

Tasman District

LANDSCAPE STUDY 2021

OUTSTANDING NATURAL FEATURES AND LANDSCAPES

DRAFT for Landowner Consultation



Front material to be inserted

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Acknowledgements

Short description of document for referencing purposes

Project Team:

Tasman District Council

Bridget Gilbert

Dr Bruce Hayward

Davidson Environmental Limited

Mike Harding

Boffa Miskell Limited

Nuggety Creek fossil leaves - photograph supplied by Dr Bruce Hayward



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Section A

Executive Summary

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Executive Summary

Tasman District Council engaged Bridget Gilbert Landscape Architecture Limited (BGLA) in March 2019 to investigate and identify the Outstanding Natural Landscapes (ONLs) and Outstanding Natural Features (ONFs) within the Tasman District (the ‘Tasman District Landscape Study’). The purpose of the Tasman District Landscape Study is to inform the forthcoming Tasman Resource Management Plan District Plan Review process, which is (amongst other considerations) intended to give effect to s6(b) of the Resource Management Act 1991 and Policy 15 of the New Zealand Coastal Policy Statement 2010.

The Tasman District Landscape Study report is structured as follows:

- Section A:** Executive Summary
- Section B:** Introduction to the Tasman District Landscape Study
- Section C:** Tasman District Landscape Study Methodology
- Section D:** ONL Schedules and Mapping
- Section E:** ONF Schedules and Mapping

The landscape of the District is very diverse and unique, both geologically and ecologically; and, like the region’s varying climatic characteristics, the landscapes are consequently varied and distinctive. They include: the magnificent mountain ranges framing the western, southern and eastern sides of the District; the wild and remote west coast; the more serene waters and necklace of inlets and sandy beaches that comprise Golden Bay/Mohua; the highly popular national parks taking in rugged alpine landscapes, majestic beech forest and highly sculpted coastal landscapes; the rolling hill country with its erosion-prone and less fertile soils the fertile alluvial valleys and river terraces and the attractive coastal plains.

In summary, a total of seven **ONLs** have been identified in the Tasman District as follows:

- ONL 1 Northwest Coast
- ONL 2 Parapara - Kahurangi Ranges
- ONL 3 Golden Bay - Mohua
- ONL 4 Abel Tasman
- ONL 5 Wainui Bay
- ONL 6 Nelson Lakes – Southwestern Ranges
- ONL 7 Eastern Hills and Mountains

The landcover identified as ONL amounts to 70% of the District area. Importantly, 92% of the area identified as ONL is either National Park or conservation land. In turn, this means that 3.7% of the District that is outside the National Park or public conservation land estate is identified as ONL.

With respect to the extent of ‘seascape’ that is identified as ONL, assuming the district/region extends 12 nautical miles from MHWS (based on Statistics New Zealand advice), 33% of the seascape is identified as ONL.

A total of thirty-three **ONFs** have been identified throughout the District as follows:

- ONF 1 Aorere Gorge and Salisbury Falls
- ONF 2 Beebys Conglomerate Cretaceous Terrestrial Sequence
- ONF 3 Big River
- ONF 4 Cobb Valley Magnesite and Karst
- ONF 5 Devils Boots
- ONF 6 Farewell Spit and Tidal Flats
- ONF 7 Hamama and Takaka Valley Sinkholes
- ONF 8 Horse Terrace Bridge Gorge
- ONF 9 Kaka Point and Island
- ONF 10 Labyrinth Rocks Karst
- ONF 11 Lake Killarney Sinkhole Lake
- ONF 12 Lower Matakītaki Landslide
- ONF 13 Maruia Falls
- ONF 14 Motueka Sand Spit
- ONF 15 Motupipi Hogback
- ONF 16 Moutere Bluff to Kina Coastal Cliffs
- ONF 17 Mt Arthur Marble Karst and Caves
- ONF 18 Mt Owen Marble Karst and Caves
- ONF 19 Nuggety Creek Road Fossil Leaves and Sedimentary Sequence
- ONF 20 Paynes Ford, Irvines Cave, Oxbow and Spring
- ONF 21 Puponga Point
- ONF 22 Rangihaeata Fossil Forest
- ONF 23 Takaka Hill and Pīkikiruna Range Cave Network
- ONF 24 Takaka Hill Marble Karst
- ONF 25 Tarakohe Coastal Cliffs and Natural Tunnel
- ONF 26 Te Waikoropupū Springs
- ONF 27 The Grove
- ONF 28 Thousand Acres Plateau
- ONF 29 Tokangawha/Split Apple Rock
- ONF 30 Trilobite Rock
- ONF 31 Wairoa River Coal Measures and Dinosaur Footprint
- ONF 32 West Coast and Aorere Valley Caves
- ONF 33 White Creek Fault Displaced Terraces

Of the thirty-three identified ONFs: 9 ONFs are fully within private land; 5 ONFs are fully within public land; and 19 ONFs coincide with a mix of public and private land. Only 0.51% of the District is identified as ONF.

Figure 1 opposite provides an overview of the location and extent of the identified ONLs and ONFs within Tasman District. Detailed mapping together with a schedule of the attributes and values associated with each ONL and ONF are attached In **Sections D** and **E** respectively.

The ONL and ONF Schedules detail the landscape attributes and values that need to be protected from inappropriate subdivision, use, and development. The Schedules also outline the sorts of development that are likely to adversely impact on landscape values within each ONL or ONF. This information may support the development of a nuanced landscape policy approach that responds to the specific sensitivities of the different ONLs and ONFs within the District.

It is acknowledged that the Tasman Landscape Study is the first step in developing appropriate landscape policy as part of the District Plan Review. It is envisaged that as the Council works through the plan review process, detailed site investigations may be required to verify the ONL and ONF mapping and schedules at a finer grain.

Detailed mapping to be inserted: District wide ONLs and ONFs as a quick overview of the findings, sourced from Boffa Miskell

Section B

Introduction to the Tasman
District Landscape Study

Background

To date, there has been no district-wide (or region-wide¹) landscape study of the Tasman District.

There have, however, been a number of (in some cases, quite detailed) landscape studies undertaken in relation to the Golden Bay and Northwest Coast portion of the district, stretching (very roughly) from Farewell Spit eastwards to Takaka Hill and Abel Tasman National Park, and southwards to Big River, taking in the Parapara and Kahurangi Ranges. This portion of the district was focused on initially as a result of its high landscape values in combination with a range of location-specific, land and marine-based development pressures.

A range of 'expert' landscape assessment methodologies have been used in each of the Golden Bay and Northwest Coast studies to date. There was also considerable input from the 'Small Working Group' members (**SWG**), who represented a variety of community groups and brought a vast amount of local knowledge to the landscape evaluation of this part of the district. The SWG went through a collaborative, iterative and rigorous process over four years (2011-2015) to reach agreement on its recommended ONLs and ONFs throughout Golden Bay and the Northwest Coast.

As part of the Tasman District Landscape Study, BGLA reviewed all of the previous studies and recommended that, given the extensive amount of landscape assessment of this part of the District (both expert and community based), its broad-brush consistency with landscape assessment best practice (in terms of the range of factors described or characterised and evaluated), and the general consensus of the majority of the landscape reports as to the parts

¹ Tasman District Council is a unitary authority, so has the responsibilities, duties and powers of both a regional and territorial (district) council. As such, the council's 'district' and 'regional' boundaries are identical.

of Golden Bay and Northwest Coast that qualify as ONL or ONF, a pragmatic approach should be applied in the Tasman District Landscape Study that seeks to 'build on' the preceding work rather than to undertake a 'first principles' landscape assessment. A summary of the BGLA review of the previous reports is attached in **Appendix A** and includes a list of the key areas of agreement and disagreement with respect to ONL and ONF mapping across the various studies. **Appendix A** also includes reference to two key Environment Court decisions of relevance to landscape assessment within the district.

The Small Working Group Report (2016) (**SWG Report**) forms the most recent, comprehensive landscape report for Golden Bay and Northwest Coast and was considered to be an appropriate 'starting point' for the current landscape study in relation to this part of the district. It also offers a quite unique resource in terms of understanding the shared and recognised values of the Golden Bay and Northwest Coast landscape due to the cross section of community involvement.

On the face of it, this potentially presents methodological issues as:

- the Golden Bay and Northwest Coast portion of the district has been subject to a greater level of landscape analysis and community consultation input over the years than the balance of the District; and/or
- the landscape assessment of the balance of the district is essentially a 'first principles' expert study, whilst that relating to the Golden Bay and Northwest Coast portion of the district effectively builds on the substantial volume of landscape analysis (both expert and community based) that has been undertaken to date.

Durville River valley with Ella and Travers Range



Detailed district wide mapping to be inserted of Golden Bay and Northwest Coast area. Land shadow base with some place names to orient reader. TDC boundary (Study Area) and Golden Bay Northwest Coast area defined. Sourced from Boffa Miskell.

For these reasons, it was agreed that it would be beneficial to integrate a **landscape peer review** role throughout the course of Tasman District Landscape Study to ensure that at each 'step of the way', a consistent landscape assessment methodological approach was followed.

Mr James Bentley of Boffa Miskell has provided landscape architectural peer review support throughout the course of the Tasman District Landscape Study project. Peer review inputs were specifically provided at the following stages of the project:

- a. Development of an Assessment Methodology for the Tasman District Landscape Study.
- b. Field survey to confirm the preliminary findings of the Tasman District Landscape Study, including: the application of a threshold for 'outstanding' and reviewing ONL and ONF boundary delineation methods (both of these aspects of landscape assessment are discussed in more detail shortly).
- c. Commentary with respect to a 'Final Draft (2)' version of the Tasman District Landscape Study report and accompanying ONL and ONF Schedules and mapping.

Appendix B provides a brief summary of the peer review comments provided at each of these stages of the project, together with brief comment as to how the peer review recommendations were integrated into the subsequent work, or, where appropriate, an explanation as to why the peer review recommendations were not incorporated.

Landscape Assessment ‘Principles’

It is widely accepted by the Environment Court² and landscape experts that for a landscape to rate as an ONL, or a feature to rate as an ONF, three key questions need to be satisfied:

- a. Is the area a 'landscape' or 'feature'?
- b. Is the landscape or feature 'natural' enough to be considered for identification as a RMA s6(b) landscape or feature?
- c. Is the natural landscape or feature 'outstanding'?

For the purposes of the Tasman District Landscape Study, the following definition of 'landscape' has been adopted:

"Landscape is the cumulative expression of natural and cultural features, patterns and processes in a geographical area, including human perceptions and associations."

— Source: NZILA Best Practice Note 10.1 'Landscape Assessment and Sustainable Management'

This definition points to the concept of 'landscape' embracing the three broad components:

- a. **Biophysical attributes:** The physical elements of the landscape, including its geomorphological, ecological and biological elements, and involving more objective and quantifiable data.

- b. **Sensory attributes:** Sometimes referred to as the 'perceptual' aspects of the landscape and involving consideration of: aesthetic characteristics; the degree of naturalness of a landscape; its memorability, legibility and expressiveness; transient matters; and experiential aspects such as smells, sounds and a sense of remoteness.
- c. **Associative attributes:** Sometimes referred to as the 'meaning' of the landscape and including: cultural; historic values; shared and recognised values; and recreational and scenic values.

The scope of this definition of 'landscape' is in keeping with the range of factors (commonly referred to as the *WESI* or *modified Pigeon Bay factors*) that have been widely accepted by the Environment Court and landscape experts to provide a useful starting point in understanding landscape values and determining the location and extent of ONLs and ONFs (noting that a number of more recent Environment Court decisions have provided greater guidance on the scope and meaning of the various factors³). These factors are also listed in Policy 15(c) of the New Zealand Coastal Policy Statement 2010, albeit with slightly different wording and the addition of reference to the presence of water and vegetation (including exotic vegetation), wild and scenic values, cultural values being identified in accordance with tikanga Māori, and the expression of cultural and spiritual values as cultural and landscape features.

Put another way, it is generally accepted that a thorough description and evaluation of landscape in terms of these three components assists in identifying 'the landscape' (or the 'feature') and answering the questions as to whether it is 'natural' and 'outstanding'.⁴

³ For example, see *Western Bay of Plenty District Council v Bay of Plenty Regional Council* [2017] NZEnvC 147.

⁴ To this end, it is noted that clearly there is a degree of overlap between many of the factors, for example 'naturalness' and 'remoteness' are both an associative and a perceptual/sensory value raising potential issues as to how the factors are 'grouped'. However overall, the key consideration is the inclusion of a comprehensive range of factors for consideration within a landscape assessment that enable a thorough understanding of landscape values.

Nelson Lakes National Park



Turning to the task of landscape assessment itself, this typically involves a two-step sequential process comprising:

- a. Landscape Characterisation; and
- b. Landscape Evaluation.

Landscape Characterisation

Landscape Characterisation typically involves the 'land typing' of a district (or region) to identify a series of landscape character areas or **landscape character units** (LCUs). The process of landscape characterisation relies largely (although not entirely) on objective information and is intended to form the foundation for the subsequent task of landscape evaluation (which is a more subjective process).

This 'unit' approach to landscape assessment is widespread throughout New Zealand and is generally considered a pragmatic response in the description and analysis of what are often extensive, complex and highly varied areas.

Typically, LCUs display a homogeneity of characteristics such that they are distinctive from adjacent landscape areas and can be identified and mapped. However, in some circumstances the attributes are more subtle and/or common to more than one area, making it more difficult to define an LCU. In such circumstances it may be appropriate to focus on whether the landscape area can be meaningfully perceived as a particular 'landscape type'. It is important that where this approach to the identification of an LCU is applied, it is clearly transparent in the assessment.

The following definitions have been developed to help draw this distinction:

Landscape Character Types: These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use, and settlement pattern.

Landscape Character Areas: These are single unique areas which are the discrete geographical areas of a particular landscape type. Each will have its own individual character and identity, even though it shares the same generic characteristics with other areas of the same type.

Source: Natural England (2014) An approach to Landscape Character Assessment.

For the Tasman District Landscape Study, an appreciable amount of work has been undertaken over the years to determine the LCUs within the Golden Bay and Northwest Coast portion of the District. Of particular note is the work undertaken by Andrew Craig (landscape architect) in his *Golden Bay Outstanding Natural Landscapes and Features Study (Draft)* report, dated May 2012 (the 'Craig Report')⁵, in which a series of landscape character units were mapped and described (and subsequently informed the Craig Report's recommendations with respect to ONLs and ONFs in this part of the district). The Craig Report included an explanation of the assessment methodology. The approach adopted with respect to landscape characterisation is broadly consistent with current landscape assessment best practice, particularly in terms of the consistent range of landscape factors described for each character area.

Also of assistance to the landscape characterisation stage of the Tasman District Landscape Study was the *Land Types of the Tasman District* report and mapping prepared by Ian H Lynn (Landcare Research), dated May 2012 (the Lynn Land Typing Report'). That parcel of work described and mapped twenty-two landscape types throughout the entire district on the basis of topography and geology. Of interest is the similar 'grain' of the Lynn Land Type mapping to the Craig Report LCU mapping.

The Craig Report 2012 identified a total of eight LCUs within the Golden Bay and Northwest Coast portion of the District:

- Northwest Coast
- Golden Bay Marine/Farewell Spit
- Puponga/Pakawau
- Aorere Valley
- Parapara Coastal
- Parapara/Kahurangi Ranges
- Takaka Valley
- Abel Tasman

Having reviewed the descriptions of the landscape for the Golden Bay and Northwest Coast portion of the district contained in both reports and undertaken extensive field survey by land, water, and air, it was decided that the Tasman District Landscape Study should adopt the landscape characterisation work in the Craig Report (for the Golden Bay and Northwest Coast portion of the district). In short, it was determined that given the extensive landscape assessment work that informed the Craig Report (including, drawing from two separate landscape assessments undertaken by Boffa Miskell in 2005 and 2011), there would be very little benefit in undertaking a 'fresh' landscape characterisation of this part of the district.

However, for the balance of the district, the landscape characterisation stage was required to provide a sound basis for the evaluation of landscape (and features) in this part of the district. This stage of the Landscape Study involved the mapping of the LCU areas and the preparation of LCU worksheets contained in **Appendix C: LCU Mapping and Worksheets**.

The configuration of the **LCU mapping** largely derives from the Lynn Land Typing mapping given the fundamental importance of landform (and geology) in shaping landscape character, together with expert landscape analysis drawing from GIS resources and field survey. Some variance in the patterning of the LCU mapping and the Lynn Land Typing mapping is evident in places⁶ in response to marked changes in landcover and/or land management that exert an appreciable influence on landscape character (despite the consistency of the underlying landform and geology), and which warrant an effectively 'finer grained' LCU delineation to that identified in the Lynn Land Typing Report.

The notions of scale and context are also of importance in determining the extent of an LCU. For the Tasman District Landscape Study, the scale of the study area and the grain of information available means that the landscape was interrogated at an approximately 1:50,000 scale within which individual features will usually form part of a broader landscape.

The **LCU worksheets** record a consistent series of landscape descriptors that assist an understanding of the landscape character of the unit. The descriptors draw from the three broad components of landscape (ie biophysical, sensory and associative attributes), and focus on describing the landscape character 'as it is' rather than rating or evaluating it as a landscape or feature.

A thorough description of each LCU in terms of these three broad components sets the scene for a clear understanding of the landscape character and values associated with either all, or part, of each LCU; and provides a meaningful basis for the identification of significant and important landscapes within a subsequent landscape evaluation exercise. The inevitably subjective nature of some of the landscape descriptors (for example, a description of the 'naturalness' of a unit) entails a degree of expert judgement. However, importantly, this stage of the Tasman District Landscape Study makes no attempt to evaluate the landscape values of the unit either as a whole or in part.

A summary of each of the LCUs relied on to inform the Tasman District Landscape Study is set out in the table opposite.

⁵ The Craig Report 2012 is available at <https://www.tasman.govt.nz/my-council/projects/golden-bay-north-west-coast-landscape-project/>.

⁶ For example, the very rough differentiation of the Lynn Coastal Separation Point Land Type (10) into two discrete LCUs: LCU 1 Abel Tasman and LCU 6 Motueka River Valley.

LANDSCAPE CHARACTER UNIT	SUMMARY DESCRIPTION
TASMAN DISTRICT LANDSCAPE STUDY 2020 LCU	
Abel Tasman	The land and seascape north of SH60 and including all of Abel Tasman National Park (ATNP) that sits outside the Golden Bay Landscape Study Area. The LCU takes in the seascape (out to 3 nautical miles) including a series of granite islands. Strongly rolling to deeply dissected hill country underlain by either granite or marble and limestone substrates. National Park (and its associated recreation and conservation/ native restoration focus) dominates, with production forestry, pastoral uses and scattered rural living evident around the edges of the national park. On more gently sloping areas, orcharding is evident (eg Riwaka margins). The identity and sense of place associated with this LCU centres around the very high landscape values associated with the national park adjacent seascape. Much of the unit that is outside of ATNP functions as either a gateway or 'support area' for the park (accommodation and commercial services). ATNP itself is a highly valued recreational destination that affords striking bush and coastal views and a sense of wildness and isolation in places.
Kahurangi Ranges	Roughly corresponds to the mountain and hill ranges along the western side of the district stretching from the northern side SH6 near Murchison, northwards to the south side of SH60 on Takaka Hill and largely coinciding with Kahurangi National Park or land in DoC stewardship. Steep to very steep dissected hill country and mountain lands and associated valley fill fans, terraces and floodplains. The geology of the area is the most diverse of any protected area in the country and includes a long and complex history, including glaciation and tectonic processes. Dominated by indigenous forest cover/intact alpine vegetation communities, with very little evidence of modification or development. The identity and sense of place associated with this LCU centres around the very high landscape values associated with the national park and in particular, the very strong sense of remoteness, endemism, wildness and isolation. The very modest and largely dispersed character of rural dwellings and development outside KNP together with the relatively low-key and informal character of Murchison supports this perception.
Southwestern Ranges	Roughly corresponds to the mountain and hill ranges in the southwestern quadrant of the district, to the south of SH6 and excluding Nelson Lakes National Park (NLNP). Takes in the north eastern portion of Victoria Forest Park, the flanking TRMP Conservation zoned land, a small sliver of Nelson Lakes National Park adjacent Lake Rotoroa and parts of the eastern flanks of the Brunner and Victoria Range and the Braeburn Range. Steep to very steep dissected hill country and mountain lands and associated valley fill fans, terraces and floodplains. Dominated by indigenous forest cover/intact alpine vegetation communities, with very little evidence of modification or development. The identity and sense of place associated with this LCU centres around the very high landscape values associated with VFP and the Conservation zoned land and, in particular, the strong sense of remoteness, wildness and isolation. The very modest and largely dispersed character of rural dwellings and development outside VFP and Conservation zoned land together with the relatively low-key and informal character of Murchison supports this perception.
Nelson Lakes	Roughly corresponds to extent of Nelson Lakes National Park (NLNP) within the District, taking in Saint Arnaud and Tophouse. Steep to very steep, high, glaciated mountains of the Main Divide and the St Arnaud, Travers and Ella Ranges. Extensive glaciation, erosion and weathering have left a characteristic landscape of steep valley sides, scree slopes, sharp 'arete' ridges and many tarn-filled basins. Also includes alluvial valley fill, active and recently active riverbeds, floodplain terraces and valley fill fans along steeply incised river valley floors. Dominated by indigenous forest cover/intact alpine vegetation communities, with very little evidence of modification or development excepting at St Arnaud and around Tophouse. The identity and sense of place associated with this LCU centres around the very high landscape values associated with NLNP and, in particular, the strong sense of remoteness, endemism, wildness and isolation. The generally sympathetic character of Saint Arnaud and Tophouse supports this perception.
Eastern Hills and Mountains	Roughly corresponds to extent of the Gordon Range and the Richmond Range that sit within the district, including the south western margins of Mt Richmond Forest Park (MRFP). Steep to very steep hill and mountain slopes dominated by indigenous forest cover/intact alpine vegetation communities with production forestry, pastoral and scattered rural living uses evident around the edges of the park. The identity and sense of place associated with the LCU centres on the production forestry-dominated dissected hill country throughout the central and northern hill slopes which displays a distinctly 'industrial' rural character, and the more natural landscape of MRFP where there is a strong sense of remoteness, endemism, isolation and wildness.
Motueka River Valley	Roughly corresponds to the extent of rolling to steep dissected hill country overlaying granite substrate south west of Motueka, including the Motueka River valley floor. Dominated by production forestry throughout the steeper hill country flanking the river valley with intensive horticulture and agriculture throughout the valley floor interspersed with lifestyle lots and small rural hamlets (eg Pangatotara, Ngātimoti, Pokororo, Orinoco, Thorpe and Woodstock). The identity and sense of place associated with the LCU can be described as a somewhat sleepy, highly productive rural valley that is valued as a place to live and work in.
Moutere Hills and Valleys	Roughly corresponds to the extent of strongly rolling to moderately steep and steep hill country that displays a distinct herringbone dissection pattern (and overlays Moutere Gravels). Vegetation patterns dominated by production forestry with isolated bush and riparian fragments. Scattered patterning of rural dwellings throughout the river floodplains, interspersed with small rural hamlets and timber processing plants and with the patterning of rural living more consistent and intensive throughout the Moutere River Valley. The identity and sense of place associated with the LCU can be described as a working rural landscape that is valued as a place to live and work in.
Waimea, Mapua, Motueka and Riwaka River Plains and Coastal Flats	Roughly corresponds to the recent floodplains and riverbeds, low terraces, and associated back swamp wetlands, flights of intermediate and high terraces and minor fans in the upper tributaries; and the deltaic fringe complexes of barrier islands, spits, beach ridges, sand dunes, and estuaries of the lower Motueka, Moutere, Riuwaka, and Waimea Rivers. Includes the adjoining seascape. Vegetation patterning dominated by shelterbelt/orchard plantings and amenity plantings around dwellings and buildings with isolated bush and riparian fragments in places and sizeable wetlands around river mouths. Production forestry dominates on Moturoa/Rabbit Island and Jakkett Island. A reasonably consistent patterning of rural living and rural lifestyle settlement between the nodes of urban development associated with Riuwaka, Motueka, Mapua and Richmond. Predominantly permanent homes with some holiday homes evident along the coastline. Popular scenic route between Nelson/Richmond and Motueka (and beyond) (vehicular and cycling). The identity and sense of place associated with LCU 8 can be described as a mixed urban, rural amenity and working rural landscape that is valued as a place in which to live and work and to visit. Attractive seascape outlook along coastal edge, albeit a generally inhabited/modified coastal interface.

LANDSCAPE CHARACTER UNIT	SUMMARY DESCRIPTION
CRAIG REPORT 2012 LCU	
Northwest Coast	The isolated and remote western coast of the District that displays a very high level of endemism, naturalness and wildness. The LCU takes in the western coastline, Whanganui Inlet and the Wakamarama and Burnett Ranges and extends from Cape Farewell to Big River and Kahurangi Point. Much of the area falls within Kahurangi National Park and is dominated by indigenous forest cover/intact alpine vegetation communities. The identity and sense of place associated with this part of the District centres very high degree of remoteness, naturalness and wildness in which dramatic landforms, native vegetation features and seascapes dominate the landscape character.
Golden Bay Marine/Farewell Spit	The whole of Golden Bay marine area, including the internationally recognised landform and ecology of Farewell Spit together with the various inlets and estuaries spread along its shoreline. The Golden Bay seascape including the inlets, dunes and sandy beaches, contribute significantly to the character, amenity and identity of Golden Bay, with the accessibility, visibility and highly attractive character of much of the area playing a critical role in this regard. The identity and sense of place associated with this part of Golden Bay centres around the highly dynamic, dramatic and appealing character of the seascape and landforms flanking it.
Puponga/Pakawau	The narrow strip of coastal plan extending from Puponga to approximately Taimatea Point. LCU takes in Puponga and Pakawau Inlets together with the steeper slopes extending up to the seaward ridge framing this part of Golden Bay. Pastoral farming dominates landuse and landcover on the plains with native bush throughout the steeper slopes. Rural dwellings scattered throughout the lower lying coastal fringe. The identity and sense of place associated with this part of the District centres around its working rural landscape character and role as a gateway to the popular destinations of Farewell Spit, the northwest coast and Wharariki Beach.
Aorere Valley	The wedge shaped alluvial river flats and terraces flanking the Aorere River (and network of tributaries), abruptly framed by mountains, and opening to the coast at its northern end. Low intensity pastoral farming dominates land use and land cover, with scattered small scale and sleepy rural settlements in places (eg Bainham, Rockville) and scattered rural dwellings. The limited level of habitation/development, more traditional character and quiet nature of the area (being a place to visit rather than to pass through) confers an identity and sense of place on the area that can be described as 'old school' rural New Zealand and carries with it a distinctive air of simplicity and charm.
Parapara Coastal	The coastal strip sandwiched between the northern end of the Tasman Mountains and the sea, extending between the Aorere and Takaka Valleys and comprising of an elevated platform or elongated alluvial fan. Pastoral and production forestry uses dominate, with native bush throughout steeper slopes. Scattered settlements (with a mix of permanent, holiday and retirement dwellings) and rural living along the coastal edge attest to the particularly high amenity values associated with this part of the LCU. The identity and sense of place associated with this part of the District centres around its values as a place to live and recreate in, largely deriving from its attractive physical characteristics and proximity to the Takaka Valley.
Parapara/Kahurangi Ranges	The inland or non-coastal hills and mountains within Golden Bay and largely coinciding with Kahurangi National Park or land in DoC stewardship. Comprises steep to very steep dissected hill country and mountain lands and associated valley fill fans, terraces and floodplains. The geology of the area is the most diverse of any protected area in the country and includes a long and complex history, including glaciation and tectonic processes. Dominated by indigenous forest cover with very little evidence of modification or development. The identity and sense of place associated with this LCU centres around the very high landscape values associated with the national park and in particular, the very strong sense of remoteness, endemism, wildness and isolation.
Takaka Valley	The wedge shaped alluvial river flats and terraces flanking the Takaka River (and network of tributaries), abruptly framed by mountains and opening to the coast at its northern end with two estuaries (Motupipi and Takaka River mouths). High and low intensity pastoral farming dominates land use with production forestry or native bush cover on the steeper slopes surrounding the valley floor. Scattered settlements (including Takaka township, Pohara, Clifton and Motupipi) confer a relatively inhabited feel to the valley. The identity and sense of place associated with the Takaka Valley centres around the function of this valley as the settlement and development hub of Golden Bay.
Abel Tasman	The portion of ATNP that falls within the Golden Bay and Northwest Coast portion of the District and taking in Wainui Bay, Canaan Downs and the western Pikikiruna Ranges. Strongly rolling to deeply dissected and steep hill country with localised (albeit extensive) areas of karst landscapes in places (Canaan Downs) and the contained 'microcosm' of the wider Golden Bay landscape evident at Wainui Bay. National Park (and its associated recreation and conservation/native restoration focus) dominates, with pastoral farming and some small scale rural /coastal settlements in places (e.g. Wainui Bay, Tata Beach, Ligar Bay) and a mixture of production forestry and native bush throughout the very steep western faces of the Pikikiruna Ranges. The identity and sense of place associated with this LCU centres around the very high landscape values associated with the national park. Much of the unit that is outside of the park functions as either a gateway for the park (eg Wainui Bay) or a gateway to Golden Bay (e.g. Canaan Downs). ATNP itself is a highly valued recreational destination that affords striking bush and coastal views and a sense of wildness and isolation in places.

Landscape Evaluation

This stage of the Tasman District Landscape Study focusses on expert analysis to determine the RMA s6(b) landscapes and features within the District.

This is a complex and iterative phase requiring a significant component of expert judgement by the landscape assessor, and typically including input from a **Study Team** comprised of other expert disciplines, iwi representatives, Council staff, key stakeholders and representatives of the wider community.

For the Tasman District Landscape Study, the study team included the following participants:

Rowena Cudby (Tasman District Council)	<i>Planner and client representative</i>
Bridget Gilbert (BGLA)	<i>Landscape architect</i>
Dr Bruce Hayward	<i>Geoscientist</i>
Rob Davidson (Davidson Environmental Ltd)	<i>Marine and freshwater ecologist</i>
Mike Harding	<i>Terrestrial ecologist</i>
Brian McAuslan (Boffa Miskell)	<i>GIS expert</i>
James Bentley (Boffa Miskell)	<i>Landscape architect peer reviewer</i>
Iwi	<i>TDC Iwi Working Group</i>

A brief bio is attached in **Appendix D** for each of the project team members outlining their qualifications and relevant experience.

It should be noted that Bridget Gilbert also had the benefit of a workshop with Shelagh Noble (former Tasman District Council planner) who was closely involved in the SWG study and was able to explain the findings of the SWG Report.

Burnett Range - photograph supplied by James Bentley



Is it a ‘Landscape’ or ‘Feature’?

Addressing the first of the key questions for consideration in the identification of RMA s6(b) areas, typically, ‘landscapes’ display characteristics such that they are distinctive from adjacent landscapes and can be identified and mapped. Smaller landscapes may be nested within larger landscapes.

In some circumstances, the attributes are more subtle and/or common to more than one area, making it more difficult to define a ‘landscape’. In such circumstances, it may be appropriate to focus on whether the landscape can be meaningfully perceived as ‘a whole’. It is important that where this approach to the identification of a landscape is applied, it is transparent in the assessment.

A ‘feature’ typically corresponds to a distinct and clearly legible landform, physical system, exposure of geological material or ‘place’. A ‘feature’ is an entity that is generally smaller than a ‘landscape’. A ‘landscape’ also usually displays a broader range of sensory and associative values in addition to biophysical values when compared to a ‘feature’. Context will also play a role in determining whether the area is a ‘feature’ or ‘landscape’.

In general, landscapes and features are differentiated as follows:

Landscapes are larger areas that are perceived as a whole and can include a number of features within them. Landscapes can be either experienced from within (e.g. from walking tracks within **ONL 4 Abel Tasman**), or seen

as the whole of an outlook (e.g. looking towards the front ranges and peaks of **ONL 2 Parapara-Kahurangi Ranges** from the flat plains of Tasman Bay). All mapped landscapes (or ONLs) have been identified relative to the Tasman region.

Features are discrete elements within a landscape, which are generally experienced from outside the features’ boundaries. Features display integrity as a whole element and can often be clearly distinguished from the surrounding landscape. Generally, features are defined by their geomorphological landform boundaries. However, in some instances (such as areas of native bush (e.g. **ONF 27 The Grove**), features have also played a role in defining the extent of the ONF.

Notwithstanding the difference in scale, ONLs and ONFs can be identified through applying the same evaluative criteria. This is reflected in the consistency of descriptors used in the ONL and ONF Schedules (discussed shortly).

The Tasman District Landscape Study includes consideration of ‘seascapes’ that contribute significantly to the experience of an adjacent ONL (e.g. **ONL 4 Abel Tasman**) and/or are deemed to form an ONL in their own right (e.g. **ONL 3 Golden Bay/Mohua Coastal Marine**).

Nelson Lakes National Park



Pupu Springs - photograph supplied by James Bentley



Sandhills Creek River Mouth and Lake Otuhie dune lake - photograph supplied by James Bentley



Aorere River ONF - photograph supplied by James Bentley



Threshold For ‘Natural’

With respect to the second of the key questions for consideration in the identification of RMA s6(b) areas, the RMA provides no specific definition or guidance as to what qualifies a landscape or feature in terms of its ‘naturalness’. Over time, a number of Environment Court cases have endeavoured to assist in this regard, and the following comments draw from that material together with landscape expert practice.

The degree of naturalness of a landscape largely reflects the degree of human modification the landscape has undergone. Typically, there is an inverse correlation between built modification and naturalness: landscapes with a lesser degree of built modification rate more highly in terms of naturalness; and as the level of modification increases, the naturalness rating decreases.

The ‘criteria’ for naturalness stated in *Long Bay*⁷ include:

- a. relatively unmodified and legible physical landform and relief;
- b. the landscape being uncluttered by structures and/or obvious human influence;
- c. the presence of water (lake, river, sea);
- d. the presence of vegetation patterns (especially native vegetation) and other ecological patterns.

Further, it is widely accepted by the Environment Court and landscape experts that naturalness occurs across a continuum, from a pristine natural landscape to a cityscape.⁸ It is also generally agreed that a degree of modification does not disqualify a landscape (or feature) from consideration as an RMA s6(b) landscape on the basis of its naturalness.⁹

In *High Country Rosehip Orchards v Mackenzie District Council*,¹⁰ the Environment Court indicated approval for a seven-point scale of naturalness and signalled that the threshold for naturalness in relation to an ONL and ONF lay approximately at the boundary between a rating (for naturalness) of **Moderate to High** and **High** (author’s emphasis added). The Tasman District Landscape Study has adopted this approach as a ‘starting point’ for determining the landscapes and features within the District that qualify for consideration in terms of their naturalness.

When considering the degree of naturalness for an ONF, the naturalness of the feature itself is considered. A landform based ONF does not need to be vegetated to have a high level of naturalness; and indeed, the absence of forest cover may enhance the legibility and visual appreciation of the

7 A078/2008 [135].
8 For example: Upper Clutha Tracks [2010] NZEnvC 432 [61].
9 For example, see Western Bay of Plenty District Council [2017] NZEnvC 147 [86].
10 High Country Rosehip Orchards v Mackenzie DC [2011] NZEnvC 387 [93]-[101].

Tokangawha/ Split Apple Rock
Source: reddit.com [r/Damnthatinteresting](#)



landform’s characteristics (e.g. **ONF 29 Tokangawha/Split Apple Rock**). In some instances, the naturalness of the immediate context will play a role in shaping the impression of naturalness associated with the feature, although the naturalness of the immediate context is not determinative of the feature qualifying for consideration in terms of naturalness.

When considering a geological exposure as an ONF (e.g. **ONF 31 Wairoa River Coal Measures and Dinosaur Footprint**), the values assessed are the features within the rock itself and these are essentially natural, regardless of whether they are exposed in natural cliffs or shorelines, or in man-made road or quarry cuttings.

All of the ONLs and ONFs that are recommended in this study rate as having at least **Moderate to High** naturalness values. Of the seven ONLs and thirty three ONFs, one ONL (**ONL 5: Wainui Bay**) and eight ONFs (**ONF 4: Cobb Valley Magnesite and Karst**, **ONF 5 Devils Boots**, **ONF 11 Lake Killarney Sinkhole Lake**, **ONF 12 Lower Matakītaki Landslide**, **ONF 19 Nuggety Creek Road Fossil Leaves and Sedimentary Sequence**, **ONF 24 Takaka Hill Marble Karst**, **ONF 26 Te Waikoropupū Springs**, **ONF 33 White Creek Fault Displaced Terraces**) rate as having **Moderate to High** naturalness.

Of importance to note is the distinction between an evaluation of ‘**landscape’ naturalness** (as part of a Landscape Study) and the concept of ‘**ecological’ naturalness** (which is often mentioned within the context of RMA s6(a) Natural Character Assessment). It is widely accepted by the Environment Court and landscape experts that a landscape (or feature) may qualify in terms of naturalness for consideration under RMA s6(b), largely on the basis of the ‘look’ or ‘appearance’ of the landscape (or feature) and its degree of apparent modification. This is quite different to the ‘condition’ of the landscape (or feature) which largely informs an evaluation of ‘ecological’ naturalness.

For the Tasman District Landscape Study, this distinction is particularly important in the evaluation of the marine environment. Expert marine ecology input has identified that much of the seascape mapped as ONL displays a low level of ecological naturalness as a consequence of dredging, trawling and/or land management practices that have resulted in sedimentation. This information has been integrated into the list of development that is likely to be inappropriate within the relevant ONL, however has not weighed heavily on the overall evaluation of naturalness. Rather the naturalness evaluation has focussed on the appearance of the landscape and whether the visible modification is of scale and/or character such that it tips the balance to a point where natural landscape elements, patterns and processes are no longer dominant in shaping the landscape character of an area.

Threshold For ‘Outstanding’

In a similar vein to the issue of ‘naturalness’, the RMA provides no definition or guidance as to what qualifies a ‘natural landscape’ as ‘outstanding’. Again, the Environment Court has endeavoured to assist in this regard:

- a. The concept of outstanding refers to something that is ‘conspicuous, eminent, especially because of excellence’, ‘remarkable in’¹¹ and ‘remarkable, exceptional ... exceptionally good’.¹²
- b. It is recognised that in many cases ONLs ‘should be so obvious (in general terms) that there is no need for expert analysis’.¹³
- c. The observation that decisions about ‘outstandingness’ are not made lightly; and in some instances, ‘handsome’ South Island landscapes have not been found to be outstanding.¹⁴

However, in some cases, expert assessment will be needed (e.g. where associative values or less obvious biophysical values are present) and may include a range of disciplines. The Tasman District Landscape Study draws from five expert disciplines: geoscience; marine ecology; terrestrial ecology; cultural values; and landscape architecture, with the landscape assessor also effectively functioning in a ‘coordination and overview’ role to draw the various strands of information together and ensure methodological consistency across the district, particularly in terms of determining the threshold for ‘outstanding’.

The evaluation of the biophysical, sensory and associative attributes and overall ‘outstandingness’ requires a non-linear (or iterative) process that includes both an ‘individual’ and ‘collective’ analysis. For example, in some instances the proximate, albeit scattered, arrangement of a series of high value natural features may be such that the wider (and more ordinary) landscape within which the features are nested qualifies as outstanding.

The evaluation method generally employed involves describing the attributes and values of the landscape and rating them. However, an overall judgement is also required with respect to the significance of the landscape or feature, and its ‘outstandingness’. It is widely accepted by the Environment Court and landscape experts that there is no set rating threshold (e.g. **High** or **Very High**) for each of the attributes and values that are required to be reached for a landscape (or feature) to ‘qualify’ as outstanding. Further, a landscape may qualify as ‘outstanding’ despite only rating highly for one or two attributes (for example, on the basis of cultural attributes and values alone). The absence of hard and fast rules in this regard emphasises the need for transparency in landscape assessments as to the factors that make the particular landscape or feature truly exceptional.

A number of ONFs display a more limited range of attributes and values that rate towards the higher end of the spectrum, for example **ONF 10 Labyrinth Rocks Karst** near Takaka. In these locations, the rarity, geoscience importance, historical values, accessibility and/or scale (proliferation) of the attributes and values present favours an outstanding classification.

It is recognised by the Environment Court and landscape experts that an assessment of ONLs (and ONFs) requires a comparative judgement¹⁵ and that scale may play a role in setting an appropriate threshold for ‘outstandingness’. For example, an area or feature may qualify as outstanding at a district scale, but may not reach the exceptional threshold at a regional scale and vice versa.

The functioning of Tasman District Council as a unitary authority means that the scale of comparison employed in the Tasman District Landscape Study is at a district and region level.

With respect to the rating of landscape attributes and values, consistent with landscape assessment best practice, a seven-point rating scale has been applied in the Tasman District Landscape Study:

Very Low	Low	Low / Moderate	Moderate	Moderate / High	High	Very High
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11 [1999] NZEnvC Decision C180 (WESI), paragraph 82.
12 [2010] NZEnvC Decision 248 (Owhiti Bay), paragraph 76.
13 [2011] NZEnvC 387 (Rosehip), paragraph 102.
14 Ibid, paragraph 104.

15 NZILA Best Practice Note Landscape Assessment and Sustainable Management 10.1 (dated 02.11.10), page 5.

Richmond Ranges ONL - photograph supplied by James Bentley



Expert Geoscience Input

The Tasman District is unique in New Zealand as it consists of a large area of old (Paleozoic) rocks that was split off from the Australian part of the supercontinent of Gondwana when the Tasman Sea formed, 85-55 million years ago. As a result, it is the centre for marble-related features and karst in New Zealand. Tasman is also one of several districts characterised by younger limestone karst and caves (including Waitomo and West Coast) and large granite intrusions (in common with West Coast and Fiordland). The southern part of Tasman is cut by the Alpine Fault and to the north of that, forming much of eastern Tasman District, is the deep Moutere Depression filled with young, feature-poor gravels.

Particularly noteworthy landforms in the Tasman District mostly occur in the mountains or around the coast. Mountain landforms were mostly formed in the last few hundred thousand years during the Ice Ages by glaciers and fast-flowing rivers. Coastal landforms are all young, essentially formed in the last 10,000 years by a combination of drowning of eroded valleys by rising sea level and sand accumulation, particularly along the sediment-rich west coast.

The geological importance of much of the area at a national and/or international level meant that expert geoscientist input into the Landscape Study was considered appropriate.

Dr Bruce Hayward was engaged by TDC to survey, assess and map the geoscience values throughout the District.

Dr Hayward then worked with BGLA to distil which of the high-value landform and geological features qualify as 'outstanding', applying the thinking outlined above in relation to a threshold for outstanding.

During this stage of the work, it emerged that some of the high-value features identified by Dr Hayward, whilst of geoscientific importance,

- a. do not, on balance, reach the threshold for 'outstanding' (e.g. Aorere Valley peneplain remnants); or
- b. are located within an area that is recommended as ONL and although they may merit identification as an ONF in their own right, the level of protection afforded by being within an ONL was deemed sufficient, so long as they are specifically referenced in the **ONL schedule** as significant landform or geological features under the **Biophysical Attributes** section (e.g. **Tata Islands** near Abel Tasman Point in Golden Bay which is referenced in the **ONL 3 Golden Bay/Mohua Coastal Marine** schedule).

With respect to the latter, given that these features have already been carefully surveyed and mapped by Dr Hayward and are specifically referenced in the ONL Schedules, it is recommended that mapping of **high-value geoscience features** (within ONLs) is included in the District Plan to assist plan users. It is not intended that any specific policy context will apply to the **high-value geoscience features** over and above that which applies to ONLs.

White Creek fault scarp 1938



Whispering Falls



Bush-clad Eastern Hills



Young seal in Wharariki Beach lagoon



Expert Ecology Input

As part of the Landscape Study process, terrestrial (Mr Mike Harding) and marine (Mr Rob Davidson) ecological expert input has been sought from experts with a long history of professional involvement in the District. In particular, these experts were asked to:

- a. Review draft ONL mapping and schedules and advise of ecological attributes and values that need to be referenced in the schedules.
- b. Advise whether there are locations in the district where ecological values are so high that the area merits consideration as an ONF on the basis of ecological values alone.

Comments received from the terrestrial and marine ecology experts has been integrated into the mapping and schedules recommended in this report.

Cultural Values and Iwi Consultation

A critical aspect of understanding and evaluating associative landscape attributes and values is the integration of **Mātauranga Māori** into landscape assessment.

This is sometimes facilitated via consultation with iwi groups. However, it is acknowledged that iwi resources to engage in such processes can at times be constrained.

During the preparation of the Tasman District Landscape Study (and prior to this, the Golden Bay & Northwest Coast Landscape Study), Council staff have provided regular updates to iwi authorities via the Tasman Environmental Policy Iwi Working Group (IWG). The purpose of the IWG is to provide a forum for iwi to consider and have input into statutory plan projects and proposals. The

IWG includes representatives from each of the nine iwi within Tasman district, including:

- Ngāti Kuia
- Ngāti Rārua
- Ngāti Tama ki Te Tau Ihu
- Te Ātiawa o Te Waka-a-Māui
- Ngāti Kōata
- Ngāti Toa Rangatira
- Ngāti Apa ki te Rā Tō
- Rangitāne o Wairau
- Ngāti Waewae

To inform the identification and evaluation of associative values as part of the Tasman District Landscape Study report, Tasman District Council prepared an initial indication of particular wāhi and whenua that may be of significance to the respective iwi of Te Tau Ihu. Sources for this information included Treaty of Waitangi settlement documents, iwi environmental management plans, cultural sites identified in the Tasman Resource Management Plan, and cultural reports previously commissioned by Council. Consultation with iwi was then undertaken to confirm the particular associations that respective iwi have with the landscape areas.

Early in the project, it was agreed with the IWG that they be consulted on a 'Final Draft' version of the Tasman District Landscape Study in mid-2020. This sequence of consultation was deliberately aimed at presenting iwi with Final Draft ONL and ONF mapping and schedules rather than requesting that they formulate mapping and schedules of their highly valued cultural landscape and features, to lessen the burden for iwi resource inputs, and focus such inputs where they will add maximum value to the landscape study process. The information provided by iwi as part of this consultation process has been incorporated into the Final ONL and ONF mapping and schedules that form part of the District Plan Review.

Shared and Recognised Values

The SWG Report for the Golden Bay and Northwest Coast portion of the district incorporates a significant degree of community participation which is of value in determining the **shared and recognised values**¹⁶ of landscapes and features. This degree of community input into the identification of high-value landscapes and features is rare in New Zealand and is considered to be an extremely valuable ‘resource’ for the Tasman District Landscape Study.

It is, however, acknowledged that the landscape assessment of the ‘balance’ of the district (i.e. those parts of the district outside of the Golden Bay and Northwest Coast area) does not incorporate this level of community consultation on landscape values. Like many parts of New Zealand, this aspect of landscape values for the balance of the district is interpreted in the Tasman District Landscape Study by experts. It is expected that the subsequent District Plan Review processes which allow for public input (via public notification, public submission, Council hearing and potentially, Environment Court appeal processes) and will play an important role in refining this aspect of landscape attributes and values.

The ONLs recommended in this report that rely on expert input only are as follows:

- a. Those parts of ONL 2 Parapara Kahurangi Ranges and ONL 4 Abel Tasman that sit outside the Golden Bay and Northwest Coast portion of the district;
- b. ONL 6 Nelson Lakes-Southwestern Ranges; and
- c. ONL 7 Eastern Hills and Mountains.

The ONFs recommended in this report that rely on expert input only are as follows:

- ONF 2 Beebys Conglomerate Cretaceous Terrestrial Sequence**
- ONF 4 Cobb Valley Magnesite and Karst**
- ONF 5 Devils Boots**
- ONF 7 Hamama and Takaka Valley Sinkholes**
- ONF 8 Horse Terrace Bridge Gorge**
- ONF 9 Kaka Point and Island**
- ONF 10 Labyrinth Rocks Karst**
- ONF 11 Lake Killarney Sinkhole Lake**
- ONF 12 Lower Matakītaki Landslide**
- ONF 13 Maruia Falls**
- ONF 14 Motueka Sand Spit**
- ONF 15 Motupipi Hogback**

¹⁶ This landscape factor reflects how widely the biophysical, sensory and associative attributes and values are recognised and valued by the community.



SWG Members in the field
Source: Golden Bay / Mohua Landscape Project, October 2016: Final Report of the Small Working Group, page 8

- ONF 16 Moutere Bluff to Kina Coastal Cliffs**
- ONF 17 Mt Arthur Marble Karst and Caves**
- ONF 18 Mt Owen Marble Karst and Caves**
- ONF 19 Nuggety Creek Road Fossil Leaves and Sedimentary Sequence**
- ONF 21 Puponga Point**
- ONF 22 Rangihaeata Fossil Forest**
- ONF 23 Takaka Hill and Pikikiruna Cave Network**
- ONF 24 Takaka Hill Marble Karst**
- ONF 28 Thousand Acres Plateau**
- ONF 29 Tokangawha/Split Apple Rock**
- ONF 30 Trilobite Rock**
- ONF 31 Wairoa River Coal Measures and Dinosaur Footprint**
- ONF 32 West Coast and Aorere Valley Caves**
- ONF 33 White Creek Fault Displaced Terraces**

Painting of Abel Tasman National Park coastline



Paddys Track, Mt Robert (NLNP)



GIS Data Sources and Mapping

A full list of the GIS data and their sources relied on to inform the landscape assessment is attached in **Appendix E**.

One difficulty the study team faced was the variance in mapping scales between different GIS datasets. For example, the Land Typing of the district is mapped at 1: 50,000 scale, the TMRP zoning in remote areas is recorded at 1:25,000 scale and the Land Cover Data Base (LCDB) mapping is plotted at 1:50,000 scale. In short, this means that the grain of data sources that may be determinative of landscape and feature boundaries varies; in some cases, quite substantially.

To reconcile such potential mapping 'discrepancies', a checking process of 1:10,000 scale mapping for the district was undertaken by BGLA and Brian McAuslan (Boffa Miskell GIS expert) to ensure the location of mapped boundaries accords with 'real' boundaries utilising aerial photographs, Google Earth, and contour data in particular.

Insert screenshot from GIS mapping with a range of layers 'turned on'

ONFs

The known importance of the geology of the area has resulted in an assumption that biophysical (and in particular, geoscience) attributes may be to the fore in the identification and evaluation of many of the district's ONFs. Such an approach to ONF identification has been adopted for the Auckland Region and Northland (where extensive geologically significant volcanic features are evident), and in the Waitomo District (where extensive geologically significant karst landforms exist).

This is, however, not to say that 'other' landscape attributes such as associative values may well be to the fore in the identification of at least some of the district's ONFs. For this reason, like the evaluation of ONLs in the Tasman District Landscape Study, the evaluation of the ONFs has been led by BGLA to ensure methodological consistency.

In undertaking the ONF evaluation, BGLA has drawn from the detailed, districtwide geoscience work undertaken by Dr Bruce Hayward.

Importantly, the criteria used for the ONF Schedules derive from the three core components of landscape: i.e. the biophysical, sensory and associative attributes; and are consistent with the descriptors used in the ONL schedules. So, whilst there is an obvious and deliberate focus on biophysical attributes in the consideration of ONFs, the sensory aspects of landscape are also addressed.

Below: Aorere Gorge and Salisbury Falls
Source: <http://woooop.blogspot.com/2017/01/bainham-salisbury-falls.html>



Right: Farewell Spit



ONL and ONF Mapping

Detailed mapping (along with schedules) for each of the recommended ONLs and ONFs is contained in **Section D: Outstanding Natural Landscapes** and **Section E: Outstanding Natural Features** of this report respectively.

Given the reliance on the SWG Report as a 'starting point' for the Tasman District Landscape Study (TDLS) addressing the Golden Bay and Northwest Coast portion of the district, **Appendix F** and **Appendix G** provide a comparative analysis between the TDLS and SWG mapping for ONLs and ONFs respectively, and summarise the reasoning for mapping amendments in the TDLS mapping. These appendices also clarify which ONLs and ONFs have been determined by expert input only (i.e. they were not considered/identified in the SWG Report).

ONL MAPPING

Turning to the delineation of mapped boundaries for ONLs, geomorphological boundaries (such as ridgelines, rivers, and marked changes in landform gradient) are the preferred boundary delineation method for mapping ONLs and ONFs. Where geomorphological features are not evident, the 'next preferred' delineation methods include large-scale indigenous vegetation features and marked changes in land use patterns (e.g. settlement edges, production forestry). Where none of these methods are available or adequately legible, then major road corridors and cadastral boundaries may be relied on to delineate ONLs.

It should be noted that there is generally a decreasing degree of 'legibility' and 'defensibility' associated with these various delineation methods, with the geomorphological boundaries rating the most favourably, and cadastral boundaries rating least favourably in this regard.

Further, in determining the extent of an ONL, it is generally preferred to avoid 'cut outs', i.e. excluding localised areas from the broader ONL as a consequence of the level of development evident in that specific location. Rather, an evaluation is usually preferable that considers whether the level of development (in the localised area) is such that the 'landscape' within which

it is located no longer qualifies as 'natural' and/or 'outstanding'; or conversely, is of a scale and/or character such that the overall 'landscape' still rates as outstanding despite the level of modification apparent in the localised area.

For the Tasman District Landscape Study, the delineation methods favoured in the mapping of ONLs include:

- a. The extent of national park, forest park and TMRP Conservation zoned land incorporating large scale, contiguous areas of elevated bush covered terrain (e.g. **ONL 1 Northwest Coast**, **ONL 2 Parapara-Kahurangi**, **ONL 6 Nelson Lakes-Southwestern Ranges** and **ONL 7 Eastern Hills and Mountains**).
- b. Ridgelines (e.g. **ONL 5 Wainui Bay**).
- c. A distance of 3 nautical miles from the shoreline, as representative of the typical extent of visibility from the coastline across the seascape (e.g. **ONL 1 Northwest Coast** and **ONL 4 Abel Tasman**).

In a limited number of locations 'cadastral boundary' and 'carve out' mapping methods have been used as a pragmatic method of reconciling the boldly contrasting character of the localised landscape within the broader (and very large-scale) ONL context:

- a. 'Cadastral' boundary method: residential subdivisions abutting **ONL 5 Wainui Bay** at Tata Beach; small-scale rural residential subdivisions near St Arnaud and Tophouse in **ONL 6 Nelson Lakes-Southwestern Ranges**.
- b. 'Carve out' boundary method: around St Arnaud where the level of modification within a localised area does not display the coherence and values of the very large scale surrounding ONL context in **ONL 6 Nelson Lakes-Southwestern Ranges**. In the Tasman District Landscape Study, the 'carve out' area is found to be of a scale and character that is so different to the ONL context that it forms a 'place' in its own right (although does not qualify as a separate landscape as such).

Tata Beach ONL edge



The treatment of **pastoral areas** is often a difficult issue in the mapping of ONLs. Generally speaking the favoured delineation methods outlined above point to the exclusion of pasture dominated areas. However, in some instances their inclusion was unavoidable. In particular, appreciable areas of pastoral land have been included:

- a. along the west coast and to the north of Whanganui Inlet within **ONL 1 Northwest Coast**;
- b. throughout steep hill country on the western side of **ONL 4 Abel Tasman**;
- c. around SH 60 in **ONL 4 Abel Tasman**; and
- d. at **ONL 5 Wainui Bay**.

In all of these locations (excepting the pastoral land around SH 60 in **ONL 4 Abel Tasman**), the scale and character of the pastoral areas is such that they are dominated by the high and very high biophysical, sensory and associative attributes and values of the broader ONL within which they are located, despite their more modified character. To excise these areas from the broader ONL would be artificial. (NB **Appendix F** provides more detailed comment with respect to the values associated with pastoral areas that are included in ONLs.)

In the case of the pastoral land around SH 60 in **ONL 4 Abel Tasman**, the proliferation of geoscience features together with the spatial and visual connection of the area to the surrounding ONL favours inclusion of the pasture dominated area within the ONL.

ONF MAPPING

The preceding comments with respect to preferred mapping methods for ONLs also apply to ONFs. For ONFs, a contour line approach may also be appropriate.

The boundaries of the landform feature-derived ONFs are primarily aligned along the natural geomorphological boundaries, except where the landform is small (~100 m or less across) and requires a buffer zone (typically a few tens of metres wide) to protect it (e.g. **ONF 5 Devils Boots** and **ONF 13 Maruia Falls**).

The boundaries of geological exposure ONFs approximate the limits of the exposures of rock that contain the values to be protected (e.g. **ONF 31 Wairoa River Coal Measures and Dinosaur Footprint**).

The boundaries of underground ONFs are mapped on the surface that overlies the cave extent, with a buffer zone 50m to 100m wide around it to allow for inaccuracy of the underground mapping when projected to the surface (e.g. **ONF 23 Takaka Hill and Pikikiruna Range Cave Network**).

Where the natural boundaries of an ONF are less obvious, their boundaries have been influenced by whether they are in public reserve land or not. In reserve land, the boundaries have been less precisely mapped if they do not impinge on any infrastructure or exotic forest and tend to take in all of the reserve area, as the land use plays an important role in the appreciation of the feature (e.g. **ONF 26 Te Waikoropupū Springs**). On private land, the boundaries have been mapped as precisely as possible from available desktop data to avoid, wherever possible, any buildings, suburban properties, intensely utilised land or active quarries (e.g. **ONF 7 Hamama and Takaka Valley Sinkholes** and **ONF 15 Motupipi Hogback**).

Modern GIS mapping tools enable relatively accurate spatial mapping of ONLs and ONFs as part of District and Regional Plans. To assist with efficient plan administration, this mapping is typically provided as a 'layer' that can be viewed in online mapping alongside other District Plan mapping sets (zonings etc.), contour mapping, and cadastral information.

Given the scale of this study is effectively both district and region wide, the scale of ONF and ONL mapping resolution is approximately 1:10,000.

Insert snips of mapping showing typical ONF/L mapping techniques

Maruia Falls



ONL and ONF Schedules

To support the development of appropriate landscape policy and effective plan administration, schedules for each of the recommended ONLs and ONFs have been prepared and are attached in **Section D** and **Section E** respectively (along with the ONL / ONF mapping).

The ONL and ONF schedules:

- a. clearly articulate the attributes and values that make the landscape or feature outstanding and that need to be protected from inappropriate development (i.e. 'more than minor' adverse effects¹⁷); and
- b. outline the sorts of activities and developments that are likely to be appropriate / inappropriate within the ONL or ONF. In many circumstances, this has involved the consideration of the 'condition' of the landscape, addressing such notions as landscape resilience, capacity, sensitivity and vulnerability.

Such an approach for ONL and ONF Schedules is in keeping with the landscape assessment discussion outlined in *Western Bay of Plenty*.¹⁸

¹⁷ Deriving from *King Salmon* which stipulates a tolerance for minor or transitory adverse effects in (coastal) ONLs.
¹⁸ For example, see *Western Bay of Plenty District Council v Bay of Plenty Regional Council* [2017] NZEnvC 147 paragraph 111.



ONL2 Parapara Kahurangi bush edge



Pikikiruna on western side of ONL 4 Abel Tasman



Right: Lake Rotoiti

Below: ONF 16 Moutere Bluff to Kina Coastal Cliffs - photograph supplied by James Bentley



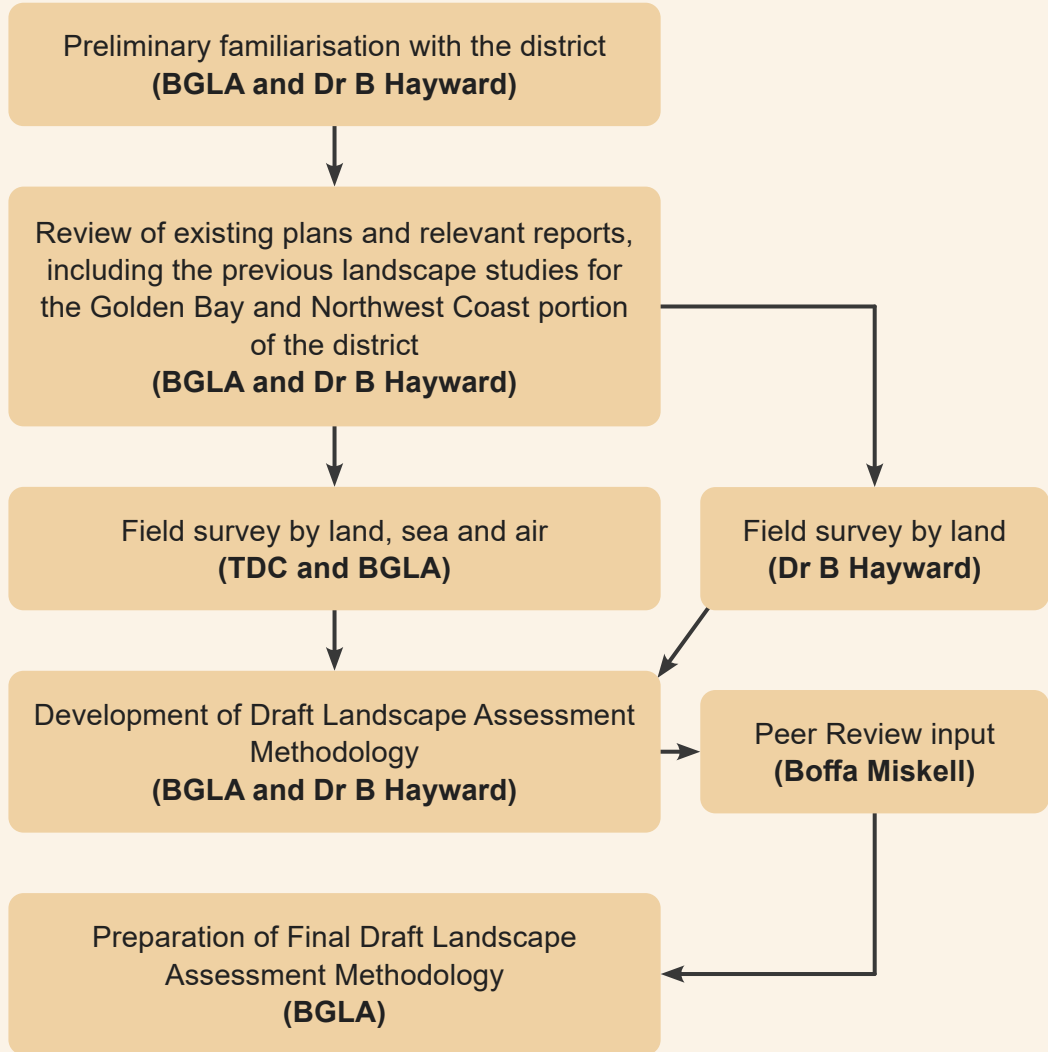
Section C

Tasman District Landscape
Study Methodology

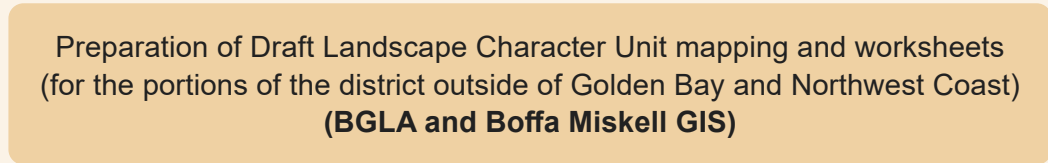


Drawing from the preceding discussion of landscape assessment 'principles', the following diagram sets out the landscape assessment methodology applied in the Tasman District Landscape Study.

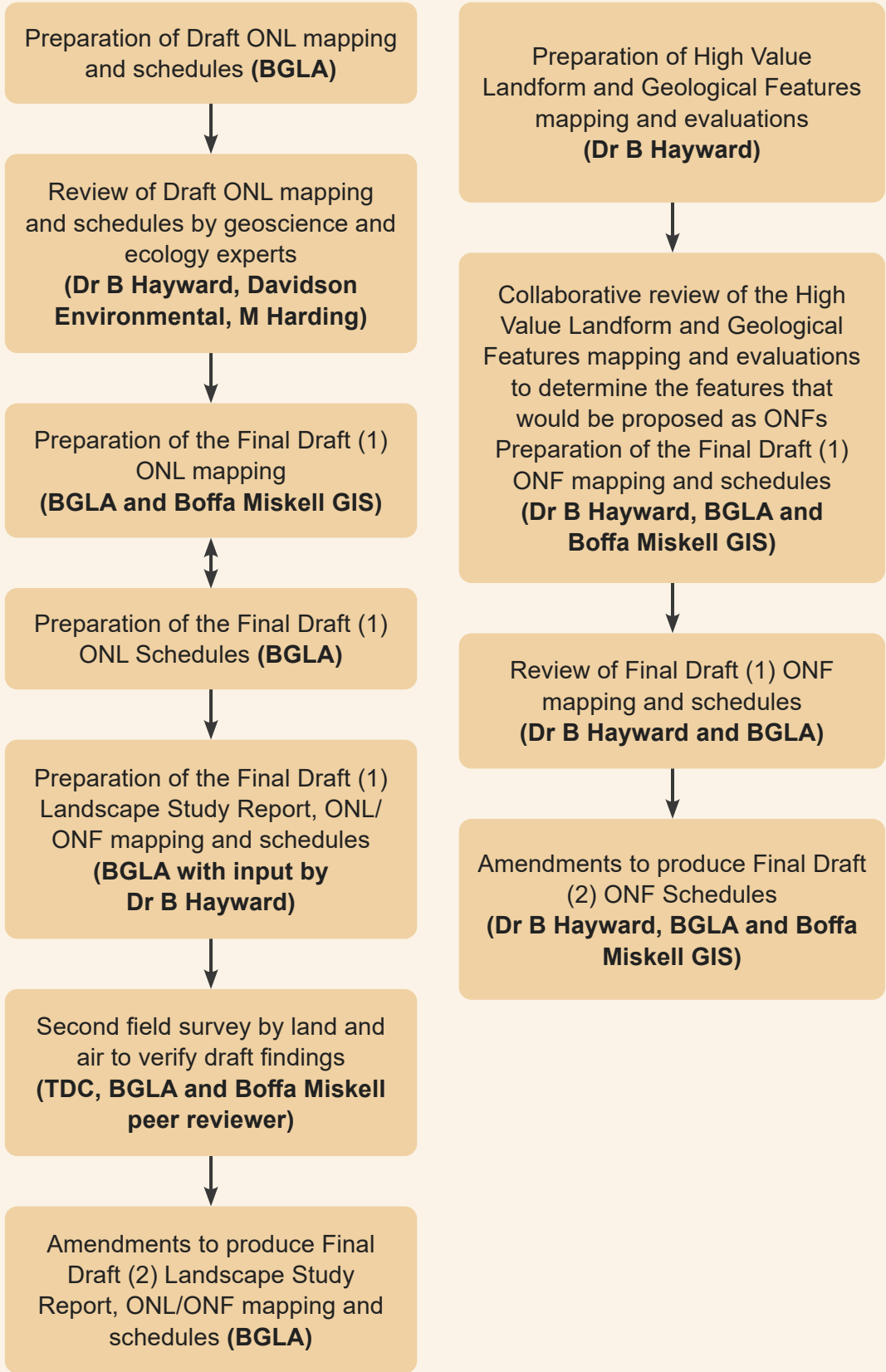
Stage 1: Landscape Assessment Methodology



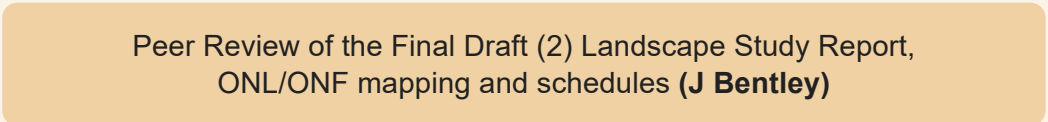
Stage 2: Landscape Characterisation



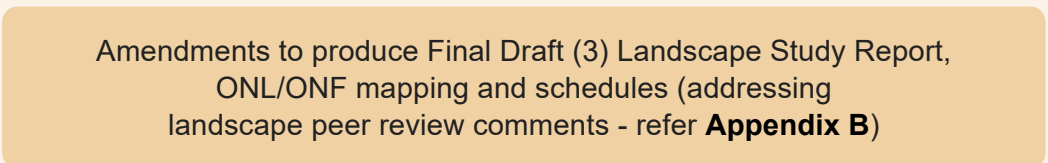
Stage 3: Landscape Evaluation



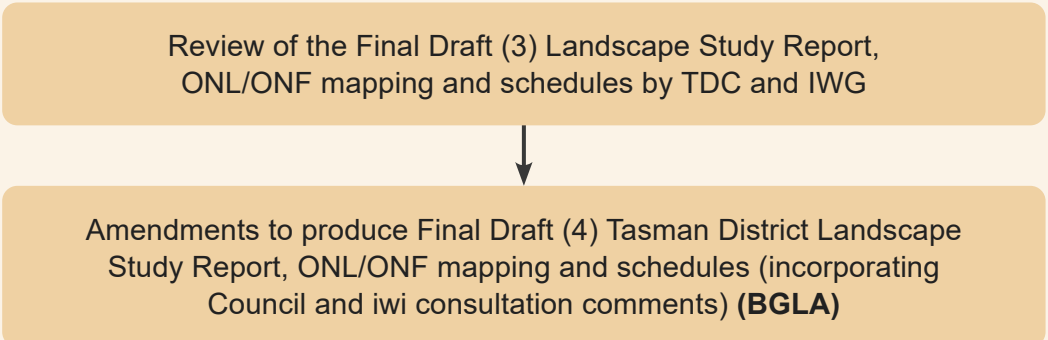
Stage 4: Landscape Peer Review



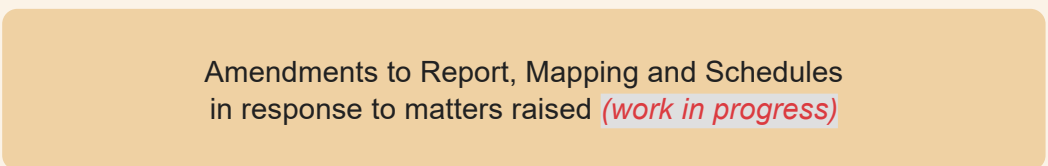
Stage 5: Incorporation of Landscape Peer Review Comments



Stage 6: Iwi Consultation



Stage 7: Preliminary Consultation with Landowners



Assumptions

FIELD SURVEY

The extensive nature of the district (some 9,786 km²), combined with its relatively limited road network means that a pragmatic approach to field survey was necessary. Three separate and detailed field visits were made by BGLA. The first visit comprised a survey by road, air, and sea to get a 'feel' for the landscapes of the entire district. The second survey involved a detailed survey by road and included walking several of the popular tracks in the area. BGLA's third field visit was by road and air, with James Bentley and Ro Cudby. This visit was deliberately timed once a 'first draft' of the landscape assessment methodology, LCU mapping and worksheets and ONL/ONF mapping and worksheets had been prepared, to allow the group to discuss and test in the field such matters as: thresholds for 'naturalness', the 'outstanding' threshold and mapping delineation methods.

The list, description, evaluation and maps of the geoscience-based ONFs were initially informed by the content of the publicly-available NZ Geopreservation Inventory. Extensive desk-top work by BWH refined and expanded this data and the maps, together with BWH's existing knowledge of the region and its high-value geoscience features. Four days of land-based survey was undertaken by BWH around Motueka, Murchison, and the eastern parts of Tasman District to visit targeted and easily accessible potential sites for better evaluation and more precise mapping.

This level of field survey will inevitably result in a certain 'coarseness' in the grain of the LCU, ONL and ONF mapping and scheduling (or worksheets for the LCUs). However, it should be noted that this approach to landscape field survey is not unusual in relatively remote and large-scale districts within New Zealand that display a relatively low rate (or 'risk') of landscape change. Further, it is often the case that as the Council work through the Plan Review process, detailed site investigations may be required to refine the ONL and ONF mapping Assumptions page and schedules in particular.

Whanganui Inlet



Richmond Ranges ONL - photograph supplied by James Bentley



Section D

Outstanding Natural Landscapes

DRAFT FOR LANDOWNER CONSULTATION

DRAFT FOR LANDOWNER CONSULTATION



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Detailed mapping of District's ONLs to be inserted

ONL 1: Northwest Coast

GENERAL DESCRIPTION OF AREA

ONL 1: Northwest Coast relates to the western portion of the district stretching from Kahurangi Point and Big River in the south to the far eastern tip of Farewell Spit/Onetahua in the north, and including the west coast CMA extending out to 3 nautical miles (approximately 5.5km) from the coastline.

QUALIFIES AS ‘LANDSCAPE’?

The extent of the ONL 1: Northwest Coast corresponds to the extent of dramatic coastal and mountainous landscape that frames the western side of the district. The sheer scale of the area, together with its dramatic and highly memorable character, means that it reads as a 'landscape'. Whilst landforms, land-covers and land uses vary across the area, the prevailing impression of a relatively wild, remote, and seemingly 'natural' landscape is the glue that binds these various elements as a 'landscape'. The identity of the area as 'the far western edge of Golden Bay and the district' also plays a role in this regard.

QUALIFIES AS ‘NATURAL’?

The very limited level of human modification, together with the very high biophysical values of much of the area, means that it qualifies for consideration in terms of naturalness. Whilst development is evident in places (for example, reasonably large scale pastoral areas with dwellings, sheds, tracks, visitor accommodation, campgrounds and the like), its modest scale and informal character, or generally visually discrete nature (for example Mt Burnett quarry) means that it remains subservient to the more 'natural' landscape features, patterns and processes.

High to **very high** naturalness rating.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.

Sensory Attributes

- a. The high to very high naturalness values arising from: the wild and dynamic coastal context; the sense of remoteness associated with the area; the proliferation, scale and (in many instances) dramatic character of biophysical features; the relatively limited extent and seemingly 'modest' character of human modification including low intensity pastoral farming and scattered and modestly scaled rural dwellings, farm buildings and visitor accommodation); and the extensive and contiguous network of bush-covered slopes and sculpted ridgelines seen backdropped in many outlooks by (at times, snow-capped) alpine ranges.
- b. The very high aesthetic and memorability values of the area as a consequence of its highly attractive and dramatic visual character and seemingly isolated context.
- c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape's formative processes.
- d. The very high transient values associated with the coastal processes, climatic characteristics and birdlife.

Associative Attributes

- a. Cultural landscape values rating and description TBC
- b. The high historic values of the area as a consequence of its rich history of use and in particular as the site of the departure point for Cooks first voyage to New Zealand (Farewell Point).
- c. The very high shared and recognised values associated with the area.
- d. The very high recreational and scenic values associated with the key walkways and National Park in the area and largely drawing from the aesthetic, naturalness and memorability qualities associated with these places, together with their strong sense of remoteness and 'getting away from it all'.

These various highly rated attributes and values come together to firmly establish the Northwest Coast ONL 1 area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.

Detailed mapping of ONL 1: Northwest Coast to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

The northwest coast landscape is richly endowed with a wide range of significant biophysical features.

Particularly significant **landform** and **geological** features include:

- a. Farewell Spit/Onetahua.
- b. The seaward barrier separating the Whanganui Inlet from the Tasman (and including Mt Lunar and the south headlands of the inlet).
- c. Mangarakau wetlands.
- d. Baby Grand Cave, Paturau.
- e. Tunnel Cave, Paturau.
- f. Twin Forks Cave, Paturau.
- g. Wet Neck Cave, Paturau.
- h. Otuhie and Kaihoka dune lakes.
- i. Kaihoka Lakes solution runnels.
- j. Kaihoka tilted pavement.
- k. Meroiti doline field.
- l. Meroiti limestone pavement.
- m. The Te Hapu collapse feature and limestone pavement.
- n. Coastal cliffs and stacks including the Archway Islands at Wharariki and the limestone cliffs of the seaward barrier range (Ngūroa Bay to Paturau River).
- o. Pillar Point to Kaihoka coastal arches and conglomerate.
- p. Puponga conglomerate bluffs.
- q. Puponga Point fluviatile sedimentary rocks.
- r. The marine terraces at Paturau.
- s. Limestone, dolomite and conglomerate bluffs, including at Mt Haidinger (the Castles/Haidinger Bluffs) and Mt Burnett in the Whakamarama Range; Mangarakau, Lake Otuhie.
- t. Fossil features including the dinosaur footprints at Whanganui Inlet.
- u. Prominent hills including Knuckle Hill and the Old Man Range near Cape Farewell.
- v. The coastal dunes at Turimawiwi.
- w. Sandy beaches including Wharariki.
- x. The Turimawiwi River mouth and longitudinal dunes.
- y. Wairoa River mouth coal measures.

- z. Glaciated mountain ranges (within Kahurangi National Park).
- aa. Kahurangi Shoals.
- ab. Paturau Shoal.
- ac. Shore platforms north of Sharks Head to South Head Cone.

Particularly significant **ecological** attributes include:

- a. Farewell Spit/Onetahua (dune and wetland values and habitat for rare species including *Euphorbia glauca*, sand daphne, sand spike rush and *Eleocharis neozealandica*).
- b. Kahurangi National Park (richly diverse alpine herbfields, lowland podocarp-hardwood forests (lower lying areas), beech-podocarp forest (ridges and areas of poor soils), red or silver beech forest on faces and gullies, coastal forest). Stands of virgin forest in places.
- c. Mangarakau wetlands (wetland birds and freshwater fish).
- d. Whanganui Inlet and its numerous sub inlets (seagrass, salt marsh, herb fields, adjacent coastal forest, sand dunes, high current estuarine reefs). Wader foraging habitats widespread and roosts present at Rakopi and the entrance spit. Marsh birds present.
- e. Important habitats for seals, great spotted kiwi, fern bird, kaka, falcon, rock wren, blue duck, giant weta, NZ's largest cave spiders and the carnivorous NZ land snail (*Powelliphanta spp*). Wide range of seabirds at Farewell Spit including gannets and godwits. Marine mammals at Farewell Spit.
- f. Kahurangi and Paturau Shoals.
- g. Mt Burnett vegetation communities.
- h. Extensive coastal slope vegetation communities: intact in places and regenerating elsewhere.

Particularly significant **hydrological** attributes include:

- a. Whanganui Inlet and its numerous sub inlets.
- b. The Anaweka, Big, Turimawiwi, Paturau and Wairoa Rivers.
- c. The expansive and often wild waters of the Tasman Sea.



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Spectacular close and mid-range views of Wharariki Beach and the Archway Islands alongside the expansive and wild waters of the Tasman from the coastline and nearby public walkways.
- b. Dramatic and memorable mid and long-range views of the highly sculptural and contrasting forms of the Three Sisters (Burnett Range) from the Aorere Valley and the waters/shoreline of Golden Bay (noting that Mt Burnett quarry is not seen in these views).
- c. Stunning close, mid and long-range views of the hauntingly beautiful Whanganui Inlet from adjacent roads and walkways.
- d. Highly attractive close, mid and long-range views of the dramatic western coastline and seascape from adjacent roads and walkways and the sea itself.
- e. Striking close, mid and long-range views of the numerous limestone bluffs and outcrops from adjacent roads and walkways, and the nearby seascape.
- f. Spectacular close, mid and long-range views of Farewell Spit/Onetahua from space, the air, water, roads, Golden Bay coastline and walkways.
- g. Highly attractive close, mid and long range views of the extensive and coherent sequence of the generally unmodified bush-covered sculpted landforms and ridgelines throughout the edges of Kahurangi National Park and its immediate margins from the Aorere Valley.
- h. Dramatic long range views of the rugged snow-capped mountains and ridgeline spines in the interior of Kahurangi National Park from the broader Golden Bay area.

From many vantage points within the wider Golden Bay area, layered views of the bush-clad northwest coast hills backdropped by the rugged alpine peaks and ranges associated with ONL 1, 2 and 4 comprise signature views that are critical to the

identity of the wider area. In places, the more sheltered waters of Golden Bay (ONL 3) also form part of the outlook, adding to the spectacle.

The limited level of modification evident, together with the proliferation, scale, and dramatic character of the biophysical features, suggests a rating for naturalness towards the higher end of the spectrum. Whilst dwellings (including visitor facilities), small-scale settlements (Rakopi, Mangarakau), campgrounds, tracks, pastoral farming, production forestry, dolomite quarrying and infrastructure are evident in places (e.g. power lines, lighthouses, small scale airstrips), either the limited scale of such modifications, their relatively discreet visual character/prominence in the wider landscape (eg Mt Burnett quarry), and/or the sheer dominance of the more natural landscape features, patterns and processes of the wider setting means that they are subservient elements of the landscape.

The large-scale, striking appearance, rarity and/or juxtaposition of the rich amalgam of biophysical features, coupled with the sense of remoteness and wildness associated with the area, makes this an extremely memorable landscape and which forms a striking contrast to the more sheltered and ‘serene’ environment associated with Golden Bay.

There is a strong sense of the sublime due to the large-scale and dramatic character of many of the biophysical attributes (including the highly dynamic and wild seascape).

The majority of the biophysical attributes listed above assist an understanding of the landscape’s formative processes.

Transient values derive from: the highly elemental and exposed environment evidenced by windswept trees; seasonal snowfall; the highly tidal nature of the inlets; the highly dynamic dunes; and the dynamic patterning of light on intertidal areas.

Very strong sense of isolation, remoteness and wilderness due to the inaccessibility of the area, the ‘one-way’ character of the land based access that is evident (i.e. not a through route), the relatively limited boating activity on the Tasman Sea, and the very limited extent of existing habitation/development.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. The Poutini Trail along the coast.
- b. Kahurangi Point.
- c. The Mātaitai Reserves (coastal protection areas).
- d. Farewell Spit/Onetahua.
- e. Archaeological and Wahi Tapu sites around the: mouth of the Anaweka River; the Whanganui Inlet.
- f. *Other: To be confirmed*

Rich history of land use including: production forestry; sawmilling; flax harvesting; gold mining; pastoral farming; coal mining; and dolomite quarrying.

Cape Farewell of European historic significance (departure point for Cook’s first voyage to NZ).

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications, the popularity of the area as an inspiration/subject for art and photography, the findings of the Small Working Group project, and the popularity of Farewell Spit/Onetahua, the Heaphy Track, and Kahurangi National Park in particular.

Highly popular recreational features including: the Kahurangi National Park (walking, tramping, mountain biking, hunting, bird watching, caving, fishing, kayaking, canoeing, rafting); the Heaphy Track (NZ Great Walk); Farewell Spit/Onetahua; the Spit Walk (western end of Farewell Spit); the network of walkways between Puponga and Wharariki Beach/Pilch Point; and the camping ground near Wharariki.

Less well-known recreational features include: the Kaituna Route (Carter Road, Aorere Valley to Whanganui Inlet via Knuckle Hill); the Mt Stevens Route (Upper Aorere Valley); and the remote road network along the western coast.

Kahurangi National Park - Lord of the Rings film location.



The ONL 1 western and northern boundary is defined by the 3 nautical mile (approximately 5.5km) limit from the western coastline.

The ONL 1 eastern boundary generally corresponds to the national park boundary or the ‘outer’ edge of large contiguous bush areas adjoining the national park boundary. The landscape captured by the ONL effectively corresponds to the extent of the elevated bush clad mountains that serve to frame the Aorere Valley and Puponga-Collingwood coastline.

The delineation between ONL 1 Northwest Coast and ONL 2 Parapara-Kahurangi Ranges generally aligns along the upper eastern edge of the Whakamarama Range, descending to the top of the Aorere Valley via a ridgeline spur.

The ONL 1 southern boundary coincides with the district boundary.

KEY CHARACTERISTICS AND QUALITIES OF ONL 1 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of: Wharariki Beach and the Archway Islands; Farewell Spit; the Three Sisters (Burnett Range, acknowledging the visually discrete nature of the existing quarry); the Whanganui Inlet; the western coastline; the numerous inland bluffs and outcrops; the extensive sequence of the generally unmodified bush covered sculpted landforms and ridgelines throughout the edges of Kahurangi National Park and its immediate margins; the snow- capped mountains and ridgelines in the interior of Kahurangi National Park.
- The very low-key, modest and relatively informal built development character (including roading, tracks, infrastructure, dwellings, rural sheds, and recreation/tourism related facilities).
- A sense of remoteness and ‘getting away from it all’.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 1

- Large-scale earthworks, including infilling, reclamation, quarrying and mining.
- Indigenous vegetation removals.
- Production forestry.
- Large-scale infrastructure (including large and incongruous coastal erosion and defence structures).
- Intensive farming.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage and recreation/tourism development.
- Aquaculture structures.
- Dredging and trawling.
- Activities that increase sediment input into the marine and/or freshwater environment.
- Sea-bed mining.



ONL 2: Parapara-Kahurangi Ranges

GENERAL DESCRIPTION OF AREA

ONL 2: Parapara-Kahurangi Ranges very roughly relates to the extent of Kahurangi National Park and public conservation land within the district, excluding the north western coastal area 'captured' by ONL 1. It abuts the ONL 1 Northwest Coast along its western edge and ONL 4 Abel Tasman at State Highway 60 (Takaka Hill).

QUALIFIES AS 'LANDSCAPE'?

The extent of the ONL 2: Parapara-Kahurangi Ranges roughly corresponds to the dramatic, non-coastal, mountain landscape that frames the southern and eastern side of the Aorere Valley, the western, southern and south eastern sides of the Takaka Valley and the western side of Tasman Bay. The dramatic scale of the landform patterning with an almost contiguous bush-cover cloak (excepting the alpine peaks and ridges) means that it reads as a 'landscape'.

QUALIFIES AS 'NATURAL'?

The very limited level of human modification, together with the overwhelmingly wilderness impression of the area, means that it qualifies for consideration in terms of naturalness. Whilst development and infrastructure is evident in places (for example, at the Cobb Reservoir and in the vicinity of Sams Creek), it is effectively dwarfed by the majestic mountain context.

Very high naturalness rating.

QUALIFIES AS 'OUTSTANDING'?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.</div>

Sensory Attributes
<div>a. The very high naturalness values arising from: the sense of remoteness associated with the area; the proliferation, diversity, endemic-ness, and (generally) untouched character of biophysical features; the very limited extent and modest character of human modification; and the extensive and contiguous network of bush-covered slopes and sculpted ridgelines seen backdropped in many outlooks by (at times, snow-capped) rugged alpine ranges.</div> <div>b. The very high aesthetic and memorability values of the area as a consequence of its highly attractive and dramatic visual character and seemingly isolated context.</div> <div>c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape's formative processes.</div> <div>d. The high transient values associated with the climatic characteristics and seasonal rātā flowering displays.</div>

Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high historic values of the area as a consequence of its rich history of use and in particular, as the location of New Zealand's first official gold mine.</div> <div>c. The very high shared and recognised values associated with the area.</div> <div>d. The very high recreational and scenic values associated with the national park in the area and largely drawing from the biophysical, aesthetic, naturalness and memorability qualities associated with the area, together with its very strong sense of remoteness and 'getting away from it all'.</div>

These various highly rated attributes and values come together to firmly establish the Parapara-Kahurangi ONL 2 area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.



Detailed mapping of ONL 2: Parapara-Kahurangi Ranges to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

The geology of the area is the most diverse of any protected area in the country resulting from a long and complex history, including glaciation and tectonic processes. There is an extraordinary diversity of substrates (sandstone, limestone, marble, coal measures, granite and ultramafic rocks) and associated ecosystems (riparian, rainforest, mesic forest, subalpine shrubland, karrenfield, fertile swamp, alpine bogs, cirque tarns, fellfield, tussock land, scree, alpine bluffs and rock land) evident throughout the area. In addition, the Park encompasses a wide range of altitude and climatic conditions. During the ice ages much of the area escaped the severe climate, enabling plants on warmer north-facing slopes in particular to endure. When the climate finally warmed, these species were able to recolonise the land, resulting in a very rich flora that has a high number of endemics.

Particularly significant **landform** and **geological** features include:

- a. Mt Arthur Tablelands and Gouland Downs where the flat areas of basement rock are the oldest exhumed landform in New Zealand.
- b. Best sequence of Paleozoic rocks in New Zealand.
- c. Mt Owen: finest example of glaciated marble karst in the Southern Hemisphere.
- d. New Zealand's best example of an ice cavern and ice speleothems in the Mt Owen area.
- e. Mt Patriarch limestone summit folding which comprises the best example of Cambrian to Ordovician sedimentary and fossil sequences in New Zealand.
- f. Thousand Acres Plateau which is one of the best examples of an uplifted plateau surrounded by limestone bluffs in New Zealand.
- g. Internationally significant karst (limestone and marble) areas and cave systems.
- h. Glacial landforms in the Cobb Valley including: roche moutonnées, moraines, horn peaks, u-shaped valleys and cirque lakes.
- i. Cobb Valley magnesite and karst exposures.
- j. Trilobite Rock.
- k. Baton River Devonian fossil assemblage.
- l. Parapara Peak Permian fossils.
- m. Rua Ruru Cave and fossils.
- n. Takaka Hill Fossil cave.
- o. Takaka Quarry asbestos.
- p. Mt Arthur marble karst and caves.
- q. Pearse Resurgence
- r. Mt Owen marble karst and caves.
- s. Mt Snowden oolitic limestone.
- t. Moonsilver Cave.
- u. Aorere Caves.
- v. The Dragons Teeth in the Douglas Range.
- w. Gouland Downs karst.
- x. Gouland Range karst.
- y. Mount Olympus.
- z. Boulder Lake multiple cirque.
- aa. Lake Matiri debris-dammed lake.
- ab. Lake Stanley debris-dammed lake.
- ac. Lake Sylvester cirque.
- ad. The Lockett Range, including the limestone gendarme.
- ae. Mount Mytton and its glacial karst.

- af. Parapara Peak.
- ag. Mount Snowden.
- ah. Hailes Knob.
- ai. Hoary Head.
- aj. The Crusader.
- ak. The plunging (bush-clad) gorges (and rivers/streams).
- al. Matiri Hole in the Wall waterfall
- am. Upper Tadmor sedimentary rock sequence
- an. Huia Cave

Particularly significant **ecological** attributes include:

- a. One of the largest intact vegetation regimes in New Zealand that is renowned for its diversity, in turn reflecting the wide range of environmental conditions that prevail throughout the area.
- b. Highest number of endemic plants of any national park.
- c. 38 of the 320 or so nationally threatened plant species occur in the Park.
- d. Largest extent of alpine limestone plants in New Zealand and, in particular, at Mt Arthur and the twins, Garibaldi, Gouland Downs and Mt Owen. The flora includes more than half of the native species found in New Zealand with at least 66 of these being endemic to the area.
- e. Ultramafic plant communities (distinctive low-diversity communities dominated by heath species and often comprised of prostrate forms of other plants) notably in the lower Cobb Valley.
- f. Large areas of intact and diverse, lowland forest (below 600m altitude) which is an ecosystem that is not well represented in other national parks or New Zealand more generally.
- g. Extensive areas of upland granite communities (occur on wet, infertile areas).
- h. Extensive areas of lowland granite communities and in particular at Gouland Downs.
- i. Pakihi communities in the Aorere Valley.
- j. Important habitats for long-tailed bats, great spotted kiwi, NZ scaup, Australasian bittern, fernbird, kaka, falcon, rock wren, blue duck, bellbird, kea, robin, tomtit, rifleman, fantail, giant weta, NZ's largest cave spiders and the carnivorous NZ land snail (*Powelliphanta spp*), 12 native fish species and including 4 threatened species with very low levels of introduced fish species.

Particularly significant **hydrological** attributes include:

- a. Takaka River.
- b. Sub alpine lakes of glacial origin including: Diamond Lake, Lake Sylvester, Little Lake Sylvester, Iron Lake, Bulmer Lake and Boulder Lake.
- c. Cobb Reservoir (earth formed dam set 807 metres above sea level with a storage capacity of 25.6 million cubic metres).
- d. Takaka, Waitui, Anatoki, Waingarō and Aorere Rivers.



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive long range views from the lower lying portions of Golden Bay and Tasman Bay to the extensive and coherent sequence of unmodified bush-covered sculpted landforms and ridgelines, exposed tablelands and rugged snow-capped mountains that define Kahurangi National Park.
- b. Striking mid and long range views out over Golden Bay land and seascape from the lookout on the west side of Takaka Hill (State Highway 60).
- c. Spectacular close, mid and long range views from elevated and open locations within ONL 2 to the tablelands, glacial lakes, bush-lined gorges and numerous limestone bluffs and outcrops.

From many vantage points within the wider Golden Bay and Tasman Bay areas, layered views of the bush-clad hills backdropped by the rugged alpine peaks and ranges associated with ONL 1, 2, 4, 6 and 7 comprise signature views that are critical to the identity of the wider bay.

In such views, the continuous and large scale patterning of steep, elevated bush-clad slopes, alpine ridges and peaks and exposed tablelands form a striking contrast to the more modified and 'tamed' river valley landscapes associated with lower lying parts of Golden Bay and Tasman Bay.

The very limited level of modification evident, together with the proliferation, scale and dramatic character of the biophysical features, suggests a rating for naturalness at the highest end of the spectrum. Whilst infrastructure is evident in places (e.g. power lines, roading and dam in the Cobb Valley and transmission infrastructure near Sams Creek), the sheer dominance of the more natural landscape features, patterns and processes of the wider setting means that they are subservient elements of the landscape. Walking track, tramping huts and the like, are modifications that support the recreational values of the landscape. Their modest scale and generally low-key, informal character means that they fit harmoniously into the landscape.

The expansive scale of the bush-clad landforms, steep gorges, winding rivers, scattering of lakes, exposed tablelands and elevated alpine peaks and ranges confers a strong sense of the sublime that is highly memorable.

The majority of the biophysical attributes listed above assist an understanding of the landscape's formative processes.

Transient values derive from: the snow-capped ranges, peaks and tablelands; and flowering rātā.

A very strong sense of the remoteness, endemism, wildness and isolation due to: the complete absence of permanent human habitation; the very limited accessibility of the area (largely limited to walking/biking tracks); the very limited level of built development; and the abundance and richness of intact vegetation communities.



ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. The trading route along the Heaphy Track.
- b. *Other: To be confirmed*
- c. Archaeological and Wahi Tapu sites.
- d. *Other: To be confirmed*

Kahurangi has a number of meanings, including ‘treasured possession’.

European history includes: the mining of asbestos (Upper Takaka), gold (with the Aorere goldfield being New Zealand’s first official goldmine) and iron ore (near Onekaka); the establishment of hydroelectric generation schemes at Onekaka, the Cobb Valley and in Campbells Creek; logging; pastoral grazing in the Cobb Valley and throughout the Mt Arthur Tableland; and the establishment of an early trade route along the Heaphy Track linking Golden Bay with the West Coast and goldmining tracks throughout the park (many of which are tramping tracks today).

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications, the findings of the Small Working Group project and the popularity of the Heaphy Track and other tracks within Kahurangi National Park. The establishment and conservation efforts of the Friends of Flora Society, dedicated

to restoring the flora and fauna of that area (in partnership with DoC), speaks to how highly this landscape is cherished by the local community.

Kahurangi National Park is the second largest national park in New Zealand.

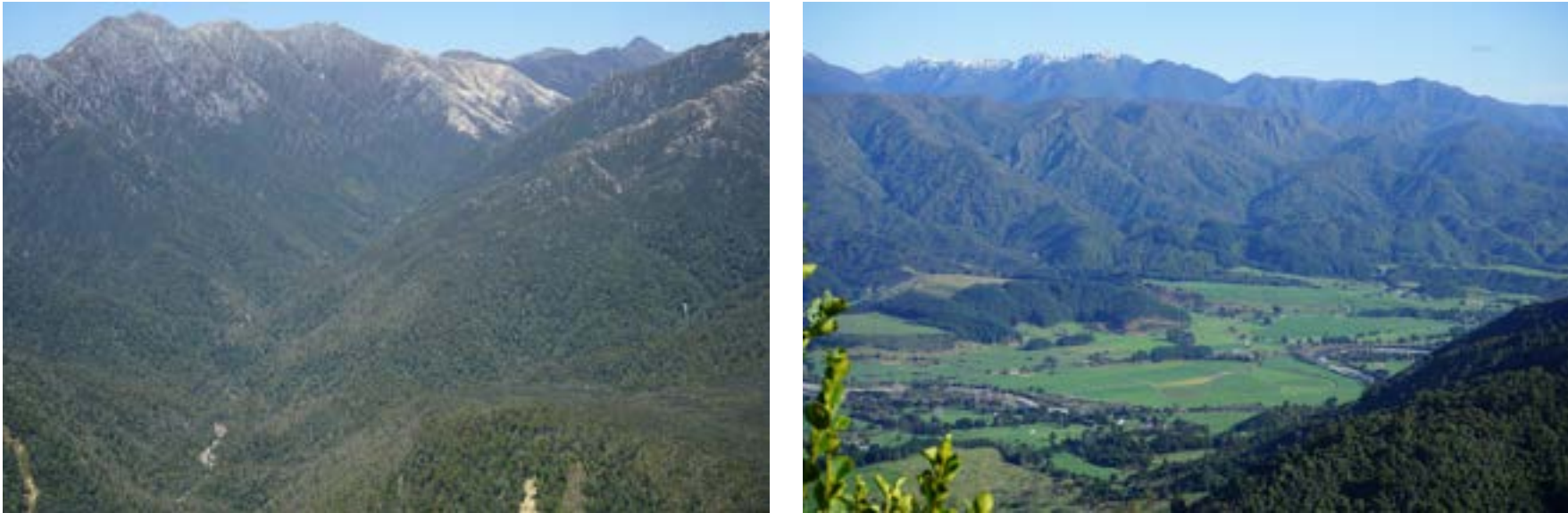
Highly popular recreational features including: the walking, tramping, mountain biking, hunting, bird watching, caving (Mt Owen and Mt Arthur), fishing, kayaking, canoeing, rafting, cross country skiing (Mt Arthur and the Tablelands).

The Heaphy Track (NZ Great Walk) and the Tablelands track network are especially popular.

The most popular day walks include the lower Wangapeka Track, the Graham Valley, the Cobb Valley, and the Riwaka Resurgence. Areas that tend to be the valued by locals include the Cobb Valley, Mt Arthur Tableland, the Douglas Range, the Wangapeka Track, the Leslie-Karamea Track, the Anatoki and Mt Owen. The Tasman Wilderness Area in the heart of the Park provides a special wilderness recreational opportunity where huts, tracks, vehicles and all other facilities are prohibited.

Extensive network of less well-known tramping tracks within the national park.

Kahurangi National Park - Lord of the Rings film location.



The ONL 2 western boundary is defined by the district boundary.

The delineation between ONL 1 Northwest Coast and ONL 2 Parapara-Kahurangi Ranges generally aligns along the upper eastern edge of the Whakamarama Range, descending to the top of the Aorere Valley via a ridgeline spur.

The ONL 2 northern boundary generally corresponds to the national park boundary or the 'outer' edge of large contiguous bush areas adjoining the national park boundary. The landscape captured by the ONL effectively corresponds to the extent of the elevated bush clad mountains that serve to frame the eastern side of the Aorere Valley and much of the Takaka Valley.

The delineation between ONL 2 Parapara-Kahurangi Ranges and ONL 4 Abel Tasman is defined by the alignment of SH 60.

The ONL 2 eastern and southern boundary generally corresponds to the national park/conservation land boundary or the 'outer' edge of large contiguous bush areas adjoining the national park/conservation land boundary.

Where ONL 2 ONL 2 Parapara-Kahurangi Ranges abuts ONL 6 Nelson Lakes- Southwestern Ranges the boundary is defined by SH 6.

- KEY CHARACTERISTICS AND QUALITIES OF ONL 2 TO BE PROTECTED FROM ADVERSE EFFECTS**
- The biophysical attributes listed above.
 - The highly attractive views of: the extensive and coherent sequence of unmodified bush-covered sculpted landforms and ridgelines, exposed tablelands and rugged snow-capped mountains throughout Kahurangi National Park.
 - The very low-key, modest and informal built development character (including roading, tracks, dwellings, rural sheds, and recreation/tourism related facilities).
 - A sense of remoteness and 'getting away from it all'.
 - The darkness of the night sky.
 - *The cultural attributes listed above.*
- TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 2**
- Large-scale earthworks, quarrying and/or mining.
 - Indigenous vegetation removals.
 - Production forestry.
 - Large-scale infrastructure.
 - Intensive farming.
 - Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage and recreation/tourism development.

Photograph supplied by James Bentley



Photograph supplied by James Bentley



Photograph supplied by James Bentley



ONL 3: Golden Bay/Mohua Coastal Marine

GENERAL DESCRIPTION OF AREA

ONL 3: Golden Bay/Mohua Coastal Marine relates to the relatively sheltered seascape of Golden Bay stretching from the eastern tip of Farewell Spit/Onetahua (and including the expansive tidal flats along the south side of the spit) to Separation Point/Te Matau, taking in the 'necklace' of inlets and estuaries along the Golden Bay shoreline except for Wainui Bay.

Generally, the 'inland' extent of the ONL is defined by shoreline. In some locations, coastal headlands and low-lying land is included, where that land is considered to be an integral part of the coastal ONL and/or plays an important role in shaping the landscape character of seascape ONL (e.g. sandy beach, undeveloped dunes and sand flats in the vicinity of the Takaka River mouth, Rangihaeata Headland, Sopers Hill). Typically, land included in this manner is contiguous with the CMA and subject to coastal processes associated with Golden Bay/Mohua. It also displays biophysical, sensory and associative attributes and values that qualify the included terrestrial areas as 'natural' and 'outstanding'.

QUALIFIES AS 'LANDSCAPE'?

The extent of ONL 3: Golden Bay/Mohua Coastal Marine effectively corresponds to the more protected waters of Golden Bay. The large scale of this area (noting that the seascape is 25km wide measured from the tip of Farewell Spit/Onetahua to Separation Point/Te Matau), and its coherent character means that it reads as a 'landscape'. The role that this seascape plays in shaping the identity and 'sense of place' associated with the adjoining land (i.e. the 'place' of Golden Bay) also plays a role in this regard.

QUALIFIES AS 'NATURAL'?

Despite the large-scale aquaculture anticipated in the area, commercial fishing (including trawling and dredging), sedimentation of the subtidal environment, and numerous jetties, boat ramps, erosion structures, power lines and causeways around the edges of the bay and inlets encompassed



by ONL 3, the sheer scale of the intact seascape, together with the high ecological values of many coastal areas means that the landscape qualifies for consideration in terms of naturalness.

High to **Very High** naturalness rating.

QUALIFIES AS 'OUTSTANDING'?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high to very high biophysical values due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.</div>
Sensory Attributes
<div>a. The high to very high naturalness values arising from: the expansive scale of the intact seascape; and the relatively diminutive scale of modifications within that context (including large-scale aquaculture, commercial fishing, an operating port at Tarakohe and numerous jetties, boat ramps, erosion protection devices, power lines and causeways around the edges of the bay and inlets) within this seascape context.</div> <div>b. The very high aesthetic and memorability values of the area as a consequence of the highly attractive, dramatic and signature views associated with the area and which epitomise the identity of this part of the district.</div> <div>c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape's formative processes.</div> <div>d. The very high transient values associated with the coastal processes, climatic characteristics and birdlife.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The very high shared and recognised values associated with the area.</div> <div>c. The very high recreational and scenic values associated with the seascape, coastline, walkways and scenic lookouts in the area and largely drawing from the aesthetic, naturalness and memorability qualities associated with these places.</div>

These various highly rated attributes and values come together to firmly establish the Golden Bay/Mohua Coastal Marine ONL 3 area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.

Detailed mapping of ONL 3: Golden Bay/Mohua Coastal Marine to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. The extensive intertidal flats, including at Farewell Spit/Onetahua where the tide exposes flats up to 9km wide.
- b. The coastal headlands at Puponga Point, Rangihaeata Headland, Patons Rock, Totara Avenue, Sopers Hill, Abel Tasman Point, Taupo Point (limestone) and Separation Point (granite).
- c. Sea stacks at Puponga Point.
- d. The cliffs at Rangihaeata.
- e. Fossil forest at Rangihaeata.
- f. The Tata Islands coastal karst.
- g. The Taupo Point limestone stacks.
- h. Sandy and stony beaches.
- i. Shell banks including the Tangmere shell spits.
- j. The sea cliffs between Parapara and the Onekaka Inlet, and to the south of the Onekaka Inlet (do these exist?).
- k. Lagoon, spit, and dune systems associated with inlets and estuaries including Aorere River delta and Ruataniwha Inlet.
- l. Estuaries (Puponga, Pakawau, Waikato, Parapara, Ruataniwha, Parapara, Little Kaituna, Onekaka, Onahau, Waitapu, Motupipi, Tata).

Particularly significant **ecological** attributes include:

- a. Habitat for a wide range of birds (including gannets, godwits, banded rail, Australasian bittern, banded dotterel, variable oystercatcher, Caspian tern, white fronted tern, spotless crane, SI fernbird, white heron, marsh crane, royal spoonbill .
- b. Marine mammals and wading birds in the Farewell Spit/Onetahua intertidal area.
- c. Sea grass beds of Farewell Spit intertidal flats.
- d. Native saltmarsh, herbfields and seagrass vegetation communities within the inlets, estuaries and sand flats.
- e. Small areas of coastal forest and regenerating vegetation, including northern rata, pukatea, podocarps and beech.

Particularly significant **hydrological** attributes include:

- a. The seascape of Golden Bay.
- b. The inlets and estuaries at Puponga, Pakawau, Waikato, Ruataniwha, Parapara, Onekaka, Onahau, Waitapu, Motupipi and Ligar Bay.



Photograph supplied by James Bentley



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Dramatic long-range views from the shoreline where the expansive and uncluttered seascape of Golden Bay and the sweeping arc of coastline is seen framed by the surrounding mountains (i.e. ONLs 1, 2 and 4).
- b. Highly attractive close-range views of the sequence of inlets and estuaries, beaches, dunes cliffs and headlands from the adjacent landscape (including the seascape).
- c. Highly attractive short, mid and long-range views from scenic lookouts and walking tracks along Farewell Spit/Onetahua, Puponga Farm Park, Aorere Goldfields Track, Parapara Peak track, Milnthorpe Park tracks, Knuckle Hill track, Abel Tasman Memorial, Abel Tasman Coastal Track.
- d. Striking long-range views from elevated vantage points on State Highway 60 descending down the western side of Takaka Hill which enable an appreciation of the vast scale of Golden Bay and the sweeping arc of the coastline (including Farewell Spit) that encloses the bay.
- e. Dramatic long-range views from the water across the seascape to the mountains and Farewell Spit/Onetahua framing Golden Bay.
- f. Impressive very long-range views from the air where the bay reads as a distinctive and legible waterbody that is framed by the sweeping curve of Farewell Spit/Onetahua. From this distance the distinctive currents that separate Golden Bay from Tasman Bay (and from which the name Separation Point is derived) are also discernible.

From many vantage points within the wider Golden Bay area, views of the expansive seascape framed by Farewell Spit/Onetahua and the layered views of the bush-clad hills backdropped by the rugged alpine peaks and ranges associated with ONL 1, 2 and 4 comprise signature views that are critical to the identity of the wider area.

The sheer scale of the intact seascape suggests a rating for naturalness towards the higher end of the spectrum. Whilst large-scale aquaculture, commercial fishing, and numerous jetties, boat ramps, erosion structures, power lines and causeways (and armouring/rip rap) around the edges of the bay and inlets are evident, the vast scale of the (seascape) 'landscape' within which they are located serves to dwarf them such that they are subservient to the more 'natural' elements, patterns and processes of the landscape. The inability to see the majority of the aquaculture areas from the shoreline is critical to this finding.

The coherent and dramatic expanse of framed and relatively sheltered seascape that is experienced at Golden Bay makes this a highly memorable landscape. The striking contrast between extensive waters of the bay and the surrounding mountain/spit context, together with the more close-range contrast that is evident between the open and seemingly 'natural' waters of the bay and its developed coastline, evokes a strongly vivid impression.

The highly tidal nature of much of the shoreline, evident coastal erosion, coastal landform features and highly dynamic character of the seascape speak to the landscape's formative processes.

Transient values derive from: the high flushing character of the inlets, estuaries and Farewell Spit margins; the highly visible coastal erosion processes; seasonal birdlife; the highly varying weather conditions which are expressed in surface water conditions; and the dynamic patterning of light on intertidal areas.

On the waters of the bay (away from aquaculture areas), there is a strong sense of 'wildness' throughout much of the area due to: the large scale of the seascape; and the relatively limited number of marine craft away from aquaculture areas.

Photograph supplied by James Bentley



ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. Archaeological and Wahi tapu sites.
- b. *Other: To be confirmed*

Very high shared and recognised and recreational values as evidenced by the descriptions of the area in tourism publications, the findings of the Small Working Group project, the popularity of the area as an inspiration/subject for art and photography, the popularity of the area for recreational boating and kayaking, and the popularity of the Golden Bay beaches for living, holidaying, swimming, walking etc.



Photographs above and below supplied by James Bentley



TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 3

- Large-scale aquaculture, particularly within 3 nautical miles of the shoreline.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, roading, infrastructure, jetties, boat ramps, erosion control and coastal defence structures, ad hoc port infrastructure and recreation/tourism development.
- Activities that increase sediment input into the marine environment.
- Infilling and reclamation.
- Dredging and trawling.
- Sea-bed mining.
- Marina.
- Marine based windfarm.

The ONL 3 western and southern boundary is defined by the shoreline excepting in the vicinity of the Motupipi River mouth, Takaka River mouth, Rangihaeata Headland, Milnthorpe and Ruataniwha Inlet where low-lying land or coastal headlands are included due to the role they play in shaping the landscape character of the wider seascape context.

The ONL 3 northern boundary coincides with the shoreline along the length of Farewell Spit/Onetahua.

The ONL 3 eastern boundary generally corresponds to a line drawn between the eastern tip of Farewell Spit and Separation Point.

KEY CHARACTERISTICS AND QUALITIES OF ONL 3 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of: the expansive and generally uncluttered seascape framed by Farewell Spit/Onetahua and the surrounding mountains; the sequence of beaches, dunes, cliffs, headlands, inlets and estuaries strung along the length of the Golden Bay coastline.
- The low-key or relatively modest and informal built development character (including roading, power lines, erosion control structures, jetties, boat ramps and the existing Port Tarakohe facility).
- A sense of 'wildness' and 'getting away from it all'.
- The darkness of the night sky.
- *The cultural attributes listed above.*



Photograph below supplied by James Bentley



ONL 4: Abel Tasman

GENERAL DESCRIPTION OF AREA

ONL 4: Abel Tasman very roughly relates to Abel Tasman National Park and native bush dominated elevated land around its margins, stretching from the eastern side of Wainui Bay around to the northern side of Sandy Bay. It abuts ONL 2 Parapara-Kahurangi Ranges along its southern edge and takes in mixed pasture and bush land that is outside the national park in the vicinity of Canaan Downs and Harwoods Hole. Along its western edge, the extent of the ONL includes the elevated bush dominated slopes and ridges of the Pikikiruna Range.

QUALIFIES AS ‘LANDSCAPE’?

The extent of ONL 4: Abel Tasman corresponds to the dramatic mountain and coastal landscape north of SH 60 (excepting Wainui Bay). The dramatic scale of the landform patterning with an almost contiguous bush-cover cloak (excepting localised small-scale development in some of the bays and at Canaan Downs) means that it reads as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Whilst modification and development is evident in places (e.g. baches, unsealed roads, jetties, boat ramps, tracks, signage, moorings, camping grounds, tramping huts, power lines, pastoral farming, rural dwellings and sheds, production forestry, sedimentation, dredging and trawling), the generally relatively low-key character and/or modest scale of this modification means that it remains subservient to the more natural landscape features, patterns and processes.

High rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high to very high biophysical values due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of water and the (predominantly) bush-clad headlands, ridges and valleys, despite a degree of development (including: baches, unsealed roads, jetties, boat ramps, tracks, signage, moorings, camping grounds, tramping huts, power lines, pastoral farming, rural dwellings and sheds, production forestry, sedimentation, dredging and trawling).</div> <div>b. The very high aesthetic and memorability values of the area as a consequence the highly attractive views throughout the area and which comprise signature views for which the district is renowned.</div> <div>c. The high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape’s formative processes.</div> <div>d. The high transient values associated with the coastal processes, climatic characteristics and birdlife.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high historic values associated with Torrent Bay (Rakauroa), Awaroa and Totaranui in particular.</div> <div>c. The very high shared and recognised values associated with the area.</div> <div>d. The very high recreational and scenic values associated with the national park, seascape and coastline and largely drawing from the biophysical, naturalness, aesthetic, memorability and transient qualities associated with these places.</div>
These various highly rated attributes and values come together to firmly establish ONL 4 Abel Tasman as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.

Abel Tasman coastline - photograph supplied by James Bentley



Detailed mapping of ONL 4: Abel Tasman to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Underlying granite geology of much of the area, the weathering of which is responsible for the golden sands, rock strewn stream beds, interesting coastal formations and characteristically infertile soils.
- b. Limestone geology at Taupo Point and stacks with coal seams and quartzose sandstones.
- c. Canaan Downs elevated marble plateau including: marginal polje, karst landforms (sinking streams, dry valleys, resurgent springs, intricately carved karen formations, caves and sinkholes).
- d. Harwoods Hole/Starlight Cave- deepest natural shaft in the country (176m).
- e. Pikikiruna Fault scarp that separates the Canaan Plateau from the down warped Takaka valley system.
- f. Numerous (predominantly bush-lined) gorges that cut through the scarp from the plateau edge.
- g. Canaan Block marble caves and subterranean drainage.
- h. Mount Evans
- i. Murray Peak
- j. Drowned river valleys, estuaries, rocky headlands, coarse golden sand beaches, dunes, spits, rocky reefs and islands along the coastline, especially Bark, Sandfly and Torrent bays.
- k. Granite islands including Tonga, Adele (Motuarero-nui) and Fisherman (Motuarero-iti) Islands and Cottage Loaf Rock.
- l. Falls River Canyon.
- m. Guilbert Point orbicular granite.

Particularly significant **ecological** attributes include:

- a. Tonga Island Marine Reserve.
- b. Wildlife refuges associated with all of the islands.
- c. Montane bogs, tussock lands, lowland coastal forest, and dunes.
- d. Significant areas of coastal wetlands.
- e. Pockets of mature lowland podocarp/broadleaved/beech forest. Substantial areas of beech forest on karst/marble; an uncommon ecosystem.
- f. Important freshwater habitats for short-jawed and giant kōkopu and long fin eel, with the waters being free of pest fish species.
- g. Very small populations of sea run brown trout (as a consequence of the geology) which means native invertebrate and fish communities are essentially unmodified.

- h. Important habitat for variable oystercatcher, banded dotterel, blue penguin, pūkeko, ducks, fernbird, reef heron ,pied stilt, marsh crake, banded rail, red-billed gull, Caspian and white-fronted tern, black/ little/ spotted and pied shag, fluttering shearwaters, gannets, tūi, bellbird, tomtit, robin, fantail, grey warbler, brown creeper, rifleman, kereru, shining cuckoo and long-tailed cuckoo.
- i. Important habitat in karst aquifers for subterranean aquatic invertebrates, including hydrobiid snails, amphipods, isopods and aquatic worms.
- j. Numerous threatened and at-risk plants, including: shovel mint (*Scutellaria novae-zelandiae*) and limestone groundsel (*Senecio aff. glaucophyllus*) and coastal peppercress (*Lepidium banksii*) which are nationally critical.
- k. Rich range of fungal species, including *Russula solitaria*, which is 'nationally critical'.
- l. Seal colony at Tonga Island and along the coastline more generally.
- m. Breeding colonies of little blue penguins at Fisherman Island (Motuarero-iti) and Tonga Island.
- n. Rhodolith bed at Totaranui and Tonga Island.
- o. Separation Point bryozoan corals.
- p. Horse mussel bed on Tonga Island Roadstead.
- q. Red algae beds in Tonga Roadstead.
- r. Short-jawed kokopu present in many stream and small rivers (e.g. Torrent River).
- s. Coarse sediment estuaries with bush clad catchments (Totaranui, Araroa, Onetahuti, Bark Bay, Falls River, Frenchmans Bay, Torrent Bay, One Tree Bay, Marahau, Otuwhero).
- t. Marsh birds present in many estuaries.

Particularly significant **hydrological** attributes include:

- a. The waters of Golden Bay and Tasman Bay adjacent the terrestrial portion of the ONL.
- b. The Awaroa River system.
- c. The Awapoto River system.
- d. The Totaranui River system.
- e. The Wainui River system.
- f. The mid and upper reaches of the Wainui River system.
- g. Gorge Creek.
- h. Dry River.
- i. Rameka Creek.
- j. The subterranean drainage system beneath Canaan Downs.
- k. Ironstone Creek.

Photographs below supplied by James Bentley



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly **significant vistas** include:

- a. Highly attractive close, mid and long range views from the water of the extensive and coherent sequence of bush-covered hills, rocky headlands framing golden sand beaches and estuaries, and sculpted bush clad islands;
- b. Highly appealing close mid and longer range stunning views from the numerous tracks and beaches within the area, comprising a rich diversity of natural elements including wetlands, streams, bush clad hills, golden sand beaches, rocky coastlines, sparkling waters and islands. Modest baches and jetties reminiscent of early European settlement contribute positively to such compositions in places.
- c. Striking long range views of the of the Pikikiruna Fault scarp, the dramatic landform folds at Gorge Creek Gully and the broader sequence of bush clad hill slopes and ridges from the Takaka Valley;
- d. Highly attractive mid and long range views of the extensive sequence of large-scale bush-clothed hills seen from SH 60 which read as an important part of the gateway to Golden Bay;
- e. Highly engaging close and mid-range views of the karst landscape at Canaan Downs from SH 60, local tracks and Canaan Road.

From many vantage points within the wider area, layered views of the bush-clad hills golden sands beaches, sparkling waters and islands comprise signature views that are critical to the identity of the wider area.

From the Takaka Valley, the bush-clad slopes and dramatic landform features of the Pikikiruna Range and around Gorge Creek Gully create a dramatic and memorable backdrop that forms a striking contrast to the more modified and ‘tamed’ river valley landscape.

Historical terrestrial modification along the coast has occurred due to land clearance, farming and burning. Much of these impacts are now in various stages of recovery. The very limited level of built modification evident, together with the proliferation, scale and dramatic character of the biophysical features, suggests a rating for naturalness towards the higher

end of the spectrum. Whilst built development and modification is evident in places (e.g. baches, unsealed roads, jetties, boat ramps, tracks, signage, moorings, camping grounds, tramping huts, power lines, pastoral farming, rural dwellings and sheds, production forestry, sedimentation, dredging and trawling), the sheer scale of the more natural landscape features, patterns and processes of the wider setting means that they are subservient elements of the landscape.

Walking track, tramping huts, jetties, boat ramps, roads and moorings and the like, are modifications that support the recreational values of the landscape. Their modest scale and generally low-key, informal character means that they (generally) fit harmoniously into the landscape.

The relatively limited extent of pastoral areas captured within ONL 4 (within the context of the District) and/or the underlying geological values of such areas, means that this aspect of landscape modification does not appreciably influence the overall naturalness of the area nor the landscape values.

The highly attractive coastal views comprising of golden sand beaches and wetlands, framed by richly textured bush cloaked hills; or seaward, out over the sparkling coastal waters to rocky bush fringed headlands and sculpted bush clothed islands are highly memorable.

The bush lined gullies, expansive wetlands, gorges and karst, granite and marble landforms are all highly expressive of the landscape’s formative processes. The highly tidal nature of estuarine areas, evident coastal erosion, coastal landform features and highly dynamic character of the seascape also speak to the landscape’s formative processes.

Transient values derive from: the seasonal display of pohutukawa and flowering rātā; the highly dynamic inlets, estuaries, dunes and spit landforms; the highly visible coastal erosion processes; birdlife; the varying weather conditions expressed in surface water conditions; and the dynamic patterning of light on intertidal areas.

A strong sense of the endemism due to the dominance of more natural elements, patterns and processes and notwithstanding the regenerating character of much of the vegetation.

Despite the popularity of the area for recreational uses, there is a sense of isolation and wildness available in places, particularly within the northern and more inland portions of the national park.



ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Smallest national park in New Zealand and somewhat unique in that rather than being a largely unmodified area, it is an example of 'landscape recovery'.

Particularly high **cultural values** associated with:

- a. Archaeological and Wahi Tapu sites.
- b. *Other: To be confirmed*

Much of the area was cleared by early European settlers for pastoral grazing. Other industries included shipbuilding (at Awaroa, and Torrent Bay (Rakaurua)), bark-stripping for tanning (at Bark Bay (Wairima)) and quarrying at Tonga Bay.

Granite blocks from Tonga Quarry used for the steps at the Nelson Cathedral and the Wellington Post Office.

Historic European settlements at Torrent Bay (Rakaurua), Awaroa and Totaranui with remnants evident today.

The national park was established in 1942 as a permanent memorial to Abel Tasman's visit in 1642.

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications, the findings of the Small Working Group project, the popularity of the numerous walking tracks within the area National Park and the popularity of this portion of the district's coastline. The establishment and conservation efforts of Project Janszoon dedicated to restoring the flora and fauna of the area (in partnership with iwi, DoC and the Abel Tasman Birdsong Trust), speaks to how highly this landscape is cherished by the local and wider community.

Abel Tasman National Park is the smallest national park in New Zealand, albeit one of the most visited (particularly the coastal margins).

Highly popular recreational features including: the walking, tramping, mountain biking, bird watching, fishing, kayaking, hunting (limited) and caving.

The coastal track network and kayaking route is especially popular with a proliferation of water taxi services from Kaiteriteri and Marahau enabling easy and flexible access into the park.

Extensive network of less well-known tramping tracks within the national park that afford a more isolated and wilderness type experience.



KEY CHARACTERISTICS AND QUALITIES OF ONL 4 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of: wetlands, streams, bush clad hills, golden sand beaches, rocky coastlines, sparkling waters and islands; the Pikikiruna Fault scarp; the patterning of bush clad ridges and valleys throughout the interior; the karst landscape at Canaan Downs; and the historic settlements and infrastructure.
- The very low-key, modest and informal built development character (including infrastructure).
- A sense of remoteness and 'getting away from it all' (where it presently exists).
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 4

- Large-scale earthworks, including infilling, reclamation, quarrying and mining.
- Indigenous vegetation removals.
- Production forestry.
- Large-scale infrastructure (including large and incongruous coastal erosion and defence structures).
- Intensive farming.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure (land and water based), lighting, signage, erosion control structures, and recreation/tourism development.
- Dredging and trawling.
- Aquaculture structures.
- Activities that increase sediment input into the marine environment.

The ONL 4 northern boundary is defined by the ridgelines framing Wainui Bay (ONL 5) and the coastline edging ONL 3 (Mohua/Golden Bay).

The eastern boundary of ONL 4 is defined by the 3 nautical mile (approximately 5.5km) limit from the coastline.

The ONL 4 southern boundary generally corresponds to the national park boundary or the 'outer' edge of large contiguous bush areas adjoining the national park boundary.

The delineation between ONL 2 Parapara-Kahurangi Ranges and ONL 4 Abel Tasman is defined by the alignment of SH 60.

The ONL 4 western boundary generally runs along a ridgeline extending south westwards from the ridgeline system defining Wainui Bay. At its northern end, the boundary line is 'stepped' in places to include large areas of contiguous bush cover throughout elevated and (generally) west facing steep slopes. In the main, the elevated slopes excluded from the ONL correspond to landforms with either fragmented landcover or obvious evidence of disturbance.

Towards the southern end of the western boundary, all of the steep landforms framing the eastern side of the mid to upper section of the Takaka Valley (north of SH60) are included in the ONL despite the fragmented landcover patterning (which includes production forestry). The bold landform patterns together with its large scale, the role this landform plays in shaping the landscape character of the upper valley as a consequence of proximity and the underlying geoscience values of the area weigh in favour of its inclusion.



TASMAN DISTRICT LANDSCAPE STUDY

DRAFT FOR LANDOWNER CONSULTATION

ONL 5: Wainui Bay

GENERAL DESCRIPTION OF AREA

ONL 5: Wainui Bay roughly relates to the Wainui Bay/Inlet catchment. The ONL extends westwards into the Tata Beach catchment and includes all of the undeveloped regenerating bush dominated land associated with the Abel Tasman Point headland.

QUALIFIES AS ‘LANDSCAPE’?

The physical containment of Wainui Bay, together with its role as a ‘gateway’ to Abel Tasman National Park establishes the area as a distinct place within Golden Bay (and the district). Whilst the scale of this landscape is much smaller than many of the other Tasman District ONLs, the scale of the area and the complexity/range of attributes and values evident suggest it qualifies as a ‘landscape’ rather than a ‘feature’.

QUALIFIES AS ‘NATURAL’?

Whilst development is evident within the bay, the generally relatively low-key and modest scale and character of this modification and built modification means that it remains subservient to the more natural landscape features, patterns and processes. The estuary has been impacted by infilling and adjacent land clearance, but remains with a low muddiness score due to the coarse sediment catchments. The subtidal marine environment has been, and still is modified by physical disturbance (trawling and dredging) and a small area is impacted by aquaculture.

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div><div>a.</div><div>The high to very high biophysical values due to: the comprehensive range of landform, ecological and hydrological features in the bay that come together to form a microcosm of the wider Golden Bay</div></div>

biophysical landscape; the granite geology of the bay; and the expansive extent of water within a strongly enclosed bay landform (which contrasts with the more open inlets of Golden Bay).

Sensory Attributes
<div><div>a.</div><div>The moderate-high naturalness values arising from the dominance of water and the bold (predominantly) bush-clad headland and steep hillslope landform enclosure, despite a degree of development throughout the bay (including: mussel spat catching; pastoral farming; some exotic forestry; a scattering of rural, rural residential and holiday dwellings; power lines; roading and car parking; erosion control measures; the Tui community; and the comings and goings of people through the bay en route to Abel Tasman National Park). The subtidal environment is in a modified state due to physical disturbance (trawling and dredging) and sedimentation from the adjacent catchments.</div></div> <div><div>b.</div><div>The very high aesthetic and memorability values of the area as a consequence of: the highly attractive views associated with the area and which encapsulate the broader landscape character of the Golden Bay landscape; and the impression of the area as a peaceful gateway or transition between the Abel Tasman National Park and the more inhabited parts of Golden Bay.</div></div> <div><div>c.</div><div>The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape's formative processes.</div></div> <div><div>d.</div><div>The high transient values associated with the coastal processes, climatic characteristics and birdlife.</div></div>

Associative Attributes
<div><div>a.</div><div><i>Cultural landscape values rating and description TBC</i></div></div> <div><div>b.</div><div>The very high shared and recognised values associated with the area.</div></div> <div><div>c.</div><div>The very high recreational and scenic values associated with the seascape, coastline, inlet, sand barrier, walkways and scenic lookouts in the area and largely drawing from the biophysical, aesthetic, memorability and transient qualities associated with these places.</div></div>

These various highly rated attributes and values come together to firmly establish the Wainui Bay area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.

Photograph supplied by James Bentley



Detailed mapping of ONL 5: Wainui Bay to be inserted

DRAFT FOR LANDOWNER CONSULTATION

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Well-defined 'horseshoe' bay with golden sand beach. Sand barrier defines highly tidal inlet.
- b. The only inlet within Golden Bay to occur within an enclosed valley framed by bush-clad rocky headlands; and where the water body of the inlet occupies approximately 50% of the valley floor and includes deep water, shallow water and estuarine components.
- c. Dramatic and richly textured rocky shoreline including coastal cliffs and headlands, rock outcrops and rocky reefs.
- d. Underlying granite geology (Taupo Point) with the highly erodible granite forming the source of the golden sand in the bay.
- e. The young cusped foreland of Burial Pt, a coastal landform type only found here in the Tasman District.

Particularly significant **ecological** attributes include:

- a. Important habitat for banded rail, long-finned eel, reef heron, marsh crane, South Island fernbird and the carnivorous NZ land snail (*Powelliphanta spp*).
- b. Riparian and wetland vegetation, including saltmarsh and herbfields.
- c. Areas of native bush-clad hill slopes and coastal headlands. Regenerating forest with large areas of kanuka.
- d. Separation Point bryozoan corals.
- e. Small area of podocarp forest adjacent to estuary and river.
- f. Taupo Point and adjacent stacks subtidal limestone community.

Particularly significant **hydrological** attributes include:

- a. The waters of the bay and inlet.
- b. Wainui River.
- c. Wainui Falls.



Photograph supplied by James Bentley



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive and impressive close, mid and long-range views from the Gibbs Hill Track, Taupo Point Track and Inland Track (in Abel Tasman National Park), the local road network, the sandy beaches, Tasman Memorial and the water of the bay/inlet, comprising of: the highly dynamic waters of Wainui Bay and Inlet; the golden sand beach and sand barrier; the richly textured and rugged, erodible bush-clad rocky cliffs, headlands and coastline framing the bay; the pastoral flats and (predominantly) bush-clad valley sides, all seen within the visual context of the expansive and relatively sheltered waters of Golden Bay and expanse of the bush-cloaked hills of Abel Tasman National Park.
- b. Highly appealing close and mid-range views along the Wainui Falls track.

From many vantage points, the containment of Wainui Bay together with the wide range of more 'natural' landscape elements that are seen, contributes a sense of the area as a somewhat unique and highly engaging 'microcosm' or 'snapshot' of the wider Golden Bay landscape.

A degree of modification is evident throughout much of the bay and includes: a long-established and relatively confined area of mussel spat catching on the western side of the bay near Abel Tasman Point; pastoral farming throughout the (drained and in places, reclaimed) alluvial flats with exotic shelterbelts; some exotic forestry throughout the steep hill slopes flanking the bay; exotic weeds; a scattering of rural, rural residential and holiday dwellings; power lines; roading (predominantly unsealed, cut scars evident in places) and car parking; the Tui community; and the comings and goings of people through the bay en route to Abel Tasman National Park. Despite the physical disturbance of the sub tidal marine area, the generally modest scale and character of 'development' within the area and, in some circumstances, its relatively spacious patterning means that the Wainui Bay landscape retains a **moderate-high** degree of naturalness.

Wainui Bay is a more tamed and inhabited landscape in comparison to the other ONLs within Golden Bay. However, it is 'experienced' as a markedly more remote and isolated landscape for visitors to Abel Tasman National Park journeying from the west. As such, the area conveys the impression of a memorable transition (or buffer) between the more inhabited and 'modified' beaches, valleys and flats of Golden Bay, and the seemingly 'undeveloped' 'untouched' landscape of the national park. This buffer function is also perceived as one leaves the park heading eastwards, where Wainui Bay serves as a gentle (and memorable) transition back to the more 'developed world' of Golden Bay.

The sand barriers, tidal inlet, rocky coastline, vegetation-lined streams and gullies, and waterfall assist an understanding of the landscape's formative processes. Rock armouring and road cut scars speak to erosion processes.

Transient values derive from: the highly tidal character of the inlet; the prolific birdlife; the varying weather conditions expressed in surface water conditions; and the dynamic patterning of light on intertidal areas.

A sense of peacefulness, tranquillity and remoteness arising from the enclosed character of the bay and its perception as a landscape 'apart' from the balance of the more developed portions of Golden Bay, and very much on the edge of the national park. The 'one-way' character of the access to the area reinforces this impression.



ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *Urupa caves at xxxx?*
- b. *The taniwha?*
- c. *Waters of the bay valued for kai moana?*
- d. *Other: To be confirmed*

Very high shared and recognised values as evidenced by the description of the area in tourism publications, the popularity of the area as an inspiration/subject for art and photography and the findings of the Small Working Group project.

Very high recreational and scenic values as evidenced by the popularity of the area for swimming, walking, recreational boating and kayaking.



Photograph supplied by James Bentley

The southern boundary of ONL 5 corresponds to the ridgelines framing the south side of the bay and abuts ONL 4 Abel Tasman.

The western boundary of ONL 5 rolls over the ridgeline and headland framing the western side of the bay and is configured to exclude the coastal development and smaller scale lots at the northern end of Tata Beach.

The northern boundary of ONL 5 adjoins ONL 3: Golden Bay-Mohua Coastal Marine and corresponds to a line drawn between Abel Tasman Point and Uarau Point.

The eastern edge of ONL 5 is defined by the ridgeline framing the bay and include parts of Abel Tasman National Park. This boundary abuts ONL 4: Abel Tasman.

KEY CHARACTERISTICS AND QUALITIES OF ONL 5 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of the bay from the Gibbs Hill Track, Taupo Point Track and Inland Track, the local road network, the sandy beaches, Tasman Memorial and the water of the bay/inlet, that take in: the highly dynamic waters of Wainui Bay and Inlet; the golden sand beach and sand barrier; the bush-clad rocky coastline and headlands; the pastoral flats; and the (predominantly) bush-clad valley sides, all seen within the visual context of the expansive and relatively sheltered waters of Golden Bay and the expanse of dissected bush cloaked hills of Abel Tasman National Park.
- The highly attractive views along the Wainui Waterfall track.



Photograph supplied by James Bentley

- The very low-key, modest and informal built development character (including infrastructure).
- The impression of the area as a highly attractive and sympathetic gateway to the national park in which development remains subservient to more 'natural' landscape features, patterns and processes.
- A sense of peacefulness and tranquility.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 5

- Large-scale earthworks, including infilling, reclamation, quarrying and mining.
- Large scale aquaculture.
- Intensive farming.
- Production forestry.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure (land and water based), lighting, signage, erosion control structures, and recreation/tourism development.
- Dredging and trawling in inshore areas.
- Activities that increase sediment input into the marine environment.



Photograph supplied by James Bentley



ONL 6: Nelson Lakes-Southwestern Ranges

GENERAL DESCRIPTION OF AREA

ONL 6: Nelson Lakes-Southwestern Ranges very roughly relates to the extent of Nelson Lakes National Park, the north eastern portion of Victoria Forest Park (and the flanking Tasman Region Management Plan Conservation zoned land.

QUALIFIES AS ‘LANDSCAPE’?

The extent of the ONL 6: Nelson Lakes-Southwestern Ranges roughly corresponds to the dramatic, non-coastal, mountain landscape that dominates the southern portion of the district, south of SH 6. The dramatic scale of the landform patterning with an almost contiguous bush-cover cloak (excepting the alpine peaks and ridges) means that it reads as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The very limited level of human modification, together with the overwhelmingly wilderness impression of the area, means that it qualifies for consideration in terms of naturalness. Whilst infrastructure is evident in places (for example, walking tracks and huts, power lines and roading), it is effectively dwarfed by the majestic mountain context.

Very High naturalness rating.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.</div>

Sensory Attributes
<div>a. The very high naturalness values arising from: the sense of remoteness associated with the area; the proliferation, diversity, endemic-ness, and (generally) untouched character of biophysical features; the very limited extent and modest character of human modification; and the extensive and contiguous network of alpine lakes, bush-covered slopes and sculpted ridgelines seen backdropped in many outlooks by (at times, snow-capped) rugged alpine ranges.</div> <div>b. The very high aesthetic and memorability values of the area as a consequence of its highly attractive and dramatic visual character and seemingly isolated context.</div> <div>c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape’s formative processes.</div> <div>d. The high transient values associated with the climatic characteristics and dynamic river waters.</div>

Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high historic values of the area as a consequence of its gold mining and earthquake history.</div> <div>c. The very high shared and recognised values associated with the area.</div> <div>d. The very high recreational and scenic values associated with the national park and forest park in the area and largely drawing from the biophysical, aesthetic, naturalness and memorability qualities associated with the area, together with its very strong sense of remoteness and ‘getting away from it all’.</div>

These various highly rated attributes and values come together to firmly establish the Nelson Lakes-Southwestern Ranges ONL 6 area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.

Durville River valley with Ella and Travers Range - photograph supplied by James Bentley



Detailed mapping of ONL 6: Nelson Lakes-Southwestern Ranges to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Comprises the steep to very steep and highly legible, unmodified and strongly dissected hill and mountain slopes and associated valley fill fans, terraces and floodplains of the: Main Divide; the St Arnaud, Travers, Ella and Braeburn Ranges and the eastern flanks of the Brunner and Victoria Ranges.

Particularly significant **landform** and **geological** features include:

- a. Upper Buller Gorge.
- b. The Sphinx mesa.
- c. Lake Rotoroa glacially eroded valley and lake.
- d. Lake Rotoiti glacially eroded valley and lake.
- e. Lake Rotoiti moraine dam and Black Hill roche moutonnée.
- f. Angelus Basin glacial landforms
- g. Speargrass Creek Alpine Fault trace
- h. Blue Duck landslide dammed lake.
- i. Lower Matakītaki 1929 landslide. (in part)
- j. Lake Casiani and Cliff Creek Lake.
- k. Old Man of the Buller.
- l. Longford vertical strata.
- m. The highly visible peaks of Mt Misery, Mt Robert, Mt Murchison, the Travers Range and the St Arnaud Range.
- n. Blackwater burning gas seep

Particularly significant **ecological** attributes include:

- a. Relatively unmodified native vegetation including: alpine tussock lands / herb fields, wetlands and beech forest communities.
- b. Important habitat for: tui, bellbird, tomtit, rifleman, robin, fernbird, kereru, kaka, parakeets (kakariki), blue duck (whio), rock wren, kea and great spotted kiwi/ roroa.
- c. Extensive intact indigenous ecosystems, comprising beech forest, valley-floor shrublands and wetlands, subalpine tussockland and shrubland, and alpine fellfield, rock and scree.
- d. Large areas of montane beech and beech-podocarp forest.
- e. Frost-flat shrubland/scrub vegetation on valley floors, with threatened plant species.
- f. Contiguous with the extensive protected mountainlands of the Southern Alps.

Particularly significant **hydrological** attributes include:

- a. Lakes Rotoroa, Rotōpohueroa (Constance), Rotomaninitua (Angelus), Ella and Rotoiti.
- b. Numerous elevated tarn and wetland filled basins, including the Angelus Basin cirques and tarns.
- c. Buller River, rapids and the Ariki Falls.
- d. The Glenroy, Matakītaki, D'Urville, Sabine, Travers, Maruia, Mangles, Tutaki and Te Kauparenuī / Gowan Rivers.



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Spectacular and highly memorable close, mid and long range views from SH63 and Saint Arnaud to the mirror-like waters of Lake Rotoiti framed by the sublime (and at times snow-capped) mountain peaks and ridges of the national park.
- b. Spectacular and highly memorable close mid and long range views from the northern end of Lake Rotoroa to the mirror-like waters of Lake Rotoroa framed by the sublime (and at times snow-capped) mountain peaks and ridges of the national park.
- c. Stunning close, mid and long range views across the breadth of Nelson Lakes National Park and the Main Divide from tracks within the park, that take in the striking alpine lakes, tarns, wetlands, tussock lands and herb fields viewed at closer range.
- d. Striking close, mid and long range views from Murchison and SH63 to the majestic, and coherent sequence of beech forested dominated, and, at times, snow-capped steep peaks and ridges framing the area.
- e. Highly scenic and memorable close and mid range views from SH63 along the Upper Buller Gorge comprising a highly attractive composition that take in the dramatic and steeply incised predominantly bush clad sides, the exposed and highly sculpted bluffs and rock faces, the highly dynamic river itself and the associated rapids and waterfall features.
- f. Striking mid and longer range views from Murchison and SH 63 to the Sphinx landform.
- g. Striking mid and longer range views from the local road adjacent Matakītaki to the Old Man Buller landform.

From many vantage points within the wider Tasman Bay area, layered views of the continuous patterning of bush-clad hills backdropped by the rugged alpine peaks and ranges associated with ONL 2, 6 and 7 comprise signature views that frame the bay and are critical to the identity of the wider area.

The very limited level of modification evident, together with the proliferation, scale and dramatic character of the biophysical features, suggests a rating for naturalness at the highest end of the spectrum. Whilst infrastructure is evident in places (e.g. power lines, roading and walking tracks/huts), the sheer dominance of the more natural landscape features, patterns and processes of the wider setting means that they are subservient elements of the landscape. The co-location of power lines with roading serves to minimise the influence of these modifications on the wider landscape character. Walking track, tramping huts and the like, are modifications that support the recreational values of the landscape. Their modest scale and generally low-key, informal character means that they fit harmoniously into the landscape.

The expansive scale of the bush-clad landforms, steep gorges, alpine lakes, and elevated alpine peaks and ranges confers a strong sense of the sublime that is highly memorable.

The majority of the biophysical attributes listed above assist an understanding of the landscape's formative processes.

Transient values derive from: the snow-capped ranges and peaks; the ice covered tarns; and the highly dynamic waters of the Buller River and other rivers in the area.

A very strong sense of the remoteness, endemism, wildness and isolation due to: the relatively; limited level of human habitation; the very limited accessibility of much of the area (largely limited to walking tracks); the very limited level of built development; and the abundance and richness of intact vegetation communities.



Photograph supplied by James Bentley

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. Archaeological and Wahi Tapu sites.
- b. *Other: To be confirmed*

The rich history of gold mining in the area is evident today in numerous historic sites around Murchison and Howard.

The 1929 Murchison Earthquake with an estimated magnitude of 7.3, was felt throughout New Zealand. There were 17 deaths, mostly as a result of landslides triggered by the earthquake. Virtually all of the homes in the area were destroyed or damaged, with the entire area being cut off for over two weeks. The rumbling sound of the earthquake was loud enough to be heard at New Plymouth, more than 250 km away. The Lower Matakītaki 1929 Landslide feature is one of the best, most accessible and legible examples of an historic earthquake triggered landslide scarp and deposit.

The distinctive and highly legible Sphinx landform (west of Murchison and visible from state highway) and Old Man of the Buller landform (south of Murchison and to the west of Matakītaki) comprise prominent landmarks recognised by the local community.

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications and the popularity of Nelson Lakes National Park and Lakes Rotoroa and Rotoiti and Buller Gorge route as scenic 'destinations'.

Nelson Lakes National Park is popular as a low-key destination for camping, picnicking, walking, tramping, snow sports, mountaineering, mountain biking, boating/kayaking (Lake Rotoiti), swimming (Lake Rotoiti) and fishing (Lake Rotoroa and the rivers).

The Travers, D'Urville and Sabine rivers are nationally significant wilderness fisheries valued for their unusually large brown trout.

The entire area is popular for hunting which can assist with deer and chamois control.



The southern and eastern boundary of ONL 6 Nelson Lakes- Southwestern Ranges is defined by the district boundary.

The ONL 6 northern and western boundary generally corresponds to the national park, forest park or conservation land boundaries or the 'outer' edge of large contiguous bush areas adjoining the national park, forest park or conservation land boundary. The landscape captured by the ONL effectively corresponds to the extent of the elevated bush clad and alpine mountains that dominate the southern and south western portion of the District.

ONL 6 abuts ONL 2 Parapara-Kahurangi Ranges in places along its north western edge, with the boundary coinciding with the alignment of SH 6.

KEY CHARACTERISTICS AND QUALITIES OF ONL 6 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of: the extensive and coherent sequence of unmodified bush-covered steep sculpted landforms, rugged snow-capped mountains and alpine lakes throughout Nelson Lakes National Park and Victoria Forest Park; and the steeply incised predominantly bush clad landform and river waters of the Upper Buller Gorge.
- The very low-key, modest and informal built development character (including roading).
- A sense of remoteness and 'getting away from it all'.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 6

- Large-scale earthworks, quarrying and mining.
- Indigenous vegetation removals.
- Production forestry.
- Large-scale infrastructure, particularly where it is located away from existing infrastructure corridors.
- Intensive farming.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage and recreation/tourism development.



ONL 7: Eastern Hills and Mountains

GENERAL DESCRIPTION OF AREA

ONL 7: Eastern Hills and Mountains very roughly relates to bush clad elevated slopes and ridgelines together with the alpine portions of the Gordon Range and Richmond Range that frame the eastern side of the District (and backdrop Richmond). The mapped area includes large areas of contiguous forestry where they adjoin the Mount Richmond Forest Park and excludes small fragments of bush and large areas of exotic forestry.

QUALIFIES AS ‘LANDSCAPE’?

The extent of the ONL 7: Eastern Hills and Mountains roughly corresponds to the dramatic, bush clad and alpine peaks and ridges that frame the eastern side of the Waimea Valley. The dramatic scale, cohesive mountainous landform patterning and consistent patterning with an almost contiguous bush-cover cloak (excepting the alpine peaks and ridges) means that it reads as a 'landscape'. The identity of the area as defining the eastern side of Tasman Bay also plays a role in this regard.

QUALIFIES AS ‘NATURAL’?

The very limited level of human modification, together with the remote and seemingly 'wild' impression of the area, means that it qualifies for consideration in terms of naturalness. Whilst development and infrastructure is evident in places (for example, walking/mountain bike tracks, huts, camping areas), the generally relatively low-key and modest scale and character of this modification means that it remains subservient to the more natural landscape features, patterns and processes.

Very High naturalness rating.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the landscape qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the proliferation of high-value landforms, geological features, vegetation features, habitats, species and hydrological features throughout the area.</div>
Sensory Attributes
<div>a. The very high naturalness values arising from: the sense of remoteness associated with the area; the proliferation, diversity, endemism and (generally) untouched character of biophysical features; the very limited extent and modest character of human modification; and the extensive and contiguous network of bush-covered slopes and sculpted ridgelines seen backdropped in many outlooks by (at times, snow-capped) rugged alpine ranges.</div> <div>b. The very high aesthetic and memorability values of the area as a consequence of its highly attractive and dramatic visual character and seemingly isolated context.</div> <div>c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape's formative processes.</div> <div>d. The moderate-high transient values associated with the climatic characteristics.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high shared and recognised values associated with the area.</div> <div>c. The high recreational and scenic values associated with the forest park in the area and largely drawing from the biophysical, aesthetic, naturalness and memorability qualities associated with the area, together with its very strong sense of remoteness and 'getting away from it all'.</div>
These various highly rated attributes and values come together to firmly establish the Eastern Hills and Mountains ONL 7 area as a truly outstanding and spectacular landscape that stands apart from much of the balance of the district.



Photograph supplied by James Bentley

Detailed mapping of ONL 7: Eastern Hills and Mountains to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Comprises the steep to very steep and highly legible, unmodified hill and mountain slopes southeast of the Waimea Flaxmere Fault, including the Gordon and Richmond Ranges and the Porter Ridge.

Particularly significant **landform** and **geological** features include:

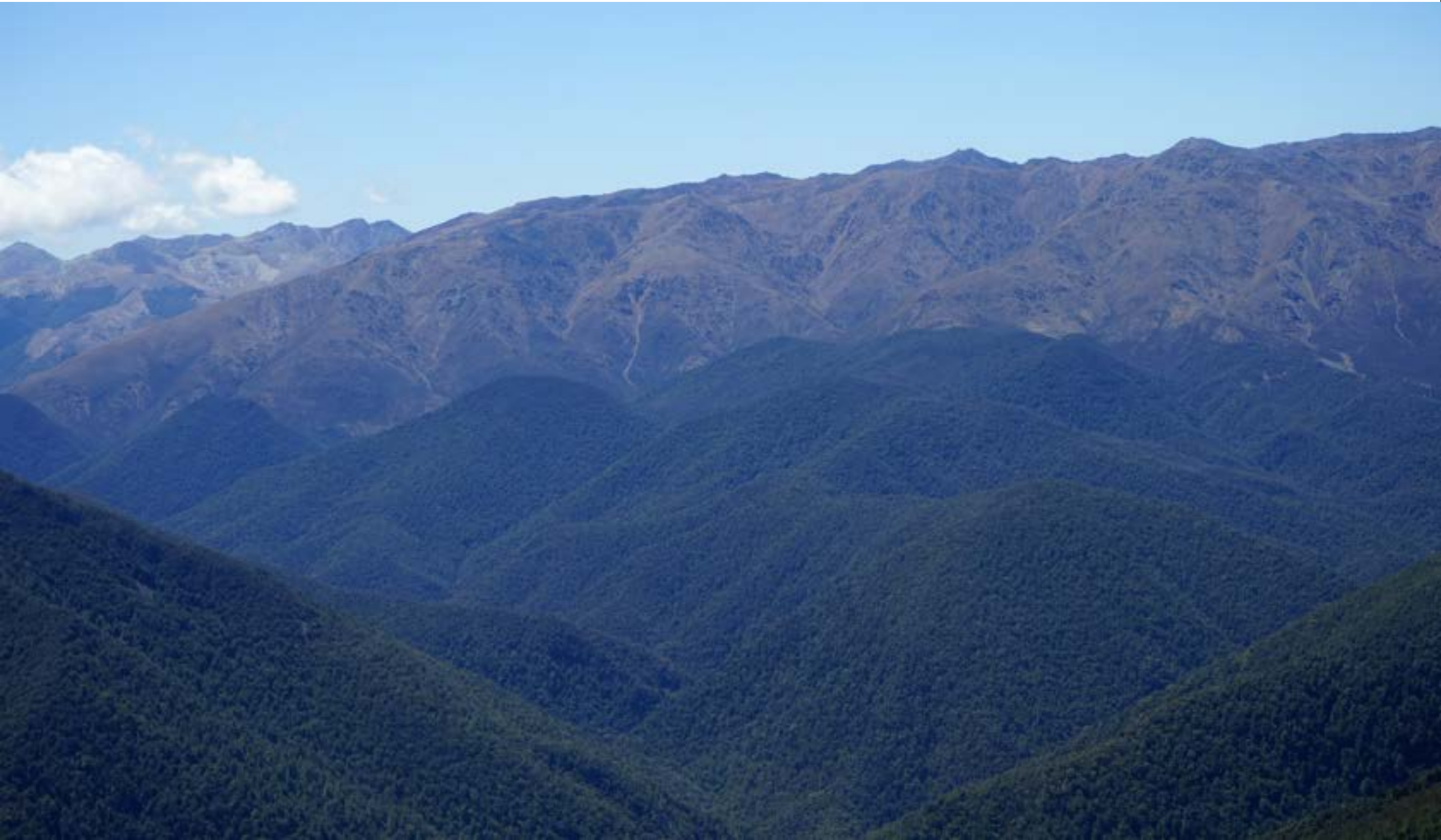
- a. Red Hills ultramafic massif and Patuki Melange, corresponding to the iron rich, red tinged ultramafic rocks that give the area its name.
- b. Upper Motueka River (right branch) glaciated valley.
- c. Gordons Knob.
- d. Beebys Knob.
- e. Ben Nevis.
- f. Little Ben chromite exposure

Particularly significant **ecological** attributes include:

- a. Relatively unmodified native vegetation dominated by montane beech forest and including subalpine herbfields, shrublands and riparian vegetation.
- b. Large area of ultramafic zone vegetation supporting distinctive low-diversity communities dominated by heath species and often comprised of prostrate forms of other plants.
- c. Important habitat for: falcon and native forest birds.
- d. Small/remnant populations of whio/blue duck, kaka and kakariki.
- e. Regional distribution limit of several notable plant species, including titoki.

Particularly significant **hydrological** attributes include:

- a. The unmodified, upper reaches of the Motueka, Wairoa, Roding and Lee Rivers.
- b. Whispering Falls.



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly appealing long-range views from the Tasman Bay south eastwards to the unmodified skyline patterning of (at times) snow-capped, rugged and sculpted landforms throughout Mt Richmond Forest Park.
- b. Highly attractive panoramic long range views from elevated and open locations within ONL 7 north and north eastwards across the breadth of the landscape and seascape of Tasman Bay.
- c. Stunning long range views from elevated and open locations within ONL 7 south and eastwards to the striking and bold landforms of the Wairau Valley/Raglan Range and Richmond Range (and broadly coinciding with the Alpine Fault line).

From many vantage points within the wider Tasman Bay area, layered views of the continuous patterning of bush-clad hills backdropped by the rugged alpine peaks and ranges associated with ONL 2, 6 and 7 comprise signature views that frame the bay and are critical to the identity of the wider area.

The distinctive red colouration of the Red Hills area is seen from the Wairau Valley (Marlborough District) and is extremely memorable.

The very limited level of modification evident, together with the proliferation, scale and dramatic character of the biophysical features, suggests a rating for naturalness at the highest end of the spectrum. Infrastructure is limited to walking/mountain bike tracks, huts, camping areas and the like. Their modest scale and generally low-key, informal character means that they fit harmoniously into the landscape. They also support the recreational values of the landscape.

The majority of the biophysical attributes listed above assist an understanding of the landscape's formative processes.

Transient values derive from: the snow-capped ridges and peaks.

A very strong sense of the remoteness, endemism, wildness and isolation due to: the very limited accessibility of the area (largely limited to walking/biking tracks); the very limited level of habitation and built development; the dominance of an overtly unmodified alpine landscape context; and the sympathetic character of development where it is evident.



ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. Archaeological and Wahi Tapu sites.
- b. Argillite sourced in the area used by Maori to make tools and weapons.
- c. *Other: To be confirmed*

European history includes the mining of argillite (very hard metamorphosed mudstone) and chrome in the hills to the south of Richmond and timber milling.

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications, and the popularity of Te Araroa which passes through the north eastern portion of the ONL (linking between Richmond and the Bryant Range in the Marlborough District).

Mount Richmond Forest Park is the second largest forest park in New Zealand (very roughly stretching from Nelson to Blenheim).

Popular recreational features including: the walking, tramping, mountain biking and hunting.

The ONL 7 western boundary generally corresponds to the forest park or conservation land boundaries or the 'outer' edge of large contiguous bush areas adjoining the forest park or conservation land boundary. The landscape captured by the ONL effectively corresponds to the extent of the elevated bush clad and alpine mountains that from part of the Richmond Range and serve to frame the eastern side of Tasman Bay.

The ONL 7 northern, eastern and southern boundary corresponds to the district boundary.

KEY CHARACTERISTICS AND QUALITIES OF ONL 7 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical attributes listed above.
- The highly attractive views of: the skyline patterning of (at times) snow-capped, rugged and sculpted landforms throughout Mt Richmond Forest Park.
- The very low-key, modest and informal built development character (including roading and infrastructure).
- A sense of remoteness and 'getting away from it all'.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONL 7

- Large-scale earthworks, quarrying and mining.
- Indigenous vegetation removals.
- Production forestry.
- Large-scale infrastructure.
- Intensive farming.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage and recreation/tourism development.

Photographs opposite and below supplied by James Bentley



Section E

Outstanding Natural Features

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ONF 1: Aorere Gorge and Salisbury Falls

GENERAL DESCRIPTION OF AREA

ONF 1: Aorere Gorge and Salisbury Falls corresponds to the bush-fringed braided section of the Aorere River, the gorge, Salisbury Falls and two large bush-lined tributaries draining from the Aorere Peneplain.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Aorere Gorges and Salisbury Falls means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The generally unmodified character of the braided river, gorge, falls and tributaries means that the naturalness of the area is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **high biophysical values** due to the scale and extent of the bush-fringed gorge landforms, the (largely) bush-lined section of braided river, the bush-enclosed Salisbury Falls and the bush-lined Finney Creek and Salisbury Creek.

Sensory Attributes

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the informal walking track at Salisbury Falls, signage, the historic bridge and weeds/exotic vegetation in places. The enclosed vegetated character of the area plays a role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within ONF 1.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the highly engaging and appealing views of the gorge, falls and braided river waterbodies and landforms set within a lush (predominantly) bush context; the impression of ONF 1 as a coherent part of the much larger bush and watercourse patterning linking between the flanking bush-clothed mountain ranges and the Upper Aorere Valley floor.

- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms, the braided river and the waterfall. The visual accessibility of much of the area is of importance in this regard.
- d. The **high transient values** as a consequence of the highly dynamic qualities of the river and creek waters and the waterfall itself.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high historic values** associated with the Salisbury Bridge.
- c. The **high shared and recognised values** associated with ONF 1.
- d. The **high recreational and scenic values** associated with the Salisbury Falls and Salisbury Bridge in particular.

These various highly rated attributes and values come together to firmly establish Aorere Gorges and Salisbury Falls as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Two deeply-incised (60-100m deep) sections of gorge on the Aorere River and its tributaries cut into Paleozoic rocks beneath the Aorere Peneplain.
- b. Good representative exposures of mica schist and phyllite.
- c. Geopreservation Inventory Category C (Regional Significance).
- d. Landform/Geological Feature Type: A Large Landform.

Particularly significant **ecological** attributes include:

- a. Substantial swathes of regenerating bush (although weed and exotic species evident in places).

Particularly significant **hydrological** attributes include:

- a. The braided section of the Aorere River (noting that it is the only braided river pattern in Golden Bay);
- b. The dynamic waters of river, gorge, falls and creeks (Finney and Salisbury Creeks).

Detailed mapping of ONF 1: Aorere Gorge and Salisbury Falls to be inserted

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive close and mid-range views of the bush-fringed braided river from Aorere Valley Road and Quartz Range Road;
- b. Highly attractive close and mid-range views of the bush-lined gorge and falls from Salisbury Bridge, the Salisbury Falls picnicking area and swimming hole, and from the river itself;
- c. Attractive mid and long-range views from the upper Aorere Valley to the bush-lined tributaries draining from Kahurangi National Park, across the Aorere peneplain farm/scrub land to the Aorere River.

The picturesque and highly dynamic qualities of the braided river and gorge, falls, and bush-lined creeks make the area visually appealing, highly engaging and memorable. The vivid contrast between the enclosed character of the bush-fringed gorge, falls and braided river and the surrounding, more open, working rural landscape contributes to this appeal and memorability.

The appreciation of this patterning as a contiguous feature that is connected to the wider bush-covered mountain context as one moves around the Upper Aorere Valley adds to the area’s memorability and aesthetic appeal.

The vegetative enclosure serves to heighten the experience of the area as a ‘natural’ landscape feature, set apart from the more modified immediate pastoral context. The very limited level of modification (bridges, walking tracks and limited signage) is such that naturalness is rated as **high**.

The visually discreet nature of much of the gorge and the falls in views from outside the area amplifies their experiential impact when encountered.

The exposed nature of the gorge landforms together with the braided river and falls enables an appreciation of the landscape’s formative processes. The ease of public accessibility to parts of the area and/or their visibility serves to enhance these values.

The dynamism of the various water features contributes a highly transient quality to the area.

Within the river/stream corridors, the Aorere Gorges and the Salisbury Falls, the high degree of enclosure afforded by the vegetation cover contributes a distinct sense of peacefulness and tranquillity. The audible sounds of falling and rippling water add to this impression.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Historic foot bridge – NZHPT Category 2 ranking.

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status to parts of the area, the popularity of the area as scenic driving route enjoyed by visitors and locals alike, the popularity of Salisbury Bridge and Falls, and the findings of the Small Working Group project.

Picnic facilities and heritage interpretation signage associated with Salisbury Bridge and Falls.

Gold panning and fossicking allowed up stream of the gorges under the Crown Minerals Act.

The boundaries of ONF 1: Aorere Gorge and Salisbury Falls ‘capture’ the extent of the Aorere River that coincides with the braided river section, Salisbury Falls, and the gorges together with their bush margins and the bush-lined gullies associated with Finney Creek and Salisbury Creek.

KEY CHARACTERISTICS AND QUALITIES OF ONF 1 TO BE PROTECTED FROM ADVERSE EFFECTS

- The gorge landforms.
- The section of braided river along the course of the Aorere River.
- The Salisbury Falls.
- Finney Creek and Salisbury Creek.
- The bush setting.
- The Salisbury Bridge.
- The low-key and modest built development character (including signage).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 1

- Earthworks.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.



ONF 2: Beebys Conglomerate Cretaceous Terrestrial Sequence

GENERAL DESCRIPTION OF AREA

ONF 2: Beebys Conglomerate Cretaceous Terrestrial Sequence corresponds to an easily accessible road cutting exposure on Tophouse Road (approximately midway between Kikiwa and Tophouse) of Cretaceous fluvialite sedimentary rocks and coal.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Beebys Conglomerate Cretaceous Terrestrial Sequence means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The road cutting exposure is clearly the consequence of human modification. The exposure itself and rocks within the cutting are in a natural state and are unchanged by engineering elements and the like; and therefore is rated as **moderate - high** due to the dominance of natural elements.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the legibility, intactness (acknowledging that it is in a road cutting) and rarity of the geological exposure.

Sensory Attributes

- a. The **moderate-high naturalness values** arising from the unchanged character of the rock formations and fossils (acknowledging that human modification in the form of a road cutting has led to their exposure).
- b. The **high legibility and expressiveness values** due to the exposed nature of the rocks and the appreciation of such values afforded by the public accessibility of the area.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

The rating of some of the feature’s values towards the higher end of the spectrum establishes Beebys Conglomerate Cretaceous Terrestrial Sequence as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity and accessibility of the attributes and values present favours an outstanding classification.



Detailed mapping of ONF 2: Beebys Conglomerate Cretaceous Terrestrial Sequence to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Road cutting containing easily accessible and best exposed example of Cretaceous fluvialite sedimentation and interbedded thin coal seams in the region.

Fluvialite conglomerate, sandstone, siltstone and sparse lenses of medium or high volatile bituminous coal, probably deposited in a fault angle depression environment. Conglomerate contains clasts up to 0.6 m across of sedimentary rocks and acidic to mafic igneous intrusives and volcanics derived from Brook Street Volcanics. Several beds contain fossil leaves, dominantly angiosperm. Plant fossils indicate an age no older than early Late Cretaceous (about 80 million years). Microfloras are indicative of an early Late Cretaceous age. Adjacent stream bed has fresh exposures of harder strata forming ribs in stream.

Accessible exposures of this type are rare in the District and have the potential to explain the formation of coal and the ancient paleogeography of this region.

Landform/Geological Feature Type: E Small exposures of geological material.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The exposed nature of the rocks enables an appreciation of the landscape’s formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the feature enhances these values.

The boundaries of ONF 2: Beebys Conglomerate Cretaceous Terrestrial Sequence ‘capture’ the extent of geological exposure in the road cutting and in the adjacent riverbed only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 2 TO BE PROTECTED FROM ADVERSE EFFECTS

- The exposed nature of the rock sequence and fossil features.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 2

- Inappropriate earthworks, quarrying and/or mining.
- Any built development including: expanded accessways, retaining structures, engineered faces, signage, lighting, fencing and buildings.
- Exotic vegetation.
- Hydroseeding of the road cutting.

ONF 3: Big River

GENERAL DESCRIPTION OF AREA

ONF 3: Big River corresponds to a small estuary in the north-western coastline of Golden Bay.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Big River means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

The unmodified character of estuary and very low level of human impact means that the naturalness of the area is rated **very high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the intactness of the estuary and bush context and the rarity of such a feature in New Zealand.

Sensory Attributes

- a. The **very high naturalness values** as a consequence of the unmodified character of the estuary, barrier spit landform, estuarine communities and native forest context, and the very low level of human impact associated with the area more generally.
- b. The **very high aesthetic and memorability values** of the area as a consequence of: the highly engaging and appealing views of a seemingly 'pristine' estuary set within bush along the wild west coast; and the extreme sense of remoteness, wildness and isolation associated with the area.
- c. The **very high legibility and expressiveness values** due to the understanding of the landscape's formative processes that this intact landscape feature enables.
- d. The **high transient values** as a consequence of the highly dynamic qualities of the estuary and seascape.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high shared and recognised values** associated with ONF 3

These various highly rated attributes and values come together to firmly establish Big River as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 3: Big River to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. An excellent example of a small river mouth estuary with a fully forested catchment and essentially natural unmodified estuary.
- b. Intact estuaries surrounded by native forest are uncommon in New Zealand.
- c. A 2 km-long linear estuary at the mouth of Big river which flows out of a fully forested catchment. The banks of the estuary are mostly forested. The mouth of the estuary has a small sand spit built halfway across from the north side. The lower part of the estuary is moderately wide – part tidal sand flat and part submerged. Higher up there are short branches that are estuarine and flooded at high tide. Includes a buffer zone around the estuary above high tide as this defines the shape of the feature.
- d. Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Substantial swathes of unmodified bush (northern rātā and hard beech) and estuarine vegetation communities;
- b. Rare variable oystercatcher and white tern habitat.

Particularly significant **hydrological** attributes include:

- a. Highly tidal estuarine waters and seascape.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive close, mid-range and long-range views of a seemingly 'pristine' estuary set within bush along the wild west coast.

The inaccessibility of the area means that this outlook is not experienced by many; however, as a consequence, the area affords a very high sense of remoteness, isolation and wildness.

The virtually unmodified character of the estuary and its inaccessibility result in a **very high** degree of naturalness.

The picturesque, strongly endemic, distinctly 'natural' and highly dynamic qualities of the estuary, bush and coastal setting make the area highly memorable.

The exposed landforms and hydrological patterning clearly illustrate how the estuary was formed by the drowning of the lower reaches of the river valley by sea level rise some 7,000 - 8,000 years ago.

The dynamism of the estuary itself and wider coastal context contributes a highly transient quality to the area.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Poutini Trail

High shared and recognised values as evidenced by the findings of the Small Working Group project.

The extent of ONF 3: Big River generally corresponds to the bush edge framing the inlet edges and includes the coastal flats and dunes flanking the waterbody and river mouth.

KEY CHARACTERISTICS AND QUALITIES OF ONF 3 TO BE PROTECTED FROM ADVERSE EFFECTS

- The sand barrier.
- The inlet and river mouth.
- The bush setting.
- The estuarine plant communities.
- The absence of built development, vehicular or formed walking access.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 3

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: roading, infrastructure, walking tracks, buildings, signage, lighting, tourism facilities and fencing.
- Exotic vegetation, including production forestry.
- Intensive pastoral farming.

ONF 4: Cobb Valley Magnesite and Karst

GENERAL DESCRIPTION OF AREA

ONF 4: Cobb Valley Magnesite and Karst corresponds to an old quarry on the Cobb Valley (Golden Bay) that contains nationally important geological and fossil features.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the Cobb Valley Magnesite and Karst area means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The area was a quarry and therefore suggests a high degree of modification. However, it is this modification to the landform that has enabled the feature’s legibility. Today the generally unmodified character of the quarry landform and vegetation (excepting access road) means that the naturalness of the area is rated as **moderate-high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div><div>a.</div><div>The very high biophysical values due to the rarity and national importance of the geological and fossil features associated with the area.</div></div>
Sensory Attributes
<div><div>a.</div><div>The moderate-high naturalness values arising from the unchanged character of the quarry landform and vegetation (acknowledging that human modification in the form of quarrying has led to the exposure of the feature).</div></div> <div><div>b.</div><div>The high legibility and expressiveness values due to the exposed nature of the landforms and fossil features.</div></div>
Associative Attributes
<div><div>a.</div><div><i>Cultural landscape values rating and description TBC</i></div></div> <div><div>b.</div><div>The moderate-high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div></div>

The rating of the feature’s biophysical, expressiveness and legibility values towards the higher end of the spectrum establishes the Cobb Valley Magnesite and Karst area as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than many of the other identified ONFs in the district, the rarity and national importance of the attributes and values present favours an outstanding classification.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a.

Karst features including: clint and gryke structures, caverns, surface sculpturing and solution/precipitation deposits, all in an unusual magnesium carbonate style.
- b.

The magnesite quarry contains caves and rock shelters with an important subfossil bone site with a variety of birds, including moa, kakapo, wrens etc.; also bats and other animals. DNA from bones (owlet nightjar, moa) at the site has been described in several international scientific papers, although much remains to be studied. Some of New Zealand’s youngest moa bones have been found in caves in the old quarry, along with the only owlet nightjar bones with mummified tissue.
- c.

Largest and most easily accessible example of talc-magnesite-quartz mineralisation in New Zealand.
- d.

Only known example of magnesite karst and caves in New Zealand, noting that magnesite deposits are rare in New Zealand.
- e.

Geopreservation Inventory Category: B (National Significance).
- f.

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a.

Regenerating bush context

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The area was a quarry and therefore suggests a high degree of modification. However, it is this modification to the landform that has enabled the feature’s legibility. Today the generally unmodified character of the quarry landform and vegetation (excepting access road) means that the naturalness of the area is rated as **moderate-high**.

The exposed nature of the landforms enables an appreciation of the landscape’s formative processes that is rare in New Zealand.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a.

To be confirmed

The moderate-high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

Detailed mapping of ONF 4: Cobb Valley Magnesite and Karst to be inserted

The boundaries of ONF 4: Cobb Valley Magnesite and Karst 'capture' the extent of the quarry and cave landforms where the talc-magnesite and fossil features are evident.

KEY CHARACTERISTICS AND QUALITIES OF ONF 4
TO BE PROTECTED FROM ADVERSE EFFECTS

- a. The magnesite karst and cave landforms.
- b. The fossil features.
- c. The regenerating bush setting.
- d. *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE
INAPPROPRIATE WITHIN ONF 4

- a. Earthworks, quarrying and/or mining.
- b. Indigenous vegetation removals.
- c. Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- d. Exotic vegetation, including production forestry.
- e. Large-scale infrastructure.



ONF 5: Devils Boots

GENERAL DESCRIPTION OF AREA

ONF 5: Devils Boots relates to the two unusually shaped limestone pinnacles on either side of Devil's Boots Road in the lower Aorere Valley.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the Devils Boots limestone outcrop means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

Whilst modification is evident around each outcrop (including the metal road that literally passes between the two pinnacles), the landforms themselves are relatively unmodified. The regenerating native bush that flanks each pinnacle and very close proximity of the Aorere River reinforces the naturalness and contrasts markedly with the wider pastoral landscape context.

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div><div>a.</div><div>The high biophysical values due to the rarity and uniqueness of the karst landforms.</div></div>
Sensory Attributes
<div><div>a.</div><div>The moderate-high naturalness values associated with the feature despite its modified working rural landscape context. The immediate regenerating bush and Aorere River context of the Devil's Boots contributes to the impression of naturalness.</div></div> <div><div>b.</div><div>The high aesthetic and memorability values of the feature as a consequence of the distinctive visual appearance of the limestone outcrops and their attractive appearance seen flanked by regenerating bush and within a river context.</div></div> <div><div>c.</div><div>The high legibility and expressiveness values due to the exposed nature of the landforms and the appreciation of such values afforded by the public accessibility of the area.</div></div>
Associative Attributes
<div><div>a.</div><div><i>Cultural landscape values rating and description TBC</i></div></div> <div><div>b.</div><div>The moderate-high recreational and scenic values due to the accessibility and popularity of the Devil's Boots as a tourist attraction.</div></div>

These various highly rated attributes and values come together to establish the Devil's Boots as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity and accessibility of the attributes and values present favours an outstanding classification.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a.

Two of a number of Oligocene limestone pinnacles and knobs adjacent to Aorere River. They are probably remnants from a former cave system.
- b.

The karst formations have a Category C listing (regional significance) on the Geopreservation Inventory and are described as: *“Two spectacular limestone pinnacles with long overhangs resembling the boots of someone head down in the ground”*.
- c.

The two pinnacles still retain their natural shape and the scale of their overhangs is rare in New Zealand.

Landform/Geological Feature Type: B - small landform

Particularly significant **ecological** attributes include:

- a.

Regenerating bush context. Very close proximity to the Aorere River.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a.

Engaging close and mid-range views of the distinctive boot shaped limestone outcrops flanked by regenerating bush and viewed within the Aorere River context from Devil's Boots Road.

The intactness of the outcrops themselves and the regenerating bush/ river context suggest a rating towards the higher end of the spectrum with respect to naturalness. However, a degree of modification is evident at the Devil's Boots and includes: the metal road that passes between the two limestone outcrops, and the wider working rural landscape context. Further, vegetation in and around the Devil's Boots comprises regenerating bush signalling the historic clearance of the area. This modified context has an influence of the character of the Devil's Boots such that naturalness is rated as **moderate-high**.

The regenerating bush setting is of importance in limiting the influence of the wider, more working rural landscape context on the character of the rock outcrops.

The quite distinct and recognisable visual appearance of the outcrops as boots makes them highly memorable.

The exposed nature of the landforms enables an appreciation of the landscape's formative processes. The ease of public accessibility/visibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a.

To be confirmed

Easily accessible and popular tourist attraction.

Detailed mapping of ONF 5: Devils Boots to be inserted



The boundaries of ONF 5: Devils Boots corresponds to the footprint of the limestone outcrops and their immediate bush margins.

KEY CHARACTERISTICS AND QUALITIES OF ONF 5 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone pinnacles.
- The immediate regenerating bush setting.
- The immediate Aorere River setting.
- The low-key and modest built development character (including signage and the metal road).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 5

- Earthworks and/or quarrying.
- Indigenous vegetation removals.
- Modification to the river in the immediate vicinity.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.



ONF 6: Farewell Spit and Tidal Flats

GENERAL DESCRIPTION OF AREA

ONF 6: Farewell Spit and Tidal Flats relates to Farewell Spit/Onetahua and the tidal flats on the Golden Bay side of the spit landform and Park and is located within ONL 1 Northwest Coast.

QUALIFIES AS ‘FEATURE’?

The distinct identity of Farewell Spit/Onetahua as a landform feature means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Whilst modification is evident on the spit, the generally relatively low-key and modest scale and character of this modification means that it remains subservient to the more natural landscape features, patterns and processes.

High to **very high** rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the scale and uniqueness of the spit landform (international significance), rare vegetation and rich fauna values.</div>
Sensory Attributes
<div>a. The high to very high naturalness values arising from the dominance of natural landscape features, patterns and processes as a consequence of the relatively unmodified nature of the area and its sense of remoteness and wilderness, albeit influenced by tourism to some degree.</div> <div>b. The very high aesthetic and memorability values of the area as a consequence of the area’s dramatic, highly attractive and engaging visual character, its sense of remoteness and the unique biophysical character.</div> <div>c. The very high legibility and expressiveness values due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape’s formative processes due to the visibility and abundance of biophysical attributes that enable a clear understanding of the landscape’s formative processes.</div> <div>d. The very high transient values associated with the coastal processes, climatic characteristics and birdlife.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high historic values associated with the lighthouse and shipwrecks in the area.</div> <div>c. The very high shared and recognised values associated with Farewell Spit/Onetahua.</div> <div>d. The very high recreational and scenic values associated with Farewell Spit/Onetahua and largely drawing from the aesthetic, naturalness and memorability qualities associated with the area, together with their strong sense of remoteness and ‘getting away from it all’.</div>

- e. The **very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish Farewell Spit as a truly outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Spit landform that extends for over 30 km, with a mobile dune belt on the north side, and more fixed dunes and wetlands on the south side. Actively growing at east end. Built by longshore drift of quartz sand carried down to west coast from erosion of rising Southern Alps.
- b. An internationally significant, actively growing Holocene sandspit complex. In the lee of the spit a huge area of tidal sand flats has accumulated.
- c. Longest Holocene sand spit (built in just the last 8000 years) in New Zealand. Young sandspits of this shape and size are rare internationally.
- d. Best example of mobile sand dunes in Tasman District.

NZ Geopreservation Inventory Importance rating: A (International Significance).

Landform/Geological Feature Type: A-Large Landform.

Recognised under International Union for the Conservation of Nature (IUCN) criteria as an important wetland.

The spit provides habitat for a wide range of wading species, and is notable for the presence of rare plants, including *Euphorbia glauca*, sand daphne, sand spike rush and *Eleocharis neozealandica*.

A gannet colony is located at the tip of the spit and marine mammals frequent the shallow tidal waters.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Striking close and mid-range views of the highly dynamic dunes and tidal flats seen within the markedly contrasting context of the wild west coast and the more settled waters of Golden Bay. Native dune vegetation and prolific birdlife adds to the sense of endemicity associated with the view.
- b. Memorable close and mid-range views of the landmark lighthouse at the end of the spit.
- c. Highly engaging long-range views from the mainland and air of the spit landform that speak to the immense scale of this landform feature.

A degree of modification is evident at Farewell Spit/Onetahua and includes: the visitor facilities including carpark, interpretation signage, toilets, walking track and viewing platforms and the working farm at its southern end; tracks, the lighthouse and (regulated) tourist passenger vehicles. The relatively modest scale and character of these modifications and the relatively limited level of human activity, together with their role in enabling an appreciation and understanding of the more natural features (landform,

Detailed mapping of ONF 6: Farewell Spit and Tidal Flats to be inserted

vegetation and fauna) means that they do not appreciably detract from the sense of naturalness associated with Farewell Spit. In the majority of locations, there is a very high sense of remoteness. Overall, naturalness is rated as **high** to **very high**.

The highly appealing, strongly endemic and engaging character of the views afforded of Farewell Spit/Onetahua makes it very highly memorable. The extensive visibility of the spit (including from the air and space) adds to this memorability.

The eastern side of the spit is very strongly tidal (up to 7km) and the dune landforms themselves are mobile. Dynamic patterning of light on intertidal areas.

Very strong sense of isolation, remoteness and wilderness due to the relative inaccessibility of the area, the very limited extent of existing habitation/development, and a sense of the spit as a landform that extends far into the surrounding seascape.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

The area is an overlay site in the Treaty settlement deeds, meaning that DoC must apply principles of kahukiwi, parirau whakaruru, and te korowai mana in managing the site. *To be confirmed*

Historic lighthouse at the northern end of the spit. The numerous shipwrecks and whale strandings on the spit contribute to a rich folklore associated with the area.

Managed by DoC as a Nature Reserve, which is the highest form of protection under the Reserves Act. RAMSAR status.

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications; the popularity of the area as an inspiration/subject for art and photography; and the findings of the Small Working Group project.

Highly popular recreational destination, albeit very well managed with access and numbers carefully restricted.

Highly valued by the geological community. The accessibility of the feature enhances these values.



The boundaries of ONF 6: Farewell Spit and Tidal Flats roughly correspond to the extent of the DoC Nature Reserve and RAMSAR boundaries (noting that these align) and includes the intertidal area.

KEY CHARACTERISTICS AND QUALITIES OF ONF 6 TO BE PROTECTED FROM ADVERSE EFFECTS

- a. The spit landform.
- b. The extensive tidal flats landform.
- c. The dune and wetland vegetation communities.
- d. Regenerating bush features.
- e. Fauna habitat.
- f. The lighthouse.
- g. A sense of remoteness and wildness.
- h. The darkness of the night sky.
- i. *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 6

- a. Large-scale earthworks.
- b. Sand mining.
- c. Indigenous vegetation removals.
- d. Large-scale and/or unregulated tourism.
- e. Inappropriate built development (as a consequence of its location, scale and/or design), including: earthworks, access tracks, buildings, infrastructure, signage, lighting and fencing.
- f. Exotic vegetation.
- g. Large-scale infrastructure.



DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

ONF 7: Hamama and Takaka Valley Sinkholes

GENERAL DESCRIPTION OF AREA

ONF 7: Hamama and Takaka Valley Sinkholes corresponds to a selection of the best examples of numerous distinct and highly unusual sinkholes in valley alluvium near Hamama, where gravels have subsided into marble or limestone solution holes.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the Hamama and Takaka Valley Sinkholes means that the area qualifies collectively as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The sinkholes are in a mix of water, pasture and regenerating bush/riparian cover. The generally unmodified character of the landforms themselves means that the naturalness of the area is rated as **moderate high** to **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div><div>a.</div><div>The very high biophysical values due to the scale, proliferation, intactness and rarity of the sinkholes. Water and vegetation patterns contribute to these values in places.</div></div>
Sensory Attributes
<div><div>a.</div><div>The high naturalness values arising from the dominance of natural landscape features, patterns and processes associated with the sinkholes, despite their modified pastoral context.</div></div> <div><div>b.</div><div>The high legibility and expressiveness values due to the exposed nature of the landforms.</div></div>
Associative Attributes
<div><div>a.</div><div><i>Cultural landscape values rating and description TBC</i></div></div> <div><div>b.</div><div>The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div></div>

The rating of the feature’s biophysical, naturalness, expressiveness and legibility values towards the higher end of the spectrum establishes the Hamama and Takaka Valley Sinkholes as an outstanding landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than many of the other identified ONFs in the district, the rarity and scale (proliferation) of the attributes and values present favours an outstanding classification.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a.

Best examples of numerous small sinkholes in valley floor where gravels have collapsed into dolines dissolved in the marble-limestone beneath.
- b.

Sinkholes in gravel alluvium overlying marble or limestone are uncommon in New Zealand, especially in such a concentration.

The feature comprises a series of variously sized sinkholes within river gravels overlying Arthur Marble and concealing karst system recharge points into the Arthur Marble - Takaka Limestone aquifer. Some are sealed with silt and form ponds, others are dry. Selection of most obvious and best examples.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a.

Some regenerating bush and riparian cover.

Particularly significant **hydrological** attributes include:

- a.

Some sinkholes filled with water permanently or periodically.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a.

Engaging close and mid-range views of the sinkholes from the local road network.

Despite the low intensity pastoral context of the sinkholes, the generally unmodified character of the landforms themselves means that the naturalness of the area is rated as **moderate high** to **high**.

The exposed nature of the landforms, particularly those in pastoral cover or filled with water, enables an appreciation of the landscape’s formative processes. Potential for explaining the origins of these sinkholes and the underground aquifer system that feeds Te Waikoropupū freshwater springs in the lower Takaka Valley.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a.

To be confirmed

Highly valued by the geological community. The accessibility of the feature enhances these values.

Detailed mapping of ONF 7: Hamama and Takaka Valley Sinkholes to be inserted

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The boundaries of ONF 7: Hamama and Takaka Valley Sinkholes ‘capture’ the extent of sinkholes only with limited areas of pasture included where the sinkholes are in very close proximity to each other.

KEY CHARACTERISTICS AND QUALITIES OF ONF 7
TO BE PROTECTED FROM ADVERSE EFFECTS

- The sinkhole landforms.
- The bush and riparian setting.
- The low-key and modest built development character (including low-intensity pastoral farming).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE
INAPPROPRIATE WITHIN ONF 7

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, farm races and fencing.
- Exotic vegetation including production forestry and arable cropping.
- Intensive pastoral farming.



ONF 8: Horse Terrace Bridge Gorge

GENERAL DESCRIPTION OF AREA

ONF 8: Horse Terrace Bridge Gorge corresponds to a bush-lined gorge adjacent to Matakītaki Road, near Upper Matakītaki.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the bus- lined gorge means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

The gorge itself is relatively unmodified, although there is a road adjacent, a bridge over the top, and pastoral farming in the vicinity. The remote location of the gorge also makes a noteworthy contribution to the perception of naturalness. Overall the naturalness is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div><div>a.</div><div>The very high biophysical values due to the intactness and rarity of the bush-fringed sluice-like gorge landform coupled with a dramatic and dynamic major river system.</div></div>
Sensory Attributes
<div><div>a.</div><div>The high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the road, bridge and pastoral farming context of the local area. The enclosed vegetated character of the area plays a role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within ONF 8.</div></div> <div><div>b.</div><div>The very high aesthetic and memorability values of the area as a consequence of the spectacular and highly engaging views from the bridge of the river and gorge set within a lush bush context.</div></div> <div><div>c.</div><div>The high legibility and expressiveness values due to the exposed nature of the landforms and river. The visual accessibility of the gorge (via the bridge) is of importance in this regard.</div></div> <div><div>d.</div><div>The high transient values as a consequence of the highly dynamic qualities of the river itself.</div></div>
Associative Attributes
<div><div>a.</div><div><i>Cultural landscape values rating and description TBC</i></div></div> <div><div>b.</div><div>The moderate-high shared and recognised values associated with the feature.</div></div> <div><div>c.</div><div>The moderate-high recreational and scenic values associated with the feature.</div></div>

These various highly rated attributes and values come together to firmly establish Horse Terrace Bridge Gorge as an outstanding and spectacular natural feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity and accessibility of the attributes and values present favours an outstanding classification.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a.

Narrow sluice-box-like gorge cut through hard Miocene sedimentary rocks and viewable from Horse Terrace Bridge on Matakītaki Road.
- b.

Hard band of sedimentary rocks crosses valley, with river cutting a narrow gorge through it. Beautifully shaped potholes and erosional features. Probably formed as a result of glacial moraine blocking the original river course, causing deviation and erosion through this hard rib of rock.
- c.

Excellent example of a narrow sluice-box gorge through hard rocks on a major river.

Narrow sluice-box-like gorges rare nationally.

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a.

Mature bush context.

Particularly significant **hydrological** attributes include:

- a.

The dynamic waters of the Matakītaki River.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a.

Spectacular close and mid-range views of the bush-lined gorge and fast-flowing river (particularly in flood) from Horse Terrace Bridge.

The dramatic and highly dynamic qualities of the bush-lined gorge and major river make the area highly engaging and memorable. The vivid contrast between the enclosed character of the bush-fringed gorge and the surrounding, more open, working rural landscape contributes to this appeal and memorability.

The vegetative enclosure serves to heighten the experience of the area as a 'natural' landscape feature, set apart from the more modified immediate pastoral context. The very limited level of modification (bridge road and limited signage) and overall sense of remoteness associated with the area is such that naturalness is rated as **high**.

The visually discreet nature of much of the gorge in views from outside the area amplifies the experiential impact when encountered.

The exposed nature of the gorge landforms together with the dynamic river waters enables an appreciation of the landscape's formative processes. The ease of public accessibility to view the gorge via the bridge serves to enhance these values.

The dynamism of the river contributes a highly transient quality to the area.

The high degree of enclosure afforded by the vegetation cover and landform contributes a distinct sense of peacefulness and tranquillity. The audible sounds of falling and rushing water add to this impression.

Detailed mapping of ONF 8: Horse Terrace Bridge Gorge to be inserted

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high cultural values associated with:

- a. To be confirmed

Popular local feature and stopping point for visitors, albeit somewhat off the beaten path.

Popular with white water rafting enthusiasts, albeit again somewhat off the beaten path.

The boundaries of ONF 8: Horse Terrace Bridge Gorge ‘capture’ the extent of the bush-covered sides of the gorge, the river water and the exposed rocks at the downstream end.

KEY CHARACTERISTICS AND QUALITIES OF ONF 8 TO BE PROTECTED FROM ADVERSE EFFECTS

- The gorge landforms.
- The hard sedimentary rock exposures
- The bush setting.
- The historic Horse Terrace Bridge.
- The low-key and modest built development character (including signage).
- The cultural attributes listed above.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 8

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.
- Damming of the river downstream that could submerge the gorge.



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TASMAN DISTRICT LANDSCAPE STUDY

ONF 9: Kaka Point and Island

GENERAL DESCRIPTION OF AREA

ONF 9: Kaka Point and Island corresponds to the small headland and island framing the northern end of Kaiteriteri Beach.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the small headland and island means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Kaka Island and the cliffs framing Kaka Point are predominantly in regenerating bush cover. The top of the point has been cleared and is in a mix of grass cover and paving (car parking), with a paved access route providing pedestrian and vehicular access from the settlement to the west, reflecting the Historic Reserve status of the area. Some exotic vegetation is evident in places. Despite this degree of modification and the human activity associated with the reserve, the largely unmodified nature of the landforms themselves, together with their bush cover and the visually discrete nature of much of the modification (excepting the exotic trees) in external views, means that they rate as **moderate-high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high biophysical values due to the scale, rarity, prominence and ease of visibility of the granite cliffs set within a regenerating native bush and coastal setting.</div>
Sensory Attributes
<div>a. The moderate-high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the modification throughout the top of Kaka Point (including roading, car parking, grassed areas, signage).</div> <div>b. The very high aesthetic, scenic, and memorability values of the area as a consequence of: the highly engaging and appealing views of the coastal cliffs and landforms set within a lush bush and dynamic seascape context from the popular area of Kaiteriteri; and the highly attractive views afforded from Kaka Point itself out over Kaiteriteri and Tasman Bay.</div> <div>c. The very high legibility and expressiveness values due to the exposed nature of the landforms and their high public profile.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The very high shared and recognised values associated with Kaka Point and Island.</div> <div>c. The high recreational and scenic values associated with the area.</div>
These various highly rated attributes and values come together to firmly establish Kaka Point and Island as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 9: Kaka Point and Island to be inserted



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BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Unmodified, granite sea cliffs around islet and point with bluffs of granite nearer top of point.

Rocky headlands and islands are not abundant in the district.

Landform/Geological Feature Type: B Small Landform

Particularly significant **ecological** attributes include:

- a. Regenerating bush context to the cliffs.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive and distinctive close, mid-range and longer-range views of the bush-clad cliffs and islet from Kaiteriteri Beach settlement and bay; Breaker Bay beach, waters and settlement and the proximate surrounding waters of Tasman Bay.
- b. Highly engaging close, mid and longer-range views from Kaka Point out over Kaiteriteri and the waters of Tasman Bay.

The vivid contrast between the sculptural (predominantly) bush-clad landforms set within a highly dynamic seascape context and the surrounding relatively intensively developed character of Kaiteriteri serves to make Kaka Point and Island memorable and appealing with the area, reading as somewhat of a local landmark.

The very high popularity of the area as a holiday destination in its own right or as a 'launching point' for accessing Abel Tasman National Park serves to heighten the scenic importance of Kaka Point and Island.

The largely unmodified nature of the cliff edges around the point and the island more generally, together with their regenerating bush-clad character, means that they rate as **moderate-high** in terms of naturalness. This is despite the paving, vehicles, grassed areas and general level of human activity associated with Kaka Point. The relatively visually discreet nature of these modifications in views from the surrounding area means that they have a relatively limited influence on the perceived character of ONF 9: Kaka Point and Island outside of the feature.

The exposed nature of the cliffs enables an appreciation of the landscape's formative processes. The ease of public accessibility of the area and its visibility from the highly popular waters and beachfront of Kaiteriteri serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Kaka Point is a wāhi tapu. Kaka Pā on the top of Kaka Point.

- a. *To be confirmed*

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, Historic Reserve status of area, the popularity of the area as a scenic destination enjoyed by visitors and locals alike, and the efforts of local community groups in undertaking restoration planting and weed management of the area.

Popular scenic and recreation destination.

The extent of ONF 9: Kaka Point and Island corresponds to the steep bush-clad cliffs and land forming Kaka Point and Island and captures the rock-strewn water between the two landforms.

KEY CHARACTERISTICS AND QUALITIES OF ONF 9 TO BE PROTECTED FROM ADVERSE EFFECTS

- The coastal cliffs and rock formations.
- The bush setting.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 9

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure (land and water based), lighting, signage, erosion control structures, and recreation/tourism development.
- Exotic vegetation.

ONF 10: Labyrinth Rocks Karst

GENERAL DESCRIPTION OF AREA

ONF 10: Labyrinth Rocks Karst corresponds to a small area of intensely dissected karst landforms on the eastern side of Takaka township.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Labyrinth Rocks Karst means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The landforms are still largely in a natural condition. Despite the tracks and figurines scattered throughout the area, overall the naturalness is rated as **high** due to the dominance of natural elements, patterns and processes.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the scale, proliferation, intactness and rarity of the natural karst landforms. Indigenous vegetation patterns contribute to these values in places.

Sensory Attributes

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the karst formations, despite the existing maze of tracks and figurines.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush bush and pastoral context; and the visual impression of the area as a more ‘natural’ landscape feature near the settlement of Takaka.
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms and the appreciation of such values afforded by the public accessibility of the area.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high recreational values** of the area.

The rating of many of the feature’s values towards the higher end of the spectrum establishes the Labyrinth Rocks Karst as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity and scale (proliferation) of the attributes and values present favours an outstanding classification.



Detailed mapping of ONF 10: Labyrinth Rocks Karst to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Most easily accessed areas of small-scale limestone karst in Tasman District.

The area consists of approximately two hectares of easy pathways along a natural maze (called Labyrinth Rocks) through bush-covered canyons, tunnels and archways in Takaka Limestone.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Some regenerating bush cover.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly appealing and absorbing close and mid-range views of the highly attractive small-scale tunnels, arches, caves and fluting from the internal track network.

The distinctive sculptural character of the karst formations makes them memorable. The vivid contrast between the bush-covered karst landforms and the surrounding working rural landscape and township context contributes to this appeal and memorability.

Despite the low-intensity track development and figurines scattered throughout the area, the generally unmodified character of the landforms themselves means that the naturalness of the area is rated as **high**.

The exposed nature of the landforms enables an appreciation of the landscape's formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

The proximity of the feature to Takaka township makes it a reasonably popular destination for locals and visitors alike.

The boundaries of ONF 10: Labyrinth Rocks Karst 'capture' the extent of karst formations only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 10 TO BE PROTECTED FROM ADVERSE EFFECTS

- The intricate karst formations.
- The bush setting.
- The low-key and modest built development character (including tracks).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 10

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.

ONF 11: Lake Killarney Sinkhole Lake

GENERAL DESCRIPTION OF AREA

ONF 11: Lake Killarney Sinkhole Lake corresponds to a small lake within a Reserve in Takaka township.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Lake Killarney Sinkhole Lake means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The sinkhole lake landform is in a natural condition. Whilst the context of the lake is modified (includes urban development, walking track, lake pollution and exotic vegetation), the overall the naturalness is rated as **moderate-high**. Native plantings add to the sense of naturalness in places.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the intactness and rarity of the sinkhole lake. Indigenous vegetation patterns contribute to these values in places.

Sensory Attributes

- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the sinkhole lake, despite the urban context (including tracks, some pollution and exotic vegetation).
- b. The **high aesthetic values** of the area as a consequence of: the appealing views of the tree-lined lake and the appreciation of such values afforded by the public accessibility of the area.
- c. The **high legibility and expressiveness values** due to the exposed nature of the freshwater sinkhole lake landform and the appreciation of such values afforded by the public accessibility of the area.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high recreational values** of the area.

The rating of many of the feature’s values towards the higher end of the spectrum establishes the Lake Killarney Sinkhole Lake as a landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, legibility and rarity of the attributes and values present favours an outstanding classification.

Detailed mapping of ONF 11: Lake Killarney Sinkhole Lake to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Sinkhole filled with small lake because ground water level is higher here due to low elevation. Excellent example of a sinkhole filled with a freshwater lake.
- b. Sinkholes are quite common in Takaka Valley, but one filled with a lake and edged by vegetation is uncommon in Tasman District and New Zealand generally.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Some regenerating bush cover.

Particularly significant **hydrological** attributes include:

- a. Freshwater lake.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly appealing close and mid-range views of the tree-lined lake.

Despite the urban context and track development, the generally unmodified character of the lake itself means that the naturalness of the area is rated as **moderate-high**.

The visibility of the sinkhole lake enables an appreciation of the landscape's formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

The proximity of the feature to Takaka township makes it a reasonably popular destination for locals and visitors alike.

The boundaries of ONF 11: Lake Killarney Sinkhole Lake corresponds to the extent of the vegetation-fringed margins of the lake feature.

KEY CHARACTERISTICS AND QUALITIES OF ONF 11 TO BE PROTECTED FROM ADVERSE EFFECTS

- The freshwater sinkhole lake.
- The vegetated setting.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 11

- Earthworks, quarrying and/or mining.
- Stormwater discharges into the lake.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.

DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

ONF 12: Lower Matakitaki Landslide

GENERAL DESCRIPTION OF AREA

ONF 12: Lower Matakitaki Landslide corresponds to a landslide triggered in the 1929 Murchison Earthquake from the hills on the west side of the Matakitaki Valley, south of Murchison. The western (and elevated) portion of the feature coincides with ONL 6 Nelson Lakes - South Western Ranges.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the landslide means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

A varying degree of naturalness across the landslide area with a mix of scrub, pasture and regenerating bush cover. Farm tracks, a gravel road and grazing in places. Overall the area rates as **moderate-high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high biophysical values due to the scale, rarity, legibility and ease of visibility of the landslide landform.</div>
Sensory Attributes
<div>a. The moderate-high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the modification to the landform to form farm tracks; and the fragmented and, in places, exotic vegetation cover.</div> <div>b. The high legibility and expressiveness values due to the exposed nature of the landform and its public profile.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high historic values associated with the area.</div>

These various highly rated attributes and values come together to firmly establish the Lower Matakitaki Landslide as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity, legibility, accessibility and historic importance of the attributes and values present favours an outstanding classification.

Detailed mapping of ONF 12: Lower Matakitaki Landslide to be inserted



DRAFT FOR LANDOWNER CONSULTATION

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a.

Classic landslide with a clear scarp in Miocene sedimentary rocks high above the west side of the river and extensive bouldery deposits on the valley floor and across the river.
- b.

The historically most significant and memorable landslide brought down by the Murchison Earthquake.

Large landslides of this size that have been generated by an historic earthquake, permanently diverting a major river and leaving a major deposit over farmland, are uncommon in Tasman District.

Landform/Geological Feature Type: A Large Landform.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The largely unmodified nature of the landslide land (excepting where it has been earthworked to enable farm track and gravel road construction) is moderated by the fragmented and, in places, exotic landcover patterning, resulting in an overall rating of **moderate-high** in terms of naturalness.

The landform feature is memorable for its historic significance as the landslide that killed five people, including three members of the Busch family on the west side of the river, and Mr Chas Morel, whose homestead was on the east side of the river. Mrs Morel was rescued as she and her husband tried to outrun the landslide front.

Very recognisable landform feature that enables an appreciation of the landscape's dramatic formative processes. The visibility of the area from a public road serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a.

To be confirmed

High historic values as a key part of the 1929 Murchison Earthquake.

The extent of ONF 12: Lower Matakитaki Landslide corresponds to the clearly recognisable 'footprint' of the landslide.

KEY CHARACTERISTICS AND QUALITIES OF ONF 12 TO BE PROTECTED FROM ADVERSE EFFECTS

- a.

The landslide landforms.
- b.

The cultural attributes listed above.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 12

- Inappropriate earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage, erosion control structures, and recreation/tourism development.
- Exotic vegetation.
- Damming of the river downstream that might submerge parts of the feature.

ONF 13: Maruia Falls

GENERAL DESCRIPTION OF AREA

ONF 13: Maruia Falls corresponds to an impressive waterfall adjacent SH65 Shenandoah Highway.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of waterfall means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The generally unmodified character of the waterfall and its margins means that naturalness of the area is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the scale, rarity and unique history of the falls.

Sensory Attributes

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the walking track at Maruia Falls, signage, the state highway, parking and pastoral land use in the wider area. The enclosed character of the area, particularly around the informal lookout at the base of the falls, plays a role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within ONF 13.
- b. The **very high aesthetic and memorability values** of the area as a consequence of the highly engaging, dramatic and appealing views of the falls.
- c. The **very high legibility and expressiveness values** due to the exposed nature of the waterfall. The visual accessibility of much of the area is of importance in this regard.
- d. The **high transient values** as a consequence of the highly dynamic qualities of the waterfall itself.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high shared and recognised values** associated with ONF 13.
- c. The **high recreational and scenic values** associated with the falls.

These various highly rated attributes and values come together to firmly establish Maruia Falls as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 13: Maruia Falls to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Approximately 9-11 m high by some 20 m wide waterfall on Maruia River falling over bedded sedimentary rocks.
- b. Excellent example of a large, low waterfall over Cenozoic sedimentary rocks; such features are rare in the district.

Falls have unique history of formation as a result of 1929 Murchison earthquake that triggered a rockslide that redirected the Maruia River which then exhumed an ancient waterfall previously buried beneath gravel.

Landform/Geological Feature Type: B Small Landform.

Particularly significant **hydrological** attributes include:

- c. The dynamic waters of the Maruia River on either side of the falls, and the falls themselves.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive and dramatic close and mid-range views of the highly dynamic falls and river waters and sculpted rock formations from the Maruia Scenic Reserve adjacent (accessed directly from SH 65).

The picturesque and highly dynamic qualities of the falls, rock formations, and river waters make the area visually appealing, highly engaging, and memorable.

The generally unmodified character of the falls and river waters in the vicinity is such that naturalness is rated as **high**. The proximity of the feature to the highway, modification associated with the scenic reserve (tracks, parking etc) and its pastoral context (on the western side in particular) contribute a moderating influence to the naturalness rating.

The visually discreet nature of much of the falls in views from outside the area amplifies their experiential impact when encountered.

The exposed nature of waterfall and river enables an appreciation of the landscape's formative processes. The ease of public accessibility to the falls and their visibility serves to enhance these values.

The dynamism of the various water features contributes a highly transient quality to the area.

Adjacent the Maruia Falls, the relatively high degree of enclosure afforded by the vegetation cover and landform patterns contributes a distinct sense of peacefulness and tranquillity. The audible sounds of falling and rippling water add to this impression.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status, and the popularity of the area as scenic stop-off for visitors and locals alike.

Informal lookout and low-key signage.

The boundaries of ONF 13: Maruia Falls 'capture' the extent of the Maruia River on either side of, and including, the Maruia Falls together with their bush and cliff margins.

KEY CHARACTERISTICS AND QUALITIES OF ONF 13 TO BE PROTECTED FROM ADVERSE EFFECTS

- The Maruia Falls.
- The bush and cliff setting.
- The low-key and modest built development character (including signage).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 13

- Inappropriate earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.
- Dam construction downstream that could submerge all or part of the falls.
- Excessive water extraction upstream that could cause the falls to decline to extremely low levels in dry spells.

ONF 14: Motueka Sand Spit

GENERAL DESCRIPTION OF AREA

ONF 14 relates to Motueka sand spit and the tidal flats on the Motueka (or western) side of the spit landform.

QUALIFIES AS ‘FEATURE’?

The distinct identity of Motueka sand spit as a landform feature means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

Modification on the spit is limited to a simple walking track with signage. The generally relatively low-key and modest scale and character of this modification means that it remains subservient to the more natural landscape features, patterns and processes.

High rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the scale and uniqueness of the spit landform and rich avifauna values.

Sensory Attributes

- a. The **very high naturalness values** arising from the dominance of natural landscape features, patterns and processes as a consequence of the relatively unmodified nature of the immediate area, its sense of wildness (deriving from the costal context) and the low-key character of built modification.
- b. The **high aesthetic and memorability values** of the area as a consequence of the area's dramatic, highly attractive and engaging visual character, its sense of wildness and its strongly endemic character.
- c. The **high legibility and expressiveness values** due to the visibility of biophysical attributes that enable a clear understanding of the landscape's formative processes and the public profile of the area.
- d. The **high transient values** associated with the coastal processes, climatic characteristics and birdlife.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high shared and recognised values** associated with Motueka sand spit.
- c. The **high recreational and scenic values** associated with Motueka sand spit and largely drawing from the aesthetic, naturalness and memorability qualities associated with the area, together with the strong sense of endemicity that they convey.

These various highly rated attributes and values come together to firmly establish Motueka Sand Spit as a truly outstanding and spectacular landscape feature that stands apart from much of the balance of the district.



Detailed mapping of ONF 14: Motueka Sand Spit to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Excellent example of an unusually shaped, multiply stranded or 'feathered' sand spit.
- b. One of the fastest growing sand spits in New Zealand.
- c. Highly dynamic spit landform.

Long feathered sand spits uncommon in Tasman Bay.

Landform/Geological Feature Type: A-Large Landform.

Particularly significant **ecological** attributes include:

- a. Substantial swathes of rushland and saltmarsh where whitebait spawn.
- b. Rich shellfish beds making it a major feeding ground for up to 10,000 wading birds which feed or roost on the sand spit in summer.
- c. Recognised under the Ramsar Convention as an internationally important site due to the bar-tailed godwit, variable oystercatcher, and South Island pied oystercatcher that use the spit. Other birds using Motueka sandspit are banded dotterel, ruddy turnstone, terns and gulls.

Particularly significant **hydrological** attributes include:

- a. Highly tidal estuarine waters and seascape.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive and dramatic close-range views of the highly dynamic spit dunes and tidal flats seen from the walking track. Native dune vegetation and prolific birdlife adds to the sense of endemicity associated with the view.
- b. Highly appealing mid and long-range views of the spit from the water and eastern side of Motueka and Port Motueka environs.
- c. Striking long-range views from the sand spit back to Mt Arthur.

A low degree of modification is evident at Motueka sand spit and includes signage and a walking track. The relatively modest scale and character of these modifications and the relatively low level of human activity, together with their role in enabling an appreciation and understanding of the natural feature (landform, vegetation and fauna) means that they do not appreciably detract from the sense of naturalness associated with Motueka sand spit. Overall, naturalness is rated as **high**.

The highly appealing, strongly endemic and engaging character of the views afforded of Motueka sand spit makes it memorable. The ease of visibility of the spit (including from an urban area) adds to this memorability.

The tidal character of the spit, the dynamic character of the dune landforms themselves, and the patterning of light on intertidal areas contributes a highly transient quality to the area.

The generally unmodified and seemingly natural character of the landform forms a strong contrast with the nearby urban development at Motueka, serving to establish a sense of wildness and isolation, despite the proximity to intensive development.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High shared and recognised values as evidenced by the descriptions of the area in tourism publications.

Popular recreational walkway up to two hours either side of high tide (dogs restricted) and as a site for bird watching.

The boundaries of ONF 14: Motueka Sand Spit correspond to the extent of the spit landform and tidal flats on its western side.

KEY CHARACTERISTICS AND QUALITIES OF ONF 14 TO BE PROTECTED FROM ADVERSE EFFECTS

- The spit landform.
- The extensive tidal flats landform.
- The dune and wetland vegetation communities.
- Fauna habitat.
- A relative sense of wildness and isolation.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 14

- Large-scale earthworks and/or sand mining.
- Indigenous vegetation removals.
- Large-scale and/or unregulated tourism.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: earthworks, access tracks, buildings, infrastructure, signage, lighting and fencing.
- Exotic vegetation.
- Large-scale infrastructure.

ONF 15: Motupipi Hogback

GENERAL DESCRIPTION OF AREA

ONF 15: Motupipi Hogback corresponds to the limestone landform feature that runs on a roughly southwest-northwest alignment to the south east of Motupipi (Takaka Valley) and terminates with the Grove ONF.

QUALIFIES AS ‘FEATURE’?

The relatively confined extent of the [Subject] means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The area is predominantly in regenerating bush cover. Pasture and farm tracks are present in a limited number of locations. The generally unmodified character of the landform and vegetation means that the naturalness of the area is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the scale, intactness and rarity of the limestone ridge formation. The regenerating bush cover to the area adds to these values.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of natural landscape features, patterns and processes within the Motupipi Hogback.</div> <div>b. The high aesthetic and memorability values of the area as a consequence of: the distinctive and appealing views of the bush-covered limestone ridge formations from the surrounding settled valley; and the visual impression of the area as a more ‘natural’ landscape feature within the pastoral lowlands of the Takaka Valley.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the landforms and the appreciation of such values afforded by the visibility of the area.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div>

The rating of many of the feature's values towards the higher end of the spectrum establishes the Motupipi Hogback as landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, legibility, expressiveness and rarity of the attributes and values present favours an outstanding classification.

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. One of best examples of a low-elevation narrow hogback ridge in New Zealand (approximately 8km long).
- b. Prominent and unusual ridge of Takaka (Oligocene) Limestone, dragged up along Pikipiruna Fault.
- c. Includes karst and several caves (including the Council-owned Motupipi Cave).
- d. Narrow linear ridges of limestone dragged up along a fault line and forming an elongate erosional landform are uncommon in New Zealand.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Areas of regenerating bush, including limestone habitats.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Distinctive mid and long-range views of the rib-like ridge from the local road network.

Despite the relatively low elevation of the feature, its length and distinctive rib-like form makes it memorable. The vivid contrast between the bush-covered ridge and the surrounding, more open, working rural landscape contributes to this appeal and memorability.

The limited level of modification is such that naturalness is rated as **high**.

The exposed nature of the landforms enables an appreciation of the landscape’s formative processes. The visibility of the landform from the surrounding area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the feature enhances these values.

Detailed mapping of ONF 15: Motupipi Hogback to be inserted

The boundaries of ONF 15: Motupipi Hogback corresponds to the steep and more elevated bush-covered landform that defines the continuous rib-like ridge.

KEY CHARACTERISTICS AND QUALITIES OF ONF 15
TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations.
- The bush setting.
- The low-key and modest built development character.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE
INAPPROPRIATE WITHIN ONF 15

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation, including production forestry.
- Large scale infrastructure.



ONF 16: Moutere Bluff to Kina Coastal Cliffs

GENERAL DESCRIPTION OF AREA

ONF 16: Moutere Bluff to Kina Coastal Cliffs corresponds to the discontinuous sequence of steep and high sea cliffs extending northwards from the northern end of Te Mamaku/Ruby Bay to the southern end of Kina Beach.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the coastal cliffs means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The largely unmodified nature of the landforms themselves means that they rate as **high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the scale, rarity and visibility of the conglomerate cliffs set within a native bush and coastal setting.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite its modified context.</div> <div>b. The high aesthetic, scenic, and memorability values of the area as a consequence of the highly engaging and appealing views of the conglomerate cliffs set within a dynamic seascape context.</div> <div>c. The very high legibility and expressiveness values due to the exposed nature of the landforms and their high public profile.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div>

These various highly rated attributes and values come together to firmly establish the Moutere Bluff to Kina Coastal Cliffs as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 16: Moutere Bluff to Kina Coastal Cliffs to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Largest and best exposures of Moutere Gravels - one of Tasman’s most significant rock units. These fill the Moutere Graben and underlie a vast area of the Tasman District. The gravels were derived from the rising Southern Alps, south of the Alpine Fault, between 3 and 5 million years ago, before the mountains to the east and west began rising. The cliff exposures include sand lenses and channel fills in the gravels which help explain their fluvial plain origins.
- b. Easily accessible opportunities to explain the recent history of uplift of the mountains of the Tasman District and the subsidence of the Moutere Graben followed by more recent uplift and erosion.
- c. Only substantial sea cliffs along the Tasman Bay coast between Tahunanui and Riwaka River.

Landform/Geological Feature Type: B Small Landform

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Dramatic close, mid-range and longer-range views of the highly sculptural cliffs set against a dynamic seascape context. This includes views from the scattered reserves along the cliff sequence.
- b. Sweeping and attractive close, mid-range and longer-range views from the top of the cliffs out over Tasman Bay.

The visibility of the cliffs from much of the Nelson coastal area at a range of distances means that the area reads as somewhat of a local landmark.

The largely unmodified nature of the cliffs themselves together with their dramatic scale (up to approximately 60m high) and immediate seascape context means that they rate as high in terms of naturalness. This is despite the modified landward context of the features, which includes a pastoral land use and rural living development.

The exposed nature of the cliffs enables an appreciation of the landscape’s formative processes. Several sections of the cliff sequence coincide with Council Reserves. The access afforded via these reserves and the coastline more generally serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the feature enhances these values.

The extent of ONF 16: Moutere Bluff to Kina Coastal Cliffs corresponds to the discontinuous sequence of steep sea cliffs extending northwards from the northern end of Te Mamaku/Ruby Bay to the southern end of Kina Beach. The ONF captures the cliff landforms only and excludes the flanking reserve areas.

KEY CHARACTERISTICS AND QUALITIES OF ONF 16 TO BE PROTECTED FROM ADVERSE EFFECTS

- The coastal cliffs.
- Exposures of the fluvial gravels in the cliffs.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 16

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Exotic vegetation.
- Infrastructure on the cliffs (e.g. cell phone towers, large signage).
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, and erosion structures.



ONF 17: Mt Arthur Marble Karst and Caves

GENERAL DESCRIPTION OF AREA

ONF 17: Mt Arthur Marble Karst and Caves encompasses the marble mountains of Mt Arthur within Kahurangi National Park and is located within ONL 2 Parapara Kahurangi Ranges. (NB part of this feature extends outside of the Tasman District).

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these areas of karst and caves means that they qualify as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

All of the area is unmodified, including the landforms and the alpine / subalpine vegetation communities.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the rarity and uniqueness of the karst and cave formations and the high ecological values associated with the alpine and subalpine vegetation communities.

Sensory Attributes

- a. The **very high naturalness values** associated with the karst and cave feature due to its unmodified state enhanced by the sense of remoteness associated with the area.
- b. The **high aesthetic and memorability values** of the feature as a consequence of the highly attractive views from the mountain tops, out over the karst feature, wider national park, lower-lying settled plains and coast, and the memorable and striking views back to the distinctive mountain peaks from the wider district.
- c. The **high legibility and expressiveness values** due to the exposed nature of the karst formations in particular. The public accessibility of the area (via hiking track) serves to enhance these values (Ngarua Cave and Rawhiti Cave).
- d. The **very high remoteness and wildness values** as a consequence of the relative inaccessibility of the area and its unmodified character and context.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high recreational and scenic values** due to the location of the feature within Kahurangi National Park on a popular hiking route, and as a mecca for recreational cavers.

These various highly rated attributes and values come together to firmly establish the Mt Arthur Marble Karst and Caves as an outstanding and spectacular feature that stands apart from much of the balance of the district.

Photograph source: <https://nelsontrails.co.nz/mt-arthur/>



Detailed mapping of ONF 17: Mt Arthur Marble Karst and Caves to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. One of the best areas of glacio-karst in the southern Hemisphere.
- b. Mt Arthur is a large marble massif reaching 1809m with extensive alpine and glaciated karst and deep cave systems.
- c. The feature contains the two deepest caves in New Zealand: Nettlebed Cave 889 m deep (and 24.3 km long) and Ellis Basin System 775 m deep (and 28.7 km long).
- d. Windrift Cave, Falcon Cave, Gorgoroth Cave, Thomo Thyme Cave System and Pearse Resurgence.
- e. Windrift Cave is a vertical shaft system 300 m deep which intersects horizontal streamway, vadose and phreatic development ends in sump. 4410 m of surveyed passage.
- f. Nettlebed contains some of oldest speleothems in NZ and blue stalactites.
- g. Thomo Thyme Cave system is source of the Pearse Resurgence. It has complex speleogenesis controlled by complex folding of marble and schist.
- h. Pearse Resurgence drains many of the marble caves and is the deepest known water-filled cave in Australasia.

NZ Geopreservation Inventory Importance rating of International.

Landform/Geological Feature Type: B Large Landform; F Cave.

Particularly significant **ecological** attributes include:

- a. Intact alpine and subalpine vegetation communities.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Historic pastoral land use.

High recreational and scenic values as located on hiking track route that is popular with locals.

One of the most valued recreational caving areas in New Zealand.

The boundaries of ONF 17: Mt Arthur Marble Karst and Caves corresponds to the ‘footprint’ of the caves and karst area.

KEY CHARACTERISTICS AND QUALITIES OF ONF 17 TO BE PROTECTED FROM ADVERSE EFFECTS

- The karst landform features.
- The caves and their entrances and exits.
- The alpine and subalpine vegetation communities.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 17

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development including: buildings, infrastructure, signage, tracks, seating, as a consequence of its location, scale and/or design.
- Exotic vegetation.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive mid and long-range views from the mountain top out over the national park, 'settled' plains and coastline.
- b. Highly attractive close, mid and longer-range views out over the karst feature itself.
- c. Distinctive and memorable views of the mountain peaks from Northwest Nelson, including Richmond and Nelson City.

The distinctive and dramatic landforms (and vegetation) make the area highly visually appealing and memorable.

The visibility of the elevated peak landforms from the wider district means that the landform feature reads as somewhat of a landmark along the ranges separating Tasman Bay from Golden Bay.

The largely unmodified nature of the landform and vegetation cover, and the relative isolation of the area within which it is set, means that the feature rates as **very high** in terms of naturalness.

The exposed nature of the karst landforms in particular enables an appreciation of the landscape's formative processes. The public visibility of the area (via hiking track) serves to enhance these values.

There is a very high sense of remoteness and wildness due to the isolated location of the feature (accessible by hiking track only).

Photograph source: <https://nelsontrails.co.nz/mt-arthur/>



Photograph source: <https://nelsontrails.co.nz/mt-arthur/>



ONF 18: Mt Owen Marble Karst and Caves

GENERAL DESCRIPTION OF AREA

ONF 18: Mt Owen Marble Karst and Caves encompasses the marble mountains of Mt Owen within Kahurangi National Park. The feature is located within ONL 2 Parapara Kahurangi Ranges.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these areas of karst and caves means that they qualify as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the area is unmodified, including the landforms and the alpine / subalpine vegetation communities.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the rarity and uniqueness of the karst and cave formations and the high ecological values associated with the alpine and subalpine vegetation communities.</div>
Sensory Attributes
<div>a. The very high naturalness values associated with the karst and cave features due to their unmodified state enhanced by the sense of remoteness associated with the area.</div> <div>b. The high aesthetic and memorability values of the features as a consequence of the highly attractive views from the mountain tops, out over the karst features, wider national park and the memorable and striking views back to the distinctive mountain peaks from the wider district.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the karst formations in particular. The public accessibility of the area (via hiking tracks) serves to enhance these values.</div> <div>d. The very high remoteness and wildness values as a consequence of the relative inaccessibility of the area and its unmodified character and context.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high recreational and scenic values due to the location of the feature within Kahurangi National Park and on a popular hiking route, and as a mecca for recreational cavers and adventure speleologists.</div>

These various highly rated attributes and values come together to firmly establish the Mt Owen Marble Karst and Caves as an outstanding and spectacular feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 18: Mt Owen Marble Karst and Caves to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. One of the best areas of glacio-karst in the Southern Hemisphere.
- b. Mt Owen is a large marble massif, reaching 1875m, with extensive alpine and glaciated karst and deep cave systems.
- c. Bulmer Cavern currently at 63.5 km in survey length and 755 m deep is the longest cave in New Zealand.
- d. Vertical shaft systems from the surface intersect ancient phreatic passages now characterised by lots of rockfall breakdown. Secondary vadose development often present in floor of passage, (in marble).
- e. Owen Ice Cave is the best ice cave in New Zealand with ice speleothems.
- f. Many other caves are known and mapped within the Mt Owen massif.
- g. Mt Owen itself is the highest peak in Kahurangi National Park.

Landform/Geological Feature Type: B Large Landform; F Cave.

Particularly significant **ecological** attributes include:

- a. Intact alpine and subalpine vegetation communities.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive and memorable mid and long-range views from the mountain top out over the national park.
- b. Highly attractive and striking close, mid and longer-range views out over the striking surface karst feature itself from the tracks in the area.
- c. Distinctive and memorable views of the mountain peaks from Northwest Nelson, including Richmond and Nelson City.

The distinctive and dramatic landforms (and vegetation) make the area highly visually appealing and memorable.

The visibility of the elevated peak landforms from the wider district means that the landform feature reads as somewhat of a landmark along the ranges backdropping Tasman Bay.

The largely unmodified nature of the landform and vegetation cover, and the relative isolation of the area within which it is set, means that the feature rates as **very high** in terms of naturalness.

The exposed nature of the karst landforms in particular enables an appreciation of the landscape's formative processes. The public visibility of the area (via hiking tracks and scenic flight route) serves to enhance these values.

There is a very high sense of remoteness and wildness due to the isolated location of the feature (accessible by hiking track only).

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High recreational and scenic values as located on hiking track routes that are popular with locals and scenic flight route.

One of the most valued recreational caving areas in New Zealand.

The most cherished attraction for adventure speleologists in New Zealand.

The boundaries of ONF 18: Mt Owen Marble Karst and Caves corresponds to the 'footprint' of the marble caves and karst area.

KEY CHARACTERISTICS AND QUALITIES OF ONF 18 TO BE PROTECTED FROM ADVERSE EFFECTS

- The karst landform features.
- The caves and their entrances and exits.
- The alpine and subalpine vegetation communities.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 18

- Earthworks, mining and/or quarrying.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, infrastructure, signage and recreation/tourism development.
- Exotic vegetation.



Photographs supplied by James Bentley

ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence

GENERAL DESCRIPTION OF AREA

ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence corresponds to a cutting on the disused Nuggety Creek Road across the Buller river from State Highway 6 above the Buller River (true left side), roughly midway between Longford and Owen River. It also includes rock exposures on both sides of the river in this vicinity.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the fossil exposure and sedimentary sequence means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The feature is in a relatively unmodified state (albeit arising from a road cutting) although the immediate context is modified by the old road and scrub/exotic vegetation.

Naturalness of the feature is rated as **moderate-high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the intactness, geoscience importance and rarity of the features.</div>
Sensory Attributes
<div>a. The moderate high naturalness values of the feature, taking into account the fact that the feature was revealed by a road cutting, and is flanked by exotic and scrub vegetation.</div> <div>b. The moderate high memorability values of the site as a consequence of: The spectacular leaf fossils.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the geological sedimentary rock sequence, the easily recognised character of the fossil leaves and the public profile of the feature near a highway.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high geoscience values associated with the feature as a consequence of the regard with which it is held in by the geological community, its geoscience values and the accessibility of the area.</div>

These various highly rated attributes and values come together to firmly establish the Nuggety Creek Road Fossil Leaves and Sedimentary Sequence as an outstanding and spectacular geological feature. Whilst the range of attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, geoscience importance and rarity of the attributes and values present favours an outstanding classification.



Detailed mapping of ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Exposures of conglomerate, sandstone, carbonaceous mudstone, coal and rich middle Miocene leaf fossils.
- b. Excellent example of a fossil leaf deposit in alluvial sedimentary rock sequence.
- c. One of most diverse and well-preserved Miocene fossil leaf localities in NZ. Type locality of some species of leaf fossils. Best of two easily accessible exposures of the fluvial valley deposits of the Longford Syncline in Murchison area.
- d. Well-preserved leaves of middle Miocene age, uncommon nationally.
- e. Landform/Geological Feature Type: E - Small Exposure

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Fossil leaves are easily recognisable and are likely to be memorable, particularly to those who have not seen them before.

The road cutting has exposed the natural sequence of sedimentary rock which was not visible previously. Overall, naturalness is rated as **moderate-high**.

The exposed nature of the fossil leaves and sedimentary sequence enables an appreciation of part of the geological history of the region.

The accessibility of the area enhances these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the features enhances these values.

The extent of ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence corresponds to the extent of the sedimentary rock exposures in the riverbed and the road cutting only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 19 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical features described above.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 19

- Inappropriate earthworks, mining and/or quarrying. Some road work could enhance the exposure.
- Any built development (as a consequence of its location, scale and/ or design), including: roading, infrastructure, erosion protection works, signage and buildings.

ONF 20: Paynes Ford, Irvines Cave, Oxbow and Spring

GENERAL DESCRIPTION OF AREA

ONF 20: Paynes Ford, Irvines Cave, Oxbow and Spring comprises a collection of karst formations within a stand of bush, set in pastureland on the eastern side of the Takaka River (just south of Takaka). The feature also includes the abandoned oxbow channel of the Takaka River that was cut off in the 1930s, a cave and a spring.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of Paynes Ford means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Whilst pastureland is evident within Paynes Ford, the relatively unmodified character of the limestone, bush and river elements together with the reserve use of the pastoral areas means that more natural landforms, patterns and processes remain to the fore.

High rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high biophysical values due to the scale, rarity and visibility of the limestone formations set within a native forest and river setting, the rarity and complexity of the multi-level cave system, and the freshwater spring.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of natural landscape features, patterns and processes within the Paynes Ford area. This is despite the walking track, signage, reserve facilities and pastoral areas.</div> <div>b. The high aesthetic and memorability values of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush bush and river context; and the visibility of the area from SH60 Takaka Valley Road which serves to confer a landmark quality to the area.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the landforms and the appreciation of such values afforded by the public accessibility of the area.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high shared and recognised values associated with Paynes Ford.</div> <div>c. The very high recreational and scenic values associated with Paynes Ford and the reserve by the recreational rock-climbing community.</div>
<p>These various highly rated attributes and values come together to firmly establish Paynes Ford, Irvines Cave, Oxbow and Spring as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.</p>



Detailed mapping of ONF 20: Paynes Ford, Irvines Cave, Oxbow and Spring to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. One of the best and most easily visible examples of stalactites formed on exposed limestone bluffs.
- b. Good examples of hooked biokarst.
- c. Multi-level Irvine Cave system with a complex maze of passages and impressive speleothems in a well-preserved condition. Caves of this complexity rare in the Tasman District.

Biokarst stalactite uncommon in Tasman and New Zealand more generally.

Groups of stalactites formed high on imposing bluffs of Oligocene Takaka Limestone. Solution processes still active in wet season.

Limestone bluffs: Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: Bluffs - D Large Exposure; Irvines Cave – F Cave; Oxbow and Spring - C Active Natural System.

Particularly significant **ecological** attributes include:

- a. Regenerating bush context for much of the area.

Particularly significant **hydrological** attributes include:

- a. Excellent example of a freshwater spring which is uncommon in the Tasman District. Strongly flowing spring issuing from a vent in Takaka Limestone, situated in the abandoned bed of the Takaka River, cut off as an oxbow in the 1930s. The flow sustains a watercourse now choked with willows. Part of Arthur Marble - Takaka Limestone aquifer.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Dramatic close and mid-range views of the limestone formations set within a bush and river context.
- b. Impressive longer range views from SH60 Takaka Valley Highway across to the limestone bluffs set within a bush context and which forms a marked contrast with the predominantly pastoral working rural landscape context.
- c. Highly engaging close-range views of cave features.

The scale and sculptural qualities of the limestone formations juxtaposed with the bush and river setting (including the oxbow and spring) make the area highly visually appealing and memorable. The visibility of Paynes Ford from the state highway means that these qualities are elevated such that the area reads as somewhat of a landmark.

The vivid contrast between the more natural bush fringed landforms and the surrounding working rural landscape throughout the alluvial flats of the Takaka Valley and the busy highway contributes to this appeal and memorability.

The dominance of the more natural landscape elements, features and patterns and relatively limited level and sympathetic character of modification (walking tracks, signage, facilities etc.) is such that naturalness is rated as **high**.

The exposed nature of the landforms enables an appreciation of the landscape’s formative processes. The ease of public accessibility/visibility of the area serves to enhance these values.

Within Paynes Ford, the reserve status of the area contributes a sense of restfulness.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high cultural **values** associated with:

- a. *To be confirmed*

Walking track follows the alignment of a tramline that operated between the early 1880s and 1905 and was used to take timber from the Takaka Valley down to Waitapu wharf.

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status, the popularity of the area as walking route and scenic reserve enjoyed by visitors and locals alike, and the findings of the Small Working Group project.

Extremely popular for rock climbing. The limestone bluffs at Paynes Ford are described as one of best rock-climbing areas in New Zealand.

Popular swimming holes and walking track.

Picnic facilities, toilets and carpark support the use of the area for recreational purposes.

The boundaries of ONF 20: Paynes Ford, Irvines Cave, Oxbow and Spring ‘capture’ the extent of the DoC Reserve and extend onto small areas of adjoining private farmland (adjacent the watercourse) where the landform and vegetation patterning is such that the private land reads as part of the broader Paynes Ford, Irvines Cave, Oxbow and Spring landscape feature.

KEY CHARACTERISTICS AND QUALITIES OF ONF 20 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations.
- The caves.
- The freshwater spring and oxbow.
- The bush setting.
- The immediate Takaka River context.
- The low-key and modest built development character (including signage and the visitor facilities).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 20

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Modification to the oxbow and spring and the river in the immediate vicinity.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.
- Intensive farming.

DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

ONF 21: Puponga Point

GENERAL DESCRIPTION OF AREA

ONF 21: Puponga Point corresponds to the sea stack, cliffs and intertidal platforms at Puponga Point near the western end of Farewell Spit.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the sea stack, cliffs and intertidal platforms means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The largely unmodified nature of the landforms themselves together with their (predominantly) regenerating bush cover means that they rate as **high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to its well-exposed sedimentary rock sequence, disconformity and fossils.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the largely unmodified nature of the landforms themselves together with their (predominantly) regenerating bush cover.</div> <div>b. The high aesthetic, scenic, and memorability values of the area as a consequence of: the highly engaging and appealing views of the coastal cliffs and landforms set within a lush bush and dynamic seascape context from Puponga, the water and the Farewell Spit and Puponga Farm Park (DoC Reserve).</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the landforms and their public profile.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div>

The rating of many of the feature’s values towards the higher end of the spectrum establishes Puponga Point as a landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, legibility and rarity of the attributes and values present favours an outstanding classification.

Detailed mapping of ONF 21: Puponga Point to be inserted



DRAFT FOR LANDOWNER CONSULTATION

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Best representative sequence in NW Nelson of strata deposited here between 65 and 25 million years ago (Paleocene to Oligocene).
- b. Fluvialite sandstone (Abel Head Sandstone) and conglomerate (Farewell Conglomerate), and fossil bearing glauconitic sediments disconformably overlying Pakawau Group (Farewell Formation). Exposed equivalents of the extensive subsurface strata in Taranaki Basin to the north.
- c. Oligocene fossil echinoids and molluscs (in greensand) and disconformity uncommon in Tasman District.

NZ Geopreservation Inventory Importance rating of Regional.

Landform/Geological Feature Type: D - Large exposure; E - Small exposure.

Particularly significant **ecological** attributes include:

- a. Mature coastal cliff vegetation and regenerating bush features.

Particularly significant **hydrological** attributes include:

- a. Highly dynamic seascape context that effectively surrounds the point.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive mid and longer-range views of the dramatic and highly sculptural sea stack, cliffs and intertidal platforms from settlement, the water and the Farewell Spit and Puponga Farm Park (DoC Reserve).

The distinctive and visually pleasing qualities of the prominent coastal landform with its lush bush and highly dynamic seascape setting make the area highly visually appealing and memorable. The visibility of the Puponga Point effectively as a standalone coastal landform from the scenic route of Collingwood Puponga Main Road and the walkways within Farewell Spit and Puponga Farm Park at a range of distances means that these qualities are elevated such that the landform feature reads as somewhat of a landmark framing the settlement of Puponga and demarcating ‘the end of the mainland coastline proper’.

The vivid contrast between the more natural bush fringed landforms and the immediate context characterised by the small settlement of Puponga and some pastoral farming contributes to this appeal and memorability.

The largely unmodified nature of the landform and vegetation cover together with their dramatic seascape context means that they rate as **high** in terms of naturalness.

The exposed nature of the cliff, intertidal platforms and sea stack landforms enables an appreciation of the landscape’s formative processes. The ease of public visibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the feature enhances these values.

The boundaries of ONF 21: Puponga Point corresponds to the point landform and intertidal rock platforms only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 21 TO BE PROTECTED FROM ADVERSE EFFECTS

- The cliff, intertidal platforms and sea stack landforms.
- The coastal bush features.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 21

- Earthworks.
- Indigenous vegetation removals.
- Exotic vegetation.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.

ONF 22: Rangihaeata Fossil Forest

GENERAL DESCRIPTION OF AREA

ONF 22: Rangihaeata Fossil Forest corresponds to a small exposure of fossil trees along the coastline to the north west of Rangihaeata Headland in Golden Bay.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of fossil forest means that it qualifies as a ‘feature’ rather than as a ‘landscape’..

QUALIFIES AS ‘NATURAL’?

The fossil feature is in a natural condition. Whilst the context of wider coastline is modified (includes rural residential development, pasture, exotic plantings), the naturalness of the feature is rated as **high**. The highly dynamic seascape and beach context adds to the sense of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the intactness and rarity of the fossil forest. The dynamic and unmodified beach and seascape context contribute to these values.

Sensory Attributes

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the feature, despite the broader modified context (including rural residential development, pasture and exotic vegetation).
- b. The **high aesthetic values** of the area as a consequence of: the engaging views of this unusual feature and the appreciation of such values afforded by the public accessibility of the area.
- c. The **high legibility and expressiveness values** due to the exposed nature of the fossil forest features and the appreciation of such values afforded by the public accessibility of the area.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

The rating of many of the feature’s values towards the higher end of the spectrum establishes the Rangihaeata Fossil Forest as a landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, naturalness, legibility and rarity of the attributes and values present favours an outstanding classification.



Detailed mapping of ONF 22: Rangihaeata Fossil Forest to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Prominent remnants of forest tree trunks and roots exhumed by coastal erosion, as a result of sea level rise.
- b. Root remains sticking up by as much as 1.5m. Includes the very base of some fossil tree trunks and the original ground level and soil that they grew in.
- c. The forest has recently been dated at 1500 years old, at which time sea level was the same as now or higher. Thus the forest provides strong evidence of slow subsidence of this part of Golden Bay by at least 5 cm per century.
- d. Well-exposed Quaternary fossil forests rare in Tasman and uncommon around New Zealand.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: E - Small Exposure.

Particularly significant **hydrological** attributes include:

- a. Highly dynamic seascape context.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Engaging short and mid-range views from the beach of the unusual fossil features sticking out of the beach.

Despite the rural residential and (largely) exotic vegetation broader terrestrial context, the unmodified character of the fossil forest itself and its immediate dynamic seascape and sandy beach context means that the naturalness of ONF 22 is rated as **high**.

The visibility of the fossil forest enables an appreciation of the landscape's formative processes. Considerable potential to explain how a fossil forest might be preserved and eroding here at high tide level. The ease of public accessibility of the area (via the sandy beach) serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Highly valued by the geological community. The accessibility of the feature enhances these values.

The boundaries of ONF 22: Rangihaeata Fossil Forest corresponds to the extent of the fossil forest only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 22 TO BE PROTECTED FROM ADVERSE EFFECTS

- The fossil forest features.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 22

- Earthworks / sand disturbance.
- Any built development (as a consequence of its location, scale and/or design), including: coastal erosion structures and signage.

ONF 23: Takaka Hill and Pikikiruna Range Cave Network

GENERAL DESCRIPTION OF AREA

ONF 23: Takaka Hill and Pikikiruna Range Cave Network relates to a series of caves that pepper Takaka Hill and Pikikiruna Range and includes dozens of named caves such as: Harwoods Hole/Starlight Cave, Ngarua Cave, Rawhiti Cave, and the whole network of subterranean drainage in these two large blocks of marble. The feature is located within ONL and straddles ONL 2 Parapara Kahurangi Ranges and ONL 4 Abel Tasman.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these caves (and subterranean drainage systems) means that they qualify collectively as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the caves themselves (excepting Ngarua Cave) are unmodified. Ngarua Cave is unmodified except for a commercial tourist walkway built through it.

High to very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the rarity and uniqueness of the cave formations.

Sensory Attributes

- a. The **high to very high naturalness values** associated with each cave due to its unmodified state (excepting a commercial walkway at Ngarua Cave). In many instances bush cover around cave entrances and/or over the cave serves to enhance the sense of naturalness.
- b. The **high to very high aesthetic and memorability values** of the feature as a consequence of the distinctive visual appearance of the speleothems and views afforded near the cave entry/exit points (Harwoods Hole/Starlight Cave and Ngarua Cave).
- c. The **high legibility and expressiveness values** due to the exposed nature of the cave formations. The ease of public accessibility of some of the caves serves to enhance these values (Ngarua Cave and Rawhiti Cave).

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **moderate-high to high recreational and scenic values** due to the accessibility and popularity of many of the cave features, especially to the recreational caving community.
- c. The **high to very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish the Takaka Hill and Pikikiruna Cave Network as an outstanding collective feature that stands apart from much of the balance of the district.

Rawhiti Cave



Detailed mapping of ONF 23: Takaka Hill and Pikikiruna Range Cave Network to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. **Harwoods Hole/Starlight Cave**
 - New Zealand’s deepest vertical shaft opening to the surface at 176 m deep on low side, 260 m on high side; spectacular speleothems including best and biggest gour pools in New Zealand.
 - Starlight Cave has some of best rimstone gour (pool capping a mound of flowstone).
 - NZ Geopreservation Inventory Importance rating of National.
 - Large vertical shafts like this one are rare in New Zealand.
 - An excellent example of a vertical shaft dissolved through marble. Fluting on surrounding surface is excellent example of karren.
 - Bush cover over cave.
- b. **Ngarua Cave**
 - Abandoned dry cave with ancient speleothems and passage of considerable age.
 - Old cave uplifted high above the water table uncommon in New Zealand.
- c. **North Takaka Hill Marble Caves and Canaan Block (subterranean drainage system)**
 - A large block of marble on the east side of Takaka Valley with mostly subterranean drainage and all flowing through caves and passages to the west and emerging as springs and resurgences in Takaka Valley. Numerous dolines lead to shafts and caves. A number of large caves are of high recreational value to the caving community and contain excellent examples of speleothems, and vertical shafts in marble. The named caves of great significance include Ed’s Cellar, Old Cottage and Ironstone.
 - Many large and small caves with deep vertical shafts and speleothems. Subterranean drainage feeds springs and further on into the Te Waikorupupu Springs.
 - Marble and marble cave and subterranean drainage systems are confined to NW Nelson in NZ and this is one of the four major blocks and one of only two to have eroded under forest cover.
 - Today the cave is partly under bush cover.
- d. **Rawhiti Cave**
 - A spectacular, massive gaping cave entrance in Arthur Marble, leading to a huge cavern studded with hundreds of slanting or hooked stalactites. The twilight-zone biokarst (“speleothem-like” deposits formed by a mixture of biotic and abiotic processes) on the stalactites grows towards the sunlight, causing the stalactites on the cave ceiling to be angled outwards towards the entrance. Also extraordinary large stalagmite bosses with strong biokarstic features and possibly even unusual old gour dams which may be biokarstic. The cave is a huge collapse structure with a steep scree slope from the entrance down to the back of the main chamber. Only a short distance into the hillside the cave becomes small. The collapse occurred during the 1929 Murchison earthquake. Prior to that event, the cave was a very extensive tourist cave. First discovered in 1908. Possibly best example in New Zealand of biokarst stalactites growing outwards from roof of cave entrance. One of largest cave entrances in NZ. Abandoned dry cave is one of oldest in NZ. Dense biokarst like this rare in New Zealand. Bush cover around cave.
- e. **Takaka Hill Marble Caves (and subterranean drainage system)**
 - A large block of marble underlying Takaka Hill and extending 12 km north to south with mostly subterranean drainage flowing through caves and passages to the east and south and emerging as springs and resurgences in Riwaka and Holyoake Valleys. Includes cave system with hydrological depth of c. 700 m. Deep vertical caves in marble. Numerous shafts, Middle Earth Cave

- (length 1.3 km, depth -284 m), Greenlink Cave (length 940 m, depth -394 m), Perseverance Cave (length c.3 km, depth -315 m), Riwaka Cave is resurgence cave at head of Riwaka North Branch. It is about 1.5 km long, entered by passing through 2 sumps.
- Best and most intensely developed marble karst that formed under forest in NZ. Includes extensive subterranean drainage. NZ Geopreservation Inventory Importance rating of National.
- Marble and marble karst are rare in New Zealand, only occurring in NW Nelson and minor pods elsewhere. One of the deepest cave systems in New Zealand (Greenlink -394 m).

Landform/Geological Feature Type: F Cave.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. **Harwoods Hole/Starlight Cave**
 - Highly attractive and memorable due to visibility of speleothems.
 - Excellent (publicly accessible) view over Takaka Valley from clifftop above Hole.
- b. **Ngarua Cave**
 - Publicly accessible (tourist attraction) speleothems of considerable aesthetic beauty.
- c. **North Takaka Hill Marble Caves and Canaan Block (subterranean drainage system)**
 - Cave decorations of high aesthetic value.
- d. **Rawhiti Cave**
 - Very high aesthetic and memorability values due to the spectacular entrance, mass of angled stalactites.
- e. **Takaka Hill Marble Caves (and subterranean drainage system)**
 - High aesthetic values of speleothems in caves.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Particularly significant other **associative attributes** include:

- a. **Harwoods Hole/Starlight Cave**
 - Very popular walk to the top and viewpoint over valley from above the hole. Popular for recreational caving.
- b. **Ngarua Cave**
 - Popular commercial tourist attraction.
- c. **North Takaka Hill Marble Caves and Canaan Block (subterranean drainage system)**
 - Popular for recreational caving.

The boundaries of ONF 23: Takaka Hill and Pikikiruna Range Cave Network corresponds to the subterranean drainage network beneath the mapped area and also the area within 10 m of all cave entrances.

KEY CHARACTERISTICS AND QUALITIES OF ONF 23 TO BE PROTECTED FROM ADVERSE EFFECTS

- The caves, their speleothems and their entrances.
- The underground drainage network.
- The immediate regenerating bush setting around each cave (where evident).
- The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 23

- Earthworks near cave entrances, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development associated with each cave and /or in the vicinity of a cave entrance (as a consequence of its location, scale and/ or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation including production forestry planting and harvesting.
- Activities that result in soil being washed into cracks and caves during rain.

Ngarua Cave



ONF 24: Takaka Hill Marble Karst

GENERAL DESCRIPTION OF AREA

ONF 24: Takaka Hill Marble Karst relates to an extensive area of low relief karst on either side of State Highway 60 (SH60) at the top of Takaka Hill. The feature is located within ONL and straddles ONL 2 Parapara Kahurangi Ranges and ONL 4 Abel Tasman.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the karst means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The karst features themselves are unmodified. The context within which they are set comprises a mix of regenerating bush cover and pasture. The state highway through the area, quarry, some block removal and scattering of houses and farm buildings, local roads and walking tracks also influences the perception of naturalness.

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the rarity and uniqueness of the marble karst formations in New Zealand.</div>
Sensory Attributes
<div>a. The moderate-high naturalness values associated with the karst formations due to their generally unmodified state (acknowledging that their context has been modified by houses, quarrying, tracks, pastoral cover and roading infrastructure).</div> <div>b. The high aesthetic and memorability values of the feature as a consequence of its distinctive and memorable visual appearance.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the karst formations in particular. The public accessibility and / or visibility of the area serves to enhance these values.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high recreational and scenic values due to the popularity of the tourist walking track accessed from SH60.</div> <div>c. The high to very high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div>
These various highly rated attributes and values come together to firmly establish the Takaka Hill Karst as an outstanding feature that stands apart from much of the balance of the district.



Detailed mapping of ONF 24: Takaka Hill Marble Karst to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Uplifted low relief marble karst that formed under forest cover, with superb karren and numerous sinkholes and dry valleys along top of Takaka Hill range close to the Takaka Hill Rd and Canaan Rd. Contrasts with Mt Arthur and Mt Owen marble karst that developed in alpine environments.
- b. Road exposures provide accessible examples of typical coarse-grained blue-grey to cream Arthur Marble.
- c. Most accessible and easily appreciated example of surface marble karst in New Zealand.
- d. Best and most intensely developed marble karst that formed under forest in NZ.
- e. Marble and marble karst are rare in New Zealand, only occurring in NW Nelson and minor pods elsewhere.
- f. Numerous sinkholes and caves coincide with the area.

NZ Geopreservation Inventory Importance rating of National.

Landform/Geological Feature Type: B Large Landform.

Subalpine scrub and beech forest in places.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Highly attractive close, mid and long-range views from SH 60, local roads and walking tracks.

The proliferation of distinctive, weather sculpted landforms make the area highly visually appealing and memorable. The somewhat abandoned feeling of the area encouraged by the limited habitation and patches of scrub adds a sense of mystery.

The visibility of the area at the 'gateway' to Golden Bay serves to enhance its landmark quality.

The landforms themselves are generally relatively unmodified; however, quarrying, block removal and pastoral cover together with the presence of the highway running through the centre of the feature, scattered houses and farm buildings, local roads and walking tracks serves to moderate the overall naturalness of the feature such that it rates as **moderate-high**.

The exposed nature of the karst landforms enables an appreciation of the landscape's formative processes. The public visibility of the area (via the highway, local roads and walking tracks) serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Kairuru Marble from Kairuru Quarry used to build many historic NZ buildings - e.g. Parliament.

Lord of the Rings film location.

A QEII covenant applies to much of the identified ONF south of the highway.

High shared and recognised values associated with the popular walking track through the QEII Covenanted area on the south side of SH60.

Highly valued by the geological community. The accessibility of the feature enhances these values.

The boundaries of ONF 24: Takaka Hill Marble Karst corresponds to the 'footprint' of the best example and most easily viewed karst area on the crest of Takaka Hill road.

KEY CHARACTERISTICS AND QUALITIES OF ONF 24 TO BE PROTECTED FROM ADVERSE EFFECTS

- The marble karst landform features.
- The sinkholes and caves.
- The indigenous vegetation communities.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 24

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, infrastructure, signage, tracks, seating, parking areas.
- Exotic vegetation, including production forestry.

ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel

GENERAL DESCRIPTION OF AREA

ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel corresponds to the limestone cliffs and pinnacles along the coast road between Pöhara and Ligar Bay. The ONF comprises three discrete sections of coastal cliff to the west and east of the Tarakohe Quarry and includes the northern bush clad faces of Hanson Winter Reserve.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the Tarakohe Coastal Cliffs and Natural Tunnel means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Despite the (in places) highly modified context of the coastal cliffs and natural tunnel (which includes a reasonably busy road, exotic weeds, a functioning port and a quarry tucked in behind the coastal cliffs), the largely unmodified nature of the landforms themselves together with their dramatic scale means that they rate as **moderate-high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the scale, rarity and visibility of the limestone formations set within a native bush and coastal setting.</div>
Sensory Attributes
<div>a. The moderate-high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite its modified context (including a working port, operating quarry), the road that passes through the ONF, and weeds.</div> <div>b. The high aesthetic, scenic, and memorability values of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush bush and dynamic seascape context; the visibility of the area from the popular scenic route of Abel Tasman Drive which serves to confer a landmark quality to the area.</div> <div>c. The very high legibility and expressiveness values due to the exposed nature of the landforms and their high public profile.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high shared and recognised values associated with the Tarakohe coastal cliffs and natural tunnel.</div> <div>c. The high recreational and scenic values associated with the area including the use of the pinnacles by the recreational climbing community.</div>

These various highly rated attributes and values come together to firmly establish the Tarakohe Coastal Cliffs and Natural Tunnel as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.



Detailed mapping of ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Impressive cliffs and pinnacles along coast road.
- b. Two have fallen together during the 1929 Murchison Earthquake to form a spectacular natural tunnel through which the road passes, making them possibly the most easily accessible and visible natural limestone tunnel in the country.

Coastal karst uncommon in New Zealand.

NZ Geopreservation Inventory Importance rating of Regional.

Landform/Geological Feature Type: B Small Landform

Particularly significant **ecological** attributes include:

- a. Mature bush context to the cliffs, including northern rātā, punga and nikau.
- b. Little Blue Penguin, spotted shag, white fronted heron and seal habitat.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Dramatic close, mid-range and longer-range views of the highly sculptural limestone cliffs set within a bush and coastal context.
- b. Highly memorable and engaging close and mid-range views of the natural tunnel over the road set within a bush and coastal context.

The scale and sculptural qualities of the limestone formations and tunnel juxtaposed with the lush bush and highly dynamic seascape setting make the area highly visually appealing and memorable. The visibility of the cliffs and tunnel from the popular route of Abel Tasman Drive at a range of distances means that these qualities are elevated such that the area reads as somewhat of a landmark.

The vivid contrast between the more natural bush fringed landforms and the surrounding working port, quarry and the reasonably busy coastal road contributes to this appeal and memorability.

The largely unmodified nature of the landforms themselves together with their dramatic scale means that they rate as **moderate-high** in terms of naturalness. This is despite the markedly modified context of the features, which includes a working port, road corridor (that runs through the ONF), exotic weeds and a working quarry. The relatively visually discreet nature of the quarrying activity in views from the road within the ONF means that it has a relatively limited influence on the character of ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel.

The tunnel formations reinforce the impression of the cliffs forming a gateway between the Takaka Valley and ‘Abel Tasman’ portion of the district.

The exposed nature of the cliff and natural tunnel landforms enables an appreciation of the landscape’s formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status of the eastern coastal headland within ONF 25, the popularity of the area as driving route and scenic destination enjoyed by visitors and locals alike, and the findings of the Small Working Group project.

Popular rock climbing location.

The extent of ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel corresponds to the steep bush-clad hill slopes and cliffs on the south side of Abel Tasman Drive extending between Pohara Valley Road and the far western end of Ligar Bay. The ONF extends northwards over Abel Tasman Drive to MHWS (where it adjoins ONL 3 Golden Bay-Mohua Coastal Marine).

KEY CHARACTERISTICS AND QUALITIES OF ONF 25 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations, including the coastal cliffs and natural tunnel.
- The bush setting.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 25

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Exotic vegetation.
- Infrastructure on the cliffs and elevated slopes (e.g. cell phone towers, large signage).



DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

ONF 26: Te Waikoropupū Springs

GENERAL DESCRIPTION OF AREA

ONF 26: Te Waikoropupū Springs relates to the Te Waikoropupū freshwater springs in the lower Takaka Valley, approximately 6km west of Takaka township.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the springs means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Whilst modification is evident at the springs, the generally relatively low key and modest scale and character of this modification means that it remains subservient to the more natural landscape features, patterns and processes.

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the scale, complexity and uniqueness of the karst springs and the spectacular clarity of the water.

Sensory Attributes

- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the Springs area itself despite a degree of modification comprising the visitor facilities, including carpark, interpretation signage, toilets, walking track and viewing platforms together with the wider more working rural landscape setting.
- b. The **very high aesthetic and memorability values** of the area as a consequence of: the highly attractive views of the shimmering and iridescent waters of the spring pool and streams set within a reasonably natural bush setting.
- c. The **very high legibility and expressiveness values** due to the awareness of subterranean karst landscape formative processes that the springs enable and which are not normally legible.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **very high shared and recognised values** associated with the springs.
- c. The **very high recreational and scenic values** associated with the springs.
- d. The **very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish Te Waikoropupū Springs as a truly outstanding and spectacular landscape feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 26: Te Waikoropupū Springs to be inserted



DRAFT FOR LANDOWNER CONSULTATION

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. A complex spring with several vents. The water arises from the largest karst aquifer in New Zealand in alluvial gravels in the floor of Takaka Valley after sinking out of the Takaka riverbed. The springs are tidal, slightly saline and artesian in character. Yields 14 cubic metres of water per second.
- b. Noted for the exceptional clarity of the water (63 metres). The spring water is amongst the optically clearest ever measured.
- c. System is unusual in its complexity.
- d. The best example of a karst spring in New Zealand and largest karst spring in the Southern Hemisphere.

NZ Geopreservation Inventory Importance rating of International - among world's most scientifically important springs.

Landform/Geological Feature Type: C Natural System.

Particularly significant **ecological** attributes include:

- a. Regenerating bush context to much of the area.



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Close and mid-range views of the crystal clear, iridescent and bubbling waters of the spring pool set within a bush context.
- b. Close and mid-range views of the shallow, boulder-strewn shimmering streams draining from the pool, all set within a bush context.

A degree of modification is evident at the Te Waikoropupū and includes: the visitor facilities including carpark, interpretation signage, toilets, walking track and viewing platforms. The relatively modest scale and character of these structures, together with their role in enabling an appreciation and understanding of the more natural feature, means that they do not appreciably detract from the sense of naturalness associated with the springs. Vegetation in and around the springs comprises regenerating bush signalling the historic clearance of the area. The limited stature of much of this vegetation and/or the absence of vegetation to some of the spring area 'boundaries' enables a keen awareness of the considerably more modified pastoral, rural industry (salmon farming) and production forestry context. This modified context has an influence on the character of Te Waikoropupū Springs such that naturalness is rated at **moderate-high**.

The regenerating bush setting is of importance in limiting the influence of the wider, more working rural landscape context on the character of the springs. Where the bush cover is comprehensive, there is an air of peacefulness and tranquillity.

The quite unique, kaleidoscopic and dynamic appearance of the springs set within bush makes this a highly memorable feature. The striking clarity of the water adds to this impression.

The springs attest to the natural subterranean karst systems that are common in the area but that are not generally visible or otherwise apparent.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

The springs are very significant to Maori. Considered a taonga, wahi tapu and waiora. The latter signifies the purest form of water as wairua – the spiritual and physical source of life. It is the home of Huriawa, the female taniwha or spiritual guardian who is one of three main taniwha inhabiting Aotearoa. *(Sourced from Andrew Craig's Report)*

- a. *To be confirmed*

Touching the water is forbidden to respect cultural values and safeguard water quality.

Very high shared and recognised values as evidenced by the descriptions of the area in tourism publications, the popularity of the area as an inspiration/subject for art and photography, and the findings of the Small Working Group project.

Highly popular recreational destination. Well-formed and maintained loop track in DoC Reserve with comprehensive interpretation panels explaining the geological and cultural values of the feature, formed lookouts and carparking.

Very highly valued by the geological community. The accessibility of the feature enhances these values.

The boundaries of ONF 26: Te Waikoropupū Springs correspond to the extent of the DoC Reserve in the area and contiguous areas of mature bush.

KEY CHARACTERISTICS AND QUALITIES OF ONF 26 TO BE PROTECTED FROM ADVERSE EFFECTS

- The waters of the springs and streams.
- The regenerating bush setting that serves to enclose the springs in many places.
- The highly attractive views of the shimmering and iridescent waters of the spring pool and streams set within a bush setting.
- The low-key and modest built development character (including infrastructure).
- A sense of peacefulness and tranquillity.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 26

- Largescale earthworks, quarrying and/or mining.
- Indigenous vegetation removals and particularly where they open up views to the surrounding area.
- Large-scale tourism facilities.
- Enabling people to touch the water.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: earthworks, access tracks, buildings, infrastructure, signage, lighting and fencing.
- Exotic vegetation.



ONF 27: The Grove

GENERAL DESCRIPTION OF AREA

ONF 27: The Grove corresponds to an area of relatively intact karst formations and mature bush at the northern end of the much larger 'hogsback' karst formation, south east of Clifton. The feature is located at the juncture of the valley floor and the Pikikiruna Range and is flanked by pastureland on its northern and western sides.

QUALIFIES AS 'FEATURE'?

The relatively confined physical extent of The Grove means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS 'NATURAL'?

The area is in mature bush cover. The generally unmodified character of the landform and vegetation (excepting walking tracks, signage) means that the naturalness of the area is rated as **high**.

QUALIFIES AS 'OUTSTANDING'?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high biophysical values due to the scale, complexity and diversity of the limestone formations within a native forest setting.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of natural landscape features, patterns and processes within The Grove area. This is despite the walking track signage, and lookout. The enclosed vegetated character of the area plays an important role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within The Grove.</div> <div>b. The high aesthetic and memorability values of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush and seemingly prehistoric bush context; the attractive and striking elevated views afforded out over the Takaka Valley; and the visual impression of the area as a more 'natural' landscape feature within the pastoral lowlands of the Takaka Valley.</div> <div>c. The high legibility and expressiveness values due to the exposed nature of the landforms.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high shared and recognised values associated with The Grove.</div> <div>c. The high recreational and scenic values associated with The Grove.</div>

These various highly rated attributes and values come together to firmly establish The Grove as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.



Detailed mapping of ONF 27: The Grove to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- d. Grikes (fissures formed by solution of vertical joint sets).
- e. Clints (blocks isolated by grikes).
- a. Stream sinks developed in Takaka Limestone.

Excellent example of karst developed in Oligocene Limestone.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Substantial stands of northern rātā with a nikau palm understorey.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Close and mid-range views of the numerous fissures, blocks and pillar limestone formations seen within a lush and seemingly prehistoric native forest setting.
- b. Close and mid-range views of the tangle of tentacle-like northern rātā roots that envelop the limestone faces.
- c. Striking elevated and framed views from within the limestone rockface out over the Takaka Valley, and on a clear day, to Farewell Spit/Onetahua.
- d. Longer range views from the low-lying land to the north and west of the area as distinctive bush enshrouded feature that forms a marked contrast with the pastoral foreground.

The scale and sculptural qualities of the limestone formations and prehistoric forest character make the area highly visually appealing and memorable. The vivid contrast between the enclosed character of the bush covered landforms and the surrounding, more open, working rural landscape contributes to this appeal and memorability.

The vegetative enclosure serves to heighten the experience of the area as a 'natural' landscape feature, set apart from the more modified lower Takaka valley context. The very limited level of modification (walking tracks and limited signage) is such that naturalness is rated as **high**.

The visually discreet nature of the limestone formations in views from outside the area amplifies their experiential impact when encountered within The Grove.

The exposed nature of the landforms enables an appreciation of the landscape's formative processes.

Within the Grove, the high degree of enclosure afforded by the bush cover contributes a sense of peacefulness and tranquillity. The tentacle-like roots of the northern rātā trees contribute an eerie atmosphere.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status, the popularity of the area as a walking route enjoyed by visitors and locals alike, and the findings of the Small Working Group project.

Picnic facilities and carpark nearby support the use of the area for recreational purposes.

The boundaries of ONF 27: The Grove 'capture' the extent of the DoC Reserve and extend onto adjoining private farmland where there is contiguous bush cover that reads as part of The Grove bush cover. Sinkholes are also present on some of the private land.

KEY CHARACTERISTICS AND QUALITIES OF ONF 27 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations.
- The bush setting.
- The low-key and modest built development character (including signage and the visitor facilities adjacent The Grove).
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 27

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation.

ONF 28: Thousand Acres Plateau

GENERAL DESCRIPTION OF AREA

ONF 29: Thousand Acres Plateau relates to an uplifted plateau on the Matiri Range, north of Murchison. The landform feature is located within ONL 2 Parapara-Kahurangi Ranges.

QUALIFIES AS ‘FEATURE’?

The well-defined physical extent of the plateau means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the area is unmodified including the landforms and the alpine / subalpine vegetation communities.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the rarity and uniqueness of the extensive limestone plateau surrounded by high cliffs in New Zealand.

Sensory Attributes

- a. The **very high naturalness values** associated with the limestone plateau.
- b. The **high aesthetic and memorability values** of the feature as a consequence of its distinctive and memorable visual appearance.
- c. The **high legibility and expressiveness values** due to the exposed nature of the limestone plateau. The public visibility of the area (via hiking track and scenic flight route) serves to enhance these values.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high recreational and scenic values** due to the popularity of the feature on a hiking track/scenic flight route.

These various highly rated attributes and values come together to firmly establish the Thousand Acres Plateau as an outstanding feature that stands apart from much of the balance of the district.



Photograph source: <https://tramper.nz/3358/thousand-acres-plateau/>

Detailed mapping of ONF 28: Thousand Acres Plateau to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Extensive plateau developed on top of erosion-resistant Oligocene Limestone uplifted by Late Cenozoic tectonism.
- b. Limestone bluffs.
- c. The amazing Hole-in-the-Wall waterfall which flows out of a cave opening in one of the limestone bluffs after heavy rain is unique in New Zealand.

Best example in New Zealand of an uplifted plateau surrounded by high limestone bluffs. Large uplifted plateau like this uncommon in New Zealand.

Landform/Geological Feature Type: B Large Landform.

Particularly significant **ecological** attributes include:

- a. Intact alpine and subalpine vegetation communities.

The boundaries of ONF 29: Thousand Acres Plateau corresponds to the 'footprint' of the uplifted plateau landform.

KEY CHARACTERISTICS AND QUALITIES OF ONF 28 TO BE PROTECTED FROM ADVERSE EFFECTS

- The uplifted plateau and limestone bluffs.
- The alpine and subalpine vegetation communities.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 28

- Earthworks, mining and/or quarrying.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, infrastructure, signage and recreation/tourism development.
- Exotic vegetation.

Photograph source:
<https://www.doc.govt.nz/parks-and-recreation/places-to-go/nelson-tasman/places/kahurangi-national-park/things-to-do/tracks/matiri-valley-and-1000-acre-plateau-tramping-tracks/>



SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Dramatic and striking views from the air of flat-topped mountain and limestone bluffs set within expansive national park context.
- b. Distinctive views of sculpted bluffs and flat-top ridge from walking tracks set within expansive national park context.

The distinctive and dramatic landforms (and vegetation) make the area highly visually appealing and memorable.

The largely unmodified nature of the landform and vegetation cover and the relative isolation of the area within which it is set means that the feature rates as **very high** in terms of naturalness.

The exposed nature of the plateau enables an appreciation of the landscape's formative processes. The public visibility of the area (via hiking track and scenic flight route) serves to enhance these values.

There is a very high sense of remoteness and wildness due to the isolated location of the feature (accessible by hiking track only).

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

High recreational and scenic values as located on hiking track/scenic flight route.

ONF 29: Tokangawha/Split Apple Rock

GENERAL DESCRIPTION OF AREA

ONF 29: Tokangawha/Split Apple Rock corresponds to the spectacular granite boulder that is split in two, near Tokongawha Point, just south of Mārahau.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the split boulder feature means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The boulder feature is unmodified and naturalness is rated as **very high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the intactness, rarity and ease of visibility of the split boulder landform.

Sensory Attributes

- a. The **very high naturalness values** arising from the unmodified nature of the feature.
- b. The **very high aesthetic, scenic, and memorability values** of the area as a consequence of: the highly engaging and appealing views of the boulder feature set within a dynamic seascape context.
- c. The **very high legibility and expressiveness values** due to the exposed nature of the boulder and its high public profile.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **very high shared and recognised values** associated with Split Apple Rock.
- c. The **very high recreational and scenic values** associated with the area.

These various highly rated attributes and values come together to firmly establish Split Apple Rock as an outstanding and spectacular landform feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 29: Tokangawha/Split Apple Rock to be inserted

Tokangawha/ Split Apple Rock
Source: reddit.com [r/Damnthatinteresting](#)



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. A spectacular large granite boulder split in two resembling a 'split apple' sitting in the water.

Large round corestone boulders that have cracked into two halves are uncommon in New Zealand.

Landform/Geological Feature Type: B Small Landform.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. Striking and memorable close, mid-range and longer-range views of the split apple rock formation from the water and coastline.

The distinctive visual appearance of the feature makes it a well-known local landmark and visitor destination. The unmodified and highly dynamic seascape flanking the boulders enhances the aesthetic, scenic and memorability values of the feature.

The very high popularity of the local area as a holiday destination in its own right (dwellings scattered along nearby bush-clad coastal cliffs and slopes) and the popularity of this stretch of water as an access route to Abel Tasman National Park serves to heighten the scenic importance of Split Apple Rock.

The unmodified nature of the split boulder means that it rates as **very high** in terms of naturalness.

The exposed nature of the split boulder enables an appreciation of the landscape's formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Very high shared and recognised values as evidenced by the descriptions of split apple rock in tourism publications and the popularity of the area as a scenic destination enjoyed by visitors and locals alike.

Popular scenic and recreation destination.

The extent of ONF 29: Tokangawha/Split Apple Rock corresponds to the boulder landform.

KEY CHARACTERISTICS AND QUALITIES OF ONF 29 TO BE PROTECTED FROM ADVERSE EFFECTS

- The boulder feature.
- The uncluttered waters around the boulder feature.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 29

- Disturbance of the boulders.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: water based infrastructure, signage, aquaculture and recreation/tourism development.

ONF 30: Trilobite Rock

GENERAL DESCRIPTION OF AREA

ONF 30: Trilobite Rock in Cobb Valley corresponds to a small outcrop of a lens of limestone containing the oldest fossils in New Zealand. The feature is located within ONL 2 Parapara-Kahurangi Ranges.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the rocky outcrop means that it qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The feature is in a natural condition excepting some historic collecting damage. The wider mountainous valley context is generally unmodified excepting for a gravel accessway.

Naturalness of the feature is rated as **High**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The very high biophysical values due to the intactness, geoscience importance and rarity of the fossils.</div>
Sensory Attributes
<div>a. The high naturalness values arising from the dominance of natural landscape features, patterns and processes associated with the feature. The very limited modification of the immediate area (limited to a gravel accessway) serves to enhance these values.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The very high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.</div>

The rating of many of the feature’s values towards the higher end of the spectrum establishes Trilobite Rock as a feature that stands apart from much of the balance of the district. Whilst the range of attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, naturalness, geoscience importance and rarity of the attributes and values present favours an outstanding classification.



Detailed mapping of ONF 30: Trilobite Rock to be inserted

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. A limestone lens within the Tasman Formation of middle Cambrian age. Contains 16 species of trilobites, as well as common brachiopods, micromolluscs and conodonts.
- b. Contains oldest known fossils in New Zealand. Richest middle Cambrian fossil locality in New Zealand. Site of first Cambrian fossils and first trilobites found in New Zealand.
- c. Cambrian trilobite fossil localities rare in New Zealand.

Geopreservation Inventory Category A (International Significance).

Landform/Geological Feature Type: E - Small Exposure.

Particularly significant **ecological** attributes include:

- a. Regenerating vegetation.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The largely unmodified character of the fossil feature itself and its largely unmodified context (excepting a gravel accessway) means that the naturalness of ONF 30: Trilobite Rock is rated as **high**.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Very highly valued by the geological community.

High geohistorical value as site of first trilobite fossils found in New Zealand and first definite recognition of the Cambrian Epoch in New Zealand. Found by schoolboy Malcolm Simpson in 1948 and published by Prof Benson.

The boundaries of ONF 30: Trilobite Rock corresponds to the extent of the rocky limestone lens feature only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 30 TO BE PROTECTED FROM ADVERSE EFFECTS

- The fossil features.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 30

- Earthworks, quarrying and/or mining.
- Any built development including: expanded accessways, tracks, infrastructure and buildings as a consequence of its location, scale and/or design.

ONF 31: Wairoa River Coal Measures and Dinosaur Footprint

GENERAL DESCRIPTION OF AREA

ONF 31: Wairoa River Coal Measures and Dinosaur Footprint along the shoreline of the Whanganui Inlet adjacent Dry Road and roughly opposite Rakopi. The feature is located within ONL 1 Northwest Coast.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of fossil exposure means that it qualifies as a 'feature' rather than as a 'landscape'.

QUALIFIES AS ‘NATURAL’?

The feature is in a natural condition although the immediate context is modified by the metal road and causeway.

Naturalness of the feature is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the intactness, geoscience importance and rarity of the features.

Sensory Attributes

- a. The **high naturalness values** arising from the very limited modification of the immediate area (limited to a gravel road and causeway).

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **high to very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

The rating of many of the feature’s values towards the higher end of the spectrum establishes Wairoa River Coal Measures and Dinosaur Footprint as a feature that stands apart from much of the balance of the district. Whilst the range of attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, naturalness, geoscience importance and rarity of the attributes and values present favours an outstanding classification.

Detailed mapping of ONF 31: Wairoa River Coal Measures and Dinosaur Footprint to be inserted



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Most easily accessible exposures of late Cretaceous coal measure sequence and intertidal strata.
- b. Most easily accessible examples of dinosaur footprints in New Zealand. Well preserved in natural state, although only visible at this locality in cross-sectional view.
- c. Dinosaur footprints only known in New Zealand from these rocks in several places around Whanganui Inlet.

Geopreservation Inventory Category B (National Significance).

Landform/Geological Feature Type: E - Small Exposure.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The largely unmodified character of the feature itself and its largely unmodified context (excepting the nearby gravel road and causeway) means that the naturalness of ONF 31 is rated as **high**.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Very highly valued by the geological community. The accessibility of the features enhances these values.

The boundaries of ONF 31: Wairoa River Coal Measures and Dinosaur Footprint corresponds to the extent of the sedimentary rock exposures only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 31 TO BE PROTECTED FROM ADVERSE EFFECTS

- The biophysical features described above.
- The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 31

- Earthworks, quarrying and/or mining.
- Any built development (as a consequence of its location, scale and/or design), including: roading, infrastructure, erosion protection works, signage and buildings.

ONF 32: West Coast and Aorere Valley Caves

GENERAL DESCRIPTION OF AREA

ONF 32: West Coast and Aorere Valley Caves relates to a series of limestone caves scattered throughout Golden Bay and includes: Paturau Cave, Baby Grand Cave, Tunnel Cave, Twin Forks Cave, Wet Neck Cave, Aorere Cave and Te Anaroa/Rebecca Cave.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these limestone caves means that they qualify collectively as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the caves themselves are unmodified.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes

- a. The **very high biophysical values** due to the rarity and uniqueness of the limestone cave formations.

Sensory Attributes

- a. The **very high naturalness values** associated with each limestone cave due to its unmodified state (excepting a minor degree of damage in Te Anaroa/Rebecca Cave). In many instances bush cover around cave entrances and/or over the cave serves to enhance the sense of naturalness.
- b. The **high to very high aesthetic and memorability values** of the feature as a consequence of the distinctive visual appearance of the speleothems, stalactites, cave entrances and straws.
- c. The **high legibility and expressiveness values** due to the exposed nature of the limestone formations. The public accessibility of some of the limestone caves serves to enhance these values.

Associative Attributes

- a. *Cultural landscape values rating and description TBC*
- b. The **moderate-high to high recreational and scenic values** due to the accessibility and popularity of many of the cave features.
- c. The **high geoscience values** of the features as a consequence of the regard with which they are held in by the geological community arising from the geoscience values and the accessibility of parts of the area.

These various highly rated attributes and values come together to firmly establish these caves throughout the west coast of Golden Bay and Aorere as outstanding and a collective feature that stands apart from much of the balance of the district.

Detailed mapping of ONF 32: West Coast and Aorere Valley Caves to be inserted

Te Anaroa Cave



BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. **Baby Grand Cave**
- Large dry cavern at upper end dropping down into a narrow, wet stream passage that exits under coastal terrace. Contains probable estuarine mud deposits. This is an old (~400,000 years) uplifted cave (60 m above sea level) that formed during lower sea levels and has been invaded by the sea during interglacial period. Numerous speleothems. Old caves that have been invaded by the sea and later uplifted are rare in New Zealand. Pastoral farmland over cave.
- b. **Tunnel Cave**
- Ridge of limestone with numerous highly decorated caves including spectacular Tunnel Cave. Largest collapsed calcite column in New Zealand. Spectacular arched entrance to Tunnel Cave and speleothems. Small area with many highly decorated caves uncommon in New Zealand. Bush cover over cave.
- c. **Twin Forks Cave**
- Stream passages with numerous branches like a valley. Good example of a dendritic cave. Some spectacular speleothems. Mix of pasture and bush cover over cave.
- d. **Wet Neck Cave**
- Old cave (~1 million years old) In Oligocene limestone that has been invaded by the sea leaving marine gravels and shell deposits. Contains reversely magnetised speleothems (older than 780,000 years). One of New Zealand's oldest caves. Only known cave containing marine gravel and marine shells deposited when invaded by the sea. Caves containing subsequent marine sediment and shells rare in New Zealand. Excellent example of once drowned and later uplifted cave. Bush cover over cave.
- e. **Aorere Caves**
- Four to five caves dissolved out of Oligocene limestone sitting directly on the New Zealand Unconformity. Good examples of stalactites, stalagmites and flow stone in the caves and moa bone deposits. 4-5 caves under this hill, many of historic interest – visited by Haast in 1859. Includes Ballroom, Stafford, Hochstetter and Moa Bone caves. Good examples of small limestone caves with speleothems. Good exposures in the caves of the Great New Zealand Unconformity where the limestone or conglomerate overlies the Aorere Peneplain. Small publicly accessible limestone caves in reserve land are uncommon in New Zealand. Bush cover over caves.
- f. **Te Anaroa/Rebecca Cave**
- Through stream cave (Rebecca is submergence cave, Te Anaroa is high level fossil resurgence cave, present resurgence is a spring), in Oligocene limestone. Te Anaroa is 350 m long and comprises a two-level cave system. Somewhat a maze of passages in the middle between the two caves that are linked. Glow-worms in Rebecca Cave. Dry abandoned passage and wet stream passage. Bush cover around cave.

Landform/Geological Feature Type: F Cave.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

Particularly significant **vistas** include:

- a. **Baby Grand Cave**
- Highly attractive and memorable due to visibility of speleothems.
- b. **Tunnel Cave**
- Very high aesthetic and memorability values due to the spectacular speleothems.
- c. **Twin Forks Cave**
- Highly attractive and memorable due to visibility of diverse speleothems.
- d. **Wet Neck Cave**
- Highly attractive and memorable due to visibility of speleothems and marine deposits in remote location.
- e. **Aorere Cave**
- Highly attractive and memorable due to visibility of diverse speleothems.
- f. **Te Anaroa/Rebecca Cave**
- Some exquisite straws and curtain speleothems confer high aesthetic and memorability values. Some damage evident in places. Natural entrance not developed for tourism gives slight wilderness feel.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly high **cultural values** associated with:

- a. *To be confirmed*

Particularly significant **associative attributes** include:

- a. **Baby Grand Cave**
- Popular for recreational caving.
- b. **Tunnel Cave**
- Popular for recreational caving.
- c. **Twin Forks Cave**
- Used for recreational caving.
- d. **Aorere Cave**
- Popular recreational destination for locals and visitors alike.
- e. **Te Anaroa/Rebecca Cave**

Used for guided tours as close to roads.

Highly valued by the geological community. The accessibility of some of the features enhances these values.

The boundaries of ONF 32: West Coast and Aorere Valley Caves corresponds to the 'footprint' of each cave.

KEY CHARACTERISTICS AND QUALITIES OF ONF 32 TO BE PROTECTED FROM ADVERSE EFFECTS

- The caves, their speleothems and their entrances.
- The immediate regenerating bush setting around each cave (where evident).
- The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 32

- Earthworks close to any of the cave entrances, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development associated with each cave and /or in the vicinity of a cave entrance (as a consequence of its location, scale and/ or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation planting or harvesting.

DRAFT FOR LANDOWNER CONSULTATION TASMAN DISTRICT LANDSCAPE STUDY

ONF 33: White Creek Fault Displaced Terraces

GENERAL DESCRIPTION OF AREA

ONF 33: White Creek Fault Displaced Terraces corresponds to the remnants of a fault scarp that was created by the 1929 Murchison Earthquake. Located in a Scientific Reserve within the Buller Gorge Swingbridge Adventure and Heritage Park on SH 6 west of Murchison and also alongside the main highway on the opposite side of the Buller River. The southern portion of the feature is located within ONL 6 Nelson Lakes – Southwestern Ranges. The northern portion of the feature is located within ONL 2 Parapara-Kahurangi Ranges.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the fault scarp means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

A varying degree of naturalness across the remaining scarp area with a mix of scrub, pasture and regenerating bush cover. Parts of the scarp have been removed to reopen the main highway. Overall the area rates as **moderate-high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

Generally the feature qualifies in terms of outstanding-ness as a consequence of the attributes and values described in the more detailed tables that follow and which can be summarised as follows:

Biophysical Attributes
<div>a. The high biophysical values due to the scale, rarity, legibility and ease of visibility of the scarp landform.</div>
Sensory Attributes
<div>a. The moderate-high naturalness values arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the modification to the scarp to allow for the road to be reopened and the fragmented and, in places, exotic vegetation cover.</div>
Associative Attributes
<div>a. <i>Cultural landscape values rating and description TBC</i></div> <div>b. The high legibility and expressiveness values.</div> <div>c. The high historic values associated with the area.</div> <div>d. The high recreational values of the area (as part of an adventure and heritage park).</div>

These various highly rated attributes and values come together to firmly establish White Creek Fault Displaced Terraces and Road as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district. Whilst the range of landscape attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the rarity, accessibility, historic importance and recreational attributes and values present favours an outstanding classification.

White Creek fault scarp 1938



Detailed mapping of ONF 33: White Creek Fault Displaced Terraces to be inserted

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TASMAN DISTRICT LANDSCAPE STUDY

BIOPHYSICAL ATTRIBUTES

Landform • Geology • Vegetation • Ecology • Hydrology

Particularly significant **landform** and **geological** features include:

- a. Remnants of the fault scarp that was produced when the White Creek Fault ruptured in the 1929 Murchison Earthquake. The scarp displaced the road and water race by 4.5 m vertically and 2 m sideways.

Preserved fault trace ruptures from historic earthquakes in the last 100 years are rare in New Zealand.

Landform/Geological Feature Type: B Small Fragile Landform.

SENSORY ATTRIBUTES

Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness

The largely unmodified nature of scarp (excepting where it has been removed to allow the road to be reopened) is moderated by the fragmented landcover patterning, resulting in an overall rating of **moderate-high** in terms of naturalness.

The landform feature is memorable for its historic significance.

The interpretation signage (in the adventure park) relating to the scarp enables an appreciation of the landscape’s dramatic formative processes. The visibility of the area (albeit from within a private adventure park) serves to enhance these values.

ASSOCIATIVE ATTRIBUTES

Cultural values • Historic values • Shared and recognised values • Recreation and scenic values

Particularly **high cultural values** associated with:

- a. *To be confirmed*

High historic values as a key part of the 1929 Murchison Earthquake.

Popular recreational destination as part of the Buller Gorge Swingbridge Adventure and Heritage Park.

The extent of ONF 33: White Creek Fault Displaced Terraces corresponds to the clearly recognisable ‘footprint’ of the scarp.

KEY CHARACTERISTICS AND QUALITIES OF ONF 33 TO BE PROTECTED FROM ADVERSE EFFECTS

- The scarp landform.
- *The cultural attributes listed above.*

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 33

- Earthworks and/or quarrying.
- Any built development (as a consequence of its location, scale and/or design) including: buildings, roading, infrastructure, lighting, signage, erosion control structures, and recreation/tourism development.
- Exotic vegetation growth.

DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

Section F

Appendices

Appendix A: BGLA Review of Previous Reports and Relevant Environment Court Decisions

INTRODUCTION

- The area has been the subject of numerous landscape assessments over the years, with each applying a varying assessment methodology. A key issue for the Tasman District Landscape Study is the application of current landscape assessment best practice methods. Further, the area has been the subject of two key Environment Court decisions, the first of which (*Golden Bay Marine Farmers*¹⁹) has played a key role in shaping the landscape assessments that have been undertaken; and the second of which (*Friends of Nelson Haven*²⁰) provides important commentary on the 'state of landscape assessments' at Golden Bay/Mohua.

PREVIOUS LANDSCAPE STUDIES

- Commencing with the landscape assessments, in many respects, these various studies have sought to build on previous assessments and for this reason they are listed (and briefly summarised) below in chronological order²¹:
 - Tasman District Coast Landscape Character Assessment* (August 2005), prepared by Boffa Miskell Limited (**BML 2005 Report**).
 - Mountain and Coastline ONL and ONF mapping* (2007) prepared by E Kidson in support of an appeal by Friends of Nelson Haven and Tasman Bay Incorporated to the Proposed Tasman Resource Management Plan (**Kidson ONFLs**).
 - Draft Golden Bay Outstanding Natural Landscape and Features* (February 2011), prepared by Boffa Miskell Limited (**BML 2011 Report**).
 - Draft Golden Bay Outstanding Natural Landscapes and Features Study Version 2* (DRAFT August 2012), prepared by Andrew Craig (Landscape Architect) (**Craig 2012 Report**).
 - Golden Bay/Mohua Landscape Project* (Final report, October 2016), prepared by the Small Working Group (**Small Working Group 2016 Report**).
 - Golden Bay/Mohua Landscape Project Additional Landscape Assessments* (October 2017), prepared by Graham Densem (Landscape Architect) (**Densem 2017 Report**).
- The **BML 2005 Report** was confined to an evaluation of the coastal environment within the study area and includes relatively diagrammatic mapping of the recommended ONLs and ONFs only (presumably as a consequence of the relatively limited mapping methods available at that time). Very limited detail is provided with respect to the assessment methodology that informed the mapping, or the attributes and values that make the mapped ONLs and ONFs outstanding. That said, the study identifies the key landscape characteristics across the study area (excluding the conservation estate) which speaks to a preliminary (albeit incomplete) landscape characterisation exercise.
- The **Kidson ONFL** mapping and evidence sought to build on the BML Report, addressing a range of perceived shortcomings including: a (perceived) emphasis on the visual aspect of landscape; exclusion of public conservation land; and a (perceived) emphasis on coastal character rather than landscape classification. The Kidson ONFL work includes a schedule for each recommended ONFL that describes the values of the landscape or feature in terms of the *WESI* (or *modified Pigeon Bay*) factors; however, is accompanied by very poor quality mapping which makes it extremely difficult to understand the recommended extent of each ONL and ONF.

- The **BML 2011 Report** sought to build on the BML 2005 Report, addressing inland areas of the Golden Bay study area that were excluded from the 2005 study (including the conservation estate) and integrating feedback from public consultation undertaken by TDC. The BML 2011 Report includes a brief summary of the key landscape characteristics of the areas excluded from the BML 2005 Report. Again, very limited detail is provided with respect to the assessment methodology that informed the mapping, or the attributes and values that make the mapped ONLs and ONFs outstanding. The BML 2011 Report is inconclusive as to what parts of the study area rate as ONL or ONF as it identifies four different ONF/L mapping options, stating a preference for two variations of Option Two which rely on a somewhat arbitrary contour line to determine the extent of ONF/Ls in the District (i.e. not a ridgeline or other geomorphological boundary, but rather a contour line that approximates a change in land use). That said, greatly improved mapping techniques mean that the mapping attached to the BML 2011 Report is considerably more accurate and legible (in comparison to the 2005 Report).
- The **Craig 2012 Report** included a review of the previous 2005 and 2011 BML Reports and sought to determine the various landscape character areas within the district, followed by those landscapes and features that qualify as outstanding. The Craig 2012 Report included an explanation of the assessment methodology. The approach adopted is broadly consistent with current landscape assessment best practice (and particularly in terms of the consistent range of landscape factors described for each character area) excepting in two regards:
 - Reference to Q Sort²² - a survey technique that sought to identify public preferences with respect to landscape that has been largely discredited in recent years; and
 - An explicit emphasis on 'naturalness' followed by 'aesthetic' factors, with biophysical and cultural factors given less weight²³. Current best practice sees all of the landscape components evaluated on an equal basis.
- The Craig 2012 Report also suffers from quite rudimentary mapping that is difficult to interpret in places and an (acknowledged) incomplete evaluation for some landscapes and features (noting that it is a Draft report only).
- The **Small Working Group 2016 Report** was the culmination of an approximately 4-year landscape project that comprised a community-led study to determine the ONLs and ONFs within the Golden Bay/ Mohua area. Participants were selected by the community and came from widely different perspectives, including: locals with a deep concern for environmental quality; others with an equally deep concern for the economic viability of the area; and iwi trusts who were in the process of Treaty Settlement. The Group relied on the previous (expert) landscape assessments (outlined above) as a starting point for their analysis. Ongoing technical support was provided by TDC throughout the process (led by Shelagh Noble, TDC planner) and the group undertook numerous field visits and workshops, adopting an iterative approach to the determination of ONLs and ONFs within the study area.
- As a result, the Small Working Group 2016 Report represents a valuable body of work that identifies the areas that the local community considers are the ONLs and ONFs within Golden Bay/Mohua. This speaks to the fundamental notion of ONLs and ONFs "*usually being so obvious that expert input is not required*".
- This body of work also addresses an aspect of landscape evaluation that is often lacking from other landscape assessments in New Zealand: i.e. meaningful consideration of the Shared and Recognised values of a landscape or feature, including the memories and associations it raises.²⁴

¹⁹ W42/2001, W10/2004, and W89/2004.

²⁰ [2018] NZEnvC 46.

²¹ All of these reports are available on the Tasman District Council website at: <https://www.tasman.govt.nz/my-council/projects/golden-bay-north-west-coast-landscape-project/>. Refer 'Foundation work by the Small Working Group' for item (e).

²² Refer *Craig 2012 Report*, page 7.

²³ Ibid, page 8.

²⁴ It should be noted that the Q Sort Public Perception Survey Work referenced in the Craig 2012 Report sought to address this gap in landscape assessment; however, as explained earlier, has now largely been discredited.

- The Small Working Group 2016 Report explains the assessment methodology adopted by the group, and, in building on the Craig 2012 Report, benefits from the landscape characterisation and evaluation methodology applied in that study, and in particular, consideration of the landscape and features in terms of the *WESI* (or *modified Pigeon Bay*) factors.
- The 2016 Report also describes the landscape characteristics that make each area outstanding, outlines the sorts of activities that are likely to be appropriate within each ONL or ONF, and includes a brief response to written comments received from a diverse range of stakeholders in the area to the Draft Small Working Group Report (2015).
- The Small Working Group 2016 Report was unanimous in accepting many of the ONLs and ONFs in the Craig 2012 Report. However, there were seven areas identified where no consensus was agreed amongst the Small Working Group:
 - Mt Burnett (reasons for disagreement unstated, although variance in evaluation of visual qualities inferred).
 - N.W. Nelson Forest Park, the stewardship land around Sams Creek (reasons for disagreement unstated, although would appear to derive from mining prospecting licenses that apply to this area).
 - Te Tai Tapu Estate (land subject to Treaty Settlement so identified as unresolved).
 - The area adjacent the Tai Tapu Estate between the Big River catchment and Paturau River (contested views on 'outstanding-ness' and 'naturalness' due to historical forestry and mining activity).
 - Abel Head (land subject to Treaty Settlement so identified as unresolved).
 - Pakawau Head (land subject to Treaty Settlement so identified as unresolved).
 - Parapara Head (land subject to Treaty Settlement so identified as unresolved).
- It should also be noted that the Small Working Group 2016 Report excluded the lower-lying bush-covered hills at the northern end of the western landform framing Golden Bay (referred to hereafter as **Mt Beale environs**).
- The exclusion of some of these areas on the basis of their involvement in Treaty Settlement processes and/or the absence of a consensus by the assessors in relation to some of them raises doubts with respect to methodological consistency, noting that the Small Working Group 2016 Report itself acknowledges that areas need to be included or excluded for landscape reasons alone (consistent with guidance over the years from the courts²⁵).
- Following the completion of the Small Working Group 2016 Report, TDC sought public feedback. This culminated in TDC commissioning the **Densem 2017 Report**, focussing on six sites where either the Small Working Group had failed to reach a consensus or public submissions were received requesting inclusion within or exclusion from an ONL or ONF:
 - N.W. Nelson Forest Park, Te Tai Tapu Estate.
 - Mount Burnett.
 - Ballroom Caves, and potentially, other caves.
 - N.W. Nelson Forest Park, Sams Creek.
 - The Grove.
 - Wainui Bay Headland.
- The Densem 2017 Report provides an explanation of the landscape assessment methodology, acknowledging that it seeks to build on previous, more comprehensive, assessments and applies a similar approach with respect to describing and evaluating the landscapes and features (i.e. in terms of the *WESI* or *modified Pigeon Bay* factors).

However, the report goes on to explain that Values to Tangata Whenua are not addressed in the 2017 study, which is methodologically problematic.

- The Densem 2017 Report found that the Ballroom Caves and Aorere Goldfields Reserve (including Stafford Cave) are Significant Natural Features (**SNF**) (rather than ONFs) which is a 'second tier' type feature (or landscape²⁶), acknowledging that the study brief did not request the identification of SNFs.
- In the assessor's opinion, the caves fail to qualify as outstanding, as none of the evaluated factors rate as 'very high'.
- As explained earlier, landscape assessment best practice requires an evaluation of the various factors, both individually and collectively, to determine whether a landscape or feature qualifies as outstanding; and it is not necessary for one (or more) factors to rate as 'very high' (or outstanding) for a landscape or feature to rate as 'outstanding'. This suggests methodological issues with this aspect of the Densem 2017 Report.
- The Densem 2017 Report recommended that the majority of the Sams Creek study area qualified as ONL; however, advising that further investigation was required for the eastern margins. In this regard the Densem 2017 Report was inconclusive.
- With respect to The Grove, the Densem 2017 Report appears supportive of an extension to the ONF footprint mapped in the Small Working Group 2016 Report; however, concludes that such an extension should be investigated in consultation with the affected landowners. Such a recommendation is inconsistent with the accepted approach mentioned above, in which the extent of ONL and ONFs is determined on 'landscape grounds' (as opposed to, say, 'landownership' or 'Council policy' grounds).
- For Wainui Bay Headland, the Densem 2017 Report is similarly inconclusive, suggesting two potential amendments to the extent of the ONF recommended in the Small Working Group 2016 Report. Further, the reasoning for tentatively recommending one of the areas would appear to derive from the assessor's opinion that it is better suited to conservation uses rather than residential uses; which, again, is out of step with landscape assessment best practice.

SUMMARY

- The following table provides a summary of those areas identified as ONLs and ONFs in (the majority of²⁷) the landscape assessments to date and seeks to identify the key areas of difference between each report. It also confirms whether the area in question has been recommended for inclusion as an ONL or ONF in the Tasman District Landscape Study (TDLS) with a 'Y' signalling inclusion and 'N' signalling exclusion from the TDLS ONFL mapping. 'P' indicates that part of the area is included in the TDLS ONFL mapping.
- The 'naming' of each area primarily derives from the Craig 2012 Report (and, in turn, is generally consistent with the Small Working Group 2016 Report), as this landscape report includes the most comprehensive landscape characterisation study for the Golden Bay/Mohua area.
- The Kidson ONFL work is treated slightly differently due to the very poor quality of the mapping available. Rather than considering each of the individual 'sites' in terms of the Kidson ONFL recommendations, three areas are referenced where the Kidson ONFL mapping would appear to markedly deviate from the other reports:
 - Mountain ONFL behind Parapara-Rangiaheata coastline;
 - Mountain ONFL on east side of Takaka Valley; and
 - Coastline ONFL Collingwood to Ligar Bay (appears to capture coastal hinterland in places).

²⁶ Perhaps a more common example of a 'second tier' type 'landscape' classification is an Amenity Landscape, commonly referred to as a RMA s7(c) landscape.

²⁷ Noting that the BML 2005 Report is not included in the Table due to the diagrammatic nature of the ONL and ONF mapping.

²⁵ For example, see *Man O'War Station Limited v Auckland Council* [2015] NZCA 24 [61]

Table key: N/A not applicable Y Yes N No P Partially

AREA	BOFFA MISKELL 2011 (OPTION 2 LAND ABOVE 200M OR 300M CONTOUR)	A CRAIG 2012	SMALL WORKING GROUP 2016	DENSEM 2017	REQUESTED FOR INCLUSION DURING PUBLIC CONSULTATION ON DRAFT TRMP	RECOMMENDED FOR INCLUSION IN ONF/L IN TDLS
Farewell Spit	ONL Farewell Spit and Golden Bay Marine Area.	ONL Farewell Spit and Golden Bay Marine Area. Acknowledges marine farming (AMAs).	Farewell Spit identified as ONF Golden Bay Marine Area identified as ONL (including AMAs).	N/A		Y – ONF and part of ONL 1 Northwest Coast
North West Coastal Marine Area	ONL Extends 3 nautical miles off shore	ONL Extends 1km off shore	ONL Extends 1km off shore	N/A		Y
Whanganui Inlet	ONS (Outstanding Natural Seascape)	ONL	ONF	N/A		Y
Big River Estuary	ONS	ONL	ONF	N/A		Y
Northern North West Coast ONL	ONL Including northern hinterland and Mt Burnett	ONL Excluding Mt Burnett and hill sides on west side of mid and lower Aorere Valley Includes northern hinterland	ONL Excluding northern hinterland (including land within Kahurangi National Park), Mt Burnett (due to quarrying).	Mt Burnett identified as ONL		Y includes northern hinterland (including land within Kahurangi National Park) and Mt Burnett
Southern Northwest Coast	ONL	ONL Although possible some parts of coast excluded-check more legible mapping?	ONL Excluding Tai Tapu Estate DoC Stewardship area (due to forestry and mining) and coastal pastoral area between Big River catchment and Paturau River.	Tai Tapu Estate ONL although boundary inconclusive. Coastal pastoral area seemingly excluded, although inconclusive.		Y includes coastal pastoral area between Big River catchment and Paturau River and Tai Tapu Estate DoC stewardship area
Golden Bay	ONL	ONL	ONL	ONL		Y
Wainui Bay	ONL Wainui Headland partially included.	ONF Includes Wainui Headland.	ONF Extent corresponds to cadastral boundaries on Wainui headland.	ONF Boundaries queried and amendments suggested although inconclusive.		Y
Port Tarakohe Cliffs	Not ONL or ONF.	ONF Different mapping to Small Working Group.	ONF	N/A		Y
Hanson Winter Reserve	Not ONL or ONF	ONF Same mapping as Small Working Group.	ONF	N/A		P
The Grove	Not ONL or ONF	ONF Different mapping to Working Group.	ONF	N/A		Y
Paynes Ford	ONL Different mapping to Working Group.	ONF Different mapping to Working Group.	ONF Extended to include Oxbow and reduced along western side to follow limestone feature.	N/A		Y including Oxbow
Te Waikoropupū Springs	ONL	ONF Different mapping to Working Group.	ONF Reduced to immediate area around springs.	N/A		Y
Aorere River Gorge and Tributaries	Not ONL unless above 200m or 300m contour.	ONF Different mapping to Working Group.	ONF	N/A		Y
Abel Tasman National Park	ONL Part Pikikiruna Range identified as ONL (due to elevation), however differs to Working Group. Cave area east of Takaka Valley included at least in part.	ONL Different mapping to Working Group. Check legible mapping as difficult to read. Rawhiti Cave, Dry River Gorge and Gorge Creek Gully included as ONF.	ONL Includes north end of Pikikiruna Range plus caves east of Takaka Valley (Rawhiti Cave and Gorge Creek Gully).	N/A		Y
Kahurangi Ranges	ONL Includes more than Working Group (presumably due to elevation basis for delineation). Includes Sams Creek.	ONL Extent corresponds to Kahurangi National Park. Includes Sams Creek.	ONL Excluding DoC stewardship land around Sams Creek.	Recommends inclusion of part of Sams Creek area although boundaries inconclusive.	Sams Creek/DoC stewardship land part of ONL	Y includes Sams Creek and DoC stewardship land
Devils Boots	Not ONL or ONF	ONF	Not ONL or ONF	N/A	ONF	Y
Rangihaeata Headland	Not ONL or ONF	ONF	Not ONL or ONF	N/A	ONF	Y
Sopers Hill	Not ONL or ONF	ONF	Not ONL or ONF	N/A	ONF	Y
Motupipi Headland	Not ONL or ONF	Not ONF	Not ONL or ONF	N/A	ONF	N

Table key: N/A not applicable Y Yes N No P Partially

AREA	BOFFA MISKELL 2011 (OPTION 2 LAND ABOVE 200M OR 300M CONTOUR)	A CRAIG 2012	SMALL WORKING GROUP 2016	DENSEM 2017	REQUESTED FOR INCLUSION DURING PUBLIC CONSULTATION ON DRAFT TRMP	RECOMMENDED FOR INCLUSION IN ONF/L IN TDLS
Canaan Downs	In Abel Tasman ONL	ONF	In Abel Tasman ONL	N/A		Y
Ballroom Caves	Possibly partially included in ONL due to elevation.	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF but recommends SNLF.	ONF	Y
The Grove	Not ONL or ONF	ONF Different mapping to Working Group- includes more land.	ONF	ONF Recommends extension to Small Working Group mapping (closer to Craig 2012 mapping). Boundaries inconclusive.		Y
Abel Head			Inconclusive	N/A		Y
Pakawau Headland			Inconclusive	N/A		N
Parapara Headland			Inconclusive	N/A		N
Sams Creek			Inconclusive	Partially ONL, inconclusive for balance.		Y
Puponga Inlet Headland	ONL	Illegible mapping.	ONL	N/A	ONF	Y
Hogsback	Not ONL	Not ONL or ONF	Not ONL or ONF	N/A	ONF	Y
Aorere Valley Peneplains	ONL	ONL	Not ONL or ONF	N/A	ONL	N
Kidson Mountain ONF/L behind Parapara-Rangihaeata coastline	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	ONL	P
Kidson Mountain ONF/L on east side of Takaka Valley	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	ONL	Y
Kidson Coastline ONF/L Collingwood to Ligar Bay (appears to capture coastal hinterland in places)	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	Not ONL or ONF	ONL	P

ENVIRONMENT COURT DECISIONS

27. In *Golden Bay Marine Farmers*²⁸, the Environment Court stated:

[732] In this case, as an entity, we find Golden Bay is an outstanding natural landscape/natural feature on the evidence of several of the landscape and planning witnesses.²⁸⁴ And even if we did not have that evidence, as the Environment Court has held in *Wakatipu Environmental Society Inc v The Queenstown-Lakes District Council*, *usually an outstanding landscape should be so obvious in general terms that there is no need for expert analysis ... Looked at as a whole, together with other [natural] features that are [outstanding], the modifications become part of the whole which is greater than the sum of its parts.*²⁸⁵

[733] We find that the attributes of Golden Bay as a matter of fact combine to form an outstanding natural landscape/feature which is not diminished by its developed areas. It is *so obvious in general terms*. Despite the settlement modifications which exist on the land, the shape of the coastline, the estuaries, the extensive tidal flats, the shallow bay and its coastal waters and islands, the geographic definitions of Farewell Spit and Abel Tasman Park all lead inexorably to this conclusion.

28. This finding has underpinned almost all of the landscape assessments that have been undertaken of the area to at least some degree.

29. Generally, there has been an acceptance that all of the seascape of Golden Bay is an ONL (for example, the BML 2011 Report, the Craig 2012 Report and the Small Working Group 2016 Report).

30. In turn, this has led to a preference for identifying the various inlets bordering Golden Bay as ONFs rather than ONLs.

31. Further, the description of the Golden Bay ONL in *Golden Bay Marine Farmers* has led to some debate as to whether it was the Court's

intention that both the terrestrial and marine components of the Golden Bay landscape rate as outstanding, rather than simply the seascape (or marine component of the landscape). It is understood that there is a general consensus that the ONL classification in this regard relates to the marine component only.

32. In *Friends of Nelson Haven*, the Court considered the idea of whether a smaller water body on the edge of Golden Bay (in that case, Wainui Bay), was an ONF or ONL and commented that there can be smaller ONLs within larger ones.²⁹

33. The Court went on to comment that Golden Bay/Mohua is so extensive that it is impossible to perceive all of it at once, except, perhaps, from great altitude, adding that there is “a problem attendant on assessing a landscape for regulatory purposes where the scale of that landscape extends well beyond a unified set of views”.³⁰

34. In so doing, it would appear that the Court is signalling that it may be appropriate to reconsider:

- a. Whether Golden Bay (assumed to be the seascape component) in its entirety is indeed an ONL; and/or
- b. Whether it is appropriate to consider smaller ONLs nested within the larger Golden Bay (or other) ONL.

35. Each of these matters has been considered in the Tasman District Landscape Study.

28 W42/2001 at [732] – [733] on p 131.

29 [2018] NZEnvC 046 [91] on p 26.

30 Ibid.

Appendix B: Peer Review Summary

DRAFT LANDSCAPE ASSESSMENT METHODOLOGY

PEER REVIEW COMMENT RAISED	BGLA RESPONSE
Recommendation that the notions of scale and context are articulated in the Landscape Report including clarification of the scale applied.	Integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping and Schedules .
Recommendation that the differences between 'landscapes' and 'features' is clarified in the study report.	Integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping and Schedules .
Recommendation that BGLA collaborate with Dr B Hayward to determine which high value landforms and geological features qualify as outstanding.	Integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping and Schedules .
Recommendation that BGLA prepares the ONF schedules applying a similar 'structure' to the ONL Schedules.	Integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping and Schedules .
Recommendation that a rating is given for each individual attribute together with clarification of the threshold required to qualify as outstanding.	Partially integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping and Schedules . Whilst the threshold for clarification is described in the Landscape Report, specific 'quantum' and/or 'levels' of ratings are not defined to merit an 'outstanding' status (for example, the need for an ONL to qualify as 'very high' or 'high' for 'x' attributes), as such an approach is considered to be too prescriptive. The schedules do provide an overall rating for each key attribute and clarify which of those attributes come together to result in a rating of outstanding.
Recommendation that ONFs should rate as 'moderate – high' (as a minimum) for sensory and associative values (in addition to rating highly for biophysical attributes).	Integrated into the FINAL DRAFT (2) Landscape Study Report, ONF and ONL Mapping And Schedules .

FINAL DRAFT (2) LANDSCAPE STUDY REPORT, ONF AND ONL MAPPING AND SCHEDULES

PEER REVIEW COMMENT RAISED	BGLA RESPONSE
Recommendation that a broad description of the District is added into the report.	Integrated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules (refer Executive Summary).
Recommendation that the Craig Report 2012 is appended to the Tasman District Landscape Study for completeness in relation to the LCU work relied on for the Golden Bay and Northwest Coast portion of the District.	Integrated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules (via inclusion of e link to Craig Report and summary list of Craig Report 2012 LCUs - <i>may need to update e link</i>).
Recommendation that additional rows are added to the LCU worksheets: summarising the key characteristics of the LCU; and providing a few sentences that summarise the LCU that could then be integrated into the main body of the report.	The LCU worksheets have not been amended as recommended by the Peer Review as it is not intended that this material should guide policy development or plan regulatory processes as such. A brief description of all of the LCUs within the District (including those identified in the Craig Report 2012 and relied on for the current study) has been incorporated into the Landscape Study Report.
Recommendation that the layout of the ONL and ONF Schedules are reworked to assist understanding.	Integrated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules (text added to explain that the Overall Evaluation table is a summary of the more detailed attributes and values listed in the Schedule, with the page structure re-ordered to better differentiate between the two).
Recommendation that references to the values of the sea are included in ONL Schedules where the seascape is a large component of the ONL, and that references to 'large and incongruous coastal erosion and defence structures' are mentioned in the list of types of development that are likely to adversely affect landscape values.	Integrated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules (ONL 1 Northwest Coast, ONL 3 Golden Bay/Mohua Coastal Marine and ONL 4 Abel Tasman have been amended accordingly).
Recommendation that ONFs that coincide with each ONL are mentioned in the relevant ONL Schedule.	This recommendation has not been incorporated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules as it is intended that the Final (i.e. notified) ONL and ONF mapping will be accessible via a layered GIS system that allows plan users to quickly see where the overlays are located and overlap etc.
Recommendation that the benthic environment of Golden Bay/Mohua is considered further.	This recommendation has not been incorporated into the FINAL DRAFT (3) Landscape Study Report, ONF and ONL Mapping and Schedules . This matter is addressed under the discussion of the 'Threshold for Naturalness' in the Landscape Study Report. Importantly, it is BGLA's understanding that the attributes and values of the benthic column will be explored more fully under the Tasman Coastal Study which seeks to identify areas of High and Outstanding Natural Character within the District.
Recommendation that the community values associated with all ONLs and ONFs are explored further.	It is BGLA's understanding that this aspect of landscape is to be addressed via targeted iwi and stakeholder consultation together with the usual public notification processes as part of a Schedule 1 process.

Appendix C: LCU Mapping and Worksheets

LCU 1: Abel Tasman 234

LCU 2: Kahurangi Ranges 238

LCU 3: Southwestern Ranges 242

LCU 4: Nelson Lakes 246

LCU 5: Eastern Hills and Mountains 250

LCU 6: Motueka River Valley 256

LCU 7: Moutere Hills and Valleys 260

LCU 8: Waimea, Mapua, Motueka and Riuwaka River Plains and Coastal Flats 264

Detailed LCU mapping and photos to be inserted

LCU 1: Abel Tasman

Extent of LCU	Land north of the SH60 and including all of Abel Tasman National Park that sits outside the Golden Bay Landscape Study Area. Includes adjoining seascape.
LCU boundaries	West: Golden Bay Study Area. North and East: 3 nautical mile limit on seascape. South: SH60.
Landform features and patterns	Strongly rolling to deeply dissected hill country underlain by either granite or marble and limestone substrates extending from roughly Separation Point in the north to the northern side of the Riuwaka River valley in the south. Weathering of the underlying granite geology is responsible for the golden sands, rock-strewn streambeds, interesting coastal formations and characteristically infertile soils. Drowned river valleys, estuaries, rocky headlands, coarse golden sand beaches, dunes, spits, rocky reefs and islands along the coastline. Granite islands including Tonga, Adele (Motuarero-nui) and Fisherman (Motuarero-iti) Islands. Guilbert Point orbicular granite.
Geological features and patterns	As above.
Ecological/vegetation features and patterns	Higher value features are largely located within Abel Tasman National Park (ATNP) and include: <ul style="list-style-type: none">a. Tonga Island Marine Reserve.b. Wildlife refuges associated with all of the islands.c. Montane bogs, tussock lands, lowland coastal forest, and dunes.d. Significant areas of coastal wetlands.e. Pockets of mature lowland podocarp/broadleaved/beech forest. Substantial areas of beech forest on karst/marble; an uncommon ecosystem.f. Important freshwater habitats for short-jawed and giant kōkopu and long fin eel, with the waters being free of pest fish species.g. Very small populations of sea run brown trout (as a consequence of the geology) which means native invertebrate and fish communities are essentially unmodified.h. Important habitat for variable oystercatcher, banded dotterel, blue penguin, pūkeko, ducks, fernbird, reef heron ,pied stilt, marsh crake, banded rail, red-billed gull, Caspian and white-fronted tern, black/ little/ spotted and pied shag, fluttering shearwaters, gannets, tūi, bellbird, tomtit, robin, fantail, grey warbler, brown creeper, rifleman, kereru, shining cuckoo and long-tailed cuckoo.i. Important habitat in karst aquifers for subterranean aquatic invertebrates, including hydrobiid snails, amphipods, isopods and aquatic worms.j. Numerous threatened and at-risk plants, including: shovel mint (<i>Scutellaria novae-zelandiae</i>) and limestone groundsel (<i>Senecio aff. glaucophyllus</i>) and coastal peppercress (<i>Lepidium banksii</i>) which are nationally critical.k. Rich range of fungal species, including Russula solitaria, which is 'nationally critical'.l. Seal colony at Tonga Island and along the coastline more generally.m. Breeding colonies of little blue penguins at Fisherman Island (Motuarero-iti) and Tonga Island.n. Rhodolith bed at Totaranui and Tonga Island.o. Separation Point bryozoan corals.p. Horse mussel bed on Tonga Island Roadstead.q. Red algae beds in Tonga Roadstead.r. Short-jawed kokopu present in many stream and small rivers (e.g. Torrent River).s. Coarse sediment estuaries with bush clad catchments (Totaranui, Araroa, Onetahuti, Bark Bay, Falls River, Frenchmans Bay, Torrent Bay, One Tree Bay, Marahau, Otuwhero).t. Marsh birds present in many estuaries. Outside ATNP a mix of landcover, including: tracts of production forestry, areas of regenerating bush and scrub, and pockets of (largely degraded) pasture. Orcharding and short rotation cropland is evident on the lower-lying valley slopes along the north side of the Riuwaka River Valley.
Hydrological features and patterns	Key hydrological features and patterns include: <ul style="list-style-type: none">a. The seascape adjacent the terrestrial part of LCU1.b. The series of rivers and creeks through the area including: Riuwaka, Marahau, Awaroa, Totaranui.c. The large inlets and estuaries at Awaroa Bay, Marahau and Torrent Bay.
Land use	Within ATNP, land use is dominated by recreational uses associated with the park. The majority of the area is in regenerating bush cover and subject to a comprehensive landscape restoration strategy (Project Janzoon). Tramping huts, campsites, and a complex network of tracks facilitate recreational access. The steep and dissected hill country to the north of Sh60 and outside of the national park is dominated by a mix of production forestry and pastoral uses. Scattered rural living is evident in places. The more gently sloping hinterland to the north of SH60 on the outskirts of Riwaka is dominated by orcharding and pastoral farming with some rural living.
Settlement patterns	Distinctly 'urban' coastal settlement is concentrated along the stretch of coastline extending from Kaiteriteri to Tapu Bay. Many of the commercial operators in ATNP operate out of Kaiteriteri, resulting in a very busy beachfront and CMA. Scattered holiday home development extends along the regenerating bush-lined cliffs and hill slopes from Tokongawha Point to Kaiteriteri. Small to very small-scale and generally modest coastal settlements are evident at Totaranui, Torrent Bay and Marahau. The latter functions as a gateway to ATNP, and whilst busy, retains a more informal and low-key character to the nearby settlement at Kaiteriteri. Small clusters of modest baches at Awaroa and Boundary Bay.
Access and proximity to key route	ATNP is a highly popular recreational destination meaning that LCU 1 has a very high public profile.
Historic heritage features	Recorded sites at Marahau, Towers Bay, Kaka Island and Kaiteriteri. High historic values associated with Torrent Bay (Rakauroa), Awaroa and Totaranui.

Detailed mapping of LCU 1: Abel Tasman to be inserted

Cultural landscape features	<i>To be confirmed</i>
Recreation features	ATNP one of the most visited national parks in New Zealand. Walking, tramping, mountain biking, bird watching, swimming, fishing, kayaking, hunting (limited) and caving.
Infrastructure features	No mapped infrastructure features in TRMP mapping (other than roads and tracks).
Zoning and 'landscape overlays' (within Tasman and in adjacent Districts)	Predominantly zoned Conservation (largely corresponds to ATNP) or Rural 2. Relatively confined pockets of urban and Rural 1 zoned land around Marahau and Kaiteriteri.
Visibility/prominence	Viewed from the water, local road network (limited) and walking track network. The high popularity of the area as a recreational destination means that much of LCU 1 has a large visitor viewing audience.
Key views	Highly attractive panoramic views from the coastal margins out over the dramatic coastline and seascape adjoining ATNP. Highly attractive inland views of bush-clad hills within the 'inland' section of ATNP. Highly attractive views from the water back to the dramatic cliffs, headlands and beaches of ATNP.
Naturalness	Generally a high degree of naturalness associated with ATNP as a consequence of the dominance of water and the (predominantly) bush-clad headlands, ridges and valleys. This is despite a degree of development (including: baches, unsealed roads, jetties, boat ramps, tracks, signage, moorings, camping grounds, tramping huts, and powerlines). Outside of ATNP, the degree of naturalness is reduced as a consequence of the landcover and land use character which is dominated by production forestry and pastoral farming. Rural, holiday home and rural residential dwellings together with horticultural/silvicultural land use add to this impression in places.
Complexity	The steeply dissected landform patterning and regenerating bush cover underpins a high level of complexity throughout ATNP. Outside of ATNP, vegetation patterning is more fragmented, although the underlying topography supports a moderate degree of complexity.
Coherence	The dominance of regenerating bush cover throughout ATNP lends a high level of aesthetic coherence. Outside of ATNP, the more fractured landcover patterns means that there is a far lower level of visual coherence. Along the southern stretch of the coastal edge, the patterning of numerous prominent buildings exacerbates this condition.
Legibility and Expressiveness	The bush-lined gullies, expansive wetlands, gorges, and karst, granite, and marble landforms are all highly expressive of the landscape's formative processes. The highly tidal nature of estuarine areas, evident coastal erosion, coastal landform features and highly dynamic character of the seascape also speak to the landscape's formative processes.
Sense of Place	Generally, the identity and sense of place associated with LCU 1 centres around the very high landscape values associated with ATNP and the adjoining seascape. Much of the unit that is outside of ATNP functions as either a gateway or 'support area' for the park (accommodation and commercial services). ATNP itself is a highly valued recreational destination that affords striking bush and coastal views and a sense of wildness and isolation in places.
Sub character areas within the Landscape Character Unit	Kaiteriteri - Tapu Bay: urban coastal settlement. Marahau: very low-key coastal settlement that functions as a sympathetic gateway to ATNP.
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	<i>TBC</i>



DRAFT FOR LANDOWNER CONSULTATION

TASMAN DISTRICT LANDSCAPE STUDY

LCU 2: Kahurangi Ranges

Extent of LCU	Roughly corresponds to the mountain and hill ranges along the western side of the district stretching from the northern side SH6 near Murchison, northwards to the south side of SH60 on Takaka Hill.
LCU boundaries	West: Tasman District boundary and the Golden Bay Landscape Study Area boundary. North: SH60 over Takaka Hill. East: very approximately, the eastern boundary of Kahurangi National Park and the extent of the Inland Intrusives and Southern Mt Arthur Marble Land Types. South: the alignment of the Buller River and SH6, Newton Flat – Murchison – Kawatiri.
Landform features and patterns	Steep to very steep dissected hill country and mountain lands and associated valley fill fans, terraces and floodplains. The geology of the area is the most diverse of any protected area in the country and includes a long and complex history, including glaciation and tectonic processes. There is an extraordinary diversity of substrates (sandstone, limestones, marble, coal measures, granite and ultramafics) and associated ecosystems – see below.
Geological features and patterns	<div><div>a. Hoary Head.</div><div>b. The Twins.</div><div>c. Ellis Basin and Horseshoe Basin Karst.</div><div>d. Devils Thumb.</div><div>e. Jones Ridge.</div><div>f. Mt Owen: finest example of glaciated marble karst in the Southern Hemisphere.</div><div>g. Mt Hope and the Hope Range.</div><div>h. Blue Cliffs Ridge.</div><div>i. Matiri Range.</div><div>j. The eastern side of the Lyell Range.</div></div>
Ecological/vegetation features and patterns	Highly diverse range of ecosystems including: coastal bluffs, duneland, riparian, rainforest, mesic forest, subalpine shrubland, karrenfield, fertile swamp, alpine bogs, cirque tarns, fellfield, tussockland, scree, alpine bluffs and rockland. The area also encompasses a wide range of altitude and climatic conditions. During the ice ages much of the area escaped the severe climate, enabling plants on warmer north-facing slopes in particular to endure. When the climate finally warmed, these species were able to recolonise the land, resulting in a very rich flora that has a high number of endemics. One of the largest intact vegetation regimes in New Zealand that is renowned for its diversity, in turn reflecting the wide range of environmental conditions that prevail throughout the area. Dominated by indigenous forest cover: red beech – silver beech with black beech on lower alluvial terraces. Silver beech – mountain beech at higher elevations. Subalpine scrub, red tussock and alpine herbfield above the treeline.
Hydrological features and patterns	Key hydrological features and patterns include <div><div>a. Subalpine lakes: Lake Matiri, Lake Jeanette.</div><div>b. The series of rivers through the area including: Buller, Matiri, Wangapeka, Dart, Clarke, Skeet, Baton, Pearse, Pokororo, Riuwaka.</div></div>
Land use	Within Kahurangi National Park (KNP), land use is dominated by conservation and recreational uses. This is reflected in the TRMP Conservation zoning of much of LCU 2. The majority of this area is in mature or regenerating bush. Tramping huts, campsites, and a complex network of tracks facilitate recreational access. The margins of the unit that sit outside the conservation/national park area are in a fragmented patterning of bush, production forestry and pastoral land use.
Settlement patterns	The largest settlement bordering and straddling LCU 2 is the sleepy, distinctly rural service town of Murchison on SH6. The town is located near the western end of the "Four Rivers Plain", at the confluence of the Buller River and the Matakitaki River. The other two rivers are the Mangles River, and the Matiri River. The town's location approximately halfway between Westport and Nelson makes it a popular stopping point for visitors. Also a popular service centre for white water rafting operators on the Buller River. Other settlement patterns are limited to very scattered rural dwellings along the productive land around the margins of the landscape character unit and the odd modest cluster of service facilities along SH6.
Access and proximity to key route	SH6 provides the only vehicular route between the top of the South Island and the west coast, meaning that the southern end of LCU 2 has a reasonably high public profile. The balance of LCU 2 effectively frames the western side of the inland portion of Tasman Bay including the Waimea Plains, Motueka, Richmond, and Nelson City. Overall LCU 2 enjoys a relatively high public profile. Accessibility within the unit itself is limited to walking tracks.
Historic heritage features	N/a.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	KNP is the second largest national park in New Zealand. Walking, tramping, mountain biking, hunting, bird watching, caving (Mt Owen and Mt Arthur), fishing, kayaking, canoeing, rafting, cross country skiing (Mt Arthur and the Tablelands).
Infrastructure features	No mapped infrastructure features in TRMP mapping (other than roads and tracks).
Zoning and 'landscape overlays' (within Tasman and in adjacent Districts)	Predominantly zoned Conservation (largely corresponds to KNP) or Rural 2. Adjoins ONL in Buller District.
Visibility/prominence	Viewed from SH6 (including Murchison), Motueka, Richmond, Nelson City and the more settled lowlands associated with the Motueka, Waimea and Moutere River valleys. The scale of the landforms and their distinctive sculpted peaks and ridgelines, together with the expansive nature of the character unit, means that LCU 2 is appreciated by a large and varied viewing audience and forms a prominent district landmark.

Detailed mapping of LCU 2: Kahurangi Ranges to be inserted

DRAFT FOR LANDOWNER CONSULTATION

Key views	Highly attractive and distinctive panoramic views from the inland portion of Tasman Bay westwards to the (at times) snow-capped mountain peaks and ridges of LCU 2. Highly attractive and memorable views from within LCU 2 eastwards and north eastwards across the breadth of Tasman Bay. Highly attractive and memorable views from within LCU 2 westwards across the expanse of mountain ranges KHP and Conservation Estate land extending to the west coast.
Naturalness	The very limited level of modification evident, together with the proliferation, scale, and dramatic character of the biophysical features, suggests a very high rating for naturalness. Whilst infrastructure is evident in places (e.g. power lines, roading), as are exotic vegetation patterns (pasture, production forestry), the sheer dominance of the more natural landscape features, patterns and processes of the wider setting means that they are subservient elements of the landscape. Walking track, tramping huts, and the like are modifications that support the recreational values of the landscape. Their modest scale and generally low-key, informal character means that they fit harmoniously into the landscape. The very scattered and modest character of built development associated with low intensity pastoral farming around the edges of the unit is also subservient to these more natural landscape elements and patterns.
Complexity	The steeply dissected landform patterning and regenerating bush cover underpins a high level of complexity throughout KNP and Conservation zoned land. Outside of KNP, vegetation patterning is more fragmented, although supports a reasonably high degree of complexity by virtue of the underlying topography.
Coherence	The dominance of mature bush cover throughout KNP lends a very high level of aesthetic coherence. Outside of KNP, the more fractured landcover patterns means that there is a far lower level of visual coherence.
Legibility and Expressiveness	The bush-lined gullies, gorges, and karst, granite and marble landforms are all highly expressive of the landscape's formative processes.
Sense of Place	Generally, the identity and sense of place associated with LCU 2 centres around the very high landscape values associated with KNP and its steep bush-clad margins. KNP has a very strong sense of remoteness, endemism, wildness and isolation due to: the complete absence of permanent human habitation; the very limited accessibility of the area (largely limited to walking/biking tracks); the very limited level of built development; and the abundance and richness of intact vegetation communities. The very modest and largely dispersed character of rural dwellings and development outside KNP together with the relatively low-key and informal character of Murchison supports this perception.
Sub character areas within the Landscape Character Unit	N/a.
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	<i>TBC</i>



Photographs supplied by James Bentley



LCU 3: Southwestern Ranges

Extent of LCU	Roughly corresponds to the mountain and hill ranges in the southwestern quadrant of the district, to the south of SH6 and excluding Nelson Lakes National Park (NLNP). Takes in the north eastern portion of Victoria Forest Park, the flanking TRMP Conservation zoned land and a small sliver of Nelson Lakes National Park adjacent Lake Rotoroa.
LCU boundaries	West: Tasman District boundary. North: the alignment of the Buller River and SH6, Newton Flat – Murchison – Kawatiri. East: the western boundary of NLNP and the south western margins of the Moutere Gravels Land Type. South: Tasman District boundary.
Landform features and patterns	Steep to very steep dissected hill country and mountain lands and associated valley fill fans, terraces and floodplains. Includes parts of the eastern flanks of the Brunner and Victoria Range and the Braeburn Range.
Geological features and patterns	<div><div>a. Upper Buller Gorge.</div><div>b. The Sphinx mesa.</div><div>c. Lake Rotoroa glacially eroded valley and lake.</div><div>d. Lake Rotoiti glacially eroded valley and lake.</div><div>e. Lake Rotoiti moraine dam and Black Hill roche moutonnée.</div><div>f. Angelus Basin glacial landforms</div><div>g. Speargrass Creek Alpine Fault trace</div><div>h. Blue Duck landslide dammed lake.</div><div>i. Lower Matakītaki 1929 landslide. (in part)</div><div>j. Lake Caslani and Cliff Creek Lake.</div><div>k. Old Man of the Buller.</div><div>l. Longford vertical strata.</div><div>m. The highly visible peaks of Mt Misery, Mt Robert, Mt Murchison, the Travers Range and the St Arnaud Range.</div><div>n. Blackwater burning gas seep.</div></div>
Ecological/vegetation features and patterns	Relatively unmodified native vegetation including: alpine tussock lands / herb fields, wetlands and beech forest communities. Important habitat for: tui, bellbird, tomtit, rifleman, robin, fernbird, kereru, kaka, parakeets (kakariki), blue duck (whio), rock wren, kea and great spotted kiwi/ro-roa. Extensive intact indigenous ecosystems, comprising beech forest, valley-floor shrublands and wetlands, subalpine tussockland and shrubland, and alpine fellfield, rock and scree. Large areas of montane beech and beech-podocarp forest. Frost-flat shrubland/scrub vegetation on valley floors, with threatened plant species. Contiguous with the extensive protected mountainlands of the Southern Alps.
Hydrological features and patterns	Key hydrological features and patterns include: Lakes Rotoroa, Rotōpohueroa (Constance), Rotomaninitua (Angelus), Ella and Rotoiti. Numerous elevated tarn and wetland filled basins, including the Angelus Basin cirques and tarns. Buller River, rapids and the Ariki Falls. The Glenroy, Matakītaki, D'Urville, Sabine, Travers, Maruia, Mangles, Tutaki and Te Kauparenuī / Gowan Rivers.
Land use	Within Victoria Forest Park (VFP), land use is dominated by conservation and recreational uses. Forest Parks are administered by DoC and have a less stringent level of protection than National Parks. They are used for a wide variety of recreational and commercial activities. The majority of the balance of LCU 3 is in mature or regenerating bush cover, reflected in the TRMP Conservation zoning of this area. The margins of the unit that sit outside the Conservation zoned/Forest Park area are in a fragmented patterning of bush, production forestry and low intensity pastoral land use.
Settlement patterns	The largest settlement within LCU 3 is the sleepy, distinctly rural service town of Murchison on SH6. The town is located near the western end of the "Four Rivers Plain", at the confluence of the Buller River and the Matakītaki River. The other two rivers are the Mangles River, and the Matiri River. The town's location approximately halfway between Westport and Nelson makes it a popular stopping point for visitors. Also a popular service centre for white water rafting operators on the Buller River. Other settlement patterns are limited to very scattered rural dwellings on the productive land along the narrow river valleys that traverse the landscape character unit and the odd modest cluster of service facilities along SH65 (linking between Christchurch and Westport).
Access and proximity to key route	SH6 provides the only vehicular route between the top of the South Island and the west coast, and SH65 provides a link between Christchurch and Westport. The balance of the unit is serviced by predominantly dead-end metal roads and there are few publicly accessible walking tracks. Overall LCU 3 enjoys a moderate public profile.
Historic heritage features	Numerous historic sites recorded at Murchison and near Howard.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	VFP is the largest Forest Park in New Zealand. Popular for hunting. For recreational values associated with Lake Rotoroa margins, see LCU 4 Nelson Lakes National Park.
Infrastructure features	Transmission corridor runs roughly across the northern margins of LCU 3 from the northern end of Lake Rotoroa along the Buller and Mangles River valleys in the vicinity of Murchison. Corridor generally aligned alongside roads. No other mapped infrastructure features in TRMP mapping (other than roads and tracks).
Zoning and 'landscape overlays' (within Tasman and in adjacent Districts)	Predominantly zoned Conservation (largely corresponds to KNP) or Rural 2. A small pocket of urban zoned land around Murchison. Adjoins ONL in Buller District.

Detailed mapping of LCU 3: Southwestern Ranges to be inserted

Visibility/prominence	Viewed from SH6, SH65 and Murchison. The scale of the landforms and their distinctive appearance, together with the expansive nature of the character unit, means that LCU 3 is appreciated by a varied viewing audience and forms a memorable part of the district.
Key views	Highly attractive and distinctive panoramic views from the highway corridors and Murchison to the (at times) snow-capped mountain peaks and ridges of LCU 3.
Naturalness	<p>The very limited level of modification evident, together with the proliferation, scale, and dramatic character of the biophysical features, suggests a very high rating for naturalness. Whilst infrastructure is evident in places (e.g. power lines, roading), as are exotic vegetation patterns (pasture, production forestry), the sheer dominance of the more natural landscape features, patterns, and processes of the wider setting means that they are subservient elements of the landscape.</p> <p>The co-location of transmission lines with roading serves to minimise the influence of these modifications on the wider landscape character.</p> <p>The very scattered and modest character of built development associated with low intensity pastoral farming around the edges of the unit is also subservient to these more natural landscape elements and patterns.</p>
Complexity	<p>The steeply dissected landform patterning and contiguous bush cover underpins a high level of complexity throughout VFP and Conservation zoned land.</p> <p>Outside of this area, vegetation patterning is more fragmented, although supports a reasonably high degree of complexity by virtue of the underlying topography.</p>
Coherence	<p>The dominance of mature bush cover throughout VFP and Conservation zoned land lends a very high level of aesthetic coherence.</p> <p>Outside of this area, the more fractured landcover patterns means that there is a far lower level of visual coherence.</p>
Legibility and Expressiveness	The bush-lined river valleys and gorges are highly expressive of the landscape's formative processes.
Sense of Place	<p>Generally, the identity and sense of place associated with LCU 3 centres around the very high landscape values associated with VFP and the Conservation zoned land.</p> <p>LCU 3 has a strong sense of remoteness, wildness and isolation due to: the very limited accessibility of the bulk of the unit; the very limited level of habitation and built development throughout the majority of the unit; and the dominance of a mountainous landscape clothed in beech bush cover.</p> <p>The very modest and largely dispersed character of rural dwellings and development outside VFP and Conservation zoned land together with the relatively low-key and informal character of Murchison supports this perception.</p>
Sub character areas within the Landscape Character Unit	<p>Murchison.</p> <p>Pastoral stream valleys.</p>
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	TBC

Photographs supplied by James Bentley



LCU 4: Nelson Lakes

Extent of LCU	Roughly corresponds to extent of Nelson Lakes National Park (NLNP) and includes Saint Arnaud and Tophouse.
LCU boundaries	West: Tasman District boundary. North: very approximately, the extent of NLNP and the Greywacke Mountain Land Type. South and East: Tasman District boundary.
Landform features and patterns	Steep to very steep, high, glaciated mountains of the Main Divide and the St Arnaud, Travers and Ella Ranges. Extensive glaciation, erosion and weathering have left a characteristic landscape of steep valley sides, scree slopes, sharp 'arete' ridges and many tarn-filled basins. Glacially eroded bedrock forms dominate above 1400m: cirque basins, U-shaped glacial troughs with extensive bare rock and scree. Below 1500m thin scree and talus mantles rectilinear slopes. Includes alluvial valley fill, active and recently active riverbeds, floodplain terraces and valley fill fans along steeply incised river valley floors.
Geological features and patterns	Alpine Fault line runs through the area. Significant exposures in the Speargrass Valley and at St Arnaud.
Ecological/vegetation features and patterns	Dominated by indigenous forest cover below 1500m: red beech, silver beech and mountain beech forest. Above 1500m: subalpine scrub, snow tussock, modified fescue-snow tussock grassland, mānuka and matagouri scrub. Generally a lack of rare species. Of the four known threatened species, the status of three species of beech mistletoe is that of gradual decline, and <i>Pittosporum patulum</i> is nationally endangered. Habitat for tui, bellbird, tomtit, robin, kaka, parakeets (kakariki), blue duck (whio), rock wren, kea and great spotted kiwi/ rorua. Important freshwater eel habitat and freshwater mussel beds evident in lakes. Habitat for two undescribed species of <i>Powelliphanta</i> (pūpū whenua). The shores of Lake Rotoroa contain significant wetlands, including flaxlands and sedgeland s near the outlet, periodically flooded kahikatea forest on the shorelines, and the anastomosing spring-fed wetlands and matai forest on the D'Urville River delta.
Hydrological features and patterns	Key hydrological features and patterns include: <ul style="list-style-type: none">a. Lakes Rotoroa, Rotōpohueroa (Constance), Rotomaninitua (Angelus), Ella and Rotoiti.b. Numerous elevated tarn and wetland filled basins.c. The series of rivers through the area draining northwards from the Spenser Mountains: Glenroy, Matakitali, D'Urville, Sabine and Travers Rivers. Overall the area forms the headwaters of the Buller River. Plant communities within the lakes exist to a depth of 18m, demonstrating the extreme clarity of the waters.
Land use	Land use is dominated by conservation and recreational uses. This is reflected in the TRMP Conservation zoning of all of LCU 4.
Settlement patterns	The only settlements within LCU 4 are the small 'alpine' village of Saint Arnaud catering to the locals and tramping/skiing/ fishing and boating tourists (including a DoC visitor centre) and the very small historic Tophouse settlement. A very limited level of rural residential and rural dwellings (associated with low-intensity pastoral farming) between the two settlements. Saint Arnaud is a relatively low-key and sympathetic village on the northern shores of Lake Rotoiti. More established development is well integrated by a cohesive vegetative framework. In more recent years, development has extended beyond this vegetative 'context', reducing its perceived integration.
Access and proximity to key route	SH63 passes across the northern edge of NLNP through Saint Arnaud and provides access between Blenheim and the west coast. The balance of the unit is serviced by a complex network of publicly accessible walking tracks. Overall, LCU 4 enjoys a moderate public profile.
Historic heritage features	Numerous historic sites recorded at Tophouse
Cultural landscape features	Māori value the spiritual qualities of this area's lakes and grand mountains and treasure its plants and animals. The low saddle between the Buller River, the Wairau and the rivers of the Waimea Plains was well known to them. Major routes traversed the area between Nelson, Marlborough, the West Coast and Canterbury (via the upper Wairau). Early Māori used the lakes for replenishing supplies and as part of their routes. Midden sites are known in the St Arnaud area. There is no evidence of permanent occupation but sites of huts and cultivation, especially the fern garden at Rotoroa, were well known to Māori guides such as Kehu. They led the early European explorers such as Cotterell, Brunner, Heap hy, von Haast and Travers through their domain. <i>To be confirmed</i>
Recreation features	Nelson Lakes National Park is one of perhaps only three or four national parks in New Zealand in which recreational use has remained low-key. There is no major feature to attract large numbers of visitors and pressure has not been applied to develop services to the same extent as has occurred elsewhere. Popular as a low-key destination for camping, picnicking, walking, tramping, snow sports, mountaineering, mountain biking, boating/kayaking (Lake Rotoiti), swimming (Lake Rotoiti) and fishing (Lake Rotoroa and the rivers). Te Araroa traverses the eastern margins of LCU 4. The Travers, D'Urville and Sabine rivers are nationally significant wilderness fisheries valued for their unusually large brown trout. Popular for hunting which can assist with deer and chamois control.
Infrastructure features	No mapped infrastructure features in TRMP mapping (other than roads and tracks).
Zoning and 'landscape overlays' (within Tasman and in adjacent Districts)	Predominantly zoned Conservation (largely corresponds to KNP) or Rural 2. Small pockets of urban zoned land around St Arnaud and Tophouse. Adjoins ONL in Marlborough District.

Detailed mapping of LCU 4: Nelson Lakes to be inserted

Visibility/prominence	Viewed from SH63 and Saint Arnaud. The scale of the lakes and bush-flanked mountain landforms and their distinctive sculpted peaks and ridgelines, together with the expansive nature of the character unit, means that LCU 4 is appreciated by a reasonably large and varied viewing audience and forms a highly memorable and dramatic landmark.
Key views	<p>Spectacular panoramic views from SH63 and Saint Arnaud to the mirror-like waters of the lakes and the sublime (and at times snow-capped) mountain peaks and ridges of the national park.</p> <p>Stunning and highly memorable views from within LCU 4 across the breadth of NLNP and along the Main Divide, taking in the striking alpine lakes, tarns, wetlands, tussocklands and herbfields viewed at closer range.</p>
Naturalness	<p>The very limited level of modification evident, together with the proliferation, scale, and dramatic character of the biophysical features, suggests a very high rating for naturalness. Whilst infrastructure is evident in places (e.g. power lines, roading), as are the modest settlements of Saint Arnaud and Tophouse, the sheer dominance of the more natural landscape features, patterns, and processes of the wider setting means that they are subservient elements of the landscape.</p> <p>Walking tracks, tramping huts, and the like within the park are modifications that support the recreational values of the landscape. Their modest scale and generally low-key, informal character means that they fit harmoniously into the landscape.</p>
Complexity	The steeply dissected landform patterning and contiguous bush cover underpins a high level of complexity throughout NLNP.
Coherence	The dominance of mature bush cover throughout NLNP lends a very high level of aesthetic coherence.
Legibility and Expressiveness	The bush-lined river valleys and gorges, cirque basins, tarns, and lakes are highly expressive of the landscape's formative processes.
Sense of Place	<p>Generally, the identity and sense of place associated with LCU 4 centres on the very high landscape values associated with NLNP.</p> <p>LCU 4 has a very strong sense of remoteness, endemism, wildness and isolation due to: the very limited accessibility of the bulk of the unit; the very limited level of habitation and built development throughout almost all of the unit; the dominance of an overtly unmodified alpine landscape context; and the sympathetic character of development where it is evident within NLNP.</p> <p>The generally sympathetic character of Saint Arnaud and Tophouse supports this perception.</p>
Sub character areas within the Landscape Character Unit	<p>Saint Arnaud.</p> <p>Valley floor flanking SH63.</p> <p>Tophouse.</p> <p>Pastoral stream valleys.</p>
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	TBC

Photographs supplied by James Bentley



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TASMAN DISTRICT LANDSCAPE STUDY

LCU 5: Eastern Hills and Mountains

Extent of LCU	Roughly corresponds to extent of the Gordon Range and the Richmond Range that sit within the district. Includes south western margins of Mt Richmond Forest Park (MRFP).
LCU boundaries	West and North: very approximately, the western/northern edge of the Eastern Hill and Mountain Land Type. East and South: Tasman District boundary.
Landform features and patterns	Steep to very steep hill and mountain slopes south of the Waimea Flaxmere Fault, including the Gordon and Richmond Ranges and the Porter Ridge. Elevation ranges from approximately 60m to 1700m Rainfall: 1200mm to 2080mm per year.
Geological features and patterns	Red Hills ultramafic massif and Patuki Melange, corresponding to the iron rich, red tinged ultramafic rocks that give the area its name. Upper Motueka River (right branch) glaciated valley. Gordons Knob. Beebys Knob. Ben Nevis. Little Ben chromite exposure.
Ecological/vegetation features and patterns	Within MRFP, dominated by indigenous forest cover: Relatively unmodified native vegetation dominated by montane beech forest and including subalpine herbfields, shrublands and riparian vegetation. Large area of ultramafic zone vegetation supporting distinctive low-diversity communities dominated by heath species and often comprised of prostrate forms of other plants. Important habitat for: falcon and native forest birds. Small/remnant populations of whio/blue duck, kaka and kakariki. Regional distribution limit of several notable plant species, including titoki. Outside of MRFP, production forestry cover dominates with pasture throughout the lower hills and foothills. Fragmented pockets of regenerating bush cover are evident around the edges of the Forest Park and throughout steep gullies in pastoral areas. Mixed exotic and indigenous amenity, shelterbelt, and hedgerow plantings associated with rural residential lots.
Hydrological features and patterns	Key hydrological features and patterns include: <div>a. The series of rivers through the area draining northwards across the Moutere Hills (LCU 7) or Waimea Plains (LCU 9) to Tasman Bay: Motueka, Wairoa, Roding and Lee Rivers.</div>
Land use	Land use is dominated by conservation and recreational uses within MRFP. This is reflected in the TRMP Conservation zoning of this portion of LCU 5. Outside of MRFP, land use patterning is dominated by production forestry with pastoral uses evident throughout the easier lower hill and foothill slopes. Quarrying evident in the Lee and Pig River valleys.
Settlement patterns	Settlement is limited to a scattering of rural lifestyle lots and rural properties along the Garden Valley Stream, Lee River, Wairoa River and Roding River valley floors throughout the foothills to the south and west of Brightwater.
Access and proximity to key route	LCU 5 is serviced via a series of predominantly dead-end roads. MRFP is accessed from a number of locations within LCU 5. Overall, the area has a relatively low public profile (within the LCU - see Visibility and prominence discussion shortly).
Historic heritage features	There are no recorded sites within the TRMP.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	MRFP is located between Nelson and Marlborough, has an area of 166,000 ha and is the second largest forest park in New Zealand. It is named after Mount Richmond (1760 metres), one of the highest peaks in the park (outside TDC). The park forms a backdrop to Nelson City, the Waimea Plains, and surrounding country. In Marlborough, the mountains are a dominant feature of the Wairau and Pelorus Valleys. The park includes a complex network of tracks (some of which are only suited to experienced trampers) and is serviced by back country huts and camping areas. Popular for walking, tramping, mountain biking and hunting. Te Araroa traverses the southern margins of LCU 5.
Infrastructure features	Waimea Dam under construction in the Lee River valley. Quarrying evident in the Lee and Pig River valleys. Transmission line along the western and northern edges of the unit on the low-lying land at the base of the foothills. Power lines follow road corridors.
Zoning and ‘landscape overlays’ (within Tasman and in adjacent Districts)	Predominantly zoned Conservation (largely corresponds to the extent of MRFP) or Rural 2. Heavy Industry zoning applies to the Waimea Dam area on the Lee River. Adjoins ONL in Marlborough District.
Visibility/prominence	The line of predominantly production forestry-covered foothills along the northern edge of LCU 5 form a bold visual backdrop to the Waimea Plains, Richmond, Brightwater and Wakefield. The ongoing harvesting evident throughout the elevated slopes is highly prominent and detracts from the visual amenity of the adjacent lower lying areas (parts of LCU 7 Moutere Hills and LCU 9 Waimea Plains and Coastal Flats). In longer range views, the distant bush-clad and alpine ridgelines and sculpted peaks that form the backbone of MRFP serve to frame the southern eastern side of the inland portion of Tasman Bay. This portion of LCU 5 forms a prominent district landmark.
Key views	Highly attractive and distinctive panoramic views from Tasman Bay south eastwards to the (at times) snow-capped mountain peaks and ridges along the south eastern edges of LCU 5. Highly attractive and memorable views from within LCU 5 north and north eastwards across the breadth of Tasman Bay. Highly attractive and memorable views from the mountain ridge spine of MRFP south and eastwards to the Wairau Valley/ Raglan Range and Richmond Range (and broadly coinciding with the Alpine Fault line).

Detailed mapping of LCU 5: Eastern Hills and Mountains to be inserted

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Naturalness	<p>Within MRFP, the very limited level of modification evident, together with the proliferation, scale, and dramatic character of the biophysical features, suggests a very high rating for naturalness. Whilst built modification is evident in places (e.g. tracks, huts), its modest scale and generally low-key, informal character means that it fits harmoniously into the landscape. These modifications also support the very high recreational values associated with the area.</p> <p>Outside of MRFP, the proliferation of production forestry throughout the steep hill slopes appreciably diminishes the perception of naturalness. The sheer expanse of forestry evident means that at any one time, an appreciable portion of this part of LCU 5 is either in the felling, harvesting, and clearing stages of forest production; lying 'bare' awaiting reforestation; or characterised by very low-stature forest plantings typically interspersed with weeds. Skid scars add to this impression.</p> <p>Rural living and rural dwelling development is typically confined to the valley floors; and, as a consequence of its relatively limited extent and visually discreet location, exerts a relatively limited influence in shaping the perception of naturalness throughout the wider LCU.</p>
Complexity	<p>The steeply dissected landform patterning and contiguous bush cover underpins a high level of complexity throughout MRFP.</p> <p>Outside of MRFP, vegetation patterning is more fragmented, although the underlying topography supports a moderate degree of complexity.</p>
Coherence	<p>The dominance of mature bush cover throughout MRFP lends a very high level of aesthetic coherence.</p> <p>The dominance of production forestry elsewhere in LCU 5 and its attendant felling and planting cycles results in the impression of a low level of landscape coherence.</p>
Legibility and Expressiveness	<p>The bush-lined river valleys and gorges are highly expressive of the landscape's formative processes.</p>
Sense of Place	<p>Generally, the identity and sense of place associated with LCU 5 centres on the production forestry-dominated dissected hill country throughout the central and northern hill slopes, and the more natural landscape of MRFP.</p> <p>This creates a clear distinction across the LCU whereby the southern portion (i.e. MRFP) has a very strong sense of remoteness, endemism, wildness and isolation due to: the very limited accessibility of this part of the unit; the very limited level of habitation and built development; the dominance of an overtly unmodified alpine landscape context; and the sympathetic character of development where it is evident.</p> <p>In contrast, the area outside of MRFP displays a distinctly 'industrial' rural character due to the dominance of production forestry land uses. Whilst much of the rural and rural living development along valley floors sits reasonably comfortably within its immediate context, it is, for the most part, dwarfed by the production forestry-covered hills that frame the more settled valleys within LCU 5.</p> <p>The Waimea Dam and quarries throughout this part of LCU 5 add to this utilitarian impression.</p>
Sub character areas within the Landscape Character Unit	<p>Pastoral and/or production forestry dominated valleys.</p>
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	<p><i>TBC</i></p>



Photograph supplied by James Bentley



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TASMAN DISTRICT LANDSCAPE STUDY

LCU 6: Motueka River Valley

Extent of LCU	Roughly corresponds to extent of Coastal Separation Point Land Type to the south west of Motueka, including the Motueka River valley floor.
LCU boundaries	West: LCU 2 Kahurangi Ranges and roughly aligning with the swathe of foothills framing the lower reaches of the Motueka River valley. North: LCU 10 Riwaka and Lower Moutere Plains and Coastal Flats and roughly aligning to the edge of the more densely settled low-lying land flanking Riwaka. East and South: LCU 7 Moutere Hills and roughly corresponding to rolling hill country that dominates the lower lying inland portion of Tasman Bay.
Landform features and patterns	Strongly rolling to steep dissected hill country. Underlain by granite with the weathering of the underlying granite geology responsible for the characteristically infertile soils.
Rainfall	Includes the winding and varyingly narrow and broad lower Motueka River valley floor taking in floodplains, riverbeds, sculpted river terraces and back swamp wetlands. Elevation ranges from approximately 40m to 1000m. Rainfall: 1500mm to 2220mm per year.
Geological features and patterns	No Geopreservation Inventory sites.
Ecological/vegetation features and patterns	Areas of regenerating bush and scrub cover (mānuka, kānuka, gorse) on steeper slopes (although landcover is generally dominated by production forestry). Riparian and wetland remnants along valley floor and throughout stream gullies. Complex patterning of mixed exotic and indigenous amenity, shelterbelt, and hedgerow plantings associated with rural, horticultural, and rural residential lots.
Hydrological features and patterns	Key hydrological features and patterns include: <ul style="list-style-type: none">a. The Motueka Riverb. The complex network of tributaries that drain into the lower reaches of the Motueka River, including: Rocky River, Herring Stream, Pokororo River, Graham River, Pearse River, Granity Creek, Baton River, and Wangapeka River on the true left side of the Motueka River.c. The complex network of largely unnamed streams that drain into the Motueka River from the true right side. Evidence of flooding along valley floor.
Land use	Land use is dominated by production forestry throughout the steeper hill country flanking the river valley. Hop growing, dairying, orcharding, and lifestyle lots are evident throughout the alluvial floodplains.
Settlement patterns	Settlement is limited to a reasonably consistent patterning of rural dwellings and lifestyle lots throughout the river floodplains, interspersed with small rural hamlets such as Pangatotara, Ngātīmoti, Pokororo, Orinoco, Thorpe and Woodstock.
Access and proximity to key route	LCU 6 is serviced via a series of local roads. The area provides access to the popular Mt Arthur day walk in Kahurangi National Park and is also popular as an informal scenic route between Motueka and SH6 (Kohatu).
Historic heritage features	Recorded sites at Ngātīmoti, Stanley Brook and Thorpe.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	The Motueka River is popular for brown trout fishing, rafting, kayaking, picnicking, and tubing. Also a popular access route for day trips to Mt Arthur in the Kahurangi National Park.
Infrastructure features	Power lines follow road corridors.
Zoning and ‘landscape overlays’ (within Tasman and in adjacent Districts)	Generally zoned Rural 2 with fragments of Conservation zoned land towards the southern end and western margins (corresponding to KNP) of the LCU. A relatively narrow swathe of Rural 1 along the river margins reflecting the more closely settled and highly productive nature of this area.
Visibility/prominence	The convoluted valley landforms of LCU 6 and its somewhat sleepy backwater location means that it is not a prominent or highly visible part of the district.
Key views	Attractive views along the settled river valleys comprising winding vegetation-fringed river corridors, flanked by richly vegetated river plains in which buildings are often well integrated into the rural setting. The predominance of exotic deciduous tree plantings contribute an attractive seasonal display and sculpted river terraces add interest in places. Backdropping the scene is an almost continuous swathe of pine-covered hills in varying stages of maturation. In places, the folding landforms afford glimpses of the bush-clothed Kahurangi Ranges beyond. In places, the expansive nature of horticultural activities (and in particular, hop growing) introduces an industrial quality to the outlook.
Naturalness	The dominance of production forestry, settlement, and intensive land uses combined with the relative paucity of indigenous vegetation features confers the perception of a moderate level of naturalness. The proliferation of vegetation throughout the valley floor is instrumental in securing this level of naturalness. Glimpses of rivers and ranges serve to heighten the perceived naturalness in localised areas.
Complexity	The steeply dissected landform patterning and complex vegetation patterning throughout the valley floors underpins a generally high level of complexity in LCU 6. The monotony of the production forestry serves to diminish the level of complexity in places (although this patterning is often fragmented due to the varying stages of maturation of plantations).
Coherence	The dominance of production forestry and its attendant felling and planting cycles results in the impression of a low level of landscape coherence. The varied and fragmented patterning of vegetation features along the valley floor adds to this impression.
Legibility and Expressiveness	The bush-lined river valleys, wetlands, river terraces, and the rivers themselves are highly expressive of the landscape's formative processes.

Detailed mapping of LCU 6: Motueka River Valley to be inserted

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Sense of Place	Generally, the identity and sense of place associated with LCU 6 can be described as a somewhat sleepy, highly productive rural valley that is valued as a place to live and work in.
Sub character areas within the Landscape Character Unit	
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	TBC



LCU 7: Moutere Hills and Valleys

Extent of LCU	Roughly corresponds to the extent of the Moutere Gravels Land Type.
LCU boundaries	West (southern end): LCU 2 Kahurangi Ranges and LCU 6 Motueka River Valley roughly corresponding to the edge of the Moutere Gravels Land Type. West (northern end): LCU 6 Motueka River Valley and roughly aligning to the line of hills separating the Motueka River Valley from the Moutere River Valley. North and East (eastern end): LCU 8 Waimea, Mapua, Motueka and Riwaka River Plains and Coastal Flats. South: LCU 5 Eastern Hills and Mountains / LCU 4 Nelson Lakes and roughly corresponding to the edge of the Moutere Gravels Land Type.
Landform features and patterns	Strongly rolling to moderately steep and steep hill country. Distinctive herringbone dissection pattern.
Rainfall	Shallow slip erosion-prone land where hill slopes in pasture cover. Sculpted river terraces in places. Elevation ranges from approximately 200m to 1000m. Rainfall: 1000mm to 1600mm per year.
Geological features and patterns	No Geopreservation Inventory sites.
Ecological/vegetation features and patterns	Areas of remnant and regenerating bush cover (mountain beech and silver beech) on the elevated steeper slopes (towards the southern end of the LCU largely coinciding with Howard Conservation Area and Big Bush Conservation Area). Very isolated fragments of bush and riparian vegetation elsewhere with vegetation patterning dominated by production forestry. Scattered shelterbelts, fenceline tree plantings and riparian remnants throughout valley floors where pastoral cover dominates (cropping evident in places).
Hydrological features and patterns	Key hydrological features and patterns include: <ul style="list-style-type: none">a. The upper reaches of the Motueka River and the Dove River.b. The Motupiko, Moutere and Tadmor Rivers.c. The complex network of tributaries that feed into the true left side of the Waimea River. Evidence of flooding along valley floor.
Land use	Land use is dominated by production forestry throughout the moderate to steeper hill country spanning the majority of LCU 7. Low-intensity pastoral farming, hops, orcharding, and cropping evident throughout the alluvial floodplains. Bush throughout the elevated steeper hill country towards the southern end of the unit.
Settlement patterns	Settlement is limited to a scattered patterning of rural dwellings throughout the river floodplains, interspersed with small rural hamlets and timber processing plants. The patterning of rural living is more consistent and intensive throughout the Moutere River Valley.
Access and proximity to key route	SH6 provides the only vehicular route between the top of the South Island and the west coast. The balance of the unit is serviced by a series of local road (many metal-surfaced and dead-end) and there are few publicly accessible walking tracks. The portion of LCU 7 flanking SH6 enjoys a moderate public profile.
Historic heritage features	Recorded sites at Dovedale, Upper Moutere, Mararewa, Motupiko, Belgrove, Wakefield and near Howard.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	The local rivers are popular for brown trout fishing. Quieter roads reasonably popular for cycling.
Infrastructure features	Transmission corridor crosses southern portion of LCU. Power lines follow road corridors.
Zoning and ‘landscape overlays’ (within Tasman and in adjacent Districts)	Generally zoned Rural 2 with areas of Conservation zoned land towards the southern end of the LCU (Howard Conservation Area and Big Bush Conservation Area). Scattered small fragments of Conservation zoned land corresponding to stands of bush. Swathes of Rural 1 along river margins within the LCU reflecting the more closely settled and highly productive nature of this area. Pockets of urban zoned land at Upper Moutere, Tapawera and Wakefield.
Visibility/prominence	The convoluted valley landforms of LCU 7 and its predominantly relatively sleepy backwater location means that it is not a prominent or highly visible part of the district. The exception to this is the land flanking SH6 within the unit and, to a lesser extent, the Moutere River Valley which functions as an alternate ‘scenic’ route between Richmond and Motueka.
Key views	Some attractive views along the settled river valleys comprising winding vegetation-fringed river corridors, flanked by richly vegetated river plains in which buildings are often well integrated into the rural setting or so dispersed that they exert a very limited influence on shaping the landscape character. The predominance of exotic deciduous tree plantings contributes an attractive seasonal display and sculpted river terraces add interest in places. Backdropping the scene is an almost continuous swathe of pine-covered hills in varying stages of maturation. In places, the folding landforms afford glimpses of the bush-clothed Kahurangi Ranges beyond. In places, the expansive nature of horticultural activities (and in particular, hop growing) introduces an industrial quality to the outlook.
Naturalness	The dominance of production forestry and other working rural land uses, combined with the relative paucity of indigenous vegetation features, confers the perception of a moderate level of naturalness despite the generally low level of habitation. The proliferation of vegetation throughout the valley floor is instrumental in securing this level of naturalness. Glimpses of rivers and ranges serve to heighten the perceived naturalness in localised areas.

Detailed mapping of LCU 7: Moutere Hills and Valleys to be inserted

Complexity	<p>The steeply dissected landform patterning and complex vegetation patterning throughout the valley floors underpins a generally high level of complexity in LCU 7.</p> <p>The monotony of the production forestry serves to diminish the level of complexity in places (although this patterning is often fragmented due to the varying stages of maturation of plantations).</p>
Coherence	<p>The dominance of production forestry and its attendant felling and planting cycles results in the impression of a low level of landscape coherence.</p> <p>The varied and fragmented patterning of vegetation features along the valley floor add to this impression.</p>
Legibility and Expressiveness	<p>The bush-lined rivers/streams, wetlands, river terraces and the rivers themselves are highly expressive of the landscape's formative processes.</p>
Sense of Place	<p>Generally, the identity and sense of place associated with LCU 7 can be described as a working rural landscape that is valued as a place to live and work in.</p>
Sub character areas within the Landscape Character Unit	
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	TBC



LCU 8: Waimea, Mapua, Motueka and Riuwaka River Plains and Coastal Flats

Extent of LCU	Roughly corresponds to the coastal edge of the Moutere Gravels Land Type and the two areas of Eastern Lowland Major River Valley Land Types around Waimea and Motueka. Includes adjoining seascape of Tasman Bay.
LCU boundaries	West (northern end): LCU 6 Motueka River Valley and roughly aligning to the extent of the Eastern Lowland Major River Valley Land Type at Motueka/Riuwaka. West (southern end): LCU7 Moutere Hills and River Valleys and roughly corresponding to the first line of hills framing the coastline between Motueka/Riuwaka and Waimea Inlet. North: LCU 1 Abel Tasman and SH60. East: Tasman Bay coastline. South: LCU 5 Eastern Hills and Mountains and roughly corresponding to the edge of the Eastern Lowland Major River Valley Land Type.
Landform features and patterns	Recent floodplains and riverbeds, low terraces, and associated back swamp wetlands, flights of intermediate and high terraces and minor fans in the upper tributaries; and the deltaic fringe complexes of barrier islands, spits, beach ridges, sand dunes, and estuaries of the lower Motueka, Moutere, Riuwaka, and Waimea Rivers.
Rainfall	Elevation ranges from approximately 0m to 450m. Rainfall: 1000mm to 1600mm per year.
Geological features and patterns	Geopreservation Inventory sites at Motueka Spit, Moutere Inlet, and Moturoa/Rabbit Island.
Ecological/vegetation features and patterns	Very isolated fragments of bush and riparian vegetation with vegetation patterning dominated by shelterbelt/orchard plantings and amenity plantings around dwellings and buildings. Production forestry dominates on Moturoa/Rabbit Island and Jackett Island. Sizeable areas of wetland vegetation around the margins of the estuaries and inlets providing habitat for seabird communities.
Hydrological features and patterns	Key hydrological features and patterns include: <ul style="list-style-type: none">a. The lower reaches of the Motueka, Moutere, Riuwaka and Waimea Rivers.b. Moutere Inlet.c. Mapua Inlet.d. Tasman Bay. Evidence of flooding in coastal flats.
Land use	This is by far the most settled part of the District with land use dominated by urban development, intensive horticulture, and lifestyle living. Commercial fishing and much of the district's aquaculture is serviced by Motueka Port. Production forestry on the difficult sand soils of Moturoa/Rabbit island and Jackett Island. The rich alluvial and free-draining soils of the plains support a wide variety of cropping and orcharding. The high sunshine hours for which the area is renowned also play a part in this regard.
Settlement patterns	Settlement is characterised by a reasonably consistent patterning of rural living and rural lifestyle settlement between the nodes of urban development associated with Riuwaka, Motueka, Mapua and Richmond. Predominantly permanent homes with some holiday homes evident along the coastline.
Access and proximity to key route	SH6 passes through the area, linking Nelson and Richmond to Motueka, Abel Tasman National Park, Kahurangi National Park and Golden Bay. The popularity of this route means that the portion of LCU 8 flanking SH6 enjoys a relatively high public profile.
Historic heritage features	Numerous recorded sites at Richmond, Waimea Inlet, Brightwater, Mapua, Ruby Bay, Motueka and Riuwaka.
Cultural landscape features	<i>To be confirmed</i>
Recreation features	Highly popular Great Taste Trail Cycle Route through the area via a network of artist studios, vineyards, artisan restaurants and cafés, the attractive Mapua riverside village precinct, Spooners railway tunnel and craft beer breweries. Scenic vehicular route between Nelson/Richmond and Motueka (and beyond). Council reserve walkways in places eg Motueka Spit, Moutere Inlet, Ruby Bay coastline and Moturoa/Jackett Island.
Infrastructure features	Motueka Port. Power lines follow road corridors.
Zoning and 'landscape overlays' (within Tasman and in adjacent Districts)	Conservation zoned land limited to Motueka Spit. Urban zonings focussed around Riuwaka, Motueka, Ruby Bay, Mapua and Richmond. Motueka largely flanked by Rural 1 zoned land reflecting the more closely settled and highly productive nature of this area. Mapua/Ruby Bay/north western end of Waimea Inlet largely flanked by Rural 3 zoned land reflecting the attraction of this area as a place to live, work and recreate in. Central and southern end of Waimea Inlet largely flanked by Rural 1 zoned land. Pockets of Rural 2 zoning throughout corresponding to less versatile/settled areas.
Visibility/prominence	The popularity of the area as a cycling and holiday destination and as an alternate 'scenic' route between Richmond and Motueka means that it has a large visitor viewing audience. The popularity of the area as a place to live in means that it also has a large 'permanent residential' viewing audience.

Detailed mapping of LCU 8: Waimea, Mapua, Motueka and Riuwaka River Plains and Coastal Flats to be inserted

Key views	<p>Highly attractive and dynamic panoramic views from the coastal margins out over the coastline and seascape of Tasman Bay.</p> <p>Highly attractive and dynamic views out of estuarine areas where wetland vegetation and avifauna contribute a perception of naturalness despite the more settled context. Shelterbelt, amenity and orchard plantings throughout the low-lying rolling hills framing these waterbodies adds to the composition in places.</p> <p>Attractive inland views of well-planted lifestyle lots and orchard holdings contribute a distinctively leafy impression. The dramatic mountain range backdrop contributes to the outlook in many places, serving as a reminder of the very close proximity between mountains and sea.</p> <p>Attractive views from the water back to the coastline seen framed by the continuous sequence of dramatic hills and ranges that backdrop Tasman Bay.</p>
Naturalness	<p>The dominance of urban, rural lifestyle, and working rural land uses combined with the relative paucity of indigenous vegetation features confers the perception of a level of naturalness towards the lower end of the spectrum.</p> <p>The expanse of inlet and estuarine areas within the unit, together with the exposure of much of this LCU to the waters of Tasman Bay along with views of the broader mountain range context (available in places), serve to counter this to some degree; and in these localised parts of the LCU, naturalness tends to rate around the moderate to high end of the spectrum.</p>
Complexity	Generally a high degree of complexity as a consequence of vegetation, land use and built form patterning together with the small scale of lots.
Coherence	Generally a relatively low degree of coherence as a consequence of the complexity described above. This is despite the relatively consistent landform patterning of the area. The exception to this is areas that are exposed to large waterbodies (inlets, sea) where the level of landscape coherence is much higher.
Legibility and Expressiveness	The fragments of bush-lined rivers/streams together with the wetlands, rivers, inlets, and coastline are highly expressive of the landscape's formative processes.
Sense of Place	Generally, the identity and sense of place associated with LCU 8 can be described as a mixed urban, rural amenity and working rural landscape that is valued as a place in which to live and work and to visit. Attractive seascape outlook along coastal edge, albeit a generally inhabited/modified coastal interface.
Sub character areas within the Landscape Character Unit	
Mapping of the landscape character unit (on colour aerial and 1: 50,000 Topo base)	TBC



Appendix D: Study Team

ROWENA CUDBY

Rowena (Ro) is an environmental policy planner with Tasman District Council. She holds the qualifications of Bachelor of Arts (sociology) from the University of Canterbury and Master in Resource and Environmental Planning from Massey University. Ro is a full member of the New Zealand Planning Institute and has worked in the resource management field for sixteen years.

BRIDGET GILBERT

Bridget is a director of Bridget Gilbert Landscape Architecture Ltd, based in Auckland. Bridget holds the qualifications of Bachelor of Horticulture from Massey University and a postgraduate Diploma in Landscape Architecture from Lincoln College. She is an associate of the Landscape Institute (UK), a registered member of the New Zealand Institute of Landscape Architects and has practised as a landscape architect for over twenty-five years.

Over the years, Bridget has been involved in a wide range of work in expert landscape evaluation, assessment and advice throughout New Zealand.

Of particular relevance to the Tasman District Landscape Study, Bridget has been involved in:

- The assessment and identification of ONFs, ONLs and RMA s7(c) amenity landscapes and the development of appropriate policy for such landscapes as part of regional and district plan review processes (e.g. Queenstown Lakes District Plan, Waitomo District Plan, Waipa District Plan, Whangarei District Plan, Thames Coromandel District Plan, Auckland Unitary Plan: Operative in Part, Hauraki Gulf Islands District Plan, Rodney District Plan).
- The conceptual design of, and landscape and visual effects assessment of a range of rural living, tourism, infrastructure (including quarrying, mining, windfarm, roading and transmission corridors), marine-based (including aquaculture, ports, jetties and marinas) and urban developments within, or adjacent to, Outstanding Natural Landscapes (ONLs), Outstanding Natural Features (ONFs), RMA s7(c) amenity landscapes and more 'working' rural landscapes throughout the Auckland, Hauraki Gulf Islands, Queenstown Lakes, Waikato, Taranaki, Far North, Whangarei, Waipa, Waitomo and Thames Coromandel districts.

Bridget is an Independent Hearing Commissioner for Auckland Council and is currently a panel member of the Auckland Urban Design Panel.

BRUCE HAYWARD PHD FRSNZ MNZM

Bruce is a self-employed Auckland-based research geologist. He has been a practising geologist for 43 years and Convenor of the Geoscience Society of NZ's Geoheritage Subcommittee for 33 years (previously Geological Society of NZ). In this voluntary role he has prepared submissions on geoheritage recognition and protection in Regional Policy Statements and District Schemes around New Zealand since the early 1990s.

Bruce is the founder and convenor of the GSNZ's New Zealand Geopreservation Inventory Project, since its inception in 1984.

This Inventory is often used as the basis for identifying sites to be recognised as ONFs in Regional and District plans. He is a past President of the Geological Society of NZ and past member of the Auckland Conservation Board and NZ Conservation Authority and was made a member of NZ Order of Merit for his contributions to geoheritage conservation in 2006.

In recent years he has had contracts to provide input into the assessment, scoring and mapping of potential ONFs from Auckland City Council, Northland Regional Council, Far North District Council, Whangarei District Council, Kaipara District Council and Waitomo District Council, and with Waikato Regional Council to identify, map and document potential karst SNAs.

He is author or co-author of many publications and books on geoheritage protection in New Zealand, including:

- Hayward, B.W., 1996. Precious Land: Protecting New Zealand's landforms and geological features. Geological Society of New Zealand Guidebook 12, 48 pp.
- Hayward, B.W., 2009. Protecting fossil sites in New Zealand. Carnets de Géologie: Memoir 2008/03, 49-64. http://paleopolis.rediris.es/cg/CG2009_BOOK_03/CG2009_BOOK_03_Chapter05.pdf
- Kenny, J.A., Hayward, B.W., 2010. Karst in Stone. Karst landscapes in New Zealand: A case for protection. Geological Society of New Zealand Guidebook 15, 48 pp.
- Kenny, J.A., Hayward, B.W., 2013. On the edge: Celebrating the diversity of New Zealand's coastal landforms. Geoscience Society of New Zealand Guidebook 17, 48 pp.

ROB DAVIDSON

Rob Davidson has been involved in marine biology for over 30 years. Rob holds a Master of Science with First Class Honours from the University of Canterbury, 1987 and has presented 18 conference papers and published 12 papers in international peer-reviewed scientific journals. He has previously worked for MAF and the Department of Conservation.

Presently Rob is the director of an independent science consultancy, Davidson Environmental Ltd. During his time at DOC, he coordinated or was involved in many large-scale ecological surveys of coastal areas throughout Nelson and Marlborough. Rob compiled this information into the Department's Coastal Resources Inventory which was later reproduced as reports for the Councils' coastal plans. He has also coordinated large-scale ecological reports for the Abel Tasman coast, Whanganui Inlet and Waimea Inlet. He has implemented monitoring programmes spanning up to 28 years, relating to Cook Strait ferry impacts, marine farm recovery, and marine reserve monitoring for the Tonga Island and Horoirangi Marine Reserves.

As a consultant, Rob has provided scientific information for over 900 resource consent applications and impact assessments. His company has also coordinated a marine ecological database for the Marlborough District Council. Over his working career, he has conducted over 4,000 dives throughout the Nelson-Marlborough area and has extensive knowledge of the underwater features and values of the region. Most recently, Rob has been coordinating a Significant Site programme in the Marlborough Sounds.

MIKE HARDING

Mike Harding is an independent environmental consultant based at Arthur's Pass. He holds a Diploma in Parks and Recreation Management (with Distinction) from Lincoln University (1986) and Intermediate papers in Botany and Geology from Otago University (1980). He has seven years' experience in national park management (Arthur's Pass National Park) and conservation advocacy, followed by a further twenty-five years' experience as an independent ecologist. An important part of Mike's consultancy work has been the survey of significant natural areas (SNAs) and provision of advice on the assessment of SNAs to territorial authorities throughout the South Island.

Mike has been involved with the Tasman District SNA programme (Native Habitats Tasman) since its inception and more recently in the survey of SNAs in Golden Bay. He has audited SNA reports from other parts of the District and reviewed SNA ecological district summary reports. Other consultancy work in Tasman District has been the preparation of management plans for Council reserves, advice on foreshore management at Abel Tasman National Park, and survey of the Rotoiti mainland habitat island project area. Mike has tramped through most parts of Tasman District over a period of more than 30 years.

BRIAN MCAUSLAN

Brian is a Senior GIS Specialist at Boffa Miskell Ltd, based in Christchurch. Brian has worked on a wide variety of often complex projects across the country.

Brian has worked on a wide range of projects supporting the multiple disciplines within Boffa Miskell, including site mapping and 3D Modelling on industrial and commercial developments, as well as assisting planners to evaluate the effects of Proposed Zoning Rules by modelling the different effects in City Engine. Brian also assists the Master Planning team on numerous large-scale subdivisions, which have included, amongst others, Pegasus Town and its associated golf course. Brian is also responsible for managing, maintaining and reporting on all data received from sub-contractors for the ongoing LINZ Biosecurity project. Brian has extensive knowledge in data capture, creation and management using CAD, GIS, ArcGIS online and field collection tools.

Of particular relevance to the Tasman District Landscape Study, Brian has been involved in:

Supporting the Landscape Architects with mapping Outstanding Natural Landscapes and Features for districts/regions including Nelson, Southland, Marlborough, Taupo, Timaru, and Selwyn.

Data management and mapping on large-scale nationwide projects such as LINZ Biosecurity (2009-ongoing) and for Statistics New Zealand Census (2010 and 2013)

Using ESRI web solutions such as Collector to assist CERA team with field collection in Residential Red Zone, 3D Web Scenes for the Biosecurity team to monitor/report on field work and Web Apps for public consultation on the Wairarapa Valley Flood Management Plan.

JAMES BENTLEY

James is a Senior Principal Landscape Architect at Boffa Miskell Ltd, based in Christchurch. James has worked on a wide variety of often complex projects across the country and within the United Kingdom.

Many of the projects James has worked on have been large-scale, environmental planning projects, including utilities, infrastructure, mining, aquaculture and retirement complexes/subdivisions. James also has extensive experience in broad-scale landscape and natural character assessments for second-generation resource management plans, where James has identified Outstanding Natural Landscapes and Natural Character areas throughout the country, providing advice regarding management and development of the values that underpin these sensitive areas. James' practical experience includes writing landscape, natural character and visual amenity assessments as well as preparing written evidence for Council and Environment Court hearings. James also has experience in consulting with the general public on landscape issues.

James consistently contributes to the development of the profession within Boffa Miskell and more broadly through the refinement of assessment methodologies, including interpreting parts of the New Zealand Coastal Policy Statement 2010 by way of refining a methodology. James has written numerous publication articles and presented his paper 'Landscape, Natural Character, Aquaculture and the NZKS Supreme Court Decision' at the Coasts and Ports Conference in Auckland in September 2015.

Of particular relevance to the Tasman District Landscape Study, James has been involved in:

The assessment and identification of Outstanding Natural Landscapes and Features and the development of appropriate policy for such landscapes through a review of the district/ regional plan for Marlborough District Council, Selwyn District Council as well as providing input into a number of other studies, including Nelson, Canterbury, Christchurch, Southland (and Stewart Island). James has also provided evidence to the Auckland Unitary Plan from submitters on extents of landscape areas.

The assessment and identification of Coastal Natural Character areas, having undertaken district and region-wide assessments for the following councils: Marlborough, Nelson, Canterbury, Southland, Waikato, Selwyn, Christchurch and Waimakariri.

Numerous landscape and visual effects assessments throughout the country concerning specific developments and activities within or adjacent to Outstanding Natural Landscapes or Features, including a development in the coastal environment in Northland, numerous aquaculture projects throughout the country and large-scale hydro and wind projects, quarries and subdivisions.

Appendix E: GIS Data Sources

The following datasets were used in the Tasman District Landscape Study:

REFERENCE LAYERS	SOURCE
Contours	LINZ
Cadastre	LINZ
Road, State Highway	LINZ
Walking and Biking Tracks	DOC, LINZ, NZTA, TDC
Recreation\Tourism features	TDC, NCC
Crown Land	LINZ
National Parks	DOC
Public Conservation Land	DOC
QE II Covenant areas	QEII National Trust
Reserves	TRMP Zoning
Conservation Zones	TRMP Zoning
Significant Natural Areas	TDC
Archaeological Sites	NZ Archaeological Association
Heritage Sites	Heritage NZ
Geopreservation Sites	Geomarine Research
Waterbodies	LINZ
Land Cover Database v4.1	Landcare Research
Soils\Land Use Capability	Landcare Research
Geology\Land Use Capability	Landcare Research
Land Types	Ian Lynn\Landcare Research
Cultural Sites	TDC
High and Outstanding Natural Character mapping	V Froude\Pacific Eco-Logic
Indigenous Ecosystems	TDC, DOC
Adjacent ONL mapping	MDC, NCC
Current ODP landscape protection areas	TRMP
ONL mapping	Small Working Group Report
ONF mapping	Small Working Group Report
Landform 3d Model (Elevation, Slope, Aspect, Ridgeline)	Google Earth, LINZ
Aerial Photos	LINZ, Google Earth, Eagle Technology

Appendix F: Comparison of TLS ONLs with SWG ONLs

A total of seven ONLs are identified within the District.

Four of these ONLs were identified, at least in part, as ONLs in the Small Working Group (SWG) Report (which related to Golden Bay and the Northwest Coast portion of the District only), albeit named differently in some instances. One ONL (**ONL 5 Wainui Bay**) was identified as an ONF in the SWG Report.

ONL 1: NORTHWEST COAST

Identified as three discrete ONL areas in SWG Report: Northwest Coast Marine Area ONL, the Northern Northwest Coast ONL and the Southern Northwest Coast ONL

The TDLS ONL mapping generally combines the three SWG Report ONLs and includes four areas that were not included by the SWG:

- Te Tai Tapu Estate**
- The coastal pastoral area between the Big River catchment and Paturau River**
- Mt Beale environs**
- Mt Burnett**

The TDLS mapping also varies from the SWG mapping with respect to **ONL mapping over the CMA** and the **eastern boundary along the western side of Aorere Valley**.

Te Tai Tapu Estate reads as an integral part of the broader, extremely remote, and dramatic bush-clad hills and mountains flanking the western side of the District that is undoubtedly outstanding. There is nothing from a landscape perspective that sets this area apart from the surrounding ONL context identified in the SWG Report, and to treat it differently would be entirely artificial (from a landscape perspective).

The very limited scale of **the coastal pastoral area between the Big River catchment and the Paturau River** sandwiched between the magnificent and extremely large-scale bush-clad hills and mountains to the east, and the spectacular coastline to the west, raises doubt as to whether this predominantly pasture-covered land should be excluded from any ONL in the area. This doubt is compounded by:

- the scattering of geologically important, highly attractive, dramatic and memorable karst landform features throughout the farmland;
- the scattering of dune lakes;
- the very high sense of remoteness associated with the area;
- the strong and proximate visual connections of the area to the adjacent coastal and mountain ONL contexts;
- the high cultural values associated with parts of the area (as expressed by Te Ātiawa o Te Waka-a-Māui, Ngāti Tama ki Te Tau Ihu, Ngāti Rārua and Ngati Apa ki te Rā Tō); and
- the national park status of the southern and eastern margins.

On balancing these considerations, these more pastoral areas are considered to form part of the broader ONL in the area.

With respect to the **Mt Beale environs**, whilst the bush-clad hills at the northern end of the western coastline are lower in elevation in comparison to the Burnett and Wakamarama Ranges to the south, they read as part of the overall landform structure that frames the western side of Golden Bay. This landform system is strongly expressive of landscape character-shaping processes and, in views from the east, plays an important role in shaping the identity of Golden Bay as a 'place'. Whilst the lower elevation and, in parts, more recent bush cover suggest a lesser degree of drama, the very low level of built modification, distance of the area from a major settlement, and inaccessibility of the area means that it is imbued with a very high perception of naturalness, remoteness and wildness. The almost continuous bush cover draped over a complex

A summary of the key mapping changes between the Tasman District Landscape Study (TDLS) and SWG mapping for these ONLs is set out below.

landform patterning creates an attractive visual outlook. The majority of bush-covered hills are located within Kahurangi National Park, suggesting very high shared and recognised and recreational values in addition to those mentioned above.

The extent of the Mt Beale area recommended for inclusion in the ONL in the TDLS is defined by the bush line along the eastern side (roughly Seaford to Puponga).

Along the western side, the portions of pastoral land sitting between the bush-clad hills and west coast are included within the ONL as a consequence of:

- their relatively small scale in comparison to the flanking dramatic bush-covered hills and spectacular coastal landscapes (including the Whanganui Inlet);
- the proliferation of high-value geoheritage features;
- the scattering of highly attractive and ecologically important dune lakes and wetland features; and
- the high aesthetic, recreational and scenic values of the area (popular walkways, camping etc.).

The SWG Report excluded the existing dolomite quarrying area on **Mt Burnett** from the surrounding ONL. This effectively amounts to a 'cut out' in the ONL mapping, a methodological approach that is generally not supported (although is necessary in some locations).

The quarry area does not form a 'landscape' in its own right, but rather reads as a modified part of the much larger and magnificent forested mountain-scape of which it is a part. As part of the Three Sisters, an important landmark in the wider Golden Bay area, Mt Burnett displays very high legibility, shared and recognised, aesthetic and memorability values. Whilst the nature of modification associated with the quarry is at the more negative end of the spectrum in terms of naturalness, it is relatively confined in the context of the overall landform of Mt Burnett and is not visible from the catchment to the east, from which the majority of public views to Mt Burnett are obtained. On balancing these considerations, the TDLS concluded that all of Mt Burnett (including the dolomite quarry area) warrants inclusion in the Northwest Coast ONL, with appropriate acknowledgement of the existing level of quarry modification clearly articulated in the **ONL 1 Northwest Coast** schedule.

The SWG Report **ONL mapping over the CMA** extends 1km into the Tasman Sea CMA. The TDLS mapping extends 3 nautical miles (approximately 5.5km) offshore, in recognition of the typical distance of the visual horizon in views from the coastline.

The SWG Report adopted what has been described as a 'tablecloth method' to determine the **eastern ONL boundary along the western side of Aorere Valley** extent of the ONL throughout the mountain-scape framing the eastern side of the Aorere Valley. It is understood that this was based on the perception of the extent of the ONL from a series of (undefined) viewpoints combined with an approximate distance of 400m from the ridgeline. The TDLS ONL 1 mapping generally increases the 'footprint' of the ONL in this location, adopting a mapping delineation technique that corresponds to the national park boundary or the 'outer' edge of large contiguous bush areas adjoining the national park boundary. The landscape captured by the TDLS ONL effectively corresponds to the extent of the elevated bush-clad mountains that serve to frame the Aorere Valley and Puponga-Collingwood coastline. This latter mapping method is considered to be more methodologically robust than the 'tablecloth method'.

ONL 2: PARAPARA-KAHURANGI RANGES

The TDLS includes two areas that were not included in the SWG Report ONL mapping for this area:

- Sams Creek**
- The Ballroom Caves and Stafford Caves/Aorere Goldfields area.**

The TDLS mapping also varies from the SWG mapping with respect to the **boundary along the eastern side of Aorere Valley and the western/southern side of the Takaka Valley**.

The exclusion of the **Aorere Peneplains** in the SWG Report ONL was raised at the time of that reporting and was also carefully considered in the TDLS.

The **Sams Creek** area is excluded from the SWG Report ONL mapping. The latter provides little by way of explanation for the exclusion of this area other than to comment that it sits outside of the Kahurangi National Park. The extent of the excluded area corresponds to parts of the Sams Creek Conservation Area and North-West Nelson Forest Park where mining exploration licenses are held, and transmission line infrastructure is evident.

The Sams Creek area was also considered in the Densem 2017 Report. That report concluded that the reliance on the mining prospecting licenses boundaries to determine the extent of the ONL was methodologically flawed. The Densem 2017 Report recommended that the Sams Creek site be included within the ONL, although was inconclusive as to the physical extent of the area to be included.

The Sams Creek site excluded in the SWG Report displays the generally high or very high biophysical, sensory and associative values described in the Densem 2017 Report. Importantly, there is nothing that sets it apart from the surrounding ONL context (on three sides) from a landscape values perspective.

Further, reliance on the mining potential of the area is not a 'landscape reason' for inclusion (or exclusion) and is of little relevance to the evaluation of the area for RMA s6(b) purposes. For similar reasons, reliance on the mining license boundaries to determine the extent of the ONL in this location is methodologically flawed.

Te Ātiawa o Te Waka-a-Māui, Ngāti Tama ki Te Tau Ihu, and Ngati Apa ki te Rā Tō all express strong associations with the Sams Creek area.

On balancing these considerations, the TDLS concluded that the Sams Creek area is assessed to rate as outstanding and should be included within the wider Parapara-Kahurangi Ranges ONL.

With respect to the **Ballroom Caves and Stafford Caves/Aorere Goldfields area** (excluded from the SWG Report ONL mapping), the area within which the caves are located is the Aorere Goldfields Reserve (managed by the Department of Conservation), an approximately 20km² reserve between the Parapara Ridge and the Aorere River valley. The reserve is characterised by hummocky landform in early regenerating scrub and bush cover, and is littered with goldmining remnants and laced with tracks that are popular for walking and mountain biking.

The area is listed as Category B (national significance) in the Geopreservation Inventory in which it is described as the first major goldfield in New Zealand. Of interest, it is this goldmining activity that saw a change in the name of the area from Murderer's Bay to Golden Bay.

The caves and associated limestone features are distinctive, attractive and memorable landscape features in their own right.

Lake Duggan, roughly in the centre of the reserve, also forms an attractive landscape feature.

In views from the air and surrounds, the reserve area reads as part of the complex network of regenerating bush and scrub-clad foothills, peneplains and valleys that frame the south side of the Aorere valley and rise up to the string of peaks extending between Mt Olympus and Parapara Peak. In terms of sensory

landscape values, there is little that sets the Aorere Goldfields Reserve area apart from the flanking national park landscape.

With respect to cultural values, Te Ātiawa o Te Waka-a-Māui, Ngāti Tama ki Te Tau Ihu, and Ngāti Rārua all express strong associations with the area.

The TDLS found that the Aorere Goldfields Reserve area (including the Ballroom Cave and Stafford Cave) does not read as a separate (landscape) feature. The area displays high biophysical values (limestone outcrop and cave features, Lake Duggan), very high historic values (goldmining history), high recreational values (caving, walking and mountain biking), and high shared and recognised values (popular destination).

The low stature bush regeneration throughout the area suggests lower rankings for ecological values, and the historic mining of the area and clearance suggests a degree of landscape modification that is greater than many of the other ONL areas in the District; however, the general absence of built modification, sense of isolation, and dominance of more natural elements, patterns and processes favours a moderate-high rating in terms of naturalness.

With respect to aesthetic values, the visual connection and similar visual qualities of the area to the surrounding national park context serve to enhance its visual amenity values.

On balancing these considerations, the TDLS found that, overall, the Aorere Goldfields Reserve area, within which the Ballroom and Stafford Caves are located, is assessed to form part of the wider Parapara-Kahurangi Ranges ONL.

The additional area of land included within the Parapara-Kahurangi Ranges ONL corresponds to the extent of the Conservation Area and Reserve land throughout the Aorere Goldfields area. It is acknowledged that this does not align with a clear geomorphological boundary; however, it does correspond to the extent of the area where the high and very high landscape values above are concentrated.

In regard to the **boundary along the eastern side of Aorere Valley and the western/southern side of the Takaka Valley**, it is understood that the SWG Report adopted the 'tablecloth method' described earlier to determine the extent of the ONL. The TDLS ONL 2 mapping generally increases the 'footprint' of the ONL in this location, adopting a mapping delineation technique that corresponds to the national park/conservation land boundary or the 'outer' edge of large contiguous bush areas adjoining the national park/conservation land boundary. The landscape captured by the TDLS ONL effectively corresponds to the extent of the elevated bush-clad mountains that serve to frame the eastern side of the Aorere Valley and the western side and upper reaches of the Takaka Valley. This latter mapping method is considered to be more methodologically robust than the 'tablecloth method'.

The **Aorere Peneplains** comprise a moderately dissected, north westerly dipping series of predominantly pastoral ridges and flats intersected by deep bush-lined gorges, stretching (very approximately) from the Basin Creek catchment eastwards to the Boulder River catchment.

The area is identified as a Category C site (regional significance) in the Geopreservation Inventory and is valued as an example of near-final stage fluvial erosion. Part of the peneplains coincides with Kahurangi National Park and Department of Conservation reserve land, with the balance (and by far the majority) being in private ownership.

The TDLS found that the relatively large scale of the area, the dominance of pasture and other modifications and the contrasting character of the peneplains to the balance of ONL 2 favoured exclusion from ONL 2. This is despite the high legibility, naturalness and biophysical values associated with many of the bush-lined gullies throughout the area (noting that the two key gorges [Salisbury Creek and Finney Creek] are identified as part of **ONF 1 Aorere Gorge and Salisbury Falls**. Further, Dr Hayward did not support the inclusion of the Aorere Peneplains in the ONL (or as an ONF) from a geoscience perspective.

ONL 3: GOLDEN BAY/MOHUA COASTAL MARINE

Differences between the TDLS mapping of ONL 3 and the SWG Report focus on:

- a. the treatment of **Port Tarakohe**;
- b. mapping of **Sopers Hill**; and
- c. the treatment of **Wainui Bay**.

The TDLS favours the exclusion of **Port Tarakohe** from the ONL. In contrast the SWG Report included this area in the ONL. It is fair to say that the exclusion of the port amounts to a ‘cut out’ mapping delineation approach, which is generally not favoured in landscape assessment. However, in this instance the markedly contrasting level of built modification and intense industrial activity within a localised area together with the absence of many of the biophysical, sensory and associative attributes and values associated with ONL 3 weights against the area’s inclusion in the ONL. Whilst not a landscape in its own right, the port area does read as a ‘place’ that is distinctly different to the wider ONL and does not display the same high biophysical, sensory and associative values evident in ONL 3. For these reasons, excluding Port Tarakohe from ONL 3 is recommended.

ONL 4: ABEL TASMAN

Differences between the TDLS mapping of ONL 4 and the SWG Report focus on the treatment of the **western boundary facing Takaka Valley**.

The TDLS ONL 4 western boundary generally runs along a ridgeline extending south westwards from the ridgeline system defining Wainui Bay. The TDLS mapping along the western side of ONL 4 generally increases the ‘footprint’ of the mapped area in comparison to the SWG Report mapping.

At the **northern end of the western ONL 4 boundary**, the line is ‘stepped’ in places to include large areas of contiguous bush cover throughout elevated and (generally) west-facing steep slopes. In the main, the elevated slopes excluded from the ONL correspond to landforms that dominated by either fragmented landcover or land disturbance.

Towards the **southern end of the western ONL 4 boundary**, all of the steep landforms framing the eastern side of the mid to upper section of the Takaka Valley (north of SH60) are included in the ONL, despite the fragmented landcover patterning (which includes production forestry). The bold landform

Sopers Hill is included in ONL 3 in the TDLS, however was excluded from the SWG Report mapping. It was the TDLS finding that Sopers Hill displays high biophysical values (relatively distinctive headland landform with bush cover directly adjacent the sea), high aesthetic values (attractive and memorable patterning of bush-clad hill within ‘flat’ landscape setting, landmark quality as a consequence of landform scale and contrasting character), and high naturalness values (perception of very limited/ sympathetic built development).

The values of this landform are underpinned by the inextricable link of the headland with its seascape context rather than as a consequence of its attributes and values in its own right. For this reason, identification of the area as part of the wider Golden Bay/Mohua ONL was preferred over recognition as an ONF.

The treatment of **Wainui Bay** is discussed below.

patterns together with their large scale and the role the landform plays in shaping the landscape character of the upper valley as a consequence of proximity, together with the underlying geoscience values of the area weigh in favour of inclusion.

The SWG Report included within the Abel Tasman ONL an ‘outlier’ near Clifton that was considered to ‘read’ as part of the much larger scale ONL backdrop in views from some locations within the valley.

Part of this area is included in the TDLS ONL 4 mapping, corresponding to the regenerating bush-covered east-facing steep slopes, which are generally in reserve and link to the broader ONL.

The west-facing regenerating bush slopes of the ‘outlier’ form a contrasting element in the wider fragmented patterning of the hill system fronting this portion of the Takaka Valley. Overall, the TDLS concluded that this patch of regenerating bush-clad slopes did not warrant inclusion in the broader ONL.

ONL 5: WAINUI BAY

(Part of Golden Bay- Mohua Coastal Marine ONL and separate ONF in SWG Report)

The TDLS recommends that **Wainui Bay** is identified as an ONL in its own right, while the SWG Report identifies Wainui Bay as part of the Golden Bay/ Mohua Coastal Marine ONL and as a separate ONF.

It was the TDLS finding that the scale and legibility of the area as a distinct landscape suggests that it is more appropriately considered as a ‘landscape’ rather than as a ‘feature’. The observation of Wainui Bay as a gateway to the Abel Tasman National Park with a comprehensive range of biophysical features that come together to form a microcosm of the wider Golden Bay biophysical landscape, favours identification as a stand-alone ONL, despite its relatively diminutive scale in comparison to the District’s other ONLs.

Appendix G: Comparison of TLS ONFs with SWG ONFs

A total of thirty-three ONFs are identified within the District.

Seven of these ONFs correspond to ONFs identified in the SWG Report (which related to Golden Bay and the Northwest Coast portion of the District only). There has been some modification to the mapping of some of these features following expert geoscience and landscape input. The benefits of GIS mapping tools have also played a role in this regard.

ONF recommended in Tasman District Landscape Study (TDLS and SWG Report)	Mapping comments
ONF 1 Aorere Gorge and Salisbury Falls	TDLS mapping generally corresponds to SWG mapping although excludes pastoral land in the middle of the braided section of the river. The excluded area does not display values that warrant an outstanding classification and is of a scale and character such that it is not dominated by the values associated with the surrounding ONF.
ONF 3 Big River	TDLS and SWG Report mapping very similar although TDLS mapping takes in the bush lined margins of the feature as they are considered to be integral to the definition and values of the feature.
ONF 6 Farewell Spit and Tidal Flats	TDLS and SWG Report mapping very similar although TDLS mapping is expanded to take in a relatively small portion of pasture dominated land (under DoC administration) at the far western end of the spit as this is considered to be a part of the spit landform.
ONF 20 Paynes Ford, Irvines Cave, Oxbow and Spring	TDLS mapping closely aligns with SWG Report although includes all of the DoC Reserve land in the vicinity of this feature (as public access is critical to the rating of at least some of the attributes and values of this landform feature), and extends onto small areas of adjoining private farmland adjacent the watercourse where the landform and vegetation patterning is such that the private land reads as part of the broader Paynes Ford, Irvines Cave, Oxbow and Spring landscape feature.
ONF 25 Tarakohe Coastal Cliffs and Natural Tunnel	TDLS mapping closely aligns with SWG Report although the former relies on MHWS to define the northern edge and does not extend into the CMA (which is identified as ONL 3 Golden Bay – Mohua in the TDLS). The TDLS also includes the steep north facing bush clad slopes of Hanson Winter Reserve in this ONF, whereas the SWG Report identified this reserve as a separate ONF.
ONF 26 Te Waikoropupū Springs	TDLS mapping takes in a larger footprint that the SWG Report mapping, although excludes the finger of bush flanking the Te Waikoropupu River on private land, beyond the DoC Reserve. TDLS mapping confines the ONF to the DoC Reserve land as (as public access is critical to the rating of at least some of the attributes and values of this landform feature). The fingers of bush and river corridor that are excluded relate to the lower reaches of the river well beyond the spring feature.
ONF 27 The Grove	TDLS mapping matches SWG Report for this ONF.