Natural Features and Natural Landscapes - Clutha District Section

Landscape character unit	ONF to be assessed
CL1. Henley	
CL2. Taieri River Gorge	CL2/F1. Lower Taieri River Gorge
CL3. Taieri Mouth	CL3/F1. Moturata Island
	CL3/F2. Taieri Beach Faulted Coastal Plain
CL4. Akatore Coast	
CL5. Akatore wetland	
CL6. Toko Mouth	CL6/F1. Cooks Head Rock
	CL6/F2. Chrystalls Beach
CL7. Tokomairiro wetland	
CL8. Wangaloa	
CL9. Clutha Mouth	
CL10. Kaka Point	
CL11. Sandy Bay	CL11/F1. Nugget Point
CL12. Cannibal / Surat Bay	CL12/F1. False Islet
CL13. Catlins Lake	
CL14. Jacks Bay / Penguin Bay	CL14/F1. Jacks Blowhole
	CL14/F2. Tuhawaiki Island
CL15. Hinahina	
CL16. Long Point	CL16/F1. Cosgrove Island
CL17. Tahakopa Bay	
CL18. Tahakopa River	
CL19. Tautuku	CL19/F1. Rainbow Isles
	CL19/F2. Lake Wilkie
CL20. Waipati	CL20/F1. Frances Pillars
	CL20/F2. Cathedral Caves
	CL20/F3. Kinakina Island
CL21. Wallace Head	

CL1. Henley



This landscape unit extends along the Taieri and Waipori Rivers as far as the marine influence is significant, and is part of a much wider lower Taieri Plains landscape. The rivers are constrained within stop banks and dairy farming land use has replaced the large wetlands that would have once covered this area. Roads, bridges and scattered buildings are also parts of the riverside landscape.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 The Waipori Boot Swamp is habitat for rare or threatened species – i.e. Australasian Bittern and Marsh Crake. Natural landscape patterns are now significantly modified by stopbanks, drainage and agricultural development – 	Medium - low

	expressiveness modest.	
Aesthetic values (naturalness / memorability) Wild and scenic	 Despite some remaining wetland areas, naturalness values are low due to the influence of agricultural reclamation and drainage Memorability and wild and scenic values are low 	Low
Transient values	Occasional presence of birdlife	Medium
Shared and recognised values	 The Waipori Boot Swamp is recognised as a regionally significant wetland (ORC) and as an area of significant conservation value in the Dunedin City District Plan. Little popular value ascribed to this landscape 	Medium - low
Tangata whenua values	 Taieri River has Wai maori, Wahi paripari, Wahi taoka, Tauraka waka, Ara tawhito and Mahika kai values. Maitapapa (Henley) and Omoua were the sites of ancient pa, settlement, tauraka waka and urupa (Pa tawhito, kaika and urupa values) 	High - medium
Historic heritage values	 The Taieri Ferry bridge has heritage values An important river crossing point and settlement centre – little historical fabric legible. 	Medium

Rating	Comments / Reasons	Outstanding
Low -	Despite some habitat values of significance, the Henley unit is a very	No
medium	modified landscape with generally low or low - medium natural character and aesthetic values. Tangata whenua values are of some importance but overall, landscape values are assessed as low – medium.	

Natural features assessed

(none)

CL2. Taieri River Gorge



This unit extends from the Taieri Mouth bridge to the Henley bridge and includes the gorge defining slopes either side of the river as well as significant tidal side streams and wetlands. The Taieri River is tidal with significant marine influence right through this gorge. The geology changes from schist to Henley breccia half way through the gorge and this change coincides (more or less) with a change from more natural (lower gorge) to more modified (upper gorge). The Henley end has areas of indigenous forest cover but also a greater influence of forestry and agricultural land use with some wetland areas drained and a road running along the true right bank. The lower gorge is protected to a large degree by the Taieri River Scenic Reserve and has high natural values including areas of significant podocarp forest, impressive rock bluffs and saltmarsh wetland margins.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Taieri River mouth gorge is recognised in the Otago inventory of important geological sites and landforms as an unmodified and well defined coastal gorge. Manganese deposits at the mouth of the gorge are also listed in this inventory. Takitoa swamp has significant wetland habitat values – for South Island Fernbird and inanga The Rocky Hill Tidal Marshes and Governors Point Swamp have a high diversity of habitat types and recognised ecological values. The gorge landform is powerfully expressive of the processes of faulting and river erosion. Natural vegetation sequences are expressive of the environmental conditions. Expressiveness values are lower in the upper gorge. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is high generally but modified by the influence of agriculture and forestry, particularly in the upstream section, and the presence of weedy species such as gorse A highly memorable gorge landform with wild and scenic qualities where natural vegetation cover is dominant. Values are significantly reduced upstream. 	High - medium
Transient values	Presence of wildlife and tidal rhythms.	High - medium
Shared and recognised values	 Takitoa swamp, Governors Point Swamp and Rocky Hill Tidal Marshes are recognised in the Otago Regional Plan: Water as a regionally significant wetland. The Lower Taieri Gorge is recognised as an ONFL in the Otago Regional Plan: Water and as a potentially outstanding landscape in the Clutha District Plan. The Taieri River Scenic Reserve is listed as an area of significant conservation value in the Dunedin City District Plan and as an area of significant habitat of indigenous fauna in the Clutha District Plan. Generally recognised for its natural and scenic values. 	High
Tangata whenua values	 The Onumia Reserve (land on the true left of the river) was reserved from the Otakou deed of purchase in 1884. Takitoa Swamp has significance to Kai Tahu Te Rereka o Haki te Kura (Maori Leap on the south bank) has Wahi taoka values. Te Rereka o Tuhokairaki (Maori Leap on the north bank) has Wahi taoka values. Pa and Kaika sites including Te Amoka pa (right bank) Taieri River has Wai maori, Wahi paripari, Wahi taoka, Tauraka waka, Ara tawhito and Mahika kai values. 	High

Historic heritage values	•	The Taieri River was an important historic transport route into the hinterland for both Maori and European settlers. Taieri Mouth was an important port – little physical evidence legible now.	High - medium

Rating	Comments / Reasons	Outstanding
High - medium	The Taieri River Gorge unit has high natural, aesthetic and cultural values but overall, has been modified to an extent incompatible with very high or outstanding status. Due to its particular characteristics, the less modified lower gorge has been identified as a Natural Feature for assessment (see D21 / F1). Overall, landscape values are assessed as high – medium.	No

Natural features assessed

• Lower Taieri River Gorge

CL2 / F1 Lower Taieri River Gorge



This feature encompasses the lower section of the Taieri River gorge from the Taieri Mouth bridge to the end of the schist section and includes the gorge defining slopes either side of the river as well as significant tidal side streams and wetlands. The Taieri River is tidal with significant marine influence right through this gorge. The lower gorge is protected to a large degree by the Taieri River Scenic Reserve and has high natural values including areas of significant podocarp forest, impressive rock bluffs and saltmarsh wetland margins.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Taieri River mouth gorge is recognised in the Otago inventory of important geological sites and landforms as an unmodified and well defined coastal gorge. Manganese deposits at the mouth of the gorge are also listed in this inventory. The Rocky Hill Tidal Marshes and Governors Point Swamp have a high diversity of habitat types and recognised ecological values. The gorge landform is powerfully expressive of the processes of faulting and river erosion. Natural vegetation sequences are expressive of the environmental conditions. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is high generally but modified by the influence of forestry on skylines and higher slopes in places. The presence of weedy species such as gorse also modifies naturalness in places. A highly memorable gorge landform with wild and scenic qualities. 	High
Transient values	Presence of wildlife and tidal rhythms.	High – medium
Shared and recognised values	 Governors Point Swamp and Rocky Hill Tidal Marshes are recognised in the Otago Regional Plan: Water as a regionally significant wetland. The Lower Taieri Gorge is recognised as an ONFL in the Otago Regional Plan: Water and as a potentially outstanding landscape in the Clutha District Plan. The Taieri River Scenic Reserve is listed as an area of significant conservation value in the Dunedin City District Plan and as an area of significant habitat of indigenous fauna in the Clutha District Plan. Generally recognised for its natural and scenic values. 	High
Tangata whenua values	 The Onumia Reserve (land on the true left of the river) was reserved from the Otakou deed of purchace in 1884. Te Rereka o Haki te Kura (Maori Leap on the south bank) has Wahi taoka values. Te Rereka o Tuhokairaki (Maori Leap on the north bank) has Wahi taoka values. Pa and Kaika sites including Te Amoka pa (right bank) Taieri River has Wai maori, Wahi paripari, Wahi taoka, Tauraka waka, Ara tawhito and Mahika kai values. 	High
Historic heritage values	The Taieri River was an important historic transport route into the hinterland for both Maori and European settlers. Taieri Mouth was an important port – little physical evidence legible now.	High - medium

Rating	Comments / Reasons	Outstanding
High	The Lower Taieri River Gorge has high values across all the assessment factors. Overall, landscape values are assessed as high and outstanding.	Yes

CL3. Taieri Mouth



The Taieri Mouth unit occupies the narrow strip of low-lying land either side of the Taieri River Mouth. Key physical features include Moturata Island and tombolo, reefs and a low fault scarp associated with the Akatore Fault, the Coutts Gully wetland and adjacent sand dunes, and the mouth of the Taieri River with sandy beaches to either side. The geology is largely marine sediments. The coastal environment is defined by the extent of the wetland or the top of the coastal scarp.

The Taieri Mouth township is a major influence on the character of this unit with areas of residential and rural residential land use, as well as some open pasture. The development pattern is linear, following the main coastal road. Built development is set back from the beaches behind a buffer area of dunes covered in marram and coastal scrub. There is a small fishing port on the true right bank of the river with associated sheds and jetties.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 The Akatore fault, Taieri Beach faulted coastal plain is listed in the Otago inventory of important geological sites and landforms. Taieri Island tombolo (Moturata Island) is listed in the Otago inventory of important geological sites and landforms Taieri River Mouth psilomelane (manganese deposit with psilomelane) is listed in the Otago inventory of important geological sites and landforms. Lower Coutts Gully Swamp is a regionally significant wetland and habitat for waterfowl. Moturata is a breeding area for sooty shearwater and little blue penguin. The settlement has reduced the legibility of the natural landscape forms but they are still moderately strongly expressed – particularly at the macro scale. 	High - medium
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are significantly modified by the sporadic and sprawling settlement. Memorability is generally modest – higher associated with the river mouth, fishing boats and Moturata Island. 	Medium
Transient values	Occasional presence of wildlife	Medium
Shared and recognised values	 Lower Coutts Gully Swamp is a regionally significant wetland. Taieri Island (Moturata) is listed as a 'potentially outstanding landscape' in the Clutha District Plan and as an ONFL in the Otago Regional Plan: Coast Moturata is listed as a Marine Mammal and Bird Site in the Otago Regional Plan: Coast. Taieri River Mouth psilomelane is listed as an ONF in the Clutha District Plan Moderate shared / public recognition as a coastal recreational / sightseeing destination on the southern scenic route. 	High – medium
Tangata whenua values	 Moturata is of cultural significance (Pa / kaika, Kai moana, urupa, wahi taoka and wahi tapu values). Part of the Onumia Reserve (true left bank of Taieri River) is within Clutha District. This is of cultural significance and was reserved from the Otakou deed of purchase. Taieri Mouth was the site of Motupara pa (Pa / kaika values). Te Ao Ka Kume – was a fishing camp at Taieri Mouth. 	High

	 Otuarae (a wahi tapu cave) adjoins Te Ao Ka Kume). Collectively, Te Ao Ka Kume, Otuarae and Moturata are an important cultural landscape for the Moturata Taieri Whanau. Lower Coutts Gully has mahika kai, wahi taoka and repo raupo values. 	
Historic heritage values	 Taieri Mouth was an important port in the early days of European settlement and the site of a whaling station. Little historic legibility in the landscape 	High - medium

Rating	Comments / Reasons	Outstanding
High -	The Taieri Mouth unit has some features of significant natural science	No
medium	value and also has some very significant cultural values. Aesthetically, its values are more modest due to a rather sporadic and sprawling settlement pattern.	

Natural features assessed

- Moturata Island
- Taieri Beach Faulted Coastal Plain

Note: Despite Taieri River Mouth psilomelane currently being listed as an ONF in the Clutha District Plan, this ore deposit (whilst a natural geological feature) is not considered to be a natural feature suitable for assessment in terms of the Amended Pigeon Bay Factors.

CL3 / F1. Moturata Island



Moturata (Rata Island) is a 6.8ha island often joined to the mainland at low tide by a sand bar (depending on the river channels). Its geology is schist and its location reflects the trace of the Akatore fault. Whilst now devoid of structures, the island has a history of occupation by Maori and by European whalers. The vegetation cover reflects previous modification by people as well as by the invasion of rabbits and is now dominated by flax. It is an important habitat for titi (sooty shearwater). Erosion due to burrowing birds and rabbits has been an issue and is being managed via revegetation programmes. The island is a scenic reserve.

Values Assessment

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Taieri Island tombolo (Moturata Island) is listed in the Otago inventory of important geological sites and landforms as an excellent and easily accessible example of a tombolo. Moturata is a breeding area for sooty shearwater and little blue penguin. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	High naturalness, memorability and wild and scenic values	High
Transient values	 Seasonal presence of titi Rhythm of the tides and degree of connection to the mainland Regular presence of little blue penguins and occasional presence of other wildlife. 	High
Shared and recognised values	 Taieri Island (Moturata) is listed as a 'potentially outstanding landscape' in the Clutha District Plan and as an ONFL in the Otago Regional Plan: Coast Moturata is listed as a Marine Mammal and Bird Site in the Otago Regional Plan: Coast. High shared / public recognition as a coastal landscape feature 	High
Tangata whenua values	Moturata is of high cultural significance (Pa / kaika, Kai moana, urupa, wahi taoka and wahi tapu values).	High
Historic heritage values	Moturata Island was the site of a whaling station	Medium - high

Overall landscape values rating

Rating	Comments / Reasons	Outstanding
High	Moturata scores highly across the range of factors with natural science, aesthetic and tangata whenua values being particularly significant. Outstanding status is justified.	Yes

CL3 / F2. Taieri Beach Faulted Coastal Plain



The Taieri Beach Faulted Coastal Plain is assessed on the basis that it is a legible landscape feature that is included in the 'Inventory and maps of important geological sites and landforms in the Otago region'. The feature mapped, runs between Taieri Mouth Road and the coast just south of Taieri Mouth township, and is expressed as a low (2 – 3m high) terrace. It is described as an 'accessible example of late Quaternary faulting on a narrow coastal plain along the Akatore (reverse) Fault. This area is currently open grassland but consents for rural residential development are currently in place.

Criteria	Comments	Rating
Natural science factors /	The Akatore fault, Taieri Beach faulted coastal plain	High

legibility / expressiveness	• T • T • S	s listed in the Otago inventory of important geological sites and landforms as 'an accessible example of late Quaternary faulting on a narrow coastal plain along the Akatore (reverse) Fault. The fault scarp is currently highly legible under open pasture, but legibility is highly vulnerable to subdivision and associated development (as currently provided for).	
Aesthetic values (naturalness / memorability) Wild and scenic	S	The fault scarp is an interesting feature but given its scale, one which is easily missed unless the viewer is specifically looking for it.	Medium
Transient values	• 1	None	Low
Shared and recognised values	-	Moderate awareness of the existence of this feature. Not recognized in statutory documents	Medium
Tangata whenua values	• 1	None known	Low
Historic heritage values	• 1	None known	Low

Rating	Comments / Reasons	Outstanding
Medium -	This feature has scientific significance but generally low landscape	No
low	values.	

CL4. Akatore Coast



Character Description

The Akatore Coast unit extends from just south of Taieri Mouth in the north, to the northern end of Chrystalls Beach in the south. The landform slopes gently and relatively uniformly to the coast and represents the Otago peneplain surface where it meets the sea. Schist is exposed along the coast. Whilst there is a well-defined coastal scarp immediately back from the rocky benches and small sandy beaches, coastal influences and qualities are significant above this and the scale of the landscape requires that the coastal environment extends higher. In the absence of distinct landform features generally, the 40m contour has been chosen as an appropriate boundary.

The landscape pattern is broad gently sloping pasture covered spurs, broken by steeper bush or scrub covered gullies. The gorge associated with the Akatore Creek forms a distinct break in the landform and the creek is tidal right through the gorge. Given the landform pattern, roads run down the spurs and not generally along the coast. Few

reach the extent of the identified coastal environment. The land is generally under pasture cover and rural in character, and there are few buildings within the coastal environment. The one exception to this is at Bull Creek, where there is a small crib settlement.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Akatore Fault uplifted marine terraces (defined as terraces extending 1 – 2km inland from Watsons Beach to Taieri Beach) are listed in the Otago inventory of important geological sites and landforms. Akatore Creek metachert with akatoreite (only known exposure of the mineral akatoreite) is listed in the Otago inventory of important geological sites and landforms. The Otago coastal schist section (New Zealand's best and most accessible exposure of this section of Haast schist) is listed in the Otago inventory of important geological sites and landforms. Watson's Beach coombsite (only known occurrence of coombsite in New Zealand) is listed in the Otago inventory of important geological sites and landforms. Akatore Creek estuary is a nationally significant wildlife area for waterfowl, waders and fernbird Quoin Point is a breeding area for NZ Fur Seals. This landscape is highly coherent and expressive of its formative processes. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 The landscape is modified by agriculture but naturalness is still high due to low impact of structures and earthworks and a highly coherent natural landform Whilst the landform is subdued and not 'spectacular', memorability values are moderately high due to the strongly expressed Otago peneplain landscape pattern. Medium – high wild and scenic qualities. 	Medium - high
Transient values	 Occasional presence of wildlife Different moods associated with various weather and sea conditions. 	Medium - high
Shared and Recognized values	 Akatore Creek Estuary is listed as a Coastal Protection Area in the Otago Regional Plan: Coast. Quoin Point is listed as a Marine Mammal and Bird site in the Otago Regional Plan: Coast. The southern end of this unit is included within the Chrystalls Beach ONFL in the Otago Regional Plan: 	Medium - high

	 Coast, and as a potentially outstanding landscape in the Clutha District Plan. Akatore Creek metachert with akatoreite (only known exposure of the mineral akatoreite) is listed in the Clutha District Plan as an ONF Watson's Beach coombsite (only known occurrence of coombsite in New Zealand) is listed in the Clutha District Plan as an ONF. The Otago coastal schist section (New Zealand's best and most accessible exposure of this section of Haast schist) is listed in the Clutha District Plan as an ONF. Quoin Point is listed as an area of significant habitat of indigenous fauna in the Clutha District Plan. This coast has relatively low levels of accessibility and as a result relatively low levels of public familiarity. 	
Tangata whenua values	 Watsons Beach is an early period moa hunting site (values – Kai Moana and Wahi taoka) Bull Creek has Wahi taoka values. The coast was a major highway and trade route 	Medium - high
Historic heritage values	Bull Creek is a traditional coastal crib settlement	Medium - low

Rating	Comments / Reasons	Outstanding
Medium -	The Akatore Coast unit is a relatively remote coastal landscape with	No
high	medium – high scenic values based on a highly coherent landscape	
	pattern expressing the Otago peneplain landform. It has some significant	
	natural science values.	

Natural features assessed

None

Note: Despite Akatore Creek metachert with akatoreite, and Watsons Beach coombsite currently being listed as ONF's in the Clutha District Plan, the presence of these minerals (whilst natural geological features) are not considered to be natural features suitable for assessment in terms of the Amended Pigeon Bay Factors.

The Otago coastal schist section is also currently listed as an ONF in the Clutha District Plan and is recognized in the inventory of important geological sites and landforms in the Otago Region. It is not considered as a natural feature here however, due to its scale, making it one of the elements that influence the character of the Akatore Coast landscape character unit rather than a discrete feature.

CL5. Akatore Wetland



This unit encompasses the tidally influenced wetland inland of Akatore Gorge on the western side of the Akatore Fault scarp. This is described in the Otago schedule of regionally significant wetlands as an extensive area of saltmarsh and swamp including at least four wetland vegetation / habitat types. The wetland is characterised by mudflats and channels and the vegetation exhibits significant variability in the degree of modification by exotic weedy species. In some places drainage channels have been excavated and a road cuts through the middle section on a causeway. The surrounding land is under pasture or plantation forest cover.

Values Assessment

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Listed as a regionally significant wetland - contains a complete zonation from saltmarsh – coastal broadleaf forest. Identified as nationally important for biodiversity. Natural wetland patterns are modified in places by weedy species. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are moderately high but variable due to presence of weedy species in some parts and influenced by forestry land use adjacent. Moderate memorability and wild and scenic values 	Medium
Transient values	Values associated with the presence of wildlife.	High - medium
Shared and recognised values	 Included in the Otago schedule of regionally significant wetlands. Low general recognition 	Medium
Tangata whenua values	An area of significance, with mahika kai, repo raupo and wahi taoka values.	High
Historic heritage values	None known	Low

Overall landscape values rating

Rating	Comments / Reasons	Outstanding
Medium - high	This is a significant wetland with important natural science and cultural values. Aesthetic values are reduced by the influence of weedy species and other modifications in parts.	No

CL6. Toko Mouth



Character Description

The Toko Mouth unit encompasses a sandy beach coastline from just north of Mitchells Rocks in the south, to the northern end of Chrystalls Beach in the north. The Tokomairiro River meets the sea near the mid-point, and a number of smaller streams meet the coast at various points along the length of the unit. North of the Tokomairiro river mouth the dunes backing the beach are narrow in width, whilst to the south the dune systems are more extensive. The coastal environment throughout this area is defined by a low coastal scarp. There are reefs off-shore in places and Cooks Head Rock is a distinctive feature on Chrystalls Beach.

The dunes are covered in marram and largely exotic scrub and the land behind is under agricultural use. In places there is native scrub on the coastal scarp. Roads run parallel with the coast, often within the coastal environment on both sides of the Tokomairiro River. Farm buildings are generally, but not exclusively, beyond the coastal environment,

but there are three settlements of varying scale within the unit (i.e. Measly Beach, Toko Mouth and Chrystalls Beach) which are within the coastal area.

Comments	Rating
 Chrystalls Beach mélange is listed in the Otago inventory of important geological sites and landforms. Cooks Head taranakite (a phosphate deposit) is listed in the Otago inventory of important geological sites and landforms. Measly Beach Wetland complex is partially within the coastal environment and is listed as a regionally significant wetland. Cooks Head Rock is a good example of a volcanic plug. There are pingao communities in the dunes at Chrystalls Beach Legibility / expressiveness values are modified by agricultural activities, particularly in the northern part of the unit, and by the settlement of Toko Mouth. 	Medium - high
 Naturalness values are modified by agricultural land use and by the settlements. The unit is low-lying and relatively undramatic. Memorability and wild and scenic values are moderate only. 	Medium
 Occasional presence of wildlife Moods associated with various weather and sea states. 	Medium
 Chrystalls Beach is recognized as an ONFL in the Otago Regional Plan: Coast, and as a potentially outstanding landscape in the Clutha District Plan. Cooks Head Rock is listed as an ONF in the Clutha District Plan. Measly Beach Wetland complex is partially within the coastal environment and is listed as a regionally significant wetland. Toko Mouth is a coastal recreational destination of local significance. 	High - medium
 Chrystalls Beach and Aonui (Cooks Head Rock) have Kai moana and wahi taoka values. The Tokomairiro river mouth, estuary and wetlands have mahika kai, pa / kaika, wahi taoka and wahi tohu values. Waikaro (an area to the north of Wangaloa Creek) has wahi tohu values 	High
	 Chrystalls Beach mélange is listed in the Otago inventory of important geological sites and landforms. Cooks Head taranakite (a phosphate deposit) is listed in the Otago inventory of important geological sites and landforms. Measly Beach Wetland complex is partially within the coastal environment and is listed as a regionally significant wetland. Cooks Head Rock is a good example of a volcanic plug. There are pingao communities in the dunes at Chrystalls Beach Legibility / expressiveness values are modified by agricultural activities, particularly in the northern part of the unit, and by the settlement of Toko Mouth. Naturalness values are modified by agricultural land use and by the settlements. The unit is low-lying and relatively undramatic. Memorability and wild and scenic values are moderate only. Occasional presence of wildlife Moods associated with various weather and sea states. Chrystalls Beach is recognized as an ONFL in the Otago Regional Plan: Coast, and as a potentially outstanding landscape in the Clutha District Plan. Cooks Head Rock is listed as an ONF in the Clutha District Plan. Measly Beach Wetland complex is partially within the coastal environment and is listed as a regionally significant wetland. Toko Mouth is a coastal recreational destination of local significance. Chrystalls Beach and Aonui (Cooks Head Rock) have Kai moana and wahi taoka values. The Tokomairiro river mouth, estuary and wetlands have mahika kai, pa / kaika, wahi taoka and wahi tohu values. Waikaro (an area to the north of Wangaloa Creek) has

	epidemic of measles).	
Historic heritage values	 Measly Beach, Toko Mouth and Chrystalls Beach are traditional crib settlements. 	Medium - low

Rating	Comments / Reasons	Outstanding
High -	This unit has modest aesthetic values but scores highly in terms of	No
medium	natural science, shared and recognized and tangata whenua values. Overall, high - medium	

Natural features assessed

- Cooks Head Rock
- Chrystalls Beach

CL6 / F1. Cooks Head Rock



Cooks Head Rock is an isolated basalt stack on Chrystalls Beach. It has hexagonal columns and phosphate deposits in the joints in the rock (associated with guano) that are known as Cooks Head taranakite and are the only known occurrence of taranakite in the South Island. These are listed in the inventory of important geological sites and landforms in the Otago region.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Cooks Head taranakite (a phosphate deposit) is listed in the Otago inventory of important geological sites and landforms. 	High

	 Cooks Head Rock is a good example of a volcanic plug and has high legibility / expressiveness values 	
Aesthetic values (naturalness / memorability) Wild and scenic	 Cooks Head rock is a curiosity within its landscape setting and has high naturalness values. Wild and scenic qualities and memorability are medium high. 	Medium - high
Transient values	None significant	Low
Shared and recognised values	 Cooks Head Rock is listed as an ONF in the Clutha District Plan and within the Chrystalls Beach ONFL in the Otago Regional Plan: Coast. A well-known landmark 	High
Tangata whenua values	 Chrystalls Beach and Aonui (Cooks Head Rock) have Kai moana and wahi taoka values. 	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Cooks Head Rock is a well-known landmark with high natural science, shared and recognized and tangata whenua values. Outstanding status is considered justified, mainly on the basis of its natural science and cultural significance	Yes

CL6 / F2. Chrystalls Beach



The feature assessed is Chrystalls Beach and associated dunes, a long sandy beach extending northward from the Tokomairiro River mouth for approximately 5.5km. Nobles Stream reaches the coast at the northern end of the beach and in this area there is also a small crib settlement. The dunes backing the beach become very narrow in width at the southern end, and are covered in marram and largely exotic scrub. The land behind is flat and under agricultural use. Cooks Head Rock (see C6 / F1) is a distinctive feature approximately halfway along the length of the beach.

Chrystalls Beach is assessed on the basis that it is listed as a 'potentially outstanding landscape' in the Clutha District Plan.

Values Assessment

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Chrystalls Beach mélange (described as 'broken formation and mélange in Haast Schist) is listed in the Otago inventory of important geological sites and landforms. There are pingao communities in the dunes at Chrystalls Beach Legibility / expressiveness values are modified by exotic dune vegetation. 	Medium - high
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are modified by exotic dune vegetation and the adjacent settlement (at the northern end) and agricultural land use. Within the Otago coastal context there is nothing particularly memorable or wild and scenic about this beach. 	Medium
Transient values	 Occasional presence of wildlife Moods associated with various weather and sea states. 	Medium
Shared and recognised values	 Chrystalls Beach is recognized as an ONFL in the Otago Regional Plan: Coast, and as a potentially outstanding landscape in the Clutha District Plan. Cooks Head Rock is listed as an ONF in the Clutha District Plan. A locally popular recreational destination 	High - medium
Tangata whenua values	Chrystalls Beach and Aonui (Cooks Head Rock) have Kai moana and wahi taoka values.	High
Historic heritage values	Chrystalls Beach is a traditional crib settlement.	Medium - low

Overall landscape values rating

Rating	Comments / Reasons	Outstanding
High - medium	Chrystalls Beach has significant natural science, shared and recognized and tangata whenua values but has modest aesthetic values. Overall, outstanding natural feature status is not considered warranted.	No

CL7. Tokomairiro Wetland



Character Description

The Tokomairiro Wetland unit encompasses the tidal section of the Tokomairiro River and the associated areas of existing or historic wetland. The area of saline influence extends approximately 6km upstream from the river mouth and the coastal environment boundary is generally defined by the extent of the river flats. A significant tributary which aligns with the trace of the Akatore Fault meets the main stem approximately 1.5km from the river mouth.

This unit contains areas of natural wetland, including saltmarsh, but also areas where there is significant encroachment of exotic species, as well as areas that have been completely modified for agricultural use. The Toko Mouth Road runs through the area on the true right bank of the river.

Values Assessment

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Tokomairiro River Swamp is a regionally significant wetland with high species diversity and habitat for waterfowl. Legibility / expressive values have been reduced by the impacts of agricultural development and incursion of weedy species in places. 	High - medium
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are variable but generally significantly modified by agricultural development and the influence of adjacent forestry. Memorability and wild and scenic values are generally medium – low. 	Medium - low
Transient values	Occasional presence of wildlifeTidal rhythms.	Medium - high
Shared and recognised values	 The Tokomairiro River Swamp is listed as a regionally significant wetland. Tokomairiro Estuary is a Coastal Protection Area in the Regional Plan: Coast and a significant wetland in the Clutha District Plan. This area has generally low levels of public appreciation. 	Medium
Tangata whenua values	 Tokomairiro river mouth, estuary and wetlands have mahika kai, Pa/ kaika, wahi taoka and wahi tohu values. Tokomairiro means 'place where canoe must be poled' – may refer to extensive wetlands. 	High
Historic heritage values	 The site of World War 2 paddy fields. Area of Maori settlement. 	Medium

Overall landscape values rating

Rating	Comments / Reasons	Outstanding
Medium	The Tokomairiro wetland unit has significant natural science and tangata whenua values, and scores reasonably highly in terms of transient values, but has modest aesthetic and shared and recognized values overall.	No

Natural features assessed

None

CL8. Wangaloa



The Wangaloa unit encompasses a narrow stretch of coast from Clutha river mouth (Matau Branch) in the south, to just north of Mitchells Rocks in the north. The geology is marine terrace deposits and the inland extent of the coastal environment is generally strongly defined by a low scarp above which is an intensively farmed terrace. A more or less continuous sandy beach skirts the coastal scarp for the length of the unit, broken to varying extents (particularly toward the northern end) by rocky outcrops. Small streams cut through the terrace scarp and there are offshore reefs at intervals along the length. There is some development of small dunes in discrete areas but these are not a significant feature of this unit.

The coastal scarp shows signs of active erosion but in some parts, where more stable, it is covered in (largely indigenous) scrub. The coastal road is generally outside the area

defined as coastal environment and there are no buildings or structures within this narrow coastal strip.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Mitchells Point Paleocene Wangaloa fossils (described as the most diverse Paleocene molluscan fauna in the southern hemisphere) is listed in the inventory of important geological sites and landforms in the Otago region. Wangaloa Domain transgressive sequence (described as 'superb exposure of shallow water, storm dominated sequences') is listed in the inventory of important geological sites and landforms in the Otago region. This landscape with its eroding cliffs is highly expressive of coastal processes 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Within the limits of the narrow coastal strip, naturalness values are high. If the wider landscape context is considered they are more modest. The coherent coastal terrace is distinctive but with its subdued relief and highly modified hinterland, this coastline has only modest memorability / wild and scenic values. 	Medium - high
Transient values	Occasional presence of wildlife	Medium
Shared and recognised values	 There is a Coastal Protection Area identified in the Otago Regional Plan: Coast from Smiths Beach to Mitchells Rocks (noted for its Kai Tahu cultural and spiritual values). Wangaloa Paleocene molluscs, Mitchells Point are listed in the Clutha District Plan as an ONF. Wangaloa transgressive sequence is listed in the Clutha District Plan as an ONF. This coastal section is not on the southern scenic route and is not widely known for its coastal landscape values. 	High - medium
Tangata whenua values	 Mataipipi (a Rapuwai kaika and lookout at Summerhill) has Pa / kaika values Wangaloa (a Waitaha name meaning 'long bay') has wahi tohu values. 	High
Historic heritage values	None specifically known but the coast was an area of settlement by Maori and a transportation route.	Medium

I	Rating	Comments / Reasons	Outstanding
	Medium -	This unit rates highly for natural science and tangata whenua values but	No
	high	its aesthetic values are more modest. ONL status is not justified.	

Natural features assessed

None

Note: Despite Wangaloa Paleocene Molluscs (Mitchells Point) and Wangaloa transgressive sequence currently being listed as ONF's in the Clutha District Plan, these features of geological significance are not considered to be natural features suitable for assessment in terms of the Amended Pigeon Bay Factors.

CL9. Clutha Mouth



The Clutha Mouth unit extends from the southern side of Molyneux Bay to (and including) the Matau Branch of the Clutha River and includes flats and remaining wetlands associated with the Clutha river mouth and the Puerua River. The coastline is characterized by a sandy beach backed by low stable dunes and breached by the two branches of the Clutha River. There are existing or historic wetlands behind the dunes and secondary channels running parallel with the beach. Saline influence does not extend far inland given the volume of freshwater coming down the Clutha River and the coastal environment has been defined as the inland side of the channels running parallel with the beach.

The wider Clutha mouth area was once a large (mainly freshwater) wetland. Most of this has now been drained and developed for agricultural use and developed farmland extends directly to the rear of the dunes in the area between the Koau and Matau

branches of the Clutha River. In this area there are lineal exotic shelter plantings, groynes and a few farm and fishing sheds. The dune vegetation is largely exotic.

South of the Koau branch the Puerua Wildlife Management Reserve covers a wetland which was once the site of the former Port Molyneux and which has more natural river channel and vegetation patterns.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Wetlands and channels provide important habitat for waterfowl and fish species. Legibility / expressiveness values now significantly modified by river training / flood protection works and agricultural development. 	Medium - high
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are variable but generally significantly modified Memorability / wild and scenic values are low due to the low relief and significant modification of the natural character. 	Medium - low
Transient values	 Regular presence of birdlife Various moods associated with river flows 	High - medium
Shared and recognised values	 Clutha Matau Wetland is listed as a regionally significant wetland. Clutha River Mouth Lagoon is listed as a regionally significant wetland. Molyneux Bay Swamp is listed as a regionally significant wetland. Clutha River, Matau Branch is listed as a Coastal Protection Area in the Otago Regional Plan: Coast (for Kai Tahu cultural and spiritual values) This area is not widely acclaimed for its landscape values 	Medium - high
Tangata whenua values	 Puerua (creek at Port Molyneux) has mahika kai, reporaupo and wahi tohu values. Mata-au and Waikoau (the northern and southern branches of the Clutha River) are subject to a statutory acknowledgement and have ara tawhito, ipukarea, mahika kai, wahi taoka and wahi tapu values. Upoku a Nini, Pakahiwi o Ihu Pakeke and Te Peke o Pakena (three islands at the mouth of the Mata-au) have wahi tohu values. Murikauhaka (a kaika located on a spit at the mouth of the Waikoau) has pa / kaika values. 	High

Historic heritage values		High - medium
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Rating	Comments / Reasons	Outstanding
Medium -	This unit has medium – low aesthetic values but natural science,	No
high	tanagata whenua, historic, and associated shared and recognized values give it some significance. Overall, assessed as medium – high.	

Natural features assessed

None

CL10. Kaka Point



The Kaka Point unit extends from just north of Nugget Point to Molyneux Bay. The northern boundary reflects the approximate alignment of the Little Hillfoot Fault and the northern edge of the Dun Mountain – Matai terrain rocks associated with the Southland Syncline. The inland boundary of the coastal environment has been identified to include the immediate seaward facing slopes and rises as the slopes steepen toward Nugget Point.

There are steep coastal hills, particularly at the southern end of the unit, with raised marine terraces in the mid-section near Campbell Point. The coastline is characterized throughout by sandy beaches, sometime with dunes, and separated by distinctively stratified rock benches. A coastal scarp can be traced along the length of the unit and there are numerous kelp covered reefs off-shore. The Nuggets Road runs close to the shoreline and there are numerous buildings scattered along its length, reflecting the

relatively sheltered east / North-easterly aspect of this section of the coast. At the northern end of the unit is the settlement of Kaka Point which is nestled against a large area of native forest, some of which is protected in the Kaka Point Scenic Reserve.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Kaka Point Triassic fossiliferous metasediments (described as 'good exposure of Middle Triassic rocks) is listed in the inventory of important geological sites and landforms in the Otago Region. Landscape forms and are generally highly legible due to vegetation patterns reflecting landforms to a large degree, and express formative processes. 	Medium - high
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is modified by relatively dense settlement but still medium – high due to the presence of bush and landform coherence. An attractive relatively domesticated coastal landscape with medium high scenic values. Not particularly 'wild'. Memorability is medium – high. 	Medium - high
Transient values	 Occaisional presence of wildlife Various landscape moods associated with weather and sea states. 	Medium
Shared and recognised values	 The southern part of the unit is within the Nugget Point Coastal Protection Area in the Otago Regional Plan: Coast. Kaka Point Triassic fossiliferous metasediments are recognized as an ONF in the Clutha District Plan. A popular coastal recreational destination. 	Medium - high
Tangata whenua values	 Te Uru Tane (rocks at Kaka Point) have Wahi tohu values. Maranuku (a kaika adjoining Karoro Creek) has pa / kaika values. The Maranuku blocks were reserved from the Otakou purchase. Pa / Kaika values. Maka Tu (gateway at urupa at Kaka Point) has Wahi tapu values O-waia (Campbell's Point) has kai moana and wahi tohu values Taumata o Kotare (the hill behind Campbell's Point) has wahi tohu values. Puna-wai-Toriki (Hays Gap) has kai moana and wahi tohu values. 	High
Historic heritage values	This area was a focus of settlement for Maori and the	Medium

scene of warfare. Colonial epidemics (e.g. measles) devasted the Maori population in the 1830's. • Willsher Bay is named for one of the earliest Pakeha settlers • Area of early settlement associated with Port Molyneux.	- high
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Rating	Comments / Reasons	Outstanding
High -	This is a fairly domesticated but scenically attractive coastal landscape	No
medium	with high tangata whenua values and medium – high values across most other factors. Overall, assessed as medium - high	

Natural features assessed

None

Note: Despite Kaka Point Triassic fossiliferous metasediments currently being listed as an ONF in the Clutha District Plan, this feature of geological significance is not considered to be a natural feature suitable for assessment in terms of the Amended Pigeon Bay Factors.

CL11. Sandy Bay



The Sandy Bay unit extends from Cannibal Bay in the south to (and including) Nugget Point in the north. This is a landscape of rugged cliffed sandstone and siltstone headlands with caves, arches, stacks and reefs separating bays of various scales, the main ones being Sandy Bay and Roaring Bay. The headlands and cliffs have distinctive vertical strata and are the coastal expression of the Southland syncline with its strike ridges and lineal valleys. There are beaches, variously rocky and sandy, in the embayments. Nugget Point is a distinctive headland with a number of associated rocky stacks (the nuggets) (see C11 / F1).

Where the coast is not cliffed, it is generally steeply sloping and the dominant land cover is pasture. There is native scrub on the steeper scarps and in gullies, as well as a woodlot and vehicular tracks associated with the agricultural landuse. Except at Nugget Point there are no buildings.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Nugget Point coastal headland and stacks are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point laumontite ash bed (described as 'an exposure of one of the three main mineral assemblages for zeolite facies in southern New Zealand) is listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point Parks Bluff Triassic fossils (described as 'richest Triassic forminiferal fauna in the southern hemisphere) are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point, Roaring Bay Triassic fauna and volcaniclastics (described as 'rich and easily accessible Triassic brachiopod and bivalve fossils) are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point is a haul out site for NZ fur seals, elephant seals and NZ sea lions, a breeding site for yellow-eyed and blue penguins and is visited by leopard seals and other penguin species. The only mainland elephant seal breeding area in New Zealand. Very rich marine flora and fauna The cliffs provide habitat for vegetation with subalpine affinities eg Celmisia lindsayi. Very high expressiveness values 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 A spectacular, rugged coastline. Memorability and wild and scenic values are very high Naturalness values are modified to a small extent by pastoral land use and structures / tourist facilities at Nugget Point but still high. 	High
Transient values	 Regular presence of a large diversity of wildlife Various moods associated with different weather conditions and sea states. 	High
Shared and recognised values	 Tirohanga – Cannibal Bay (Nugget Point Coastline) is listed in the Clutha District Plan as a 'potentially outstanding landscape' and as an ONFL in the Otago Regional Plan: Coast Nugget Point is recognized as an ONF in the Clutha District Plan. Nugget Point Triassic volcaniclastics is recognised as an ONF in the Clutha District Plan. Nugget Point Parks Bluff Triassic fauna is recognised as an ONF in the Clutha District Plan. 	High

	 Nugget Point, Roaring Bay Triassic fauna is recognised as an ONF in the Clutha District Plan. Nugget Point Zeolite facies is recognised as an ONF in the Clutha District Plan. Nugget Point is recognized as an area of significant habitat of indigenous fauna in the Clutha District Plan. Sandy Bay Yellow-eyed Penguin colony is recognized as an area of significant habitat of indigenous fauna in the Clutha District Plan. This entire coast is recognized as a marine mammal and bird site and as a Coastal Protection Area in the Otago Regional Plan: Coast. Nugget Point is a well-known landmark and tourist destination 	
Tangata whenua values	 Kai Mataitai Bay has kai moana and wahi tohu values Tokata (The Nuggets) is subject to a statutory acknowledgement. Values include – ipukarea, kai moana, wahi taoka and wahi tapu. Te Ana O Kati Wairua (cave on the north side of Tokata Hill) has wahi tohu values Hakaparaoa (Roaring Bay) has wahi tohu values Te One O Piriao (Sandy Bay) has wahi tohu values. 	High
Historic heritage values	 The Nuggets (rock stacks) were named by early sealers and whalers. The historic lighthouse dates to 1870 and is one of the oldest continuously operated lighthouses in NZ (now fully automated) 	Medium - high

Rati	ng	Comments / Reasons	Outstanding
High		This is a spectacular and dramatic coastline with high or medium - high values across all the factors. Outstanding status is justified.	Yes

Natural features assessed

Nugget Point

Note: Despite Nugget Point Triassic volcaniclastics, Nugget Point Parks Bluff Triassic fauna, Nugget Point, Roaring Bay Triassic fauna, and Nugget Point Zeolite facies currently being listed as ONF's in the Clutha District Plan, these features of geological significance are not considered to be natural features suitable for assessment in terms of the Amended Pigeon Bay Factors.

CL11 / F1. Nugget Point



Nugget Point is a rugged promontory with near vertical rock strata expressing the eastern end of the northern edge of the Southland Syncline. Extending from the end of the promontory is a series of off-shore stacks known as the nuggets. The landforms include cliffs, rock platforms, reefs, caves and boulder beaches. The headland creates different exposure conditions to either side and this, along with the diversity of landforms, creates a rich variety of marine and terrestrial habitats. The boundary to this feature has been identified to include Roaring Bay and the sites listed in the inventory of important geological sites and landforms in the Otago Region. +-

There has been a lighthouse on the headland since 1870 and other structures present include a house and shed, as well as the access road and walking tracks and parking

areas. The vegetation cover is a mixture of rough grassland, indigenous scrub and a couple of exotic shelterbelts associated with the buildings.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Nugget Point coastal headland and stacks are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point laumontite ash bed (described as 'an exposure of one of the three main mineral assemblages for zeolite facies in southern New Zealand) is listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point Parks Bluff Triassic fossils (described as 'richest Triassic forminiferal fauna in the southern hemisphere) are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point, Roaring Bay Triassic fauna and volcaniclastics (described as 'rich and easily accessible Triassic brachiopod and bivalve fossils) are listed in the inventory of important geological sites and landforms in the Otago region. Nugget Point is a haul out site for NZ fur seals, elephant seals and NZ sea lions, a breeding site for yellow-eyed and blue penguins and is visited by leopard seals and other penguin species. The only mainland elephant seal breeding area in New Zealand. Very rich marine flora and fauna The cliffs provide habitat for vegetation with subalpine affinities eg Celmisia lindsayi. Very high expressiveness values 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 A spectacular, rugged coastal feature. Memorability and wild and scenic values are very high Naturalness values are modified to a small extent by the lighthouse and other structures and tourist facilities but still high. 	High
Transient values	 Regular presence of a large diversity of wildlife Various moods associated with different weather conditions and sea states. 	High
Shared and recognised values	 Tirohanga – Cannibal Bay (Nugget Point Coastline) is listed in the Clutha District Plan as a 'potentially outstanding landscape' and as an ONFL in the Otago Regional Plan: Coast Nugget Point is recognized as an ONF in the Clutha District Plan. Nugget Point Triassic volcaniclastics is recognised as an 	High

	 ONF in the Clutha District Plan. Nugget Point Parks Bluff Triassic fauna is recognised as an ONF in the Clutha District Plan. Nugget Point, Roaring Bay Triassic fauna is recognised as an ONF in the Clutha District Plan. Nugget Point Zeolite facies is recognised as an ONF in the Clutha District Plan. Nugget Point is recognized as an area of significant habitat of indigenous fauna in the Clutha District Plan. Within an area recognized as a marine mammal and bird site and as a Coastal Protection Area in the Otago Regional Plan: Coast. Nugget Point is a well-known landmark and tourist destination 	
Tangata whenua values	 Kai Mataitai Bay has kai moana and wahi tohu values Tokata (The Nuggets) is subject to a statutory acknowledgement. Values include – ipukarea, kai moana, wahi taoka and wahi tapu. Te Ana O Kati Wairua (cave on the north side of Tokata Hill) has wahi tohu values Hakaparaoa (Roaring Bay) has wahi tohu values 	High
Historic heritage values	 The Nuggets (rock stacks) were named by early sealers and whalers. The historic lighthouse dates to 1870 and is one of the oldest continuously operated lighthouses in NZ (now fully automated) 	High

	Rating	Comments / Reasons	Outstanding
Ī	High	Nugget Point is a spectacular landform with high values across all the	Yes
		assessment factors. Outstanding natural feature status is justified.	

Note: It is considered that the various features of geological interest, currently recognized as individual ONF's in the Clutha District Plan, contribute to the values of Nugget Point generally but do not warrant specific recognition. (at least in terms of the Amended Pigeon Bay Factors).

CL12. Cannibal / Surat Bay



The Cannibal / Surat Bay unit comprises a prograded sand barrier and tombolo linking False Islet with the mainland. It encompasses the False Islet headland as well as the sandy beaches of Cannibal Bay and Surat Bay. The inland extent of the coastal environment coincides with the extent of the flat land and is defined by a coastal scarp.

The flats are characterized by dunes which become less defined with distance from the sea. The area is predominantly under pasture cover including scattered areas of indigenous scrub or bush. Adjacent to the beaches there are reserves or conservation areas and within these, the land cover is largely marram or coastal scrub, as well as some areas of indigenous forest. Roads extend into the unit at either end and there are small crib settlements at New Haven and Cannibal Bay.

The landscape focus of this unit is False Islet (see C12 / F1), an eroded promontory in which the characteristic vertical rock strata of this section of the Southland Syncline is strongly expressed in the forms of the headlands and associated reefs. There is pastoral land use on this feature as well. A group of rocks called the Triplets lie just off the beach at Surat Bay

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 False Islet stacks (described as an 'excellent example of coastal erosion controlled by bedding') - listed in the inventory of important geological sites and landforms in the Otago region. The area contains two regionally significant wetlands i.e. Cannibal Bay Road Swamp and False Islet Wetland Management Area Surat Bay is a haul out site for sea lions Despite land clearance and modification for farming the natural landforms are highly legible and expressive of their formative processes 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is high despite modification for farming, and enhanced by the continued presence of areas of native bush and scrub Wild and scenic and memorability values are high – based on qualities of isolation, the natural beaches and memorable landform of False Islet as well as the lightly modified hinterland. 	High
Transient values	 Regular presence of wildlife – particularly sea lions Various moods associated with different weather and sea state conditions 	High
Shared and recognised values	 Cannibal Bay Road Swamp and False Islet Wetland Management Area are recognized as Regionally significant wetlands. The Surat Bay Coastal Protection Area is listed in the Otago Regional Plan: Coast (for Kai Tahu cultural and spiritual values) Most of this area is recognized as an ONFL and as a marine mammal and bird site in the Otago Regional Plan: Coast This area is recognized as a potentially outstanding landscape in the Clutha District Plan Surat Bay is listed as an area of significant habitat value of indigenous fauna (haul out site for sea lions). Generally valued as a scenic coastal destination. 	High

Tangata whenua values	 Te Rakiutuhia (Cannibal Bay) and Te Rae O Rakiutuhia (Cannibal Bay Point) have wahi tohu values. The Surat Bay Coastal Protection Area is listed in the Otago Regional Plan: Coast (for Kai Tahu cultural and spiritual values) 	High
Historic heritage values	 Surat Bay is the site of a shipwreck in 1874 that gave the bay its name. – no physical evidence remains New Haven is a traditional crib settlement 	Medium

Rating	Comments / Reasons	Outstanding
High	Cannibal / Surat Bay is a valued coastal landscape with high wild and scenic qualities and significant wildlife interest. It has high ratings across virtually all the assessment factors. Outstanding status is considered justified.	Yes

Natural features assessed

• False Islet

CL12 / F1. False Islet



False Islet is a conglomerate headland connected to the adjacent coastline by a tombolo. The characteristic vertical rock stratum of this section of the Southland Syncline is strongly expressed in the forms of the headlands and associated reefs. Landforms include cliffs, sea-arches, coves, intertidal and subtidal reefs. The gentler landward side is in pasture cover. The feature assessed is the headland and tombolo with the boundary coinciding with the western side of the False Islet Wetland Management Area.

Values Assessment

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 False Islet stacks (described as an 'excellent example of coastal erosion controlled by bedding') - listed in the inventory of important geological sites and landforms in the Otago region. False Islet Wetland Management Area is a regionally significant wetland. The natural landforms are highly legible and expressive of their formative processes 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is high despite some modification of the vegetation. The feature is dramatic and memorable. High wild and scenic values. 	High
Transient values	 Occasional presence of wildlife Various moods associated with different weather and sea state conditions 	Medium - high
Shared and recognised values	 False Islet Wetland Management Area is recognized as a regionally significant wetland. The feature falls within the Surat Bay Coastal Protection Area, listed in the Otago Regional Plan: Coast (for Kai Tahu cultural and spiritual values) False Islet is within an area recognized as an ONFL and as a marine mammal and bird site in the Otago Regional Plan: Coast. Not currently identified as an ONF in the Clutha District Plan but within an area generally valued as a scenic / natural coastal destination. 	High
Tangata whenua values	The Surat Bay Coastal Protection Area is listed in the Otago Regional Plan: Coast (for Kai Tahu cultural and spiritual values)	Medium - high
Historic heritage values	None known	Low

Overall landscape values rating

Rating	Comments / Reasons	Outstanding
High	False Islet has high natural science, aesthetic, and shared and recognized values. It is also rated medium – high for tangata whenua values. Overall it is assessed as high and outstanding.	Yes

CL13. Catlins Lake



The Catlins Lake unit covers the estuary of the Catlins and Owaka River's and includes adjacent areas of existing or historic wetland. The coastal environment has been identified to coincide with the edges of coastal flats and / or the top of a low coastal scarp where present. The wider context is that of a farmed landscape, generally under pasture cover with exotic shelter belts and woodlots and scattered farm buildings. Various roads run through the area, sometimes crossing river channels via bridges or causeways and the settlement of Pounawea is near the confluence of the Catlins and Owaka River's.

The Catlins Lake estuary is a broad area characterized by channels and sand flats. Wetlands adjacent, have mainly been drained and reclaimed for agriculture but some more natural wetlands remain, particularly it its head. Roads often follow the shoreline

but in areas there is indigenous scrub and some reserve areas with native forest. The Owaka River is tidal for a significant length but is narrower and more confined than the Catlins River with little natural wetland associated.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Catlins River Wetland, Ratanui Swamp and Hungerford Point Saltmarsh are regionally significant wetlands Catlins Lake estuary and associated wetlands are important habitats for waterfowl and fish. Legibility values have been reduced by wetland reclamation. Expressiveness of natural processes is now significantly reduced. 	Medium - high
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness, whilst high in discrete areas is generally only moderate due to modification by agricultural development and roading Wild and scenic, and memorability values are assessed as medium due to reduced naturalness and landscape coherence. 	Medium
Transient values	 Occasional presence of wildlife Tidal rhythms 	Medium - high
Shared and recognised values	 Catlins River Wetland, Ratanui Swamp and Hungerford Point Saltmarsh are recognized as regionally significant wetlands Catlins Lake Estuary is recognized as a Coastal Protection Area in the Otago Regional Plan: Coast This unit is on the southern scenic route but not promoted as a particular highlight – moderate shared values 	Medium - high
Tangata whenua values	 Catlins Lake Estuary is noted as having Kai Tahu cultural and spiritual values in the Otago Regional Plan: Coast. Kuramea (Catlins Lake) is subject to a statutory acknowledgement and has mahika kai, pa / kaika and wahi taoka values. 	High
Historic heritage values	 The Pounawea Dolphin (mooring post to assist with ship turning) dates from 1882 and still stands at the mouth of the Owaka River This area was a focus for seasonal settlement by Maori. Pounawea was a busy port in the late 1800 – early 1900's The wider area has a history of saw-milling followed by 	Medium - high

farming	

Rating	Comments / Reasons	Outstanding
Medium -	The Catlins Lake unit is significantly modified but has important natural	No
high	character and cultural values. Overall, medium-high rating	

Natural features assessed

None

CL14. Jacks Bay / Penguin Bay



The Jacks Bay / Penguin Bay unit extends from Catlins Head to White head and encompasses Jacks Bay, Tuhawaiki Island and Penguin Bay. The boundary of the coastal environment has been defined to include the visually prominent headlands and slopes with seaward aspect above the coastal cliffs. At Jacks Bay it follows the top of the coastal scarp.

This landscape is characterized by moderately high sandstone / mudstone cliffs with pasture covered slopes above. In the gullies and on steeper coastal faces there are considerable areas of indigenous coastal scrub. The coastal landforms include caves, stacks, benches and reefs and in this area the rock strata is almost horizontal (as compared with the vertical strata further north). The landscape is domesticated to the extent it is farmed, with a few woodlots / plantations in the wider context, but there are

few buildings. The exception to this is at Jacks Bay, where there is a small crib settlement set back from the sandy beach and dunes.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Jacks Bay Jurassic macrofossil assemblage (defined as 'unique, well preserved Jurassic shallow water macrofossil assemblages) are included in the inventory of important geological sites and landforms in the Otago region. Jacks Bay / Hayward Point is a breeding area for yellow-eyed penguins. Tuhawaiki Island is a haul out site for NZ fur seal and a breeding area for sooty shearwater and little blue penguin Tunnel Rocks is a little blue and yellow-eyed penguin breeding site. Legibility and expressiveness values are high 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness values are modified by agriculture and the crib settlement but are still high, based on the coherent natural landform and signififant presence of indigenous scrub. A dramatic and memorable coastal landscape. Wild and scenic values are high. 	High
Transient values	 Common presence of wildlife Various moods associated with weather and sea state conditions. 	High
Shared and recognised values	 Jacks Bay is recognized as a coastal protection area in the Otago Regional Plan: Coast (historic values) Hayward Point and Jacks Bay is recognized as a marine mammal and bird site in the Otago Regional Plan: Coast South of Jacks Bay and including Tuhawaiki Island, this coast is recognized as an ONFL in the Otago Regional Plan Coast and as a 'potentially outstanding landscape in the Clutha District Plan. Hayward Point / Jacks Bay, Tuhawaiki Island, Tunnel Rocks Reserve and Penguin Beach are listed in the Clutha District Plan as areas of significant habitat of indigenous fauna. Jacks Blowhole and Jacks Bay Jurassic macrofossil assemblage are recognized as ONF's in the Clutha District Plan. Jacks Bay and blowhole are recognized recreational / tourist destinations based on their scenic natural attributes 	High

Tangata whenua values	 Kai Tahu cultural and spiritual values are listed for this area (south of Jacks Bay) in the Otago Regional Plan: Coast and the Clutha District Plan. 	High
Historic heritage values	 The Jacks Bay Coastal Protection Area (Otago Regional Plan: Coast) lists historic values (middens). Jacks Bay and blowhole is named after Hone Tuhawaiki (Bloody Jack) a Kai Tahu chief who escaped one of Te Rauparaha's scouting parties by swimming from False Islet to Tuhawaiki Island. 	Medium - high

Rating	Comments / Reasons	Outstanding
High	Whilst the physical relief in this unit is more subdued than in other parts of the Catlins Coast, this is still a dramatic and memorable landscape with numerous natural features of significance and high tangata whenua values. Outstanding status is justified.	Yes

Natural features assessed

- Jacks Blowhole
- Tuhawaiki Island

Note: Despite Jacks Bay Jurassic macrofossil assemblage being listed as ONF's in the Clutha District Plan, this feature of geological significance is not considered to be a natural feature suitable for assessment in terms of the Amended Pigeon Bay Factors.

CL14 / F1. Jacks Blowhole



This feature is located in Tunnel Rocks Scenic Reserve to the south of Jacks Bay. The blowhole is approximately 55m deep and 200m from the sea, and has been formed by the collapse of an underground cavern. It can make a spectacular display given the right tides and sea conditions. It is surrounded by regenerating bush and the mapped boundaries of the feature correspond to the extent of the fenced off area.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 A good example of a blowhole caused by cavern collapse. Highly expressive of coastal erosional processes. 	High
Aesthetic values (naturalness / memorability) Wild and	A spectacular and memorable natural feature. High wild and scenic values.	High

scenic		
Transient values	 Transient values associated with sea states are particularly important with this feature 	High
Shared and recognised values	 South of Jacks Bay and including Tuhawaiki Island, this coast is recognized as an ONFL in the Otago Regional Plan Coast and as a 'potentially outstanding landscape in the Clutha District Plan. Jacks Blowhole is recognized as an ONF in the Clutha District Plan. Jacks blowhole is a recognized recreational / tourist destinations based on its scenic / natural attributes 	High
Tangata whenua values	None known	Low
Historic heritage values	 None known – named after Hone Tuhawaiki (Bloody Jack). 	Low

Rating	Comments / Reasons	Outstanding
High	This is a well-known natural feature with high natural science, aesthetic, transient and shared and recognized values. Outstanding status is justified	Yes

CL14 / F2. Tuhawaiki Island



Tuhawaiki Island is a flat-topped sandstone / mudstone island with cliffs, intertidal and subtidal reefs, and sea-caves. The vegetation cover is predominantly grassland with flax as well as some more diverse indigenous scrub on the more sheltered northern cliff faces.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Tuhawaiki Island is a haul out site for NZ fur seals and a breeding area for sooty shearwater and little blue penguin Legibility and expressiveness values are high 	High
Aesthetic values	An unmodified island with high naturalness values	High

(naturalness / memorability) Wild and scenic	Wild and scenic and memorability values are high.	
Transient values	 Common presence of wildlife Various moods associated with weather and sea state conditions. 	High
Shared and recognised values	 Tuhawaiki Island (along with other islands) is recognized as an ONFL in the Otago Regional Plan Coast and as a 'potentially outstanding landscape in the Clutha District Plan. Tuhawaiki Island is listed in the Clutha District Plan as an area of significant habitat of indigenous fauna. 	High
Tangata whenua values	 Kai Tahu cultural and spiritual values are listed for this area (south of Jacks Bay) in the Otago Regional Plan: Coast and the Clutha District Plan. Off shore islands have generic values including ipukarea, kai moana, mahika kai, wahi taoka, wahi tapu and wahi tohu 	High
Historic heritage values	 Named after Hone Tuhawaiki (Bloody Jack) a Kai Tahu chief who escaped one of Te Rauparaha's scouting parties by swimming from False Islet to Tuhawaiki Island. 	Medium - high

Rating	Comments / Reasons	Outstanding
High	Tuhawaiki Island has significant habitat, natural character and cultural values. It rates highly aesthetically and is assessed as having high and outstanding values overall.	Yes

CL15. Hinahina



Character Description

The Hinahina unit extends from Purakaunui Bay in the south to White Head in the north, and encompasses Purakaunui Bay, Hinahina Cove and the Duff Islands. This is a coastline of high sandstone / mudstone cliffs with caves, coves, rock platforms and stacks. The rock stratum is nearly horizontal (dipping gently to the north-east) in this section and in places bands of native scrub cling to the cliff faces. Above the cliffs, the slopes orientating toward the sea are often short and for much of the length the main ridge defines the extent of the coastal environment.

At either end of the unit the predominant land cover is pasture with native bush in the gullies. In the central section there is a large swathe of native forest protected by the Hinahina Cove Scenic Reserve. At the southern end, Purakaunui Bay has a sandy beach with dunes and is backed by pasture and bushland. Purakanui River meets the

coast at this point. Apart from road to Purakaunui Bay the unit is devoid of significant human structures.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Hinahina Cove is a breeding area for yellow-eyed penguin and a haul out site for NZ fur seal Purakaunui Bay is a haul out site for sea lion and breeding area for NZ fur seal, yellow-eyed penguin, little blue penguin and sooty shearwater. Duff Islands to Castle Rock is a haul out site for NZ fur seal. Very high legibility and expressiveness of natural processes. 	High
Aesthetic values (naturalness / memorability) Wild and scenic	This unit has very high naturalness, memorability and wild and scenic values	High
Transient values	 Regular presence of wildlife Various moods associated with weather and sea states – significant in this cliffed coastline 	High
Shared and recognised values	 Duff Islands to Castle Rock, Hinahina Cove and Purakaunui Bay are recognized as marine mammal and bird sites in the Otago Regional Plan: Coast This coastline is recognized as an ONFL in the Otago Regional Plan: Coast, and a potentially outstanding landscape in the Clutha District Plan. Hinahina Cove and Duff Islands to Castle Rock are recognized as areas of significant habitat of indigenous fauna in the Clutha District Plan. This a remote coastal section but its natural character and scenic values will be widely shared 	High
Tangata whenua values	This coast is significant to Kai Tahu and has the following values – ipukarea, kai moana, mahika kai, pa/ kaika, wahi taoka, wahi tapu and wahi tohu.	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	With the exception of historic heritage, this landscape unit has high values across all the assessment factors. Outstanding status is justified.	Yes
	values delege all the decessioners raction outstanding status is justified.	

Natural features assessed

None

CL16. Long Point



The Long Point unit is between Tahakopa Bay and Purakaunui Bay and includes Long Point and Cosgrove Island (see C16 / F1). This is a coastline of sandstone / mudstone cliffs of variable height with rocky benches, reefs and small sandy pocket beaches with dunes. The rock stratum is nearly horizontal (dipping gently to the north-east) in this section and in places bands of native scrub cling to the cliff faces. Above the cliffs and coastal scarps, the land is predominantly under pasture cover and there is little indigenous vegetation remaining. There are farm buildings near Long Point but otherwise no significant structures. The coastal environment boundary has been identified to include the areas with a seaward aspect.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 McPhee Cove Jurassic conglomerate (described as 'good exposures of unusual Jurassic conglomerates) is listed in the inventory of important geological sites and landforms in the Otago region. Cosgrove Island is a predator free breeding area for NZ fur seal, yellow-eyed penguin, little blue penguins, sooty shearwater and fairy prion. Also a haul out site for sea lions. Long Point and Chasm Island are breeding areas for yellow-eyed penguin and haul out sites for NZ fur seal. Highly legible landform. Expressiveness values somewhat reduced by minimal indigenous vegetation 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Naturalness is medium-high due to coherent landform and minimal influence of structures and earthworks. Reduced by minimal indigenous vegetation. A highly memorable, wild and scenic landscape 	High
Transient values	 Common presence of wildlife. Various moods associated with different weather and sea states. 	High
Shared and recognised values	 Waiheke Beach is recognized as a Coastal Protection Area in the Otago Regional Plan: Coast (cultural and spiritual values). Cosgrove Island is recognized as a marine mammal and bird site in the Otago Regional Plan: Coast Long Point and Chasm Island is recognized as a marine mammal and bird site in the Otago Regional Plan: Coast. This unit is within an area identified as an ONFL in the Otago Regional Plan: Coast and a potentially outstanding landscape in the Clutha District Plan. Areas of significant habitat of indigenous fauna recognized in the Clutha District Plan include Cosgrove Island, Long Point and Chasm Island. This coastal section has low levels of public accessibility but is viewed from Papatowai. Generally valued as coastal landscape. 	High
Tangata whenua values	 Waiheke Beach is identified in the Otago Regional Plan: Coast as having Kai Tahu cultural and spiritual values. Ira Huka (Long Point) has wahi taoka and wahi tohu values. Te Hapai (beach at Long Point) has kai moana, wahi taoka and wahi tohu values Puke Mauku Uku (Cosgrove Island) has wahi taoka and wahi tohu values. The entire coast of this unit has high values incl: ipukarea, kai moana, mahika kai, pa / kaika, wahi taoka, 	High

	wahi tapu and wahi tohu.	
Historic heritage values	The 'Manuka' ran aground at Long Point in 1929.	Medium

Rating	Comments / Reasons	Outstanding
High	This unit lacks the degree of naturalness and drama of some other	Yes
	Catlins Coast units but is still a highly scenic coastline with high natural	
	science, transient, shared and recognized and tangata whenua values.	

Natural features assessed

• Cosgrove Island

CL16 / F1. Cosgrove Island



Cosgrove Island is a small flat topped island approximately 150m off the coast, south of Purakaunui Bay. It is characterized by cliffs and intertidal and subtidal reefs. Its vegetation is indigenous scrub that has been modified by the effects of bird roosting.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Cosgrove Island is a predator free breeding area for NZ fur seal, yellow-eyed penguin, little blue penguins, sooty shearwater and fairy prion. Also a haul out site for sea lions. Highly legible landform. Expressiveness values are high 	High
Aesthetic values (naturalness / memorability) Wild and	High naturalness and wild and scenic values. More moderate memorability in this coastal context. Aesthetic values high overall.	High

scenic		
Transient values	 Common presence of wildlife. Various moods associated with different weather and sea states. 	High
Shared and recognised values	 Cosgrove Island is recognized as a marine mammal and bird site in the Otago Regional Plan: Coast Identified as an ONFL in the Otago Regional Plan: Coast and a potentially outstanding landscape in the Clutha District Plan. Identified as an area of significant habitat of indigenous fauna in the Clutha District Plan. Has a low level of public accessibility / visibility. Generically valued as natural coastal landscape feature. 	High
Tangata whenua values	 Puke Mauku Uku (Cosgrove Island) has wahi taoka and wahi tohu values. 	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Cosgrove Island has significant habitat, natural character and cultural values. It rates highly aesthetically and is assessed as having high and outstanding values overall.	Yes

CL17. Tahakopa Bay



The Tahakopa Bay unit is defined by Skeleton Point and the eastern end of Tahakopa Beach. Upriver, it adjoins the Tahakopa River unit, with the Papatowai Highway bridge forming a convenient boundary. This unit encompasses the prograded sand barrier between relic cliffs and the Tahakopa Bay beach, the Tahakopa River mouth and a section of rocky shoreline and headland between the river mouth and Skeleton Point.

Mature coastal forest backs the stable, marram covered dunes behind the Tahakopa Beach. There is more forest on the slopes south of the river mouth, with pasture nearer Skeleton Point. The coastline in this stretch can be described as a sandstone / siltstone headland with cliffs, intertidal and offshore reefs and sandy coves. The tidal river mouth is characterized by channels and a flood tide sand delta.

The coastal environment is defined variously by the relict cliffs north of Tahakopa Bay, the coastal scarp on the true right of the estuary, and the extent of visually significant slopes on the headland. There are no significant structures within the identified coastal environment but the wider landscape context includes the main Catlins highway and the township of Papatowai.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 The Maclennan River Podocarp Swamp Complex and Tahakopa Bay Podocarp Swamp are regionally significant wetlands Tahakopa Estuary has outstanding biological significance. Skeleton Point is a breeding area for yellow-eyed penguin and titi and a haul out site for NZ fur seal. Intact vegetation sequences from dunes to mature podocarp forest on the dune ridges. The lowland podocarp forest has significant natural values There is a significant area of pingao at Tahakopa Bay Very high legibility and expressiveness values 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Very high naturalness (large area of indigenous vegetation) High wild and scenic and memorability values 	High
Transient values	 Occasional presence of wildlife Various moods associated with weather and sea state conditions. 	Medium - high
Shared and recognised values	 The Maclennan River Podocarp Swamp Complex and Tahakopa Bay Podocarp Swamp are recognized as regionally significant wetlands. This unit is within an area identified as an ONFL in the Otago Regional Plan: Coast and a potentially outstanding landscape in the Clutha District Plan. Skeleton Point is recognized as a marine mammal and bird site in the Otago Regional Plan: Coast. Papatowai Scenic Reserve and Skeleton Point are recognized as areas of significant habitat of indigenous fauna in the Clutha District Plan. This area is widely valued for its natural character and coastal scenery. The Papatowai surf break is a surf break of national significance. 	High
Tangata whenua values	Tahakopa Estuary has Kai Tahu cultural and spiritual	High

	 values (Otago Regional Plan: Coast) Papatowai has pa / kaika values. The entire coast of this unit has high values incl: ipukarea, kai moana, mahika kai, pa / kaika, wahi taoka, wahi tapu and wahi tohu. 	
Historic heritage values	There were Moa Hunting camps near the mouth of the Tahakopa River – important archaeological sites	Medium - high

Rating	Comments / Reasons	Outstanding
High	This unit has high values in terms of natural science, aesthetic, shared and recognized and tangata whenua factors. Outstanding status is justified.	Yes

Natural features assessed

None

CL18. Tahakopa River



The Tahakopa River unit covers the estuary and tidal sections of the Tahakopa and Maclennan River's (to the extent of saline influence) along with the associated wetlands. For much of the unit, the river channels are bordered by saltmarsh which transitions back through scrub to forest. In other parts, roads border the river banks and there is pasture land with areas of scrub or bush. There are two bridges and a few buildings within the unit. The wider landscape context is farmed valley flats and hillslopes.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Tahakopa River Bogs and the Maclennan River Podocarp Swamp Complex are regionally significant wetlands. Tahakopa Estuary has outstanding biological significance 	High

Aesthetic values (naturalness / memorability) Wild and scenic	 and supports threatened species. High legibility and expressiveness especially where natural vegetation sequences exist Naturalness values are modified to some extent by roads, agricultural development and structures but overall medium-high. Memorability and scenic values are high. Not wild in comparison with the open coast. 	High
Transient values	Common presence of wildlifeTidal rhythms	High
Shared and recognized values	 ONFL status is recognized (from the river mouth to the confluence of the Tahakopa and Maclennan Rivers) in the Otago Regional Plan: Coast Tahakopa Estuary is recognized as a Coastal Protection Area in the Regional Plan Coast. Tahakopa River Bogs and the Maclennan River Podocarp Swamp Complex are listed as regionally significant wetlands. General public recognition of the natural values of wetlands. 	High
Tangata whenua values	 Tahakopa Estuary has Kai Tahu cultural and spiritual values (Otago Regional Plan: Coast) Tahaukupu (Tahakopa Estuary) is listed as a place of particular note in the Clutha District Plan Review of the Manawhenua Section. 	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	This unit has high ecological and cultural values. It does not have the visual drama of the open coast landscapes but forms an interesting contrast to these that helps to round out understanding of the Catlins Coast landscape. Aesthetic values are still assessed as high and overall values as high and outstanding.	Yes

Natural features assessed

None

CL19. Tautuku



The Tautuku unit extends from Skeleton Point to the southern end of Lathyrus Bay and includes Taututu Peninsula, the Tautuku River estuary, Tautuku Beach and Rainbow Isles. Tautuku Peninsula is a broad flat topped sandstone and mudstone peninsula with cliffs, intertidal reefs and small coves connected to the mainland by a narrow neck. The Tautuku river mouth reaches the bay on the northern side of the peninsula and is characterised by multiple tidal channels with sandflats. North of the river, is a prograded Holocene barrier characterised by stable dunes and the approximately 3km sweep of Tautuku Beach. The beach abuts a low sandstone / siltstone headland at its northern end, with cliffs, intertidal and offshore reefs, and sandy coves. The coastal environment has been variously defined to include the visually prominent headlands, the extent of the Holocene barrier sediments, and in the case of the Tautuku River, the extent of saline influence and the coastal scarp.

Apart from the headland areas, this unit is largely covered in indigenous vegetation including intact sequences from saltmarsh to Podocarp forest (although marram has established on the dunes). In contrast, the northern headland and Tautuku Peninsula are under pasture cover with areas of native scrub. There is a scattering of cribs on the sheltered northern side of the peninsula and the Chaslands Highway skirts the coastal environment, both adjacent to the left bank of the Tautuku River and above the northern end of the beach. The wider landscape context is that of hills and valleys under indigenous forest cover with large areas of wetland.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Lake Wilkie swamp is a highly natural bog lake and an important example of hydrarch succession – a regionally significant wetland. Tautuku River Mouth Marsh is a regionally significant wetland. Skeleton Point and Rainbow Isles are breeding areas for yellow-eyed penguin and haul out sites for NZ fur seal. Unbroken sequences of natural vegetation from the coast inland. Very high legibility and expressiveness values 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 High naturalness – modified to some extent by the agricultural use on the headlands Highly memorable, wild and scenic 	High
Transient values	 Occasional presence of wildlife Various moods associated with different weather and sea state conditions Tidal rhythms in the estuary 	Medium - high
Shared and recognised values	 Lake Wilkie Swamp and the Tautuku River Mouth Marsh are recognised as regionally significant wetlands (ORC) and listed as significant wetlands in the Clutha District Plan. This section of coast is recognised as a potentially outstanding landscape in the Clutha District Plan and as an ONFL in the Otago Regional Plan: Coast. Tautuku Beach and estuary and Lake Wilkie are highlights of the southern scenic route. Shared values are very high. Skeleton Point and Rainbow Isles is listed as a marine mammal and bird site in the Otago Regional Plan: Coast. Oyster Bay and Tautuku Estuary are recognised as 	High

	Coastal Protection Areas in the Otago Regional Plan: Coast.	
Tangata whenua values	 Oyster Bay has Kai Tahu cultural and spiritual values (Otago Regional Plan: Coast) Tautuku Estuary and Tautuku Peninsula are listed as places of particular note in the Clutha District Plan Review of the Manawhenua Section. This section of the coast has high values generally including ipukarea, kai moana, mahika kai, pa / kaika, wahi taoka, wahi tapu and wahi tohu. 	High
Historic heritage values	There was a whaling station at Tautuku peninsula between 1839 and 1846 (and evidence of gardens associated). Later, there was a port to service the fishing, flax and timber industries.	High

Rating	Comments / Reasons	Outstanding
High	This unit scores highly across virtually all the assessment factors. It is one of the more accessible units and has particularly high shared and recognised values. Outstanding status is justified.	Yes

Natural features assessed

- Rainbow Isles
- Lake Wilkie

CL19 / F1. Rainbow Isles



Rainbow Isles is a small low relief island off Skeleton Point at the northern end of Tautuku Bay. It has low cliffs along its southern side and a more gently sloping northern side with rock benches and reefs surrounding. A 'spouting cave' called Rere Kohu is located at its eastern end. The island is covered in native scrub.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Rainbow Isles is a breeding area for yellow-eyed penguin and haul out sites for NZ fur seal. High legibility and expressiveness values 	High
Aesthetic values (naturalness /	 High naturalness and wild and scenic values. Not particularly memorable within the wider coastal context. 	Medium - high

memorability) Wild and scenic		
Transient values	 Common presence of wildlife Various moods associated with different weather and sea state conditions 	High
Shared and recognized values	 As an island - recognised as a potentially outstanding landscape in the Clutha District Plan and as an ONFL in the Otago Regional Plan: Coast. Rainbow Isles is listed as a marine mammal and bird site in the Otago Regional Plan: Coast. Not particularly recognised in the tourist literature. 	Medium - high
Tangata whenua values	 Oyster Bay closeby, has Kai Tahu cultural and spiritual values (Otago Regional Plan: Coast) and spouting cave has a maori name suggesting significance. This section of the coast has high values generally including ipukarea, kai moana, mahika kai, pa / kaika, wahi taoka, wahi tapu and wahi tohu. 	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Rainbow Isles has high naturalness and wild and scenic values. Memorability and shared values are more modest but it rates highly for its ecological and cultural values, and associated statutory recognition. Overall, assessed as high and outstanding.	Yes

CL19 / F2. Lake Wilkie



Lake Wilkie is a small, shallow bog lake formed by water filling a depression between ancient sand dunes. It is gradually infilling with vegetative material and features intact natural sequences from marsh to forest. It is a regionally significant wetland and described as an important example of hydrarch succession for *Elocharis* at the lake margin to mature podocarp – rata – kamahi forest. The boundaries of the feature are proposed to coincide with the identified wetland boundaries.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Lake Wilkie swamp is a highly natural bog lake and an important example of hydrarch succession – a regionally significant wetland. Very high legibility and expressiveness values 	High

Aesthetic values (naturalness / memorability) Wild and scenic	High naturalness. Highly memorable and scenic	High
Transient values	Occasional presence of wildlife	Medium
Shared and recognised values	 Lake Wilkie Swamp is recognised as a regionally significant wetland (ORC). This section of coast is recognised as a potentially outstanding landscape in the Clutha District Plan and as an ONFL in the Otago Regional Plan: Coast. Lake Wilkie is not currently recognised as an ONF in the Clutha District Plan. Lake Wilkie is a highlight of the southern scenic route. Shared values are very high. 	High
Tangata whenua values	None specifically noted	Low
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Lake Wilkie has high natural science, aesthetic and shared and recognised values. It is a widely appreciated natural feature and popular attraction on the southern scenic route. Overall, assessed as high and outstanding	Yes

CL20. Waipati



The Waipati unit covers the coastline from Makati (Chaslands Mistake) headland to the Frances Pillars, including Waipati beach and estuary and Kinakina Island. The southern (Chaslands Mistake) headland is characterised by sandstone cliffs with caves, seastacks, intertidal reefs and coves. The Waipati River mouth meets the sea directly to the north of this and is described as a tidal river and estuary with sandflats and multiple channels. The flats behind Waipati Beach are a prograded Holocene barrier. There is a narrow margin of previously active sand dunes on the seaward margin, now largely stabilised with marram and transgressive dune forms present along estuary. Hukihuki Creek, a significant tributary of the Waipati River, runs south-westward at the rear of this barrier. North of Waipati Beach there is an approximately 3km length of rocky coastline characterised by sandstone / mudstone cliffs with arches, sea-stacks, intertidal platforms and caves. The Cathedral Caves (see C20 / F2) and Frances Pillars (see C20 / F1) are

located at either end of this stretch. Kinakina Island (see C20 / F3) is a small rocky island approximately 1km off Waipati Beach.

The coastal environment has been variously defined to include the visually prominent headlands, the extent of the Holocene barrier sediments, and in the case of the Waipati River, the extent of saline influence and the coastal scarp.

The vegetation cover in this unit is predominantly indigenous (except that marram has established on the dunes) and includes clifftop scrub, salt marsh and coastal forest. On the headland areas there has obviously been past clearance of native bush and some areas / patches of pasture grassland are evident. Other than two cribs located near the right bank of the Waipati Estuary and some rough vehicle tracks, there are no significant structures. The wider landscape is predominantly under native forest or wetland cover except that on the upper slopes south of the Waipati River there is pasture and a band of plantation forestry.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Cathedral Caves (described as the 'best example of large joint controlled sea caves on the Catlins Coast) is listed in the inventory of important geological sites and landforms in the Otago region. Waipati Estuary (described as 'a good example of an estuary) is listed in the inventory of important geological sites and landforms in the Otago region. Hukihuki Swamp (Coastal rush edge podocarp swamp) is a regionally significant wetland. Waipati Estuary has high estuarine values such as saltmarsh communities and outstanding biological communities (Otago Regional Plan: Coast) Waipati Beach is a haul out site for sea lions Chaslands Mistake is a haul out site for NZ fur seal Unbroken vegetation sequences from the coast inland Legibility and expressiveness values are very high 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Very high naturalness Highly memorable, wild and scenic 	High
Transient values	Occasional presence of wildlife	High

	 Various moods associated with different weather and sea state conditions Tidal rhythms in the estuary 	
Shared and recognised values	 Hukihuki Swamp is recognised as a regionally significant wetland (ORC) and a significant wetland in the Clutha District Plan. Waipati Estuary is identified as a significant wetland in the Clutha District Plan. Waipati Estuary and Kinakina Island are recgnised as a Coastal Protection Area in the Otago Regional Plan: Coast. Waipati Beach and Chaslands Mistake are recognised as marine mammal and bird sites in the Otago Regional Plan: Coast, and as areas of significant habitat of indigenous fauna in the Clutha District Plan. This unit is within an area recognised as an ONFL in the Otago Regional Plan: Coast and as a potentially outstanding landscape in the Clutha District Plan. Cathedral Caves are a highlight of the southern scenic route. The natural character and scenic values of this section of the coast have high shared values. 	High
Tangata whenua values	 Waipati Estuary and Kinakina Island are noted as having Kai Tahu cultural and spiritual values in the Otago Regional Plan: Coast Waipati Estuary and Kinakina are listed as places of particular note in the Clutha District Plan Review of the Manawhenua Section. This section of the coast has high values generally including ipukarea, kai moana, mahika kai, pa / kaika, wahi taoka, wahi tapu and wahi tohu. Maka ti (Chaslands Mistake) has wahi taoka and wahi tohu values. 	High
Historic heritage values	 The Surat holed on rocks near Chaslands Mistake in 1874 before foundering at Surat Bay. The Wallace and the Otago were also wrecked at or near Chaslands Mistake at 1866 and 1876 respectively. Chaslands Mistake was named after the whaler Thomas Chaslands who mistook the headland for the Otago Heads (or delayed slaughtering seals in the evening only to find none there in the morning). 	Medium

Rating	Comments / Reasons	Outstanding
High	This is a highly natural (though not completely unmodified) area with	Yes
	high values across almost all the assessment factors. Outstanding status is justified.	

Natural features assessed

- Frances Pillars
- Cathedral Caves
- Kinakina Island

CL20 / F1. Frances Pillars



The Frances Pillars are group of spectacular sandstone / mudstone sea stacks at the western side of Lathyrus Bay. The feature identified includes the adjacent cliff section, which is of similar geology and which includes an arch, rocky cove, benches and reefs. The higher stacks have some sparse vegetation cover on their summits.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Very legible features, highly expressive of marine erosional processes. No particular natural science values noted. 	Medium
Aesthetic values (naturalness / memorability) Wild and	 Very high naturalness Highly memorable, wild and scenic 	High

scenic		
Transient values	 Occasional presence of wildlife Various moods associated with different weather and sea state conditions 	High
Shared and recognised values	 Not specifically recognised in statutory documents. In a relatively remote location – low levels of public awareness. They can be viewed from Tautuku Peninsula however. As spectacular coastal landforms shred values would be high generically. 	Medium - high
Tangata whenua values	This section of the coast has high values generally but Frances Pillars are not specifically named or noted	Medium
Historic heritage values	None known	Low

	Rating	Comments / Reasons	Outstanding
ı	High	This feature does not rate highly across the range of Amended Pigeon	Yes
		Bay Factors but is assessed as outstanding on the basis of its visually	
ı		spectacular qualities alone (incorporating expressiveness, memorability,	
ı		naturalness and wild and scenic qualities).	

CL20 / F2. Cathedral Caves



The Cathedral Caves are a series of joint controlled sea caves in the sandstone / mudstone cliffs at the northern end of Waipati Beach. The tallest cave is approximately 30m high and the two main cave systems join together. The caves are only accessible at low tide.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Cathedral Caves (described as the 'best example of large joint controlled sea caves on the Catlins Coast) is listed in the inventory of important geological sites and landforms in the Otago region. Highly expressive of marine erosional processes. 	High
Aesthetic values	Very high naturalness	High

(naturalness / memorability) Wild and scenic	Highly memorable, wild and scenic	
Transient values	 Possible presence of wildlife Various moods associated with different weather and sea state conditions Tidal rhythms 	High
Shared and recognised values	 Recognised as an ONF in the Clutha District Plan. Cathedral Caves are a highlight of the southern scenic route. 	High
Tangata whenua values	 This section of the coast has high values generally There is no record of the caves having a Maori name, nor any specific mention of values. 	Medium
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Cathedral Caves are assessed as high and outstanding overall, on the basis of their natural science, aesthetic, transient and shared and recognised values.	Yes

CL20 / F3. Kinakina Island



Kinakina Island is a small sandstone / mudstone Island approximately 1km off Waipati Beach. It is largely unvegetated and has rock benches particularly on its southern side.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 No natural science values specifically mentioned in statutory documents but the island exhibits evidence bird roosting. Legibility and expressiveness values are very high 	Medium - high
Aesthetic values (naturalness / memorability) Wild and scenic	 Very high naturalness High wild and scenic values and medium-high memorability values 	High

Transient values	 Common presence of wildlife Various moods associated with different weather and sea state conditions 	High
Shared and recognised values	 Kinakina Island is recgnised as a Coastal Protection Area in the Otago Regional Plan: Coast. Recognised as an ONFL in the Otago Regional Plan: Coast and as a potentially outstanding landscape in the Clutha District Plan. Coastal Islands have generic shared values regarding natural character and visual value. 	High
Tangata whenua values	 Kinakina Island is noted as having Kai Tahu cultural and spiritual values in the Otago Regional Plan: Coast Kinakina is listed as a place of particular note in the Clutha District Plan Review of the Manawhenua Section. 	High
Historic heritage values	None known	Low

Rating	Comments / Reasons	Outstanding
High	Kinakina Island is assessed as outstanding on the basis of its high aesthetic, transient, shared and recognised, and tangata whenua values in particular.	Yes

CL21. Wallace Head



This coastal landscape character unit extends from the western end of Wallace Beach, to Makati (Chaslands Mistake) headland. Eastward of Wallace Head the coastline is characterized by sandstone / mudstone cliffs with caves, sea stacks, intertidal reefs and coves some with rocky beaches. The slopes above the cliffs are mainly in rough pasture cover with scattered indigenous scrub although there is also a patch of exotic forestry on the periphery of the coastal environment in one place.

The coast westward of Wallace Head is a series of sandy bays separated by sandstone headlands and sometimes extensive reefs. Narrow marram covered dune systems are present at Wallace Beach. In this section a considerable part of the land back from the cliffs or beaches is under indigenous scrub or forest cover and there are no structures of significance.

The coastal environment has been defined to include the seaward facing slopes to the main ridgeline toward Makati and the main seaward facing slopes in the vicinity of Wallace Beach.

Criteria	Comments	Rating
Natural science factors / legibility / expressiveness	 Chaslands Mistake and the adjacent coastline, and Wallace Head are haul out sites for NZ fur seal. Unbroken vegetation sequences from the coast inland in areas. Legibility and expressiveness values are high 	High
Aesthetic values (naturalness / memorability) Wild and scenic	 Whilst not unmodified, naturalness values are high based on coherent natural landform, minimal presence of structures and presence of significant areas of indigenous vegetation. Memorability / wild and scenic values are high – wild dramatic coastline with remoteness qualities. 	High
Transient values	 Occasional presence of wildlife Various moods associated with different weather and sea state conditions 	High
Shared and recognized values		
Tangata whenua values		
Historic heritage values	 Wallace Beach was the site of a gold mining operation The Surat holed on rocks near Chaslands Mistake in 1874 before foundering at Surat Bay. The Wallace and the Otago were also wrecked at or near Chaslands Mistake at 1866 and 1876 respectively. Chaslands Mistake was named after the whaler Thomas Chaslands who mistook the headland for the Otago Heads (or delayed slaughtering seals in the evening only 	Medium

to find none there in the morning).	

Rating	Comments / Reasons	Outstanding
High	This remote and relatively unknown coastal section has high natural character, aesthetic, transient and tangata whenua values in particular. Assessed overall as high and outstanding.	Yes

Natural features assessed

None