

# Mawhera Place Stewardship Land



Judith Woodward Smith (1930-2019) Grey River valley from behind Blackball c. 1962. Oil on canvas.

# Landscape Values

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# Landscape context for decision-making about stewardship land in Mawhera Place

Landscape is formally defined as “all aspects of the environment including its physical form, and all natural and cultural processes and systems, and the interactions of these systems.”

Landscapes are the outcome of many interconnected processes.

All landscapes are evolving. Even pre-human landscapes in Mawhera were constantly changing in response to natural forces, such as cell by cell growth or massive catastrophic landslips, but their character used to be 100% natural. When people arrived processes of modification began, as successive generations shaped the landscape to meet their needs and desires. Original vegetation was harvested or removed, landforms and drainage patterns altered, natural soils cultivated, and many things have been built.

In Mawhera Place the processes of modification have occurred everywhere but have affected the river valleys most. The original natural character landscapes of the valley floors have morphed into a new cultural landscape where most Mawhera people make their homes, and where food and other goods are produced. But in most valleys there are still fragments of original character surviving, adding visual interest and a sense of the past, contributing to overall ecosystem health, maintaining biodiversity benefits and helping to manage hydrology. Quite a few of the remaining fragments are stewardship land.

The landscape of Mawhera Place is defined predominantly by its two biggest braided rivers, Mawheranui and Taramakau. Water quality, ecological health, wairua and the mauri of both are directly related to how the land is managed.

The processes of landscape change have not stopped. Change is ongoing. If current trends continue it seems likely that over the next few generations much of the remaining indigenous vegetation which expresses underlying natural character in modified landscapes will be further modified or replaced.

In this report the focus is on natural character (and to a much lesser extent historic character). This is because the stewardship land reclassification process is occurring under the Conservation Act 1987 and the purpose of this act is “to promote the conservation of New Zealand’s natural and historic resources”. “Conservation means the preservation and protection of natural and historic resources for the purpose of

- maintaining their intrinsic values,
- providing for their appreciation and recreational enjoyment by the public and
- safeguarding the options for future generations.”

The Department of Conservation’s West Coast *Te Tai o Poutini* Conservation Management Strategy 2010-2020 (CMS) sets out the desired outcomes for the whole West Coast region (p177-183), and for Mawhera Place (pp 229-234)

Landscape outcomes sought for the region are:

*“Within public conservation lands, natural, historical and cultural heritage is protected,*

*maintained and enhanced.” (p177), and*

*“Where practicable, natural heritage is improved to a more natural state. The ecological integrity and natural character of managed sites is maintained or restored... The connectivity and natural functioning of mountain-sea ecosystems, lowland wetlands and riparian areas is improving.”(p181)*

At Mawhera Place the landscape outcome sought is:

*“4.2.5.2 Geodiversity, landforms and landscapes in 2020*

*The overall character of geodiversity, landforms and landscapes in Mawhera Place is maintained in its 2010 condition.” (p229)*

Mawhera Place is in the Grey District. The existing Grey District Plan relies on public conservation lands and waters (including stewardship land) to protect 90% of the outstanding natural landscapes in Mawhera. Only eight other places are identified as ONL and these are very limited in area.

Regional Council also has statutory responsibility for Mawhera’s landscapes. In 2013 they commissioned two studies to inform their regional planning. Brown Ltd mapped areas of high and outstanding natural character first, which was followed by a report identifying Outstanding Natural Landscapes (ONLs) in the coastal zone. This was followed up with the addition of some inland ONLs.

A new combined district plan *Te Tai o Poutini* has been drafted using these ONLs, but it is not yet operative. Quite a few stewardship land parcels fall into Brown’s high and outstanding natural character areas, and some are also located in ONLs identified in the draft *Te Tai o Poutini*.

One limitation of an approach identifying ONL’s on the basis of natural character only is that tangata whenua landscape values and historic landscape values which may contribute to an areas outstanding quality are not taken into account in the rankings. However some of this information is provided in the conservation value reports for each stewardship cluster.

There are about 75 parcels of stewardship land in Mawhera Place. To better understand how each stewardship parcel fits within its wider landscape setting Mawhera Place is broken into thirteen chunks of similar character. Stewardship parcels in each are identified and landscape factors discussed. Where part or all of a stewardship parcel falls into an ONL or natural character unit this is stated because this is a consideration which may need to be given some weight. That said, there are many areas of high natural character outside the boundaries of the units identified at a regional scale and stewardship lands by their nature are often in locations with high natural character.

A WAY TO UNDERSTAND MAWHERA PLACE



## Contents Mawhera Place

Stewardship Land Parcel Name	Brown's Natural Character	Te Tai o Poutini ONL
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### 1. Coastal Mawhera

1	Seventeen Mile Bluff Conservation Area (5ha)	+	43
2	Eleven Mile Creek Conservation Area (271ha)	+	43
3	Ten Mile Creek Waianiwaniwa Conservation Area (118ha)	+	43
4	Nine Mile Creek Kotorepi Conservation Area (18ha)	+	43
5	Blaketown Conservation Area (1ha)		
6	Camerons Conservation Area (26ha)	+	

### 2. Paparoa Massif

7	Paparoa Range South Conservation Area (16,048ha)		41
8	Rocky Creek Conservation Area (9ha)		
9	Rapahoe Conservation Area (19ha)		
10	Runanga Conservation Area (87ha)		
11	Seven Mile Creek Waimatuku Conservation Area (99ha)		
12	Batty Creek Conservation Area (31ha)		41
13	McLeans Creek Conservation Area (899ha)		41
14	Sewell Peak Conservation Area (422ha)	+	41
15	Ex Harbour Board Endowment, Sewell Peak Cons. Area(564ha)	+	41
16	Taylorville Conservation Area (4ha)	+	
17	Brunner Forest Conservation Area (1,694ha)	+	41
18	Roa Blackball Creek Conservation Area (279ha)		41
19	Paparoa Street-Roa Conservation Area (3ha)		
20	Blackball Creek & Terraces Conservation Area (74ha)		
21	Blackball Conservation Area (46ha)		
22	Big River Conservation Area (45ha +)		41
23	Pike Stream Conservation Area (70ha)		
24	Paparoa Forest Conservation Area (99ha)		41
25	Mt Marshall Conservation Area (2,170ha)		41
26	Otututu Valley Conservation Area (752ha)	+	40

### 3. Mawheranui Valleys

27	Grey River/Mawheranui Conservation Area (1,033 +)	+	
28	Nelson Creek Riverbed Conservation Area (123ha)	+	

29	Nelson Creek Conservation Area (34 + 3x <1ha)	+	
30	Nelson Creek Farm Conservation Area (153 + 30ha)	+	
31	Bell Hill Conservation Area (173ha)	+	
32	Bell Hill Farm Conservation Area (part) (322 +235 + etc ha)	+	
33	Kangaroo Creek Conservation Area (11ha)	+	
34	Crooked River Conservation Area (part)(103 + 48 + 29ha)	+	
35	Hauptiri Conservation Area (20ha)	+	
36	Atarau Conservation Area (193ha)	+	
37	Moonlight Creek Conservation Area (86ha)	+	
38	Big River Conservation Area (part) (23+2+0.4+0.2ha)	+	
39	Rough River Conservation Area (138ha)	+	
40	Grey River/Mawheranui & Rough River C A (9ha)	+	
41	Waipuna Clarke River Conservation Area (63ha)	+	
42	Orwell Creek Conservation Area (one of two) (<1ha)	+	
43	Ahaurua Riverbed Conservation Area (452ha)	+	32

#### 4. Ka Tiritiri o te Moana

44	Granville Forest Conservation Area (19,153ha)	+	34
45	Otira Kopara Forest Conservation Area (78,873ha)	+	
32	Bell Hill Farm Conservation Area (part) (173ha)		
46	Crane Creek Hauptiri Road Conservation Area (11ha)		
34	Crooked River Conservation Area (part) (103ha)	+	32
47	Conservation Area (located off Ahaura-Kopara Road, Ahaura (10ha)		
48	Robinson River Conservation Area (106ha) In Inangahua Place	+	
49	Conservation Area Robinson River (106ha) In Inangahua Place	+	
50	Grey River/Mawheranui Conservation Area (parts) In Inangahua Place	+	

#### 5. Hochstetter Plateau

51	Lake Hochstetter Conservation Area (500ha)	+	32
52	Hochstetter Forest Conservation Area (15ha)		
53	Orwell Creek Conservation Area (10ha)		

#### 6. Kaka Hill

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#### 7. Callagans Creek

54	Callagans Creek Conservation Area (2,417ha)		
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#### 8. Ongionui Massif

55	Blackwater Creek-Souter River Cons Area (4,208ha)		
56	Ongionui Conservation Area (1,673ha)		

32	Bell Hill Farm Conservation Area (part)		
30	Nelson Creek Farm Conservation Area (part)		
29	Nelson Creek Conservation Area (part)		

#### **9. Kotukuwhakaoko (Lake Brunner)**

57	Kotuku Whakaoho (Lake Brunner) Conservation Area (4,077ha)	+	29
58	Arnolds [sic] River Conservation Area (30ha)	+	?
59	Taku Street Moana Conservation Area (2ha)	+?	
60	Moana Conservation Area (82ha)	+	
34	Crooked River Conservation Area (part) (48ha?)	+	
61	Kangaroo Lake Conservation Area (128ha)	+	
62	Mitchells Conservation Area (11ha)	+	29
63	Hohonu River Conservation Area (60ha)	+	

#### **10. Ohonu and Te Kinga Massifs**

64	Hohonu Forest Conservation Area (10,580ha)	+	29
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#### **11. Taramakau Valley**

65	Taramakau Riverbed Conservation Area (409ha)	+	
66	Kumara-Wardens Road Conservation Area (31ha)		
67	Taramakau River/Otira River C A (3,780ha)	+	28
68	Aickens Base Conservation Area (0.1ha)		

#### **12. Hokonui**

69	Fireball Creek Conservation Area (195ha)		
70	Cockeye-Cockabulla Conservation Area (1,225ha)	+	
71	Paynes Gully Conservation Area (201ha)	+	
72	Cape Terrace Conservation Area (38ha)	+	
73	Greenstone River Conservation Area (207ha + 36ha)	+	29

#### **13. Card Creek**

74	Maori Gully Creek Conservation Area (87ha)		
75	Omoto Conservation Area (9ha)		30B
76	Dungaville Road Conservation Area (7ha)		30B

# Coastal Mawhera

Includes coastal land of Mawhera Place, from south end of Barrytown flats south to the mouth of Taramakau River.

Inland boundary as defined by Brown (*i.e. subject to influence if the sea*)

Includes Seventeen Mile Bluff, Point Elizabeth, mouths of Mawhera (Grey) and Greenstone Rivers, townships at Greymouth and settlements at other locations, Rapahoe Range and other coastal hills, beaches, dunes and lagoons

Coastal SH6 passes north-south through this area.

“The coastal area from Nine Mile Creek to Seventeen Mile Bluff between the sea and 200m east of SH6” is identified as an **outstanding landscape** in the Grey District Plan (p22)

Brown 2013 identified two outstanding and four high natural character units in the coastal zone of Mawhera Place:

*C39 Nine Mile Bluff – Seventeen Mile Bluff (outstanding)*

*C38 Rapahoe-Greigs Coastline (high)*

*C37 Rapahoe Range to Point Elizabeth (outstanding)*

*C36 Peter Ridge Foothills (high)*

*C35 New River Mouth (high)*

*C34 Taramakau River Mouth (high)*

In the [draft Te Tai o Poutini plan](#) three ONLs are identified in the coastal zone.

## **There are six parcels of stewardship land in the coastal part of Mawhera Place:**

- Seventeen Mile Bluff Conservation Area (5ha)
- Eleven Mile Creek Conservation Area (271ha)
- Ten Mile Creek Waianiwaniwa Conservation Area (118ha)
- Nine Mile Creek Kotorepi Conservation Area (18ha)
- Blaketown Conservation Area (1ha)
- Camerons Conservation Area (26ha)

Note: Parts of Paparoa South Conservation Area, Taramakau Riverbed Conservation Area and others also extend into the coastal zone, but are considered elsewhere.

## **Landscape factors for decision-makers to consider:**

- **Seventeen Mile Bluff, Eleven Mile Creek, Ten Mile Creek** and **Nine Mile Creek Conservation Areas** have more in common than just their distance-related names: similar topography, vegetation and coastal character, high natural character, modification by historic gold mining, occasional streams connecting to hinterland, and connection along a coastal highway. Consideration could be given to combining them into a single coastal reserve or park.

The proximity of the sea has a strong influence on landscape character, especially on coast-facing slopes which declines further inland.

Such a reserve would be functionally and visually linked with Paparoa South, and to other inland PCL along streams (via marginal strips and other PCL) providing ecological corridors ki uta ki tai.

- **Seventeen Mile Bluff, Eleven Mile Creek, Ten Mile Creek and Nine Mile Creek Conservation Areas** all occur within an area of **outstanding** natural character (See Brown *C39 Nine Mile Bluff – Seventeen Mile Bluff*).
- In the draft *Te Tai O Poutini plan ONL 43 Nine, Fourteen and Seventeen Mile Bluffs* is identified as an **Outstanding Natural Landscape**, identifying the following site type and values:
  - Sequence of coastal bluffs and escarpments interspersed by rocky shoals and sandy bays.
  - Dramatic interaction of the landscape with the Tasman Sea with its sheer cliffs and scarps, continuous coastal and lowland forest cover providing a consistent patterning to this exposed landscape.
  - Varied amalgam of raw and exposed coastal landforms, strong elevated relief, windswept vegetation which impart a strong sense of naturalness.
  - Patterning of mature wind swept coastal forest and scrub across the bluffs and slopes reinforces the topography and exposure.
  - Striking interface with the Tasman Sea - sheer cliffs plunge dramatically into the sea.
  - Nine, Fourteen, and Seventeen Mile Bluffs are key landmarks within this landscape – emphasised by key views obtained along SH6.
  - Area below mean high water springs also scheduled in Proposed Regional Coastal Plan as ONL43.
- Although small, **Blaketown Conservation Area** is set within the Mawhera (Grey) River coastal lagoon which is one of few remaining natural character areas in the built up area of Greymouth. The parcel and surrounding coastal wetlands are likely to be more highly valued as the surrounding cultural landscape evolves further.

The whole lagoon including this parcel of stewardship land lies within *C36 Peter Ridge Foothills* high natural character unit. Key attributes/characteristics of this unit described by Brown are

Exposed coastal escarpment and terrace covered in windswept coastal forest and scrub.  
Coastal landforms with indigenous vegetation reinforcing topography and exposure to coastal processes.  
Natural qualities are clearly evident in the landform, vegetation cover and their relationship with the Tasman Sea contributing to a very endemic landscape.

- Part of **Camerons Conservation Area** aligned along a river terrace lies within the *C34 Taramakau River mouth* high natural character unit. Key attributes/characteristics of this landscape cited by Brown are:
  - Massive braided river mouth enclosed by a large sand bar at its entrance.
  - Highly dynamic and dramatic interaction / relationship between the river waters, sand bar and the open waters of the Tasman Sea.
  - Exposed sand bar / dune landforms and windswept vegetation impart a strong sense of naturalness and wildness.
  - Steep escarpment covered in mature coastal forest flanks the southern margins of the river.
  - The presence of pasture and farming activities along the river margins and SH6 rail and road bridge does not overly detract from the highly expressive natural processes and elements which are the dominant feature of the unit.
- **Camerons Conservation Area** provides a natural character setting for the coastal settlement of Camerons on SH6. As an enduring expression of the underlying natural

landscape from which the settlement evolved, its value will increase as the surrounding landscape is further modified over time.

# Paparoa Massif (Mawhera)

Only the southern end of the Paparoa Range massif is in the Mawhera Place. The rest is in Paparoa Place to the north.

All the hill country at the southern end, between the coast and the Mawhera Grey River valley up to the boundary of Mawhera Place at Otututu River) is included here.

Coastal influence recedes further inland.

Forested areas have significant areas of wind throw.

An area defined as “Kiwi Point-Grey Valley generally described as the cliffs on the true north bank of the Grey River from opposite the Kiwi overbridge to Taylorville and the historic Brunner Mine site on both banks of the Grey River” is identified as **outstanding** landscape in the Grey District Plan 2005.

Two areas of **outstanding** natural character, *C40 Paparoa Foothills* and *T94 Grey River Escarpment* were identified by Brown in the *West Coast Region Natural Character Study 2013*.

In Schedule 5 of *Te Taio o Poutini* two **Outstanding Natural Landscapes** are listed: *ONL40 Otututu River* and the extensive *ONL41 Te Paparoa/Paparoa Range east & Mt William Range*.

## There are 19 parcels of stewardship land in this unit

- Paparoa Range South Conservation Area (16,048ha)
- Rocky Creek Conservation Area (9ha)
- Rapahoe Conservation Area (19ha)
- Runanga Conservation Area (87ha)
- Seven Mile Creek Waimatuku Conservation Area (99ha)
- Batty Creek Conservation Area (31ha)
- McLeans Creek Conservation Area (899ha)
- Sewell Peak Conservation Area (422ha)
- Ex Harbour Board Endowment, Sewell Peak Conservation Area (564ha)
- Taylorville Conservation Area (4ha)
- Brunner Forest Conservation Area (1,694ha)
- Roa Blackball Creek Conservation Area (279ha)
- Paparoa Street Roa Conservation Area (3ha)
- Blackball Creek and Terraces Conservation Area (74ha)
- Blackball Conservation Area (46ha)
- Big River Conservation Area (45ha +)
- Pike Stream Conservation Area (70ha)
- Paparoa Forest Conservation Area (99ha)
- Mt Marshall Conservation Area (2,170ha)
- Otututu Valley Conservation Area (752ha)

## Landscape factors for decision-makers to consider

- The large **Paparoa Range South Conservation Area** is sandwiched between the southern boundary of Paparoa National Park and the Roaring Meg Ecological Area and is

indistinguishable from them in landscape terms. Moonlight Creek Ecological Area is also contiguous with Paparoa Range Conservation Area. All are high natural character landscapes and would benefit from being similarly managed to maintain existing character.

- The riparian **Rocky Creek Conservation Area**, together with Rocky Creek Marginal Strips provides riparian protection to Coal Creek, one of the many streams draining the modified mining landscape upstream. Rocky Creek Conservation Area also links with **Rapahoe Conservation Area**.
- Together with Coal Creek Wildlife Management Reserve and Coal Creek Scenic Reserve, **Rapahoe, Seven Mile Creek Waimataku, Runanga, Batty Creek, McLeans Creek, Sewell Peak, Taylorville, Ex Harbour Board Endowment Land Sewell Peak**, and **Brunner Forest Conservation Areas** are all connected to form a ring of natural character landscape on the lower slopes of the south end of the Paparoa massif and surrounding the historic Brunner mine complex.

Although vegetation in some of these Conservation Areas is modified, the landscape character is predominantly natural and will become more so as shrubland and forest regenerates and matures with time, provided these parcels continue to be managed for conservation.

- **Sewell Peak, Taylorville, Ex Harbour Board Endowment Land Sewell Peak** and **Brunner Forest Conservation Areas**, together with Tini Kaiwai Scenic Reserve, all fall within *T94 Grey River Escarpment* **outstanding** natural character unit. Key attributes/characteristics described by Brown are:  
Steeply sloping river escarpment covered in mature forest stretching between Taylorville Blackball Road and Sewell (831) and Kinsella Peaks (409).  
Very extensive and homogenous mature forest cover.  
Dramatic and distinctive steep slopes plunging to the river valley give the river a sense of wildness. Characteristic high rainfall events accentuate the drama and the sense of wildness.  
Enclosing landforms and their dramatic profile give the landscape a sense of wildness.  
Apart from the pastoral valley below this landscape is largely devoid of development.
- All or part of **Batty Creek, McLeans Creek, Sewell Peak, Ex Harbour Board Endowment Land, Sewell Peak, Paparoa Range South, Brunner Forest, Roa-Blackball Creek, Mt Marshall** and **Big River Conservation Areas**, are included in the large *ONL41 Te Paparoa/Paparoa Range east and Mt William Range* **Outstanding Natural Landscape**. Site type and values for this ONL are listed as:  
Steep mountain range moderately dissected by descending foothills and lowland terraces with exposed rocky peaks and outcrops along the ridge tops.  
Interplay of mature indigenous forest and vegetative sequence from lowland forest through to alpine communities reinforcing topography and pronounced relief.  
Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative processes.  
Assemblage of ridge lines, peaks and mountaintops of similar orientation, elevation and vegetation cover and appearance.  
Continuous beech forest giving way to alpine tundra at higher elevations.  
Mt Rochfort, Buckland peaks, and the lower Buller Gorge are landmarks within this landscape.

- Together with Coal Creek Scenic Reserve, **Seven Mile Creek Waimataku Conservation Areas** and **Runanga Conservation Areas** form a contrasting natural landscape backdrop to the settlement of Runanga, reflecting the similar effect of Rapahoe Range Scenic Reserve on the other side of the valley. The value of this natural character is likely to increase with time as the modified valley floor and lower slope landscape continues to evolve.
- **Roa Blackball Creek, Blackball Conservation Area** and **Blackball Creek and Terraces Conservation Areas** are contiguous with Roaring Meg Ecological Area. Although somewhat modified by mining, they provide an ecological buffer between modified land around Blackball and the ecological area itself. They also contribute to the natural landscape character of lower slopes of the Mawhera Grey Valley strengthening the contrast between valley floor landscapes and their enclosing hills and helping to define the character of both. Historic Blackball Mine chimney is located in Blackball Conservation Area.
- The riparian **Big River Conservation Area** is made up of several discrete sections. The long upstream parcel is aligned along the boundaries of Paparoa National Park and Saxton Ecological Area and might be best managed as part of those landscapes as it is very closely related in terms of ecological functioning and visual cohesion. Downstream sections are considered part of the Mawheranui valley floor landscape
- **Pike Stream Conservation Area** is significantly modified especially closer to the stream where it includes hard stand areas and a sealed road providing access to Paparoa National Park and the Pike River Mine. However it provides a useful visual and ecological buffer to the adjacent Otututu Ecological Area and could be managed to enhance natural character for the future
- **Paparoa Forest Conservation Area** is aligned along the lower hill slopes contiguous with Otututu Ecological Area and is indistinguishable from it. It includes a significant area of wetland. Its buffering purpose and natural landscape character effect appear to be identical to the Craigieburn Amenity Area on the same escarpment just south of Craigieburn Stream. Both provide an important ecological buffer between the ecological area and adjacent farmland. Both extend natural character downslope, and enhance the contrast between modified valley floor landscapes and the natural character of the enclosing hills. This helps strengthen and define the character of both.
- **Mt Marshall Conservation Area**, and **Otututu Valley Conservation Area** are contiguous with each other and with Paparoa National Park, Saxton Ecological Area, and Paparoa Wilderness Area. They all share very high natural landscape character and are indistinguishable from each other both visually and in terms of integrated ecological processes. Consideration could be given to whether some or all of these parcels could be added to Paparoa National Park

The Paparoa National Park Management Plan 2017 is relatively silent on landscape values although it does include policy to support the preservation of natural landscape values within the park. No policy on additions to the park is included in the plan

- **Otututu Valley Conservation Area** straddles the boundary between Mawhera and Inangahua Places and is scheduled in **Te Tai o Poutini** as an **Outstanding Natural Landscape** *ONL40 Otututu River* with site type and values listed as:
  - Expansive broad outwash plain characterised by multiple channels, and exposed gravel beds flanked by numerous cliffs and terraces that extend down from Te Paparoa/ Paparoa Range toward the Māwhera/Grey River Valley.
  - Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and a series of outwash fans from its tributaries reinforce these qualities. Highly expressive outwash plain and river escarpment.
  - Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.
  - The River contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.
  - Pristine beech forest, unmodified and dramatic landforms, exposed river terraces / cliffs with the natural vegetation sequences reinforce the natural qualities of this landscape.
  - Evidence of erosion – vegetation patterns accentuate the landscapes natural processes.

# Mawheranui Valleys

The valley of Mawheranui Grey River with its tributaries is a defining landscape feature in Mawhera Place.

The awa itself is a powerful natural presence, often changing, influencing character. Includes braided river bed, river banks, terraces, river flats, valley floor land and some modified hill country up the sides of valleys.

Modified valley floors of Arnold River, Blackball Creek, Nelson Creek, Moonlight Creek, Big River, Ahaura River and Haupiri River are considered part of Mawheranui valleys.

Mawheraiti is not. It is in Inangahua Place.

Much of the flat or gently graded land is modified for farming and other productive uses. Soils have been cultivated, natural landforms and natural drainage systems altered.

Modified by roads, railway, utilities, bridges, stop banks, settlement, fences and other structures. Flights of multiple river terraces are a distinctive and recurring element.

Terrace risers not infrequently retain remnants of original vegetation in contrast to pastoral flats above, creating a strongly expressive pattern.

Usually, braided river gravels are pale and water clear.

Valleys generally enclosed by forested hillsides, enclosure becoming stronger upstream as hills become steeper.

High contrast and often clearly defined boundaries between valley floor and surrounding hills.

Many lowland wetlands have been drained or modified, increasing the significance of those which remain. In some cases it may be possible to restore natural character. Many are on private land.

Other small waterbodies also contribute to natural character.

*Brown 2013* defined the whole river system as *T93 Grey River Mawheranui Flats*, a high natural character unit.

Enclosing hills are identified with high or outstanding natural character in some places, for example unit *T95 Arnold River Escarpments*

The less modified upstream valley of Mawheranui and the upstream sections of some of its tributaries are identified as having outstanding or high natural character.

*T97 Crooked River Flats (high)*

*T99 Lake Poerua (high)*

*T103 Lake Haupiri (high)*

*T104 Upper Ahaura River and Lake Ahaura (outstanding),*

*T107 Ahaura River Escarpments (outstanding)*

*T108 Ahaura River Flats (high)*

*T110 Upper Grey, Brown Grey, Blue Grey, Robinson and Tass Rivers (part) (outstanding)*

*T111 Clarke and Alexander Rivers (outstanding)*

## **There are 17 parcels of stewardship land in this unit.**

Many are riparian parcels and they often fragmented.

- Grey River/Mawheranui Conservation Area (part)(1,033 + 93 + 75 + 44 + 11 + 10 + 5ha)
- Nelson Creek Riverbed Conservation Area (123ha)
- Nelson Creek Conservation Area (part) (34 + three other parcels <1ha)
- Nelson Creek Farm Conservation Area (part) (153 + 30ha)

- Bell Hill Conservation Area (173ha)
- Bell Hill Farm Conservation Area (part) (322 +235 + 135 + 114 + 71 + 62ha)
- Kangaroo Creek Conservation Area (11ha)
- Crooked River Conservation Area (103 + 48 + 29ha)
- Haupiri Conservation Area (20ha)
- Atarau Conservation Area (193ha)
- Moonlight Creek Conservation Area (86ha)
- Big River Conservation Area (part) (23 +2 + 0.4 + 0.2ha)
- Rough River Conservation Area (138ha)
- Grey River/Mawheranui and Rough River Conservation Area (9ha)
- Waipuna Clarke River Conservation Area (63ha)
- Orwell Creek Conservation Area (one of two) (<1ha)
- Ahaurua Riverbed Conservation Area (part)(452ha)

### Landscape factors for decision-makers to consider:

- **Grey River/Mawheranui Conservation Area** and many other parcels of stewardship land occur within Brown's high natural character unit *T93 Grey River Mawheranui Flats*. Key attributes/characteristics cited are:
  - Very extensive braided river channel and gravel beds surrounded by pasture, farming activities and steep escarpments covered in indigenous vegetation.
  - Mix of aggregate sizes, their volume and the pronounced river beds give the impression of the rivers force during flood events and a distinct impression of the rivers wildness.
  - Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding. The River contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.
  - Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.
  - A wide range of channel typologies (braids, pools, rapids, eddies).
  - Eroded river escarpments/bluffs clearly express the rivers power and varying flow. River terracing and depositional landforms reinforce these qualities.
  - The highly modified landscape adjoining the river – including farming activities, pasture, railway and roads – does impact upon the sense of seclusion and remoteness, but on balance, does not detract from the integrity of the evident and very expressive natural processes of the river bed.
  - Includes the lower reaches of the Arnold, Big, Ahaura, Snowy, Blackwater, Otututu and Little Grey Rivers.
- Many of the parcels of stewardship land in the Mawheranui valleys retain at least some of their natural character. Often they are small and ecologically vulnerable, set as they are within a highly modified landscape which is rapidly evolving. However, collectively their value lies in how they reveal and express the underlying natural landscape from which the modified landscapes evolved. As ongoing processes of modification continue on the valley floor the value of natural character stewardship parcels will increase. Careful consideration needs to be given to how best to “safeguard the options for future generations”.
- They provide ecological and visual linkages to high natural character landscapes in the surrounding hills. Many, such as **Moonlight Creek Conservation Area**, are essential to achieving ki uta ki tai ecological linkages between the hills and Mawheranui (Grey) River. Such linkages enhance resilience of both terrestrial and freshwater communities and improve the chances of species survival.

- Fragmented though they are, stewardship land parcels provide an ecological and visual natural character framework to support the healthy functioning of the working landscapes on the valley floors.
- The collective value of stewardship land parcels is supported by other PCL and by many remaining areas with natural landscape character outside PCL. There are many ways natural landscape character can be maintained and enhanced on private land on the valley floors and lower slopes. With recent regulatory changes and changing attitudes to nature, landscape change which supports retaining or enhancing natural character on private land is becoming more likely. Natural character stewardship parcels are part of the puzzle and are an opportunity for the Crown to provide leadership in support of increasingly sustainable rural landscapes.
- Most of the stewardship land parcels in the Mawheranui valleys are close to waterways. Although they may be widely scattered and small, together with multiple marginal strips and other PCL they support the healthy functioning of freshwater ecosystems and hapua.
- Stewardship land with good or improving vegetation cover, wetlands and other waterbodies contribute positively to maintaining and improving water quality in freshwater systems downstream.
- Many lowland wetlands have been drained or significantly modified increasing the significance and value of those which remain. Stewardship land parcels with wetlands, forest, or with increasing vegetation cover, store precipitation and release water more slowly helping to reduce peak flows downstream.
- Parts of some stewardship parcels have been fenced, grazed, and/or cultivated. There is evidence of recent earthworks in some. Even where a valley floor stewardship land parcel is significantly modified, their contribution to Mawhera Place landscape outcomes can be enhanced, if not now, then by some future generation.
- Part of **Crooked River Conservation Area** falls within a high natural character unit *T97 Crooked River Flats* identified in *Brown 2013*.
- **Waipuna Clarke River Conservation Area** is part of an isolated valley floor forest remnant. Isolated rimu forest fragments on parcels of **Bell Hill Farm Conservation Area** are another example. Surviving lowland forest remnants are particularly highly valued symbolic markers of the original natural landscape as they express not only the natural past but also the work of nineteenth and early twentieth century landowners. As ongoing processes of landscape modification continue the value of remaining natural character fragments for future generations will increase.
- Where riparian stewardship parcels are contiguous with a larger parcel of PCL consideration could be given to whether they would be better amalgamated with the larger PCL area. Examples of this are:

**Haupiri River Conservation Area** which is aligned along the south boundary of Lake Ahaura Amenity Area

**Bell Hill Conservation Area** (part) which is adjacent to Hochstetter Wildlife Management Area

Parts of **Bell Hill Farm Conservation Area** and **Nelson Creek Farm Conservation Area** which are contiguous with Deep Creek Ecological Area

**Haupiri Conservation Area** is closely associated with Brown 2013 outstanding natural character unit *T103 Lake Haupiri*. However it falls just outside *ONL32 Haupiri fluvio-glacial lakes* in the draft *Te Tai o Poutini Plan*.

Two parts of **Bell Hill Farm Conservation Area** are contiguous with Arnold River Scenic Reserve. All are uniformly forested and together form a single high natural character feature in the Arnold valley landscape.

- Much of **Ahaura Riverbed Conservation Area** lies within Brown's high natural character unit *T108 Ahaura River Flats*.
- Ahaura Riverbed Conservation Area and the rest of the upper Ahaura valley is surrounded by hillsides with outstanding natural character identified by Brown as units *T107 Ahaura River Escarpments* and *T104 upper Ahaura River and Lake Ahaura*.
- The highly natural mid section of the **Ahaura Riverbed Conservation Area** falls within **Outstanding Natural Landscape** *ONL32 Haupiri fluvio-glacial lakes*. Site types and values of this ONL are cited as:
  - Sequence of enclosed fluvio-glacial lake basins flanked by moderate to steep glacial shorn terrain covered in native forest.
  - Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.
  - Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.
  - Homogenous and extensive wetland and swamp forest around the lake fringes. Vegetation directly interacts the open waters of the lake. High transient values associate with prolific bird lifeLake Hochstetter, Ahaura, Haupiri, Kangaroo & Lady Lake, and the Ahaura River are a key landmarks within this unit.
- The part of **Ahaura Riverbed Conservation Area** which is incised and fully forested has been considered also with the very high natural character Hochstetter Plateau, but where the channel is braided and surrounded by modified valley floor it has more in common with Mawheranui valleys. Notwithstanding, the whole river is a significant landscape feature with very high natural character. Ecologically, hydrologically and visually the river is closely linked with a large area of very high natural character PCL. A stand alone entity may be the best way to manage its values.

## Ka Tiritiri o te Moana (Main Divide)

A huge mountainous area along the main divide Ka Tiritiri o Te Moana at eastern edge of Mawhera Place, up to Mt Barron at 1806m

Grading toward lower altitude dissected hill country towards the west.

Includes Mt Harata, hills surrounding the headwaters of the Clarke River, the Nancy Valley

Mt Harata 1365m is a notable landscape feature. Mt Harata Ecological Area partially protects the ecological systems and natural landscape character of this feature

Includes Bell Hill and Granite Hill which are also stand alone landscape features protected by Bell Hill-Granite Hill Ecological Area

The Otira Kopara area shares boundaries with surrounding high natural character PCL including Mt Victoria Forest Park, Arthurs Pass National Park, Mt Te Kinga Scenic Reserve.

Functionally linked with both both the Mawhera (Grey) and Taramakau River systems as the headwaters of both are included.

Does not include any modified valley floors.

High natural character of the whole Otira Kopara/Granville landscape is currently protected by management as PCL

Brown 2013 identified eight outstanding natural character units here

*T87 Upper Taramakau River and Escarpment*

*T100 Poerua and Brown Rivers*

*T102 Upper Crooked, Evans and Morgan Rivers*

*T105 Upper Haupiri and Waikiti Rivers,*

*T106 Tuaeakuri, Trent and Waieke Rivers*

*T107 Ahaura River Escarpments*

*T109 Nancy River*

*T111 Clarke and Alexander Rivers*

**Outstanding Natural Landscapes** scheduled in *Te Tai o Poutini* include *ONL34 Upper Māwhera/Grey Valley*. All the land between this and the main divide is mapped as Outstanding Natural Landscape *ONL33(?)*

### **There are ten parcels of stewardship land associated with this unit:**

- Granville Forest Conservation Area (19,153ha)
- Otira Kopara Forest Conservation Area (78,873ha)
- Crane Creek Haupiri Road Conservation Area (11ha)
- Bell Hill Farm Conservation Area (part) (173ha)
- Crooked River Conservation Area (part) (103ha)
- Conservation Area (located off Ahaura-Kopara Road, Ahaura (Grey))
- Conservation Area Robinson River (106ha) In Inangahua Place
- Robinson River Conservation Area (81ha) In Inangahua Place
- Grey River/Mawheranui Conservation Area (two parts) In Inangahua Place

### **Landscape factors for decision-makers to consider:**

- The two largest and contiguous stewardship parcels together form the backbone of the natural character landscapes of Mawhera Place; **Granville Forest Conservation Area** and **Otira Kopara Forest Conservation Area**
- **Granville Conservation Area** includes outstanding natural character units *T109 Nancy River* and *T107 Ahaura River Escarpment* identified by Brown 2013. Part of **outstanding** natural character unit *T111 Clarke and Alexander Rivers* is also included in the Granville Conservation Area.
- In the draft *Te Tai o Poutini plan*, **Granville Conservation Area** falls into **Outstanding Natural Landscape ONL34 Upper Māwhera/Grey Valley**. Site types and values cited are: Series of steep ranges and peaks that enclose Te Māwherataka-o-kā-kuha-o-Tū-te-rakiwhanoa/Upper Grey River. Interplay of mature indigenous forest and vegetative sequence from lowland beech forest through to alpine scrub communities reinforcing topography and pronounced relief. Exposed upper slopes revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms. Pristine beech forest, unmodified and dramatic landforms combine with the natural vegetation sequence to impart a strong sense of naturalness. Pockets of farmland, buildings/dwellings, and modification have been excluded from this unit.
- Part of **Bell Hill Farm Conservation Area** is contiguous with Bell Hill Scenic reserve which is in turn contiguous with Bell Hill-Granite Hill Ecological Area
- Part of **Crooked River Conservation Area** is contiguous with Bell Hill Granite Hill Ecological Area, notched into its eastern boundary. Crooked River Scenic Reserve is close by on the opposite bank. This parcel falls within Brown's outstanding natural character unit *T102 Upper Crooked, Evans and Morgan Rivers*.

Together with Bell Hill Granite Hill Ecological Area, this part of **Crooked River Conservation Area** falls within **Outstanding Natural Landscape ONL32 Haupiri fluvio-glacial lakes**. Site types and values of this ONL are cited as:

Sequence of enclosed fluvio-glacial lake basins flanked by moderate to steep glacial shorn terrain covered in native forest.  
Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.  
Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.  
Homogenous and extensive wetland and swamp forest around the lake fringes. Vegetation directly interacts the open waters of the lake. High transient values associate with prolific bird life  
Lake Hochstetter, Ahaura, Haupiri, Kangaroo & Lady Lake, and the Ahaura River are a key landmarks within this unit.

- Lake Haupiri Amenity Area and Eldon Coates Scenic Reserve at the base of Mt Newcombe are contiguous with **Otira Kopara Forest Conservation Area** along the Haupiri Road which forms a boundary along the north edge, in Haupiri Valley. **Crane Creek Haupiri Road Conservation Area** on the other side of the road is also part of the Mt Newcombe landform and could be considered for inclusion with this cluster.

- Much of **Otira Kopara Forest Conservation Area** has been identified by Brown 2013 as having outstanding natural character. Several of his units apply. They are Outstanding Natural Character units *T106 Tuaeakuri, Trent and Waieke Rivers, T105 Upper Haupiri and Waikiti Rivers, and T102 Upper Crooked, Evans and Morgan Rivers* share a number of key attributes/characteristics:

Remote, expansive and steeply sided valley systems comprising extensive braided river channels, gorges, water falls, and flanked by high altitude mountain ranges covered in unmodified mature beech forest.

Rugged and raw landforms and their dramatic profile give the river a sense of wildness.

Characteristic high rainfall events accentuate the drama and the sense of wildness.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.

The River contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.

Continuous mature beech forest.

Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.

Apart from some walking track and huts these units are devoid of development.

Includes Lake Morgan which sits at the head of the Morgan River valley-the tranquility of the lake, vast unmodified sequences of indigenous vegetation accentuate this landscapes wild and remote character.

Enclosure by high altitude mountain ranges enhances the sense of remoteness and wildness.

- Part of **Otira Kopara Forest Conservation Area**, the lower slopes of the hills north of Taramakau River, fall into outstanding natural character unit *T87 Upper Taramakau River and Escarpment*. Brown notes key attributes/characteristics as

Extensive braided river valley flanked by high altitude mountain ranges and mature indigenous forest that extends to the rivers edge. Includes the lower river escarpment that flanks the more modified river flats.

Rugged and raw landforms and their dramatic profile give the river a sense of wildness.

Characteristic high rainfall events accentuate the drama and the sense of wildness.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.

The River contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.

Continuous mature beech forest.

Wide range of channel typologies (braids, pools, rapids, eddies).

Apart for adjoining modified river flats, some walking tracks and huts this unit is devoid of development.

Enclosure by high altitude mountain ranges enhances the sense of remoteness and wildness.

**Otira Kopara Forest Conservation Area** also includes Brown's **outstanding** natural character unit *T100 Poerua and Brown Rivers* although Lake Poerua and the other smaller lakes referred to are outside the conservation area.

- **Otira Kopara Forest Conservation Area** is contiguous with Arthurs Pass National Park and Lake Sumner Hoka Kura Forest Park along much of its southeastern boundary. On the basis of the outstanding natural landscape character of the whole area consideration could be given to including some or all in adjacent Arthurs Pass National Park

Arthur's Pass National Park Management Plan 2007 is relatively silent on natural landscape values. It has this to say in an introduction on page 19:

“Arthur's Pass National Park straddles the Main Divide of the Southern Alps / Ka Tiritiri o te Moana; this ‘western’ and ‘eastern’ separation (more a northern and southern) has a dominating influence on the character of the Park. The rugged terrain, the wide range of altitudes, the relatively severe mountain climate, the swift rivers and the passes also contribute to the nature of the Park in various ways.

The Park landforms are characterised by rugged mountains, glaciated passes and valleys and braided stony greywacke riverbeds. These landforms are the result of high tectonic uplift and erosion rates and past extensive glacial processes. Altitude varies from around 270 to 2400 metres. A feature is the relatively close proximity of the headwaters of two large river systems (Taramakau and Waimakariri) that virtually bisect the South Island from west to east. The Park lies adjacent to a major active plate boundary, the Alpine Fault and is marked by many fault dislocations. The area is subject to earthquakes.”

Park additions policy is “to keep the Park boundaries under continuous review to enable...additions that would assist ecosystem protection, public use or land management”.

“The present Park boundaries generally follow natural features, but some straight line boundaries exist, with little regard for topography. In these cases rationalisation would improve Park management. In other cases additions to the Park would improve protection of natural features or increase public use and enjoyment. Some habitat types which are presently under-represented in the Park include dry tussock grasslands and wet podocarp rainforest. Change of land status of adjoining conservation land...may lead to additions to the Park in the future”.

None of this appears to preclude additions of stewardship land adjacent to the park. Stewardship land parcels in the Otira Kopara landscape unit share many of the characteristics described.

- While located outside Mawhera Place consideration should be given to including two contiguous blocks of **Robinson River Conservation Area** near the Newcombe farm valley with Otira Kopara Conservation Area in any new park.
- Also two connected riparian strips of **Grey River/Mawheranui Conservation Area** in the upper Grey Valley would be logically included.

# Hochstetter Plateau

A large plateau of low relief centred around Lake Hochstetter, extending north across the incised Ahaura River to Mawheranui river valley at Waipuna

Does not include rising land to the south east with Mt Harata 1385m

Does not include more dissected land to the north west including Kaka Hill

Much of the plateau is in a highly natural state.

Multiple streams drain the plateau to surrounding valleys

A series of interlocking pieces of PCL with various classifications protects the natural landscape character of most of the plateau. These include

- Flagstaff Ecological Area
- Ahaura River East Amenity Area
- Bywash Pakihi Ecological Area
- Lake Hochstetter Amenity Area
- Lake Hochstetter Ecological Area
- Hochstetter Wildlife Management Area
- Nelson Creek Amenity Area
- Ahaura Terraces Ecological Area
- Lake Ahaura Amenity Area
- Ahaura Road Amenity Area
- Granville Ecological Area (part)
- Granville Wildlife Management Area
- Waipuna Ecological Area

Lake Hochstetter (the water body) is stewardship land

Brown identified three outstanding and one high natural character units on and around the plateau including two associated with the highly natural Ahaura River

*T112 Hochstetter Lake (outstanding)*

*T107 Ahaura River Escarpments (outstanding)*

*T104 Upper Ahaura River and Lake Ahaura (outstanding)*

*T103 Lake Haupiri (high)*

Much of the land is included in **Outstanding Natural Landscape ONL32 Haupiri fluvio-glacial lakes** in schedule 5 of the *draft Te Tai o Poutini plan*.

## **There are three parcels of stewardship land associated with the Hochstetter plateau**

- Lake Hochstetter Conservation Area (500ha)
- Hochstetter Forest Conservation Area (15ha)
- Orwell Creek Conservation Area (?ha)

## **Landscape factors for decision-makers to consider**

- **Lake Hochstetter Conservation Area** which covers only the water body itself is included in **Outstanding Natural Landscape ONL32 Haupiri fluvio-glacial lakes**. Site types and values of this ONL are cited as:

Sequence of enclosed fluvio-glacial lake basins flanked by moderate to steep glacial shorn terrain covered in native forest.

Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Homogenous and extensive wetland and swamp forest around the lake fringes. Vegetation directly interacts the open waters of the lake. High transient values associate with prolific bird life

Lake Hochstetter, Ahaura, Haupiri, Kangaroo & Lady Lake, and the Ahaura River are a key landmarks within this unit.

- **Brown 2013** defined an outstanding natural character unit **T112 Hochstetter Lake**, which includes the lake and some surrounding land.
- **Hochstetter Forest Conservation Area** runs along a terrace riser covered with regenerating native forest vegetation at the edge of the plateau. It provides ecological and visual linkage between outlying extensions of Lake Hochstetter Ecological Area and the irregularly shaped Hochstetter Wildlife Management Area which wraps around and encloses an area of plantation forestry with formed roads. Forested terrace risers such as this are a recurring natural landscape feature of modified valley floors
- **Orwell Creek Conservation Area** is an isolated stewardship land parcel entirely surrounded by Ahaura Terrace Ecological Area. Alternative land uses in isolated pockets within a naturally functioning ecosystem have the potential to have disproportionately disruptive effects on the healthy functioning of natural systems and consequential effects on natural landscape values. This includes new land uses which may have currently unanticipated effects. A precautionary approach is needed
- Forested landscapes store water water and slow drainage during significant storm events, and can reduce peak flows downstream
- Plantation forestry supports good water quality outcomes on hill country except for the ten or so years around harvest in each cycle. During that period of production water quality and quantity impacts can have significant impacts on freshwater ecology and species survival.
- Stewardship land parcels (and other PCL) which link with riparian Conservation Areas and or marginal strips provide ecological corridors and support a ki uta ki tai natural landscape network which supports species resilience and ecological resilience
- The part of **Ahaura Riverbed Conservation Area** which is incised and fully forested was also considered with the very high natural character Hochsetter Plateau, but where the channel is braided and surrounded by modified valley floor it has more in common with Mawheranui valleys. Notwithstanding, the whole river is a significant landscape feature with very high natural character. Ecologically, hydrologically and visually the river is closely linked with a large area of very high natural character PCL. A stand alone entity may be the best way to manage its values.

# Kaka Hill

## **Characteristics**

Dissected hill country up to 434m between Mawheranui (Grey) and Ahaura Rivers

Does not include valley floors or more gently graded lands associated with Lake Hochstetter plateau south of right branch Waipuna Creek

Surrounded on three side by highly modified valley floor

Multiple streams draining to surrounding valley floors

Natural character is largely intact. Almost entirely forested apart from two roads and associated private land penetrating up Duffers Creek

High natural character protected by management of Granville Ecological Area

Natural character of the forested slopes of this massif contrast with modified valley floors and strengthen the character of both

Production forestry on lower slopes in some places may have adverse ecological and landscape effects during harvest

**There are no parcels of stewardship land in this unit.**

# Callagans Creek

Part of the Lake Hochstetter massif between Ahaura River and Nelson Creek

At the northwestern end, closer to Mawheranui, the landscape is steeper and more dissected, rising to 400m

A mosaic of natural vegetation, mainly regenerating native forest and production forestry with formed roads

Some open areas/wetlands

Several streams flow toward Mawheranui

## **There is one parcel of stewardship land in this area**

- Callagans Creek Conservation Area (2,417ha)

## **Landscape factors for decision-makers to consider**

- **Callagans Creek Conservation Area** is contiguous with Lake Hochstetter Ecological Area and Nelson Creek Amenity Area
- Stewardship land parcels with natural landscape character which contain waterways support the ecological health of freshwater ecosystems and mauri of waterways both locally and downstream.
- Stewardship land with wetlands, forest and/or increasing vegetation cover store water and reduce peak flows downstream.
- Plantation forestry supports good water quality outcomes on hill country except for the ten or so years around harvest in each cycle. During that period of production water quality and quantity impacts can have significant impacts on freshwater ecology and species survival.

# Ongionui Massif

A discreet block of dissected hill country between Nelson Creek and Arnold River up to 551m at Molloys Lookout, a feature in the south west. Surrounded by modified valley floor landscapes Largely forested. A complicated mosaic of native vegetation and plantation forestry accessed by formed roads

Many streams drain the area to surrounding valleys.

Two ecological areas and two conservation areas with indigenous vegetation contribute significantly to natural landscape character of the massif. Both conservation areas are irregular and somewhat fragmented, with long boundaries. All four PCL parcels are connected.

Plantation forestry occupies the spaces in between

Deadman Ecological Area in the centre is contiguous with both Conservation Areas which in turn are connected with Deep Creek Ecological Area at the south east end of the massif.

## There are five parcels of stewardship land here

- Blackwater Creek-Souter River Conservation Area (4,208ha)
- Ongionui Conservation Area (1,673ha)
- Bell Hill Farm Conservation Area (part)
- Nelson Creek Farm Conservation Area (part)
- Nelson Creek Conservation Area (part)

## Landscape factors for decision-makers to consider:

- Both **Ongionui Conservation Area** and **Blackwater Creek-Souter River Conservation Area** have indigenous vegetation cover, mainly forest, and have high natural character. While their irregular and elongated shapes make them more vulnerable to edge effects than a more compact shape, they add value to Deadman and Deep Creek Ecological Areas by connecting them. Ecological corridors provided by the stewardship parcels make the whole massif more resilient and support species survival.
- Intact vegetation, particularly forest, on hill country containing waterways supports freshwater biodiversity, health of freshwater ecosystems, and mauri of waterways both locally and downstream.
- Plantations growing in amongst the two conservation areas support good water quality outcomes except for the ten or so years around harvest in each production cycle. During that period water quality impacts can have significant impacts on freshwater ecology and species survival.

In some valleys the intact indigenous vegetation of the conservation areas will provide a valuable riparian buffer to reduce the amount of sediment reaching the waterways during the harvest period.

- Stewardship land with wetlands, forest, and/or increasing vegetation cover tend to store water. Slower drainage helps reduce peak flows downstream during storm events.

# Kotukuwhakaoko (Lake Brunner)

Centred around dominant landscape feature Kotukuwhakaoko (Lake Brunner).  
Nearby Tekimoka/Mt Te Kinga and the Ohonu/Hohonu Range exert a strong influence  
Kangaroo Lake, Lady Lake and Lake Poerua are also notable landscape features  
Includes forested banks of Arnold River down to dam  
Surrounding topography level or gently sloping and often slow to drain  
Multiple wetlands are a defining characteristic contributing to natural character  
Remnant forest and shrubland vegetation also contributes  
Mosaic of natural and modified landscape character  
Unit includes roads, railway and scattered settlement

Moana Kotuku Wakakaoho (Lake Brunner) and a narrow 150m margin around most of the lake is defined as an **outstanding** landscape/natural feature in the Grey District Plan

Brown 2013 identified two outstanding natural character units in this area *T96 Lake Brunner (Moana)* and *T101 Kangaroo Lake*. He also defined a high natural character unit *T98 Orangipuku River* at the foot of Tekimoka/ Mt Te Kinga

## There are nine parcels of stewardship land in this unit:

- Lake Brunner Moana Kotuku Whakaoho Conservation Area (4,077ha)
- Arnolds [sic] River Conservation Area (30ha)
- Bell Hill Farm Conservation Area (part) (135ha)
- Taku Street Moana Conservation Area (2ha)
- Moana Conservation Area (82ha)
- Crooked River Conservation Area (part) (48ha?)
- Kangaroo Lake Conservation Area (128ha)
- Hohonu River Conservation Area (60ha)
- Mitchells Conservation Area (11ha)

## Landscape factors for decision-makers to consider:

- Brown 2013 identified an **outstanding** natural character unit *T96 Lake Brunner (Moana)* which includes **Moana Kotuku Whakaoho (Lake Brunner) Conservation Area, Moana Conservation Area, Hohonu River Conservation Area** and part of riparian **Crooked River Conservation Area** between the road and the lake.
- **Moana Kotuku Whakaoho (Lake Brunner) Conservation Area** is also included in **Outstanding Natural Landscape ONL29 Kōtukuwhakaoka/Lake Brunner – Ōhonu/Hohonu Range & Tekimoka/Mt Te Kinga** in schedule 5 of draft *Te Tai o Te Poutini*. Site type and values cited are:  
Extensive fluvio-glacial lake basin strongly contained by the broad landforms of the Hohonu Range and Mt Te Kinga to the south.  
Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Homogenous and extensive wetland and swamp forest around the lake fringes. Vegetation directly interacts the open waters of the lake. High transient values

Kōtukuwhakaoka/Lake Brunner is a key landmark within this unit.

- Contrast (dark/light, natural/modified) between the forested hill slopes surrounding the modified landscapes on the plains defines and strengthens the landscape character of both. This contrast will become even more marked as further modification on the valley floor continues over time.
- **Moana Conservation Area** and Moana Kotuku Whakaoho (Lake Brunner) Conservation Area are contiguous. Moana Conservation Area includes part of extensive wetlands to the east of the lake and is bounded by the midland line and Lake Brunner Road. Part of riparian **Crooked River Conservation Area** connects to Moana Kotuku Whakaoho (Lake Brunner) Conservation Area where Crooked River enters the lake.
- Forested **Mitchells Conservation Area** appears ecologically and visually indistinguishable from Lake Brunner Scenic Reserve which surrounds it on three sides. Kumara Inchbonnie Road forms the fourth boundary. It is close to the settlement of Mitchells. This stewardship parcel also lies within **Outstanding Natural Landscape ONL29 Kōtukuwhakaoka/Lake Brunner – Ōhonu/Hohonu Range & Tekimoka/Mt Te Kinga** (see details above)
- Twin riparian strips of the **Hohonu River Conservation Area** along the sinuous eastern Hohonu River ecologically link the high natural character Hohonu Forest Conservation Area with Moana Kotuku Whakaoho (Lake Brunner) Conservation Area and also with Moana Kotuku Whakaoho (Lake Brunner) Scenic Reserve. The conservation area does not closely follow the river's current riverbed. In some places the conservation area has been modified for farming. Connecting natural landscapes ki uta ki tai supports species survival and ecological resilience.
- **Moana Kotuku Whakaoho (Lake Brunner) Conservation Area** does not include Refuge Island Takataka or Taktakaiti.
- **Arnold River Conservation Area** on the south bank escarpment above Arnold River is contiguous with Arnold River Scenic Reserve. It has high natural character and is ecologically and visually indistinguishable from scenic reserve which surrounds it.
- **Arnold River Conservation Area** occurs within Brown's outstanding natural character unit *T95 Arnold River Escarpments*. Key attributes/characteristics of this unit are:
  - Series of steep river escarpments covered in mature forest stretching along the Arnold River between Lake Brunner and Kokiri.
  - Homogenous mature forest cover that directly flanks the rivers edge.
  - Dramatic and distinctive steep river terrace plunging to the river heightening the sense of wildness. Characteristic high rainfall events also accentuate the drama and the sense of wildness.
  - Eroded river escarpments / slopes clearly express the rivers power and varying flow.
  - Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.

The River contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.

Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.

Apart from the surrounding pastoral valley, rail and road ways this landscape is largely devoid of development.

- **Taku Street Moana Conservation Area** is in two parts at the edge of the settlement at Moana. It is contiguous with the high natural character Moana Scenic Reserve all along its north boundary. They appear indistinguishable ecologically and visually. It is unclear, but Taku Street Moana Conservation Area probably lies within **outstanding** natural character unit T95 above.
- **Kangaroo Lake Conservation Area** only covers the lake itself with very little margin. It sits within outstanding natural character unit *T101 Kangaroo and Lady Lakes*. Key attributes/characteristics of this unit include:
  - Two isolated lake basins contained by rolling hill country covered in mature native forest.
  - Very extensive and homogenous mature forest cover that directly interacts with the open waters of the Lake. Intact sequences of wetland and swamp species through to canopy native forest.
  - High transient values associated with evident bird life on the lake and surrounding indigenous forest.
  - Enclosing landforms around the lake margins heighten the sense of wildness.
  - Natural variations of water level and surface appearance.
  - Intact sequences of indigenous vegetation from wetland species through to mature canopy forest.
  - The tranquillity of the lake, vast unmodified sequences of native forest accentuate this landscapes wild and remote character.
  - Apart from small patches of pasture located near the lake fringe this unit is devoid of development.
- Moana Conservation Area also lies within Brown's outstanding natural landscape character unit T96 Lake Brunner (Moana)
- Part of **Bell Hill Farm Conservation Area** linked with Lady Lake Scenic Reserve is very close to Kangaroo Lake and forms an important connector.
- Land around Kangaroo Lake is modified for farming with humping and hollowing right up to the lake edge on the south side

# Ohonu and Tekimoka Massifs

Isolated Ohonu/Hohonu Range 1356m and Tekimoka/Mt Te Kinga 1204m are dominant landscape features rising steeply from surrounding lowland.

Both have high natural character due to unmodified landforms and vegetation

Numerous waterways drain to surrounding lowland landscapes

Alpine Lake Ruby and lowland Lake Swan are minor features, and there may be others

Kotukuwhakaoko (Lake Brunner) lies at the toe of both massifs.

Management of Te Kinga Scenic Reserve protects ecological processes on the Tekimoka massif

Hohonu Range is ecologically linked with the lake through Moana Kotuku Whakaoho (Lake Brunner) Scenic Reserve which extends part way around the shoreline.

Hohonu Range is ecologically and visually linked with Taramakau River-Otira River Conservation Area to the south.

Part of both Tekimoka/Te Kinga and the Ohonu/Hohonu Range are included in outstanding natural character unit *T96 Lake Brunner (Moana)* identified by Brown in 2013.

Tekimoka/Te Kinga and the Ohonu/Hohonu Range are also identified as **Outstanding Natural Landscape** in Schedule 5 of the *draft Te Tai o Poutini plan*, together with Kōtukuwhakaoko/Lake Brunner itself and land extending into the upper Greenstone valley.

## There is one parcel of stewardship land associated with this area

- Hohonu Forest Conservation Area (10,580ha)

## Landscape factors for decision-makers to consider:

- **Hohonu Forest Conservation Area** lies within an **outstanding natural landscape** in Schedule 5 of *draft Te Tai o Poutini*. Site type and values cited for *ONL29 Lake Brunner – Ōhonu/Hohonu Range & Tekimoka/Mt Te Kinga* are:  
Extensive fluvio-glacial lake basin strongly contained by the broad landforms of the Hohonu Range and Mt Te Kinga to the south.  
  
Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.  
  
Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.  
  
Homogenous and extensive wetland and swamp forest around the lake fringes. Vegetation directly interacts the open waters of the lake. High transient values  
  
Kōtukuwhakaoko/Lake Brunner is a key landmark within this unit.
- Twin riparian strips of the **Hohonu River Conservation Area** along the Eastern Hohonu River are not particularly well aligned to the river's current course, but still ecologically connect the high natural landscape character **Hohonu Forest Conservation Area** with **Moana Kotuku Whakaoho (Lake Brunner) Conservation Area** and Moana Kotuku Whakaoho (Lake Brunner) Scenic Reserve. Connecting natural landscapes ki uta ki tai supports species survival and ecological resilience.

- High natural character land parcels such as **Hohonu Forest Conservation Area** which contain waterways support freshwater ecosystems and mauri of waterways not only in the immediate vicinity but also ki uta ki tai.
- Forested landscapes store precipitation and drain slowly during storm events, reducing peak flows downstream. Forest clearance is likely to contribute to peak flows during storm events and exacerbate flooding downstream.
- Contrast (dark/light, natural/modified) between the forested hill slopes of the two massifs and the modified landscapes on the plains which surround them defines and strengthens the landscape character of both. This contrast will become even more marked as modification on the valley floor continues over time.
- **Hohonu Forest Conservation Area** is ecologically and visually linked with **Taramakau River-Otira River Conservation Area** to the south. *Brown 2013* identified an outstanding natural character unit *T87 Upper Taramakau River and escarpment* which wraps around the southern faces of the Hohonu Range. Key attributes/characteristics cited include:
  - Extensive braided river valley flanked by high altitude mountain ranges and mature indigenous forest that extends to the rivers edge. Includes the lower river escarpment that flanks the more modified river flats.
  - Rugged and raw landforms and their dramatic profile give the river a sense of wildness.
  - Characteristic high rainfall events accentuate the drama and the sense of wildness.
  - Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.
  - Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.
  - The river contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.
  - Continuous mature beech forest.
  - Wide range of channel typologies (braids, pools, rapids, eddies).
  - Apart for adjoining modified river flats, some walking tracks and huts this unit is devoid of development.
  - Enclosure by high altitude mountain ranges enhances the sense of remoteness and wildness.
- **Hohonu Forest Conservation Area** is contiguous with Hohonu Forest Scenic Reserve and Revell Terrace Amenity Area on north boundary, and the Small Orangipuku Scenic Reserve is attached to it's eastern boundary.
- A modified river valley, Taramakau farm settlement area farmland, lies to the east of **Hohonu Forest Conservation Area**. This stewardship and part of Three Mile Amenity Area which is connected with it share a long straight boundary across the hillside between 200 and 300masl, parallel with Taramakau Settlement Road. Currently this is not visible because bush has been retained on private land on lower slopes, but this unsympathetic line will become clearly visible if the land is cleared right up to the boundary at some future time.
- The natural landscape values of both massifs are remarkably similar. If scenic reserve is the appropriate classification for Te Kinga it may also be the appropriate classification for the **Hohonu Forest Conservation Area**.

# Taramakau Valley

Like Mawheranui, the Taramakau River system is a powerful and defining landscape feature in Mawhera Place

Taramakau River is used as the boundary between Mawhera Place and Hokitika Place

Only the north bank is technically in Mawhera Place but for landscape purposes the whole river system needs to be considered together.

Otira River and other tributaries with modified valley floors are included

Includes braided river bed, river banks, terraces, river flats, and modified valley floor land.

At discrete locations up the river flat land is modified for farming and other productive uses.

Soils have been cultivated, natural landforms and natural drainage systems altered.

Wetlands have been drained or significantly modified

Roads, railway, utilities, bridges, stop banks, settlements, fences and all kinds of other structures occur throughout

Modified river flats of the Taramakau farm settlement are notable for the absence of forest remnants or any other natural character features.

Brown 2013 identified three high and one outstanding natural character units along the Taramakau River.

Parts of the Taramakau River are identified as **outstanding natural landscape** in schedule 5 of the [draft Te Tai o Poutini plan](#).

## **There are four parcels of stewardship land in this unit**

- Taramakau Riverbed Conservation Area (409ha)
- Kamara-Wardens Road Conservation Area (part) (31ha) in Hokitika Place
- Taramakau River/Otira River Conservation Area (3,780ha)
- Aickens Base Conservation Area (0.1ha)

## **Landscape factors for decision-makers to consider:**

- **Taramakau Riverbed Conservation Area** includes the estuary, coastal wetlands, beach, sand dunes and sand bar at the Taramakau River mouth including some land on the south side. Parcels of Taramakau Marginal Strip and the Taramakau Scenic Reserve are contiguous and complimentary in terms of ecological function and natural character landscape cohesion.

Near the river mouth part of **Taramakau Riverbed Conservation Area** has been modified by farming activity.

- The stewardship land lies within Brown's coastal high natural character unit *C34 Taramakau River Mouth*. Key attributes/characteristics noted for this unit include:  
Massive braided river mouth enclosed by a large sand bar at its entrance.  
Highly dynamic and dramatic interaction / relationship between the river waters, sand bar and the open waters of the Tasman Sea.  
Exposed sand bar / dune landforms and windswept vegetation impart a strong sense of naturalness and wildness.  
Steep escarpment covered in mature coastal forest flanks the southern margins of the river.

The presence of pasture and farming activities along the river margins and SH6 rail and road bridge does not overly detract from the highly expressive natural processes and elements which are the dominant feature of the unit.

- Upstream of the SH6 bridge near Camerons most of the **Taramakau Riverbed Conservation Area** is included in the high natural character unit *T81 Taramakau-Greenstone River Flats*. Key attributes/characteristics noted are:

Large braided river channel, gravel beds, lakes and swampland surrounded by pasture, farming activities, production forestry, and steep escarpments covered in mature indigenous forest.

Mix of aggregate sizes, their volume and the pronounced river beds give the impression of the rivers force during flood events and a distinct impression of the rivers wildness.

The modified landscape (power generation facilities, forestry, gravel quarries) adjoining the river does impact upon the sense of seclusion and remoteness, but on balance, does not detract from the integrity of the evident and expressive natural processes of the river bed itself nor the interaction of the river with the surrounding landforms and vegetation patterns.

Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.

A wide range of channel typologies (braids, pools, rapids, eddies)

A small part of the downstream end of **Otira River/Taramakau River Conservation Area** also lies within this high natural character unit.

Between them, part of **Kamara-Wardens Road Conservation Area** includes the braided riverbed and some lower terrace land extending up to the Kumara township. Vegetation appears to be a mosaic of regenerating forest, shrubland and open areas with at least one pond. Modified by tracking for river access and possibly exotic shrubland?

- A small downstream part of the **Taramakau River/Otira River Conservation Area** near Kumara is included in **Outstanding Natural Landscape ONL27 Lower Taramakau River and Kawhaka Forest**. Site Type and values cited are:

Extensive braided river channel and gravel beds flanked by steep escarpments covered in mature native forest that extends across an elevated plateau housing a number reservoirs.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Very extensive and homogenous swamp forest. Vegetation directly interacts with the river beds and the open waters of the reservoirs.

High transient values associated with evident bird life on the reservoirs and surrounding indigenous forest.

The Kapitea and Kumara Reservoirs are key landmarks within this unit.

- A downstream part of **Otira River-Taramakau River Conservation Area** also occurs within the outstanding natural character unit *T82 Taramakau River Escarpment*. Key attributes/characteristics noted include

Extensive braided river channel and gravel beds flanked by steep vegetated escarpments.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.

The river contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.

Continuous mature lowland forest.

Wide range of channel typologies (braids, pools, rapids, eddies).

Apart for the adjoining pastoral flats to the south the Otira Highway to the west this unit is devoid of development.

- Much of the rest of **Otira River/Taramakau River Conservation Area** is closely aligned with the high natural character unit *T86 Taramakau River Flats* identified by Brown in 2013.
- Outstanding Natural Landscapes on hills both sides of the Taramakau River are mapped in *Te Tai o Poutini*, but the river valley itself is not generally included.

However schedule 5 includes *ONL28 Taramakau & Otira River Valleys* as an **Outstanding Natural Landscape**. The stated site types and values suggest that the river valley IS considered ONL even though it does not appear so on the maps. The values are:

Very broad river valley consisting of extensive braided river channels and gravel beds that are dramatically enclosed by mountain ranges and high altitude peaks.

Interplay of mature indigenous forest and vegetative sequence from lowland beech forest through to alpine scrub communities reinforcing topography and pronounced relief.

Very extensive and homogenous swamp forest. Vegetation directly interacts with the river beds and the open waters of the reservoirs

Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.

Coherent rhythm and orientation of landforms.

Views from SH73.

Therefore much of **Taramakau River/Otira River Conservation Area** is likely to be **outstanding natural landscape** included in *ONL 28*.

- Otira River/Taramakau River Conservation Area extends up Otira Valley and some way up Wainihinihi valley.
- The contrast between modified character of areas of Taramakau valley floor which have been settled for farming and the wild natural character of the braided river bed itself and forested hills enclosing the valley is a defining characteristic.
- As the ongoing processes of landscape modification continues by future generations the value of any remaining natural character fragments on flats along the river will increase.
- Protected conservation lands on the banks and in the beds of these wide braided river systems contribute significantly to maintaining and improving water quality, contributing to the wairua and mauri of the river.
- Along the length of **Otira River/Taramakau River Conservation Area** numerous marginal strips are contiguous and complimentary in terms of ecological function and natural character landscape cohesion. So too is riparian and valley floor land in Dillmanstown Amenity Area, Hohonu Forest Conservation Area, Otira-Kopara Conservation Area, and Arthurs Pass National Park. Consideration could be given to including some of the upstream stewardship land in **Otira River-Taramakau River Conservation Area** into the national park.

- Arthur's Pass National Park Management Plan 2007 is relatively silent on natural landscape values. It has this to say in an introduction on page 19:

“Arthur's Pass National Park straddles the Main Divide of the Southern Alps / Ka Tiritiri o te Moana; this ‘western’ and ‘eastern’ separation (more a northern and southern) has a dominating influence on the character of the Park. The rugged terrain, the wide range of altitudes, the relatively severe mountain climate, the swift rivers and the passes also contribute to the nature of the Park in various ways.

The Park landforms are characterised by rugged mountains, glaciated passes and valleys and braided stony greywacke riverbeds. These landforms are the result of high tectonic uplift and erosion rates and past extensive glacial processes. Altitude varies from around 270 to 2400 metres. A feature is the relatively close proximity of the headwaters of two large river systems (Taramakau and Waimakariri) that virtually bisect the South Island from west to east. The Park lies adjacent to a major active plate boundary, the Alpine Fault and is marked by many fault dislocations. The area is subject to earthquakes.”

Park additions policy is “to keep the Park boundaries under continuous review to enable...additions that would assist ecosystem protection, public use or land management”.

“The present Park boundaries generally follow natural features, but some straight line boundaries exist, with little regard for topography. In these cases rationalisation would improve Park management. In other cases additions to the Park would improve protection of natural features or increase public use and enjoyment. Some habitat types which are presently under-represented in the Park include dry tussock grasslands and wet podocarp rainforest. Change of land status of adjoining conservation land...may lead to additions to the Park in the future”.

None of this appears to preclude additions of stewardship land adjacent to the park.

- Careful consideration needs to be given to the future status of **Aickens Base Conservation Area** because of its visually prominent location on scenic SH73 in a valley with a relatively low level of modification in a high natural character setting. Inappropriate development at this site would have a disproportionately negative impact on the landscape character of the whole valley and the also on the experience of people travelling on the highway.

# Hokonui (Greenstone River)

Gently graded plateau sloping from Hohonu Range to Kaimata/ New River.

Hokonui (Greenstone) and Taramakau River are closely aligned to the south

At the foot of the Hohonu Range is a level plateau with high natural character.

Closer to the coast the plateau becomes slightly dissected into a rhythmic series of natural humps and hollows. Multiple roughly parallel streams draining north west to Kaimata/New River strengthen this natural pattern: Fuchsia, Nemona, Cockeye, Cariboo, Irishmans, Mosquito, Cockabulla, Eight Mile, Ogilvie, Maori, Wood and Pattersons Creeks.

A cluster of interlocking PCL protects the natural values on the higher plateau. Greenstone Ecological Area is the largest but Three Mile Ecological Area, Three Mile Amenity Area, Revell Terrace Amenity Area, Hohonu Forest Scenic Reserve, Paynes Gully Wildlife Management Reserve, and Paynes Gully Scenic Reserve, plus Woods Creek Amenity Area, all contribute to form a significantly large area with high natural landscape values.

Several areas are modified by riverbed mining activities.

Plantation forest and native vegetation are intermingled where the plateau breaks up into parallel watercourses.

Brown 2013 identified an outstanding natural character unit *T83 Upper Greenstone River* which includes the upper plateau. Two high natural character units were also defined: *T92 New River Kaimata flats* includes most of the length of Kaimata River as it forms the boundary between Hokonui and Card Creek and *T81 Taramakau and Greenstone River flats* extends up the Greenstone River about as far as the settlement of Greenstone (Pounamu). Upstream of the settlement the natural character of the Greenstone River/Hokonui is assessed as outstanding (*T83*, above)

In the [draft \*Te Tai o Poutini\* plan](#), the upper Greenstone River is identified as **Outstanding Natural Landscape**.

## There are five stewardship parcels in this area

- Fireball Creek Conservation Area (195ha)
- Cockeye-Cockabulla Conservation Area (1,225ha)
- Paynes Gully Conservation Area (201ha)
- Cape Terrace Conservation Area (38ha)
- Greenstone River Conservation Area (207ha + 36ha)

## Landscape factors for decision-makers to consider

- **Cockeye-Cockabulla Conservation Area** is in several separate elongated parcels with regenerating indigenous vegetation and natural character. These parcels alternate with areas of plantation forest accessed by forestry roads, and provide at least some riparian protection to the multiple streams and their freshwater ecosystems. Remnants of the original natural character landscape from which these modified productive landscapes evolved are important markers in the landscape.
- At least part of the **Cockeye-Cockabulla Conservation Area falls** within high natural character unit *T92 New River Kaimata flats*. Key attributes/characteristics include:

Braided river channel and gravel beds surrounded by pasture, farming activities and steep escarpments covered in indigenous vegetation.

Mix of aggregate sizes, their volume and the pronounced river beds give the impression of the rivers force during flood events and a distinct impression of the rivers wildness.

The modified landscape adjoining the river – including farming activities, pasture, and roads – does impact upon the sense of seclusion and remoteness, but on balance, does not detract from the integrity of the evident and very expressive natural processes of the river bed itself nor the interaction of the river with the surrounding mountainous landforms and vegetation patterns.

Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.

A wide range of channel typologies (braids, pools, rapids, eddies).

Dramatically eroded river escarpment clearly expresses the rivers power and varying flow. Evident river terracing and depositional landforms reinforce these qualities.

- **Fireball Creek Conservation Area** functions in a similar way to Cockeye-Cockabulla. It provides a natural character island surrounded by plantation forestry and roads, on the north bank of the Taramakau River where it also helps to maintain water quality during the harvest years of the production cycle.
- **Greenstone River/Hokonui Conservation Area** is in two parts. The larger area is riparian and includes all the river bed and some of the banks and terraces along the length of the river from near where Big Fuchsia Creek enters, right up Little Hohonu River, a tributary. The sealed Taramakau Settlement Road which follows the river up the valley bisects the Conservation Area along much of its length. The small settlement of Greenstone (Pounamu) is excluded from the conservation area.
- The **Greenstone River Hokonui Conservation Area** is at the heart of the outstanding natural character unit identified by Brown 2013(2) *T83 Upper Greenstone River* which covers much of the cluster of PCL around and including Greenstone Ecological Area.

**Outstanding Natural Landscape ONL29 Kōtukuwhakaoka/Lake Brunner – Ōhonu/Hohonu Range & Tekimoka/Mt Te Kinga** in schedule 5 of draft *Te Tai o Te Poutini*. Site type and values cited are:

Extensive fluvio-glacial lake basin strongly contained by the broad landforms of the Hohonu Range and Mt Te Kinga to the south.

Exposed peaks and ridge tops revealing underlying geology are highly expressive of the landscapes formative and ongoing natural processes. Erosion, scree slopes and depositional landforms clearly express the erosive nature of the mountain landscape and uplifted landforms.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

- A second area of **Greenstone/Hokonui Conservation Area** is on a steep escarpment above the river and is set back into Greenstone Ecological Area, sharing boundaries on three sides. It is indistinguishable in ecological and landscape terms and it is not clear why this land was not included in the ecological area when it was created.
- **Paynes Gully Road Conservation Area, Greenstone River/Hokonui Conservation Area** and **Cape Terrace Conservation Area** are all connected to the big block of variously classified PCL land associated with Greenstone Ecological Area. Together the three stewardship areas help to protect the natural values within by reducing the risk of edge effects, and adding to its ecological resilience.

- **Paynes Gully Road Conservation Area** provides an important ecological link between Greenstone Ecological Area and the Taramakau River. It falls within an **outstanding** natural character unit identified by Brown 2013; *T82 Taramakau River Escarpments*. Key Attributes/characteristics include;

Extensive braided river channel and gravel beds flanked by steep vegetated escarpments.

Dramatically eroded landforms clearly express the rivers power and varying flow. Broken vegetation and expansive depositional landforms reinforce these qualities.

Evidence of erosion revealing underlying geology, rockfall, stream downcutting and flooding.

The river contains a range of aggregate sizes and weathered boulders that are constantly sifted and graded by the varying flows.

Continuous mature lowland forest.

Wide range of channel typologies (braids, pools, rapids, eddies).

Apart for the adjoining pastoral flats to the south the Otira Highway to the west this unit is devoid of development.

- **Cape Terrace Conservation Area** on the north bank of the Taramakau River opposite Kumara falls within Brown's high natural character unit *T81 Taramakau and Greenstone River Flats*. Key attributes/characteristics cited include:

Large braided river channel, gravel beds, lakes and swampland surrounded by pasture, farming activities, production forestry, and steep escarpments covered in mature indigenous forest.

Mix of aggregate sizes, their volume and the pronounced river beds give the impression of the rivers force during flood events and a distinct impression of the rivers wildness.

The modified landscape (power generation facilities, forestry, gravel quarries) adjoining the river does impact upon the sense of seclusion and remoteness, but on balance, does not detract from the integrity of the evident and expressive natural processes of the river bed itself nor the interaction of the river with the surrounding landforms and vegetation patterns.

Dynamic natural processes associated with the meandering braids and gravel beds, grading of aggregate sizes, downcutting, river terracing, flood events and inundation.

A wide range of channel typologies (braids, pools, rapids, eddies).

# Card Creek

Kaiata Range coastal hills, including Peter Ridge, rising to Kakawau 447m overlooking Greymouth. Lower slopes run out gently to surrounding valley floor and coastal plain, drained by a series of creeks

Strikingly serpentine Card, Clear and Fraser Creeks are distinctive landscape features on the flats between the Kaiata Range ridge and New River/Kaimata.

More dissected hill country to the south rising to Mt Card 305m and Mt Fox 385m with plantation forestry serviced by unsealed roads

Unmodified landforms and indigenous vegetation contribute to high natural character

Card Creek Ecological Area protects a large block of indigenous ecosystems on the ridge and Card Creek flats

Marsden, Omotumotu and Arorangi Scenic Reserves are all linked with the ecological area

The Kaiata Range is included in *ONL30 Kaiata Range & Peter Ridge* in the *draft Te Tai o Poutini Plan*.

## There are three stewardship parcels

- Maori Gully Creek Conservation Area (87ha)
- Omoto Conservation Area (9ha)
- Dungaville Road Conservation Area (7ha)

## Landscape factors to be considered by decision-makers

- **Omoto Conservation Area** and **Dungaville Road Conservation Area** lie within *ONL30B Kaiata Range and Peter Ridge* in the *draft Te Tai o Poutini Plan*. Site types and values cited include:
  - Cohesive assemblage of steep low elevation ridges and incised valley systems.
  - Assemblage of ridges, peaks, and mountaintops of similar orientation, attitudes, vegetative cover and appearance. Contiguous limestone mountain range.
  - Homogenous mature lowland forest cover.
  - Unmodified landforms, pristine forest cover, moderate relief, incised river channels, and vegetation patterns reinforce the natural qualities of the landscape.
  - Forms a natural backdrop to Greymouth township.
  - Given the ranges elevation above the surrounding terrain and their proximity to Greymouth this unit as a whole is a landmark.
- It is unclear whether the **Maori Gully Creek Conservation Area** falls within ONL30.
- Plantation forest growing on hill country supports good water quality outcomes except for the ten or so years around harvest in each production cycle. During that period water quality impacts can have significant impacts on freshwater ecology and species survival.
- **Maori Gully Creek Conservation Area** is in two separate parcels along Maori Creek. Regenerating native vegetation provides riparian protection for the waterway during harvest of the surrounding production forestry. Although modified, the value of this vegetation will contribute to improving natural character with time.

- **Omoto Conservation Area** is a small parcel of stewardship land entirely surrounded by Card Creek Ecological Area. The reason for its exclusion from Card Creek Ecological Area is unclear as it is indistinguishable from the surrounding landscape.
- For the same reason it is unclear why **Dungaville Road Conservation Area** was excluded from Card Creek Ecological Area. It is a little way north of Dungaville notched into the boundary of Card Creek Ecological Area, with streams on two sides.
- Consideration could be given to adding both of these small parcels to the ecological area.

## References

Brown NZ Ltd. 2013. (1) **West Coast Region Natural Character Study: Coastal + Inland Outstanding and High Natural Character Areas Schedule**. Prepared for West Coast Regional Council Planning and Environmental Department.

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Note: The maps currently used in the draft Plan were produced in 2013 and recently digitised for the draft Plan. People have drawn attention to mapping errors in relation to the High Natural Character areas in particular. The Outstanding Natural Landscape and High/Outstanding Coastal Natural Character boundaries are currently being reviewed through an updated field assessment from the landscape architect.