

b r o w n



WEST COAST LANDSCAPE STUDY REVIEW OF OUTSTANDING NATURAL LANDSCAPES & AREA OF HIGH & OUTSTANDING NATURAL CHARACTER

Brown NZ Ltd
March 2022

1. Introduction

This report comprises a review of Outstanding Natural Landscapes (ONLs) and Areas of High or Outstanding Natural Character (HNC / ONC Areas) that were identified in 2012 and 2013 for the West Coast Regional Council, Buller District Council, Grey District Council and Westland District Council. In accordance with the brief supplied by Lois Easton, as the Principal Planner for the Te Tai o Poutini Plan, this re-evaluation has addressed the following ONLs and HNC / ONC Areas:

Outstanding Natural Landscapes

- ONL 54 Karamea Bluffs & the Fenian, Stormy & Radiant Ranges
- ONLs 50 & 51 Ngakawau & Granity
- ONLs 49, 50 & 51 Denniston & Stockton Plateaux
- ONLs 48 & 49 New Creek
- ONLs 48 & 49 Brunner & Lyell Ranges
- ONLs 44 & 46 Paparoa Range West Coastline
- ONL 41 Paparoa East & Mt William Range
- ONLs 41 & 42 Paparoa Range East & Mt William Range - Blackball
- ONLs 39, 40 & 41 Paparoa Range East – Big River & Otututu River
- ONLs 39 & 41 Paparoa Range East – Berlins to Larrys Creek
- ONL 38 Reefton Saddle
- ONL 33 Island Block
- ONL 32 Kangaroo Lake
- ONL 30 Kaiata Range & Peter Range
- ONL 29 Lake Brunner
- ONLs 27 & 28 Taramakau River
- ONL 25 Lake Kaniere & Arahura River
- ONL 22 Kokatahi
- ONL 20 Kakapotahi / Duffers Creek
- ONLs 15 & 17 Whataroa
- ONL 11 Mahitahi / Makaawhio
- ONL 3 Jackson Bay

High & Outstanding Natural Character Areas

- HNC Area C58 Oparara River
- HNC Area C57 Karamea River Mouth
- HNC Area C54 Granity, Hector & Ngakawau

- HNC Area C52 Orowaiti Lagoon
- ONC Areas 42 & 44 and HNC Areas 41 & 43 Fox River to Punakaiki
- ONC Area C40 Barrytown Flats
- HNC Area C36 Peter Ridge
- HNC Area C35 Karoro-South Beach to Camerons
- HNC Area C33 Chesterfield Terraces
- ONC Area C9 & HNC Area C10 Hannahs Clearing
- ONC Area C9 Waiaototo Lagoon and Wetland

Reassessment of Individual ONLs and HNC / ONC Areas

This review has been undertaken in accordance with the criteria for ONLs and HNC / ONC Areas set out in the *West Coast Landscape & Natural Character Study 2012 & 2013 – Explanation of Assessment Methodologies*, dated March 2021.

That report addressed 'best practice' in relation to such identification, together with relevant case law on the subject. Accordingly, The assessment criteria and ratings scale employed in the identification of ONLs, together with Areas of High and Outstanding Natural Character values were as set out in the following sample assessment tables extracted from the 2012/13 study (overleaf):

OUTSTANDING NATURAL LANDSCAPES ASSESSMENT:

Jackson Head & Stafford Ranges

Unit No: 3B (forms the terrestrial area of ONL 3)

Bio Physical Landscape Characteristics						
Evaluation Factors:	Key Values: <small>(Indication of key Bio-Physical values)</small>					
Landforms (Geomorphology / Geology / Terrain)	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Vegetation Type (s)	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Sea / Water Bodies	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Natural Processes	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Land Uses / Activities / Structure	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Rating of Bio Physical Values:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px; background-color: #ccc;"></td> </tr> </table> <p style="text-align: right; margin-top: 5px;"><small>LowHigh</small></p>					

Perceptual / Aesthetic Values						
Evaluation Factors:	Key Values: <small>(Indication of key Perceptual values)</small>					
2D Patterns (Composition) & 3D Spatial Structure	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Vividness / Expressiveness / Legibility	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Dynamic / Transient Values	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Landmarks / Key Views	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Coherence / Unity	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Rating of Perceptual / Aesthetics Values:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px; background-color: #ccc;"></td> </tr> </table> <p style="text-align: right; margin-top: 5px;"><small>LowHigh</small></p>					

Associative Values						
Evaluation Factors:	Key Values: <small>(Indication of key Perceptual values)</small>					
Naturalness / Endemic Value (distinctive NZ / West Coast Sense of Place)	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Tangata Whenua Values / Associations	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Historical / Heritage Associations	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Rating of Perceptual / Aesthetics Values:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px; background-color: #ccc;"></td> </tr> </table> <p style="text-align: right; margin-top: 5px;"><small>LowHigh</small></p>					

<p>ONFL THRESHOLDS: (Overall Evaluation of Landscape Values in the context of the West Coast Region)</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px;"></td> <td style="width: 20%; border: 1px solid black; height: 20px; background-color: #ccc;"></td> </tr> <tr style="background-color: #800000; color: white;"> <td colspan="5" style="text-align: center; padding: 5px; font-weight: bold; font-size: 1.2em;">OUTSTANDING</td> </tr> </table>						OUTSTANDING				
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HIGH & OUTSTANDING NATURAL CHARACTER VALUES ASSESSMENT:

Okarito River - Lake Mapourika & Wahapo

Unit No: T52

Bio Physical Characteristics						
Evaluation Factors:	Key Values: <small>(Indication of key Bio-Physical values)</small>					
Landforms (Geomorphology / Geology)	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Vegetation Type, Cover & Patterns	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Sea / Estuarine / Water Bodies	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Land Uses / Activities / Structure	<div style="width: 100%; height: 15px; background-color: #fff;"></div>					
Habitat Value	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Natural Processes	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Rating of Bio Physical Values:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> </tr> </table> <p style="text-align: right; margin-top: 5px;">LowHigh</p>					

Perceptual Values						
Evaluation Factors:	Key Values: <small>(Indication of key Perceptual values)</small>					
Wildness / Wilderness / Remoteness	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Experiential Attributes	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Context / Setting	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Transient / Dynamic Attributes	<div style="width: 100%; height: 15px; background-color: #ccc;"></div>					
Night-time Values	<div style="width: 100%; height: 15px; background-color: #fff;"></div>					
Rating of Perceptual Values:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> </tr> </table> <p style="text-align: right; margin-top: 5px;">LowHigh</p>					

<p>Overall Natural Character Evaluation (Biophysical and Perceptual Values)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #fff;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> <td style="width: 20%; height: 15px; background-color: #ccc;"></td> </tr> <tr style="background-color: #0056b3; color: white; text-align: center; font-weight: bold; padding: 5px;"> <td colspan="5">OUTSTANDING</td> </tr> </table>						OUTSTANDING				
OUTSTANDING											

The Coastal Environment

Directly related to the identification of areas that display high or outstanding natural character values is the delineation of the Coastal Environment. In 2012/13, the extent of the Coastal Environment was delineated employing the following factors – in accordance with Policy 1 of the NZ Coastal Policy Statement:

A. Areas That Are Physically Linked to the CMA:

1. *that are directly subject to wave action and tidal inundation / movement and which contain / define the inter-tidal margins of the CMA;*
2. *coastal drainage systems, including catchments and headwaters that feed directly into the CMA; and*
3. *landforms and vegetation cover that are directly affected / modified by exposure and proximity to the CMA – through wind action, wave action and salt exposure.*

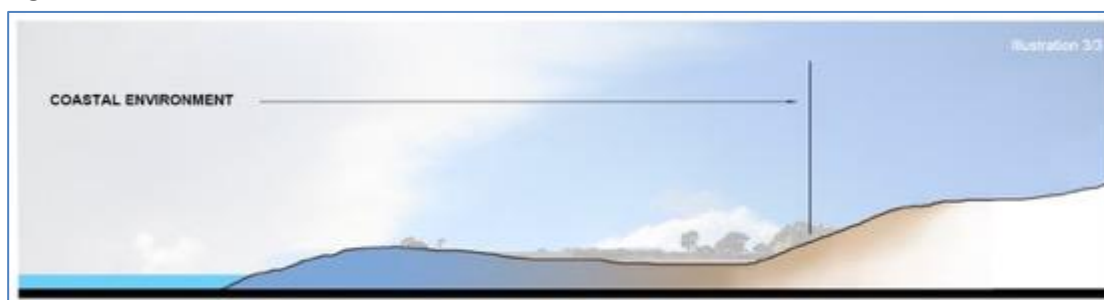
B. Areas Whose Character is Substantially Defined by their Proximity to the CMA:

4. *areas within which the CMA is a dominant to significant visual entity;*
5. *locations whose landscape character and amenity is clearly influenced by proximity to, and a sense of connection with, the CMA; and*
6. *locations within which items of cultural and historic heritage are found that are linked to, or within the CMA.*

The following examples were then provided of the application of these criteria to different types of coastal environment:

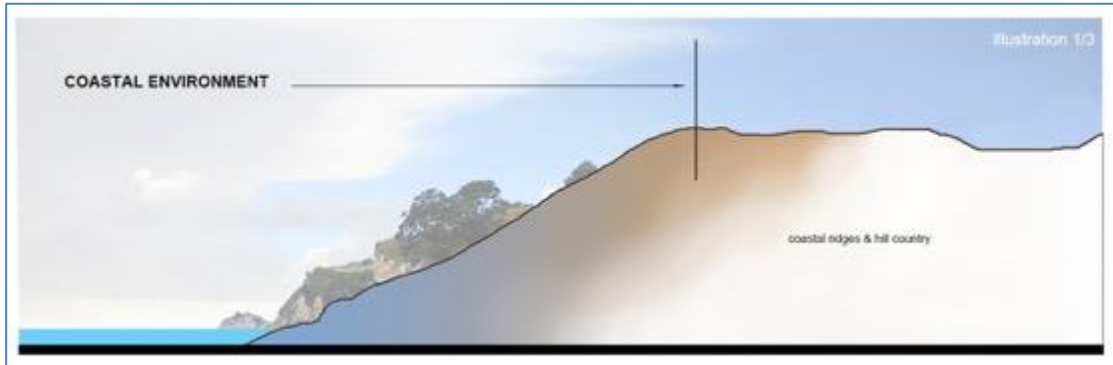
Many parts of the coast enjoy direct visual interaction with the CMA, and some – such as beachfronts, spits, dune corridors and wetland margins – are clearly shaped by their exposure to the sea. In some locations, this area of coastal influence can extend for kilometres inland, particularly around major coastal dune systems and wetlands, such as those found around the Okarito Lagoon, Waitaha and Okuru. In such cases, the Coastal Environment was extended inland sufficiently far to capture such areas – as shown on **Figure 1** (below).

Figure 1.



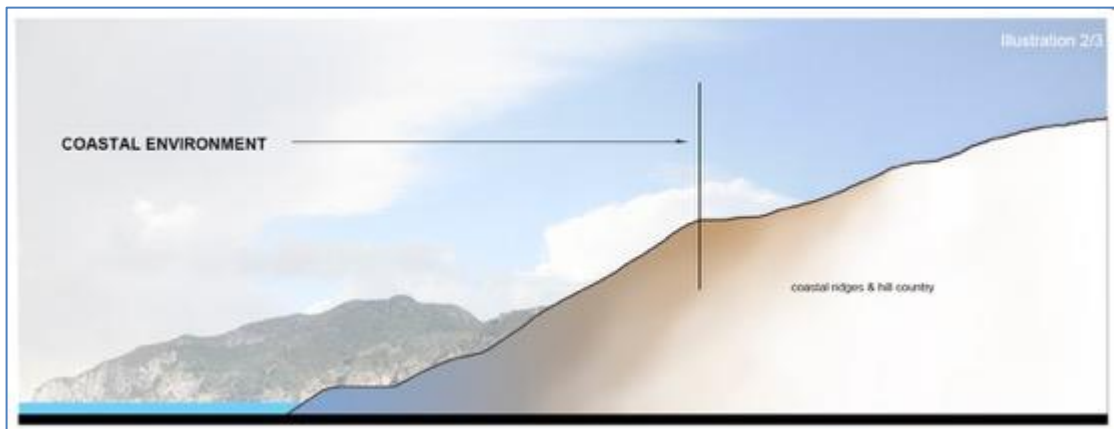
Conversely, the West Coast is also renowned for its major coastal ranges, some of which fall directly into the Tasman Sea. This includes those found around Jackson Bay, Whakapohai-Paringa, Punakaiki, and north of Mokihinui, all have a clear connection with the Coastal Marine Environment (CMA) and their coastal slopes / faces logically fall within the Coastal Environment (see **Figure 2**).

Figure 2.



However, in many areas this interaction is less easily defined. The main ranges that provide the backdrop to all of the West Coast often enjoy spectacular views to, and of, the Tasman Sea (eg. from the Denniston Plateau), but frequently do so over a considerable distance. Conceivably, this could have resulted in exceptionally large parts of the Region being captured by the Coastal Environment. However, in such instances, an attempt was made to identify those areas that derive most, or a very large proportion, of their character from visual interaction with the CMA and which convey a marked sense of being shaped (especially in terms of their vegetation cover) by the physical processes derived from close proximity to the sea. These areas were differentiated from others that also offer views to and from the sea, but in which such interaction was considered less fundamental to their visual and physical character. As a result, the Coastal Environment often runs much closer to the coast than the major ranges behind it, ‘hopping’ over river valleys and from ridge to ridge quite close to the CMA – as illustrated in **Figure 3**.

Figure 3.



This review does not explicitly review the extent of the West Coast’s Coastal Environment as a discrete matter, but it is addressed in relation to a number of HNC / ONC Areas that are reviewed in this report. As such, it is important that the basis for the delineation of both the Coastal Environment and areas of high or outstanding natural character within it is appreciated.

Presentation of This Review’s Findings

The review of each ONL and HNC / ONC Area in this review comprises:

- A brief outline of the relevant issues for that ONL / Area, as outlined in the brief;
- A map of the relevant area extracted from the 2012/13 landscape assessment;

- Photos of the individual ONL(s) and HNC / ONC Area(s) – although poor weather greatly hampered photography in Westland and (on one day) near Hokitika, while the access Road to the Denniston Plateau was also closed during my site visit;
- A brief commentary on recommendations designed to address the issues identified; and
- Aerial imagery (Google Maps) showing revised boundaries and any other recommendations.

In relation to the images / mapping now shown in this review, it should be noted that in 2012/13, such base imagery was not available: the Google Earth images that could be accessed at that time were quite simply too crude and indistinct (in many areas) to rely on. As a result, the majority of mapping undertaken at that time relied on NZMS 260 Mapping (at a 1:50,000 scale) and use of public roads to view as much of the West Coast as possible. Even so, large areas were difficult to access and evaluate. Nearly 10 years on, the latest generation of aerial imagery is much precise: it provides a level of accuracy that is well beyond that previously available and much more certainty in relation to many ONL and HNC / ONC Area boundaries.

In addition, the images presented respond to changes in land use that have occurred up and down the West Coast since 2013, and I have taken the opportunity to re-assess the values of some ONLs and HNC/ONC Areas – which has also resulted in changes to some mapping. While the changes to some ONL and HNC/ONC maps are therefore quite limited, they are much more significant for others and, where possible, such changes have been extended to areas not identified in the brief as being of concern. Even so, it is clear that many areas not identified as areas of concern in the brief might well benefit from re-examination through the lens of the more accurate aerial imagery now available.

Finally, the order in which the ONLs and HNC/ONC Areas are addressed in this report is from north to south – starting near Karamea and ending near Jacksons Bay. This contrasts with the numbering of the ONLs and HNC/ONC Areas in the 2012/13, which worked from left to right, but also from south to north (Jackson Bay to Karamea).

2. ONL Review

The following are brief summarises of the review findings for each ONL set out in Section 1, together with a brief precis of the rationale for those findings and associated maps, aerials and (where available) photos.

ONLs 53 & 54 Karamea Bluffs & Fenian, Stormy & Radiant Ranges

The key issue raised in relation to this area was the presence of private properties within ONL 54 near Karamea and Little Wanganui. The boundaries for this ONL were originally defined by the area of native bush on rolling foothills at the edge of the Karamea Plain and River (see below).



The Little Wanganui River & ONFL54 beyond it



Looking from Wangapeka Rd towards Captains Creek & ONFL54

Having reviewed the situation on the ground, it remains the case (as in 2012/13) that ONL54 (together with part of ONL53) are best differentiated from non-ONL areas by their:

- increasingly elevated topography;
- more mature and significant bush;
- the cohesion of that bush cover;
- high levels of expressiveness (related to 'formative' values) and legibility;
- high levels of visual coherence and unity;
- high levels of perceived naturalness and endemic value; and
- high levels of aesthetic appeal.

Local property boundaries may coincide with some of these 'edges' or interfaces, but are not meaningful or determinative in their own right from a landscape standpoint. The following aerial images (below & overleaf) show a recommended / revised ONL boundary based on where these characteristics become apparent – near central Karamea, then Little Wanganui.



ONLs 50 & 51 Ngakawau & Granity

The key issues raised in relation to this area were the overlap of ONL 51 with some private properties and its extension across the ridge at the rear of Ngakawau – between that coastal settlement and the Stockton Mine / Millerton.



Entering Granity from the south with ONFL51 behind it



Ngakawau and its coal transfer station & cableway



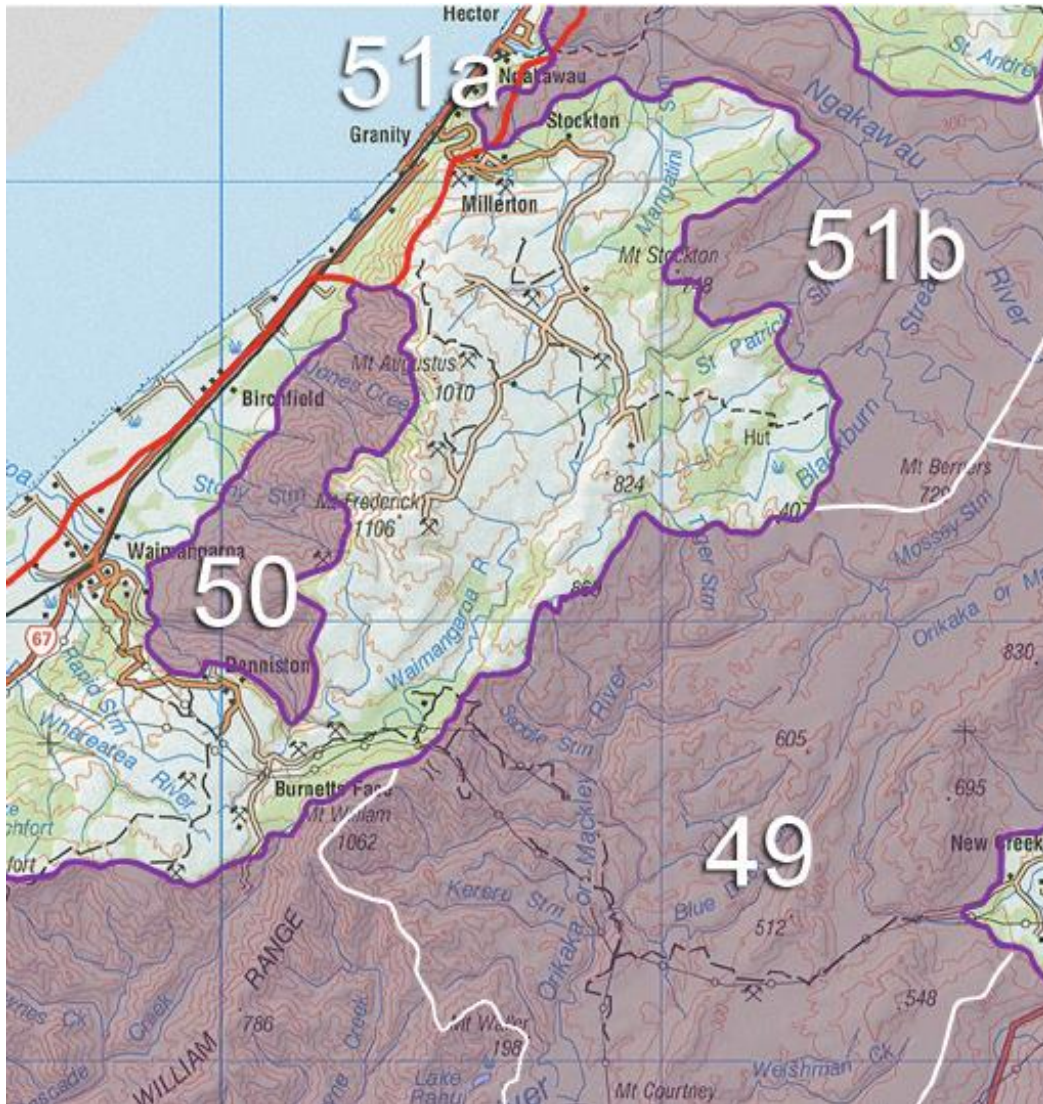
Entering Hector from the north with ONFL51 behind it

After reviewing the extent of ONL51, I agree that the ridge behind Ngakawau should be removed from that ONL. However, it remains my opinion that the coastal ridges either side of Ngakawau and Granity are important components of both the local, and wider, coastal landscapes that are linked to the hill country at the core of ONLs 50 and 51. Accordingly, it is my assessment that the main slopes of those ridges should be retained within both ONLs (as shown below), but that they should be pulled back from the coastal margins that form part of both towns and the open spaces associated with both settlements.



ONLs 49, 50 & 51 Denniston & Stockton Plateaux

Concern was raised in relation to the potential overlap of ONLs 49, 50 and 51 with mining operations associated with the Escarpment, Cascade and Stockton Mines. Concern was also raised about the inclusion of the Waimangaroa Stream valley in ONL 50.



Looking from SH67 towards the valley around the Banbury Stream & the Denniston Plateau beyond

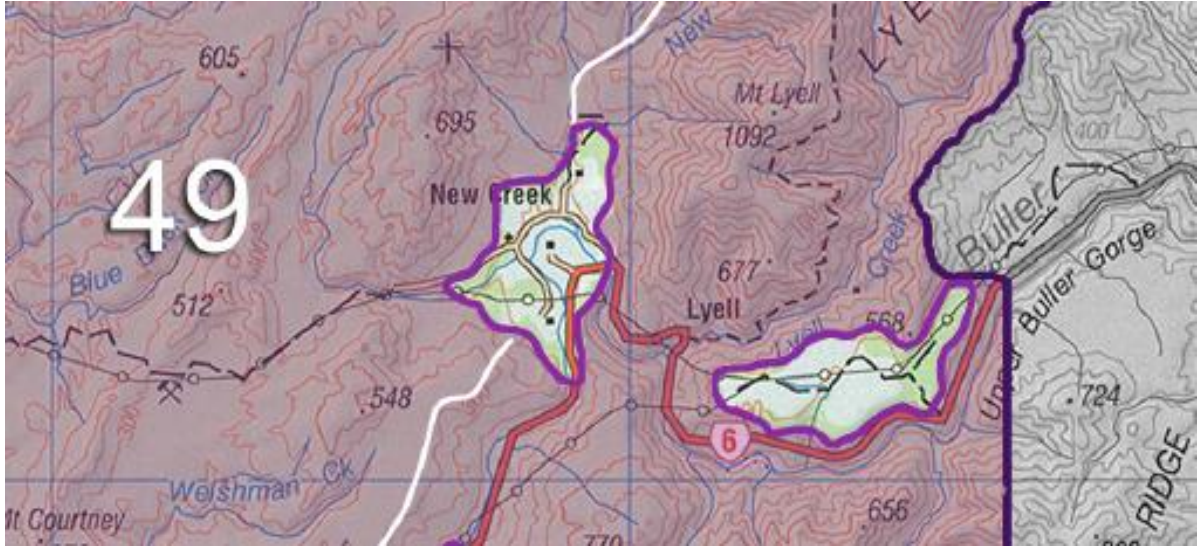
During the Environment Court proceedings over the Escarpment Mine in 2011/12, it was clarified that the boundaries of the then operational Stockton and Cascades (Denniston) Mine lay outside ONLs 49 and 51, and that the then proposed Escarpment Mine (Denniston) would also avoid ONLs 49 and 50. The aerial shown below refines the boundaries of all three ONLs, based on the distribution of more elevated and expressive, terrain, more continuous forest / bush cover and the avoidance of areas of mining operations.

In relation to the Waimangaroa Stream valley, I consider that it remains a clearly legible component of the wider sequence of coastal hills overlooking the Tasman Sea plain and that its forest cover contributes to the appeal and natural heritage values of ONL50. As such, it is my opinion that it should be retained within that ONL. Its margins have, however, been redefined in the aerial (below) to avoid the access road to Denniston, together with areas of private activity with the valley floor near the settlement of Waimangaroa.



ONLs 48 & 49 New Creek

The key issue raised in relation to this area was the presence of private properties within parts of ONLs 48 and 49.



Looking down Pensini Rd towards the hill country & forest of the eastern half of ONFL49



Looking from New Creek Rd across the Buller River towards ONFL49 to the south

As in 2012/13, the margins of both ONLs are defined by the transition away from farmland on the flats and rolling terrain either side of the Buller River into both ONLs that are differentiated by their:

- increasingly elevated, hill country surrounds;
- tracts of mature bush;

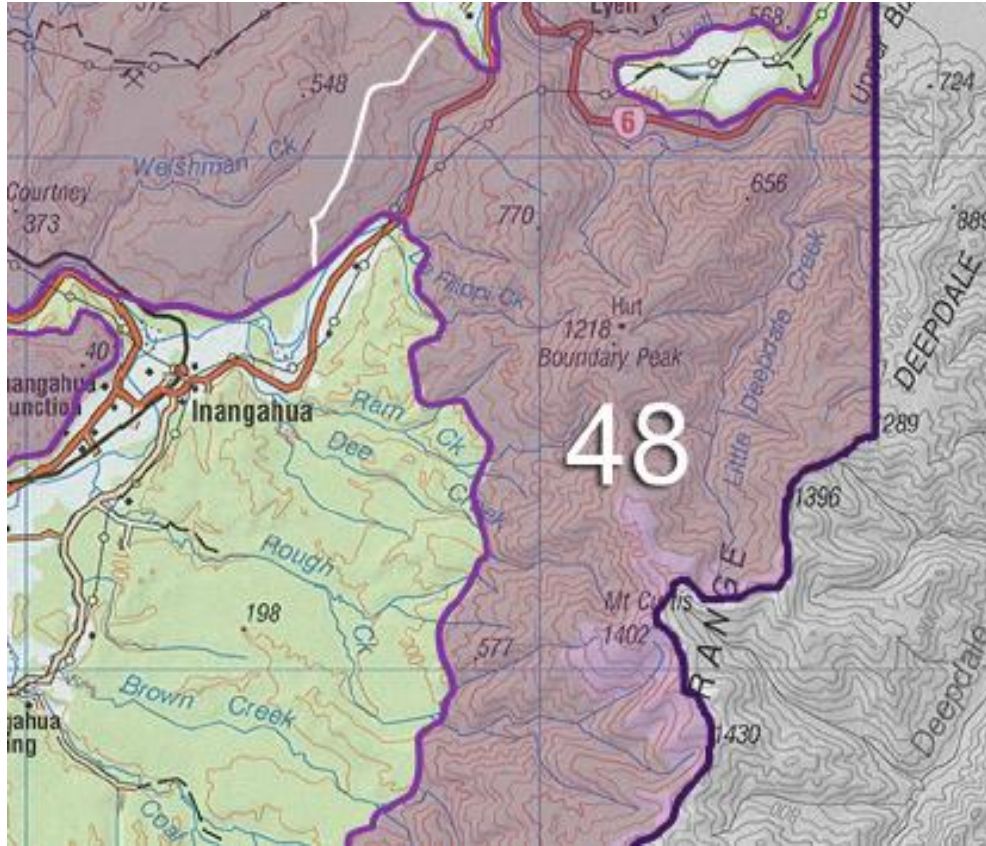
- the cohesion of that forest / bush cover;
- high levels of expressiveness (related to 'formative' values) and legibility;
- high levels of visual coherence and unity;
- high levels of perceived naturalness and endemic value; and
- high levels of aesthetic appeal.

Again, while private property boundaries may coincide with some of these 'edges' or interfaces, but are not meaningful or determinative in their own right from a landscape standpoint. The following aerial image (below) shows a recommended, slightly refined, ONL boundary based on where these characteristics become apparent – both near New Creek and around an area of modified land focused on a farm airfield near the regional boundary. Hopefully, this will address most concerns in relation to private properties overlapping with both ONLs.



ONLs 48 & 49 Brunner & Lyell Ranges

The key issue raised in relation to this area was the presence of private properties within parts of ONLs 48 and 49.



Looking north from SH6 near Inangahua towards the hills & forest of ONFL49



Looking north from SH6 near Three Channel Flat toward the hills & forest of ONFL49



Looking south from SH6 towards the hills & forest of ONFL48 near Spring & De Filippi Creeks

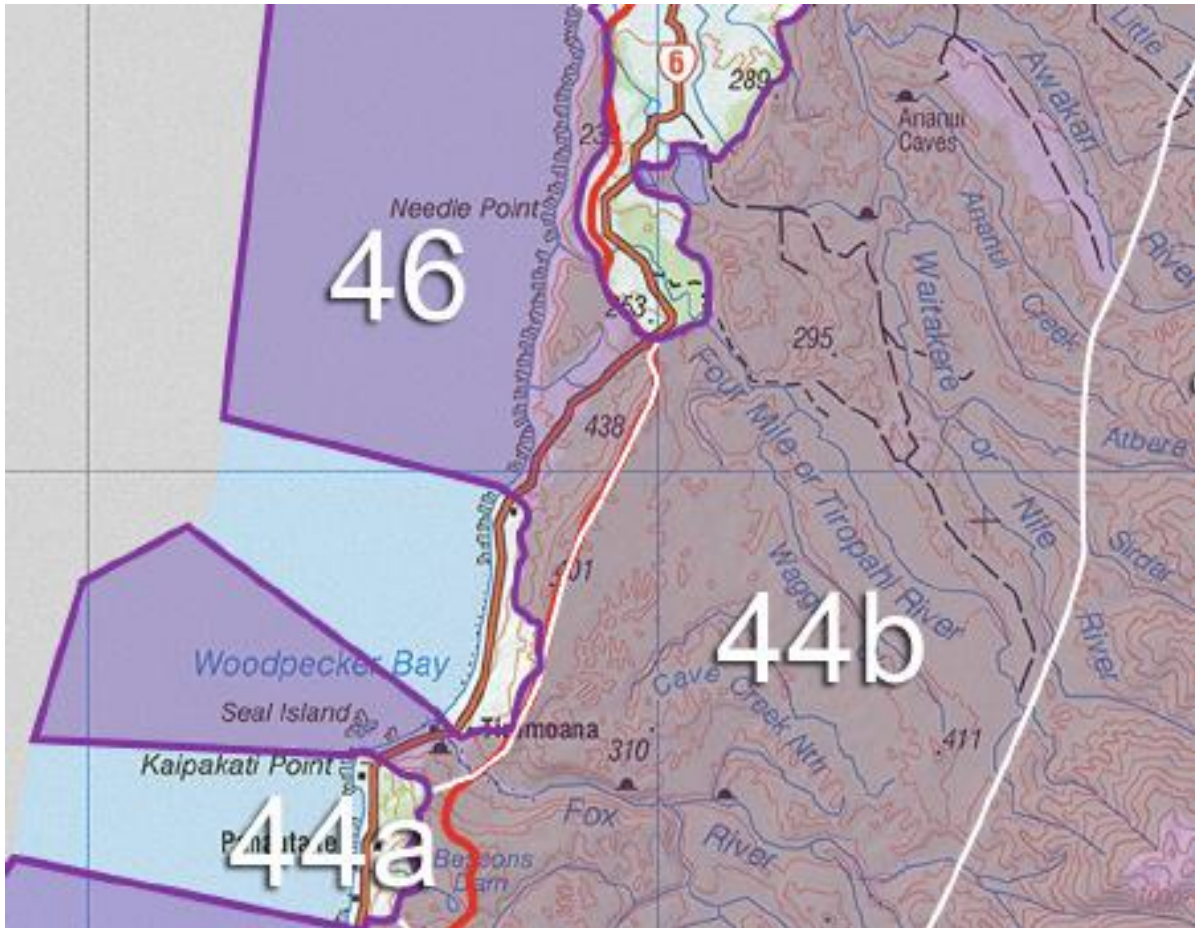
As described for the area near New Creek, the margins of both ONLs are defined by the transition away from farmland on the flats and rolling terrain both sides of the Buller River into ONLs 48 and 49. These ONLs are largely differentiated by the same characteristics described in relation to New Creek.

Consequently, while private property boundaries may coincide with some of the ONL margins, they are not meaningful in their own right from a landscape perspective. The following aerial image (below) shows a recommended, and slightly refined, ONL boundary around eastern Inangahua. Hopefully, this will address most concerns in relation to private properties overlapping with both ONLs.



ONLs 44 & 46 Paparoa Range West Coastline

The key issue raised in relation to this area was the presence of private properties within parts of ONLs 44 and 46.



Looking south from SH6 near Kaipakati Point towards ONFL44



Looking north from SH6 towards Kaipakati Point & some of the recent development opposite it



The rising hill country and bush just east of Seal Island above SH6

The 2012/13 landscape assessment set out to avoid all clusters of residential development down the Paparoa East coastline. However, it also recognised that the presence of some isolated dwellings within the coastline's bush dominated hinterland could be accommodated without compromising the overall value of either ONL. In this regard, the continuity and cohesion of this highly expressive and appealing coastal landscape is important – both in relation to close-up views from SH6 and more distant views from the Irimahuwhero Lookout. For this reason, a small number of quite isolated dwellings were 'captured' by the original ONL mapping of ONL44, especially.

The following aerial (overleaf) adopts the same approach. It embraces those areas that display many of the qualities discussed in Section, which combine to create a spectacular coastal landscape and highway experience, but avoids those areas where modification is more apparent, and those same characteristics are visibly eroded. As a result, the refined ONL44 boundary shown avoids most private properties, but still includes some housing within the ONL's vegetated slopes directly overlooking the Tasman Sea. Again, the proposed delineation of the ONL44 boundary reflects the landscape patterns evident within the coastline around Hatters Bay and Woodpecker Bay, rather than cadastral boundaries.



ONL41 Paparoa Range East & Mt William Range - Westport Town Water Supply Reserve

The key issue raised in relation to this area was the presence of private properties within parts of ONL41 and, in particular, whether the ONL boundary should be 'pulled back' from parts of the Buller Town Water Supply Reserve and Nine Mile Road.



Approaching the mouth of the Lower Buller Gorge & ONL41 on SH6 east of Bucklands Peak Rd



Looking up the Lower Buller River from SH6 east of Island Creek



Looking down Nine Mile Rd towards ONFL49 & the Lower Buller Gorge

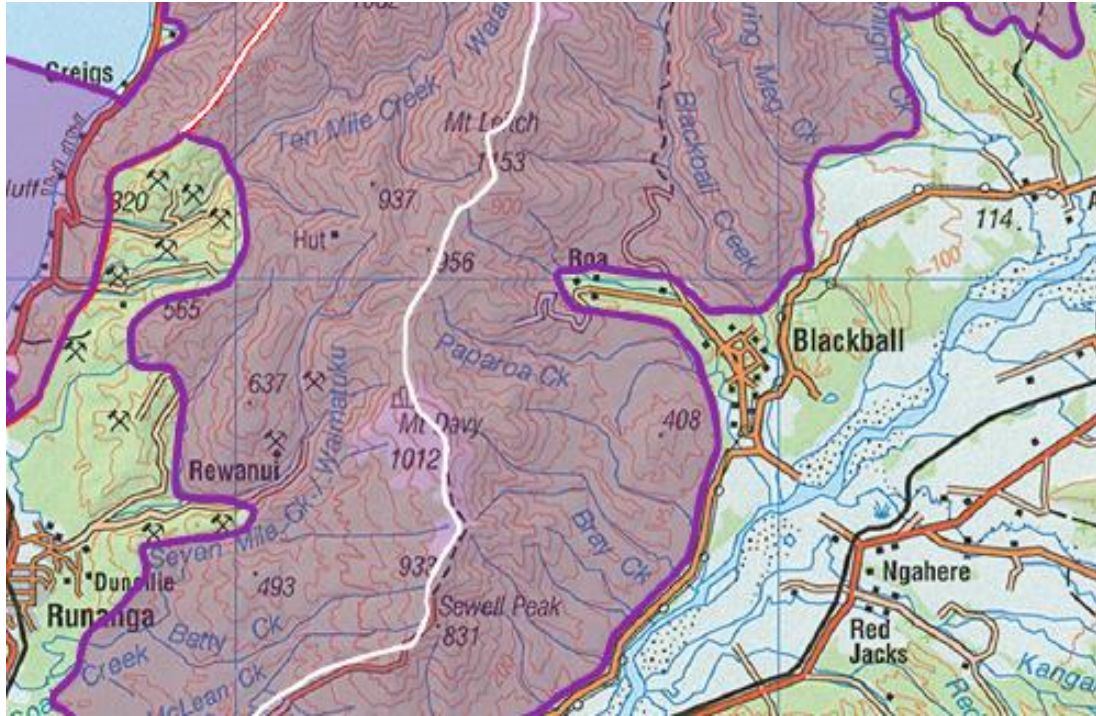
As described above, the edge of ONL41 was primarily determined by those parts of the lower Paparoa Range / Mt William Range that are more expressive, legible and demonstrably 'natural' – as a result of their topography and the presence of semi-mature (regenerating) to mature forest. Such areas were originally incorporated within ONL41 as they also provide the foundation for the sequence of more elevated slopes and peaks (across both ranges) that create a powerful backdrop to the Tasman Sea plain and that frame the mouth of the Lower Buller Gorge.

In my assessment, none of these considerations and factors have changed since 2013 and the values attributed to the slopes of ONL41 facing towards the Tasman Sea and Westport are as important now as then. The aerial below attempts to capture the point at which the uplands and native forest of both Ranges becomes much more obvious and meaningful.



ONLs 41 & 42 Paparoa Range East & Mt William Range – Blackball

The key issue raised in relation to this area was the presence of private properties, together with areas of both historic and recent mining activity (and modification) within parts of ONLs 41 and 42.



Old mine works near Blackball off Roa Rd



Looking down Roa Rd to the east at the north-western edge of Blackball



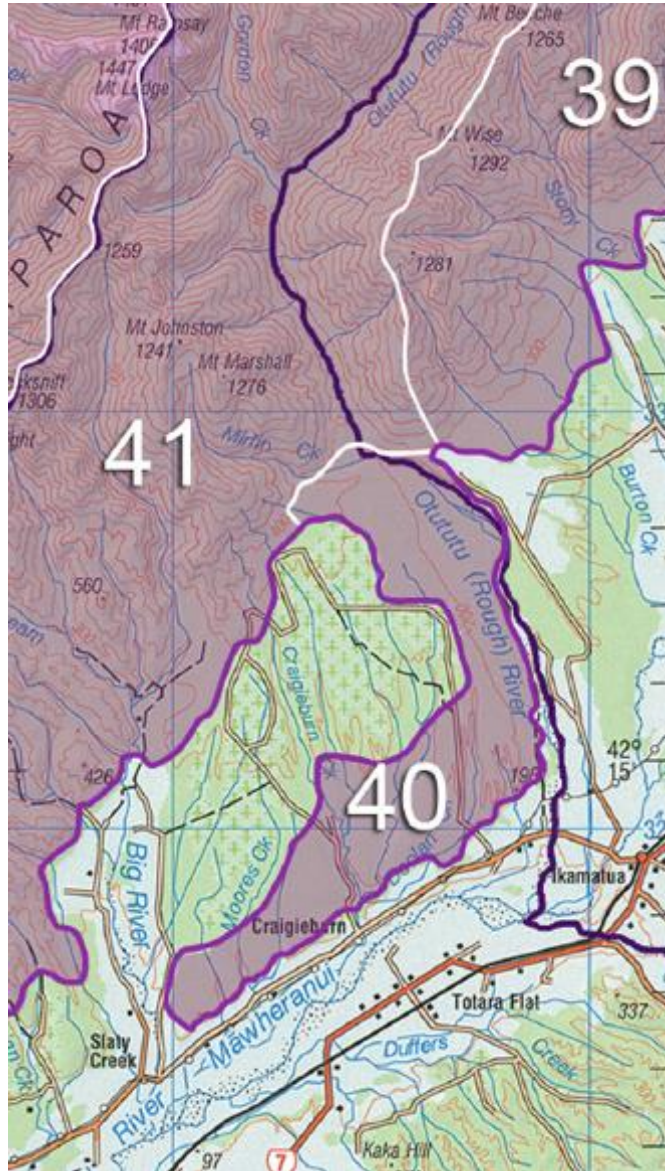
Looking north from Blackball towards the southern Paparoa Range

In 2012/13, it was not possible to fully identify areas of mining activity (past and present) on private land between Blackball and Rewanui. The image shown below extracts those areas from the original mapping of ONLs 41 and 42, and also refines the mapping of the ONL margins west to north-east of Blackball – so as to just retain those areas that retain more expressiveness, naturalness, coherence and aesthetic appeal.



ONLs 39, 40 & 41 Paparoa Range East – Big River & Otututu River

The key issue raised in relation to this area was the presence of private properties within parts of ONLs 39-41 near Big Creek, together with areas affected by production forestry and farming through to the Otututu / Rough River.



Looking westwards from Slaty Creek Rd towards the hills a& forest of ONFL41



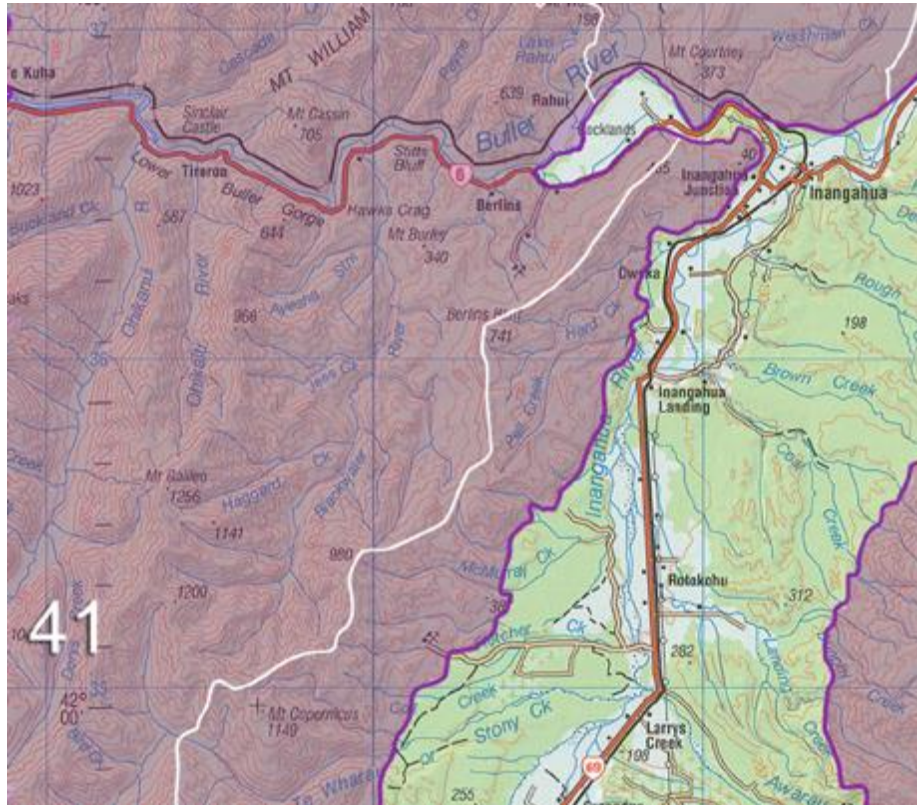
Looking north from Slaty Creek Rd towards the hills & forest of ONFL41

While retaining the extensive mountain Ranges, foothills and forest cover with ONLs 39 and 40, the proposed changes shown below would exclude the private farm properties around Big River, together with those affected by both framing and production forestry activities extending through to the Otututu / Rough River. At the eastern end of ONL39 the proposed changes would reconnect with the 2012/13 mapping in that area.



ONLs 39 & 41 Paparoa Range East – Berlins to Larrys Creek

Concerns raised in relation to this area related to the presence of private properties within parts of ONLs 39 and 41 near Berlins and Inangahua Landing – stretching down to near Reefton – and the inclusion on mining operations within both ONLs.



Looking north from SH6 near Rocklands towards the far hills & forest of ONFL41



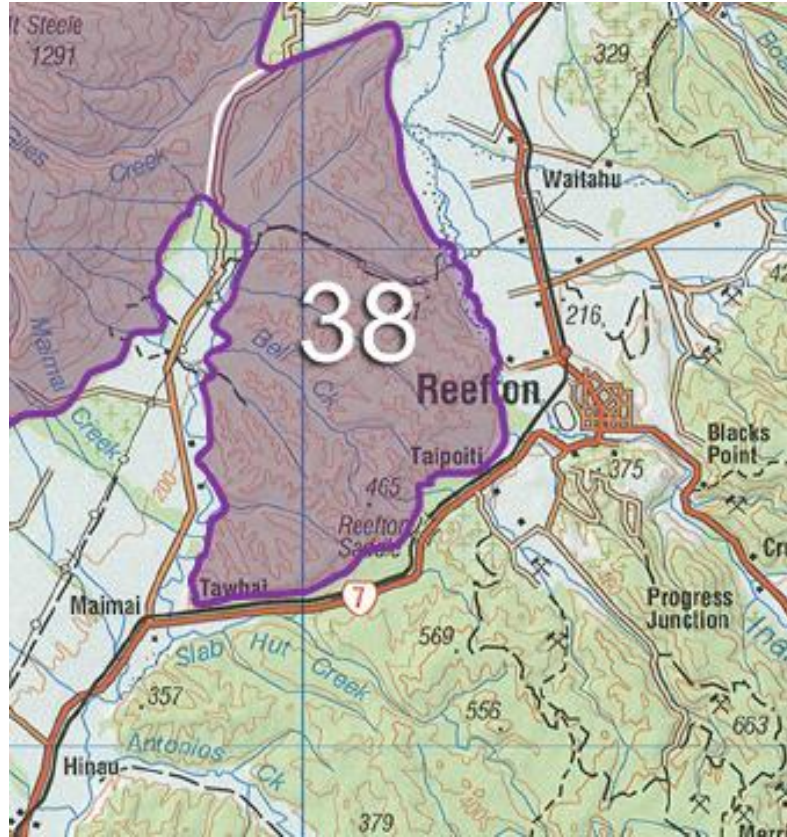
Looking from the junction of SH69 & Perseverance Rd towards the hill country of ONFL39

Again, while retaining the extensive mountain Ranges, foothills and forest cover with ONLs 39 and 40, the changes shown in the aerial image below would exclude the private farm properties around Berlins, together with a catchment south of it affected by mining activities. However, no other area of mining could be identified between Inangahua Junction and the valley catchment north of Reefton (other than the Giles Creek Coal Mine, which is addressed in relation to ONL38, the Reefton Saddle). As for other ONLs, the proposed mapping refines that first prepared in 2012/13 so as to minimise the overlap with private properties in general. However, property boundaries are not specifically employed to redefine the edge of both ONLs.



ONL38 Reefton Saddle

Key issue raised in relation to this area addressed the overlap of ONL38 with private properties near Maimai Valley Road and Buller Road, as well as the Giles Creek Coal Mine.



Looking east from Maimai Rd near the Mawheraiti Stream towards the plateau & forest of ONFL38



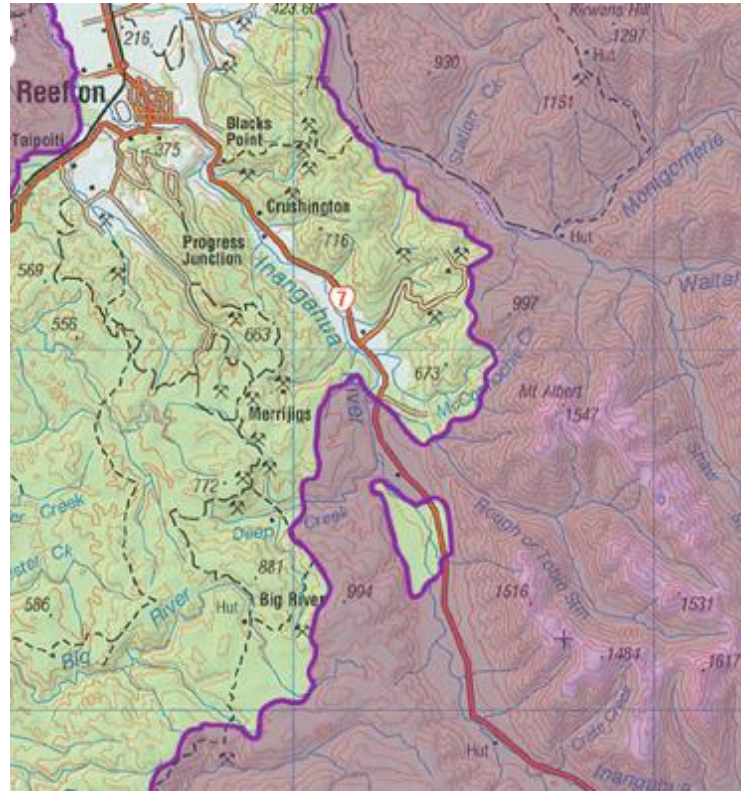
Looking east from Maimai Rd near the Maimai Creek towards the plateau & forest of ONFL38

In response to the matters raised, it is again clear that cadastral boundaries would not provide demarcation of ONLs 38 and 39 that is meaningful in terms of landscape characteristics and values. As with other locations, both ONLs are best defined by a combination of areas of obvious topographic uplift and forest edges – which are, for the most part, clearly apparent. However, at the northern end of Maimai Valley Road, the Giles Creek Coal Mine was previously captured by ONL38. It is recommended that the mine and areas of modification around it be removed from both ONLs, as is shown below. This would separate ONLs 38 and 39 from one another.



ONL33 Island Block

AS with many other ONLs, concern was raised in relation to this area because of ONL33's spread across some private properties. In addition, it was unclear if the Oceania Gold and Garvey's Creek Mines were affected by that ONL.



Looking south-east from SH7 near Garvey Creek towards the hill country & forest of ONFL33



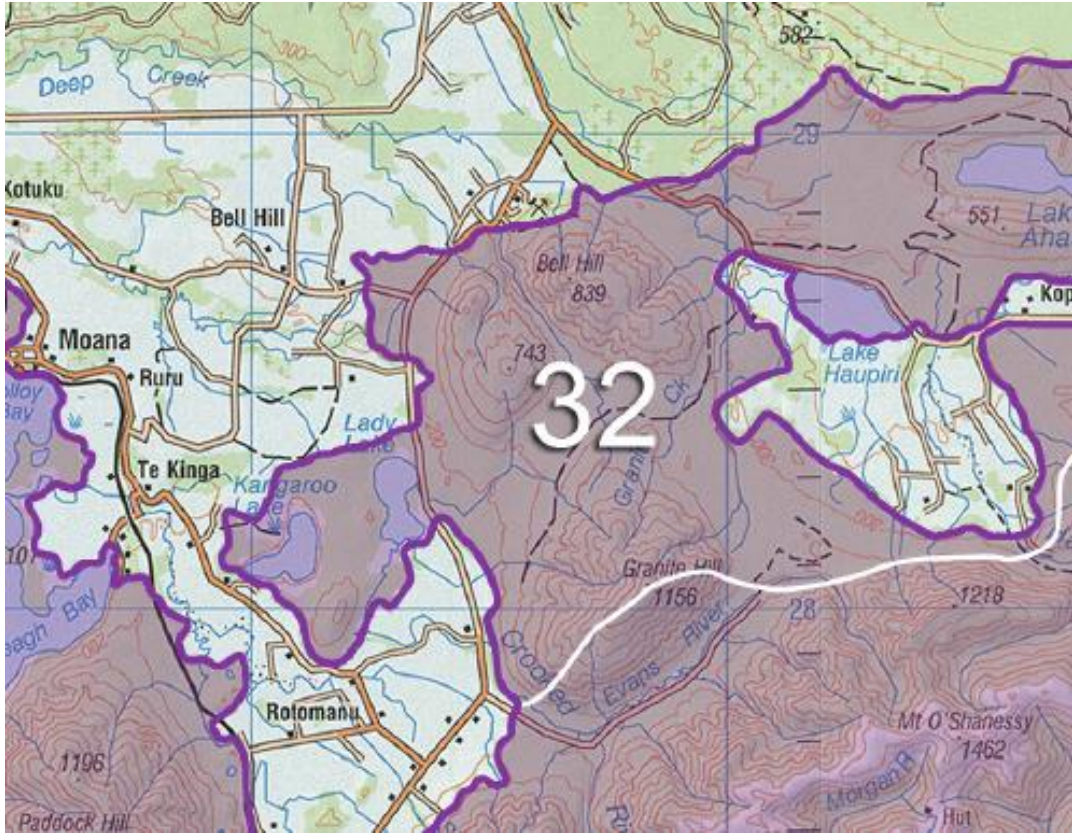
Looking south-east from SH7 near Craigs Clearing towards the hill country & forest of ONFL33

My evaluation of the ONL shows that part of the Garvey's Creek Mine extends into part of ONL33, while the Oceania Gold Mine – to the south – sits on its edge. Accordingly, the aerial below shows the boundaries around both mines adjusted to avoid the immediate mine catchments and accessways to them. In addition, it is recommended that the ONL boundaries be relocated, as shown below, so as to avoid areas of farming activity on the river flats and a stand of pine forestry.



ONL32 Kangaroo Lake

The main issues identified in relation to the area around ONL32 pertain to its overlap of private properties and modification of the local landscape that has occurred since 2012/13.



Looking across Lady Lake & part of ONL32 from Bell Hill Rd



Looking south down Bell Hill Rd towards the hill country & forest around Bell Hill & ONL32



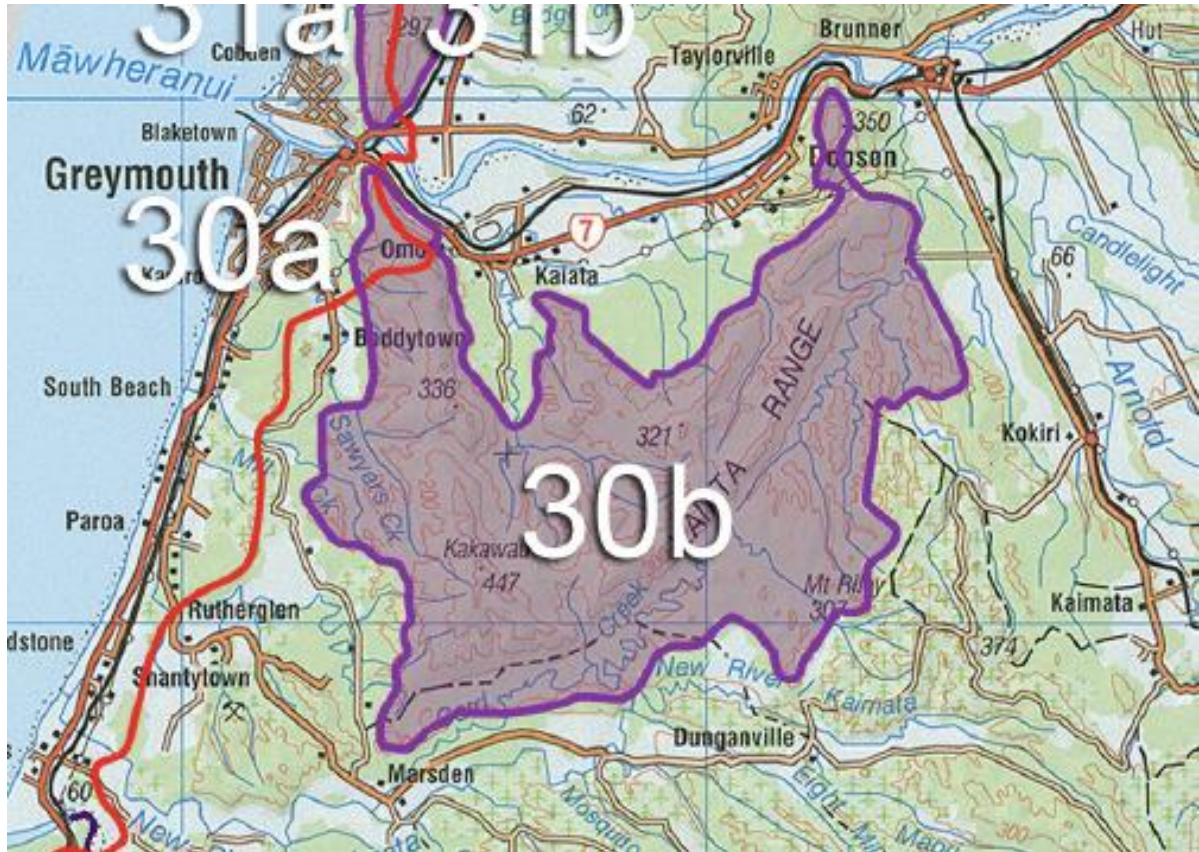
Looking south towards Bell Hill across cleared land near Haupiri Rd

ONL32 was originally located so as to capture the sequence of lakes and their margins east of Lake Brunner, extending from Kangaroo Lake to the Ahaura River. As with other ONLs, this re-assessment has provided the opportunity to more accurately define the ONL, focusing on its lakes, their margins, prominent foothills and large tracts of native forest. These display high levels of continuity and cohesion, naturalness and aesthetic appeal – which often contrasts markedly with the farmland and some forest blocks between them. In addition, it is recommended – as shown below – that the ONL should avoid areas of recent bush clearance near Haupiri Road, west of Lake Haupiri. The more refined ONL boundaries indicated would also help to avoid those parts of local properties that are being actively used at present.



ONL30 Kaiata Range and Peter Range - Near Dobson and Greymouth

The key issue raised in relation to the Kaiata Range and Peter Range was, again, that of ONL30's encroachment on private properties.



Looking towards Mt Buckley & other hills behind Dobson from SH7

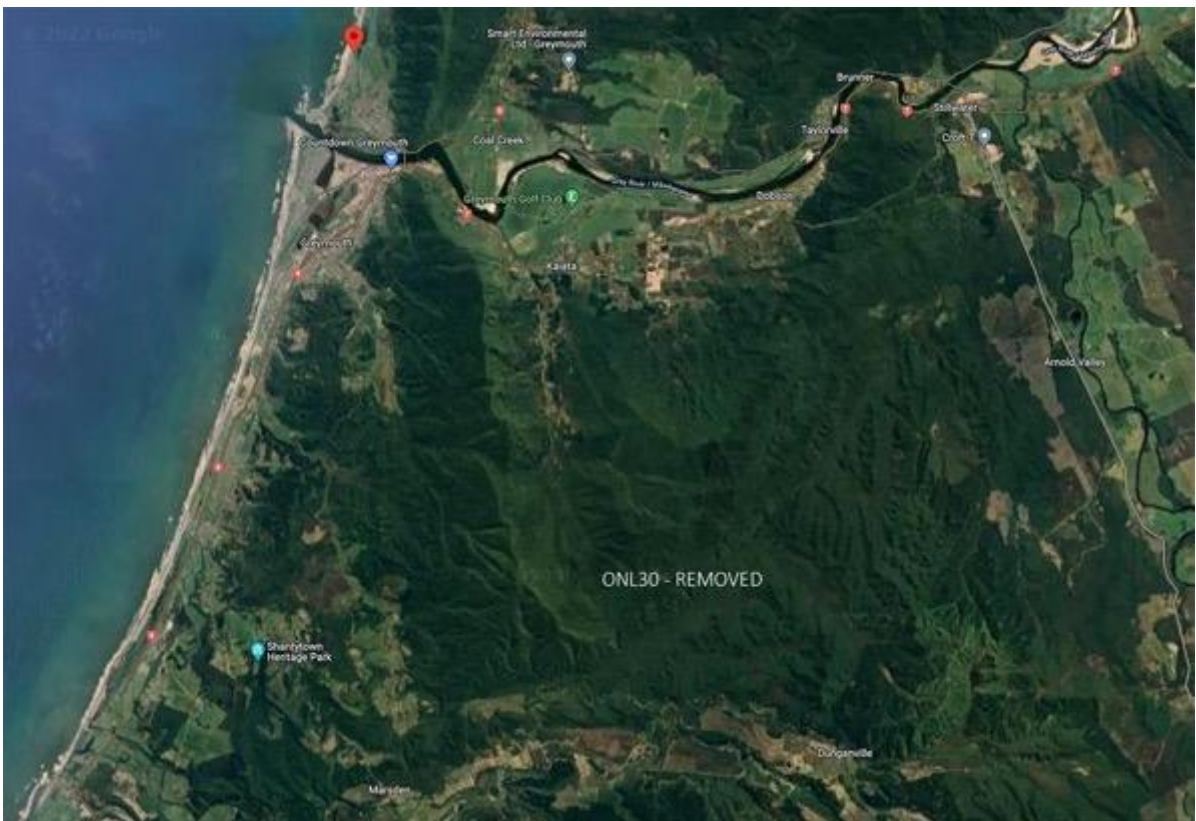


Looking south-west from Fairhall Rd, near SH7, towards Peter Ridge



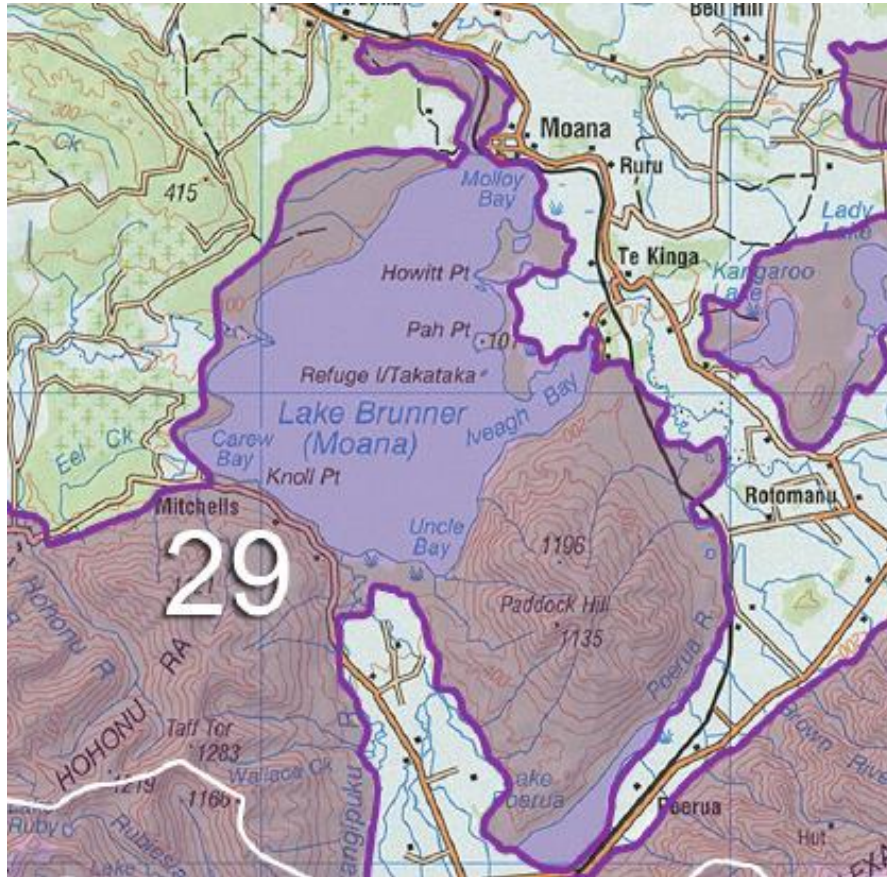
Looking across The Grey River towards Greymouth & Peter Ridge

After fully reviewing ONL30, both in the context of the Grey District and wider Region, I have concluded that ONL30 does not retain sufficient naturalness or – viewed from locations around Kaiata and Dobson, especially – display sufficient expressiveness and expressiveness to qualify as an ONL. This hill country sequence was always a margin selection as an ONL, based largely on its value as the primary backdrop to both Greymouth and Dobson. However, it is now very much on the cusp of being outstanding and significant at either the regional or district level. On balance, I consider that it falls slightly below the threshold of being an ‘outstanding’ landscape.



ONL29 Lake Brunner

As with other locations, the primary concern in relation to ONL 28 appears to be that of its spread across private properties. In addition, there has been significant development around the western and northern margins of Lake Brunner since 2013.

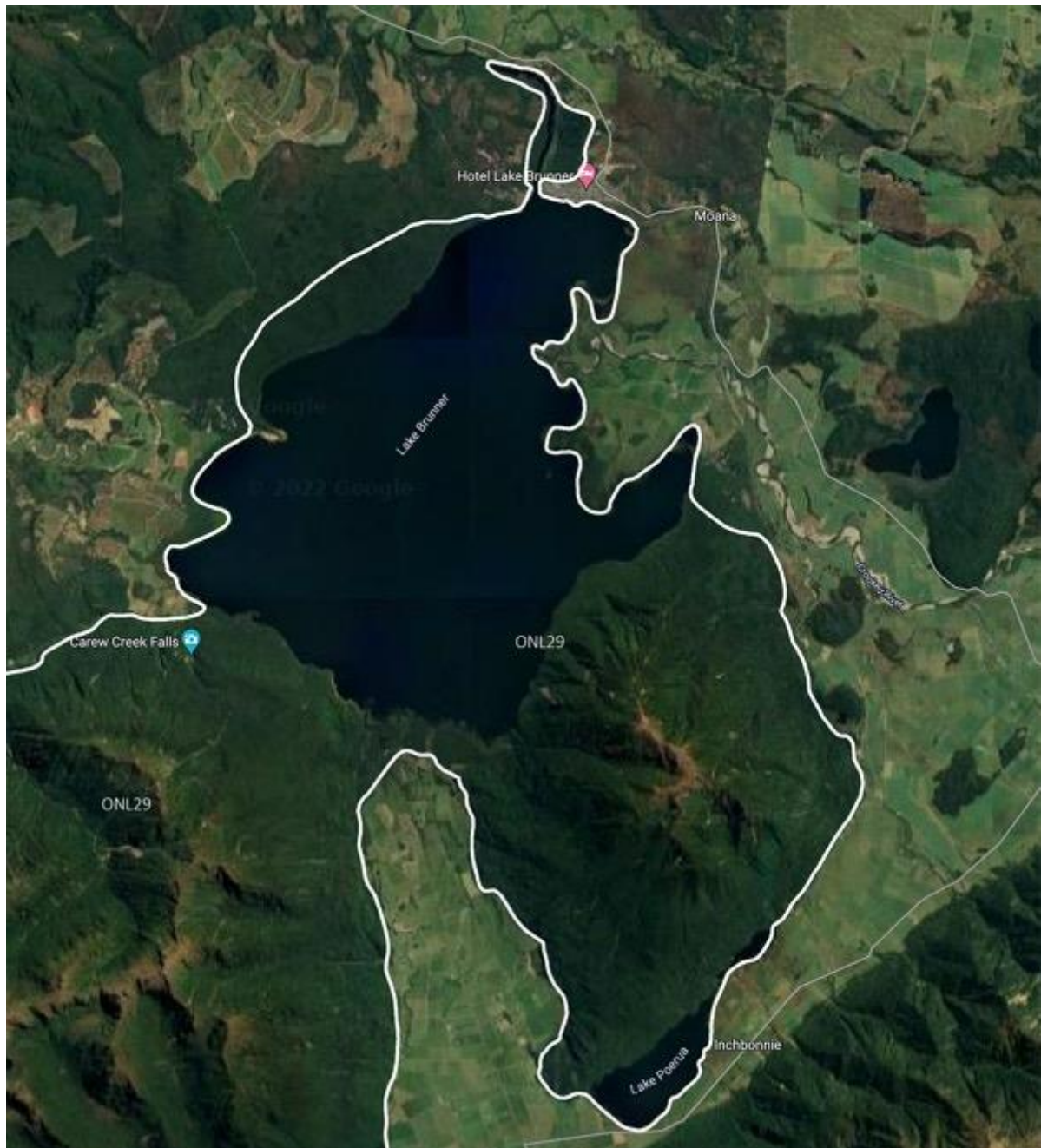


Looking towards Lake Poerua & ONFL29 from Lake Brunner Rd



Looking across Lake Brunner from Kumara Inchbowie Rd near Swan Bay

My site visits to Lake Brunner have confirmed that modification has occurred around parts of Lake Brunner since 2013, but mostly within areas outside ONL29. Again, the water body of the lake, together with wetlands along its southern and eastern margins, Lake Poerua and rising terrain covered in native forest to the south and west, anchor this ONL. The margins of those features are readily apparent and meaningful from a landscape standpoint, whereas private property boundaries – which are coincident with some of these ‘edges’ – are not a valid surrogate for them as possible ONL boundaries. Again, therefore, my recommendations – shown in the image below – focus on refinement of the ONL29 margins to avoid areas of current farming activity and development as far as is practicable without eroding the characteristics and integrity of the ONL.



ONLs 27 & 28 Taramakau River

The key issue raised in relation to ONL28 also pertains to its 'encroachment' on private properties both sides of the Taramakau River.



Looking north-west from SH73 across the plain around the Taramakau River towards the hill country & forest of ONFL 28



Looking north from SH73 up the Taramakau River valley between the Hohonu & Bald Ranges of ONFL 28



Looking up the Taramakau River near its junction with the Taipo River towards the hill country & forest of ONFL 28



Looking north-west towards the Hohonu Range & the Taramakau River from SH7 near Rocky Point

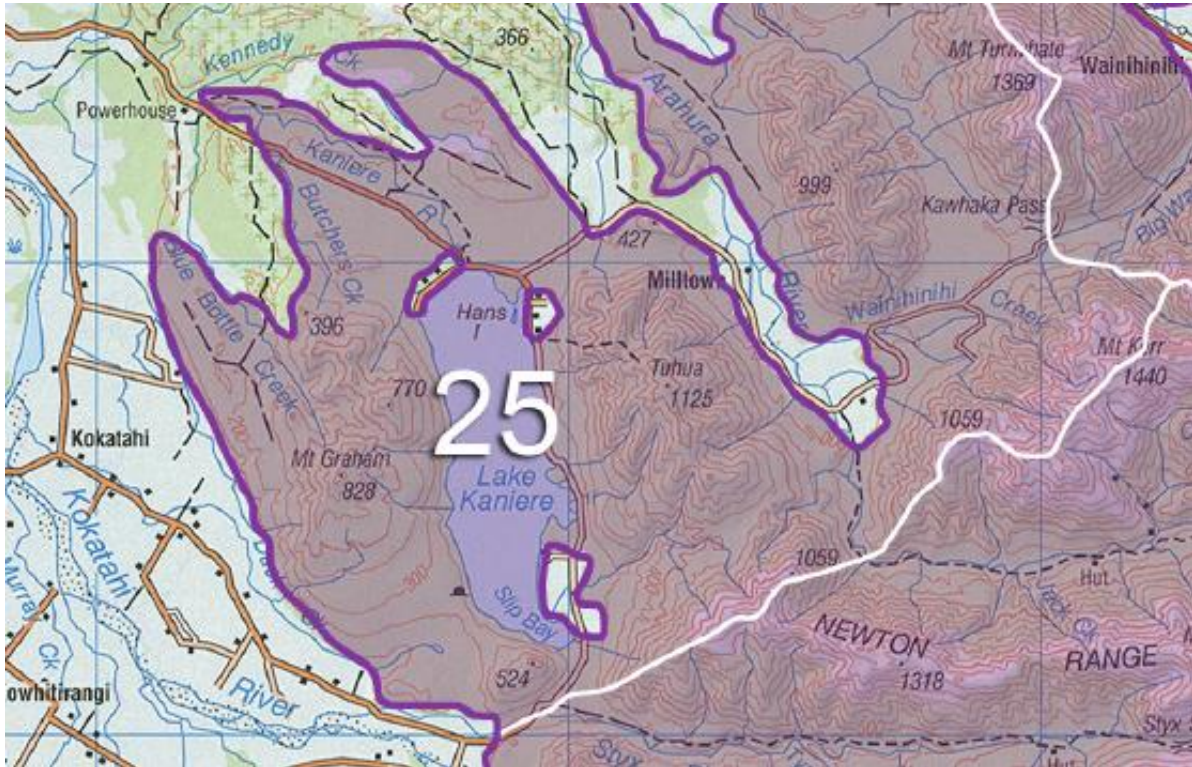
After reviewing the river valley enclosed by ONLs 27 and 28, it is my assessment that their boundaries should logically follow the edge of the ranges, together with their extensive forest cover, that enclose the Taramakau River and its flats. Below the confluence with the Otira River, this ONL 'edge' coincides with the northern bank of the river fairway.

In my opinion, the ONL boundaries proposed below are therefore legible on the ground and robust from a landscape standpoint. By contrast, the use of property boundaries would have little meaning or value. Even so, the proposed boundaries would avoid areas of farming activity and other development as far as is practicable, and are much more precise than those proposed in 2013.



ONL25 Lake Kaniere & Arahura River

Again, the main issues identified in relation to the area around Lake Kaniere relate to the presence of private properties within ONL25, although forestry and other activities on the margins of the ONL was also identified as a matter of some concern in relation to its boundary.



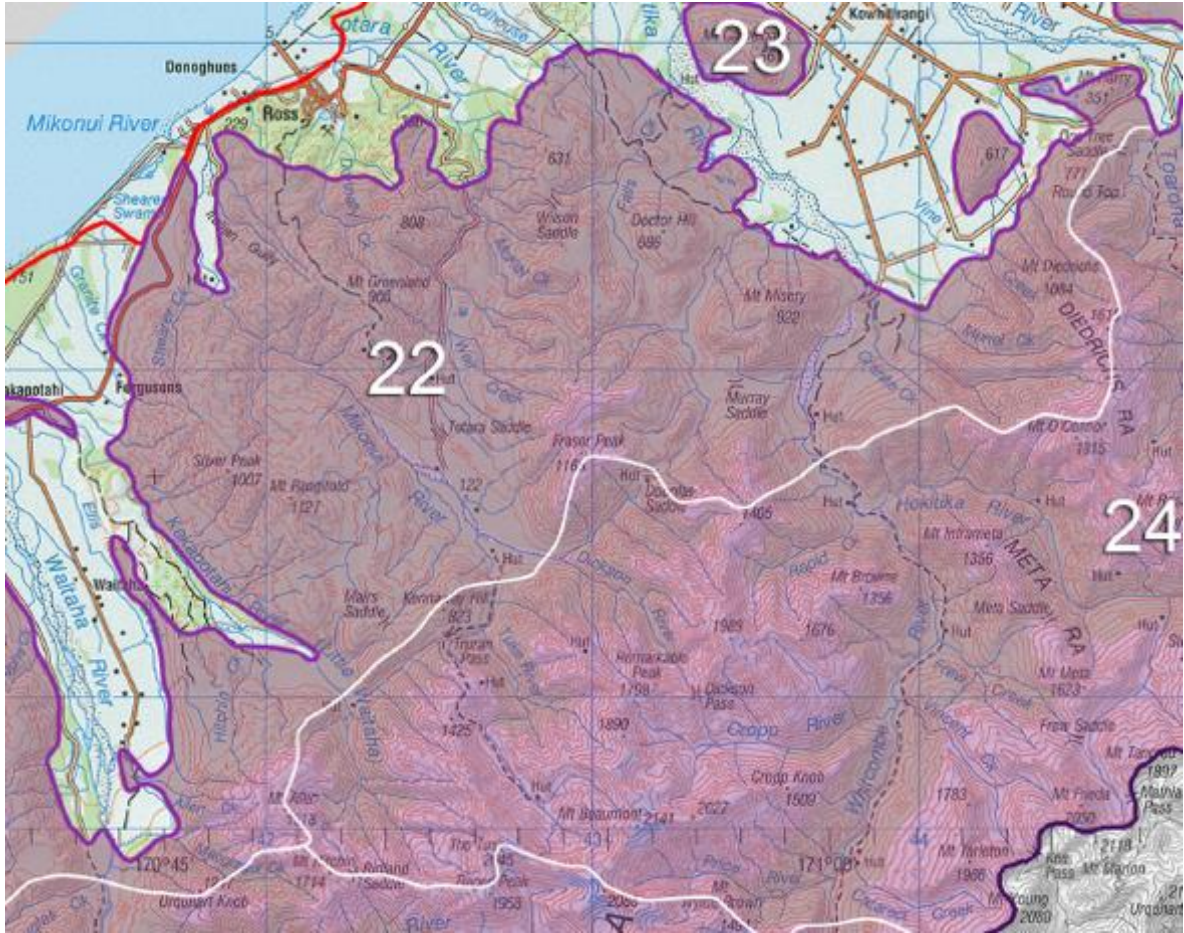
Based on my reassessment of the area around Lake Kaniere, it is clear that many of the subtle variations in land use activities and vegetation cover near Lake Kaniere and the upper Arahura River valley were not accurately identified in 2012 and 2013. The coarseness of the NZMS 260 mapping used as a base at that time was particularly problematic for areas like those east of the lake.

Using the much more recent imagery now available from Google Maps, I have refined the proposed boundary for ONL25, as shown overleaf. This would avoid the areas of production forestry and landscape modification north to east of Lake Kaniere, together with the farmland and other forms of development (such as the 'Cowboy Paradise' development) near the upper Arahura River. On the other hand, it would also capture part of the Arahura River – together with a deeply incised valley and bush – near Milltown Road that was not previously within ONL25.



ONL22 Kokatahi

The main concern identified in relation to the Kokatahi area is (once more) that of the ONL's overlap with private properties.



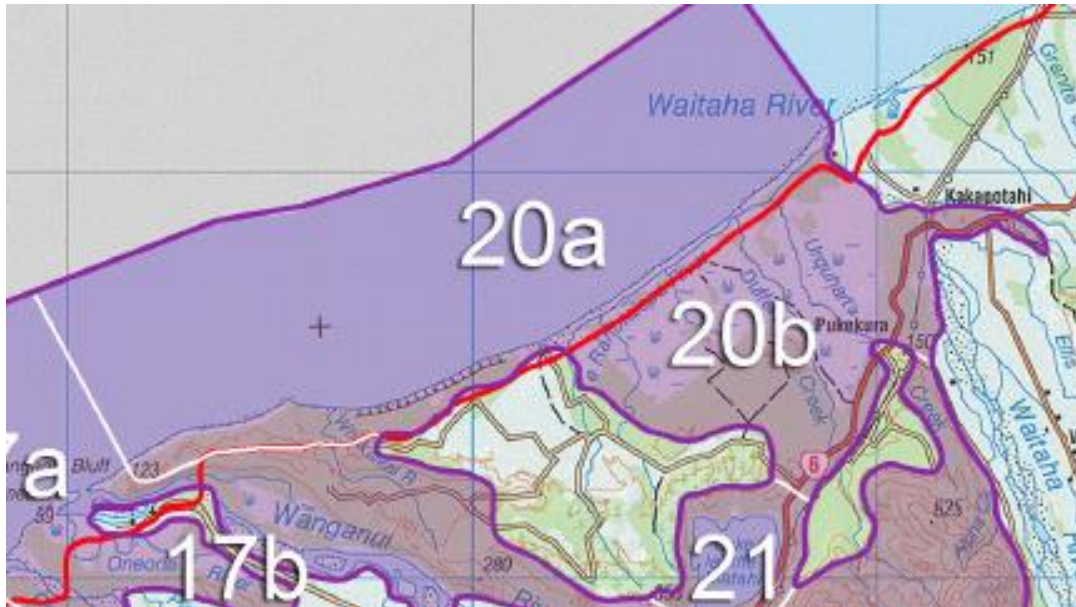
The Hokitika Gorge & part of ONFL22

In response to this, I would propose revisions to ONL22 that – based on the more accurate aerial imagery now available – avoid private properties and areas of farming activity as much as is practicable. At the same time, the revised ONL would skirt most areas of lowland bush near Ross, instead focusing primarily on those areas connected with the range of hill country anchored by the Ford Ridge. This area includes the DoC estate around the Hokitika Gorge.



ONL 20 Kakapotahi / Duffers Creek

Again, the main issues identified in relation to the area near Lake around Lake Matahi / Ianthe relate to the presence of private properties within ONL20, and other modification within that same ONL.



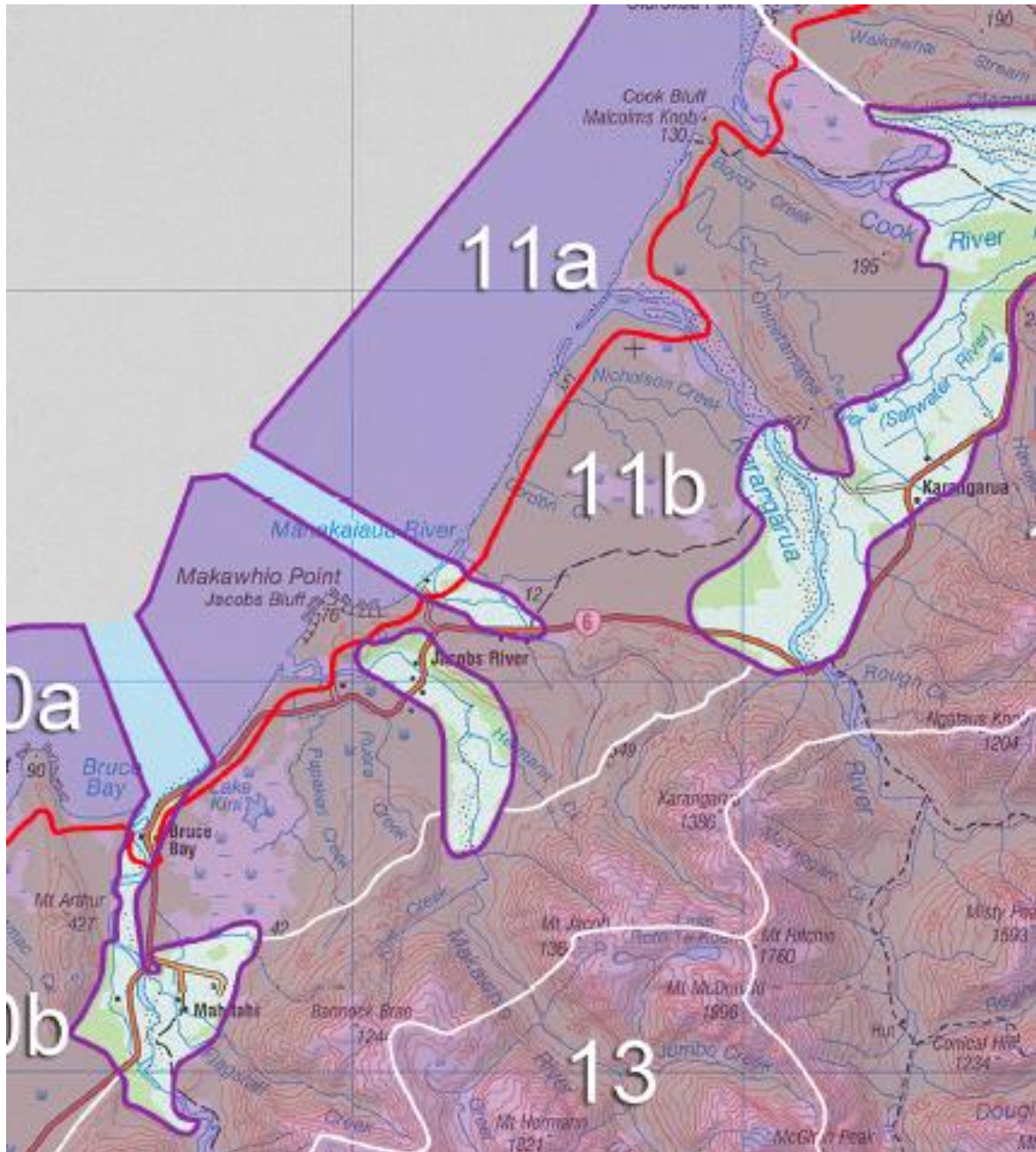
Most of the land north of Lake Ianthe is screened from public view and access is largely limited to private driveways and accessways. Consequently, much like the area near Lake Kaniere, ONL20's past mapping has suffered from a lack of insight into 'on the ground' activities and the coarseness of both the NZMS 260 and aerial images available in 2012-13. The imagery now available is much more precise and helps to 'make sense' of the landscape within and around the ONL, extending through to the edge of Alp[h]a Creek. Consequently, it is considered that the revised / refined mapping shown below should be adopted. This would greatly reduce ONL20's incursion into private properties and associated areas of activity.





ONL 11 Mahitahi / Makaawhio

The key issue identified in relation to the area near Bruce Bay and Jacobs Creek is the presence of private properties within ONL11.



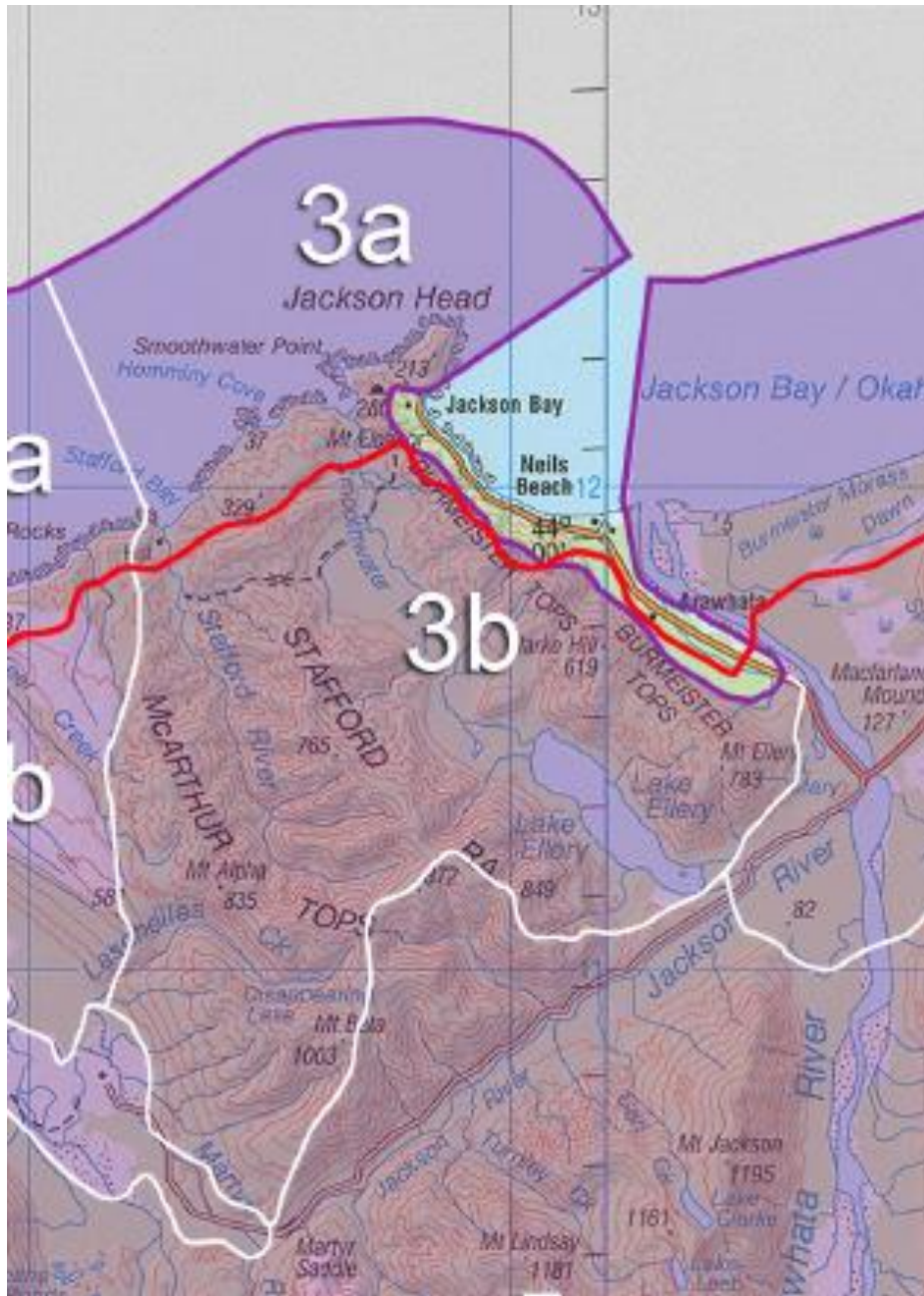
Again, the original mapping of ONL11 suffered from the same lack of precision identified in relation to various ONLs described above – due primarily to the poor quality of aerial images available (for just part of Westland) and the scale of the NZMS 260 mapping used as a mapping base in 2012-13.

Consequently, it is considered that the revised / refined mapping, shown below and overleaf, should be adopted. This is much more precise than was previously the case and would significantly reduce ONL11's incursion into private properties and area of activity on them.



ONL 3 Jackson Bay

The key issue identified in relation to the area near Jackson Bay is the presence of private properties within ONL3.



Again, the original mapping of ONL11 suffered from the same lack of precision identified in relation to various ONLs described above – due primarily to the poor quality of aerial images available (for just part of Westland) and the scale of the NZMS 260 mapping used as a mapping base in 2012-13.

Consequently, it is considered that the revised / refined mapping, shown below and overleaf, should be adopted. This is much more precise than was previously the case and would significantly reduce ONL11's incursion into private properties and area of activity on them.



3. HNC & ONC Areas Review

The following are brief summarises of the review findings for each of the HNC and ONC Areas set out in Section 1, together with a brief precis of the rationale for those findings and associated maps, aerials and (where available) photos.

HNC Area C58 Oparara River

Key concerns raised in relation to HNC Area C58 relate to its inland extent and modification of the identified HNC Area since 2013.



Looking north-west from Oparara Rd towards the Oparara River & wetlands of HNC Area C58



Looking north from Oparara Rd towards the Oparara River & wetlands of HNC Area C58

Coastal plains and terraces are fundamentally coastal landforms that are directly linked to the CMA, both in terms of their physical formation and heritage, and their perceived association with the sea. As such, they are located within the Coastal Environment. At Oparara, this is reinforced by the presence of a coastal wetland that is linked to the Tasman Sea by the tidal reach of the Oparara River. Flanked by species that range from saltmarsh to coastal shrubland and (some) forest, this area has a sense of connection with the nearby sea, and retains significant naturalness – both biophysically and perceptually: it is a natural remnant of the much more extensive wetlands that would once have dominated much of the Karamea / Oparara coastline. At the same time, however, parts of the previously identified wetland / HNC Area have been drained and converted to pasture.

Reflecting this situation, the aerial overleaf shows a revised boundary for HNC Area C58 that more accurately reflects its current extent.



HNC Area C57 Karamea River Mouth

Once more, the primary concerns raised in relation to HNC Area C57 pertain to its inland extent and modification of the identified HNC Area since 2013.



Looking towards the Tasman Sea & salt marsh / wetlands of HNC Area C57 from the Karamea Highway



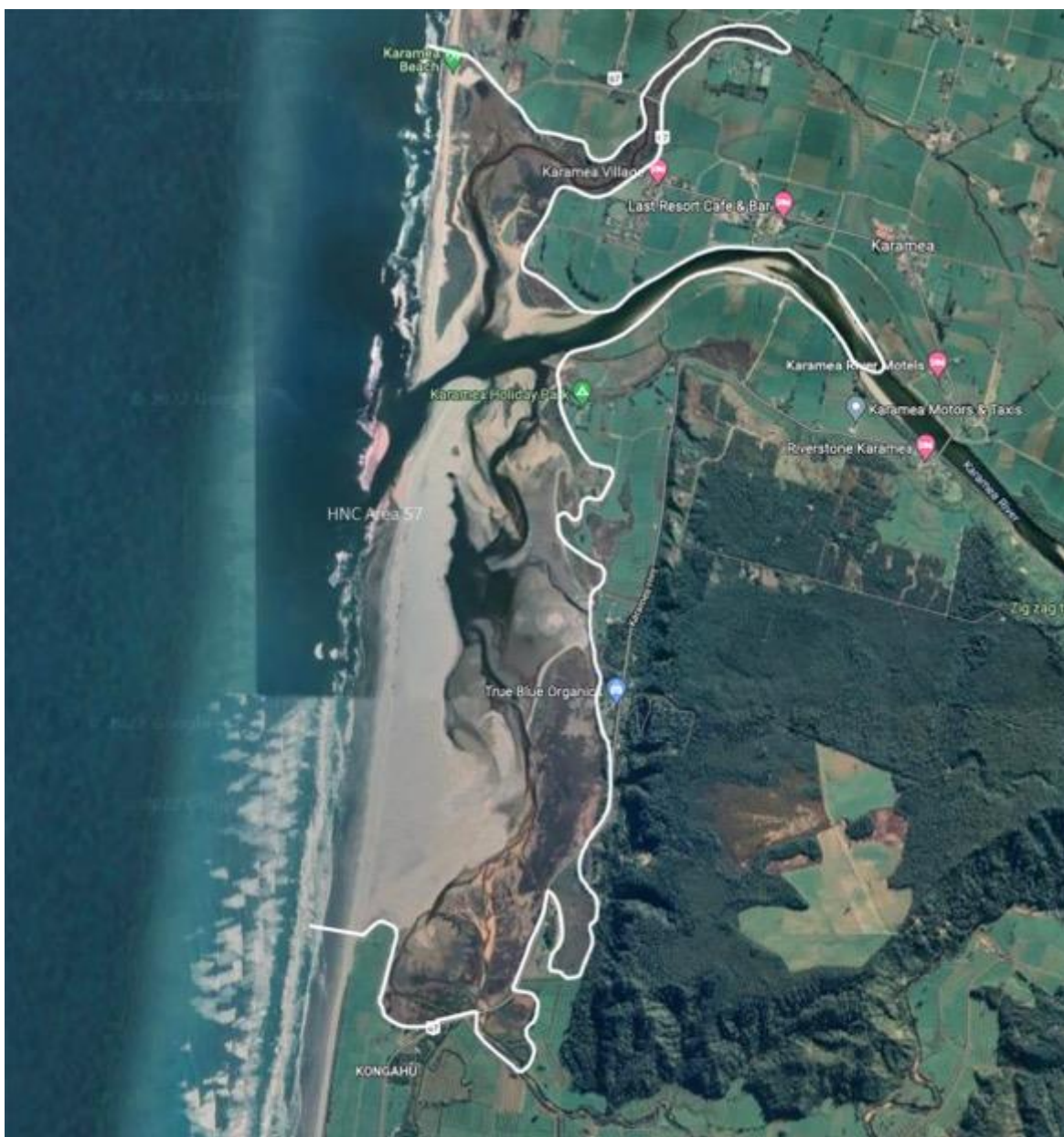
Looking inland from the Karamea Highway north of Granite Creek



Looking north from Granite Creek Rd towards some of the wetland of HNC Area C57 around the Creek

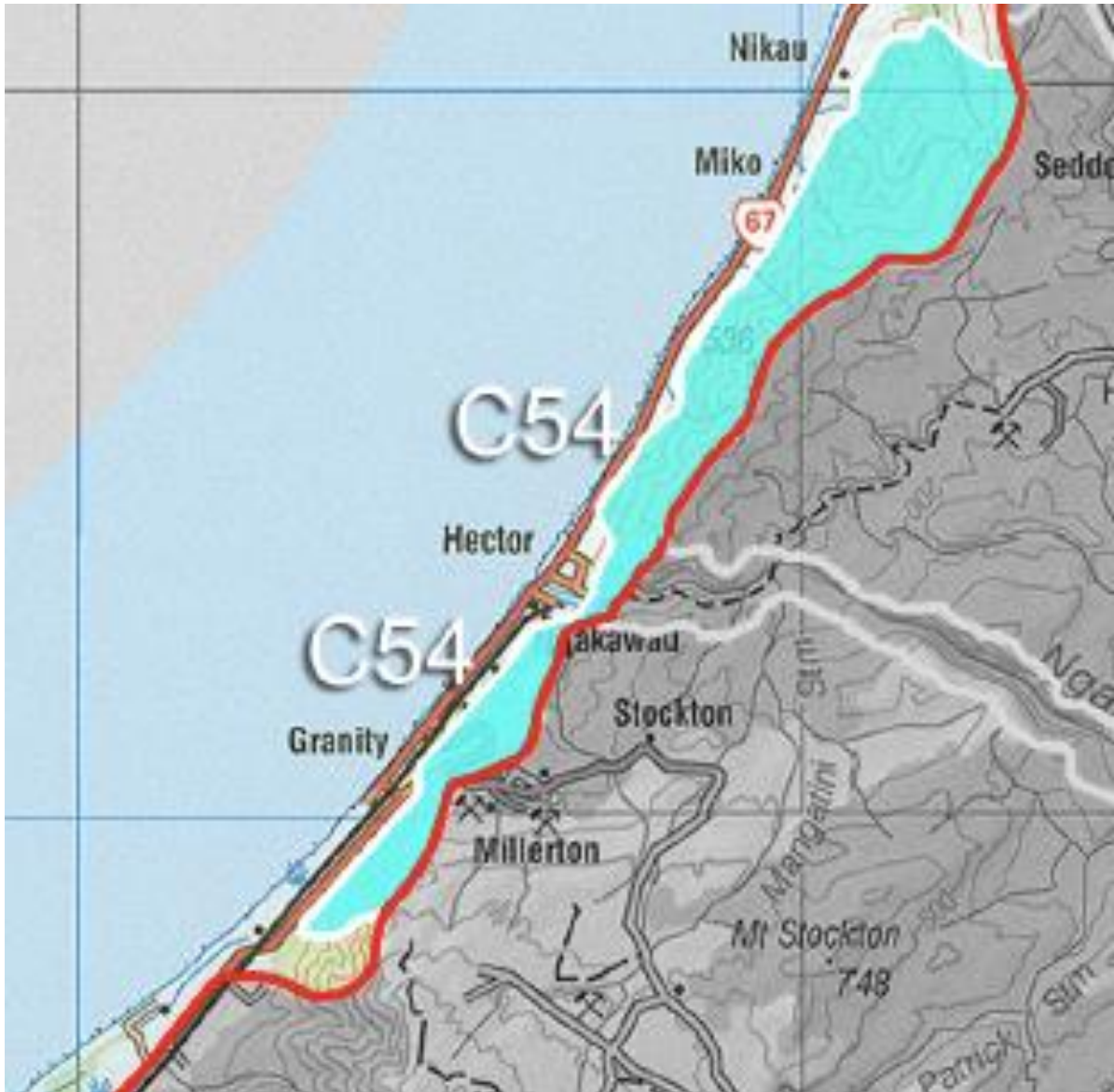
As stated for HNC Area C58, flats, plains and terraces linked to the CMA comprise part of the Coastal Environment are fundamentally coastal landforms that are directly linked to the CMA, both in terms of their physical formation and heritage and their perceived association with the sea. This is reinforced by the presence of a lagoon, tidal river corridor, low dunes, salt marsh, and other native coastal shrubs that are directly linked to the Tasman Sea. This area – either side of the Karamea River – retains significant naturalness, both biophysically and perceptually, despite being directly flanked by farmland. At the same time, however, parts of the previously identified wetland / HNC Area near Kongahu, have been subject to drainage and modification, while the original mapping of HNC Area 57 is now inaccurate in a number of locations.

Reflecting this situation, the aerial overleaf shows a revised boundary for HNC Area C57 that more accurately reflects its current extent.



HNC Area C54 Granity, Hector & Ngakawau

The key issue of concern in relation to HNC Area 54 is its overlap with parts of both settlements, together with the Ngakawau ridge, which includes the Stockton Mine cableway.



The original mapping of HNC Area 54 was, like that for other HNC / ONC Areas, very broad brush. As a result, the HNC Area does overlap both areas of settlement on the coast and some areas associated with mining activity and transportation links. The aerial images overlaid refine the original mapping to retain the key ridge slopes facing directly towards the Tasman Sea (covered in coastal shrubland and some forest), but avoids these areas of modification and activity.





HNC Area C52 Orowaiti Lagoon

The key issue raised in relation to HNC Area C52 area is the accuracy of its delineation.



Looking across Orowaiti Lagoon & HNC Area C52 from Orowaiti Rd



Looking across the southern lagoon area from Brougham St



Orowaiti Lagoon & HNC Area C52 viewed from near the speedway & racecourse



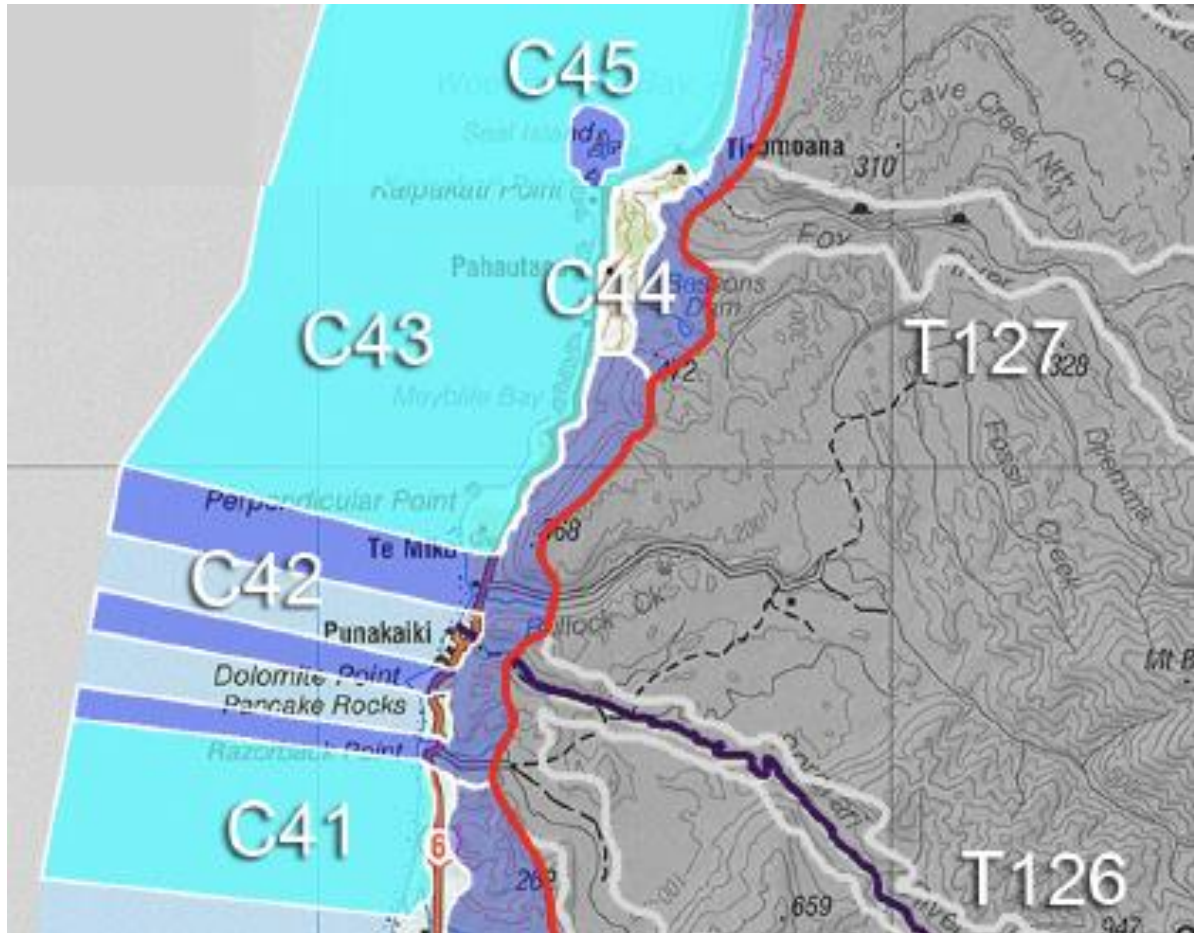
Looking towards the Tasman Sea across the dunes at the edge of HNC Area C52

Much like HNC Area C57, the Orowaiti Lagoon comprises a lagoon and river estuary, dunes, saltmarsh and some pockets of native coastal vegetation that are directly linked to the Tasman Sea. However, its 2012/13 mapping was coarse and very high level. The delineation of HNC Area C52 shown below captures the full array of coastal elements, features and processes within the Coastal Environment – that are also connected to the CMA – in a much more precise fashion than was previously the case.



ONC Area C42 & HNC Area 43 Fox River to Punakaiki

Concerns raised in relation to the area around Punakaiki and Te Miko – extending towards the Fox River – relate to the ‘lack of protection’ afforded key parts of that coastline, including the Punakaiki Rocks and the coastline either side of Perpendicular Point (including Te Miko).



The original mapping of ONC Area 42 set out to reflect the exceptional natural character values of the Punakaiki Rocks area and the area where Te Miko meets Perpendicular Point. However, those areas dominated, or strongly influenced, by the visitor accommodation development between Razorback Point and the ‘Pancake Rocks’, together with the settled area of Punakaiki Village, were excluded from the HNC and ONC areas. Between these two extremes, the area around, and to the north, of Perpendicular Point affected by residential development – but still largely natural – was attributed HNC status in 2012/13.

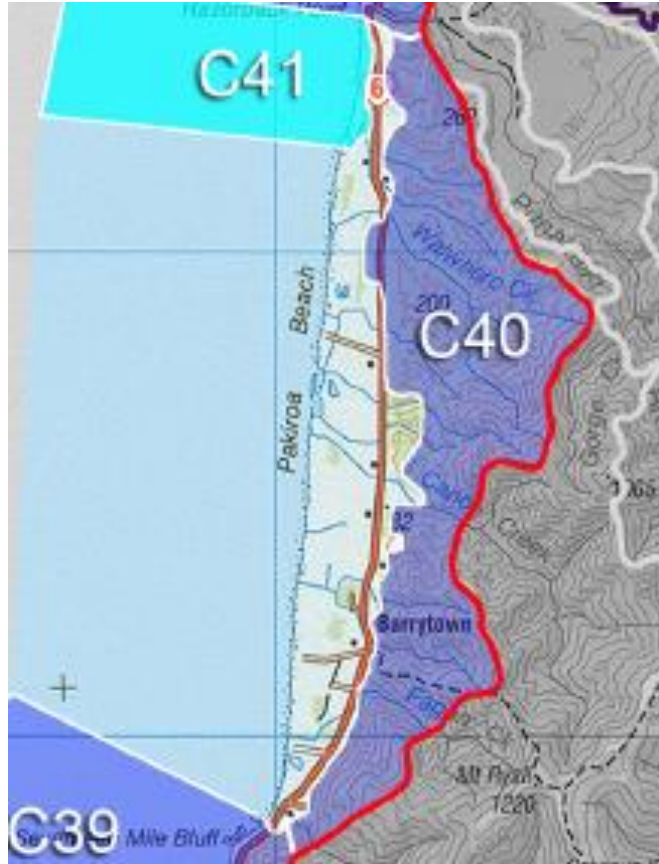
The following aerial (overleaf) fine-tunes this mapping with more precision than was possible at that time. This results in recommended changes to ONC Area 42 that would see it both extending along the coastline north of Perpendicular Point and merging with an enlarged ONC Area C44 traversing the hill cliffs and escarpments around, and behind, Meybill Bay. HNC Area C43 would be reduced to a series of pockets that wrap around residential dwellings – both near Te Miko and within approaching Kaipatiki Point.





ONC Area C40 Barrytown Flats

The key matters raised in relation to this area pertain to the delineation of ONC Area C40, with part of it extending westwards over SH6, and its 'capture' of multiple private properties.



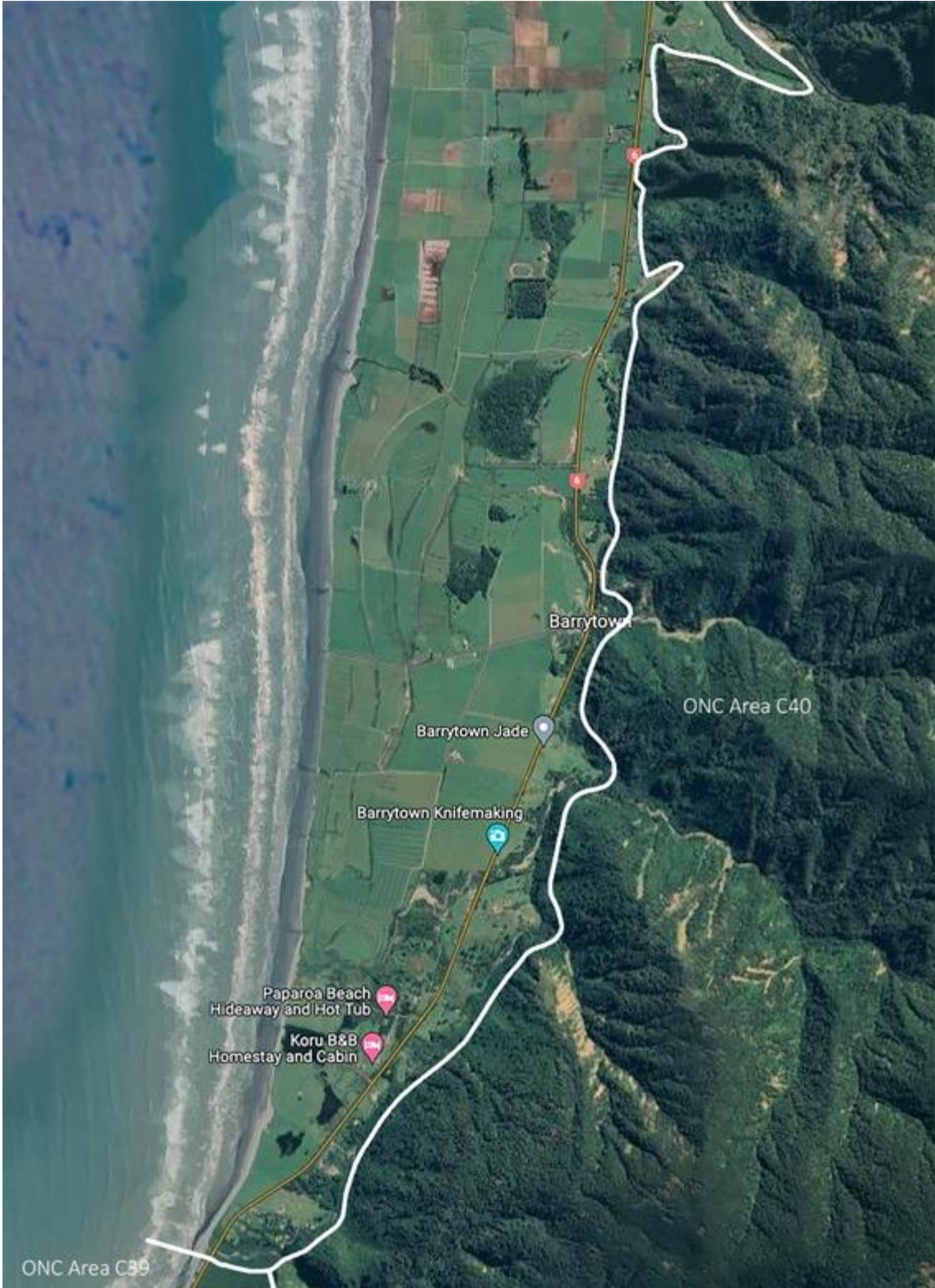
Looking across the coastal plain of proposed HNC Area C40 from SH6 north of Barrytown



Looking south across the coastal plain of proposed HNC Area C40 from SH6 just north of Barrytown

As with other HNC and ONC Areas, above, the following shows the boundary of ONC Area C40 re-defined, using accurate and up-to-date aerial imagery. Most of this ONC Area would remain east of SH6, with just an area of remnant coastal forest crossing the highway – extending towards the Tasman Sea, but not reaching it. Additionally, I have reviewed the status of this area and determined that the farmland across Barrytown's coastal flats exert considerable influence over the ONC Area defined in 2013. Consequently, I would recommend changing ONC Area C40 to HNC Area C40. Together with refinement of the ONC / HNC boundary, this would reduce the 'encroachment' on private properties around Barrytown.





HNC Area C36 Peter Ridge

Concerns have also been raised about the HNC Area status of the hills and native forest above and behind Greymouth, on the Peter Ridge (in a similar vein to ONL30).



Looking towards Greymouth & Peter Ridge over Cobden Island & the Grey River

In my assessment, the natural character values of the Peter Ridge are now sufficiently affected, and compromised, by its juxtaposition with Greymouth's urban that both HNC Areas identified in 2013 should be removed – as shown on the aerial image overleaf. In particular, I am concerned that while the ridge stands out in more distant views, Greymouth remains clearly interposed between it and the CMA when experienced from closer up, and development has already impacted on the HNC Area's margins. Accordingly, I no longer consider that it is worthy of the status attributed Peter Ridge in 2013.



HNC Area C35 Karoro South Beach to Camerons

The key concern identified in relation to HNC Area C35 is its delineation and encroachment of private properties.



Looking across the wetland within HNC Area C35 from near the wetland information centre & car park on SH6

In my opinion, the core HNC Area remains valid and is appropriately identified. However, some of its margins are not accurate. Consequently, I would recommend refinement and fine-tuning of the HNC Area boundary, as is shown of the aerial image overleaf.



HNC Area C33 Chesterfield Terraces

The key matter raised in relation to both coastal terrace fore-slopes is the delineation of HNC Area C33 on the Regional Council's digital maps.



Looking towards the elevated coastal terrace within the southern half of HNC Area C33 north of Awatuna

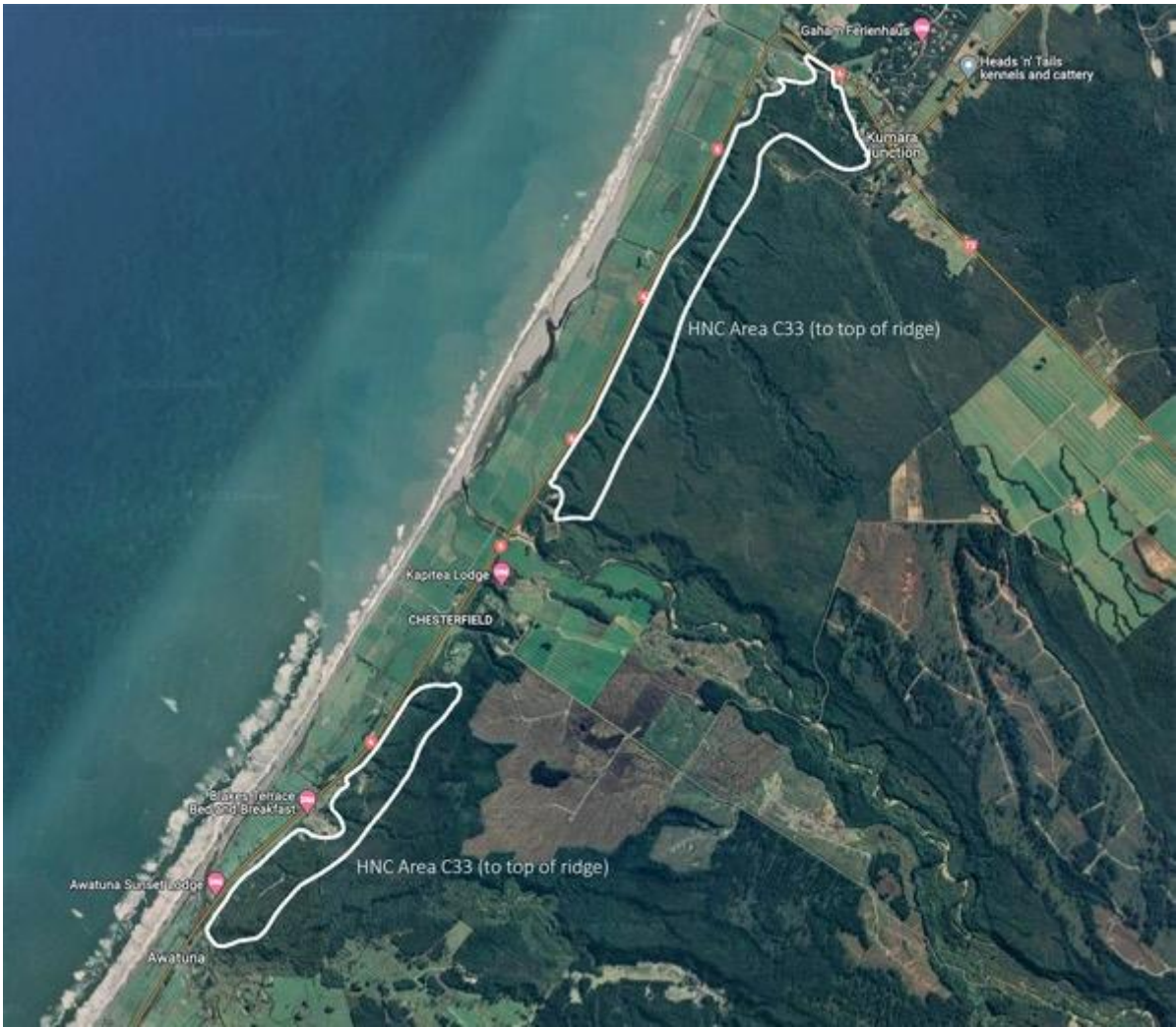


Looking towards the elevated coastal terrace within the northern half of HNC Area C33 north of Chesterfield Rd



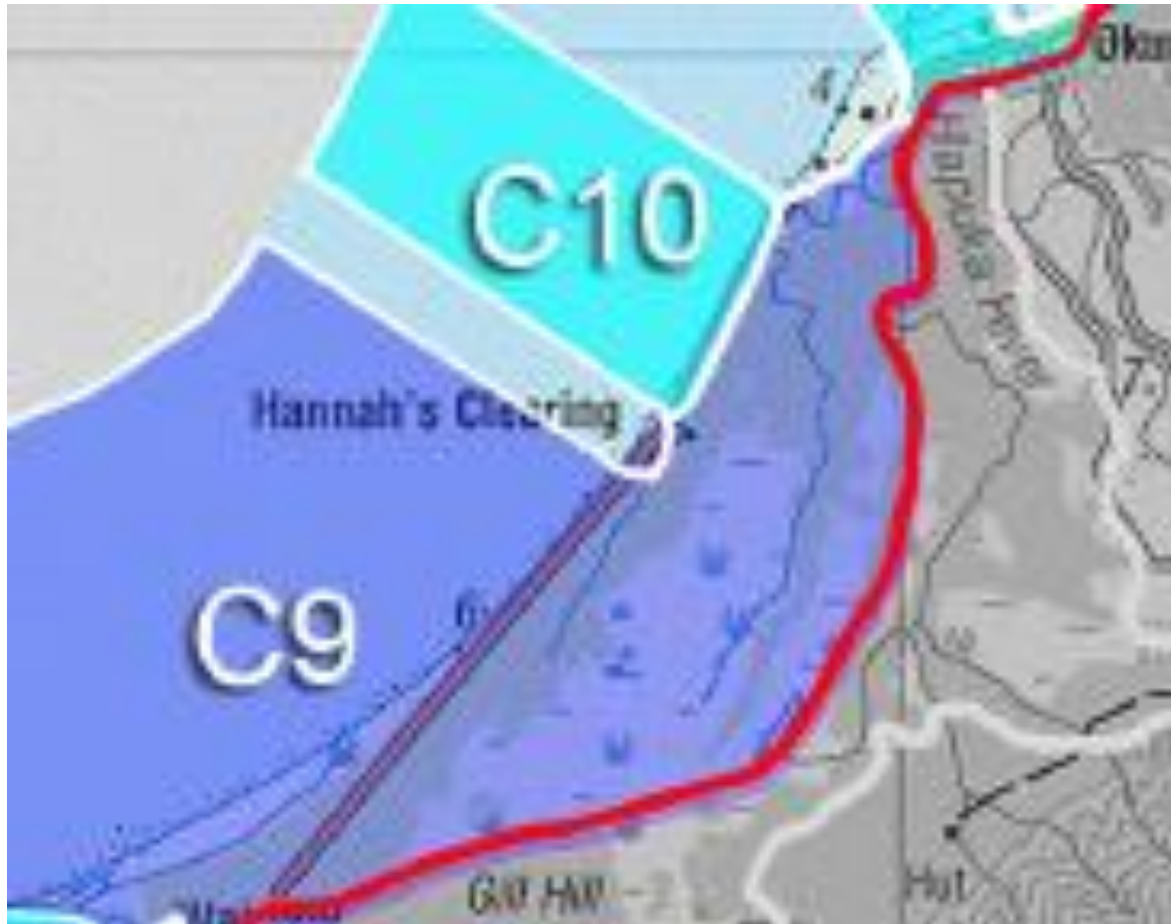
Looking towards the edge of the southern terrace (Not HNC Area) immediately south of Chesterfield Rd

Having reviewed the Council mapping for HNC Area C33, it appears that both linear 'nodes' appear to have slid inland – off the coastal fore-slopes and coastal shrubland onto the plateaux behind those slopes. The following aerial shows my recommendations for a revised HNC Area C33, starting near the railway line and SH6 and terminating on the crest of the fore-slopes. However, this recommendation needs to be, in turn, reviewed by Regional Council staff to ensure that the inland edge of this HNC Area terminates at that crest, as the images shown below do not incorporate contour information, The revised HNC Area boundary would also avoid areas of more obvious development and modification on both ridge faces.

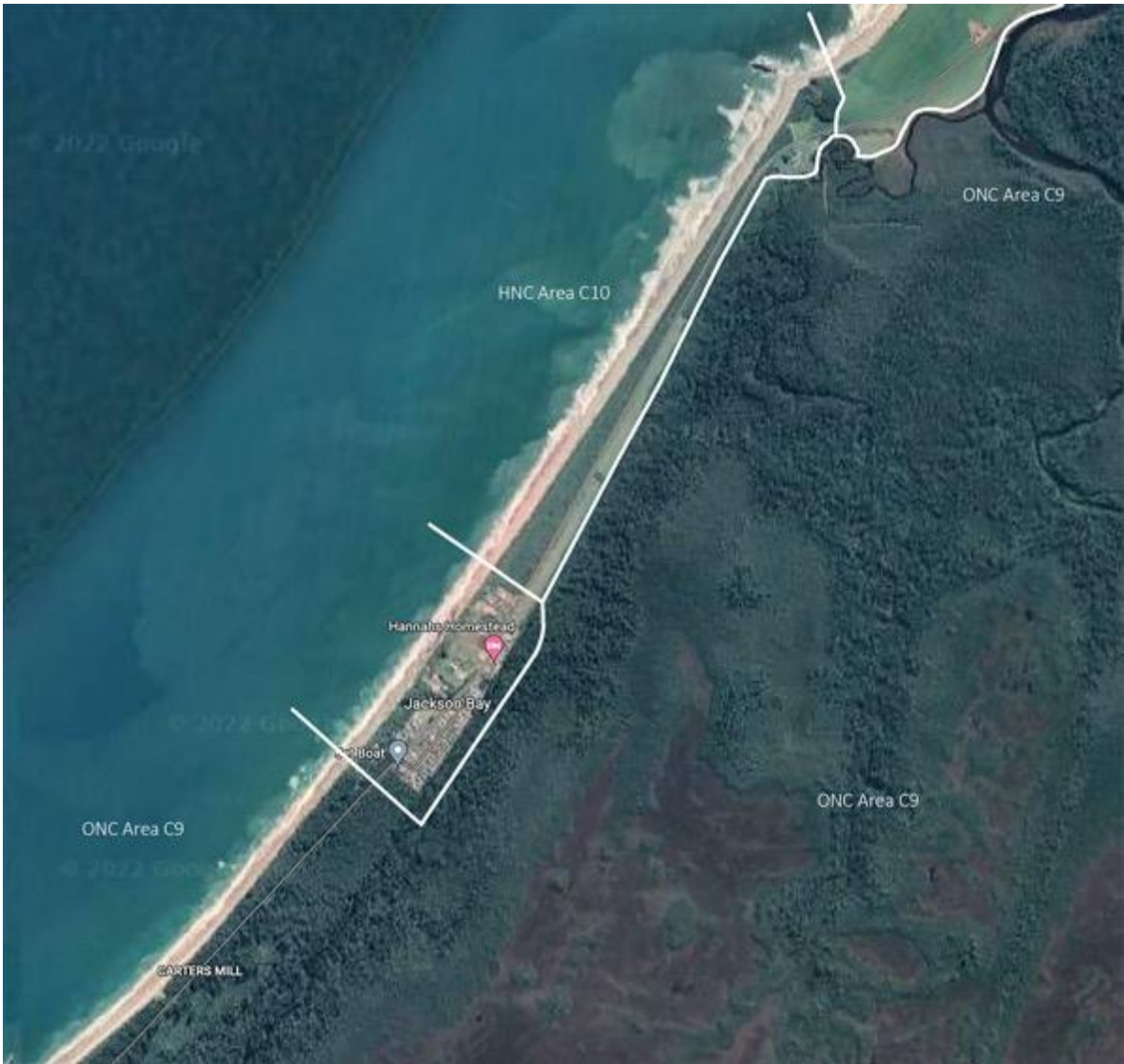


HNC Areas C9 & C10 Arahura (Hannahs Clearing)

Concern was raised about the way in which Council's mapping of ONC Area C9 shows it overlapping the settlement at Hannahs Clearing.



In reality, as shown on the aerial image overleaf, Hannahs Clearing should have been excluded from the settlement. In my view, ONC Area C9 and HNC Area C10 should be revised reflect the modified boundaries shown on that aerial. This would also leave a small buffer area between Hannahs Clearing and ONC Area C9, and would more accurately define the edge of the adjoining HNC Area C10.



ONC Area C9 Waiatoto Lagoon and Wetland

The key issue identified in relation HNC Area C10 near the Waiatoto River.



Unfortunately, the 2012/13 mapping for the area around the Waiatoto River reflects the lack of detail found in the NZMS mapping employed at that time. The much more detailed aerial imagery now available allows for more accurate plotting of the ONC and HNC boundaries near the River. Consequently, it is my opinion that Council's maps should be redrawn to reflect the changes recommended overleaf.



4. Summary

Having reviewed the areas of concern identified by the West Coast Regional Council, it is clear that many of the mapping errors identified in this review are derived from:

- The 1:50,000 scale of the NZMS mapping employed in 2012/ 13;
- The limited aerial photography available at that time – moreso away from Westport, Greymouth and Hokitika, as well as across Westland more generally;
- The difficulty of accessing properties away from the public domain of local roads and reserves;
- The inadvertent relocation of at least one HNC Area in the process of transference from the original landscape study maps to the Regional Council's digital data base.

I have rectified those ONL and HNC/ONC Area boundaries in response to Council's identification of areas of concern in the brief received from Council. However, it is equally clear that the persistent issue of ONLs and HNC/ONC Areas encroaching on private properties could be partly (though, not wholly) addressed via the sort of re-mapping shown in this report.

On the other hand, regional scale maps are often quite broad-brush, and it is inevitable that some ONLs and HNC/ONC Areas would still capture private properties, as the RMA is primarily directed at the management of NZ's private domain (as opposed to its national, regional and district reserves, and the DoC estate more generally). Put simply, the boundaries of ONLs and HNC/ONC Areas occasionally align with those of private properties and their interface with DoC land and other reserves / parks, but that is rarely the case. Boundaries that are meaningful from a landscape standpoint must respond to the terrain, vegetation, water areas and land uses found in any area, irrespective of cadastral boundaries. Having said this, it is hoped that the sort of realigned boundaries shown in this report would, at the very least, appreciably reduce the degree to which ONLs and HNC/ONC Areas 'capture' private properties and areas of private activity.

Stephen Brown

BTP, Dip LA, Fellow NZILA

