is now stabilised and foredune processes are modified by marram. The long beach north of the estuary is backed by a large area of dunes. This is covered in marram grass near the beach but increasingly covered with scrub and forest further inland.

Sea lions haul out here occasionally, and finfish are common offshore. The intertidal and aquatic zones have some importance for wildlife.

The natural character is modified, particularly nearer the estuary mouth, by sand mining and the development of recreational facilities such as the speedway, although the extent of the dune system limits the effects of modification. There are walking tracks through the dunes and the area is occasionally visited by trail bike riders.

This area exhibits significant modifications to geological, hydrological and (terrestrial) ecological processes. It has moderately high perceptual naturalness, and medium wild and scenic value.

A5.3.6.2 Values

- The active coastal dune system.
- Indigenous vegetation cover where present.
- Wilderness values.
- Values of significance to Manawhenua. See Appendix A4.52

A5.3.6.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Sedimentation and farming runoff.
- Potential degradation of water quality from outflow from Kaikorai estuary, runoff, and the Green Island waste water treatment plant.

A5.3.6.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	- If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. - They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	- If practically feasible, shelterbelt planting should avoid highly visible areas, which applies to most of this area. - See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.

A5.3.7 Karitane Beach

A5.3.7.1 Description of area

This area extends from the Seacliff Significant Natural Landscape along the coast to Karitane township to the northern end of the beach, then to the west of the township where it links with Waikouaiti estuary.

The environment consists of a late-Pleistocene terrace fronted by a sandy beach. A scarp separates the terrace from the beach. There is no foredune development, indicating that coastline is (occasionally) erosional. South of Karitane township, the terrace is vegetated in pasture.

The Karitane township at the northern beachfront area and the presence of roads diminishes the natural character. The vegetation is largely exotic grasses and weeds, with some regeneration of indigenous species (e.g. ngaio).

The ecology of the intertidal and aquatic habitats is moderately intact. There are scattered offshore reefs with associated *Macrocystis* communities. Red-billed gulls breed on islets, and there is roosting and foraging habitat for shorebirds.

While retaining moderately high geomorphological and hydrological integrity, the integrity of the terrestrial ecology is low. The area has moderate perceptual naturalness and wild and scenic value. It is more 'natural' in its southern and eastern portions than its northernmost area.

A5.3.7.2 Values

- Terrace and sandy beach, with an intact nearshore beach sand transport system.
- Indigenous vegetation where present.
- Roosting, foraging and breeding habitat for shorebirds, particularly on islets.

A5.3.7.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Potential sedimentation from farming runoff.

A5.3.7.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures.	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding coastal environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 <u>Appendix A11 {NatEnv cl.16}</u> for design guidelines for buildings and structures.

Threat	Key design elements
Roads and tracks.	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. Shelterbelt planting should avoid highly visible locations, which includes most of this area. b. See A3-4-3 Appendix A11 {NatEnv cl.16} for design guidelines for shelterbelts.
Forestry blocks	a. Highly visible areas should be avoided for forestry planting, which includes most of this area. b. See A3-4-2 Appendix A11 {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.8 Kuri Bush

A5.3.8.1 Description of area

This area extends from approximately 1 km south of Big Stone road south to approximately 2km north of Taieri Mouth. It is characterised by a series of coastal terraces of schist geology, with outcrops of exposed schist, and a sandy beach. The coastal environment is defined by the top of the first terrace back from the coastal highway. A marram dominated foredune has developed. The coast is characterised by a low cliff with small pocket beaches.

There are late Holocene-era foredune ridges, seaward of a Pleistocene coastal terrace. Several small streams bisect the dunes. These are likely to have been channelised by foredune development in association with marram. The active coastal sand-system (nearshore-beach-foredune sand exchange) is intact, albeit dune processes are modified by marram.

Vegetation along the beach margin is largely marram grass and tree lupin, with extensive indigenous shrubs along cliff tops. The landscape behind the beaches is characterised by pasture cover with exotic shelter plantings, and where gullies cut through the coastal terrace, by remnant or regenerating indigenous vegetation. This indigenous vegetation is likely to support indigenous invertebrates, lizards and bush birds. The beach and cliffs provide suitable habitat for shore birds.

The Taieri Mouth-Brighton Road forms a lineal connection running along the beach margin. Residential development is scattered along the road margins, mainly on the inland side, with the exception being around Kuri Bush where cribs have been constructed between the road and the sea. The road, occasional car parks and walking tracks have modified the environment.

The intertidal and subtidal reefs harbour rich and diverse flora and fauna. Finfish are common offshore.

The area has moderately high geomorphological and hydrological naturalness but its terrestrial ecology is modified by exotic vegetation. Perceptual naturalness is moderately low and it lacks wild or scenic value.

A5.3.8.2 Values

- a. Essentially natural pleistocene terrace with sandy pocket beaches, and semi-continuous intertidal and sub-tidal schistose reefs.
- b. Indigenous vegetation where present.
- c. Wildness is provided by the surf and by the rocky reefs. Moderate scenic value.
- d. Values of significance to Manawhenua. See Appendix A4.59.

A5.3.8.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Potential reduction in water quality resulting from farming runoff.

A5.3.8.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3-4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible areas, otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the coastal environment. b. See A3-4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	a. Any quarries and excavations should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.

Threat	Key design elements
Forestry blocks	a. Some highly visible areas should be avoided for forestry planting; for other areas there should be careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the landscape. b. Forestry blocks should be carefully located so that when trees have matured they visually sympathise with and emphasise underlying ridges and gullies rather than create new unnatural lines or rectangular patterns. c. Rather than forestry establishment following the straight edges of property boundaries, landowners should be encouraged to pay attention to the landforms and vegetation patterns that exist. d. Large blocks of single aged monocultures should be discouraged, replaced by smaller compartments that can be harvested over a staggered timeframe, thereby reducing the adverse environmental effects occurring at this stage of the forest growing cycle. e. Encourage the provision of appropriate edge planting. f. See <u>A3.4.2 Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.9 Lawyers Head

A5.3.9.1 Description of area

Lawyers Head area comprises the basalt headland, cliffs and associated reefs.

The landform has been modified by the construction of John Wilson Drive, the golf course and car park, and by the planting of exotic grasses, however the coastal margins remain relatively unmodified. There are extensive patches of regenerating indigenous vegetation along the cliff tops.

The seaward edges of the headland retain fairly high geological and ecological naturalness, although water quality is diminished. It retains moderately high perceptual naturalness and wild and scenic value.

Part of the area is identified as a wāhi tūpuna. See Appendix A4.45.

A5.3.9.2 Values

- a. Basalt headland with cliffs and reefs.
- b. Indigenous vegetation where present.
- c. Values of significance to Manawhenua. See Appendix A4.45.

A5.3.9.3 Threats

- a. Buildings, structures and earthworks that detract from the natural character.
- b. Potential effects on water quality from stormwater, outflow from Tomahawk Lagoon and the Tahuna waste water treatment plant outfall.
- c. Sedimentation from runoff.

A5.3.9.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Any new buildings or structures in this area would very likely be a threat by creating significant adverse effects on natural character. b. If required, they should be sited so that they are not visible from public viewpoints. c. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. Shelterbelts in this area are very likely to be a threat by creating significant adverse effects on natural character. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.

A5.3.10 Ocean View/Westwood

A5.3.10.1 Description of area

This area extends along the coast from Brighton to adjacent Island Park, and comprises a sandy beach backed by dunes. Whilst the geology of the surrounding hills is sedimentary, the area within the coastal environment is largely sandy marine deposits. A coastal terrace separates inland hill slopes from recent dunes. Several small streams bisect the dunes. These are likely to have been channelised by foredune development.

The beach is backed by marram grass covered dunes with scattered native and exotic scrub. There is moderately extensive regenerating indigenous vegetation behind the foredunes, including an important area of remnant pikao. The main road to Brighton runs along the back of the dunes and housing has been developed along this in ribbon form.

This area has been modified by human habitation, including roading, walking tracks, car parks and houses at the southern end of the area. It is occasionally visited by trail bike riders.

It has moderately low perceptual naturalness and a similar level of scenic value. The dunes and the beach-surf provide some wildness.

A5.3.10.2 Values

- a. Sandy beach and largely natural foredunes.
- b. Indigenous vegetation where present, including an important area of remnant pikao.
- c. Wildness value. Scenic value limited.

A5.3.10.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Vegetation clearance.

A5.3.10.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible locations, which includes most of this area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	a. Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.
Forestry blocks	a. Highly visible locations should be avoided for forestry planting, which includes most of this area. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.11 Pleasant River Estuary

A5.3.11.1 Description of area

Pleasant River Estuary occupies a valley within low coastal hills between State Highway 1 and the coast, and is protected from the ocean by a marram grass covered sand spit extending from the northern shore (located in Waitaki District). The surrounding hill country (typically gently sloping on top, falling more steeply to the estuary) is comprised of sedimentary rock and reaches elevations of around 60 - 80m, suggesting eroded marine terraces. The hills are generally under pasture cover and devoid of trees, although patches of indigenous scrub survive in a few places.

The estuary, which has various arms and a number of tributaries, is flanked by salt marsh and characterised by sinuous river channels winding through shallower sand flats. It has a high degree of naturalness, especially in the lower reaches of the estuary, and the ecological health is good. There is a relatively high percentage of indigenous salt marsh with the remainder in sandflats. There is ribbonwood and silver tussock in places around the perimeter.

Exotic grasses are evident around the perimeter and associated with reclaimed areas.

The estuary provides valuable habitat for a diversity of waterbirds, including threatened species and trans-equatorial migrants such as bar-tailed godwits. The edges provide suitable habitat for terrestrial invertebrates and lizards. It is a likely spawning area for finfish such as flounder and galaxiids.

The inland extent of the area is characterised by increased modification in the form of drainage and reclamation for improved pasture. The rural, undomesticated character of the surrounding hills is being modified by housing associated with the Tumai Coastal Sanctuary on the true right.

While some areas of the estuary have been modified by drainage and conversion to pasture, its geomorphological and hydrological integrity remains largely intact. It has a moderately high ecological value including a range of indigenous vegetation and provides valuable habitat for birds and fish. Its perceptual naturalness is compromised by drainage works and by residential development, but it has relatively high wild and scenic value.

A5.3.11.2 Values

- Extensive, relatively unmodified wetlands, salt marsh and sandflats through most of the area, in good ecological health.
- High degree of naturalness, especially in the lower reaches of the estuary.
- Indigenous vegetation.
- Waterbird habitat, including for threatened species and trans-equatorial migrants such as bar-tailed godwits.
- Habitat for terrestrial invertebrates and lizards at edges of estuary.

A5.3.11.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Reclamation.
- Runoff from farming, introduced weeds, nutrient pollution, stock grazing.
- Nutrient and sediment runoff affecting water quality.

A5.3.11.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.

Threat	Key design elements
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible locations, which applies to most of this area. b. See A3.4.3 Appendix A11 {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	a. Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an on-going basis with appropriate planting and restorative earthworks.
Forestry blocks	a. Highly visible areas should be avoided for forestry planting, which applies to most of this area. b. See A3.4.2 Appendix A11 {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.X Portobello Peninsula {Confirmed for addition - NatEnv 447.130}

A5.3.X.1 Description of area {NatEnv 447.130}

Portobello Peninsula, along with Goat Island/Rakiriri and Quarantine Island/Kamau Taurua, is an example of a ria coastline, with the pattern of headlands and islands formed by sea level rise and the drowning of valleys eroded by Otago Peninsula volcanic activity.

Whilst vegetation cover is largely modified and dominated by exotic grasses, the road reserve that runs along the side of the Portobello Peninsula facing the city (not beside the current road) is the only sea/land interface on the Otago Peninsula that retains original indigenous vegetation - in particular, grass trees, tree daisies and some ground orchids. There are very high terrestrial wildlife values present.

The adjacent intertidal and aquatic habitats have a moderately high degree of health.

Overall, Portobello Peninsula has moderately high wild and scenic quality. {NatEnv 447.130}

A5.3.X.2 Values {NatEnv 447.130}

- a. Ria coastline, with relatively unmodified hill slope and coastal processes.
- b. Moderate degree of tumultuous wildness through its steep topography.
- c. High scenic quality.
- d. Only sea/land interface on Otago Peninsula with original indigenous vegetation, including grass trees, tree daisies and ground orchids.
- e. Nesting site for little cormorant. Very high value for terrestrial wildlife. {NatEnv 447.130}

A5.3.X.3 Threats {NatEnv 447.130}

- a. Low threat from sedimentation and farming runoff.

- b. Factors which diminish natural character include buildings, structures (such as pylons) and earthworks (the road and farm tracks). **{NatEnv 447.130}**

A5.3.X.4 Key design elements to be required or encouraged {NatEnv 447.130}

Threat	Key design elements
<u>Buildings and structures</u>	a. <u>Structures should be designed with the intention of preserving or enhancing the natural character values.</u> b. <u>They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features.</u> c. <u>Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment.</u> d. <u>See Appendix A11 for design guidelines for buildings and structures.</u> {NatEnv 447.130}
<u>Roads and tracks</u>	a. <u>If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas.</u> b. <u>They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.</u> {NatEnv 447.130}

A5.3.12 Smaills Beach/Tomahawk

A5.3.12.1 Description of area

The area is defined by Lawyers Head to the west and Māori Head to the east, encompassing Tomahawk and Smaills Beaches. The suburb of Ocean Grove lies between Tomahawk Beach and Tomahawk Lagoon, which is a separate coastal character area. The geology of the hills surrounding the headlands is volcanic, and the beaches are backed by dunes.

The dunes are covered in marram grass and scattered native scrub. There is also wind shorn native scrub on the headlands.

Geological and hydrological processes are modified by human habitation and the presence of marram in the dune systems. These also modify the terrestrial and intertidal ecology, but the area is still important for wildlife. It has moderate perceptual naturalness and some sense of wildness. Smaills Beach is highly scenic, Tomahawk less so.

Part of the area is identified as a wāhi tūpuna. See Appendix A4.42.

A5.3.12.2 Values

- Active coastal sand system, although dune processes modified by exotic plant cover e.g. marram.
- Remnant and regenerating indigenous forest, with active replanting programme.
- Sealions and fur seals haul out occasionally. Pupping area for sealions. Roosting area for seabirds.
- Some wildness values and highly scenic at eastern (Smaills Beach) end.
- Values of significance to Manawhenua. See Appendix A4.42.

A5.3.12.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Moderately low threat from sedimentation and farming runoff.
- Factors which diminish natural character include residential development, playing fields, earthworks (roads) and structures (e.g. gun emplacements).

A5.3.12.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 <u>Appendix A11 {NatEnv cl.16}</u> for design guidelines for buildings and structures.
Roads and tracks	- If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. - They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Mining	Any mining activity, including sand mining, should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an on-going basis with appropriate planting and restorative works.

A5.3.13 Taieri Mouth North

A5.3.13.1 Description of area

The area encompasses a short stretch of coastline immediately north of Taieri Mouth. It is characterised by a series of coastal terraces of schist geology, with schist exposed in outcrops, and a sandy beach. The coastal environment is defined by the top of the first terrace back from the coastal highway. There is Aeolian and wave deposited sand in the lee of Moturata Island.

The landscape behind the beaches is characterised by pasture cover with exotic shelter plantings, and where gullies cut through the coastal terrace, by remnant or regenerating indigenous vegetation. The Taieri Mouth-Brighton Road forms a lineal connection running along the beach margin. Residential development is scattered along the road margins, mainly on the inland side. Vegetation along the beach margin is largely marram grass and tree lupin, with little evidence of any indigenous vegetation.

The geology of the area retains medium to high naturalness. The terrestrial ecology is modified by evidence of regenerating present indigenous vegetation. Aquatic and intertidal ecology is of medium to high health. The

perceptual naturalness of the area is moderately low, but it has some wild and scenic quality.

The area is identified as a wāhi tūpuna. See Appendices A4.59 and A4.60.

A5.3.13.2 Values

- Natural landforms.
- Indigenous vegetation, where present, supporting terrestrial invertebrates, lizards and bush birds.
- Shorebird habitat.
- Some wildness values. Moderate scenic quality.
- Values of significance to Manawhenua. See Appendices A4.59 and A4.60

A5.3.13.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Sedimentation from farming runoff.
- Vegetation clearance.

A5.3.13.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 Appendix A11 {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	- If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. - They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	- If practically feasible, shelterbelt planting should avoid highly visible areas, otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the landscape. - See A3.4.3 Appendix A11 {NatEnv cl.16} for design guidelines for shelterbelts.

Threat	Key design elements
Mining	a. Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.
Forestry blocks	a. Highly visible locations should be avoided for forestry planting, which applies to most of this area. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.14 Tomahawk Lagoon

A5.3.14.1 Description of area

The Tomahawk lagoon consists of two shallow lagoons, joined by a narrow channel. The lagoon is brackish and there are small marshy areas adjacent in places. Urban development (involving reclamation) extends to the edge of the upper lagoon along its southern side. The upper margins are relatively natural.

The lagoon is a regionally significant wetland and is protected by QEII covenant. The margins are predominantly indigenous vegetation, including several threatened species.

Common planktonic algae are a feature of lagoon waters, with blooms common in warmer weather. There are nutrient inputs from farm run-off. Invertebrate communities typical of highly modified and enriched soft-bottom estuaries. There is a high diversity of indigenous water birds, including marsh and spotless crane, waders, gulls, waterfowl. The latter often present in high numbers.

While geological and hydrological values are low, the lagoon retains ecological integrity, particularly at the landward edges. While the estuarine life is modified by runoff, it is important habitat for waterfowl. The lagoon retains moderate perceptual naturalness and moderate wild and scenic value.

The area is identified as a wāhi tūpuna. See Appendix A4.42.

A5.3.14.2 Values

- Relatively natural upper margins of the lagoon.
- Regionally Significant Wetland.
- Indigenous vegetation, including several threatened species.
- High diversity of indigenous water birds, including marsh and spotless crane, waders, gulls, and waterfowl.
- Values of significance to Manawhenua. See Appendix A4.42.

A5.3.14.3 Threats

- Buildings, structures and earthworks that detract from the natural character. Roads, causeways, reclamation and canalisation drains are all earthworks which could negatively influence natural character.
- Effects on water quality from farm run-off.
- Vegetation clearance.

A5.3.14.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. Higher elevated areas are the most sensitive part in this regard. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible locations, which applies to most of this area. Otherwise shelterbelts should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Forestry blocks	a. Highly visible areas should be avoided for forestry planting, which applies to most of this area. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.15 Tumai

A5.3.15.1 Description of area

The Tumai Coast runs from Pleasant River mouth south to the northern edge of Matanaka. It is comprised of low (up to approximately 100m) dissected hills, consisting of sedimentary rock which slopes toward the coast and terminates in cliffs up to approximately 40m high. The sandstone cliffs are mixed with sand/gravel beaches.

Different rock strata can be identified in the cliff faces and in places there are off-shore reefs present.

The land is under pasture and in a few places there are patches of scattered indigenous forest. There is no road access and no buildings within the identified coastal environment.

The area displays a moderately high level of naturalness in terms of geological and hydrological processes. The terrestrial ecology is significantly modified, but there is a high degree of integrity in the intertidal and subtidal zones. It has a high level of perceptual naturalness and high wild and scenic value.

A5.3.15.2 Values

- Essentially natural sandstone cliffs with mixed sand/gravel beaches and intertidal reefs.
- Indigenous vegetation where present.
- Moderate to high degree of wildness in the undomesticated sense. High scenic value.
- Values of significance to Manawhenua. See Appendix A4.1.

A5.3.15.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Effects on water quality from farmland runoff.
- Sedimentation from farming runoff.

A5.3.15.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	- Structures should be designed with the intention of preserving or enhancing the natural character values. Higher elevated areas are the most sensitive parts of this landscape in this regard. - They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. - Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. - See A3.4.1 See Appendix A11 {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	- If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. - They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	- If practically feasible, shelterbelt planting should avoid highly visible locations. Otherwise shelterbelts should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the landscape. - See A3.4.3 Appendix A11 {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible quarry surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.

Threat	Key design elements
Forestry blocks	a. Highly visible locations should be avoided for forestry planting. b. See A3.4.2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.16 Waikouaiti Beach

A5.3.16.1 Description of area

The crescent shaped Waikouaiti Beach runs from the Waikouaiti River mouth around towards Cornish Head. It is a low lying coastal environment comprised of gravel, sand and silt, and is flanked by raised marine terraces of similar material overlain by loess. The dunelands adjacent to the beach have been significantly modified by forestry as well as a large scale poultry farm. More natural dune forms dominate the southern end of the spit, modified by marram. Groynes have been placed at the end of the spit in an attempt to minimise erosion and maintain inlet stability.

Finfish are common offshore and occasionally targeted by commercial trawlers. A variety of species of dolphin are regular, albeit brief, visitors.

There is low indigenous vegetation cover. The presence of marram, lupin and pine, combined with structural works to create playing fields and other urban developments have compromised the geomorphic and ecological processes within this area to a significant extent. The intertidal and aquatic habitats have some ecological integrity. The area has low perceptual naturalness but some wild and scenic value.

A5.3.16.2 Values

- Natural dune forms at the southern end of the spit.
- Wildness and scenic qualities highest at the eastern spit and near Matanaka.
- Values of significance to Manawhenua. See Appendix A4.5.

A5.3.16.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- The beach has both wild and scenic qualities diminished by the presence of conifers and built development.

A5.3.16.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.

Threat	Key design elements
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible areas, otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the landscape. b. See A3.4.3 Appendix A11 {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	a. Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.
Forestry blocks	a. Highly visible locations should be avoided for forestry planting, which applies to most of this area. b. See A3.4.2 Appendix A11 {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.17 Waikouaiti Estuary

A5.3.17.1 Description of area

This is a coastal lowland landscape encompassing the Waikouaiti River Estuary and associated river flats. The estuary is much modified by drainage and reclamation, particularly in the upper reaches. The margins adjacent to Karitane have been modified with shore erosion measures (seawalls, groynes).

While this area scores reasonably highly on perceptual naturalness, it is quite highly modified by human activities. The dune structure has been modified by marram and by earthworks to facilitate residential activities, and the terrestrial ecology is significantly modified as a consequence. The aquatic environment is least modified, resulting in a moderately high presence of wildlife.

There is a moderate percentage of indigenous salt marsh, approaching 40%. The remainder is largely sandflats. The estuary provides roosting and feeding habitat for a high diversity of waterbirds, including trans-equatorial migrants. Cockles are present and it is a likely spawning area for finfish such as flounder and galaxiids.

Water quantity is somewhat reduced by water abstraction upstream. Water quality is affected by point and non point source discharges from the surrounding farm and residential land. The ecological health of the estuary is under moderate threat from erosion, reclamation, farming runoff, introduced weeds, nutrient pollution and stock grazing. Earthworks have modified the character of the estuary through canalisation, reclamation, flood banks, the railway embankment and sewerage ponds.

The area is identified as a wāhi tūpuna. The estuary is also a Statutory Acknowledgment area. See Appendices A4.4 and A4.5.

The area has relatively low scenic value.

A5.3.17.2 Values

- a. High degree of naturalness, especially in the lower reaches of the estuary, with a moderate percentage of indigenous salt marsh.
- b. Roosting and feeding habitat for a high diversity of waterbirds, including trans-equatorial migrants.
- c. Likely spawning area for finfish such as flounder and galaxiids.
- d. Values of significance to Manawhenua. See Appendices A4.4 and A4.5.

A5.3.17.3 Threats

- a. Buildings, structures or earthworks that detract from the natural character.
- b. Effects on water quantity due to water abstraction upstream.
- c. Effects on water quality due to point and non point source discharges from the surrounding farm and residential land.
- d. Erosion, reclamation, farming runoff, introduced weeds, nutrient pollution and stock grazing affecting the ecological health of the estuary.
- e. Residential development, reclamation and drainage that domesticate the area.

A5.3.17.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures should be designed with the intention of preserving or enhancing the natural character values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible areas, otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.

Threat	Key design elements
Mining	a. Any mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting and restorative earthworks.
Forestry blocks	a. Highly visible locations should be avoided for forestry planting, which applies to most of this area. b. See A3-4-2 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for forestry blocks.

A5.3.18 Warrington and Doctors Point Sandspits

A5.3.18.1 Description of area

This area encompasses the sand spits at Warrington and Doctors Point (on either side of the Blueskin Bay channel entrance), and Rabbit Island within Blueskin Bay. The Warrington spit is a depositional feature separating the estuary from the open ocean. The spit is characterised by an aggrading beach on the ocean side, and marram grass covered dunes with scattered groups of exotic trees on the estuary side. A sewage treatment plant, vehicular track and surf club building have been developed on it. The dunes have been levelled at the northern end of the spit for housing. The southern portion of Warrington Spit has no buildings, structures or earthworks to detract from its character. Doctors Point sandspit has no buildings or structures but has been slightly modified by roadways and tracks. There are no buildings or structures on Rabbit Island.

Warrington spit provides roosting habitat for shore birds. It is also a pupping area for sea lions.

The area is identified as a wāhi tūpuna. See Appendices A4.15 and A4.16.

While this area scores reasonably highly on perceptual naturalness, it is quite highly modified by human activities. The dune structure has been modified by marram and by earthworks to facilitate residential and associated activities, and its terrestrial ecology is significantly modified as a consequence. The aquatic environment is least modified resulting in a moderately high presence of wildlife.

A5.3.18.2 Values

- Roosting habitat for shore birds. Pupping area for sea lions.
- Breeding habitat on Rabbit Island and Doctors Point for red-billed gulls and white-fronted tern.
- Southern portion has no buildings, structures or earthworks to detract from its character. Doctors Point sandspit has no buildings or structures but has been slightly modified by roadways and tracks
- Values of significance to Manawhenua. See Appendix A4.15 and A4.16.

A5.3.18.3 Threats

- Buildings, structures or earthworks that detract from the natural character.
- Vegetation clearance.

A5.3.18.4 Key design elements to be required or encouraged

Threat	Key design elements
Buildings and structures	a. Structures in this location would be very likely to have an adverse effect on natural character values. If required, they should be designed with the intention of preserving or enhancing these values. b. They should be located with an awareness of being viewed from prominent public viewing points and utilise materials and colours which are in sympathy with surrounding natural features. c. Good design should relate to the specific character and location of each site, but general principles include ensuring building elevation and overall size are not too dominant; materials and their colours should be sympathetic to the surrounding environment; and planting schemes need to be of a scale and character appropriate to the coastal environment. d. See A3.4.1 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for buildings and structures.
Roads and tracks	a. If roads or tracks are required they should be carefully designed to be located in the least visually prominent areas. b. They should wherever possible follow contours rather than cut across them and construction activity should minimise the amount of cut and ensure this is not disposed of over downslopes in visually sensitive areas.
Shelterbelts	a. If practically feasible, shelterbelt planting should avoid highly visible locations, which applies to most of this area. Otherwise they should be located following a careful assessment of the underlying topography and existing natural features to ensure minimum impact on the visual integrity of the area. b. See A3.4.3 <u>Appendix A11</u> {NatEnv cl.16} for design guidelines for shelterbelts.
Mining	a. Mining activities <u>activity</u> {PO cl.16} such as sand mining would be very likely to have a significant adverse effect on natural character values. If required, mining activity should be designed with an awareness of the visual quality of the setting. Wherever possible activities should be sited away from prominent viewing points; visible surface activity should be reduced as much as possible and the visual prominence of sites should be mitigated on an ongoing basis with appropriate planting.

