

Marlborough Landscape Study

August 2015

LANDSCAPE CHARACTERISATION AND EVALUATION



MARLBOROUGH LANDSCAPE STUDY

LANDSCAPE CHARACTERISATION AND EVALUATION • C15018
Prepared for Marlborough District Council (MDC) by Boffa Miskell Limited

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Thank you to the following people who contributed to this report:

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This report incorporates feedback from the consultation phase which occurred from 2011 through to 2015. Consultation was based on the information and maps produced in the February 2010 version of the *Marlborough Landscape Study 2009*. All amendments made to this 2015 updated report since 2011 therefore include all amendments that have taken place during this period.

Front Cover: Early morning mist emphasises the landforms of Kenepuru Sound, with the forested Putanui Point evident in the foreground. Small photo to left: Wine growing in the Wairau Valley. Small photo to right: The dry hills of the Redwood Pass.
Inside Cover: The vivid pink colouration of the salt-drying ponds at Lake Grassmere, as seen from the air.



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Evaluation

August 2015

Boffa Miskell 

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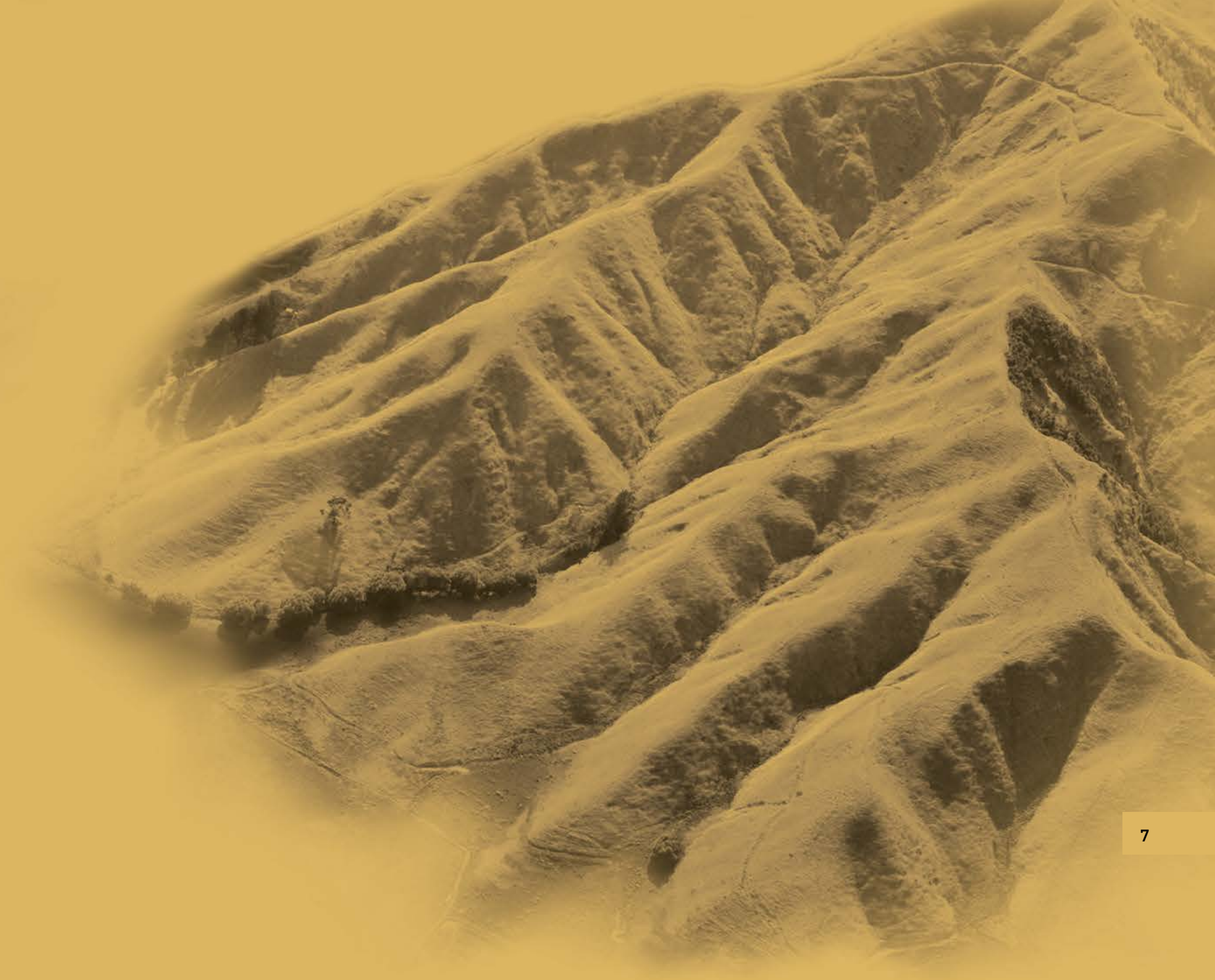
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Quarry on Ward Beach Road

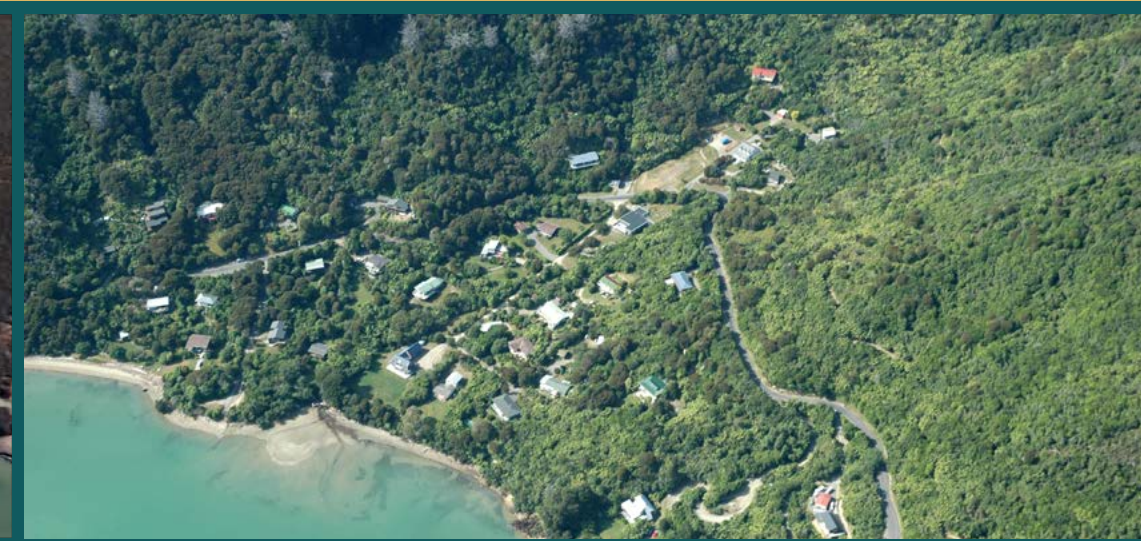
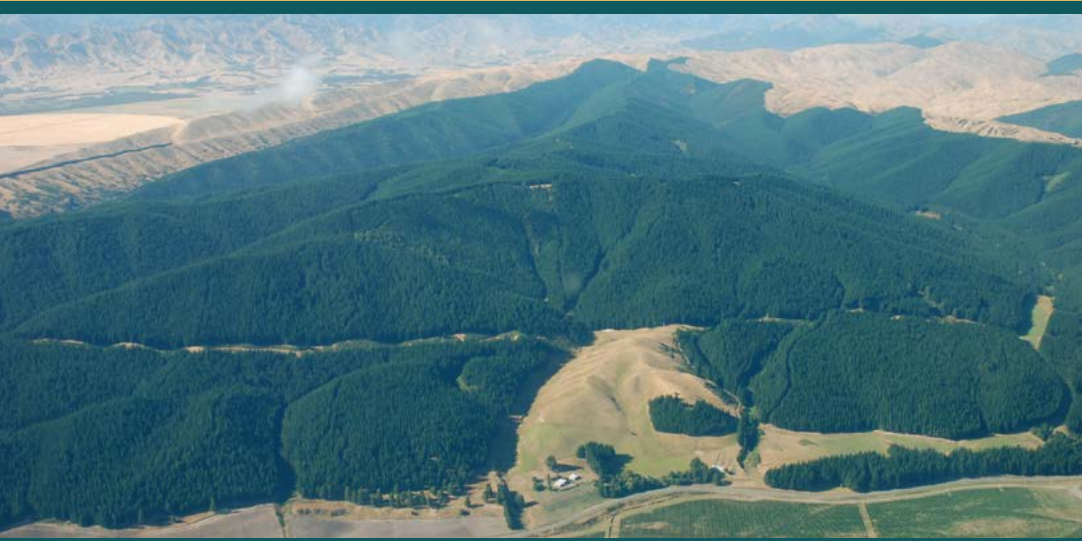


Farm building nestled in the Awatere Dry Hills Landscape Character Area



Section A

Study Background



STUDY BACKGROUND: MARLBOROUGH LANDSCAPE REVIEW

This Landscape Study has been prepared as part of the Marlborough District Council (MDC) review of the Marlborough Regional Policy Statement (RPS), the Wairau Awatere Resource Management Plan (WARMP), and the Marlborough Sounds Resource Management Plan (MSRMP) (referred to as 'the plans'). The landscape review was undertaken in order to provide greater consistency in the above-mentioned plans, and to incorporate changes in the understanding of landscape since the original landscape studies of the 1990's.

The Landscape Study has been carried out in three stages. The first stage comprises a regional landscape characterisation, by which the region's landscapes are classified into broad land-types and character areas, drawing from land typing analysis conducted by Landcare Research. The second stage comprises an evaluation of the district's different landscape values, including the identification of landscapes in accordance with Sections 5, 6 and 7 of the Resource Management Act (RMA) 1991. These landscapes include:

- coastal and riverine 'natural character' landscapes; section 6(a)
- outstanding natural features and landscapes; section 6(b)
- heritage landscapes; section 6(f)
- landscapes and features with high amenity value; section 7(c).

The third stage of the Landscape Study has involved engagement with affected landowners and stakeholders, most notably on the conclusions of Stage 2. This consultation was firstly targeted at affected landowners (i.e. a landowner who had outstanding natural features or landscapes, or landscapes and features with high amenity on their land). Consultation then extended to target other interested stakeholders.

Both the characterisation and evaluation stages of the Landscape Study essentially build on the Region's previous landscape assessments and existing data in the public realm. Aspects of landscape identified in recent case law are considered as well as advances in understanding of the concept of 'landscape' since the introduction of the RMA 1991 and the New Zealand Coastal Policy Statement (NZCPS) 2010. It is understood that outputs from all stages will be used by MDC to inform the RPS review and second generation versions of the plans in accordance with its statutory requirements.

Approach of Study

LANDSCAPE CHARACTERISATION AIMS AND OBJECTIVES

Currently the Marlborough RPS and its plans contain generally good landscape descriptions. However, the descriptions are not comprehensive nor consistent across all the plans and, in some instances, are not clearly mapped. Also, there have been substantial recent landscape changes arising from both land and water use in some locations. The landscape characterisation in this Landscape Study updates the earlier descriptions and provides consistent descriptions across the region. It highlights the landscape attributes evaluated in stage two of the Landscape Study.

Characterisation objectives are as follows:

- Objective 1:** To review the ecosystem/land-typing in the existing plans and extend the Landcare Research land typing to cover all of Marlborough;
- Objective 2:** To review and refine all relevant data sources that contribute to landscape character assessment including aerial photography, Geographic Information System (GIS) data bases and local sources;
- Objective 3:** To rework the current landscape descriptions, based on objectives 1 and 2, to provide a consistent explanation of the varied Marlborough landscapes;
- Objective 4:** To map and describe the region's landscape character areas.

Landscape characterisation is an increasing focus of study overseas and under the RMA 1991 in New Zealand. It considers all landscapes and provides a sound descriptive and analytical basis for understanding landscape diversity, attributes

and change. It includes seascapes. Landscape characterisation provides a context and justification for evaluating of special landscapes (i.e. Outstanding Natural Landscapes). Therefore, the purpose of the landscape characterisation study is to provide a largely descriptive and objective foundation for landscape evaluation, which involves value judgements. Both these aspects of the Landscape Study will later inform the selection of appropriate management mechanisms.

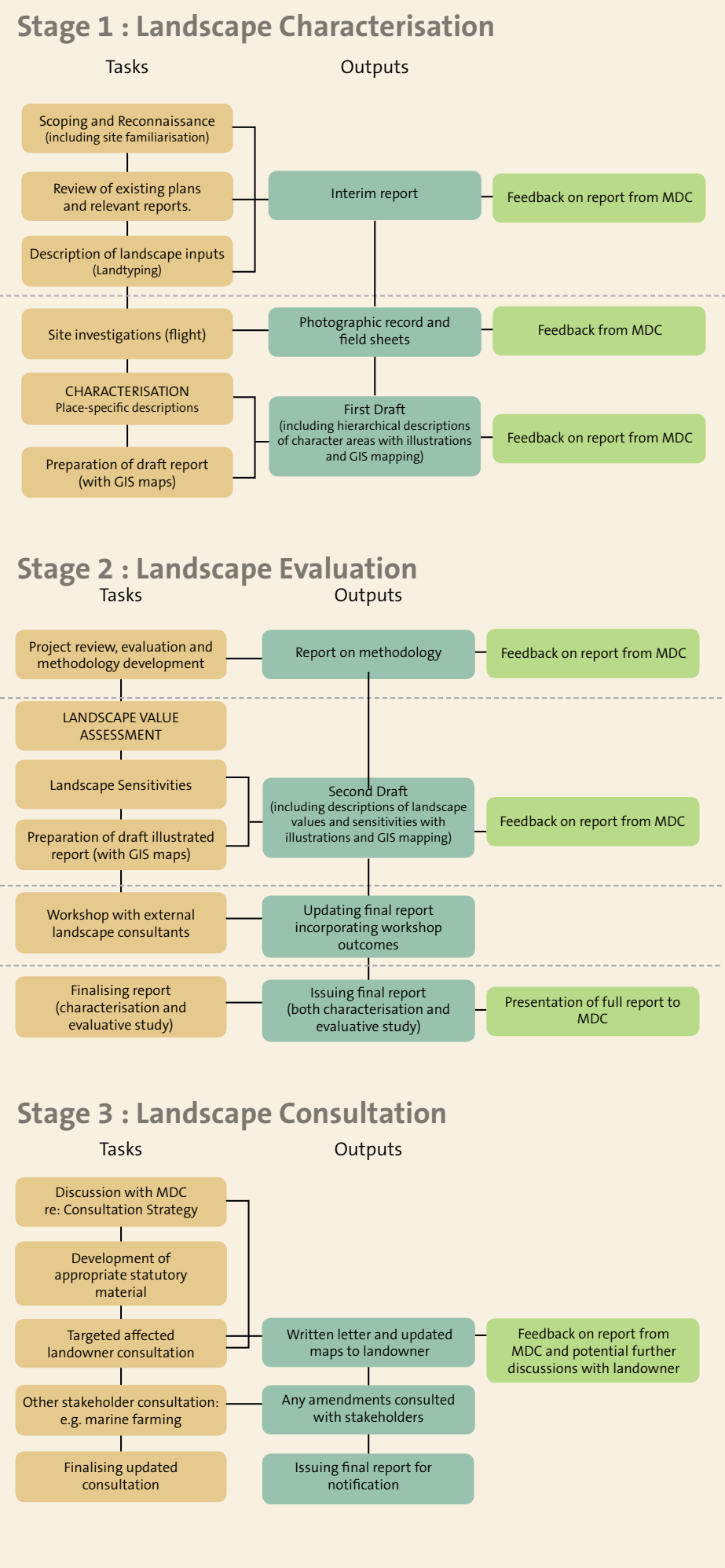
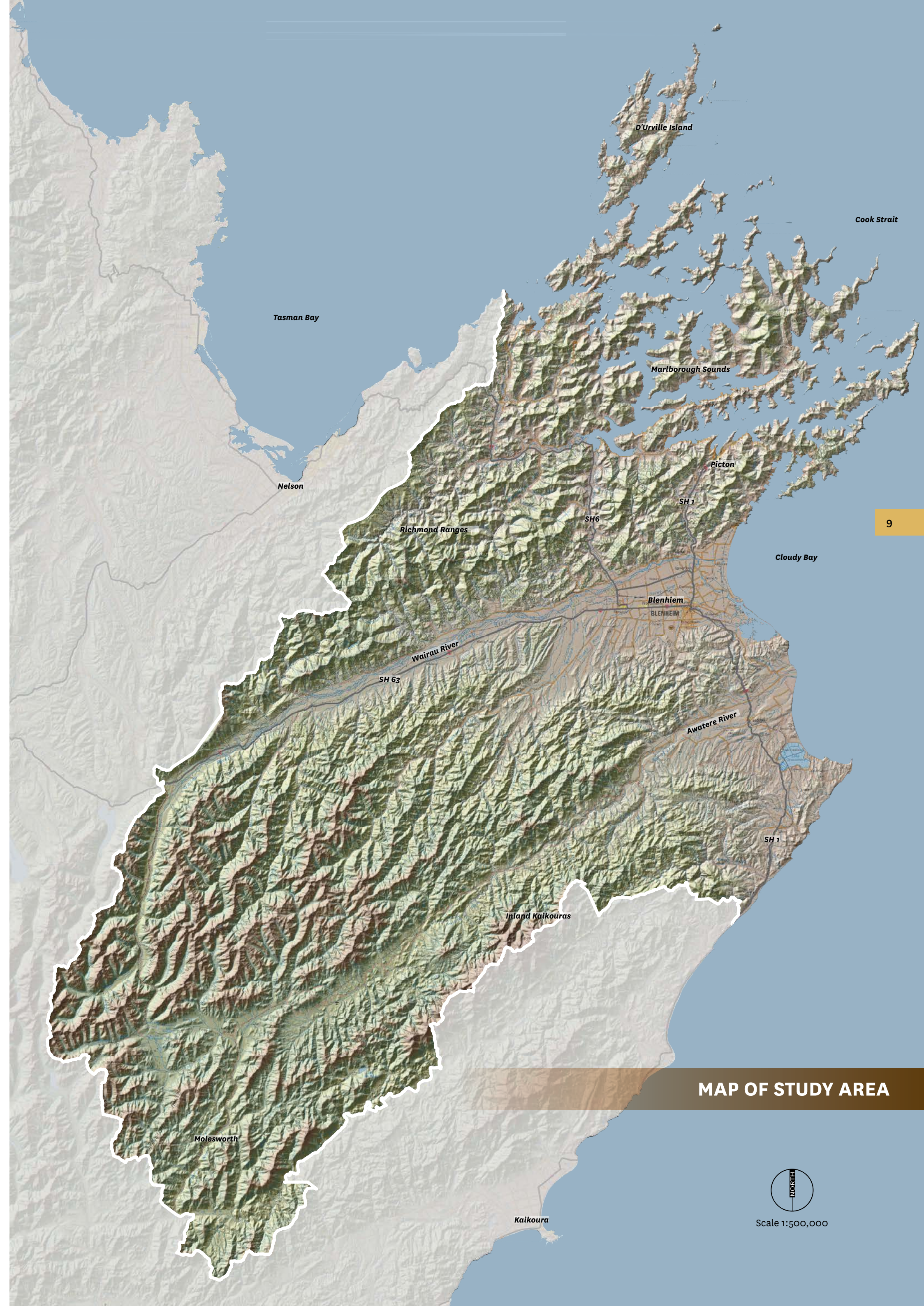


Diagram 1: Various stages of completion of the Marlborough Landscape Study 2015.



Most regional and district landscape assessments classify the landscape into landscape units of some type. These units are generally based on definable differences in landform and landcover between various parts of an investigation area. This 'unit' approach to landscape assessment is a pragmatic response to the large scale and complexity of what are often extensive and highly diverse areas of land. However, there are risks inherent in such an approach. Results may vary depending on the scale at which the units are defined.

To address this potential inconsistency, the landscape has been investigated at three levels in this Study – by broad landscape, by catchment and by feature or site.

Landscapes within Marlborough are highly varied, with different characteristics and values. Landscape character areas with broadly homogenous characteristics that are distinctive from adjacent landscapes can be identified and mapped. Boundaries between these character areas can be best defined through geomorphological analysis. Seascapes are inherent in this consideration.

In Marlborough, landscapes are likely to be spatially extensive and could be considered 'regional landscape character areas'. They contain internal variety that are referred to in descriptions and, where appropriate, mapped as sub-character areas. Landscape character areas also provide a logical framework for understanding the range of landscapes and their amenity values that the study team has identified and described so that appropriate resource management mechanisms can be tailored to them to maintain and enhance those values. Landscape character areas also provide a spatial context for 'special' landscapes that require additional protection.

Boffa Miskell Limited (BML) provided a first draft report, outlining the landscape characterisation stage to MDC in May 2009 for review and comment. The findings were discussed and the thinking for the second evaluative stage outlined.

LANDSCAPE EVALUATION AIMS AND OBJECTIVES

The landscape evaluation, which forms the second part of the Marlborough Landscape Study, is concerned with identifying the values and quality of the district's landscapes under the RMA 1991 and Policy 15 of the NZCPS 2010.

The descriptive framework, established during the characterisation stage, forms the basis for the landscape evaluation. Specific areas have been identified as requiring preservation and/or protection under the RMA 1991. Landscapes have differing combinations of values and/or differing degrees of the values present. Specifically, this Landscape Study addresses landscapes in accordance with Section 5, 6 and 7 of the RMA 1991 and Policy 15 of the NZCPS 2010.

The identified landscapes and features include:

- coastal landscapes; NZCPS Policy 15
- outstanding natural features and landscapes; section 6(b)
- heritage landscapes; section 6(f)
- landscapes and Features with High Amenity; section 7(c).

The landscape evaluation is a complex phase requiring a significant component of judgment by the investigations team because landscape. Landscape is a multi-dimensional concept and includes natural science, heritage, cultural, aesthetic and a number of other values.

Landscapes are valued differently by different people for a range of reasons. People who make their living from the land are likely to view the landscape differently from those that make fleeting visits. Māori understanding of, and attitudes to, landscape are significantly different from those of non-Māori. People's world views, upbringing and education will all influence their response to particular landscapes. For most people connection to the landscapes around them is deep-rooted. It is likely to involve culture, heritage, memories and much more. Therefore, it is essential that the process of valuation adopted in this Landscape Study and the use of its evaluation outcomes are as transparent as possible.

In September 2009, a second draft of the report was completed, which included both the characterisation and evaluation parts of this Landscape Study. Immediately following the release of the second draft, a workshop was held in early October 2009 and attended by three landscape architects who were unfamiliar with the project but familiar with Marlborough's landscapes: Di Lucas, Frank Boffa and Liz Gavin (nee Kidson). The objectives of this workshop were to:

- discuss the philosophy of the Landscape Study to date, including its direction and outline of the methodology;
- discuss the approach to identifying Outstanding Natural Features or Landscapes (ONFLs) and other landscape values in Marlborough, including natural character;
- discuss landscape values of originally identified and potential ONFLs (exchange knowledge, identify omissions/errors etc.), and
- define a threshold, which should be met to qualify as an ONFL in Marlborough.

Following this exercise, the report was updated to a third and final draft. The draft was introduced through presentations to Councillors of MDC, to Federated Farmers, and to a combined meeting of the Sounds Advisory Group and the MDC's own Landscape Group in November 2009. Some internal comments were received from MDC and targeted groups, including the Department of Conservation (DOC). These comments were addressed and the pre-consultation version of the *Marlborough Landscape Study 2009* was finalised in February 2010. This version of the Landscape Study was the basis on which Stage 3 was conducted.

LANDSCAPE CONSULTATION AIMS AND OBJECTIVES

MDC used the *Marlborough Landscape Study 2009* for the purposes of consultation with affected landowners. The landowners to be consulted were identified by overlaying the identified ONFL areas and selected VALs (Visual Amenity Landscapes - which have been re-termed High Amenity Landscapes and Features for this 2015 version of the Study) on a property ownership cadastral map.

During the identification and mapping in the pre-consultation phases of the Landscape Study, private land was not accessed. Areas were mapped using aerial photographs and topographical maps, at a mapping scale of 1:50,000. After identification, the affected landowners were written to with the offer to attend a meeting as well as individual site visits to verify the existence (or otherwise) and extent of, landscape values on their land.

The ONFLs were reviewed in relation to private land over the years 2011-2015. When site visits were invited by the landowner, the study team was able to better understand site specific characteristics and values, resulting in some refinement in the character description and evaluation of some ONFL areas.

The targeted engagement and site visits took place over all identified ONFL areas. James Bentley, landscape architect of Boffa Miskell undertook all engagement in the Southern Marlborough areas identified as ONFLs. ONFL identified areas in the 2009 Landscape Study, included the Roberston, Bryant and Richmond Ranges, the Wairau Lagoons, the Main Divide and Molesworth Station, the Inland Kaikouras, Chalk Range and Limestone Coast. Landscape architect Liz Gavin, of Canopy Landscape Architects undertook engagement within the Marlborough Sounds. All visits were accompanied by MDC Planner, Emma Richardson. In addition, other MDC representatives, including councillors, attended community meetings. This was a significant undertaking for MDC.

As a result of this engagement, the extent of a number of ONFLs identified in the pre-consultation 2009 version of the Study were refined. No whole areas were deleted, however a few small areas, notably in the Marlborough Sounds, were amended and/or added. The principal changes that took place were around boundaries and how these made sense to people on the ground.

Some further changes to the seascape areas of the outer Marlborough Sounds have also been made, separate from the consultation process. These changes were prompted by the publication of the *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment (2014)* and further work regarding seascapes.



Scoping and Familiarisation

Before beginning field work, the study team undertook a detailed desktop analysis of the existing information relating to Marlborough's landscape, including the RPS and two Resource Management Plans. A series of Geographic Information System (GIS) maps of the entire region were produced with a range of landscape data highlighting different landscape layers, such as vegetation, landuse and geology. This information enabled a clearer understanding of Marlborough's landscape prior to undertaking an initial field trip, ensuring all components were visited and explored.

The study team then undertook a three-day site visit, which involved traversing Marlborough's roads and circumnavigating the district by air. This, as well as numerous other visits to parts of Marlborough, enabled the study team to get an overview of the various landscapes and to better understand the type and extent of current land use trends.

Geographic Information System (GIS)

The use of a Geographic Information System (GIS) has been an integral component throughout all stages of this Landscape Study. GIS is essentially a powerful tool for visualising, analysing, querying and mapping geographic data. GIS systematically organises geographic data to enable a person reading an electronic map to select or deselect specific information about the area under review.

GIS information can come from a variety of sources, so a good GIS programme should be able to process this geographical information and integrate it into a series of layers which can be used over a standard base map. Many government departments, including regional and district councils and DOC for example, hold digital geographic data about their area of concern that is GIS-compatible. GIS is interactive and allows the user to select and view specific layers, such as conservation information for a district or numbers of consented marine farms for a specific area, which is then overlaid on a topographic base map. The user can then zoom in and out of the map and change the nature of the information displayed on the map to suit the particular project at hand. For example, for this study, it became important to overlay data-sets onto one another (such as the land typing, geology and conservation layers), which assisted in better understanding particular landscapes. It must be stressed that the scale of the information provided that forms a GIS layer must be of sufficient detail to enable its practical usage.

The full list of the landscape-related data used in GIS and its sources is listed below. One difficulty the study team faced was using existing mapped areas of Marlborough, which were mainly prepared prior to the advent of digitised geographic data. In order to compare maps some parts, such as within the 1995 Marlborough Sounds Resource Management Plan had to be scanned, with the lines traced into a digital format.

The delineation of landscape values (such as Outstanding Natural Features and Landscapes and High Amenity Landscapes) were primarily based on the land typing information and broad geomorphological and geological patterns. However, variations in landcover/use were taken into account as a secondary factor. This information was sourced from aerial photographs, Google Earth and other GIS related information, such as the LCDB (Land Cover Data Base). The following data was used for the preparation of this Landscape Study:

National GIS data used by BML for the Study mapping:

- Topographic Maps (LINZ)
- Digital contour information 20 metre intervals (Land Information New Zealand (LINZ))
- Land Cover Database 4 (Terralink, based on 2012/2013 aerials)
- Geopreservation sites and areas, as indicative points (Kenny & Hayward, 1998)
- Coastline (line sourced from LINZ)
- Public Conservation Areas (DOC, 2014)
- QEII covenants (QEII National Trust, 2015)
- Archaeological Sites (New Zealand Archaeological Association)
- Marlborough land typing (Ian Lynn, 2009 and Lucas/Lynn, 1997)
- Territorial authority boundaries (Statistics New Zealand, 2013)
- Marlborough Cadastral Information (LINZ Bulk Data Extract, 2008)
- New Zealand Land Resource Inventory (Landcare Research)
- River Environment Classification (NIWA)

Data provided by MDC:

- Current georeferenced orthophotos of the region
- Awatere Soils
- Wairau Plain Soils
- Locations of building and landuse consents issued as of September 2009
- Locations of foreshore facilities (jetties and wharfs etc) as of September 2009
- Coastal Natural Character ratings (2014)
- Marine farms (2015).

Marlborough Sounds and Wairau Awatere Resource Management Plan (1995), including:

- Outstanding Natural Features and Landscapes
- Heritage trees
- Special places
- Current ecological areas
- Heritage sites
- Prominent ridgelines
- Zone boundaries
- Faultlines.



The Upper Wairau Valley, close to the headwaters of the Wairau River. The Wairau/Hanmer Springs Hydro Road traverses through this landscape.

LANDSCAPE MEANING AND MARLBOROUGH'S STATUTORY CONTEXT

The Environment Court has commented that “A precise definition of ‘landscape’ cannot be given ...” [WESI vs QLDC [2000] NZRMA 59].

From the first use of the word ‘landscape’ in the late 16th century its definition has evolved. It is now accepted that landscape is far more than scenic views. Landscape has been described as the reflection of physical and cultural processes [www.NZILA.co.nz]. In the Study, the Marlborough landscapes have been assessed as expressions of environmental processes, human activity and regional identity.

The landscape’s physical complexity is further complicated by the ways in which people experience, use and value it. Many visitors and residents enjoy the landscape from a general aesthetic and cultural perspective. Those deriving a living from the land may also value its economic importance and, in many cases, its tidy and productive appearance. Conservationists, on the other hand, are likely to place greater emphasis on biodiversity and ecological processes.

Everyone sees, feels and understands the landscape differently. The landscape is required to simultaneously serve social, aesthetic, environmental and economic functions. Everyone has an investment in its future. It triggers strong emotions. However, the cost of managing the landscape often falls back on the private landowners. It is little wonder that attempts to address landscape management are fraught with difficulty.

For the purpose of these investigations, the study team has interpreted ‘landscapes’ as:

‘the physical and characteristic products of the interaction between human societies and culture with the natural environment. They can be considered to be spatial areas where place-specific elements and processes reflect a particular natural and cultural history. This unique combination of attributes may be expressed visually or in terms of meaning and spirituality. Because the underlying human and natural processes are subject to change and evolution, landscapes are dynamic systems.’

The RMA 1991’s references to landscape are both explicit and implicit. In “*Landscape Planning Guide - For Peri-Urban and Rural Areas*”, Raewyn Peart suggests that the RMA 1991:

...‘enables the identification of four broad categories of landscapes which merit more dedicated focus in regional and district planning, each with slightly different management objectives: outstanding natural landscapes, landscapes which contribute to visual amenity and/or the quality of the environment, areas of the coastal environment with high natural character and areas with cultural or heritage significance. These categories are overlapping and interconnected and may not always have distinct boundaries.’

She goes on to observe that

“Although landscape management, like any other environmental management exercise, is necessarily going to focus on some priority areas, there is a need to be concerned for the maintenance and enhancement of landscape quality everywhere. All landscapes arguably merit some management consideration under the ‘sustainable management’ purpose of the RMA and the requirement to avoid, remedy or mitigate adverse effects of activities on the environment.”

From a technical landscape perspective, the purpose of management may be described as:

- avoiding the inappropriate erosion of the intrinsic characteristics and qualities that have built up over time through the interplay of natural and cultural processes; and
- enabling development and change to occur that avoids the loss of landscape coherence, diversity and cultural identity and meaning.

This landscape perspective is contained within the RMA under a number of matters of national importance (Section 6) and other matters to which MDC is required to have particular regard (Section 7). The key sections of the RMA that relate to ‘landscape’ are the ‘*natural character of the coastal environment, wetlands, and lakes and rivers and their margins*’ (Section 6(a)), ‘*outstanding natural features and landscapes*’ (Section 6(b)), ‘*historic heritage*’ (Section 6(f)) and ‘*landscapes which contribute to visual amenity and/or environmental quality*’ (Sections 7(c) and (f)). ‘*Protection of areas of significant indigenous*

vegetation and significant habitats of indigenous fauna’ (Section 6(c)) and ‘*the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga*’ (Section 6(e)) are also clearly linked to a broad understanding of landscape.

Natural features and landscapes that do not meet the criteria for being ranked as ‘outstanding’ can, nonetheless, qualify for protection under other clauses in Section 6 or be required to be ‘*maintained and enhanced*’ either as ‘*amenity values*’ as part of the wider ‘environment’ Section 7(c) or Section 7(f). Thus, for example, coastal landscapes or rivers or lakes that are not ‘*outstanding landscapes*’ would still be required to have their ‘*natural character*’ preserved under 6(a). Similarly, as would areas of indigenous vegetation or habitats of indigenous fauna that are not considered to be ‘*outstanding natural features*’ under Section 6(b) will require protection under Section 6(c).

All of these sections of the RMA are relevant to this Landscape Study. However, it is Section 6(b), relating to ‘outstanding natural features and landscapes’, that has proved particularly problematic. More than twenty years after the introduction of the RMA there appears to be a convergence in the interpretation of Section 6(b) between ‘practitioner’ views on what the concept of ‘landscape’ embraces, and the general public’s interest, awareness and concern for ‘landscape’. Various Environment Court cases have reinforced the view that it is appropriate to consider a range of criteria (or factors) in landscape assessments. These include but are not restricted to:

- the natural science factors - the geological, topographical, ecological and dynamic components of the landscape;
- aesthetic values including memorability and naturalness;
- expressiveness (legibility): how obviously the landscape demonstrates the formative processes leading to it;
- transient values: occasional presence of wildlife or its values at certain times of the day or year;
- whether the values are shared and recognised;
- value to tangata whenua;
- historical associations.

The landscape assessment carried out for this Study reflects this wide-ranging understanding of landscape. Through the landowner and stakeholder engagement process, further values and characteristics of areas assisted the study team to understand the Marlborough landscape in depth.

STATUTORY MARLBOROUGH PLANS

Marlborough is administered by a unitary authority, the Marlborough District Council (MDC). The statutory documents relevant to this Landscape Study, as well as the RMA, include the following:

- The Marlborough Regional Policy Statement (RPS);
- The Wairau Awatere Resource Management Plan (WARMP);
- The Marlborough Sounds Resource Management Plan (MSRMP).

This technical Landscape Study can be used by MDC to inform the review of the existing landscape-related issues, policies and objectives within these documents.

The RPS, in the glossary, page 94, states that landscape ‘*means natural and built scenery in a broad view*’.

The WARMP Section 5.1 refers to ‘*indigenous, working and built landscapes*’ and defines landscapes as ‘*the visual expression of physical, biological and cultural processes both past and present*’.

The MSRMP does not appear to define landscape although in Volume One, Appendix One, page 1 the Plan states that: ‘*The dimensions of landscape are landscape character and landscape quality*’.

In section 5.1 the MSRMP notes that: ‘*The Marlborough Sounds has landscapes which are unique in New Zealand and are valued for their semi-wilderness aspects, scenic beauty, recreational capability and their social, economic and cultural utility*’.

In this Study, these various interpretations have been taken into account in producing a consistent and cohesive description and evaluation of the Marlborough landscape.

ASSIGNMENT OF VALUES TO THE LANDSCAPE

The New Zealand landscape has an international reputation as being exceptional. Ranging from the volcanic cones of Rangitoto and Tongariro in the North Island to the Marlborough Sounds, Aoraki/Mount Cook and the sheer walls and waterfalls of Milford Sound in the South Island, all are landform icons which grace tourist brochures and underpin New Zealand’s reputation for an amazing diversity of natural landscapes and seascapes [Molloy, L. et al (2002), p6]. This high landscape quality and diversity is increasingly recognised as one of the country’s key attributes and the Marlborough region is as diverse as any New Zealand region. Natural features within Marlborough range from the drowned river valleys of the Marlborough Sounds to the open braided rivers of the Wairau and Awatere valleys to the high rugged peaks of the Inland Kaikoura Ranges. The difficulty the study team faced during the landscape evaluation phase lay in determining whether these landscapes meet the threshold of being ‘outstanding at a district level’.

All landscapes have values. The study team used the Stage 1 character descriptions as a basis for value assessment. The descriptions of land types provide useful data on the attributes that contribute to landscape character. However, it gives little assistance to the identification of values attributed to the landscape. If a rational decision on what constitutes an outstanding natural feature or landscape is to be made, then the criteria, or justification must be explicit. Consequently, the Stage 2 evaluation phase was complex, involving the review of a range of existing information, including existing landscape studies of the district, literature reviews and other research documents. The considerable amount of information from different sources required the study team to use its professional judgement in identifying and evaluating the region’s landscape values. No other specialist assessments such as land use, tangata whenua, economics or historic values were commissioned as part of this Landscape Study.

As part of this Landscape Study, the study team reviewed the landscape character and value assessments that formed the basis of existing landscape policies in the RPS and the two resource management plans. Gaps were identified, which primarily related to the variable depth of information provided on landscape values. Other values such as the extent of the coastal environment and degree of natural character (Section 6a), heritage landscapes (Section 6f) and High Amenity Landscapes (Section 7c and 7f) were only partially identified in the previous landscape assessments. These other values had been assessed in relation to smaller areas of Marlborough but had not been addressed as a collective whole.

As mentioned previously, there are various different ways in which landscapes may be appreciated and thresholds for quality determined. The range of criteria that the Environment Court has reinforced for landscape practitioners to consider when valuing landscapes is referred to as the ‘amended Pigeon Bay criteria or factors’ (C32/1999 – Pigeon Bay Aquaculture Ltd v CRC and C180/1999 – Waikaitapu Env. Society v QLDC). The criteria or factors include: 1) the natural science factors - the geological, topographical, ecological and dynamic components of the landscape; 2) aesthetic values including memorability and naturalness; 3) expressiveness (legibility): how obviously the landscape demonstrates the formative processes leading to it; 4) transient values: occasional presence of wildlife or its values at certain times of the day or of the year; 5) whether the values are shared and recognised; 6) value to tangata whenua; and 7) historical associations.

There is now a level of acceptance in the use of these criteria as an assessment framework, however it is also increasingly recognised by practitioners that while the criteria are useful, they also have certain limitations. While the criteria were not intended to form a definitive or ‘complete’ list of landscape values, this is how they have often been used by assessors. Many of the criteria actually overlap and some could be more usefully seen as subsets of one another rather than as separate value categories. This can be confusing and lead to some values being given more weight than others, or ‘double-counting’.

The New Zealand Institute of Landscape Architects (NZILA 2010, p3) has recommended reordering the Pigeon Bay criteria into three categories, focusing on the landscapes’ broad biophysical, sensory and associative values. Biophysical, sensory and associative attributes can all be surveyed in a relatively objective way, using techniques that others can understand, repeat, review and critique. Condensing the Pigeon Bay criteria or factors into these three broad categories reduces the risk of emphasising some criteria at the cost of

others and enables assessors to interpret the landscape values with validity and reliability.

International landscape values such those used by UNSECO to value World Heritage Sites consider a variety of factors but, essentially, they separate the landscape into two aspects: natural landscapes and cultural landscapes. There are a number of criteria that a site [or property] needs to meet. For cultural landscapes this includes: creativity, cultural tradition, events/ideas/beliefs, as well as historic land use patterns. For natural landscapes the criteria extends to natural beauty/aesthetics, geological processes/features/landforms and natural habitats and biodiversity. Each criteria is also considered in terms of authenticity and integrity.

The UNSECO measure of ‘authenticity’ states: ‘*The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful. Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning are requisite bases for assessing all aspects of authenticity.*’

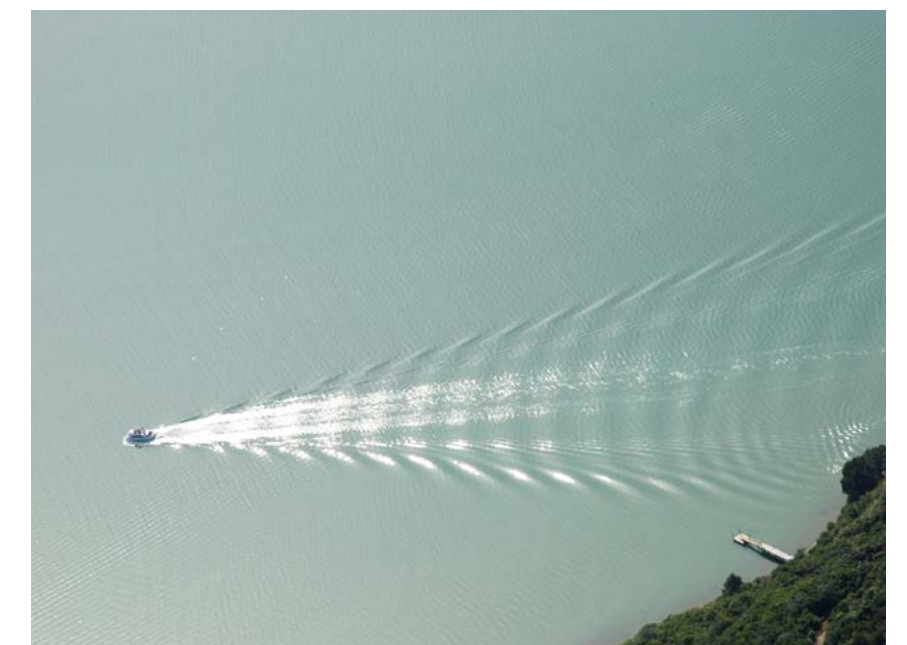
The UNSECO measure of ‘integrity’ states: ‘*Integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the property: a) includes all elements necessary to express its outstanding universal value; b) is of adequate size to ensure the complete representation of the features and processes which convey the property’s significance; and c) suffers from adverse effects of development and/or neglect.*’

Based on the developing methodology of valuing landscapes, and the review undertaken by the NZILA, the framework for the Stage 2 evaluation component of this Landscape Study focuses on three aspects of landscape, namely:

- Biosphysical aspects, which incorporate a landscape’s natural science elements, including its geological, ecological and biological elements. This part of the analysis involves more objective and quantifiable data;***
- Sensory aspects, which involve aesthetics, natural beauty, transient matters as well as distinctive smells and sounds. This part of the analysis involves judgmental and subjective interpretations of a landscape’s or feature’s aesthetics; and***
- Associative aspects, which involve cultural (tangata whenua) and historic values as well as shared and recognised attributes.***

In the evaluation summary of each character area, the study team’s judgements of ‘authenticity’ and ‘integrity’ will be explained.

A breakdown of the methodology is described over the page:



Boat in the Marlborough Sounds.

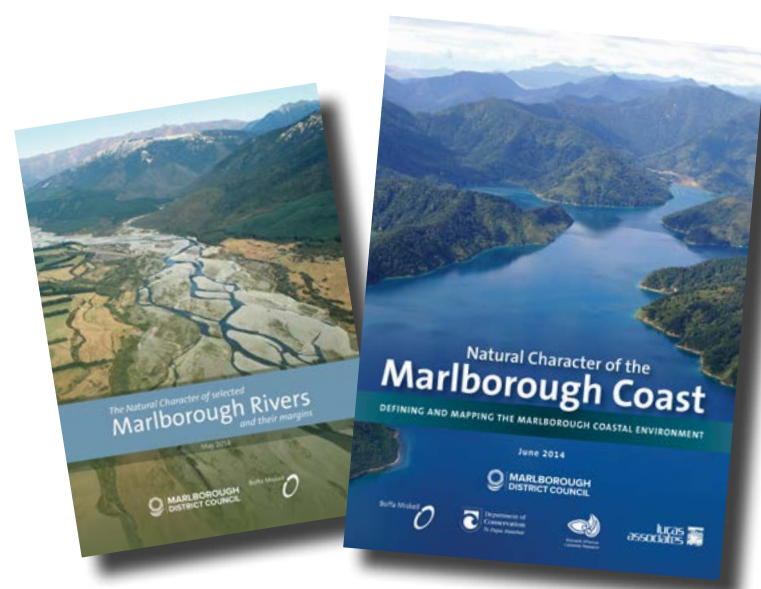
LANDSCAPE VALUES UNDER THE RMA

NATURAL CHARACTER (Section 6a)

Refer to the following separate studies:

Right image below: *Natural Character of the Marlborough Coast: Defining and mapping the Marlborough Coastal Environment* (June 2014)

Left image below: *The Natural Character of Selected Marlborough Rivers and their Margins* (May 2014)



OUTSTANDING NATURAL FEATURES AND LANDSCAPES (SECTION 6b)

BIOPHYSICAL VALUES

GEOLOGICAL VALUES

The Environment Court described 'natural sciences' in the Queenstown decision (C180/99) as "the geological, topographical, ecological and dynamic components of the landscape". Natural science values were considered important if a landform (including geology and soils) and/or land cover (in particular, native vegetation communities, wildlife and ecosystems) displayed particular representativeness or rarity within the region or district. Representative natural features and landscapes are clearly and recognisably characteristic of the area, district or region. The key components of the landscape will be present in a way that generally defines the character of the place. Natural features in a good state of preservation are representative and characteristic of the natural geological processes and diversity of the region or district. Natural features are unique or rare in the region or nationally, if few comparable examples exist. Natural features may be a landscape feature such as Lake Challice or an element/component of the landscape such as the Inland Kaikoura Range.



The form of the chalk cliffs at White Bluffs/Te Parinui o Whiti are expressive of geological processes including formation of sedimentary rocks, uplift and erosion.

In the past century, almost all areas protected in New Zealand have been identified for aesthetic or biotic values. While this has resulted in the protection of a large number of sites of significance, it has also resulted in considerable bias in what has been preserved. New Zealand has a unique and extremely diverse natural landform, geological and soil heritage. This is a result of its long and complex geological history, its climate and location on a volcanically and tectonically active boundary between two of the world's major crustal plates. The Geopreservation Inventory (refer to Appendix 3) lists information on all the internationally, nationally and many of the regionally important earth science sites throughout New Zealand.

The overriding objective of geological conservation in New Zealand should be to ensure that the broad diversity of geologic features, landforms, soils sites and active physical processes, the integrity of the best representative examples are protected. Such protection would enable better understanding of New Zealand's unique geological history, the development of its landforms and evolution of its biota.

Another aspect to assessing geological values lies in 'readability' or 'how legible' or expressive the geology is in the landscape. Overseas visitors often remark that New Zealand landscapes provide a wonderful lesson on physical geography. Past processes are often clearly seen and understood, and present geological activity, such as volcanoes, glaciers or rock slides, are clearly evident in many places. Legibility need not necessarily relate to 'attractiveness', but clarity of the geological processes is important.

Under the amended Pigeon Bay factors, 'legibility' is a stand alone criterion and is considered to be an essential quality of a landscape. For this Landscape Study, the study team has incorporated the legibility evaluation under geological values, while mindful that other values are also interrelated with legibility. The Environment Court described this criterion as "how obviously the landscape demonstrates the formative processes leading to it" (Barton, 2005), in other words, the degree to which the processes (geomorphological, hydrological, climate, vegetation, coastal and cultural) are actively displayed in the landscape. Some landscapes (or natural features) clearly express past natural and cultural processes. However, landscapes or features that are significant in terms of their geomorphological values, may not be expressive of their formative processes, whilst others that are highly expressive may not have a notable geomorphological value. Natural features and landscapes that exemplify the particular processes that formed them may also have strong historical connotations and a distinctive sense of place.

Authenticity of Information Sources used to inform the evaluation

The study team found that there was a large amount of material relating to the geology and geomorphology of Marlborough. All of this material appeared to come from credible sources and was generally scientifically comprehensive and sound. The Land typing report by Landcare Research was considered the most helpful, as this report was prepared specifically for this Landscape Study. The main sources of information used were:

- Land Typing provided by Ian Lynn (Landcare Research, 2009 and Lucas/Landcare Research 1997)
- Geopreservation Sites (Hayward, Kenny and Johnson, 1999)
- Geology and Soil Maps (MDC)
- Geology of the Wellington & Nelson areas (Begg, Rattenbury, 2000 & 1998)
- River Environment Classification (NIWA)
- Study team knowledge.

ECOLOGICAL VALUES

Marlborough has a vast number of small protected areas, as well as numerous conservation areas of national significance. Information available from various documents, including the Conservation Management Strategy, the Coastal Study [Boffa Miskell et al, 2014] and MDC's South Marlborough Significant Natural Areas project was used to inform the study team about biological values in the region. Several other publications (see Appendix 1, Bibliography) provided valuable information about flora and botanical values, freshwater resources, and wildlife.

There are a little over 20 ecological districts within Marlborough, ranging from the Sounds and Cook Strait to the Wither Hills and Flaxbourne areas. Together, the region's climate and geology have created a wide diversity of habitats and this diversity is reflected in the character of the native vegetation found. Marlborough harbours extensive areas of mixed forests (beeches, podocarps and broadleaf trees), shrublands (including 'grey scrub') and grasslands (silver tussock and snow tussock). The scale and representativeness of these areas are important in considering an areas outstandingness. In terms of the marine environment and specifically, the Marlborough Sounds, the waters harbour a myriad of habitats and environments, due to the diverse geomorphic landscape (e.g. reefs and offshore rocks and stacks of the Outer Sounds) to the relatively simple (e.g. benthic communities) of the more sheltered, enclosed bays.

Another aspect of ecological values relates to a landscape's transient nature. Transient values describe the contribution which wildlife, climate and hydrological processes make to landscape. A landscape may gain significance due to the way in which wildlife seasonally (or at times in the day) gathers or occupies a specific area. Similarly, locations that benefit from the rising or setting sun, time of day and seasons of the year may be elevated in value due to this 'transient characteristic'. Transient values have associations with sensory and associative values.

Authenticity of Information Sources used to inform the evaluation

The study team found that the majority of sources relating to the biology and ecology of Marlborough was comprehensive and sound, although varied in spatial context (often being focused towards Ecological Districts rather than Territorial Districts). The two Significant Natural Areas Projects for South and North Marlborough proved to be helpful, as did many Department of Conservation sources, such as the Conservation Management Strategy. The Land typing report by Landcare Research was also considered helpful for biological research, as was the coastal natural character study (Boffa Miskell et al. 2014). The main sources of information used were:

- Land typing provided by Ian Lynn (Landcare Research, 2009 and Lucas/Landcare Research 1997)
- Geology and Soil Maps (MDC)
- South and North Marlborough Significant Natural Areas Projects (2005 & 2009 respectively)
- Department of Conservation, Protected Areas (DOC, 2009)
- Natural Character of the Marlborough Coast (Boffa Miskell et al, 2014)
- Natural Character of Selected Marlborough Rivers and their margins (Boffa Miskell, 2014)
- Ecologically Significant Marine Sites in Marlborough (Davidson/DOC/MDC, 2011)
- Conservation Management Strategy (DOC, 1993)
- A natural character framework for the Marlborough Sounds (DOC, 2004)
- Study team knowledge, including BML ecologists.



The biologically rich Pelorus Sound.

Biophysical values 'outstanding test'

For a feature or landscape to rate highly for biophysical values and characteristics, the outstanding test is:

'a feature or landscape that contains exceptional and/or very high geological and/or ecological values. The intactness and legibility of a landform and its wider setting is essential in assessing geological values, particularly in terms of its ability to fully represent or express those geological features or processes that make it significant, such as tectonics or glacial activity. The representativeness of the ecology of an area, including its level of biodiversity, its spatial scale and sensitivity to landscape change is also critical to this test.'

SENSORY VALUES

AESTHETIC VALUES

The aesthetic value aspects considered by the Environment Court were described in the amended Pigeon Bay criteria as "including memorability and naturalness". In its decision (C180/99) the Court discussed of the adequacy of this description and was of the view that traditional scenic and visual considerations may be underplayed. The court noted that considerations such as pleasantness raised in the RMA amenity definition with reference to Section 7(c) are also relevant.

The concept of vividness and visual coherence are also often used in relation to aesthetic values. For example, they were considered as contributors to the landscape's visual quality in the *Wairau Awatere Landscape Assessment* (BML, 1996). The definitions of the following terms show that aesthetic factors are interrelated:

Memorability: the way in which experience of a landscape remains in the memory. Highly memorable landscapes comprise a key component of a person's recall or mental map of a region or district. This is also often related to a landscape's legibility and beauty.

Naturalness: natural features and landscapes appear largely uncompromised by modification and appear to comprise natural systems that are functional and healthy. Naturalness describes the perception of the predominance of nature in the landscape. A landscape may retain a high degree of aesthetic naturalness even though its natural systems are modified. Similarly, landscapes that have high ecological values may not necessarily display high qualities of visual naturalness.

Vividness: vivid landscapes are widely recognised across the community and beyond the local area and remain clearly in the memory; striking landscapes are symbolic of an area due to their recognisable and memorable qualities, including their landform.

Coherence: coherence describes the way in which the visual elements or components of any landscape come together. Landscapes with high levels of coherence will have their visual elements in harmony and reinforcing each other. They will have unity, whilst they may be either visually diverse or relatively simple in terms of their elements. They work together in terms of their composition. Natural systems are intact and aesthetically coherent and do not display significant visual signs of disharmony. The patterns of land cover and land use are largely in harmony with the underlying natural pattern of the landform of the area and there are no significant discordant elements of land cover or land use.

While natural features and landscapes are generally characterised by their landform and their land cover, the experience of some landscapes can be significantly influenced by other, sometimes ephemeral characteristics such as seasonal wildlife concentrations and breeding areas. Where these characteristics occur regularly, they become a recognised and integral part of the landscape, to the extent that some landscapes are widely recognised for their transient features. The common occurrence of transient features (for example the seasonal changes in the mountains or particular weather patterns and cloud formations) contribute to the character, qualities and values of the landscape. Some landscapes are widely recognised for their transient features and the contribution these make to the landscape.

The Oxford English Dictionary (2002) defines 'aesthetic' as 'concerned with beauty or the appreciation of beauty; of pleasing appearance'. This appreciation of beauty encompasses not only the visual aspects of a landscape but also other sensory experiences, such as sound, smell and touch. Many scientific studies have been undertaken to examine and quantify scenic beauty of landscapes¹. A number of researchers² found that both a landscape's intrinsic physical properties (natural beauty) and/or cultural elements (relating to human creation) can result in aesthetic landscape quality. Areas identified as outstanding landscapes generally contain these favoured characteristics. However, significant visual signs of human modification, intervention or manipulation often detract from the visual 'wholeness' and the aesthetic qualities of a landscape.

OTHER SENSORY VALUES

Sensory elements of a landscape can extend beyond visual or aesthetic values. For instance, a landscape can portray auditory and odour stimuli that are just as important as the landscape's appearance. There is usually a congruence or coherence between sound, smell and visual stimuli that excites the senses, such as a the experience of being in a natural setting. Sensory values can be highly transient; from the morning chorus of waking birds in the bush to the fragrance of a meadow on a summer's evening. Weather patterns, seasons, tidal movements and time of day all stimulate our senses and are integral when assessing the sensory aspect of a landscape.

Authenticity of Information Sources used to inform the evaluation

The authenticity of the sources relating to aesthetics varied considerably, due to the high level of subjectivity relating to the term. The study team preferred the sources provided by MDC and the DOC for their completeness, as well their combined knowledge of the area. Other helpful sources included:

- previous landscape assessments (Wairau/Awatere Landscape Assessment (BML1996)) and relevant information within the MSRMP, WARMMP
- site visits, study team knowledge and internet searches
- variety of relevant literature, pamphlets and booklets from Marlborough District Council and DOC.

Sensory values 'outstanding test'

For a feature or landscape to rate highly for sensory values and characteristics, the outstanding test is:

'a feature or landscape that contains exceptional and/or very high aesthetic values (and may include non-visual sensory values). The integrity [refer to page 15] of an area includes reference to the level of visual coherence and the extent to which all components necessary for maintaining the sensory qualities of the area are included, such as the way in which a scenic body of water is linked to the qualities of the wider water catchment'

ASSOCIATIVE VALUES

SHARED AND RECOGNISED VALUES

Certain natural features and landscapes are widely known and valued by the immediate and wider community for their contribution to a sense of place. This leads to a strong community association with or high public esteem for the place. The presence of existing protected sites is a key indicator of shared and recognised values. These values are closely associated with cultural heritage and tangata whenua values described below.

Research has shown that many professional landscape assessments have reflected fairly accurately the views of the general public. Nonetheless, it is fully accepted that in some circumstances the expert's perceptions may be different. Public perception exercises are often extremely costly and not always feasible as part of a landscape study. In many such studies there is no consensus between members of the public or different stakeholder groups.

Studies of Marlborough's literature and art stress the significance of both generic and specific landscapes and the extraordinary differences of scale found in the region's landscapes. For example, the poems written by Eileen Duggan are specific to a number of areas, including Tuamarina and the Wairau River, while some artists focus on the more ephemeral attributes in the landscape, such as light, vegetation and water patterns.

When making paintings, artists use colour, shape, form and tonality to express their 'observation' and 'perception' of the landscape. In this way, artists can transform the viewer's own perception of 'time' and 'place', exposing a meaningful insight about ourselves relevant to the environment. The importance of sense of place (genius loci) is apparent. Artists often articulate the scenic qualities of a place in terms such as patterns, rhythms, space, horizon, sky, weather, diversity, barren, empty, raw, sculptural, vivid, harsh. Marlborough paintings emphasise the specialness of their subject and often result in contemporary images with which the community can identify.

Tourism in Marlborough is important for the local economy. An analysis of visual material provided for visitors clearly shows that the Sounds, the mountain and dry hill backdrops, the plains and braided rivers, and vineyards all frequently appear in images. The most frequently 'referred to' places include Picton and the Queen Charlotte Sound; Havelock, Pelorus, French Pass and Kenepuru Sound and Blenheim and the Wairau Valley, which are often considered to be 'iconic landscapes' of the region. Views from principal corridors, such as state highways also increase the shared and recognised values of a landscape.

Conservation areas and popular recreation opportunities within them have been considered under this set of values. DOC is one of the largest landholders in New Zealand, with over 480,000 hectares of conservation land in Marlborough; located predominantly within the mountainous south, west and north of the region, including areas within the Marlborough Sounds. Digital GIS maps of DOC and QEII Trust managed protected areas, including forest parks, reserves, stewardship land, etc, were used by the study team as information sources.

Authenticity of Information Sources used to inform the evaluation

Due to the nature of the topic, the authenticity of a number of sources was of variable quality. The study team found the following sources relating to shared and recognised values the most helpful:

- previous landscape assessments (Wairau Awatere Landscape Assessment(BML 1996)) and relevant information within the MSRMP, WARMMP
- DOC and QEII Trust protected areas
- MDC and DOC information brochures and websites
- study team knowledge.

CULTURAL AND HERITAGE VALUES

Cultural legibility is a vital component of many overseas landscapes where many centuries of human endeavour can be unravelled through study of the present landscape. In New Zealand this aspect of landscape has received only limited and belated attention. The developing awareness of complexity of the 'indigenous cultural landscape' of Tangata Whenua is covered under the Tangata Whenua evaluation criterion below. This increased understanding of the value of landscape as a living record of social change, adds to the increasing significance attached to the legibility of our landscapes.

Some of Marlborough's landscapes are clearly and widely known and influenced by their connection to the historical values inherent in the place. Cultural and historical values are based on traditional land uses such as farming and food gathering practices, traditional settlement patterns or other social patterns of a time, architectural periods, or notable landmarks, events or figures. Some of them are specific sites of significance, others are wider areas that reflect a high degree of unity or integrity as a setting for historic sites or activities. Individuals and communities leave their different marks on the landscape. From the clues in our landscapes, such as architecture and land use, as well as memories of events, landscapes can tell stories of from where and from whom we came and why we have responded to the physical environment in the ways we have.

Authenticity of Information Sources used to inform the evaluation

The authenticity of a number of sources for this topic also proved to be highly variable. Marlborough's cultural history has been much written about so the task for the study team was to condense that information into manageable whilst still meaningful summaries. The study team found the following sources the most helpful, particularly the websites:

- Previous landscape assessments (Wairau Awatere Landscape Assessment (1996)) and relevant information within the MSRMP, WARMMP
- Cultural Heritage maps, (Central Index of New Zealand Archaeological Sites (CINZAS) and New Zealand Archaeological Association (NZAA))
- Department of Conservation and QEII Trust protected areas
- Study team knowledge
- Reference books, pamphlets and brochures from MDC
- Website searches including www.theprow.org.nz, www.marlboroughonline.co.nz, www.archsite.org.nz and www.nzhistory.govt.nz

TANGATA WHENUA VALUES

There are a variety of natural features and landscapes in Marlborough that are clearly special for, or widely known and influenced by, their connection to the Māori values inherent in the place. These landscapes (or parts of them) have been identified, as best as practicable as having particular regional importance to tangata whenua. No liaison with tangata whenua has taken place during the assessment of this Landscape Study. This is a recognised gap in this study.

Authenticity of Information Sources used to inform the evaluation

Due to the mainly oral recorded history of tangata whenua, the authenticity/credibility of the sources varied considerably. The study team found the following sources most helpful due to their comprehensiveness:

- Historical research of Māori and iwi values including the website: www.teara.govt.nz
- MDC website.

Associative values 'outstanding test'

For a feature or landscape to rate highly for associative values and characteristics, the outstanding test is:

'a feature or landscape that contains exceptional and/or very high shared and recognised, cultural (including tangata whenua), and heritage values. There is a difference between an acknowledged area of value such as a reserve, and an association with an area due to it having been written about or painted. Therefore, the measure of integrity [refer to page 15] is useful to differentiate those landscapes that currently demonstrate shared and recognised values through various forms of functioning protection and management such as legislative or voluntary systems. For heritage values, the measurement and extent of which the landscape has been modified with consideration to whether the key characteristics of the historic period have been retained, is fundamental. In terms of tangata whenua values, integrity refers to the manner in which an area fully embodies culture and beliefs, in particular, the spiritual connection between the Māori community and their environment'

HERITAGE VALUES (Section 6f)

All landscapes express their past to a greater or lesser extent. Identifying and assessing cultural or heritage landscapes is a relatively new area of research in New Zealand.

The historic and cultural values of Marlborough are rich and cover vast areas, however, evidence of this today tends to be sporadically located. Where collections of heritage features are found, they are often unrelated by event, custom or by historic era. The task the study team faced, therefore, was to interpret the definition of heritage landscapes through its meaning within the RMA 1991 context, focusing on historic heritage relevant to section 6f and including, within the scope of investigations, areas and surroundings beyond specific heritage sites, particularly where those areas express past landscapes.

A number of guidelines, essays and theses have been written regarding the

identification and evaluation of heritage landscapes. The overriding assessment principles from these sources relate to the integrity of a landscape's heritage fabric, its intactness and distinctiveness as an historic landscape, and its vulnerability to change/ modification. In some cases there may be little extant in the landscape, e.g. a battle site. In others, there may be visual and physical cues from a specific period of activity, e.g. pa site or wharf buildings; or a 'layering' of features from a number of periods. In other instances, the heritage components of a landscape may be sufficiently rich to suggest identification and management as a 'heritage landscape'.

In a decision by the Environment Court, the Court noted 'While not committing ourselves to any particular wording for a threshold evaluation, we consider that for the purposes of assessing whether a landscape

is significant for its heritage the extent of heritage items and associations must be such as to give the landscape its particular character.' (Holcim nZ, Decision C058/2009, page 177)

The study team, therefore, had to ascertain the importance, density and distinctiveness of heritage features that may constitute a heritage landscape.

The study team identified the main historic values of Marlborough and incorporated these into the evaluation stage of the Landscape Study but no one area clearly 'stood out' as a heritage landscape. Although many of Marlborough's cultural and historical areas are of great importance to the region and, in some regards to the country, the study team found it difficult to locate a clearly legible cultural landscape that displayed obvious, coherent, rich associations even though some parts of Marlborough display a slightly higher, though still varying, concentration of historic structures, buildings and events than others.

The coastline from Rarangi to Port Underwood displays a wealth of history, ranging from old whaling stations to cottages and cemeteries, but these values appear sporadic and do not, in the mind of the study team, collectively constitute an historic landscape. Rather, their values for ONFL status were considered independently as part of the associative attribute of the methodology.

Therefore, for the purposes of this Landscape Study, no heritage landscapes have been identified. The study team propose that a more rigorous appraisal be undertaken at a later stage, when a separate heritage study for the district is undertaken.

AMENITY VALUES AND QUALITY OF THE ENVIRONMENT (Section 7c and 7f)

The RMA defines amenity values as:

"those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."

The quality of the environment is not defined by the RMA. The focus of the investigations into amenity and environmental quality in this Study was on visual amenity. The study team assessed the important visual amenity features or characteristics that occur outside the areas identified as outstanding natural features and landscapes. 'High Amenity Landscapes' tend to be more culturally modified landscapes, where their aesthetic and scenic values are high. They tend to have high associative values. The study team found that the following data assisted in the identification of high amenity landscapes:

- Reserves (DOC, MDC etc.)
- Key viewpoints (study team investigations)
- New Zealanders' *Perceptions of the Marlborough Sounds in 2012: Results of a Nationwide Survey* (Corydon, 2012)
- Recreation opportunities (tourist maps, walkways, topographical maps, study team investigations).

The study team therefore evaluated the aesthetic aspects of the Marlborough landscape and determined those landscapes (such as the Upper Awatere Valley) and features (such as Spring Creek) with high amenity value within Section 7c and 7f of the RMA 1991.

¹ Landscape Quality Assessment of South Australia, Andrew Lothian, Dissertation for Doctorate of Philosophy, Department of Geographical & Environmental Studies, University of Adelaide, 2000
² Eg Zube, Sell and Taylor (1982) analysed 160 published papers and found that the physical elements, compositional construction, locational context, naturalness, man-made elements, and gestalt were the key characteristics that were considered in landscape quality assessments.

MAPPING LANDSCAPE VALUES

Identifying and Mapping Landscape Values

Mapping is essential to recording and defining the landscapes and landscape features identified through the landscape characterisation and evaluation stages of this Study, described on pages 8-10. Defining boundaries between identified areas can be complex. This section outlines the broad approach taken.

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, such as the Queen Charlotte Track, which would traverse the eastern Marlborough Sounds landscape) or seen as the whole of an outlook (e.g. the Southern Hills/Wairau Valley perceived from Blenheim). For the purpose of this Landscape Study, the landscape is perceived at a regional perspective, to encapsulate broad-scale views, and also at a district/local perspective to capture more intimate and local views.

Landscape 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) features are defined more readily by land cover characteristics.

The identification of both landscapes and features is scale-dependent, e.g. the whole of the Marlborough Sounds could be identified as a feature when seen as a whole from a satellite aerial view (regional scale), while landscapes, such as Tennyson Inlet, and features, such as islands, bays or peninsulas, occur within it when perceived from within. Therefore, small landscapes can nest within larger landscapes.

This Landscape Study considers landscape at the finer district scale, for purposes of landscape management. The identification of ONFs and ONLs within this study are clearly shown in the mapping. The contextual landscape of ONFs, irrespective of whether or not that wider landscape is outstanding, has also been mentioned. ONLs and ONFs can, collectively be referred to as ONFLs.

Identifying Seascapes

Seascapes have been described as:

"Landscapes with views of the coast or seas, and coasts and the adjacent marine environment" (Landscape Institute/ IEMA 2013, p17) and

"An area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/ or human factors" (Natural England 2012, p8)

This Landscape Study identifies seascapes that contribute significantly to the experience of an adjacent outstanding natural landscape. The seascapes identified in this Study form vistas that are imbued with biophysical, sensory and associative qualities that are outstanding in their own right. These seascapes have had limited modification; although in some instances seascapes with development (such as jetties, marine farms and moorings) were incorporated, knowingly, where the development was at a scale that did not detract significantly from the outstanding qualities of the seascape surrounding.

The Marlborough Sounds landscape is complicated by the many potential viewpoints from land or sea. The range of viewpoints and changing views and distances influences the scale at which the landscape/seascape is perceived.

For the purposes of this Study, seascapes are considered at two scales, as they are generally experienced from within the coastal area or from neighbouring open sea (i.e. the waters of the Outer Sounds).

At the broader scale, the Outer Sounds open coastline is where the seascape binds together views of a landscape or series of landscapes - forming both a defining element (between land and sea) and connecting element (between landscapes and features such as headlands, islands and rocky reefs).

At the finer scale, this includes Inner Bays/ headlands/mouths and entry points to the Sounds where the viewer is more likely to feel enclosed and contained by land-based elements. The sea forms an important visual and perceptual part of this land/sea interface.

This approach was also taken when defining landscapes and features. When perceived from within a bay, the view and experience of the landscape are encapsulated by the waters and the bay itself up to the dominant ridgeline. When viewed from further away, from perhaps a ridge-top road, the waters of a reach or of the sea in the outer Sounds coastline, reveal more of the surrounding landscape, influencing the viewer's perception of that landscape.

Identifying Outstanding Natural Features and Landscapes

Fundamental to the identification of an ONF or ONL (or collectively ONFL) is the appropriate threshold that triggers an ONFL to be outstanding. It is important to recognize that all landscapes have values and there are many landscapes and features that are of significance, but that do not meet the threshold required for being an ONL or ONF. The study team utilised the mapping of significant values on GIS to analyse where particular values overlap. Not all values were mapped (such as aesthetic values), so consideration of the ONFL line took considerable deliberation and refinement. From this, the study team delineated areas that displayed notably high qualities of a range of biophysical, sensory and associative values. For the purposes of this Study, and due to the territorial authority of Marlborough encompassing both regional and district governance, there was no need for the study team to assess ONFLs at two levels, i.e. regional and district-levels. An ONFL in Marlborough will, therefore, be an ONFL at both regional and district scale.

When identifying the potential location of ONFLs it is also recognised that the boundaries identifying valued areas of landscape do not necessarily need to coincide with areas of landscape character. The following diagram illustrates the different relationships between landscape character areas and ONFLs which may occur:

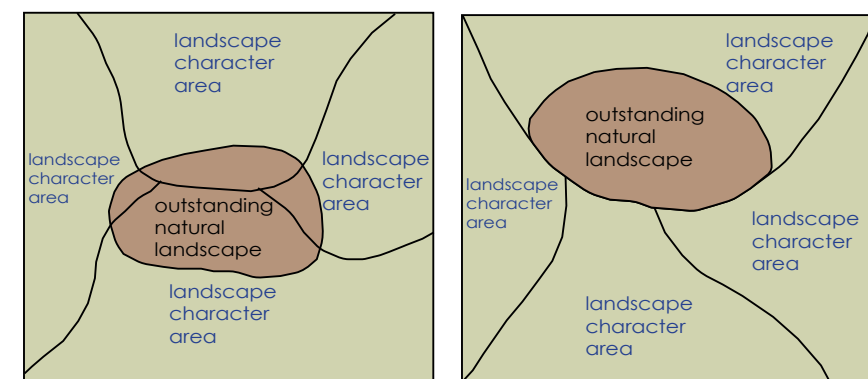


Figure 1: ONFL boundary is wholly independent and crosses adjoining landscape character areas.

Figure 2: ONFL boundary partially follows landscape character area boundary.

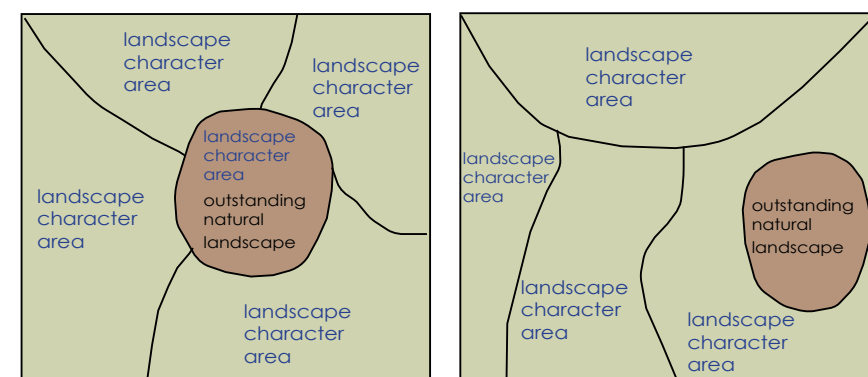


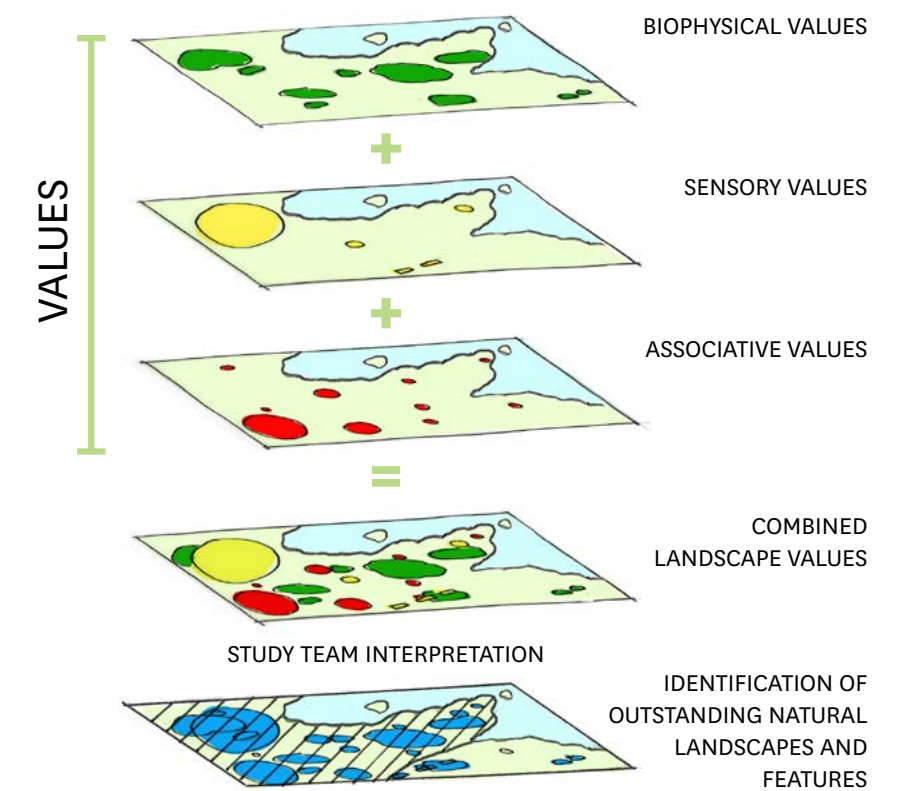
Figure 3: ONFL boundary coincides with landscape character area boundary.

Figure 4: ONFL boundary occurs independent and within a landscape character area boundary.

OUTSTANDING NATURAL FEATURES AND LANDSCAPE THRESHOLDS

Information and findings from on-site investigations assisted the study team to determine a landscape's biophysical, sensory or associative values. A nine point scale from Exceptional through to Very Low was used. Under the methodology, outstanding landscapes or features, rated at least an Exceptional, Very High or High attribute scoring. The study team acknowledged that not all landscapes needed to score high in every category to be considered as an ONFL, although this depended on the landscape under consideration. While some landscapes hold key scenic values, such as the Wither Hills, ONFLs were only identified in areas that also contained other landscape values, such as those within the Molesworth Station, which, in addition to scenic or sensory values contain high biophysical and associational values.

The study team realised that there were a number of discrepancies between 'outstanding' areas in the current district plans and what was being determined through this landscape study process. Where these arose, considerable discussion took place within the team. The discrepancies reflect a number of factors, including limitations to the original methodology used (in some instances prior to the RMA 1991), the mainly 'scenic' aspects being taken into account at the time the previous studies were undertaken and the different land use and water patterns experienced today. Landscapes containing particular scenic values, but a noticeable absence of other landscape values, have been identified as landscapes and features with high amenity.



Mapping of Features and Landscapes

Depending on the specific values related to a landscape or feature, a number of different mapping techniques were used in this Landscape Study to identify the boundary and this is outlined in the following diagrams and descriptions:

1. Land typing approach;
2. Contour line approach;
3. Contained landscape features (such as Islands);
4. Ridges and spurs approach (visual catchment);
5. Land use approach;
6. Seascape approach.

In some areas, a variety of the above were used to delineate the ONFL and landscapes and features with high amenity. The delineation of all ONFLs are described in Section D of this report.

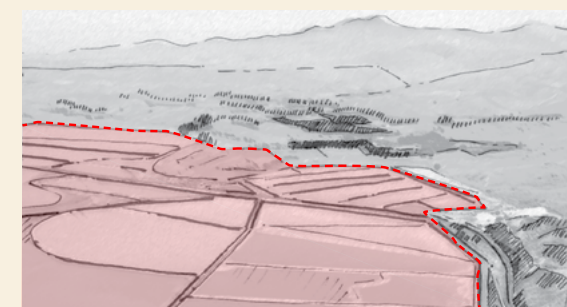


DIAGRAM ONE : LAND TYPING BOUNDARY APPROACH
Boundary follows edge of landform / land type. This mapping style would suit either the identification of Features or Landscapes.

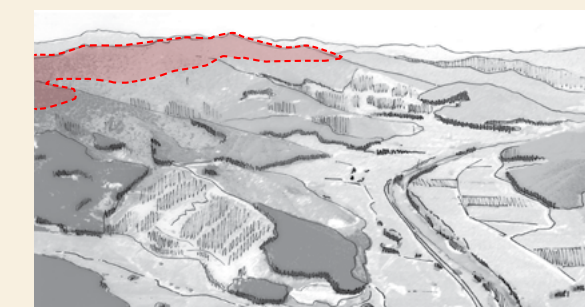


DIAGRAM TWO : CONTOUR LINE APPROACH
Boundary follows a specific or a number of specific contour lines. This mapping style would suit the identification of Features.

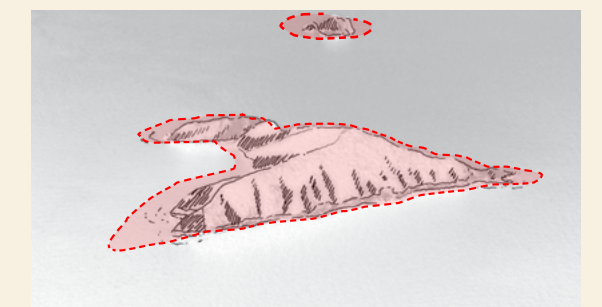


DIAGRAM THREE : CONTAINED LANDSCAPE FEATURES APPROACH
Boundary follows contained landscape features and allows where appropriate, for a curtilage, to include, in this example, the rocky shore line and outlying rocks. This mapping style would identify Features.

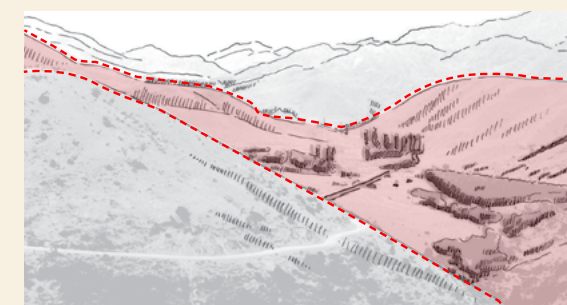


DIAGRAM FOUR : RIDGES AND SPURS APPROACH (VISUAL CATCHMENT)
Boundary follows ridgelines and spurs and can also be used to define the visual catchment. This mapping style would suit the identification of Landscapes. Features can nest within Landscapes.

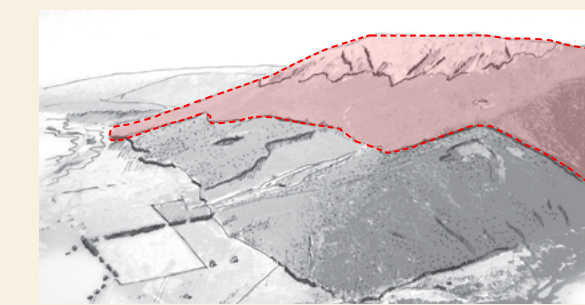


DIAGRAM FIVE : LAND USE APPROACH
Boundary follows Landuse patterns, such as the division between commercial forestry land and conservation land. This mapping style would suit the identification of Features.

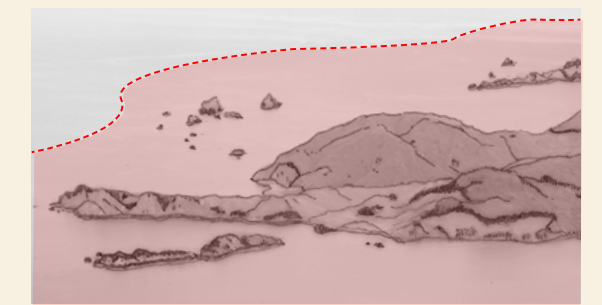


DIAGRAM SIX : SEASCAPE APPROACH
Whilst the land based ONFLs are mapped using approaches 1-5, the extent of seascape ONFLs have been determined predominately by the marine component of the coastal natural character study 2014. This captures the land/sea interface, where information of marine based-values is generally the greatest. Refer to Appendix 6 of *Natural Character of the Marlborough Coast* [Boffa Miskell et al, 2014] for further explanation. Other landscape factors have also been considered in determining this mapping approach.



Section B

Introduction to the Marlborough Landscape



THE MARLBOROUGH DISTRICT

The landscape of Marlborough is one of the most diverse of any district within New Zealand. It ranges from the wide valley plains and lagoons of the Wairau River to the jagged and rough terrain of the Inland Kaikouras. These different landscapes offer spectacular scenery and exceptional economic and recreational opportunities (with approximately 40,000 New Zealanders calling it home). Located within the north-eastern corner of the South Island, Marlborough is the first part of the South Island experienced by many visitors from the north. The landscape has dictated settlement, recreation and economic fortunes. Marlborough is one of New Zealand's sunniest districts. MDC's 'About Marlborough' webpage, <http://marlboroughnz.com> states:

'Marlborough has 20% of New Zealand's coastline, woven through the beautiful Marlborough Sounds, and nearly 80% percent of its wine industry, stretched across our valleys.'

'Climb awe-inspiring mountains for breathtaking views, plunge into aquifer-fed rivers with pure sparkling waters, and devour some of the best gourmet produce in the country.'

The website continues to describe the following areas of Marlborough, all of which relate strongly to the landscape.

Awatere & Pacific Coastline

'The Awatere Valley is steeped in Māori and colonial history, from moa hunters to early settlers. These days farmland and vineyards merge, with the sub region's wines gaining a prominence around the world.'

'The snowcapped Mt Tapuae-o-Uenuku, central to Māori legend, stands tall above the golden hills, while to the east, the Pacific Ocean sparkles in brilliant blue. Drive south on State Highway 1 and you'll have that dazzling view on one side and the snowy Kaikoura Ranges on the other.'

Havelock, Pelorus & Kenepuru

'Tucked in beside beautiful wetlands, gorgeous native bush, and the magical Kenepuru, Mahau and Pelorus Sounds, lies the Greenshell™ Mussel capital of the world. In the waters beyond, you'll find rich history, wonderful landscapes and perhaps a fat snapper or two.'

'Access these magical waterways by boat, or walk to beautiful corners like Nydia Bay. You can also explore the area on the Kenepuru Road, or by driving via the stunning Pelorus River to French Pass, gateway to D'Urville Island.'

Blenheim & Wairau Valley

'A relaxed town in the heart of Marlborough's wine country, Blenheim has great cafes, galleries and shops, wrapped up within the picturesque Taylor and Opawa rivers. There's an abundance of vineyards and cellar doors surrounding Blenheim, so explore the beautiful Wairau Valley and discover why the world is in love with Marlborough wine.'

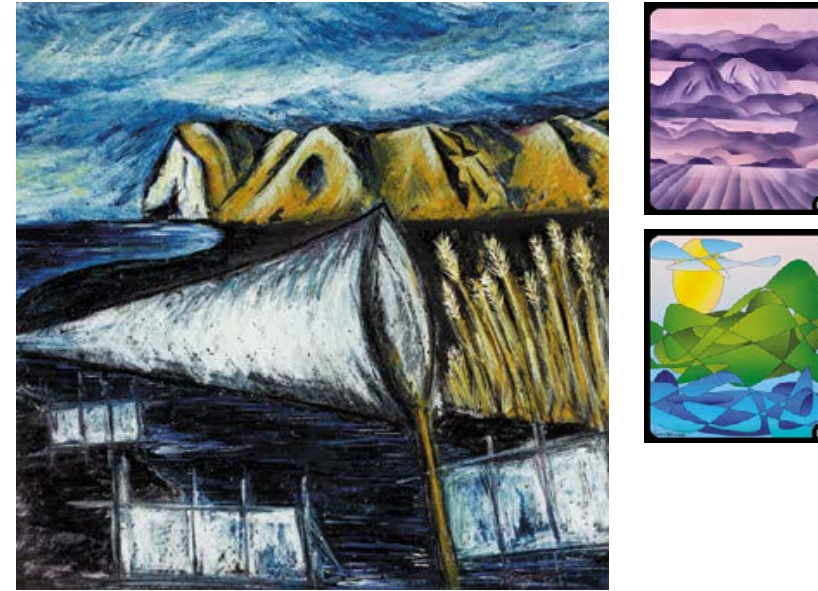
Picton & Queen Charlotte Sound

'Picton is a beautiful port town, poised at the edge of the Queen Charlotte Sound, and is home to fantastic cafes, restaurants, galleries and specialty shops.'

'Go by boat, bike or car to explore the intricate waterways beyond, with island bird sanctuaries, secluded bays, protected wildlife, luxurious resorts and the brilliant Queen Charlotte Track.'

Much has been written about Marlborough, with its landscapes providing an important context. Cultural encounters, such those experienced at the Wairau Bar between Māori and the first Europeans, place special associations in the landscape. The exploits of European pioneers such as Londoner, John Guard, who set up the first whaling station in the Marlborough Sounds and Thomas Brunner and William Travers who were guided by Māori into the Molesworth area, lend historical credence to settlement patterns. Flaxbourne Station is recognised as the birthplace of New Zealand's sheep farming industry.

The landscapes of Marlborough are a major selling point of the region. It is a principal reason why people come to live and visit. It also provides the conditions essential to a successful wine and aquaculture industries.



Community perceptions of the Marlborough landscape as seen through various editions of the Telecom White Pages.



Various local and tourist related marketing focusing on the Marlborough landscape.



Wairau Diversion.



GEOLOGICAL HISTORY AND ITS INFLUENCE ON THE MARLBOROUGH LANDSCAPE

The geology of Marlborough reflects the dynamic processes over some 200 to 300 million years of constant geomorphological folding, drowning, tilting and erosion.

Marlborough straddles the boundary between the Pacific and Australian plates, where the Pacific Plate is slowly moving under the Australian Plate creating continental collision. This transition zone created the uplift associated with the Southern Alps and other ranges within the South Island. On the ground, the Alpine Fault line demarcates this transition zone throughout the spine of the South Island, through the Cook Strait and onto Wellington and the North Island. The northern section of the fault line in the South Island is referred to as the Wairau Fault, which is demarcated by the Wairau River, and effectively splits the district in two. Either side of the Wairau Fault line are a series of smaller fault lines that follow many Marlborough valley systems in a north-easterly / south-westerly direction. Collectively, these faults are known as the Marlborough Fault System and effectively split the district in two.

The Marlborough geology comprises predominantly of sandstone and mudstone (collectively known as greywacke) of the Jurassic period. This has been compressed, deformed and metamorphosed into a series of terrane rocks that occupy the majority of the mountainous interior south of the Wairau River. North of the Wairau River, the geological landscape is older than its southern counterpart, where sedimentary rocks of sandstone, siltstone and mudstone of the late Permian and Early Triassic age (some 200 to 300 million years ago) occupy the majority of the Sounds and Richmond Ranges. These older rocks of the Nelson and Marlborough Sounds area are part of the Australian Plate and were once connected to western Otago and parts of Fiordland, some 10 million years ago. Progressive movement northwards of both the Australian and Pacific plates along the Alpine Fault has resulted in the relatively complex geology and landscapes of today. Over time, alluvial deposits by glacial activity and river erosion has added sandy gravels to many of the bays, coves and river mouths of Marlborough. The adjacent geological map illustrates the base rock scenario of Marlborough.

ULTRAMAFIC MINERAL BELT

Forming the north-western boundary of the district is a distinct band of rock known as the Ultramafic Mineral Belt (which is part of the Dun Mountain Ophiolite Belt), which extends from D'Urville Island south-westward through Croisilles Harbour, to the Bryant Range and the Red Hills close to Tophouse. These rocks are igneous and lack silica and contain high levels of magnesium and iron. They weather to a reddish-brown colour (similar to iron oxide 'rust') and, due to their high mineral content, few plants choose to grow on them. These rocks form important geological features within the district.



The east coast of D'Urville Island (foreground) looking towards French Pass (background).

Geomorphology of Marlborough

The Marlborough landscape can be divided into a number of units, based on its physical and geological form, namely the Marlborough Sounds; outer islands, mountains and plateaus; river valleys and lakes and coastal landforms.

THE MARLBOROUGH SOUNDS

The Marlborough Sounds represent a drowned valley (or ria) landform resulting from a combination of tectonic movements and sea-level rises during the past 15-20 million years. The fractured landscape of islands, elongated spurs and complex sinuous Sounds are as iconic to this district as Mount Cook is to the Southern Alps.

Parts of the Marlborough Sounds are relatively shallow, reflecting its former valley landscapes. Strong tidal currents are evident around French Pass, due to its narrow constriction between the shallow embayment of Tasman Bay to the west and the outer Sounds to the east. The highest point is Mount Stokes, which rises to 1,203 metres a.s.l.

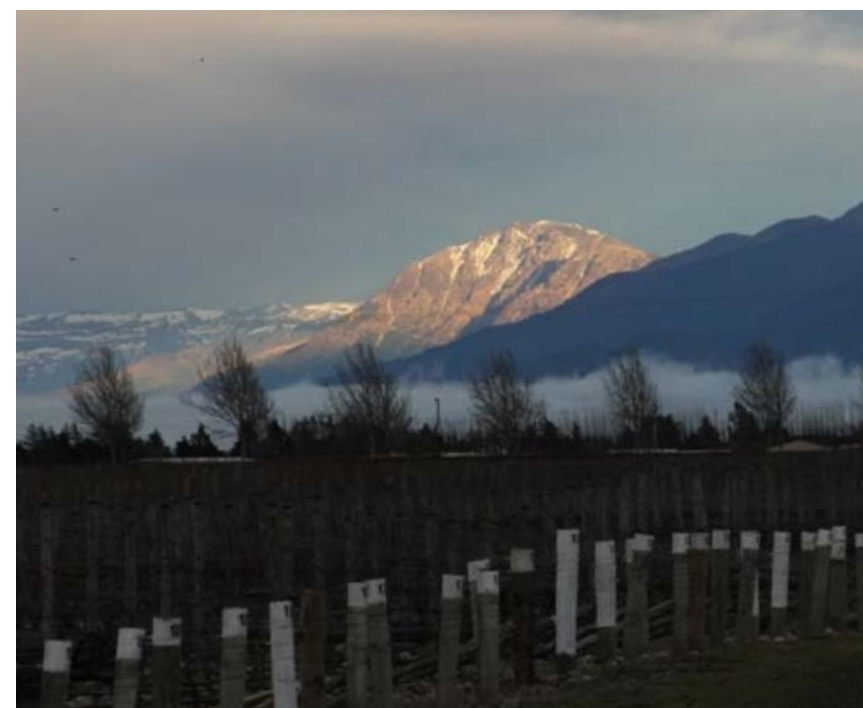
Pelorus Sound to the west and Queen Charlotte Sound to the east are the two main inlets leading to the settlements of Havelock and Picton. Geological evidence above and below the water suggests that the striking faults evident along the Queen Charlotte Fault zone show the former river systems that moulded the Marlborough Sounds landscape before they were flooded. These river systems flowed southwards and connected with the Pelorus River at Havelock and through the broad Kaituna valley towards the Wairau Valley.

OUTER ISLANDS

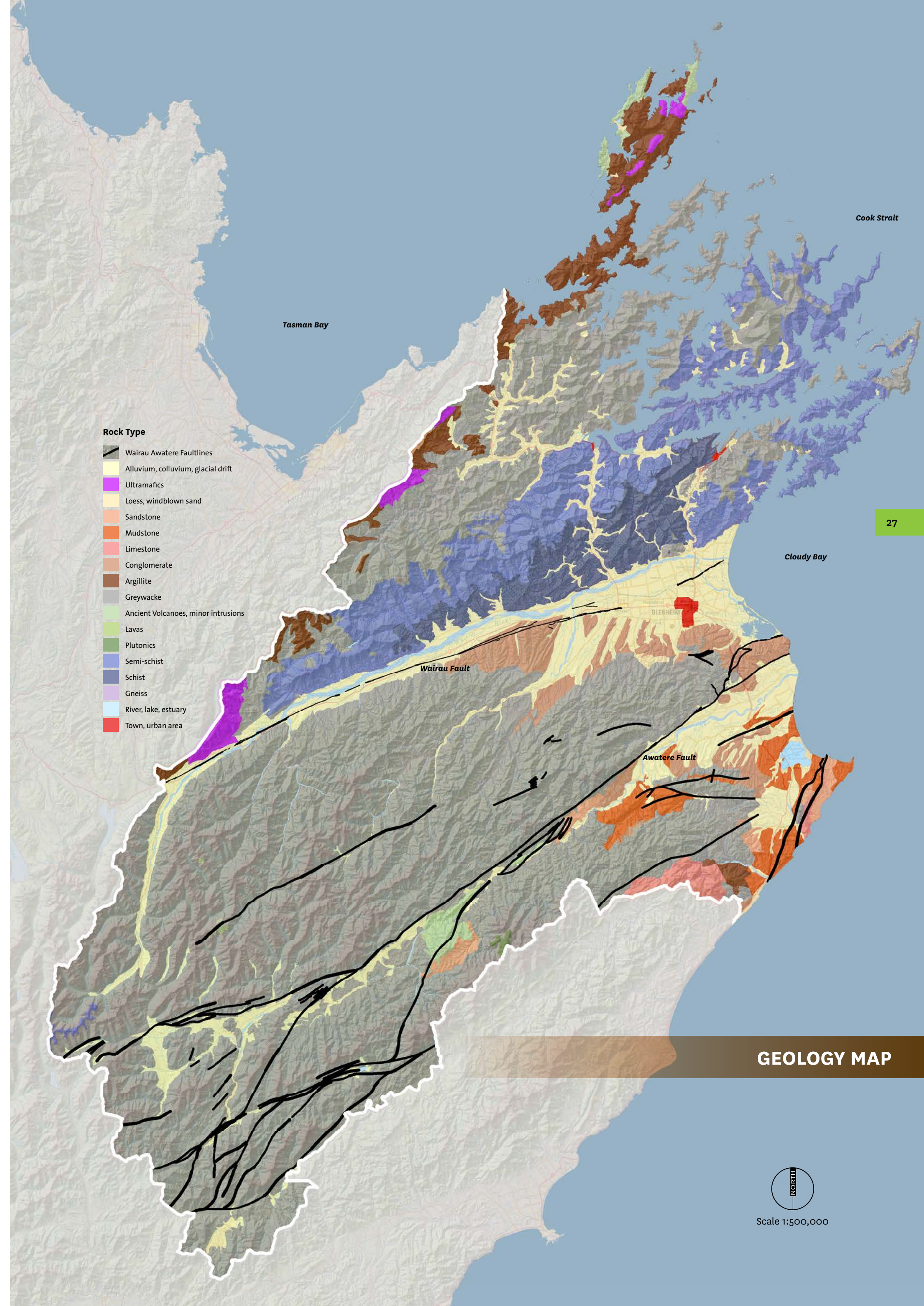
The outer islands lie between Croisilles Harbour and Port Underwood, with D'Urville Island being the largest, providing a separation between the waters of Tasman Bay and Cook Strait. These are essentially above-water remnants of ancient ridges and spurs and directly associated with the drowned valley system which formed the Marlborough Sounds. D'Urville Island displays steep hills and mountains which are typical of its underlying ultramafic geology. D'Urville Island is of moderate elevation, the remainder of the outer islands, which are made from a range of predominantly schists and sedimentary strata are of low elevation.

The brutal exposure to the elements has continued to shape these islands, which display steep and exposed rocky sea cliffs, wind-swept coastlines and endemic shrublands, herbfields and tussockland communities.

These highly exposed islands harbour species native and/or endemic to New Zealand and Cook Strait, with many (including Stephens, Chetwodes, Titi and the Brothers Islands) being island sanctuaries. Rare species include the Stephens Island tuatara and king shag.



Mt Patriarch, on the north bank of the Wairau River.



GEOLOGY MAP



Scale 1:500,000

MOUNTAINS AND PLATEAUS

The mountainous heart of the Marlborough landscape extends from the Marlborough Sounds in the north to the district's southern boundary along the Clarence River. The area is divided along the Alpine Fault and Wairau valley into two sections; the Richmond Ranges to the north of the Wairau and the higher Molesworth/Kaikoura ranges to the south.

The northern Richmond Ranges comprise the Richmond Range themselves, the Bryant Range, the Red Hills Ridge, and the Onamalutu, Kaituna, Tuamarina, Pelorus and Rai Valleys. The valley systems immediately south of the Marlborough Sounds are generally wetter and lower in elevation than the Richmond Range to the south of them, and include sinuous, undulating terraces and steep to very steep dissected hills. The Red Hills, within the western part of this group are quite distinctive and separate from the surrounding mountains being part of the ultramafic landmass that extends along the district's north-western boundary to D'Urville Island. The rock within these limits has been smoothed by glacial activity so that vegetation cover is lacking due to the limited growing medium. The Richmond Range is the highest mountain area north of the Wairau Valley, comprising steep and very steep mountain slopes climbing to Red Hills at 1,790 metres a.s.l. in the south and to Mount Richmond at 1,756 metres a.s.l., Mount Rintoul at 1,730 metres a.s.l. and Mount Fishtail at 1,641 metres a.s.l. further north.

The southern Molesworth high country and Kaikoura mountains gain the highest elevation within the district, with Tapuae-o-Uenuku at 2,885 metres a.s.l. on the Inland Kaikoura Range being the highest mountain in the district. This mountainous range comprises a series of glaciated valleys, rugged mountain ranges, intermontane plateaus and major high country river valleys.

RIVER VALLEYS AND LAKES

The course of the Wairau and Awatere Rivers have been strongly influenced by the underlying tectonic movement of the Marlborough Fault System. The broad Wairau Valley plain, which extends 15 km across its coastal edge, is the result of tectonic uplift and of erosion by the Wairau River, which follows the course of the Alpine Fault. The Awatere River valley system was also influenced by the same tectonic movements, however, this valley contains a series of terraces further inland. Here the river has 'cut' through into the tertiary sediments revealing deep, incised 'gorge-like' features.

COASTAL LANDFORMS

As well as the Marlborough Sounds, Marlborough contains a variety of coastal landforms and features, due to the variety of underlying geomorphic patterns and processes that have been exposed to constant coastal processes. Those of note include the broad, low-lying sweep of Cloudy Bay and its associated coastal marshes, lagoons and sand bars south of the Wairau and the sequence of coastal ridges and swales at Rarangi. Further south, are the eroded cliffs of White Bluffs/Te Parinui o Whiti that divide Cloudy Bay to the north from Clifford Bay to the south; the coastal cliffs around Cape Campbell, and the stranded former bay of shallow Lake Grassmere. South of Cape Campbell are the coastal limestone features around the Flaxbourne River mouth stretching northwards to Chancet Rocks and south to Weld Cone and Needles Point.



Ben More, inland of Willawa Point, south Marlborough.

Geopreservation Society Inventory

The New Zealand Geopreservation Inventory (see Appendix 3) highlights the 'best examples of the wide diversity of natural physical features and processes that together characterise each part of New Zealand and document its long complex geological history, the formation of its landforms and evolution of its unique biota' (p4).

New Zealand has a unique and extremely diverse natural landform, geology and soil heritage, due to its location and formative processes. The New Zealand Geopreservation Inventory 'aims to identify and list information about all the internationally, nationally and many of the regionally important earth science sites throughout New Zealand, irrespective of their current protected status' (p5).

Within Marlborough there are 71 recognised sites of geological importance, ranging from historic areas of mining to submerged ridgelines, dammed lakes and sea cliffs. The majority of these sites/landscapes have been mapped by hand by the Geopreservation Society in their reference books, and are indicated by locator spots in this Landscape Study on the accompanying map. However, their mapped extents have been referenced and in some locations form the boundary of the ONFLs.

Each site is listed for its Importance and Vulnerability.

For Importance, the Inventory categorises the sites into three levels (A-C):

- A: International: Site of International Scientific Importance;
- B: National: Site of National Scientific, Educational or Aesthetic Importance;
- C: Regional: Site of Regional Scientific, Educational or Aesthetic Importance.

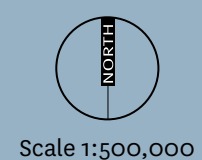
For Vulnerability, each site has been classified (1-5) depending on its perceived vulnerability to human activities:

1. Highly vulnerable to complete destruction or major modification by humans;
2. Moderately vulnerable to modifications by humans;
3. Unlikely to be damaged by humans;
4. Could be improved by human activity;
5. Site already destroyed (not necessarily by human activity).

The full list is contained within Appendix 3.



GEOPRESERVATION INVENTORY MAP



SOILS OF MARLBOROUGH

As illustrated on the accompanying map, Marlborough is made up of a number of different soil types that reflect its current and former geomorphological processes. Continued crustal uplift and erosion of the underlying varied geology has resulted in a complex network of soil-types that support a range of differing vegetation species and land uses.

The soil-forming factors vary from location to location and include, but are not restricted to: parent material, climate, organisms, topography and time. Weathering, leaching, erosion and matter accumulation also influence the type and location of soils. Comparison of the geology map (p27) and the soils map (p31) shows that the distribution of soil types in Marlborough closely resembles that of the parent rock. For example, the predominantly greywacke mountainous interior that accounts for nearly 45% of Marlborough's landscape is associated with dry, light to medium brown soils and the ultramafic band of rocks that continue through the main divide towards D'Urville Island display areas of podzolised soils.

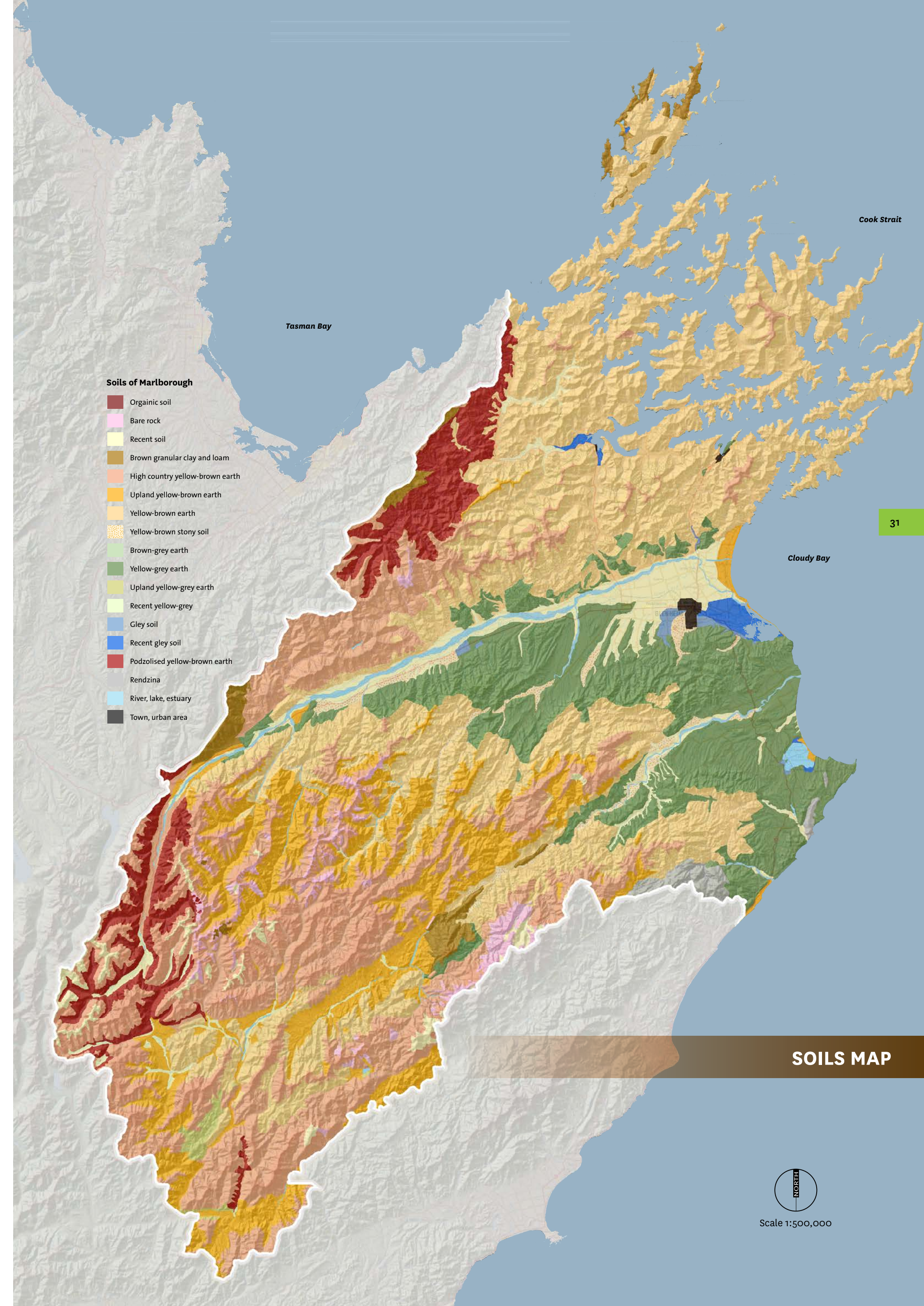
The most fertile soils are found within the river valleys where extensive alluvial outwash from the surrounding mountains has deposited a rich quantity of minerals. However, this distribution is not even, as soils can accumulate in places that hinder productive land uses.



Lake Elterwater, north of Ward. Weld Cone Wind Farm can be seen in the background.



Weld Cone from Ward Beach.



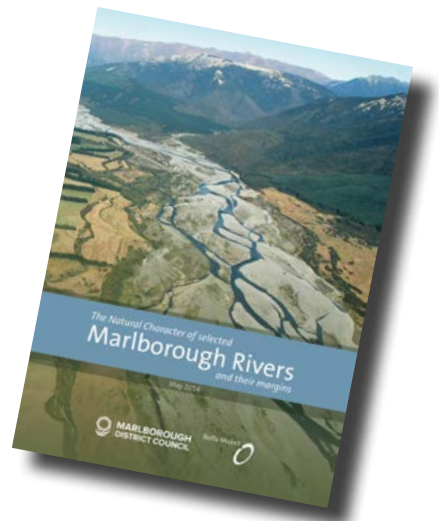
RIVER ENVIRONMENTS IN MARLBOROUGH

Marlborough's many rivers and streams have assisted to mould and shape the landscape. The two principal rivers are the Wairau and Awatere Rivers. Other rivers in the district include the Pelorus, Rai, Wakamarina and Kaituna Rivers to the north of the Wairau. The Waihopai, Omaka and Leatham Rivers flow into the Wairau from the south. Within the southern high-country, the Acheron and part of the Clarence Rivers wend their way through steep terrain, with their confluence north of Hanmer Springs. The Clarence occasionally follows the district's south-eastern boundary, before it crosses through the Kaikoura District to the sea. The vast majority of the rivers and streams in Marlborough have their headwaters within mountains, namely the Richmond Range and the series of glaciated ranges south of the Wairau. These rivers often have extensive river catchments with their flow regime affected by periods of heavy rain or drought.

The Wairau, Awatere and parts of the Clarence are braided rivers. They have shingle beds and flow bank to bank in high flood. These rivers have carried sediment, largely produced by glacial action, from the mountains towards the sea. When land has been uplifted through tectonic activity, the rivers have continued to cut through the deposited gravels, creating flat-topped river terraces flanking the river valleys. Braiding is a typical riverine feature for the eastern South Island and refers to the 'braided' pattern of small channels that flow around more or less permanent gravel islands (which are usually covered and often modified in size and shape during severe floods).

There are a number of spring-fed streams and creeks located within Marlborough, such as Spring Creek north of Blenheim on the Wairau Plain.

The natural character of rivers, lakes and their margins is relevant to Section 6(a) of the RMA. An assessment of the natural character of Marlborough's Rivers is contained within a separate report entitled *The Natural Character of selected Marlborough Rivers and their Margins*, May 2014.



The Wairau River

The Wairau, being the longest river within the district, and the longest braided river in the north of the South Island, occupies for most of its length a broad valley centred along the Alpine Faultline. Several significant tributaries flow into it along its length, including the Branch and Waihopai Rivers. The Wairau traverses mainly terrace gravels to within 2 km of its mouth at Cloudy Bay. Near the coast, where it becomes estuarine, swamps, marshes and beach deposits are evident.

Wetlands

During 2001 a desk-top overview of Marlborough's wetlands, their type, location and extent was collated, using topographical maps and aerial photographs. The 2001 study revealed that there were two types of wetlands; palustrine wetlands and lacustrine wetlands. Palustrine wetlands are essentially inland areas of marshes, bogs and swamps which lack flowing water and which have vegetation permanently or seasonally above the water. Lacustrine wetlands have permanent or intermittent standing open water without large areas of emergent vegetation. Chapter 11 (Land) of the 2008 *State of the Environment Marlborough* comments that: 'A total of 1,149 recorded sites were recorded in the survey, representing 1,242 individual wetlands. Of these, 597 were natural wetlands and 645 were manmade, with a high density of these (417) being recorded on the Wairau Plain. 441 of the wetlands were of the palustrine type and these have decreased in area by 89% across Marlborough between 1840 and 2000. Of those that remain only 24 sites have some degree of protection. Only 3.3% of the original palustrine wetland area remains in the lowland ecological districts with less than 1% of the original area being under some form of protection' p272.

A review of the 2001 wetland inventory commenced in 2008, using the latest aerial photography, satellite imagery, mapping techniques and fieldwork surveys. Based on this updated material, the 2008 wetland study assesses the significance of Marlborough's wetlands based on their current condition and the likely pressures and threats facing them.

Wetlands have been an important aspect of the research undertaken for this Landscape Study, particularly where wetlands are associated with important landscape features, such as the Rarangi Beach Ridges and wetland complex at Rarangi. Although the Rarangi area has been heavily modified by human activity, the sequence of dry gravel and sand ridges and associated wetland hollows are unique in New Zealand and rare internationally, despite their diminished legibility and coherence. Para wetland (swamp), near Koromiko is by far the biggest lowland alluvial freshwater wetland system in Marlborough and is of ecological significance.

The Wairau River source is immediately north of Lake Tennyson within the Spencer Mountains and the Molesworth high country, and wends its way northwards through steep and glaciated mountainous terrain, to connect with the Alpine Faultline, south of Tophouse. The vegetation cover in this area has been highly modified, although there are remnant stands of beech evident. From Tophouse, the river widens and turns in an easterly direction, becoming increasingly braided as it continues towards Cloudy Bay and the sea. From the Waihopai River confluence, the river valley broadens significantly into the Wairau Plain, where the landscape and river margins have been highly modified. Close to its mouth, the Wairau becomes estuarine, where lagoons and a few isolated wetlands and unmodified watercourses are all that is left of the original mosaic of forest, wetland, shrub and tussockland. The Wairau enters the sea at the Wairau Bar.

Rai/ Pelorus Rivers

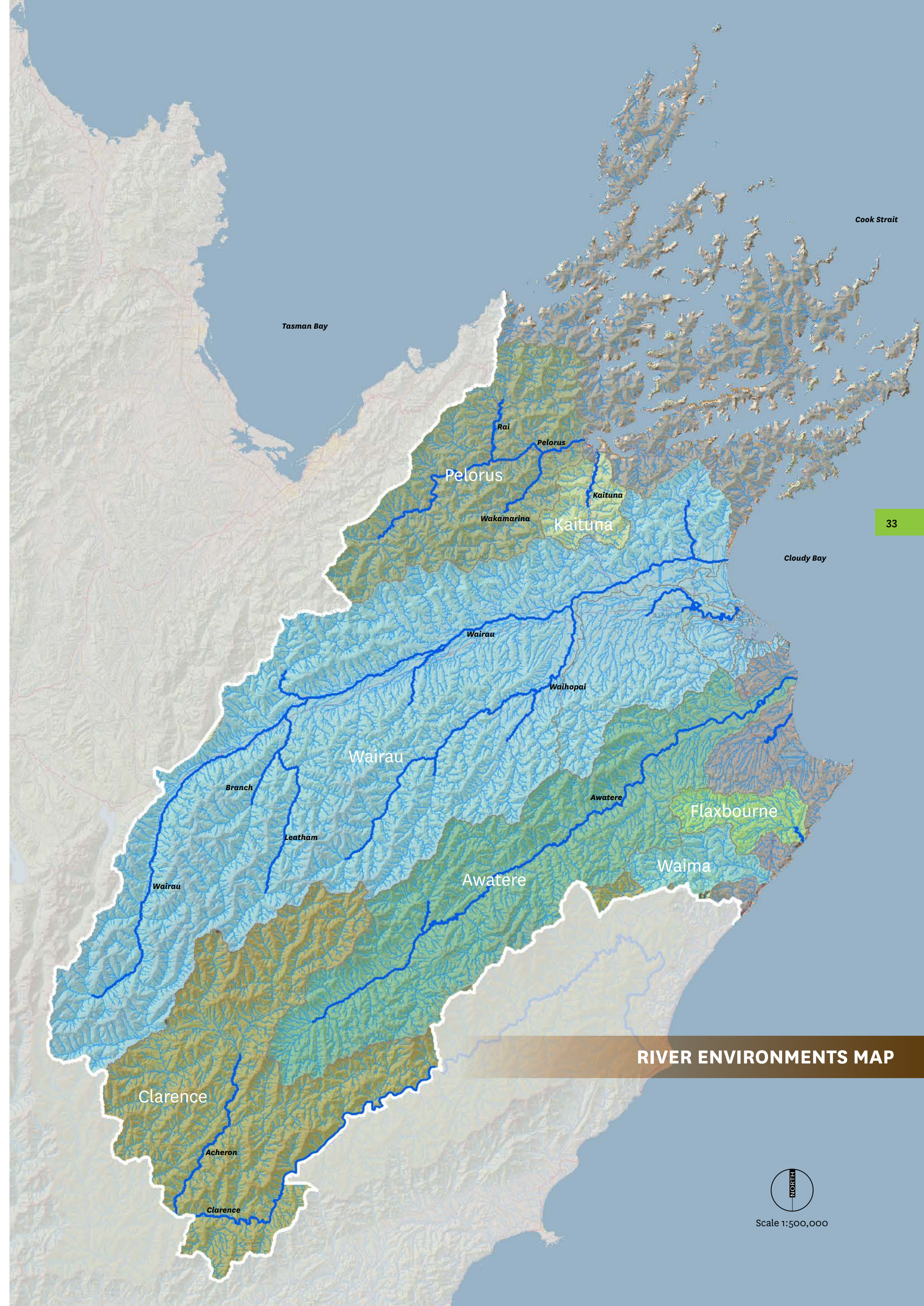
The Pelorus and Rai Rivers both flow towards Havelock and the Marlborough Sounds. Extensive mudflats are evident around the mouth of the Pelorus River, resulting in an area significant for intertidal and subtidal habitats. The Pelorus River's source is high within the Richmond Range where the river flows in a northerly direction towards Pelorus Sound through predominantly indigenous bush. The Rai River flows southwards from the river catchments south of the Bryant Range and converges with the Pelorus River at Pelorus Bridge. From this convergence point, the river flows through predominantly agricultural land eastwards towards Havelock.

The Awatere River

Like its sister, the Wairau, the Awatere River rises within the high country. The river flows in a north-easterly direction for most of its length, parallel to the Inland Kaikoura Range along a fault line, a splinter of the Alpine Fault. From Jordan in the upper Awatere Valley, the valley gradually broadens into a series of wide flat alluvial terraces bounded by hills. From the confluence of the Medway River/Black Birch Streams with the Awatere, the valley again broadens and the river channel gradually becomes braided. The landscape becomes dominated by farmland and the river increasingly appears more modified than further upstream due to adjacent land use practices. Within the Seddon area, the Awatere Valley is broad, with the river continuing in its braided form towards Clifford Bay. The lower river terrace is colonised by exotic vegetation and is highly modified by adjacent vineyard and agricultural land use activities. The river mouth is affected by coastal processes and alluvial deposits, with the river following a route northwards, behind the beach, before flowing into the sea.

The Clarence River

The Clarence River occupies a relatively large catchment, although only a small portion of its 125 km length is contained within the district. Located within the mountainous south of the district, it rises on the eastern slopes of the Spencer Mountains in the neighbouring Canterbury region and as it flows seawards it acts, for a short distance, as the district's south-eastern boundary, most notably within Molesworth Station. Although the Clarence River only occupies approximately 29 linear kilometres within Marlborough, its catchment extends a significant distance northwards into the district, where it joins with the Wairau and Awatere River catchments.



TOPOGRAPHY AND ELEVATION OF THE MARLBOROUGH LANDSCAPE

The topography of the Marlborough District is variable, including the flat plains of the Wairau Valley that are virtually at sea level, the drowned valleys and undulating vegetation-clad peaks of the peninsulas and islands of the Marlborough Sounds, and the inland rugged mountainous landscape where peaks exceed 2,800 metres a.s.l.

Due to the districts long geological creation and relatively active geology, a number of distinctive topographic features have become icons of the area and, coupled with a relatively temperate climate, have dictated settlement and land use patterns.

The Wairau Valley, being relatively sheltered by the mountains to the north and south has been the focus of settlement and the greatest intensity of land management, due to its relatively level nature, fertile soils and amenable climate. The Wairau Valley accentuates the Alpine Fault throughout its length by its flat, broad valley bottom and mountainous setting. The Awatere Valley is similar, although the pattern of settlement is not as clearly pronounced along its length, due to the differing nature of its underlying form. Both the Wairau and Awatere Rivers contain broad flat plains close to the sea, where the majority of the land has been intensively developed into vineyards.

The crumpled nature of the interior landforms are due to their seismic setting and geological form. Constant weathering has resulted in a number of mountainous topographic features, namely the Red Hills south-west of the Richmond Range, the Molesworth plateau, Tapuae-o-Uenuku and the mountains associated with the Main Divide.

Coastal processes working against the landform have also moulded an interesting transition zone. This zone includes the coastal cliffs of Cape Campbell and White Bluffs/Te Parinui o Whiti; the salt marshes, lakes and sandbars; and the drowned valleys of the Marlborough Sounds. Convoluted inlets and channels, secluded bays and coves, and broad estuarine valleys, such as that at Havelock, are typical of the Sounds.

The steepest parts of the district are the upper sections of the mountains, which are over 34° slope and are often characterised as bare rock. Conversely, the valley floors, specifically the Wairau and Awatere Valleys, are the flattest in the district, i.e. below 3° slope and reflect have the amount of land use/development activity. This is illustrated on the Slope Map, overleaf.

In terms of aspect, there is a noticeable trend of development on the northern slopes of the Marlborough Sounds to capture the majority of the sun. Similar trends are evident within the Wairau Valley, where vineyards and new housing schemes are encroaching into the Wairau Dry Hills south of Blenheim to capitalise on the hills' northern aspect. This is illustrated on the Aspect Map overleaf.



The rugged profile of the Inland Kaikoura Ranges.



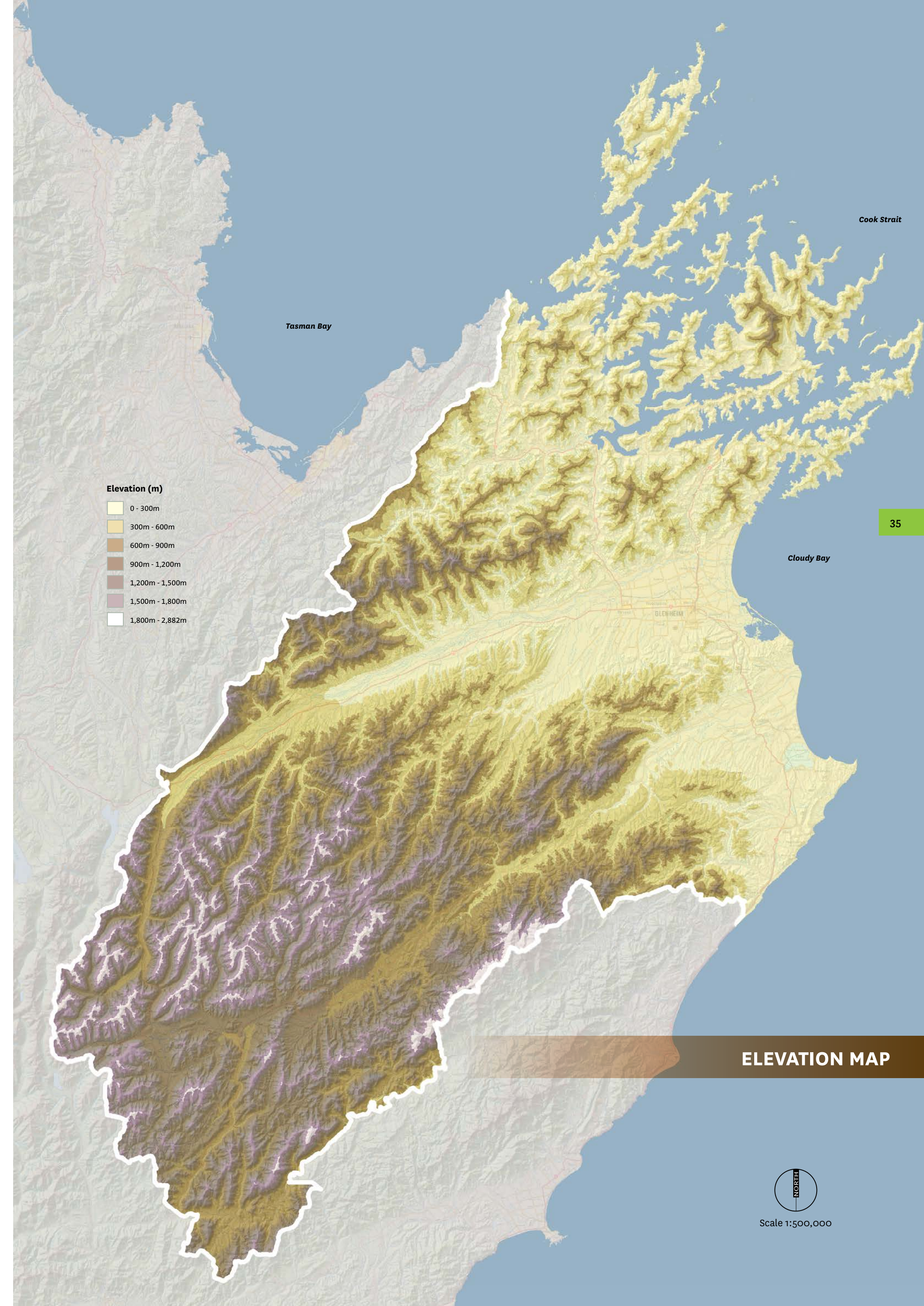
The flat river plains and the coastal environment of the Wairau River.

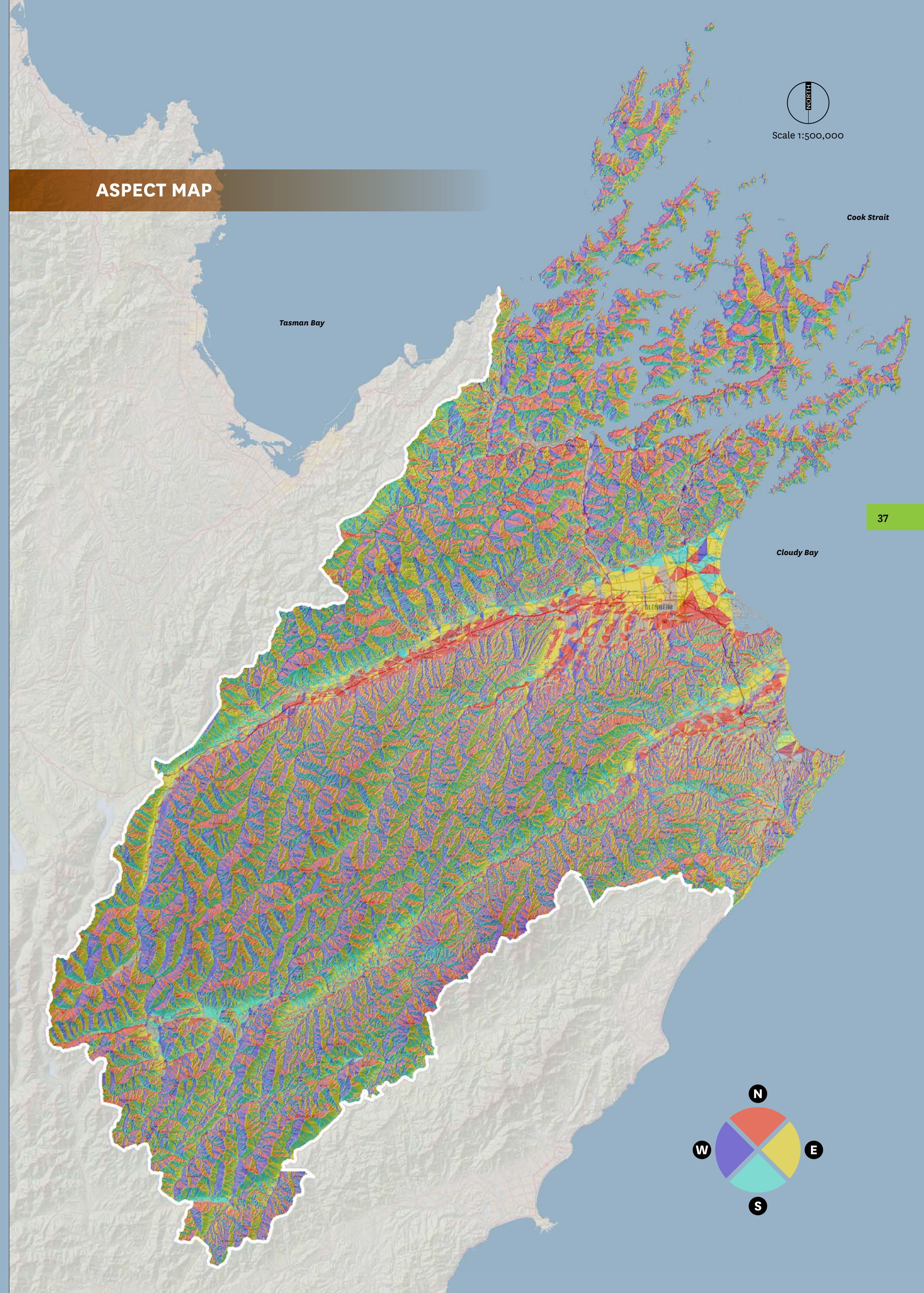
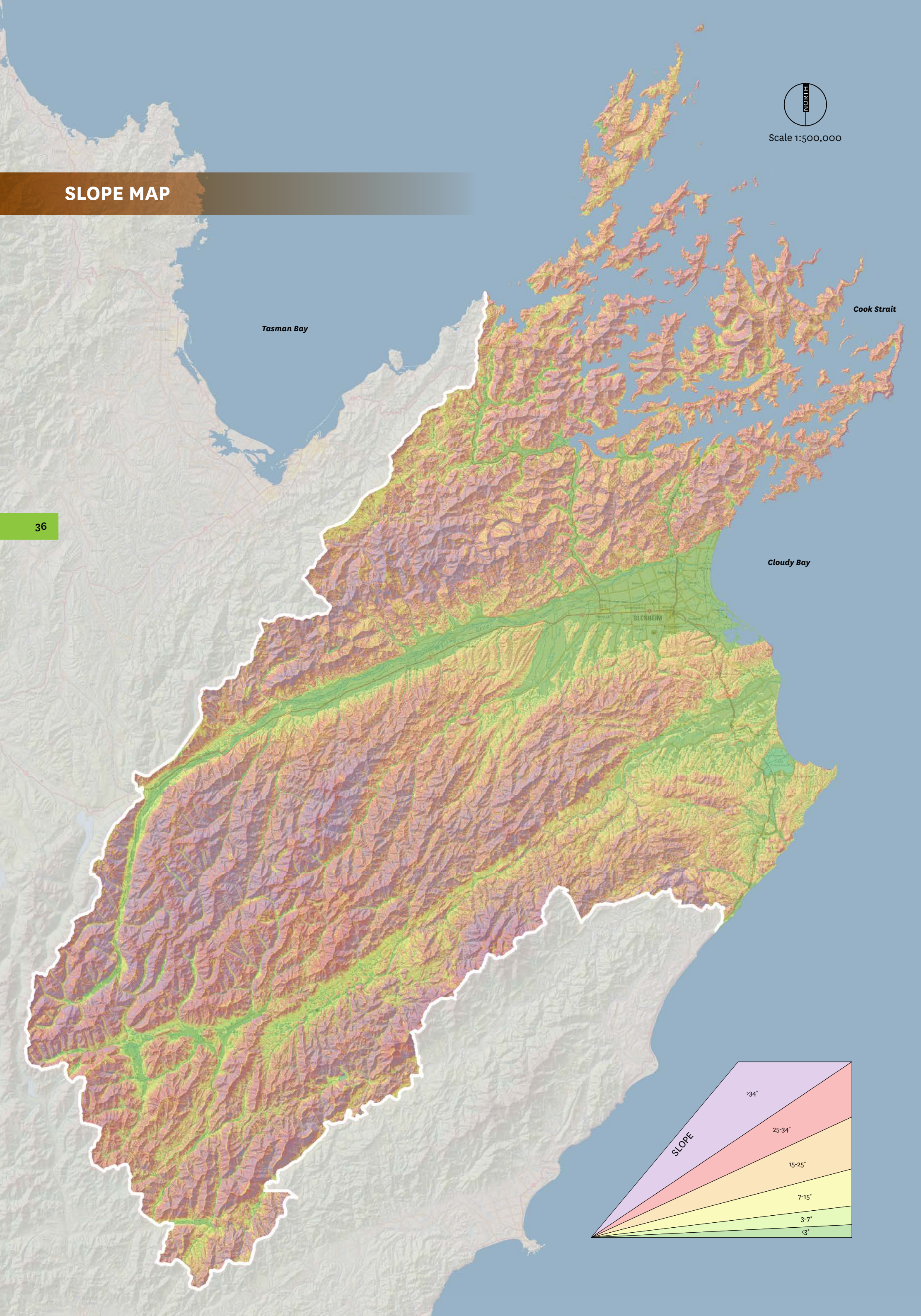


The undulating grass hills south of the Wairau Valley.



South bank of the Wairau Valley.





LAND COVER AND LAND USE PATTERNS IN MARLBOROUGH

A number of factors influence land use patterns including soils, geology, climate, elevation, topography, aspect, existing vegetation cover and accessibility. Many interconnecting factors dictate how people use and manage the land.

The whole of the district's landscapes are managed in some way or another. There are significant areas that are managed as conservation land (the majority by the Department of Conservation), where management is focused towards preservation, restoration and predator/ weed control measures for recreational and ecological benefits.

Other main land uses in Marlborough include exotic forestry, (predominantly pine plantations), pastoral farmland for grazing (including dairy, sheep, cattle and deer), crop growing, soft fruit growing, viticulture and nut growing. These land uses, associated with rural and rural residential lifestyle plots, are widely distributed around the district, with viticulture being the most intensively managed.

A number of specialised land uses in operation also operate throughout Marlborough, such as boutique farming and horticultural practices (alpaca farming, bee keeping, cheese making and truffle and lavender harvesting) as well as infrastructure (oxidation treatment ponds, salt works, hydro infrastructure, small quarries, and transmission lines). Land use is also influenced by towns (such as Blenheim), villages (such as Ward), marinas, ports, roads, railway lines and high country tracks.

Land use patterns also change, occurring for a variety of reasons, although in the district is often attributed to land ownership, market dynamics and current economic conditions. Land use change occurs at different scales and frequencies, from seasonal crop rotations, to fundamental shifts from agriculture to forestry. Historically, Marlborough's land use patterns would have been quite different. At one time sheep, gold mining and whaling were principal activities.

Marine farms, including mussel farming, salmon farming and scallop harvesting are a type of activity that is influencing shores within the bays, coves and sheltered inlets of the inland Marlborough Sounds area and the more exposed outer Sounds. See further discussion under 'Aquaculture' overleaf.

Each one of these land uses influences both the visual and biophysical character of the landscape.

Wine Growing in the Wairau and Awatere Valleys

One of the principal land use activities with which Marlborough is currently associated is the industry of grape-growing and wine-making. Wine Marlborough New Zealand the industry's development as follows:

'As the 21st century moves ahead, it is hard to imagine the Marlborough landscape without hundreds of thousands of vines. But it hasn't always been this way. In reality the march of vines across the plains and gently sloping hills of the region only began back in 1973. Prior to that Marlborough was better known for its abundance of sunshine and its production of barley and lucerne. No one could have imagined that a little known wine company based in Auckland would change the face of Marlborough forever.'

The growth of viticulture has transformed the land use of the Wairau and Awatere Valleys from one of pasture, cropping and stone fruit growing to a semi-industrialised landscape of regimented rows of vines and large wine-related processing buildings. The expansion of vineyard development within these two valleys is illustrated on the map below and demonstrates the trend of vineyards extending further up the valleys, most noticeably the Wairau Valley. It is important to realise that these viticultural plantings and the associated industry has grown from nothing in 1973 to represent the single most important lowland crop in the district today.

Over the last 13 years groundtruthing (ground observation) of land use has provided information about viticulture coverage in Marlborough. This information was last updated for 2013.

As at September 2013 Marlborough's total vineyard area is approximately 23,769 hectares.

- Wairau Plain and Valley > 16,947 ha

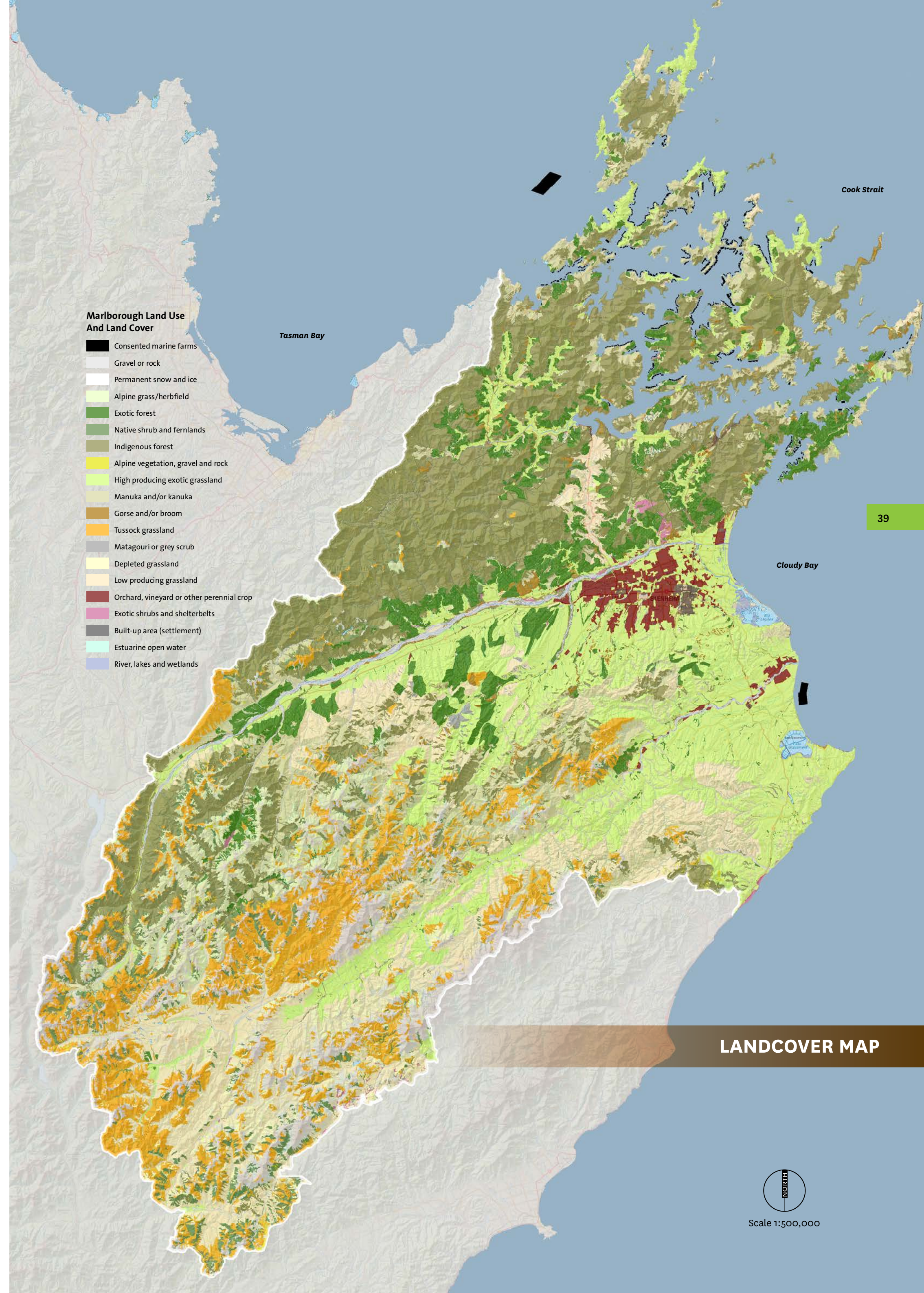
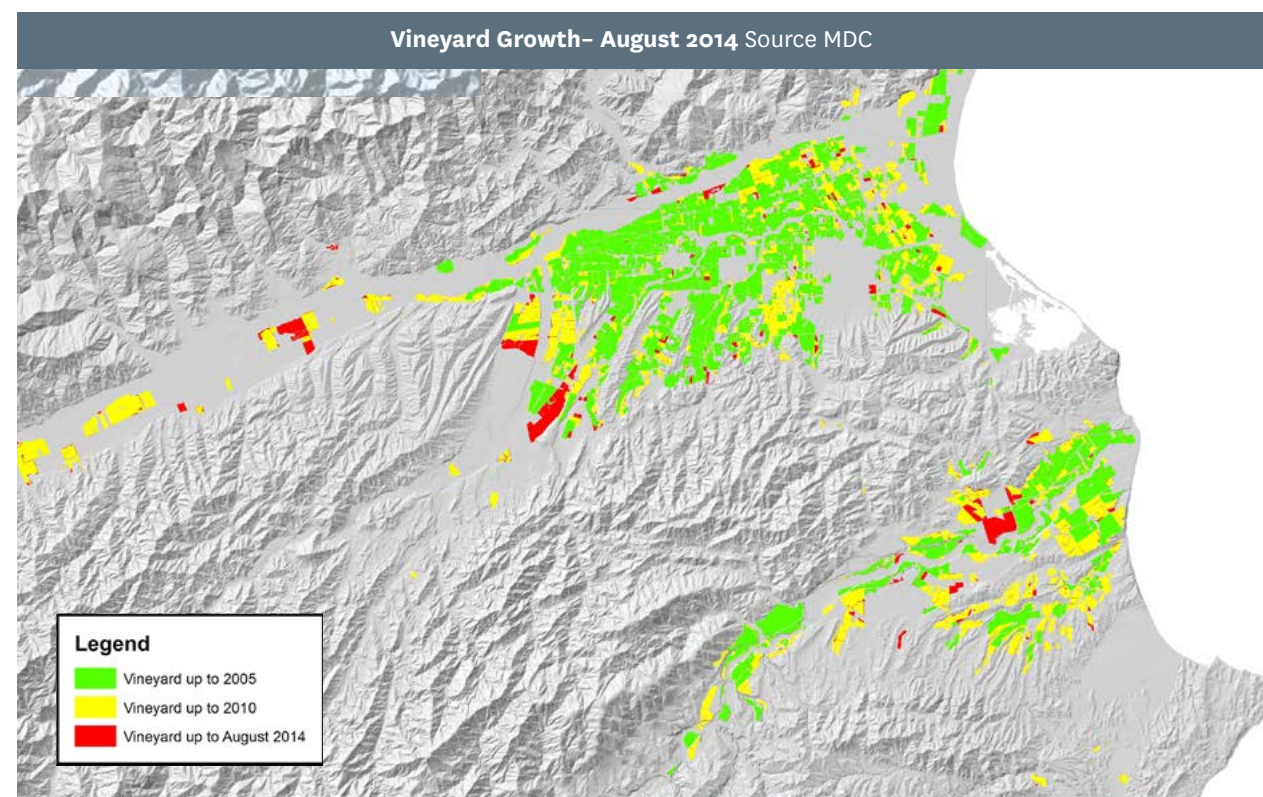
- Awatere Valley, Blind River and South > 6,822 ha

Due to limited land availability, vineyards have been developed over the lower rolling hills of the smaller southern valleys leading onto the Wairau Plain, along the Awatere Valley up to Aotea and through the Blind River complex. There is also a substantial spread west along the Wairau Valley up to the Wye River.

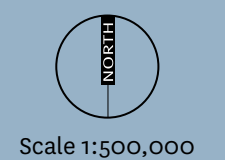
Many of the vineyards are now being irrigated from purpose-built dams due to the marginal water resources available in some areas.



Waihopai Valley aerial looking south, 13 March 2013.



LANDCOVER MAP



Scale 1:500,000

Public Conservation & QEII Areas

Conservation is the land use of greatest extent in Marlborough. Land with conservation status is a mosaic of reserves, parks, national parks and QEII National trust open space covenants. Most of this land is protected under the Reserves Act 1977, the Conservation Act 1987 and the Queen Elizabeth the Second National Trust Act 1977. A large proportion of it is administered by the Department of Conservation. MDC also has responsibilities for reserve management. The map on the facing page illustrates the recorded natural areas in Marlborough. The map does not illustrate the areas currently regenerating with native vegetation that are not in DoC ownership.

The ecology of Marlborough is diverse. This variety is influenced by Marlborough's topography, geology, soils and climate. For example, the convoluted labyrinth of waterways in the Sounds provides a more moderate, moist climate compared to the hot dry summers and sharp winters experienced in the mountains. This variation influences the diversity of ecological habitats, from forest covered lowlands (including beeches and podocarps such as rimu, matai, miro and totara) to the subalpine shrublands and tussocklands on the ultramafic landscapes of the Red Hills, Bryant Range and parts of D'Urville Island.

The majority of this bioclimatic variety is contained within conservation land. As most of it is accessible public open space, it is also important for many other reasons than its conservation values, including recreation activities, landscape and visual amenity. The substantial open space resource which exists in the Marlborough Sounds, for example, contributes significantly to the wellbeing of both Marlburians and visitors to the area. It also provides protection for important habitats and ecosystems. In addition, these open space areas often exhibit high levels of natural character, this being identified as a matter of national importance under section 6 of the RMA.

Conservation areas administered by DOC cover a very large land area and are intimately connected with some very important water resources in the area (e.g. Queen Charlotte Sound and the Pelorus River). Marlborough as a whole contains extremely important pieces of New Zealand's conservation heritage, including the greatest diversity of natural values among any of New Zealand's six DoC Conservation Partnership Regions (Marlborough is part of the 'North and Western South Island Partnership Region'). As an example, south Marlborough alone is one of the five centres of endemism for native plants in New Zealand. A number of the areas are of national importance, both in terms of their particular ecological value and for the tourism and recreation opportunities they provide. Some areas are of international importance. The nature and significance of the conservation values present within the

conservation estate is described in detail in the Conservation Management Strategy for the Nelson/Marlborough Conservancy (1996).

Overseas tourism accounts for a significant proportion of the New Zealand economy and the vast majority of visitors come to see the New Zealand landscape. Significant economic benefits from the tourism and recreation sectors enable better protection and management of public conservation lands and provide enhanced ecological benefits, water quality and flood and erosion control.

Aquaculture

Alongside viticulture, aquaculture is an important industry within Marlborough, producing approximately 80% of all commercially grown seafood in New Zealand. Largely based in the Marlborough Sounds, the majority of marine farming occurs in Pelorus Sound and within areas of the Outer Marlborough Sounds, although there are also marine farms in Croisilles Harbour, Port Underwood and outer Queen Charlotte Sound. From the earliest days of aquaculture in New Zealand, the sheltered waters of the Marlborough Sounds were identified as an ideal location for marine farm development. Initially marine farms were developed on a hobby/part-time basis by fishermen and farmers. Green-lipped mussels were the first shellfish species to be farmed but production has since expanded to include: salmon, pacific oysters, scallops, kingfish, paua (abalone) and seaweeds.



Above: Part of a mussel farm in Pelorus Sound.
Below: The Molesworth Station, managed by DOC.



PUBLIC CONSERVATION AND QEII AREAS MAP

EARLY HISTORY AND SETTLEMENT OF THE MARLBOROUGH DISTRICT

Early Settlement

Marlborough contains numerous cultural and historic places of significance to both Māori and Europeans. These include archaeological sites, historic buildings, historic places and traditional sites such as wahi tapu as well as numerous other artefacts and areas associated with and interwoven with the cultural history of the area. Much of this is documented within 'Te Tau Ihu Statutory Acknowledgements 2014'. People today value a range of landscape attributes associated with the area's cultural heritage.

Māori myths, spirits and legends are imbued with the environment and tell of the earliest inhabitants of the area through landscapes and features which often bare spiritual associations and eulogies. Specifically, the Marlborough landscape is richly endowed with Māori values, attributed mainly to the sheltered and convoluted waters of the Sounds and of the coastline.

In 'Natural and Historic Values and Areas of Marlborough Sounds Planning District: A discussion Paper on Issues and Options for their protection' (1992) Lianne Rich and Derek Shaw outline the history of Māori settlement as follows.

'The early inhabitants of New Zealand were a sea-faring people. When canoes provided the major means of transportation practically all habitation was centered around the coast. Throughout New Zealand the majority of archaeological sites are concentrated in coastal areas reflecting the fishing, hunting, gathering and horticultural opportunities that these areas offered.'

'Long before the signing of the Treaty of Waitangi, iwi such as Rangitane and Ngati Kuia, resided in the Sounds, harvesting crops from the land and the sea. Coastal Marlborough was renowned for the abundance of mahinga kai and people travelled from afar to access the rich food resource (Hippolite, personal communication).'

'The remnants of this habitation are widespread throughout the Sounds. Although many sites are hidden to all except the trained eye, it is not too difficult to pick out the remains of pa, midden and kumara gardens in several areas of the Sounds.'

'Due to the convoluted coastline of northern Marlborough, its waters were extensively visited and mapped by Europeans. These predominantly sheltered waters lead to the establishment of many of New Zealand's first industries, such as whaling.'

Rich and Shaw also describe initial exploration, colonisation and sea-faring disasters.

'Abel Tasman was the first European visitor to the Marlborough Sounds, albeit one who never set foot on New Zealand soil, (Potton, 1987). All the principal explorations of Captain Cook in the 1770's centered around Ship Cove in Queen Charlotte Sound. It was on Motuara Island that Cook raised the British flag to proclaim this part of New Zealand as British Territory.'

'Bellingshausen, a Russian explorer of the 1820's and the French voyager D'Urville, both followed in the wake of Cook, bartering with local Māori and charting the Sounds waters.'

'More extensive charting of the Sounds coastline took place at various times in the 1830's to 60's initially by Lieutenant Chetwode at the helm of the HMS Pelorus and later in separate expeditions by Captains Lambert and Stokes.'

'At the turn of the 19th century, with vessel passage through and around the Sounds increasing, the intricate and hazardous nature of the coastline to mariners was recognized with the establishment of lighthouses on Stephens and Brothers Islands. Severe gales or treacherous reefs were the ruin of several ships in the late 1800's. In 1889 and 1894 respectively the Southern D'Urville area claimed the coastal traders the Koranui and the Gazelle. The reefs off Cape Jackson saw the sinkings of the Rangitoto (1873) and the Lavington (1884). Wrecks that are greater than 100 years old come under the protection of the Historic Places Act. All of these are now popular dive spots.'

'In addition to the submerged wrecks, the Edwin Fox, built in 1853 currently rests in Picton Harbour. The Edwin Fox had a long and colourful history as a convict ship, immigrant ship, refrigerated meat store and coal carrier. Adjacent to the hulk are the Edwin Fox Museum and workshop dedicated to its restoration.'

Whaling in the Marlborough Sounds

Whaling was one of the first commercial activities to establish in Marlborough because the Marlborough Sounds provided sheltered waters for the early whalers relatively close to the northward whale migration route. Indeed, for the first 40 years of the 19th century, whaling was the most significant economic activity for Europeans in New Zealand (Stephens, 2009). In the 1820s a shore whaling station was established on Arapawa Island and, by 1911, the Perano family had founded a whaling industry on the island that lasted until the end of whaling in 1964 (McSaveney, 2008). Many whaling stations were established within the sheltered bays and coves of the Marlborough Sounds, with small communities developing. Today, much of the evidence has been removed, although small remnants exist, particularly on the Port Underwood coastal road.

Economic Development

Due to Marlborough's favorable climate and sheltered valleys, European settlement of the land flourished, and the rate of change evident in the landscape accelerated as the region's economic potential was realised. With the arrival of grazing stock, tussock and native swamp, scrubland and forest were converted to pasture and a network of small towns began to grow. Large braided rivers such as the Wairau, often a source of danger during floods, were spanned by bridges and flood control measures later became a focus (eventually leading to the creation of the river-straightening Wairau River diversion). In the 1860s and 1870s, Marlborough rivaled Canterbury in wool production, Auckland in timber production and also had a flourishing flax fibre industry. During this time, extensive areas of indigenous habitat were lost.

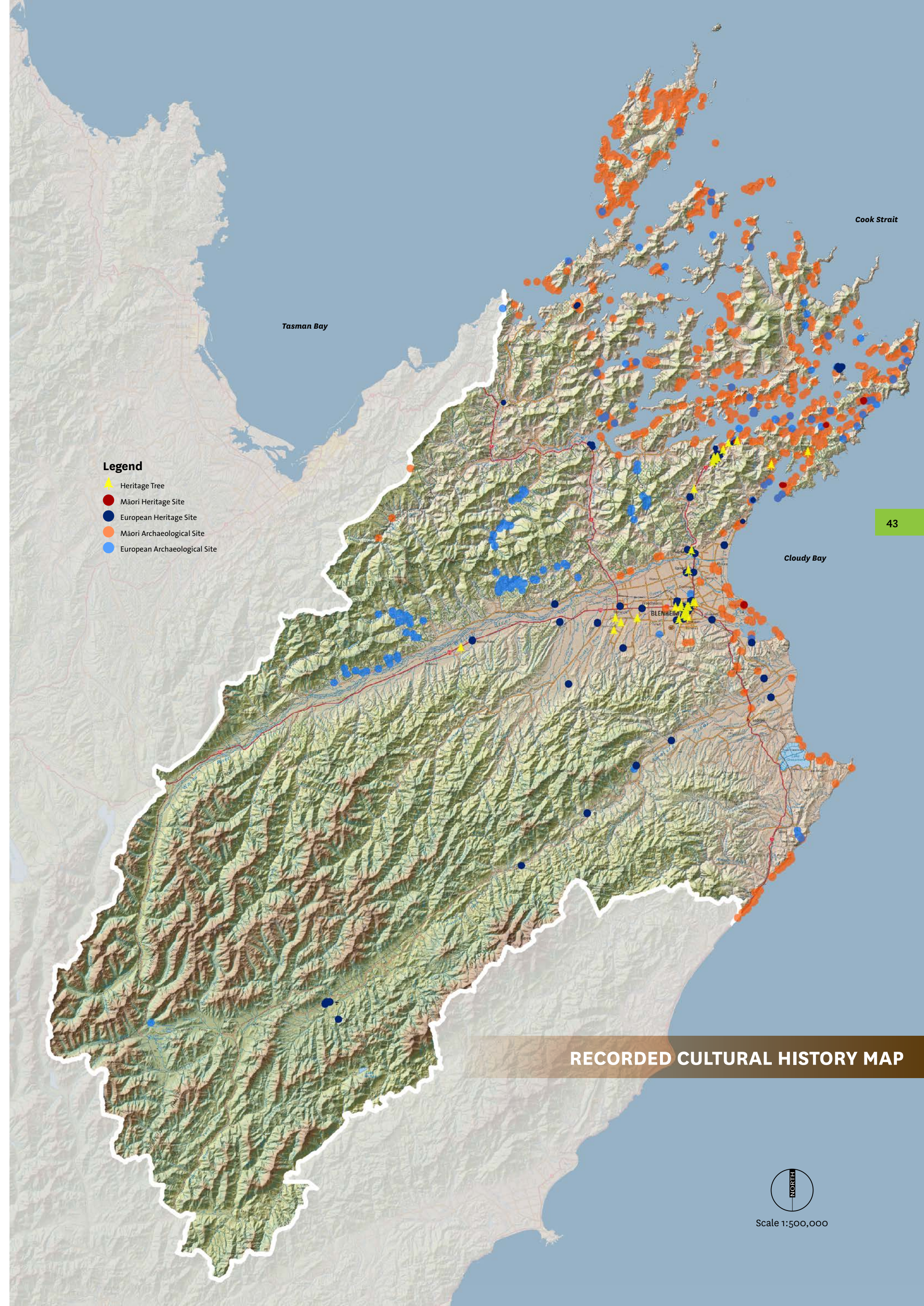
Gold Mining in Marlborough

Although not as rewarding as in other parts of the country, gold was mined in Marlborough, primarily in the Wakamarina area and on the north bank of the Wairau River for a number of years in the mid-19th century. Relics from the era are still evident today. The following passage about gold and gold mining in New Zealand (Te Ara Encyclopedia of New Zealand, www.teara.govt.nz) describes the mining in the Wakamarina valley:

'In 1864, gold was discovered in the Wakamarina River, a tributary of the Pelorus River. Up to 6,000 Otago miners rushed to the workings, as initially these were very rich. A tent town sprang up, with 3,000 men giving the name Canvastown to the area. But the river gravels were worked out quickly and the rush soon passed. Later, reef gold was also discovered, but it was low grade and the reefs were mainly worked for the tungsten mineral scheelite.'

Today's Landscape

Today, the landscape reflects both natural processes and several centuries' of human occupation. Continual land use change and evolving agricultural practices reflect changing economics and human requirements over time. Landscapes are dynamic and will continue to evolve, yet natural and cultural features that are evidence of the past will remain. The cultural history of events that occurred in Marlborough have added a cultural and heritage dimension to the understanding of the region's landscape and landscape values.



Legend

- ▲ Heritage Tree
- Māori Heritage Site
- European Heritage Site
- Māori Archaeological Site
- European Archaeological Site



Section C

Landscape Character Descriptions and Evaluation

BROAD LANDSCAPE DESCRIPTIONS

The landscape of the Marlborough District can be mapped in terms of its geological, ecological, heritage and land use which broadly relate to the district's geomorphology. These areas are described as:

1. The Marlborough Sounds
2. River plains and salt marshes
3. Mountainous Marlborough interior south of Wairau River
4. Northern Wairau River Mountains.

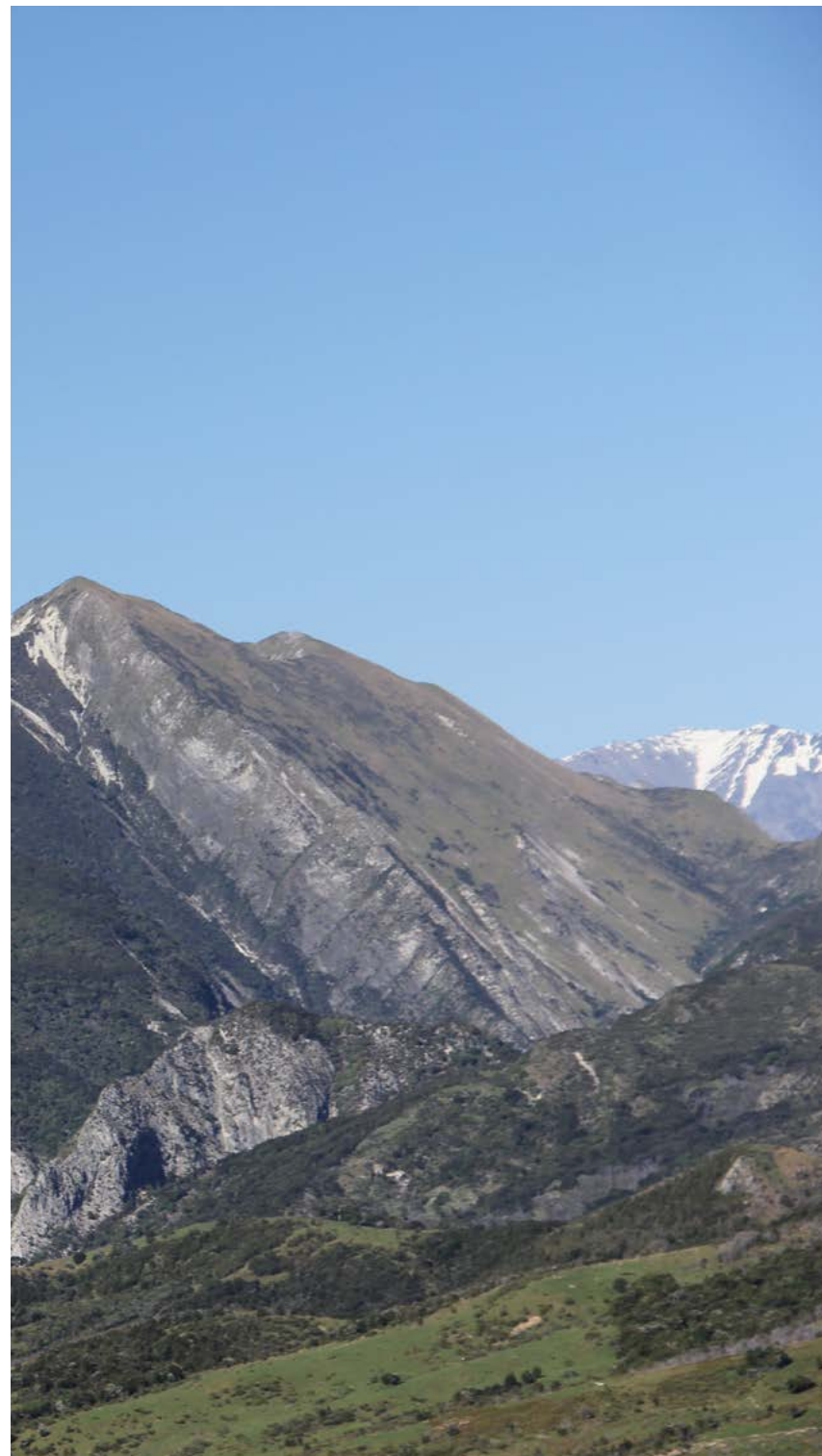
The **Marlborough Sounds** comprise a unique combination of landforms derived from drowned river valleys where physical and climatic forces have shaped the land, resulting in an intricate highly fractured coastline with numerous offshore islands. The very steep to moderately steep dissected coastal hills and mountain slopes are covered in a mix of vegetated and cleared land.

The **river plains and salt marshes** are characterised by their broad, low lying outwash plains confined to the Wairau River plain, the Awatere River mouth and Lake Grassmere. This vastly modified working landscape contains urban developments, pasture, forestry, horticulture and vineyards. The salt marshes and lagoons around the mouth of the Wairau River are largely unmodified. Salt is harvested from Lake Grassmere.

The **mountainous Marlborough Interior south of the Wairau River** is an extensive, largely inaccessible tract of land comprising rugged hills and mountains reaching 2,800 metres a.s.l. in some places. This landscape is largely cleared, pastoral land, although pockets of remnant indigenous vegetation exist in many of the river gorges. Due to the vegetation clearance, its biophysical aspects are somewhat diminished, however it is still a predominantly indigenous landscape with bold landforms typical of high country landscapes.

Compared to their counterparts in the south, the **northern Wairau River mountains** enjoy a wetter climate that is more favourable to forest. Due to its steepness, the land remains largely uncleared with the slopes and valleys are predominantly covered in indigenous forest. Afforestation and intensive pastoral farming are evident within the valleys, especially along the Kaituna and Tuamarina Rivers, however, the majority of the landscape is managed by the Department of Conservation. There are also a number of European and Māori historic and cultural elements associated with this landscape, particularly within the eastern coastal margin, from Rarangi in the south to Oyster Bay in the north.

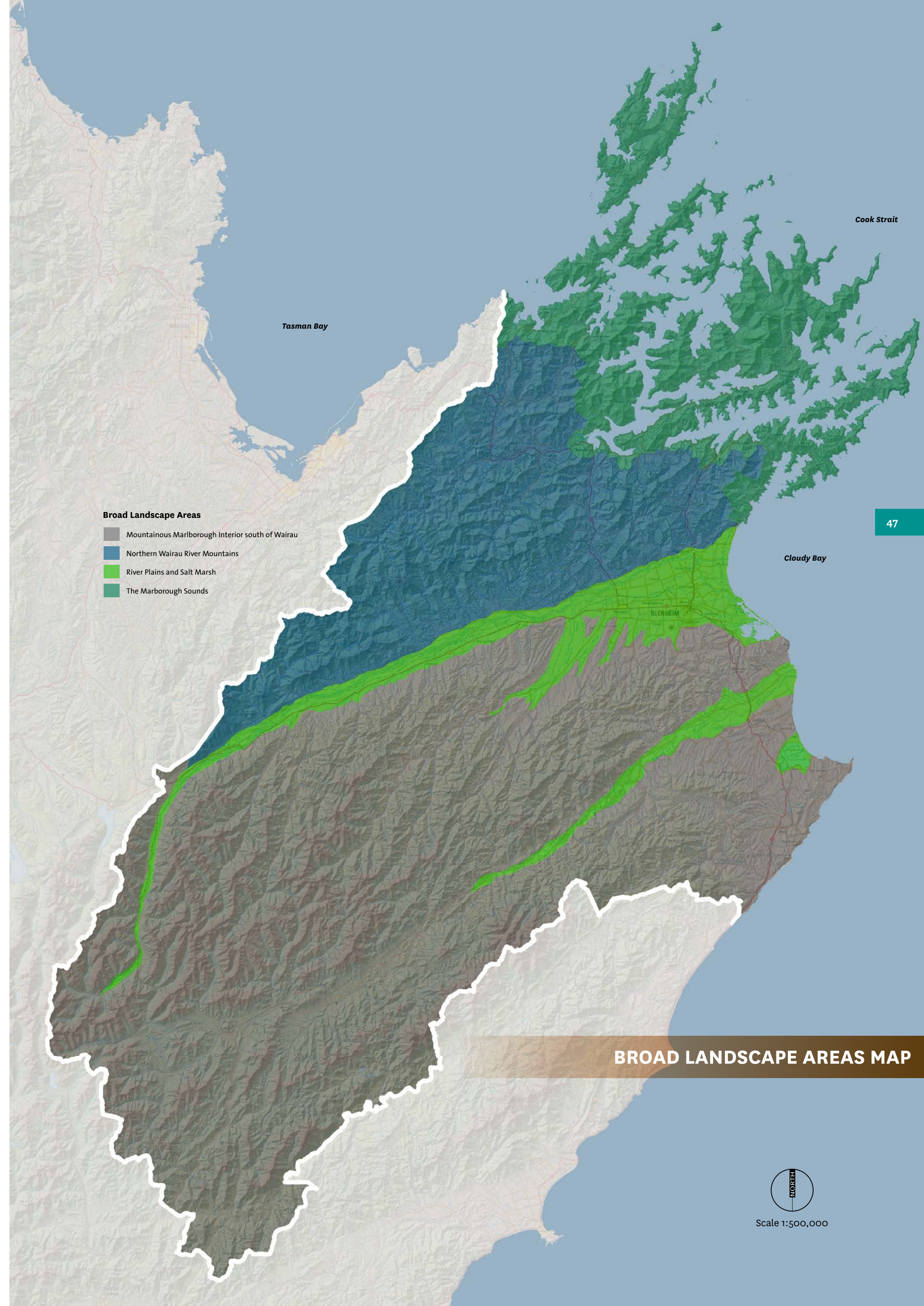
The land cover and land uses within each of these broad landscape types reflect their natural characteristics. To further assist in understanding the overall landscape, an analysis of previous landscape assessments of Marlborough follows overleaf.



Isolated Hill, mountainous Marlborough interior south of the Wairau.



The forested slopes of the Southern Hills west of Blenheim, at the juncture of the river plains and salt marshes and the mountainous Marlborough Interior south of the Wairau River.



ANALYSIS OF PREVIOUS LANDSCAPE STUDIES

A number of landscape studies and assessments of various areas of Marlborough have been completed over the years for different reasons. Not all are landscape assessments and they all vary regarding characterisation and evaluation. A précis of the relevant ones are outlined below. These landscape studies have assisted in framing the landscape-related sections of Marlborough's two resource management plans and in identifying values and making decisions relating to Outstanding Natural Features and Landscapes. The character areas of the *Wairau Awatere Landscape Assessment* (Boffa Miskell, 1996) and the *Coastal Sounds Plan: Recreation & Tourism* (Boffa Miskell, 1992) assessments have been mapped on the facing page.

WAIRAU AWATERE LANDSCAPE ASSESSMENT (BOFFA MISKELL, 1996)

Marlborough engaged Boffa Miskell Limited in late 1995 to undertake a landscape assessment of the Wairau Awatere area as part of the resource management plan process. The principal objectives of the study were to identify and map the natural character (under Section 6(a) of the RMA 1991) and any Outstanding Natural Features and Landscapes (under Section 6(b) of the RMA) of the area and to evaluate their sensitivity to the effects of subdivision, use and development. The landscape assessment also acknowledged amenity issues under Section 7(c) of the RMA. This landscape assessment fed into the landscape-related descriptions and values contained in the *Wairau Awatere Resource Management Plan*.

The landscape assessment categorised the landscape into a series of landscape character areas, which included:

- the bush clad mountains and forested hills north of the Wairau Valley;
- the glaciated mountain ranges and valleys in the west;
- the rugged inland Kaikouras, Molesworth;
- the high inland hills;
- the lower dry coastal hills;
- the Wairau and Awatere valleys;
- the coastline.

The landscape assessment identified the following Outstanding Natural Features and Landscapes within the Wairau Awatere area:

- Lake Chalice, Molesworth, Tapuae-o-Uenuku, Wairau Lagoon, Red Hills Ridge;
- Onamalutu Scenic Reserve, Para Swamp, Spring Creek, Lake Elterwater, Whites Bay and the coast from Cape Campbell south to Waima.

The landscape assessment highlighted that each of these places were considered outstanding (and therefore subject to RMA Section 6(b) protection and preservation from inappropriate use and development), for either their natural character, aesthetic quality, or amenity values. In addition to the outstanding landscapes, several special places were identified that, while not holding the same values as the outstanding landscapes, were nonetheless considered sensitive, should development occur on them. Specifically, these latter areas were considered capable of absorbing limited development, however, each would need to be carefully considered. The special places identified included the Richmond Hills, Tuamarina River, Rainbow Valley and the Upper Wairau, Tophouse, Wither Hills, Dashwood, Redwood and Taylor Passes, Wairau Mouth, White Bluffs/Te Parinui o Whiti, Muritai Reserve, Lake Grassmere and Marfells Beach.

MARLBOROUGH SOUNDS, DRAFT LANDSCAPE ASSESSMENT: SELECTED SITES (BENNETT, 1989) & *MARLBOROUGH SOUNDS VISUAL IMPACTS OF COASTAL DEVELOPMENT - SELECTED SITES* (BENNETT, 1990), FOR THE DEPARTMENT OF CONSERVATION

The landscape-related information within the MSRMP draws heavily on the visual assessment of particular localities in the Sounds carried out by Earl H Bennett for the Department of Conservation in 1989 and 1990. Reference was also made to the Draft Regional Landscape Assessment, prepared by Sissons and Conway

for the Department of Conservation in June 1993, although this remains an unpublished report. A précis of the landscape-related chapter within the MSRMP is outlined overleaf.

The purpose of the studies by Earl Bennett was to determine and document the visual impact of marine farming on nominated locations within the Sounds and to develop methods and criteria that may be applied in future landscape assessments on the Sounds.

Broadly, the report identifies a number of specific sites within the Marlborough Sounds and outlines a methodology to assess and appraise each landscape unit. Assessment is based on its landform, land cover and dominant characteristics, for its potential for change and its landscape quality whilst also making recommendations for management. This report was undertaken prior to the establishment of the RMA 1991 and, therefore, does not reflect current best practice. Nevertheless, this report is useful for its historical data relating to land use and potential pressures that were evident in the early 1990s.

COASTAL SOUNDS PLAN: RECREATION & TOURISM ISSUES PAPER (BOFFA MISKELL, 1992)

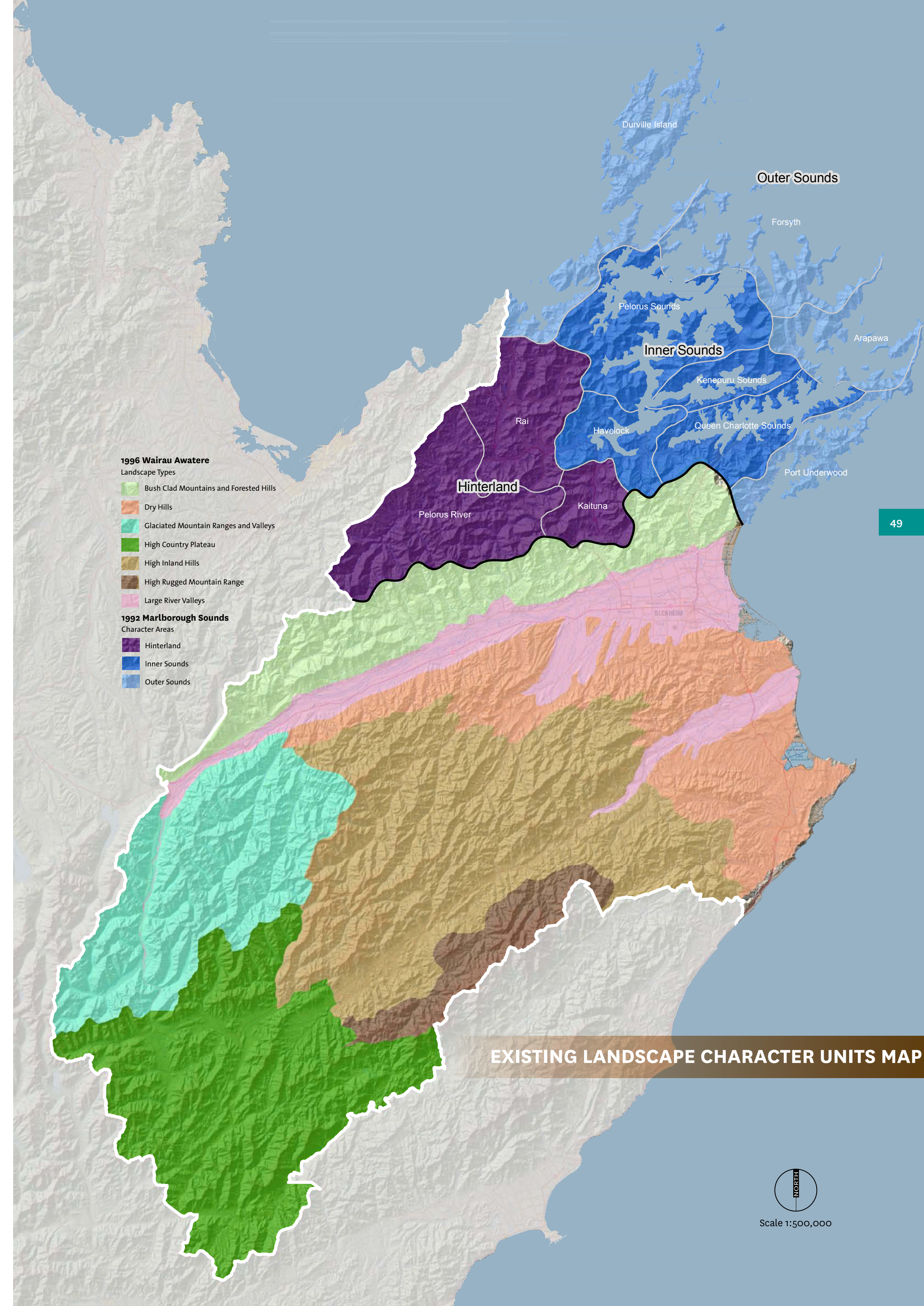
Although this report is not a full landscape assessment, a study of the Sounds landscape was undertaken at a cursory level to aid in planning for tourism and recreation development in the Marlborough Sounds. The report was undertaken at a time when the Resource Management Act had just been adopted.

Broadly, the report outlines a preliminary landscape assessment of the Marlborough Sounds, which includes the top third of the district, extending northwards from the ridge of the Richmond Range to include the Pelorus, Rai and Kaituna valleys, the top part of the Robertson Range and Port Underwood inlet and the spurs, peninsulas and islands of the Marlborough Sounds.

The report found that the Marlborough Sounds had been highly modified from its original state, but that it still displayed areas of significant natural character. It identified three distinctive landscape character types in the Marlborough Sounds; the Outer Sounds, the Inner Sounds, and the Hinterland. A number of landscape character units within each character type were identified, based on their landscape characteristics. Each of these units was classified as outstanding, distinctive or typical. From this, a series of policies were outlined, based on the required level of protection to maintain the intrinsic ecosystem values, features and character of the landscape from inappropriate development, use and management.

The report contained the following table:

Landscape Type	Landscape Unit	Landscape Character	Landscape Protection Policy		
			Level 1	Level 2	Level 3
Hinterland	Pelorus River Rai Kaituna	Outstanding Typical Typical	●		● ●
Inner Sounds	Havelock Pelorus Sound Kenepuru Queen Charlotte	Distinctive Outstanding Distinctive Outstanding	● ●	● ●	
Outer Sounds	D'Urville Forsyth Arapawa Port Underwood	Outstanding Distinctive Outstanding Distinctive	● ●	● ●	



EXISTING LANDSCAPE CHARACTER UNITS MAP

The report concluded the following:

- that tourism and recreation in the Sounds are dependent on the natural environment and on the maintenance of the quality of that environment;
- the characteristics of the landscape should be a determining factor in the activities which are accommodated in that area;
- increasing visitor numbers will result in increasing pressure being placed on the environment, public facilities and users of the resource. However, there is no strong public perception of stress on the resource, other than in a few locations and for limited periods of the tourist season;
- increasing pressure could see a gradual moving out of development to more remote areas of the Sounds;
- pressure on the fishery, and to a lesser and isolated extent, on water quality or the environment generally through lack of infrastructure such as toilets and refuse receptacles;
- conflicts between users of the Marlborough Sounds for tourism and recreational activities and those using the resource for commercial purposes. These conflicts are likely to increase with increasing visitor numbers;
- tourism and recreation can provide additional employment and put extra money into the economy.

MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN (MSRMP)
(Marlborough District Council, operative 2003)

Within Chapter 5 (Landscape) of the MSRMP, the text describes Outstanding Natural Features and Landscapes. The information supplied within the Landscape chapter stemmed from the Department of Conservation work outlined above. The MSRMP states:

'In its entirety, the landscape of the Marlborough Sounds Plan area has outstanding visual values. It displays a broad range of types of visual landscapes and features which are often of greater value for their collective contribution than for their individual value. The location of the Sounds at the top of the South Island with the role as a sea corridor and gateway to the South Island ensures a high public profile as a travel route. Some of the visual features of the Sounds which contribute significantly to its outstanding character are:

- the curving coastline with a range of tidal estuaries and sandy and rocky beaches;
- island landforms set with a skyline backdrop;
- highly weathered coastal cliffs;
- rolling ridgelines along the skyline;
- a complex mosaic of vegetation patterns which gives rise to a range of textures and colours in the landscape; and
- uninterrupted sequence from hilltop to seafloor.

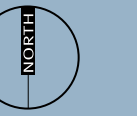
Within the overall landscape of the Marlborough Sounds there are some parts which can be described as individually outstanding such as coastal cliffs including those facing Cook Strait and on D'Urville Island, the Rangitoto Islands, French Pass Channel and the coastal forests and waters of Tennyson Inlet. Other outstanding features and landscape components can be identified and, where they occur, are generally:

- headlands;
- spurs and steep hillsides;
- skylines;
- significant hills and landform peaks;
- water;
- shorelines and small coves;
- indigenous forests;
- mudflats and tidal estuaries;
- flat valley floors; and
- cliff faces.'

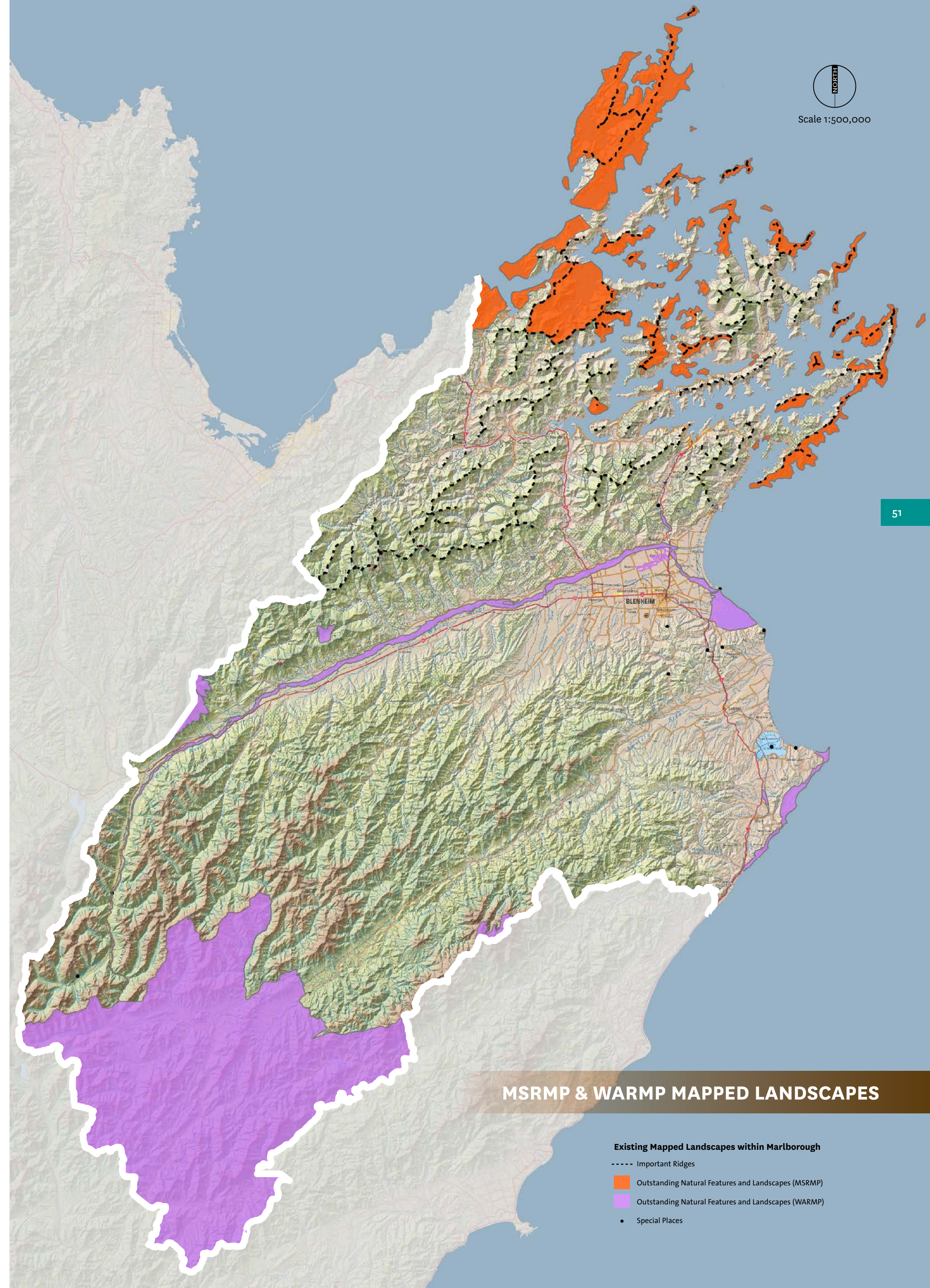
The map on the facing page (MSRMP & WARM Mapped Landscapes) illustrates Outstanding Natural Features and Landscapes identified in both the MSRMP and the WARM.



Wairau Valley.



Scale 1:500,000



MSRMP & WARM MAPPED LANDSCAPES

- Existing Mapped Landscapes within Marlborough**
- Important Ridges
 - Orange box Outstanding Natural Features and Landscapes (MSRMP)
 - Purple box Outstanding Natural Features and Landscapes (WARM)
 - Special Places

Landcare Research ‘Land Typing’

This Landscape Study took an approach based on geomorphological land characteristics to describe and delineate Marlborough's landscapes. This was based on the work undertaken by Landcare Research, which was commissioned to delineate, describe and document the different land types of Marlborough. A previous land typing exercise of the Marlborough Sounds had been carried out by Landcare Research and Lucas Associates in 1997 (Lucas, Head, Lynn, Marlborough, 1997). Commissioned by the Department of Conservation, this study incorporated both land and marine ‘types’. This information fed into the Natural Character chapter of MDC's *Marlborough Sounds Resource Management Plan*. The separate study undertaken by Landcare Research for this Landscape Study (which focused on land south of the Richmond Ranges) was amalgamated with the previous 1997 Marlborough Sounds information (excluding the marine areas). Whilst these have been mapped at 1:250,000, the Landcare Research report notes that more accurate mapping at 1:50,000 would be required for more detailed analysis. The combined Landcare Research information assisted the study team to characterise and evaluate the Marlborough landscape. The information has been also used within the *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment* (Boffa Miskell et al, 2014), central to this latter document is the revision of a number of the Marine Areas, which have also been brought through into this Landscape Study.

The land typing exercise is based on a range of data sources including published scientific papers, geological and topographical maps, Protected Natural Areas surveys, the Register of Protected Natural Areas and the inventory and maps of important geological sites and landforms. Thirty-two land types have been established for Marlborough. Eleven land types are recognised for the Marlborough Sounds area, an additional eleven in the residual lowlands and ten land types in the high country environment (Landcare Research, 2009). All land types have been delineated at 1:250,000 scale on NZMS 262 topographic base maps. The 32 Land types are:



Upper Awatere River.

Lowland environment:

1. D'Urville, coastal ultramafic dominated land type
2. Bryant, inland ultramafic land type
3. Cook Strait land type
4. Bulwer, Sounds, dry, non foliated to weakly foliated land type
5. Arapawa, Sounds, dry, weakly foliated land type
6. Portage, Sounds, dry, strongly foliated land type
7. Stokes, Sounds, wet, weakly to strongly foliated land type
8. Nydia, Sounds, wet, non foliated to weakly foliated land type
9. Pelorus, inland western, wet, non foliated to weakly foliated land type
10. Kaituna, inland eastern wet, strongly foliated land type
11. Robertson, moist, non foliated to weakly foliated land type
12. Plains-coastal fringe land type
13. Lower plains land type
14. Plains-recent floodplains and low terraces land type
15. Northern coastal strip land type
16. Northern loess-mantled soft rock hills and downs land type
17. Northern soft rock hills and downs land type
18. Loess-mantled, dry, weakly consolidated conglomerate land type
19. Moist weakly consolidated conglomerate hills land type
20. Moist coastal limestone hills land type
21. Dry coastal hard rock hills land type
22. Northern hard rock hills and mountains land type

High Country environment:

23. Major high country river, valley fill land type
24. Glacial and fluvial valley floor land type
25. Soft rock infaulted hills land type
26. Intermontane hard rock hills land type
27. Igneous mountain range, Mt Lookout, Middlehurst land type
28. Inland Kaikoura Range land type
29. Northern subhumid to humid mountain range land type
30. Northern Semi-arid to humid mountain range land type
31. North Bank mountain - wet, strongly foliated land type
32. Northern Main Divide and associated ranges land type

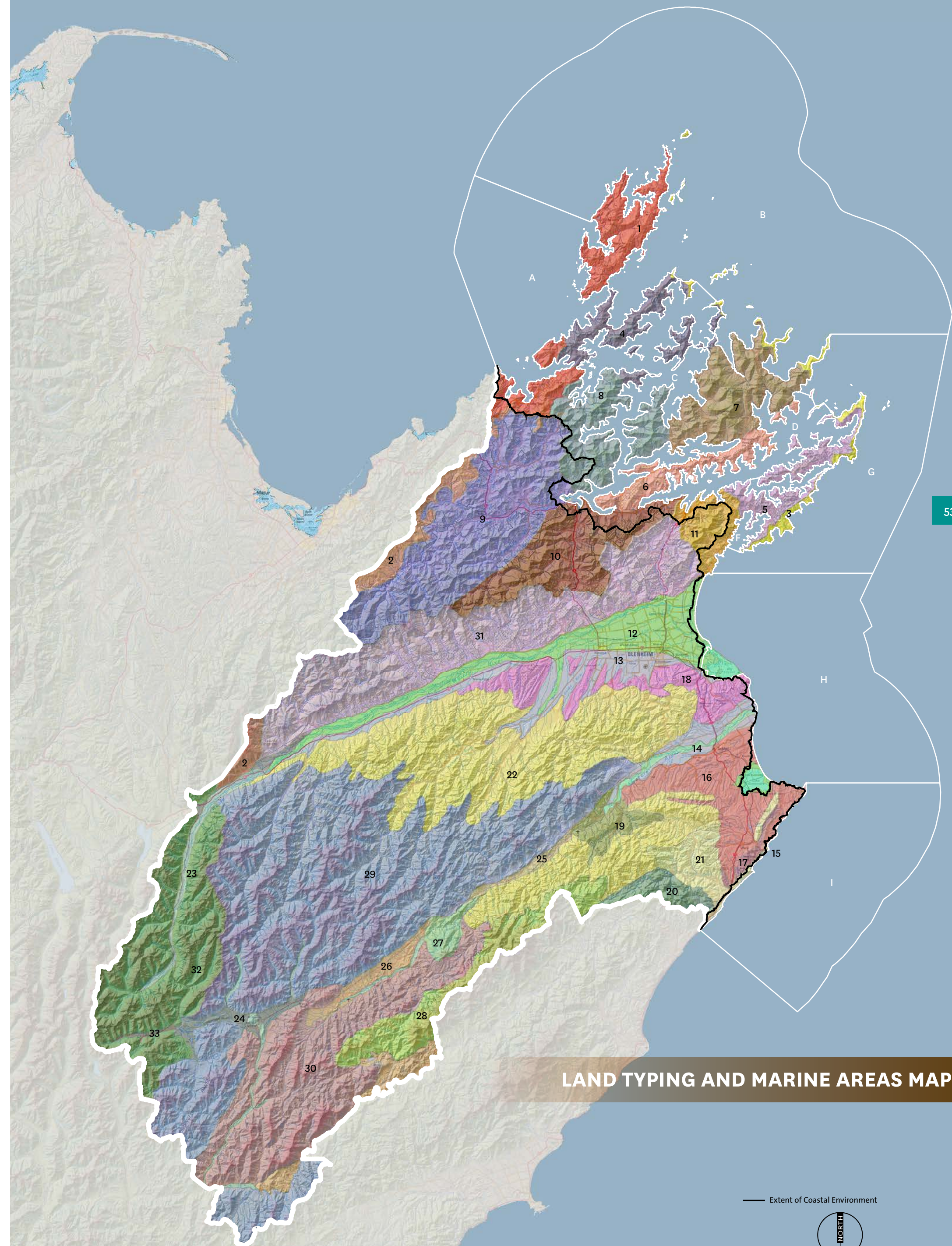
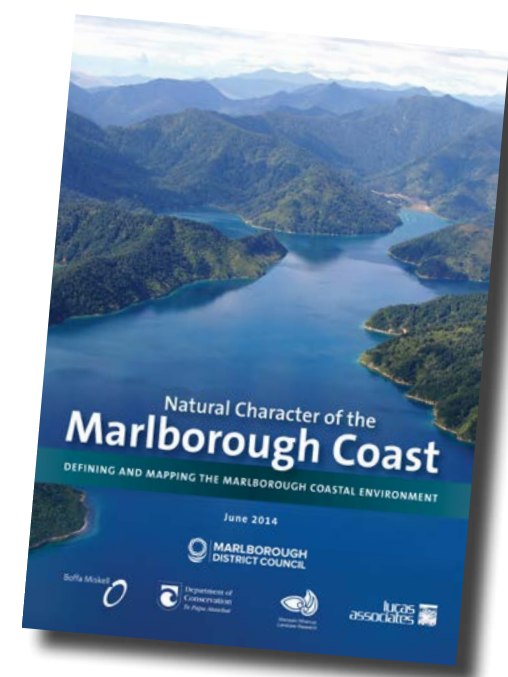
There are a further nine marine ecosystems identified within 'Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment', (Boffa Miskell et al, 2014). These are:

Marlborough Sounds

- A. Tasman Bay - south-western D'Urville Island
- B. D'Urville Island - Northern Cook Strait
- C. Pelorus Sound
- D. Queen Charlotte Sound
- E. Tory Channel
- F. Port Underwood
- G. Eastern Cook Strait and outer Queen Charlotte Sound

South Marlborough

- H. Cloudy and Clifford Bays
- I. Cape Campbell to Willawa Point



LAND TYPING AND MARINE AREAS MAP

— Extent of Coastal Environment

Scale 1:600,000

LANDSCAPE CHARACTERISATION AND EVALUATION

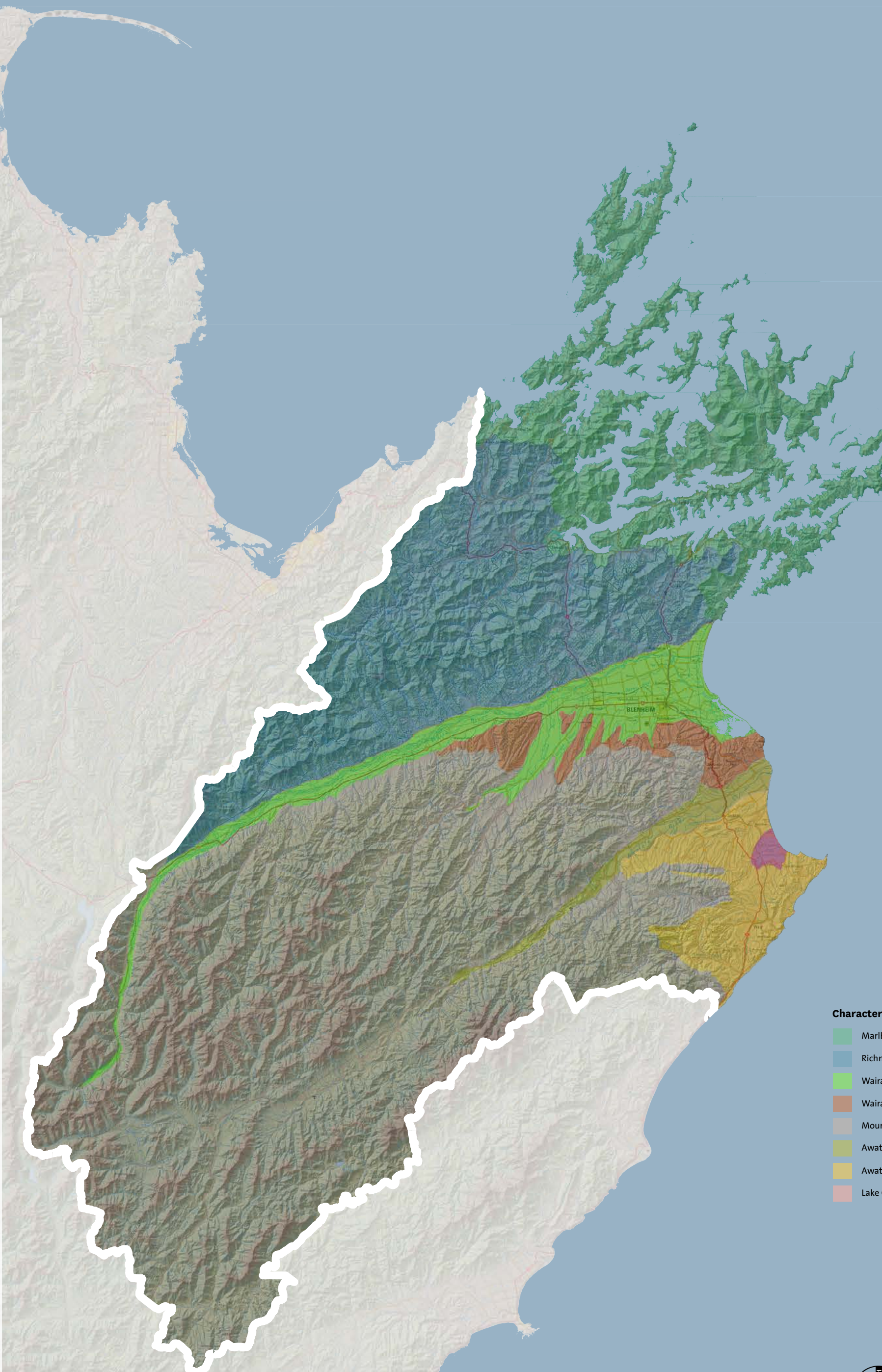
Characterisation

Characterisation describes places in a way that is meaningful to non-scientific people. After much analysis and consideration of the earlier landscape assessments and various geomorphological and land typing approaches, the study team concluded the land-typing approach, mapped by Landcare Research, was the most appropriate basis for determining and describing the character areas. This approach is well-suited to recognising the district's varied landforms and patterns of settlement in a way that is sensitive to the subtle distinctions of place and picks up on the way people orientate themselves in the district.

The following pages outline the eight 'Landscape Character Areas' identified. Contained within most of the main Landscape Character Areas, smaller landscapes can be identified and these are referred to as sub-character areas. For example, while the Wairau River Flats has been described as one Landscape Character Area, the study team identified six smaller landscape areas within its boundaries. This identified that, while the river mouth and saline lagoons share the same overriding characteristics as the river corridor flats, they are clearly different in character, values and land use pressures from parts of the middle stretch of the Wairau. The sub-classification has assisted in describing the landscape character in more detail and in placing values on the landscape.

The eight Landscape Character Areas of Marlborough and their accompanying descriptions are:

- The Marlborough Sounds; which includes Picton, Havelock and islands, spurs and peninsulas that form the north-eastern-most part of the South Island;
- The Richmond Ranges; which includes the rugged inland hills south of the Sounds and north of the Wairau valley, including the Pelorus, Rai and Kaituna River valleys;
- The Wairau River Flats; which includes the Wairau River valley from the river source to mouth;
- The Wairau Dry Hills; includes the low grassy hills south of Blenheim;
- Mountainous Interior; which includes the majority of the mountainous landmass of Marlborough, including the Inland Kaikouras, Molesworth and mountainous Alpine Fault;
- The Awatere River valley;
- The Awatere Dry Hills; which includes the undulating hills south of the Awatere River valley;
- Lake Grassmere.



Character Area

- Marlborough Sounds
- Richmond Ranges
- Wairau River Flats
- Wairau Dry Hills
- Mountainous Interior
- Awatere River Valley
- Awatere Dry Hills
- Lake Grassmere



Scale 1:600,000

Evaluation

As outlined within Section A, all landscapes (and seascapes) have values and there are many features and landscapes that are of significance, but do not meet the threshold required for being either an Outstanding Natural Feature or Landscape (ONFL), or a landscape or feature with high amenity. The previous landscape studies (which formed the basis for landscape-related policies in the resource management plans) identified Outstanding Natural Features and Landscapes. As outlined previously, this Landscape Study will focus on reviewing the existing landscape (and seascape) through a two part assessment, characterisation and evaluation. The statutory matters that provide the context for consideration of landscape values include:

- The protection of **Outstanding Natural Features and Landscapes** from inappropriate subdivision, use, and development (Section 6b of the RMA 1991) and Policy 15 of the NZCPS 2010
- The maintenance and enhancement of **amenity values** and the maintenance and enhancement of the quality of the environment (Section 7c and 7f of the RMA 1991). Collectively referred to as **Landscapes and Features with High Amenity**.

Each of the above matters were assessed and identified separately by the study team. Boundaries of existing landscape protection areas (especially ONFLs) were evaluated, resulting in boundary lines being adjusted, areas being removed and new landscapes being included. Many areas remain the same. The methodology for the identification of ONFLs and ONFs (and their separation into landscapes and features) is outlined in Section A.

Areas of the Marlborough landscape that have been included as an ONFL or ONF (and that were not included in the previous landscape assessments) are large areas of mountain ranges and river valleys, notably the Richmond Ranges and part of the mountainous interior around the Main Divide and the Inland Kaikouras. Furthermore, the seascape of the outer Sounds has also been recognised as holding outstanding qualities. All these areas display high levels of naturalness and high levels of landscape quality. As outlined in Section A of this report, the methodology compiled for this study determined a threshold, confirmed through case law and advances in landscape assessment techniques since the previous landscape assessments were written in the early and mid 1990's. Therefore the application of the methodology throughout this evaluation process led to the inclusion of areas that display similar landscape qualities, relationships and values.

The revised ONFLs and ONFs including Landscapes and Features with High Amenity Values are outlined in Sections D and E of this study. Some ONFLs are spread over several character areas, and where this occurs, specific mention has been made to the part or component of the ONFL in that area.

1.0

MARLBOROUGH SOUNDS

General Landscape Character Area Description

The submerged river valleys of the Marlborough Sounds landscape form a distinctive network of headlands, bays, inlets and islands in the north of the district. This complex ria coastline extends into Cook Strait between Tasman Bay in the west and Cloudy Bay in the east. The outer part of the Sounds is strongly influenced by this exposure to the sea whereas the inner Sounds enjoy a comparatively sheltered environment.

The range of rock types in the Sounds is reflected in the different patterns and characteristics of the landforms seen there.

The islands and peninsulas have largely developed on a north-easterly/south-westerly orientation and steep slopes generally rise quickly from the shore up to a single ridgeline. The coastline of the outer Sounds is characterised more by high sea-cliffs compared with the small beaches that occur within much of the inner area. The elevation of the land varies from sea level to 1,203 metres a.s.l. at the highest point at Mt Stokes.

The vegetation and habitats of the Sounds are changing rapidly in response to changing land uses. Most of the land is currently in a mixture of indigenous forest remnants, regenerating shrublands and forests and exotic grassland. Much of the original vegetation, particularly in the outer Sounds, has been cleared over the years for pastoral farming but a large proportion of this is now regenerating following the removal of stock. There are also some areas of extensive commercial exotic forestry, largely in the inner and eastern Sounds.

Many parts of the Marlborough Sounds are managed by the Department of Conservation. Important habitats include indigenous forests, shrublands, grasslands, cliffs, estuaries and saltmarshes. Several predator-free islands in the Sounds are used for recovery programs for endangered species (DOC 1993).

There are numerous historic Māori and European sites within the Sounds. Some of the earliest sustained contact between Māori and European took place here. Archaeological sites identified throughout the Sounds generally reflect the range of settlement, fishing, hunting, gathering and horticultural activities that would have occurred in the past. Many of the European sites of interest are related to early buildings, particularly in the settlements of Picton and Havelock.



Looking towards French Pass (the narrow channel, centre of photograph), Current Basin (central waters) and D'Urville Island (background from left to right). The cleared slopes of the peninsula at right, which emphasise the crumpled nature of the landform, in contrast to the forest and bush-clad slopes of D'Urville Island. Also evident in this view are the ripples and strong currents between French Pass and D'Urville Island in the aptly named 'Current Basin'.

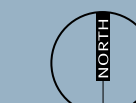
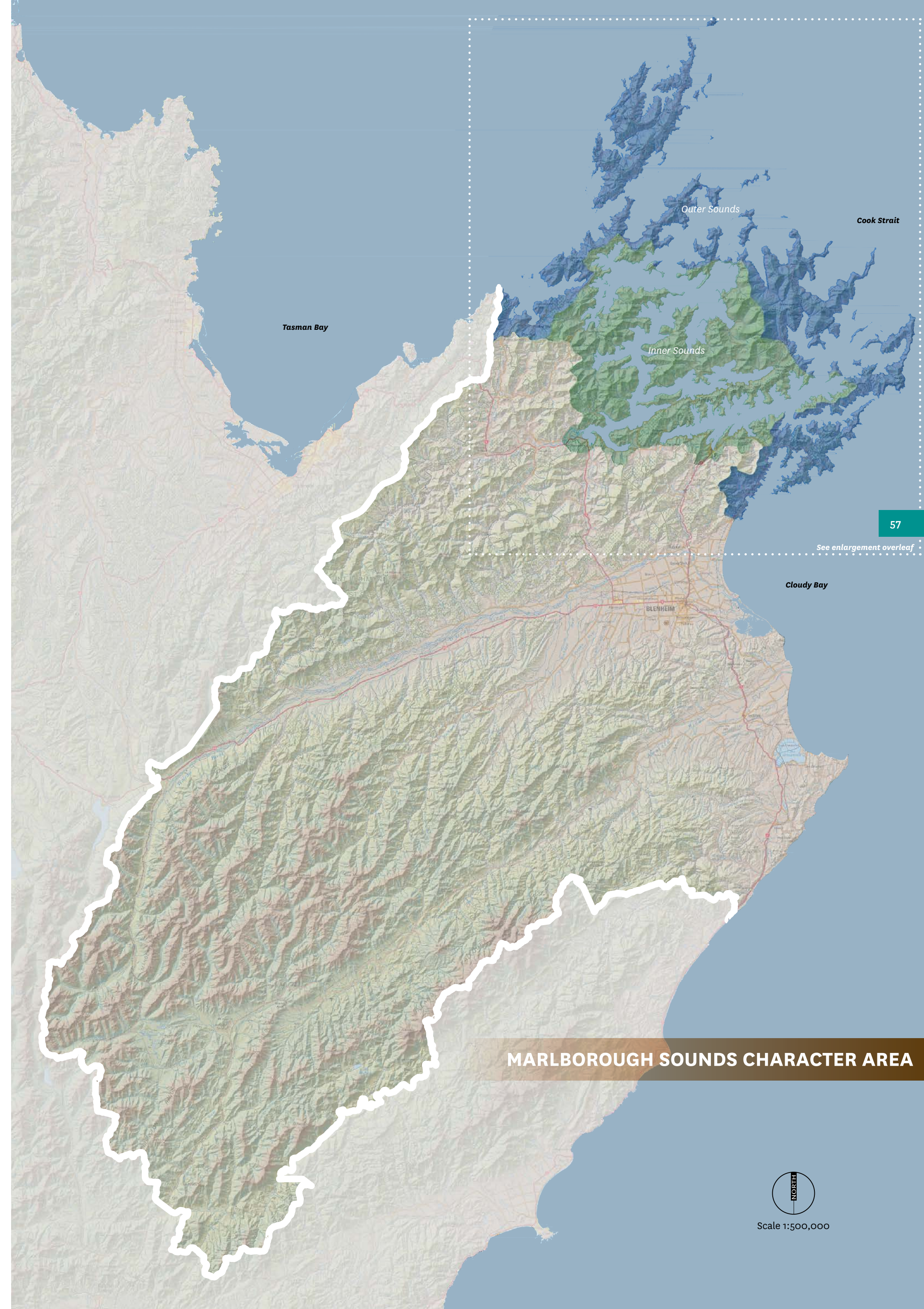
The eastern coastal margin, from Rarangi in the south to Oyster Bay in the north, contains a large number of heritage sites relating to differing times of occupation. This area, due to its relatively mild climate and sheltered bays, saw a number of operations that capitalised on the area's location. Remnants of the former whaling stations in Ocean Bay and Robin Hood Bay are still apparent, as is Whites Bay Cable Station, which demonstrated the first telegraphic link between both the North and South Islands in 1866.

The mosaic of waterways, bays and islands in the Marlborough Sounds provides many opportunities for water-based recreational activities. There are also popular picnic and camping areas and numerous walks in this area.

The system of waterways also provides opportunities for the aquaculture industry, which is active throughout the Sounds, predominantly in the form of mussel farms. While the size of the aquaculture farms differs, and some bays contain more than others, they are mostly located within 200m of the shoreline.

Settlement within the Sounds is dominated by holiday homes although there are also many permanent residents. The two main settlements are the townships of Picton, near the head of Queen Charlotte Sound, and Havelock, which provides access for boats to Pelorus Sound and Kenepuru Sound. The eastern and inner areas of the Sounds around Havelock, Kenepuru Sound and Queen Charlotte Sound are typically more developed than the western and outer Sounds.

Picton marks the north end of State Highway 1 in the South Island. Here, the Cook Strait ferries leave for Wellington through the eastern arm of Queen Charlotte Sound. State Highway 6 provides the main access to Havelock. Other key roads through the Sounds are Queen Charlotte Drive between Picton and Havelock, the roads to French Pass and to Tennyson Inlet in the western Sounds, and the roads to Kenepuru Head and to Waikawa in the east. A 350kV HVDC follows the eastern coastline towards Fighting Bay, where it then connects to the North Island via submerged cables within the Cook Strait.





Scale 1:250,000

SUB-CHARACTER UNITS OF THE MARLBOROUGH SOUNDS

1.1 Outer Sounds

1.2 INNER SOUNDS

The outer Sounds are the outermost parts of the Sounds with characteristics clearly influenced by the area's exposure to the sea. The area extends from the slopes around Croisilles Harbour, north to Admiralty Bay and D'Urville Island (Rangitoto Ki Te Tonga), east to Forsyth Island, the land around Port Gore and Arapawa Island and south to Port Underwood. The range of peaks either side of Mt Stokes (the highest point in the Sounds) separates the outer Sounds area from the inner Sounds.

It is often the inner Sounds with their bush-clad hills enclosing tranquil bays that are represented in popular images of the Marlborough Sounds. These inner reaches tend to have a more intricate coastline with small beaches, tidal estuaries and a sheltered, enclosed environment.

The outer Sounds are remote and rugged in appearance. There are many dramatic and distinctive features characteristic of this area, including the swirling currents between the narrow passage at French Pass (Te Aumiti), boulder spits and sand dune systems, highly weathered coastal cliffs, rocky islands and jagged rock stacks and reefs, narrow elongated ridges and steep coastal hill country.

While much of the inner Sounds is characterised by steep hill slopes, it also contains some of the flattest land in the Marlborough Sounds, particularly in the river valleys at the heads of the large Sounds. The river deltas form tidal wetlands in these areas. In contrast, the upper southwest facing slopes of the Mt Stokes massif are sufficiently high that alpine plants can be found there.

There are a number of important Geopreservation Inventory Sites in the outer Sounds, most notably on D'Urville Island that include the northernmost copper mine in the South Island and geological features within Greville Harbour. The Inventory also notes that Cape Jackson displays a superb example of a drowned narrow ridge crest.

The land of the inner Sounds is partially covered in indigenous forest remnants, generally occupying the upper slopes. The lower slopes and shoreline contain a more diverse range of vegetation types including regenerating forests and shrublands, exotic grassland, and commercial afforested areas.

The maritime influence on the outer Sounds creates a temperate climate and distinctive marine vegetation communities such as the salt-tolerant, low-growing herb and shrub species that can survive the constant winds off Cook Strait. The extensive areas of modified grassland are a characteristic of the outer Sounds. The outer, eastern Sounds contain some large areas of exotic forestry.

A large proportion of the land in the inner Sounds is managed by the Department of Conservation. Particularly extensive areas of DOC land include much of Tennyson Inlet, Mt Stokes and the north arm of Queen Charlotte Sound. Maud Island is an important island sanctuary that straddles the inner and outer Sounds.

D'Urville Island is the largest island in the Sounds and, despite the efforts of early pastoral runholders, retains much of its indigenous cover containing some important species.

The inner Sounds are generally the focus of most intensive tourism and recreational activities and the location of the majority of the housing. While Havelock and Picton are the main settlements, smaller bach settlements occur in many of the bays and inlets in these areas.

A number of predator-free island sanctuaries are located in the outer Sounds such as Motuara Island, Blumine Island and Stephens Island/Takapourewa Island. Long Island-Kokomohua Marine Reserve is located at the entrance to Queen Charlotte Sound. These reserves contain a range of rare or threatened species such as kiwi, tuatara, Hector's dolphins and king shags.



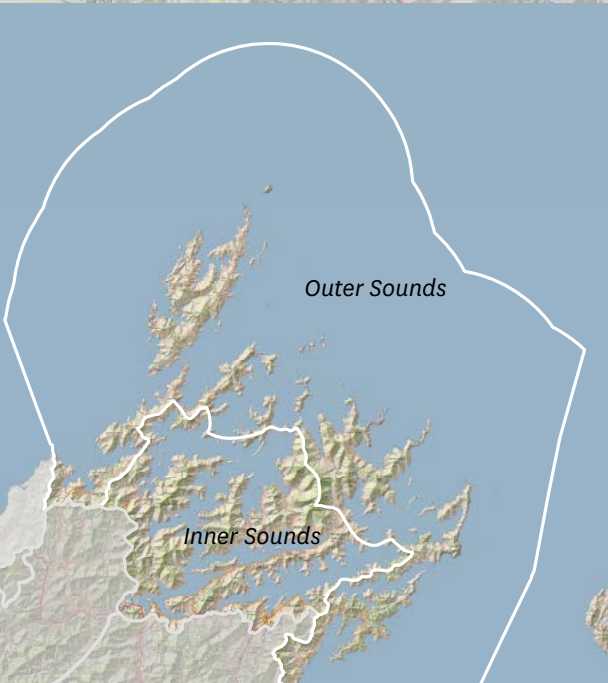
Forestry plantations cling precariously to the slopes above the cliffs close to Bushy Point on Cook Strait, where precipitous rocky slopes extend seawards to form an exposed, rugged shoreline.

The outer Sounds are richly associated with early Māori and European history in New Zealand. D'Urville Island is the site of numerous prehistoric quarries as well as early European copper mines. Other areas in the outer Sounds, such as Queen Charlotte Sound and Tory Channel, contain extensive archaeological remains regarding the original Māori occupiers, early contact with Captain Cook, and later Māori and European whaling and farming families.

The cable station at Whites Bay is accessed by an unsealed road that connects south to Rarangi and north to Port Underwood and Waikawa/Picton. A cluster of small coves and bays pepper this coastline, where numerous small fishing and former whaling communities established, including at Ocean Bay. The 350kV transmission line extends northwards along these eastern bays towards Fighting Bay on the Cook Strait side of Port Underwood. These bays contain rich historical and cultural associations for both Māori and Europeans. At Oyster Bay, a marker commemorates the signing of the Treaty of Waitangi on nearby Horahora Kakahu Island and the first telegraphic link to the North Island was established from Whites Bay in 1866.

The outer Sounds are relatively remote, with less land-based development than in the more sheltered inner bays. Nonetheless, there are scattered baches and jetties and occasional homesteads and associated farm buildings, usually near to the shore. Marine farms are present along many of the more sheltered stretches of coastline.

Far left map: Extent of the Marlborough character area and district boundary (12 nautical miles). Below: The bush-clad and forested slopes and spurs of the Queen Charlotte Track isthmus as seen from near Kaireperepe Point. From this viewpoint on Queen Charlotte Drive over the Grove Arm waters, the visually overlapping hills and peninsulas of the north-western Sounds form a continuous horizon even though many are physically separated by water. Much of the landscape has been cleared in the past, and now displays areas of regenerating scrub cover. Wilding pines are also evident in this landscape.





Picton's port (centre right) and marina (centre left) are located at the southern end of Queen Charlotte Sound. This is the first entry point to the South Island for many New Zealanders and tourists arriving from Wellington on the Cook Strait ferry.



Roads tend to wind themselves around the base of the landform, connecting pockets of housing and small settlements, such as Te Mahia and Portage.



A typical bay in the inner Sounds: sheltered, often secluded and difficult to access by road. Native bush predominates, however, exotic introductions such as eucalyptus and pines provide a distinctive 'colour' change to the landscape.



The estuarine landscape where the Kaituna River flows into Pelorus Sound at Havelock.

KEY LANDSCAPE CHARACTERISTICS: MARLBOROUGH SOUNDS

- Distinctive 'ria' coastline of drowned river valleys
- The outer Sounds are characterised by their exposure to maritime influences
- Distinctive ridges such as Cape Jackson
- The inner Sounds generally have a more sheltered, enclosed environment
- Vegetation is a mosaic made up of indigenous forest, regenerating forest and shrublands, coastal native vegetation communities, exotic grassland and forestry
- The small settlements of Picton and Havelock are the main townships
- Elsewhere, baches and some permanent homes are scattered throughout the Sounds though more intensively in the inner bays
- In a few locations native vegetation extends from the ridge tops to the sea
- The Marlborough Sounds is imbued with cultural and spiritual associations.

Landscape Character Area Evaluation

The study team acknowledged that landscape values, particularly for the Sounds, cannot in many instances be confined to a specific catchment area or character area. Therefore, as landscape values overlap, so does the identification of ONFLs and High Amenity Landscapes.

The study team concluded that due to the complexity and diversity of the Marlborough Sounds, and its value nationwide, the entire Marlborough Sounds is considered an Outstanding Natural Landscape at a national scale. At the more detailed regional/district scale, however, the study team concluded that some areas within the Marlborough Sounds could not be identified as an ONFL. These areas should be identified as a High Amenity Landscape, due to high collective sensory values. At this latter scale, therefore, the ONFLs sit within the High Amenity Landscape.

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values

The combination of landforms, complex waterways and islands of the Marlborough Sounds are unique and considered nationally significant in that they represent a drowned former landscape. The underlying geology is relatively complex, partially determining the patterns and characteristics of the landforms, differences in rates and types of erosion, drainage patterns and process (McRae, Lucas, Courtney, Baxter, Barrier & Lynn, 2004). The landform of the Sounds as a whole is considered significant, as it is the largest and most well-developed example of a ria coastline in New Zealand, formed as a result of both subsidence and sea level rise, to produce a profoundly incised and intricately indented coastline with attenuated, fragmented blocks of land largely surrounded by sea (McRae, Lucas, Courtney, Baxter, Barrier & Lynn, 2004).

There are a significant number of geopreservation sites within the Sounds landscape (17 in total), with the majority located within the outer Sounds landscape. Whilst some recognise important human-intervened areas such as historic mining areas, most are naturally occurring, such as the Matarau Point beach ridge, the Greville Harbour boulder spit and the submerged ridge at French Pass.

The Marlborough Sounds are also highly legible in terms of how its formative processes lead to its creation. The sequence of drowned valleys and often incised cliffs, ridges, peninsulas and islands are clues indicating a previous dry valley system. Impressive slender rocky peninsulas, river valleys and odd-shaped islands reflect the forces that have shaped the landscape.

Ecological Values

The ecological value of the Sounds is strongly influenced by the area's maritime climate, geology and landform, resulting in a complex interplay of land and water, extending from the sheltered inner Sounds to the outer Sounds that are exposed to the turbulence of Cook Strait (MDC, 2009). Large and distinctive areas of significant indigenous vegetation thrive on the maritime conditions and include the Cook Strait shrublands, coastal, lowland and upland mineral belt communities and the alpine vegetation associated with Mt. Stokes. Natural biodiversity of the Sounds as a whole is high as a result of the diverse range of environmental conditions and physical habitats (Boffa Miskell, 2014).

A number of predator-free islands act as sanctuaries to native flora and fauna, notably Long Island and Maud Island. These are important for coastal black beech and hard beech forests which are rare throughout New Zealand (McRae, Lucas, Courtney, Baxter, Barrier & Lynn, 2004).

The Sounds are imbued with transient qualities by the differing weather patterns, which are highly influenced by its maritime setting.

SENSORY VALUES

Aesthetic Values

The distinctive, fractured pattern of the Marlborough Sounds coastline, its slender peninsulas and range of islands, as well as its varied weather patterns, culminate in a distinctive landscape containing very high aesthetic values. The combination of the area's rocky coastline, vegetated and grassy ridges and small coves, bays and inlets portrays an overwhelming sense of naturalness. The area is imbued with cultural and historic values. It is extremely memorable.



The distinctive Nohokouau Point separating Double Cove and Lochmara Bay.

The outer Sounds are more rugged and exposed than the more sheltered inner Sounds and are more open to the varying climatic conditions in the Cook Strait. The inner Sounds are visually defined by the 'Sounds catchment', where the forest-clad ridges and mountain tops form the horizon, merging with other ridges and peaks to create a more intimate and enclosed landscape experience, especially at water level. It is within these inner Sounds, particularly within many of the smaller bays, where little evidence of human intervention is seen, and where the level of visual intactness remains high. Even small settlements, nestled closely at the head of a bay, contained by the steep, often vegetated sides of the enclosing ridge, retain a high level of aesthetic coherence.

Other Sensory Values

The Marlborough Sounds landscape stimulates all senses. Spatial, auditory, visual and other sensory experiences are all stimulated by the close relationship between the convoluted network of waterways and interlocking peninsulas and islands, which is unique in New Zealand. The seasons and differing weather patterns contribute to the dynamic mix of sensory elements.

ASSOCIATIVE VALUES

Shared and Recognised Values

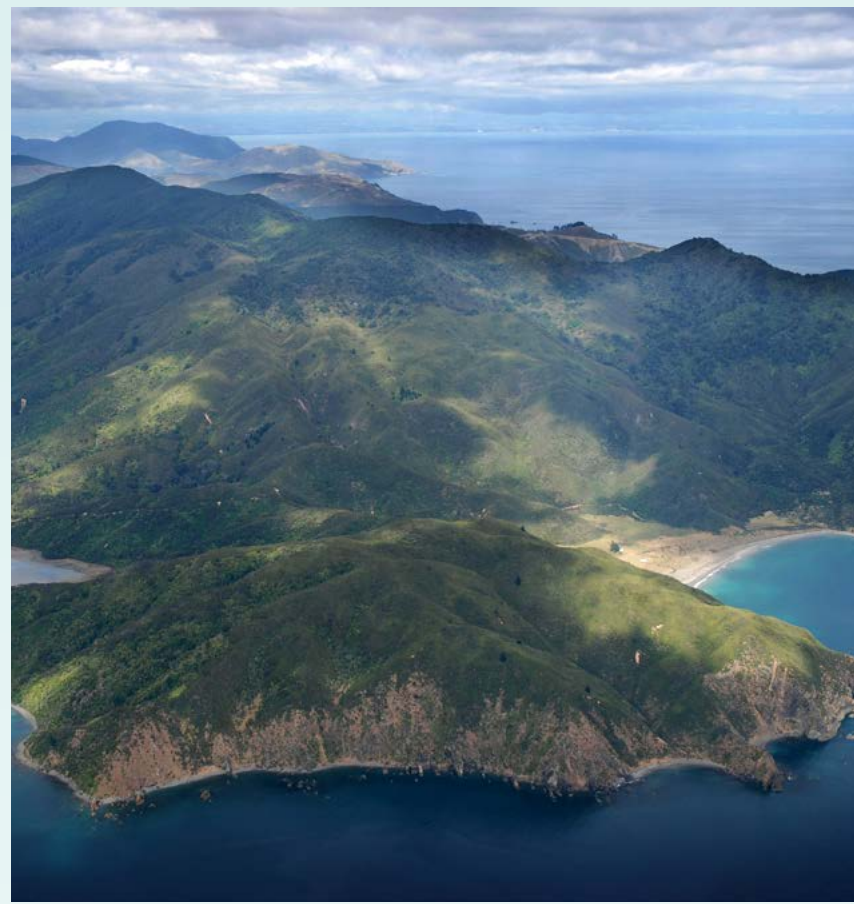
For most New Zealanders, the series of meandering peninsulas, small islands and isolated coves encapsulate the very essence of the Marlborough Sounds. The contrast between the exposed and more rugged and barren outer Sounds, which protrude into the Cook Strait, to the more vegetated and sheltered inner Sounds provides a recognised national and international value for a wide variety of water-based activities, including for recreation, tourism and marine farming.

The landscape of the Sounds' has long inspired painters, poets and writers to capture the unique and varied sense of place. Renowned New Zealand artists such as Wayne Seby and Don Binney have painted numerous scenes of the Sounds landscape which are hung in many galleries around the country.

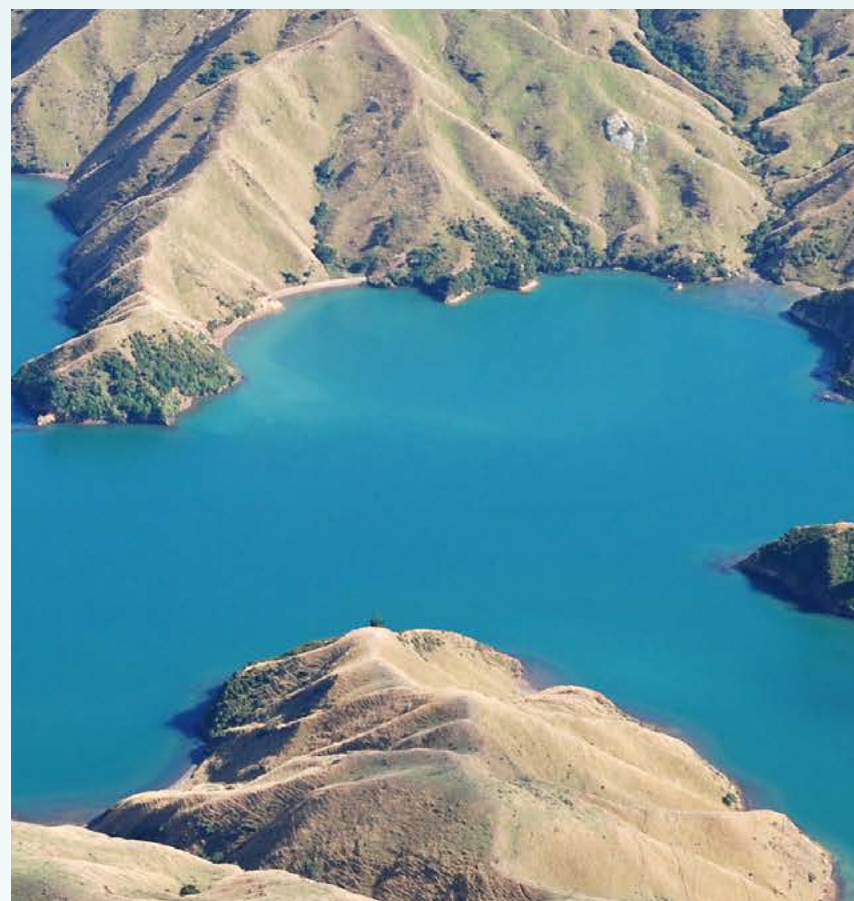
But for most people, the Marlborough Sounds principal reputation is related to recreational-based activities, with many New Zealanders and overseas visitors choosing to holiday in the area due to its scenic setting and mild temperatures. The Queen Charlotte Track, a 71-kilometre easy-grade walk between Queen Charlotte Sound and Kenepuru Sound, passes numerous sheltered historic bays, areas of native vegetation, and ridgetop views of the broader area. It is one of New Zealand's main walks. Other activities in the area include sea kayaking, fishing, diving the *MS Mikhail Lermontov* and pleasure boating.

Heritage Values

The Marlborough Sounds contain rich cultural and historic values due to its location at the top of the South Island and its intricate network of sheltered waters and bays. Most areas of historic and cultural value lie adjacent to the coast, often the sites of old whaling stations and homesteads, where close proximity to the sea within the sheltered bays was favoured. Apart from Abel Tasman sailing through the Sounds, all the principal explorers to the area disembarked, with James Cook raising the British flag on Motuara Island at the mouth of Queen Charlotte Sound, claiming British governance of this part of the territory of New Zealand.



Clock Point Hill at the separates Whangarae Bay (left) and Onetea Bay (right).



Camp Bay, East Arm D'Urville Island.
Below: Chetwode Islands, outer Marlborough Sounds.



Port Underwood.

The first whaling station in New Zealand was established in Tory Channel, at Te Awaiti in 1827, by Londoner John Guard and is reputed to be the first European settlement in the South Island [www.teara.govt.nz].

Historic and archaeological relics of the Second World War are evident and are highly valued, such as gun emplacements and a radar station. These, along with a rich list of historical buildings, particularly within Queen Charlotte Sound, signify the historical importance and significance of the Sounds.

Tangata Whenua Values

Tangata whenua have a strong spiritual affinity with the Marlborough Sounds, particularly its waters, forests and peaks, with a number of archaeological finds suggesting that Māori have lived in the area for over 800 years. Due to tangata whenua's strong association with the sea for sustenance, the coastline retains particularly high spiritual associations. These associations are preserved in place names, with many links in their names related to Kupe's visit. [Conservation Management Strategy, DoC, 1993].

Refer to Section D: Outstanding Natural Features and Landscapes for information on the following ONLs and ONFs within the Marlborough Sounds:

1. Outer Sounds Landscape
2. D'Urville Island/ Rangitoto Ki Te Tonga including French Pass
3. Rangitoto Islands, Stephens Island and Trio Islands
4. Chetwode Islands, Titi Island and Sentinel Rock
5. Port Ligar, Forsyth Island and Kaitira headland
6. Maud Island, Mt. Shewell, Fitzroy Bay and Eastern Tawhitinui Reach
7. Islands of Croisilles Harbour and northern coastline
8. Whangarae Inlet and Okiwi Bay
9. Tennyson Inlet and northern Nydia Bay
10. Havelock (Pelorus) Estuary, Mt. Cawte and northern hills
11. Forested ridges around Crail Bay
12. Cape Jackson, Cape Lambert and Alligator Head
13. Mt. Stokes and surrounds
14. Arapawa Island and East and West Heads
15. Exposed eastern coastline
16. Islands of north-eastern Queen Charlotte Sound including White Rocks and The Brothers
17. Northern lands of Inner Queen Charlotte Sound
18. Mt. Robertson

Refer to Section E: High Amenity Landscapes and Features for information on the following:

- A: Marlborough Sounds Coastal Landscape



2.0

RICHMOND RANGES

General Landscape Character Area Description

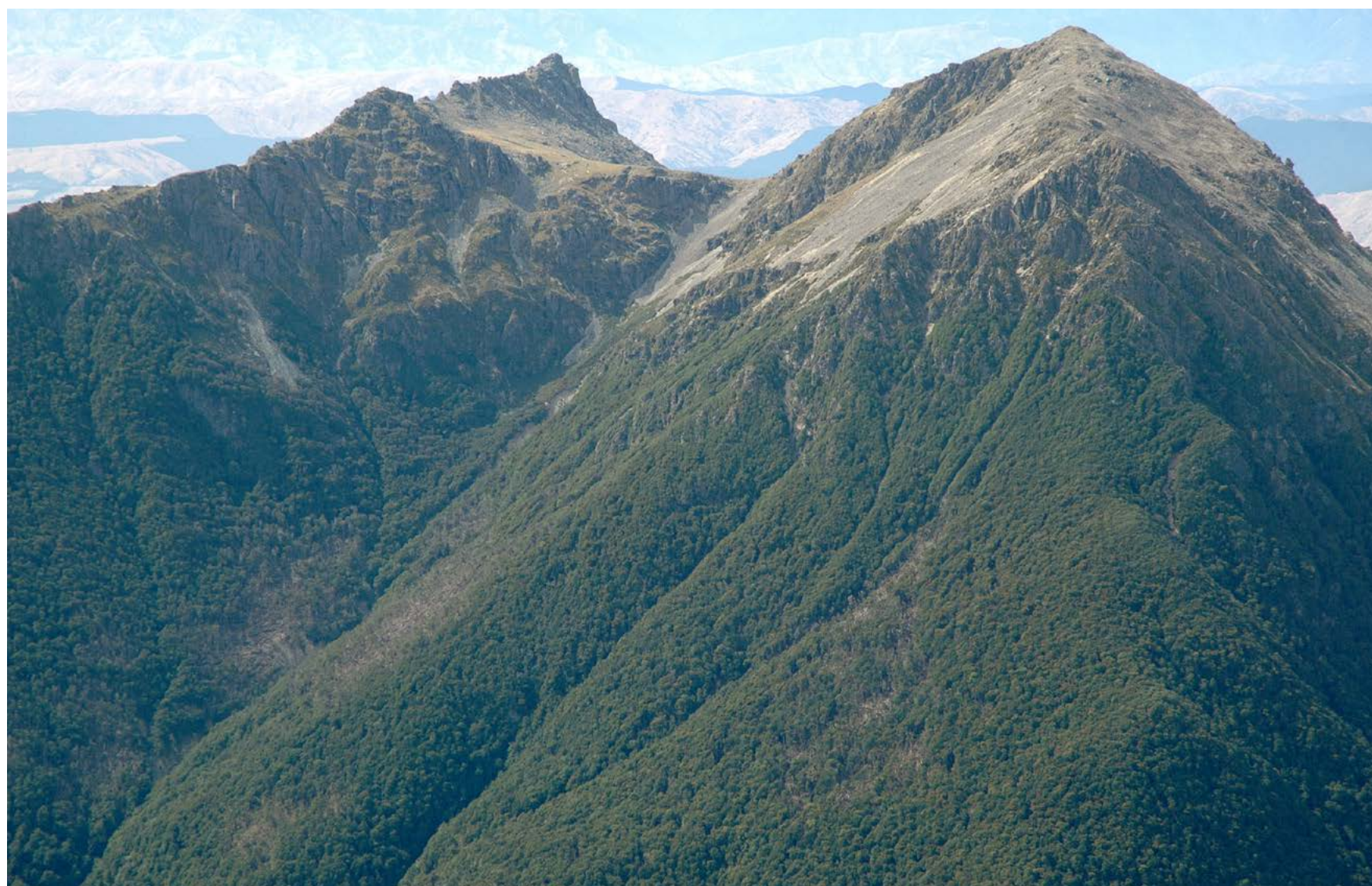
The Richmond Range landscapes lie between the Marlborough Sounds to the north and the Wairau River valley to the south and include the hilly and mountainous interior to Marlborough's western boundary with Nelson City Council. The area encompasses a range of sub-character areas, although broadly it contains the bush and forest-clad humid hills and mountains of the Richmond Range, the Bryant Range, the Red Hills Ridge and the hills within the Onamalutu, Kaituna, Tuamarina, Rai and Pelorus valleys.

The underlying geology is relatively complex, ranging from the ultramafic igneous and sedimentary rocks of the Red Hills Ridge and Bryant Range to the softer sandstones and siltstones of the Richmond and Robertson Ranges. A network of fault lines splinter the landscape, generally orientated parallel to the main Alpine Fault along the Wairau Valley to the south, although several smaller faults run perpendicular to the trend.

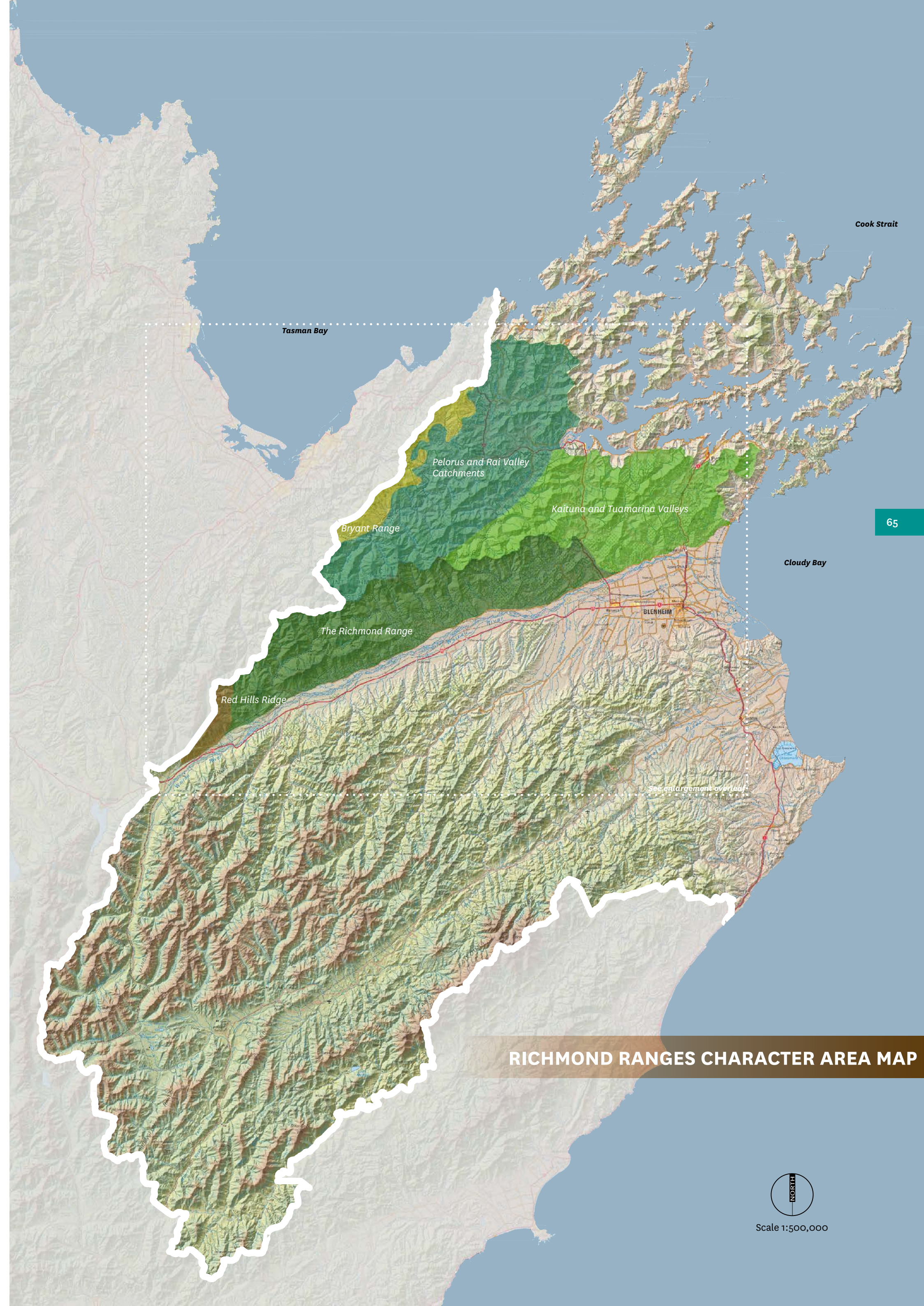
Afforestation and pastoral farming are the principal land uses of the area, concentrated within the valleys and along the lower slopes of the mountain foothills. Large parts of the area are also managed by DOC, such as the Mount Richmond Forest Park.

There are a number of European and Māori historic and cultural elements associated within this landscape, particularly within the Richmond Ranges where evidence of former gold mining sites are located around the north bank of the Wairau.

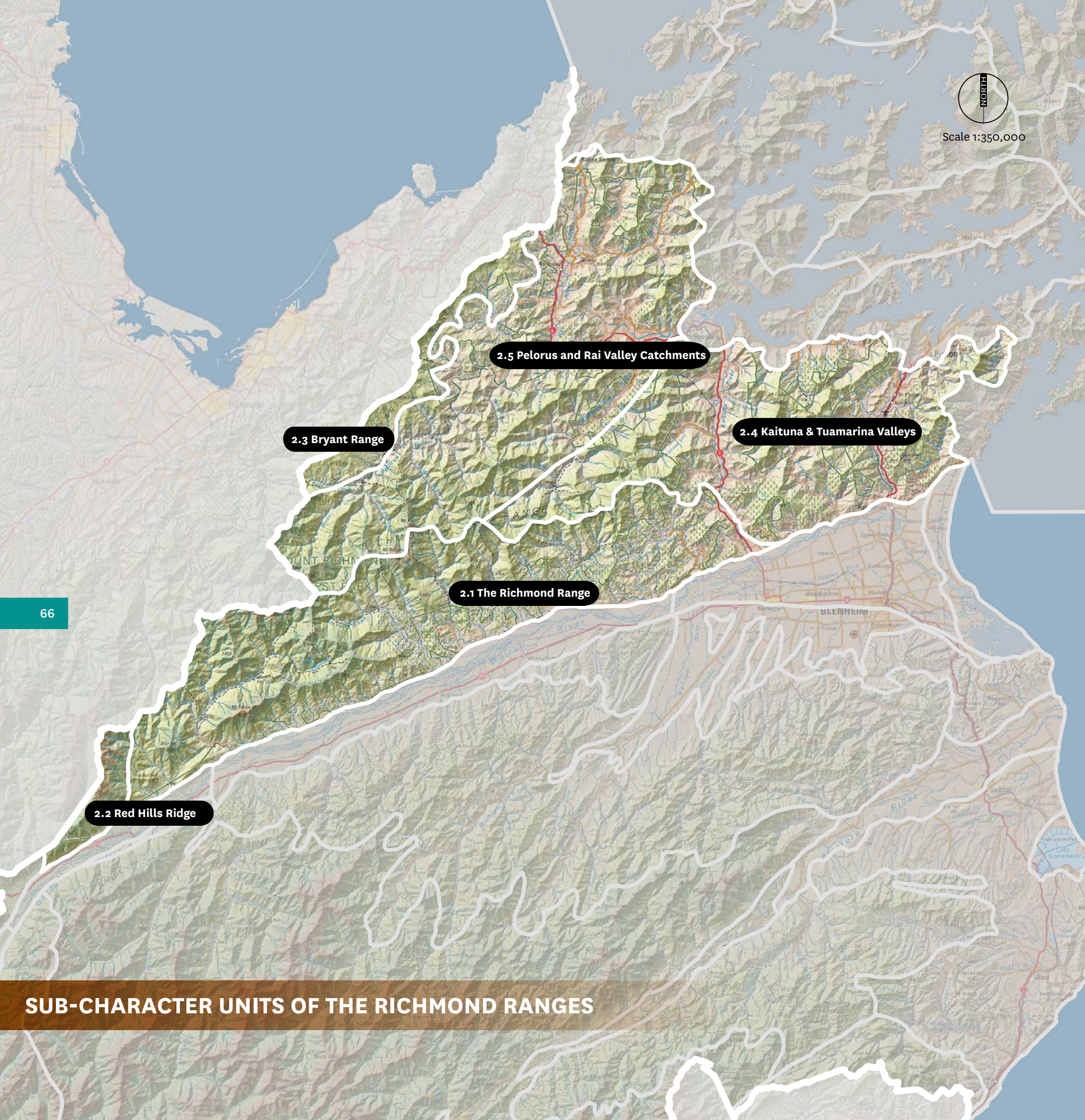
Both State Highways 1 and 6 are the main roads in the area, connecting Picton and Havelock and providing access to the broader Marlborough Sounds. The Main North railway line largely parallels State Highway One from Picton towards Blenheim and Kaikoura.



The peaks of Mount Richmond (seen to the right) and Johnston Peak are the tallest mountains in the Richmond Range at 1,756 and 1,647 metres a.s.l. The tallest mountain in the character area is Red Hill, in the Red Hills Ridge, which rises to 1,790 metres a.s.l, however is not pictured above. The exposed rocky peaks and precipitous slopes are the result of glacial activity. Indigenous alpine grasses and scrub cohabit immediately below the peaks above the 1,300 metre contour line.



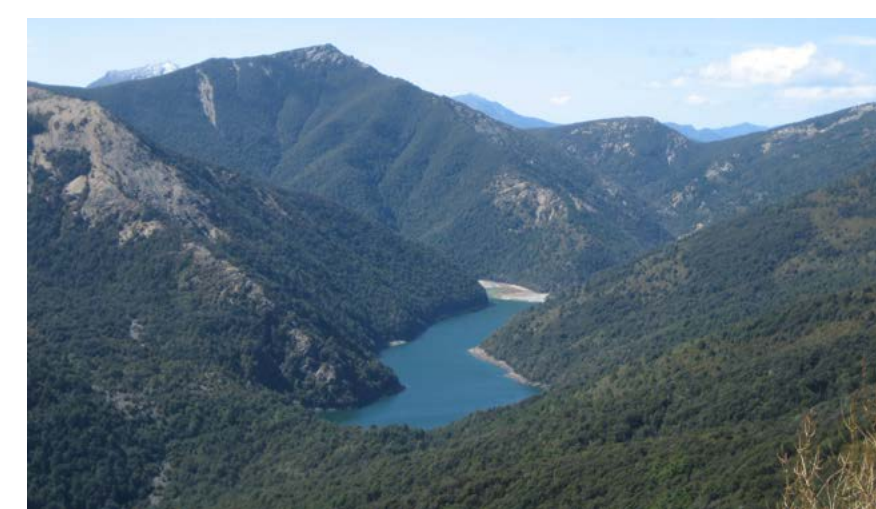
RICHMOND RANGES CHARACTER AREA MAP



SUB-CHARACTER UNITS OF THE RICHMOND RANGES



The bush-clad slopes of the Richmond Range extend to a height of approximately 1,400 metres a.s.l., where the alpine snowy-tussock grass and bare-rock predominate above this height.



The blue waters of the landslide-dammed Lake Chalice. (Photograph courtesy of MDC)

2.1 THE RICHMOND RANGE

The Richmond Range landscape includes the mountainous, forest-clad southern flanks of the Richmond Range and associated drainage catchments that flow into the Wairau River valley. Its northern boundary is delineated by the Richmond ridge and its western extent is demarcated by the Red Hills. This area is underlain by siliceous, moderately to strongly foliated Marlborough schist and associated valley-fill alluvium and colluvium rocks. The landform is very steep hill and mountainous country, rising within the range to Mount Richmond at 1,756 metres a.s.l., Johnston Peak at 1,647 metres a.s.l. and Mount Fishtail at 1,641 metres a.s.l. The landscape also contains undulating terraces and floodplains (for example Top Valley) and landslide-dammed Lake Chalice. The climate is relatively wet, with summer drought being uncommon. Native forest cover dominates this area and comprises predominantly podocarp/broadleaved species including black and hard beech with kamahi understorey on lower slopes and red and silver beech, kamahi and rata at higher altitudes. Alpine grasses dominate above 1,300 metres a.s.l.

At lower elevations, the foothills of the Richmond Range are almost exclusively covered by exotic commercial pine forestry, where a network of unsealed forestry maintenance roads weave through the plantations and into the many small valleys that connect with the Wairau River. The upper slopes are contained and managed within the Department of Conservation's Mount Richmond Forest Park, which extends northwards into the Pelorus and Rai Valley Catchments sub-character area. Lake Chalice is a dammed area of water at the head of the Goulter River, surrounded by native bush-clad slopes and is located south of Old Man Peak. The lake is hidden from the Wairau Valley, and is accessed via a series of walking tracks. Overnight accommodation at the Lake Chalice hut allows for longer multi-day walks to be undertaken. Onamalutu Scenic Reserve represents a reminder of the past, where mature podocarp forest remnants exist.

There are a significant number of walking tracks that extend from the Wairau Valley into the forest-clad valleys and peaks of the Richmond Range, including the 29-kilometre Mount Richmond Alpine Route. Kayaking, fishing and mountain-biking are also popular activities.

Historically, gold and chrome mining was popular in the late 1800s and early 1900s, as was timber milling. A number of routes used by Māori to mine for argillite traverse the Range. Argillite was used by Māori to make tools and weapons.

2.2 RED HILLS RIDGE

The eastern slopes of the Red Hills Ridge fall within Marlborough and comprise part of the ultramafic block at the western extent of the Richmond Range. The underlying rock type extends northwards and includes the crest and upper eastern side slopes of the Bryant Range. Due to the rock type, the majority of the Red Hills landform is devoid of vegetation and comprises strongly rolling to moderately steep, irregular and hummocky slopes. Soils around the lower slopes of the Red Hills are of very low fertility and consequently support a number of unusual plant species. At lower elevations red and silver beech predominates, with open mixed scrub, manuka and flax. Snow tussock grassland appears above the tree line at higher altitudes. The elevation of the Red Hills range from 1,131 metres a.s.l. at 'The Plateau' to 1,790 metres a.s.l. at Red Hill and drains into the Wairau catchment.

The distinctive red colouration of the hills contrast with the surrounding mountains and are a focal point from within the Wairau Valley.

Commencing from Six Mile Creek towards The Plateau, is a walking/hunting track that extends into the back country and connects with a network of other tracks that lead into the mountainous heart of the Mount Richmond Forest Park. There are also a number of back country huts, including the Red Hills Hut and Maitland Hut.



The distinctive character and colouration of the ultramafic landform of the Red Hills at Boulder Stream. Due to the underlying geology and limited fertility of the soils, vegetation cover is limited and occurs more on the landform's lower slopes and gullies.

Below: A view from State Highway 6 leaving Havelock at Kaituna Valley. The Kaituna valley is essentially an extension of the Marlborough Sounds area, albeit that it is not drowned, due to elevation differences. The hills in this valley are mostly cleared with large and often extensive stretches of pine plantations occupying hill slopes. Areas of wilding pines encroach into pasture land contrasting distinctively with the golden grass. Other than forestry, valley flats are predominantly used for pasture, where willow trees flank the Kaituna River margins.



2.3 BRYANT RANGE

Of similar rock type to the Red Hills, the Bryant Range forms the districts north-western boundary. The landscape includes the Bryant Range's eastern slopes and foothills and extends from Mount Duppa at 1,133 metres a.s.l. in the north to the Totara Saddle in the south. The Range includes a number of notable peaks including Dun Mountain at 1,129 metres a.s.l., Little Twin at 1,143 metres a.s.l. and Maungatapu at 1,014 metres a.s.l. and is effectively divided in two by the Maungatapu saddle. On the mid to upper slopes there are a number of small lakes (Dew Lakes) close to Maungatapu and geologically important exposed sections of rock at Dun Mountain. The climate is generally cold and wet with numerous streams feeding into the Pelorus catchment to the east.

This landscape area is almost exclusively managed by the Department of Conservation and is included within the Mount Richmond Forest Park. Vegetation is overwhelmingly indigenous, of which the majority is lowland podocarp beech and broadleaf forests. At higher elevations a mosaic of tussocks and alpine grasses thrive, although due to the nature of the underlying geology, areas of slips and bare rock are also evident.

The area surrounding the Bryant Range supports several walking tracks, with a number traversing the range. The Pelorus Track, which commences at the end of the Maungatapu Road within the Pelorus Valley, extends over the Totara Saddle and terminates at the Dun Mountain Walkway south of the city of Nelson and is categorised by the Department of Conservation as a semi-remote forest experience route. From the Totara Saddle, a second walking track extends northwards towards Dun Mountain and the ridge of the Bryant Range. Several huts in the area allow for multi-day walking to be undertaken.

2.4 KAITUNA AND TUAMARINA VALLEYS

South of the Marlborough Sounds, this landscape contains the Onamalutu, Kaituna and Tuamarina valleys, extending from the north-western slopes of the Richmond Range to Mount Robertson in the east. The landscape of this area is predominantly mountainous, and includes a number of significant peaks and ranges including the northern flanks of Mount Riley at 1,314 metres a.s.l. to the south-west, Mount Cullen at 1,055 metres a.s.l. within the centre and Mount Robertson at 1,036 metres a.s.l. to the east. The climate is cool and wet, with rainfall averaging 1,500-2,000mm per year. The Kaituna valley drains northwards towards the Marlborough Sounds, while the remaining rivers drain southwards towards the Wairau River.

The view looking southwards from Dun Mountain on the Bryant Range. (Photograph courtesy of MDC)



Following the Kaituna valley, State Highway 6 extends from the Wairau Plains northwards towards Havelock in the Marlborough Sounds and is bounded by an unnamed ridge extending northwards from Mount Sunday to the west and foothills associated with Mount Cullen to the east. Land use in the valley is confined to the valley bottom and immediate valley sides and includes principally pastoral and arable farming. Extensive areas of commercial forestry are evident on the valley's lower to mid slopes, which often contrast with the brown grassland in summer.

Further eastwards, State Highway 1 follows the Tuamarina River valley towards Picton. The valley is bounded by Mount Dobson and Mount Duncan to the west and the Mount Robertson Range to the east. Extensive areas of commercial forestry are evident on the lower and mid slopes of the valley sides, and where the forestry has been recently cleared, the remains of the tree-stumps are noticeable. The upper slopes are covered with native vegetation and are in DOC ownership. The main north line railway also follows this valley corridor.

Wilding pines associated with both the Kaituna and Tuamarina River valleys are apparent within the landscape and constitute a significant conservation threat. They contrast with the pale grass and extensive dark-green of the native and forested slopes.

The south-western part of this sub-character area is included within the Mount Richmond Forest Park and managed by the Department of Conservation (DOC). Also managed by DOC are a number of scenic reserves including Mount Robertson, where there are numerous walking tracks.



Commercial forestry patterns flank the slopes of the lower Tuamarina valley. The mainline railway and State Highway 1 are located either side of Para Swamp (foreground) and the Tuamarina River.

2.5 PELORUS AND RAI VALLEY CATCHMENTS

This landscape area encompasses the Pelorus catchment from the headwaters to its delta, and its major tributaries, including the Rai, Ronga, Tunakino and Opouri Rivers, as well as the western faces and valley floor of the Wakamarina catchment. The majority of the area is uninhabited and difficult to access due to the terrain. The main areas of settlement are within the Rai and Pelorus valleys. The underlying geology comprises predominantly of sandstones and siltstones and alluvial deposits. The landform ranges from areas of relatively gently undulating hill country to steep and very steep dissected hill and mountain slopes. This area includes the western flanks of Mount Richmond as well as the sinuous undulating terraces, floodplains and the tidal flat of the Pelorus River.

The climate of this area is generally wet, with rainfall varying between 1,600 to 2,000+mm per year. This climate favours native forest, which dominates the slopes and comprises broadleaved podocarp forests, with hard beech and rimu forest dominating the lower elevations and red and silver beech forests at higher altitudes. Above 1,530 metres a.s.l., alpine grasslands are found and are dominated by snow tussock and herbfield species. Within the lower valley catchments of the Rai and Pelorus Rivers, extensive areas of exotic forest, reverted scrubland and bracken are evident. Pastoral land use on the valley floors is predominantly intensive sheep and dairy farming. Extensive areas of this landscape area are contained within the Mount Richmond Forest Park where there are numerous walking tracks, including the Pelorus track which extends over the Bryant Range towards Nelson.

State Highway 6 crosses through this area, following the Pelorus and Rai Valleys. Small settlements such as Canvastown, Pelorus Bridge and Rai Valley are located within the valley flats. Extending eastwards from State Highway 6 towards the Marlborough Sounds are a number of smaller, often unsealed roads. From the Rai valley area, access by road is gained to Okiwi Bay/French Pass and Tennyson Inlet via the forest-clad Bull Range and northern extents of the Bryant Range.

There are several areas listed under Heritage New Zealand, including the totara-slab Rai Cottage, which was built by early pioneers Charles and Matilda Turner in 1881, and the Canvastown mining display, which commemorates early gold-miners of the Wakamarina valley, where gold was discovered in 1864.



The Pelorus River valley near Canvastown. The broad valley is predominantly open and managed as pasture with groups of exotic poplars and willows flanking the river margins and commercial forestry plantations on the valley slopes.

KEY LANDSCAPE CHARACTERISTICS:

RICHMOND RANGES

- The prominent peaks of Mount Richmond and Mount Fishtail;
- The distinctive geology of the Red Hills;
- The forest cover of the peaks and ridges that enclose the valleys including those of the Mt. Richmond Range, Mount Robertson Range, Mount Dobson/ Mt. Duncan Range and Mount Rutland/ Opouri Peak and the north-west Bryant/ Bull Range;
- Afforestation of the lower valley slopes;
- The indigenous vegetated valleys of the upper Pelorus River;
- Wetlands, including Para Wetland (Swamp) and Onamalutu Scenic Reserve.

Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

GEOLOGICAL VALUES

The underlying geology of this hilly and mountainous wedge between the Marlborough Sounds and the Wairau Valley is a continuation of the bands of rock that form the Marlborough Sounds. The erosion-resistant greywacke and schist mountains that make up most of this north Marlborough area have been tilted, causing the sea to flood the valleys between the ranges and create the partially-drowned landscape of the Sounds.

Several branches of the Alpine Fault splinter through this area creating the distinctive geological structure. The predominantly schist mountains of the Richmond Range itself form the steep, rugged skyline high above the Wairau valley and include the area's highest and most recognisable peaks. Further west, the Red Hills and Dun Mountain have high levels of magnesium and iron, giving them a distinctive rusty colour.

ECOLOGICAL AND BIOLOGICAL VALUES

Despite the large areas of commercial forestry that tend to be the most visible face of this area, a vast proportion of the mountains and valleys that form the backbone of the Richmond Ranges remain predominantly in native beech and broadleaved forest and alpine herbfields and tussocklands, with high ecological and biological values. The large area of continuous forest formed by the Mount Richmond Forest Park (the second largest forest park in New Zealand) increases the integrity of the ecological values of the area.

The ultramafic soils of the 'mineral belt' support some specialised plant species.

SENSORY VALUES

AESTHETIC VALUES

This landscape area forms the visual backdrop to the Wairau valley and the inner Sounds and is also the physical gateway between Blenheim and Nelson, and between Blenheim and the Sounds. Views to the north bank of the Wairau River and the skyline of the Richmond Ranges and Red Hills are an important feature of travel along State Highway 63 to the Nelson Lakes. When travelling through the character area on State Highway 1 or on State Highway 6, the views are more typically of a rural working landscape through farmland and forestry. Those who venture off the beaten track enjoy the attractions of a semi-wilderness forest experience.

ASSOCIATIVE VALUES

SHARED AND RECOGNISED VALUES

Much of the Richmond Ranges Character Area lies within DOC Estate, with many tracks and huts available, particularly for more experienced trampers. Hunting and fishing are also popular activities within the Mount Richmond Forest Park. However, despite this recreation resource, many people's experience of the character area will be limited to their views from along the major roads as they travel between Blenheim and Nelson, Picton, or the Nelson Lakes. The Pelorus Bridge Scenic Reserve on State Highway 6 is a popular and well-known holiday destination and travellers' stopping point.

HERITAGE AND CULTURAL VALUES

The early European sites of importance throughout much of this hilly and mountainous area relate primarily to mining (gold and chrome) and, to a lesser extent, timber milling and farming. Relics of gold workings, huts, stampers and sluices remain scattered throughout the hills from the days when they were bustling with activity.

Māori archaeological sites identified in the Richmond Ranges are largely related to settlement and resource use (such as food gathering and argillite quarrying). Sites are primarily clustered along the Wairau River and within the valleys to the north. In the mountainous interior of this character area, Māori use was most likely focussed on networks of tracks for trading, raiding, and for accessing a number of argillite quarries in the area.

The Pelorus valley was the site of a massacre of the Ngāti Kuia and Ngāti Apa by Te Rauparaha and was known as Hoeire by local Māori, after the first canoe to travel to the South Island (www.marlboroughonline.co.nz, 2014).

Refer to Section D: Outstanding Natural Features and Landscapes for information on the following ONFLs within the Richmond Ranges Character Area:

17. Mt. Robertson

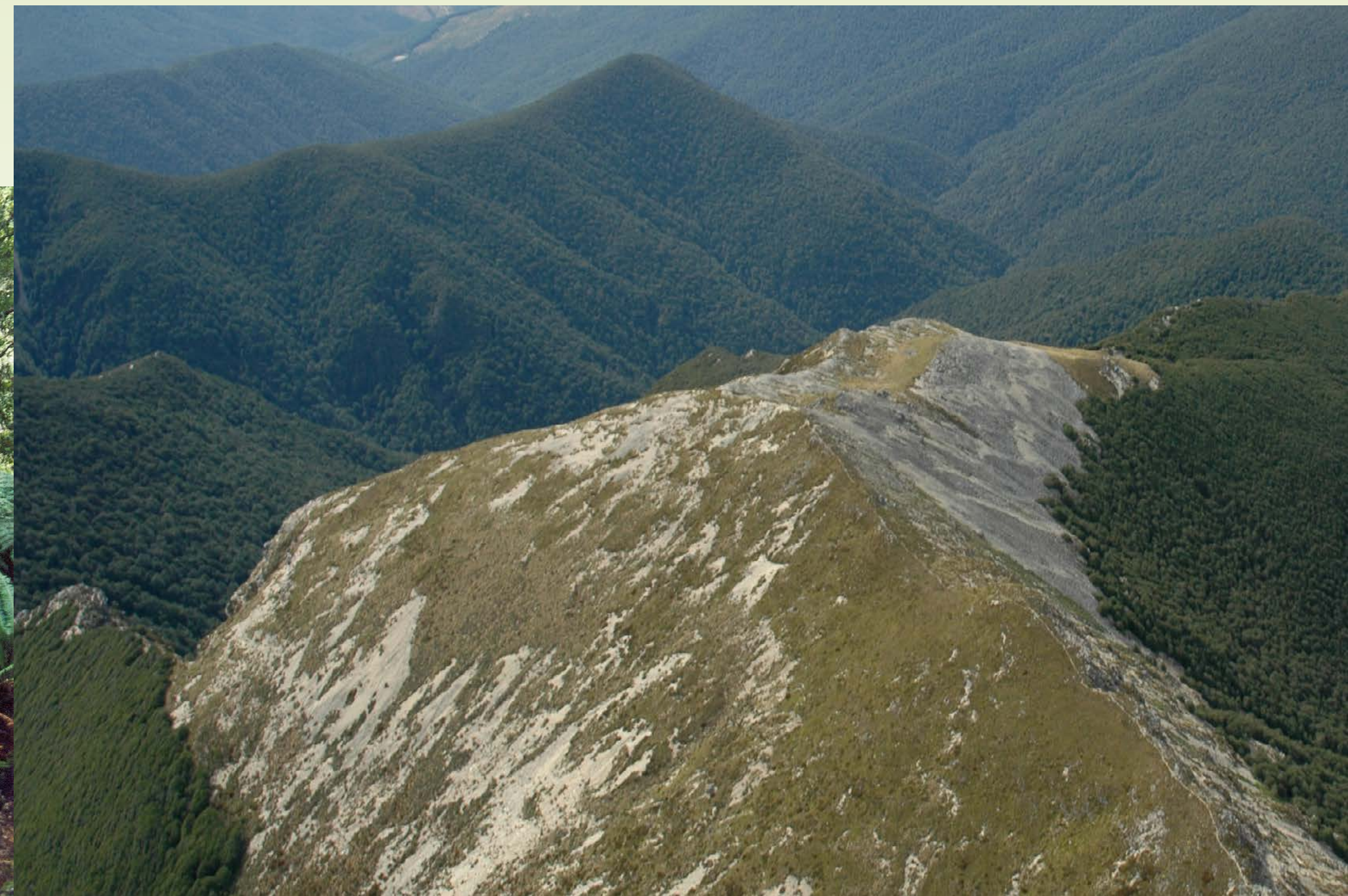
21. Bryant Range, Upper Pelorus River Area and Richmond Range Conservation Estate and Red Hills Range

26. Mt. Duncan/ Mt. Rutland/ Mt. Cullen

Below: Damp conditions of the Richmond Range provide perfect conditions for a host of under-canopy species



Above: Beech forest, containing shrubs, trees and ferns dominate the flanks of Mt. Richmond (far right), Johnston Peak (immediate left of Mt. Richmond) and the ridge extending to Mt. Fell (just out of shot to the left).
Below: The indigenous forest cover and exposed rocky peak of Old Man at 1,514 m.a.s.l. A walking track is evident on its northerly ridge.



3.0

WAIRAU RIVER FLATS

General Landscape Character Area Description

The course of the Wairau River has been strongly influenced by the underlying tectonic movements associated with the Marlborough fault system and, more specifically, by the Alpine Fault as the river follows the fault for the majority of its length. At its source in the west, the river valley is narrow, with extensive terracing and moraines forming prominent valley floor features particularly near Eves Stream on the Red Hills Ridge. Further eastwards, downstream, the valley broadens into flat alluvial plains on which Blenheim, Renwick, Spring Creek and other smaller settlements are located. The valley is more than 15 kilometres wide near Blenheim, where the landscape is mainly flat.

Throughout the character area's length, the valley is hemmed in to the north by the steep, dark green hills of the Richmond Range. To the south, the gentler, more undulating north-facing farmland slopes provide enclosure. There is little natural vegetation left on these drier hills, other than scattered kanuka and occasional forest remnants. Commercial forestry occurs in some areas, although it is mainly restricted to the dry hills south of Blenheim. The overwhelming land use within the broadest part of the valley, around Blenheim, is viticulture, where row after row of vines provide Marlborough with one of its most celebrated exports: sauvignon blanc.

There are a number of European and Māori historic and cultural elements associated with the Wairau valley, mainly concentrated around the Renwick and Blenheim areas, such as St. Mary's, the oldest Catholic church in Blenheim. Passes in the Upper Wairau valley were first used as overland routes by Māori, then subsequently by European settlers from the 1850s.

The Wairau River is the largest braided river in the north of the South Island, has a highly varied flow and supports a network of small rivers and wetlands that feed into the river at various points. Due to its length, it can be divided into a number of smaller landscape areas, from its source to its river mouth at Cloudy Bay.



The Rangai wetlands and shrublands. This landform type of low, dry gravel ridges and associated wetland hollows formed by the retreating shoreline is unique to Marlborough, however these have been severely eroded by the pressures of development (photograph courtesy of MDC).

The Wairau Plain as seen from an elevated location on the Port Underwood Road, north-west of Rangai. The land use typifies the character of this part of the Wairau valley: intensively developed vineyards are located on the valley floor adjacent to the coastal dunes. The steep rocky foothills of Mount Robertson (right) contain a mix of native scrub vegetation, wilding pines and commercial pine plantations and provide shelter to this pocket of the Wairau Plain.



Cook Strait

Tasman Bay

Cloudy Bay

River Mouth and Salt Marshes

Wairau Plains

Southern Valleys

Branch River to Waihopai Confluence

Top House to Branch River Confluence

Upper Wairau River

See enlargement overleaf

WAIRAU RIVER FLATS CHARACTER AREA

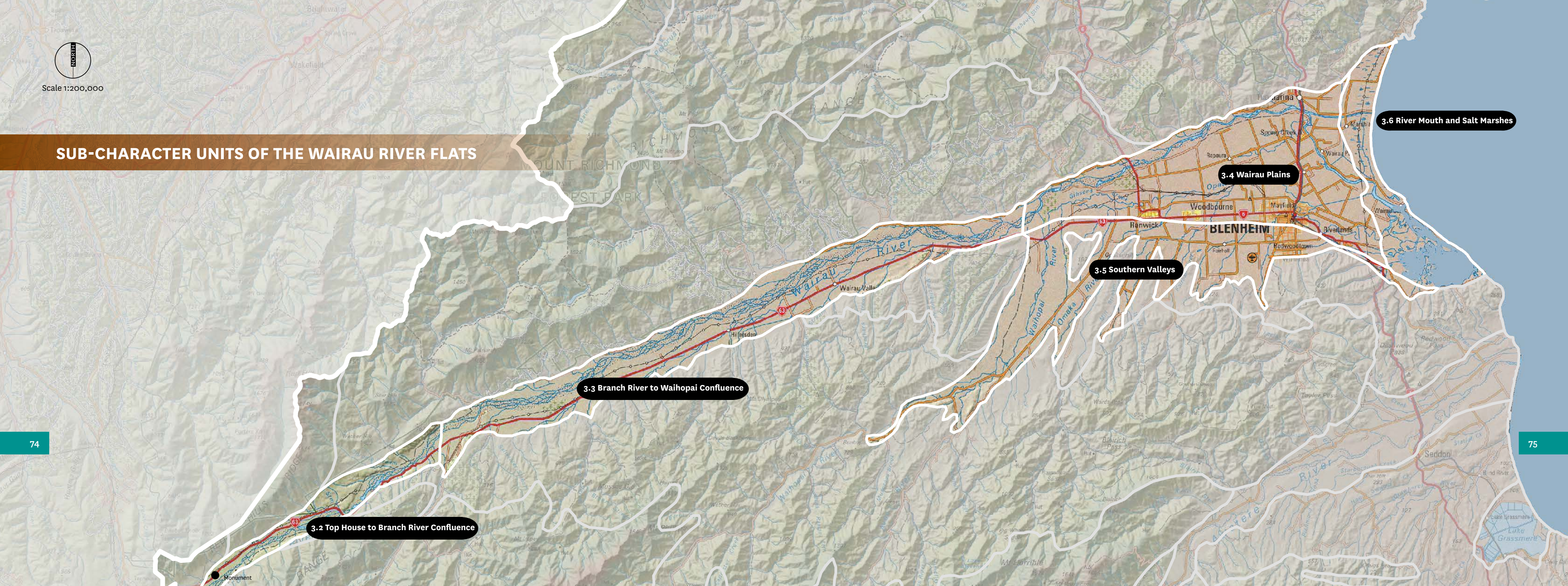


Scale 1:500,000



Scale 1:200,000

SUB-CHARACTER UNITS OF THE WAIRAU RIVER FLATS



74

75

3.1 Upper Wairau River

3.1 UPPER WAIRAU RIVER

The Upper Wairau River sub-character area, a major high-country river, which characteristically incorporates wide, braided, active and recently-active riverbeds, recent floodplain terraces and low-angle valley-fill fans. In the south (upstream) end, the area starts in the Rainbow River valley and then, after the Rainbow River joins the Wairau River as it flows north towards Tophouse. High bush-clad hills, green meadows flanking the river, and rocky peaks generally over 1,700 metres a.s.l., provides enclosure to this area, channelling access adjacent to the river, especially along the Wairau – Hanmer Springs Hydro Road. Overhead transmission lines also follow this route.

The vegetation has been modified in some areas, however the area is overwhelmingly surrounded by indigenous vegetation, principally beech forest. The river corridor, with its green meadows flanking the river, exhibits very high levels of naturalness.

Due to the area's 'off-the-beaten-track' feel, its close proximity to the Nelson Lakes, and its relative, yet accessible, isolation, a number of recreational activities such as hunting, mountain-biking, kayaking, climbing, fishing, tramping and skiing are popular.

Photograph right: The bush-clad mountain slopes of the Upper Wairau Valley. The clearance of the bush for the overhead transmission lines create a distinctive line in the landscape.



3.2 TOPHOUSE TO BRANCH RIVER CONFLUENCE

Tophouse is not within Marlborough but is the nearest geographical reference point to where the Wairau River flows eastwards, following the Alpine Fault. This sub-character area is sandwiched between the high Red Hills to the north and the Raglan Range to the south. The valley here is dominated by the braided river, which connects with numerous small and moderately large tributaries, originating in the surrounding mountains. At lower elevations, the valley sides are bush-clad with matagouri, kanuka and manuka, with the valley bottom and lower slopes being meadows and fields of pasture. Extensive areas of pine plantations and forestry are located on the lower slopes of the Raglan Range close to the Branch River valley.

The faulted terraces associated with the Branch River are classified highly by the Geopreservation Society due to their shape and lateral slips on the Alpine Fault.

State Highway 63 follows the northern bank in the west, crossing the Wairau River at Wash Bridge, near the Eves Stream moraine, and continuing eastwards down the true right bank. There are a small number of buildings, structures and farms in the area, as well as the Argyle Power House and Argyle Pond. The underlying geomorphology has influenced the type of productive land uses and the location of access routes, such as historical Māori trails and the Tophouse Road, all of which have strong pioneering associations.



Upstream of where State Highway 63 leaves the Wairau River, the valley floor is a mosaic of land uses, ranging from commercial pine plantations, agricultural pasture-land, a very wide braided river corridor and substantial areas of regenerating indigenous bush.



Memorial to Doctor John Henry Cooper and Nathaniel George Morse, who first brought sheep to the Wairau Plains via the Tophouse Saddle.

The Red Hills (to the right of the photograph) act as a prominent feature when travelling along State Highway 63. This panorama illustrates the relatively broad nature of the Wairau valley, with the braided character of the Wairau River dominating the valley bottom. Flanking the river sides are minor terraces, covered with commercial forestry along the northern stretches and a mosaic of colonised grasses, exotic gorse, broom and willow species on the southern side of the river. The forest-covered Middle Spur within the centre of the valley is a localised high point [rising to 492 metres a.s.l.]. It is the result of glacial deposition.



The central Wairau valley, looking upstream. The shelterbelts delineating land parcels clearly articulate the geometry of the valley floor and highlight its various land uses, which is predominantly agricultural pastoral grassland. Vineyards are also being developed in this section of the Wairau valley, while pine plantations are generally concentrated on the lower slopes of the surrounding hills.

3.3 BRANCH RIVER TO WAIHOPAI CONFLUENCE

This sub-character area of the Wairau River Flats extends eastwards for 42 kilometres between the confluences of the Wairau River with the Branch and Waihopai Rivers. The change in elevation varies from 330 metres a.s.l. in the west to 80 metres a.s.l. in the east. At this eastern point the valley is two to four kilometres wide with distinct terraces in places. On the northern side of the valley are the bush-clad foothills of the Richmond Range, which climb steadily to reach 1,756 metres a.s.l. at Mount Richmond. A number of streams flow down narrow valleys from the Richmond Range to the Wairau River. On the southern side of the valley, the land climbs more gently and appears more fractured, with numerous small creeks and streams flowing north out from the hills, then turning east and running parallel to the Wairau River, across the terraces and flats before connecting with the Wairau main stem.

The valley floor is highly modified, with large rectangular paddocks and pine shelter belts at right angles to the river. The river bed itself is predominantly lined by willow species. The flat terraces are punctuated by homesteads, often surrounded by mature trees and set well back from the main road. Around the small Wairau Valley settlement, the valley widens to more than three kilometres of mainly pastoral land use.

State Highway 63 follows the true right bank of the Wairau River, while Northbank Road follows the true left bank of the river. A series of small, often dead-end roads that extend off Northbank Road northwards into the Richmond Range are mainly used for access to manage the exotic pine plantations.

3.4 WAIRAU PLAINS

This sub-character unit is a broad, flat, open and mainly modified landscape encompassing the plains south of the Wairau River where there is extensive urban development, pasture, forestry, horticulture, orchards and vineyards. The area incorporates the wide, braided, active riverbeds of the Wairau River and its tributaries, floodplain terraces, associated backswamp wetlands, streams, coastal swamp deposits and minor inland sand dunes.

Downstream of the State Highway 1 bridge, the Wairau River splits in two, partly flowing directly east towards Cloudy Bay via the artificial flood-relieving Wairau Diversion and part following its original meandering course south towards the main river mouth. A number of ground-fed springs in the lower plains which have resulted in landscape features such as Spring Creek.

Marlborough's administrative centre is Blenheim, a town straddling the Opawa River on the plains immediately north of the Wither Hills. The area is rich in both Māori and European history, with the highly productive and varied agricultural landscape surrounding the town being very different from the view of sheep and cob houses that met the early pakeha settlers who sailed up the Opawa River. Although a mixed-use landscape, the principal land use of the Wairau Plains is now viticulture, with vineyards dominating the landscape and local economics. The conversion of orchards and pasture into vineyards has intensified within the past ten years, with row upon row of grape-vines bordering the main roads across the plains. The principal concentration of vineyards is around Blenheim, Renwick and Rapaura Road, although vineyards are also gradually increasing westwards up the Wairau Valley. This intensification of land use is accompanied by new dwellings and, in some places, extensive amenity and shelter belt planting. Elsewhere, shelter belt and tree removal has opened up the landscape. All of these land use developments contribute to a change in the landscape character and land use patterns of the area. Other land uses include apple and stonefruit orchards, the Tuamarina cheese and garlic factories, and olive plantations, all of which reflect Marlborough's temperate and agreeable climate.

Tourism within the Wairau Plain is predominantly focused on vineyard tours, comprising of day trips by bike, coach, helicopter or horse and carriage to a variety of vineyards can be undertaken in one day. Other activities include cruising the Opawa River, walking and cycling, visiting historic cultural museums and galleries in Blenheim and visiting the Omaka Aviation Heritage Centre. The many tributaries of the Wairau River provide a scenic setting for recreation, many flanked by exotic willows. Several of these tributaries are being managed for conservation and are being replanted with native species.

3.5 SOUTHERN VALLEYS

The flat floors and terracing of the valleys in this landscape area are an extension of the character of the Wairau Plains. The valleys have been formed by the Waihopai, Omaka, Fairhall and Taylor Rivers, flowing across what are known as the 'intermediate Wairau River terraces', which were formed by glacial outwash gravels and extensive alluvial deposits. These rivers have created, through gradual erosion of the adjacent hills, deep cuttings near their points of entry onto the valley floor, particularly notable with the larger Waihopai River. Further north, the landscape levels out and blends with the Wairau Plain sub-character area, across which these rivers flow to join the Wairau River.

The numerous rivers traverse either pasture, sometimes featuring scattered native shrubland, with willows evident along the margins of some of the larger streams. The surrounding low hills are in pasture, with some pine forestry. Numerous roads extend from the Wairau Plains up into these southern valleys, including the Waihopai Valley Road, which is the longest of the valley roads and extends into the mountainous interior, past Netherwood to a point just past Gosling Stream. Significant sites or features in these valleys include the Waihope Station, radome, the Waihopai Dam, Brancott Vineyard (the site of the Marlborough Wine and Food Festival) and the Taylor Dam with its picnic area.

There is pressure for further change in these valleys, especially close to Blenheim, Woodbourne and Renwick. Vineyards and plantations are gradually replacing fields of pasture, especially on the lower slopes, while land use on the upper valley slopes is also intensifying.



Geometric grids of vineyards in the Wairau Valley.



New vineyards are intensifying the land use management. Below: Pine plantation, Wairau Valley.



Irrigation techniques and commercial forestry practices within the Waihopai River valley create interesting land use patterns when seen from the air.

3.6 RIVER MOUTH AND SALT MARSHES

The original lower course of the Wairau River passes through a coastal fringe landscape, through a boulder bank via a series of wetlands and shallow lagoons before flowing into Cloudy Bay at the original river mouth. This flat and very low-lying landscape area incorporates the undulating gravel beach ridges and bars, saline lagoons (Upper, Chandlers and Big Lagoons), estuary fringe-wetlands, coastal beach sand dunes and associated interdune back swamps and sand plains north of White Bluffs/Te Parinui o Whiti. Although modified around the edges, receiving increased nutrient, and affected by modified sedimentation and circulation patterns from the adjacent Opawa and Wairau Rivers, the lagoons are still largely natural. The Blenheim sewage treatment ponds and freezing works oxidation ponds, which are located west of the lagoons discharge into the Opawa River and lower Wairau River, respectively.

The second Wairau River 'mouth' is an artificial diversion channel that branches from the main river south of Tuamarina. This diversion was constructed to alleviate potential flooding issues in the event of high rainfall.

The vegetation within this landscape is mixed, with the area around the lagoons being predominantly indigenous saltmarsh and estuarine species such as glasswort and sea-rush, with the remaining areas being predominantly cleared for grazing purposes.

The inland boundary to the coastal environment, which is defined within *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment*, (Boffa Miskell et al, 2014) extends to include a number of recognised geological sites, which are of high cultural and historical significance. The Wairau Bar, for instance, is reputed to be the first landing place of migrant Polynesians who first colonised the country. Due to the predominantly natural setting, the lagoons are biologically rich and are administered by the Department of Conservation. A number of bird and fish species are common in the shallow warm waters as are shrimp and the common mud crab.

A feature of the lagoons is a shipwreck, the *T.S.S Waverley*, which was towed here after its useful working life. It was used for flood control, and for target practice by the army (www.marlboroughonline.co.nz).

KEY LANDSCAPE CHARACTERISTICS:

WAIRAU RIVER FLATS

- The vineyards and shelterbelts of the lower Wairau River flats and plains;
- The remarkably straight river course, following the Alpine Fault;
- The high degrees of naturalness found within the upper Wairau River area;
- The braided nature and highly variable flows of the river;
- The distinctive character and ecologically-rich coastal lagoons, marshes and gravel-ridge wetlands;
- The importance of the Wairau Bar and nearby area for iwi;
- The open nature of the Wairau Plain between hills and mountains.

Below: The lower reach of the Wairau River (background) flows into lagoons (foreground) contained by the Wairau Bar (centre right). The whole area of salt marshes, lagoons and 'islets' is strongly influenced by the coastal environment of Cloudy Bay (right).



Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

GEOLOGICAL VALUES

The tectonic origins of the Wairau River and Plains are highly legible. The northeast-flowing river follows the major Alpine Fault down the valley to the sea. The multiple gravel river braids are identified as a geopreservation feature of regional importance. At the coast, the Wairau Lagoon and boulder bank are highly legible and important geological landforms.

ECOLOGICAL AND BIOLOGICAL VALUES

There is little natural vegetation left in the valley. In the upper narrow part of the valley, although vegetation cover is modified, with only a few remnant clumps of bush on the valley floor, the setting of steep bush-clad mountain slopes on either side of this narrow part of the valley raises the overall level of natural character. In the middle and lower sections of the valley, which are increasingly modified, the ecological values relate primarily to habitats of the river, its tributaries, other meandering streams and the extensive coastal wetland area at the river mouth.

SENSORY VALUES

AESTHETIC VALUES

The Wairau is an attractive valley. The impressive scenery of the upper valley is strongly influenced by the steep, enclosing mountains. The plains to the east are less dramatic but have an attractive productive quality, which contrasts pleasantly with the hilly and more homogenous landscapes of the surrounding hills. The large lagoon at the river mouth is also a significant feature of some visual interest.

ASSOCIATIVE VALUES

SHARED AND RECOGNISED VALUES

The aspects of this landscape that are most commonly recognised include the vineyard character of the plains around Blenheim and the associated backdrop of slopes and skylines of the nearby hills. The route through to the Nelson Lakes and beyond on State Highway 63, is well-travelled and provides access to a variety of wilderness recreation experiences. The Wairau Lagoons and beach system north to Rarangi are all in public ownership, indicating a shared recognition of the importance of this coastal area to Marlborough. The Wairau area has also been endlessly written about, and includes poems by New Zealander, Eileen Duggan (1894-1972), whose poetry reference the landscapes of the Wairau River, Tuamarina and Cloudy Bay.

HERITAGE VALUES

There is a rich Māori and European heritage in the Wairau River valley. Māori trails through the valley have important historical associations and the Wairau Bar is of exceptional significance for the archaeological sites discovered there. Relics of early European settlement also remain, primarily in the form of historic buildings and heritage trees.

TANGATA WHENUA VALUES

The Wairau River valley was used by Māori to access overland routes through the mountains including across the saddles of the Branch, Leatham and Waihopai River catchments to the upper Awatere and Acheron/Saxton catchments of the Clarence River. Rivers and estuaries are often regarded as culturally significant – they are food gathering sites and many are sacred sites. Some significant archaeological remains have been found, including identified moa hunter sites around the Wairau Lagoon.

Refer to Section D: Outstanding Natural Features and Landscapes for information on the following ONFLs within the Wairau River Flats:

18. The Wairau Lagoons

24. The Main Divide and Leatham Conservation Area

4.0

WAIRAU DRY HILLS

General Landscape Character Area Description

This landscape character area comprises the undulating band of dry foothills that extend from White Bluffs/Te Parinui o Whiti on the coast, southeast of Blenheim, via the Wither Hills to the dissected hill spurs and terraces associated with numerous valley systems south of Renwick and the settlement of Wairau Valley.

The hills are deeply dissected due to the extensive erosion of their loess soil cover. Most are smooth and rounded, especially those hills south of Blenheim and west of White Bluffs/Te Parinui o Whiti, however, parts of the westernmost hills contain sharp ridges and steep valleys. Rainfall is low (600 to 1000mm per year) with the soils often drying out completely during the drier summer months, which results in the golden appearance of the silver and short tussock grass. The contrast of the bleached hills and the green of the relatively fertile Wairau plain is particularly evident during summer.

The dry hills vary in elevation between 5 to 550 metres a.s.l., with the higher hills located in the west, adjacent to the Marchburn River. Mount Vernon, the highest point within the Wither Hills, rises to an elevation of 422 metres a.s.l., while Jamies Knob rises to 277 metres a.s.l. close to White Bluffs/Te Parinui o Whiti, which themselves reach 268 metres a.s.l. The Wither Hills are an important backdrop to Blenheim when looking across the Wairau River valley southwards.

Within the dry hills the drainage pattern is complex, with numerous small streams and rivers winding their way northwards from the higher mountains to the south. Many of these dry up throughout much of the year. The complex watercourse pattern is reflected in the fractured and undulating terrain, where hill spurs or elevated 'fingers' extend into the flat Wairau River valley.



The dominant land cover in this landscape is exotic pasture used for pastoral farming although remnants of silver and short tussock grass are evident. Areas are also planted in large-scale coniferous forestry plantations. Most of this character area was probably originally cleared during the early European settlement of this area. As a result, only small pockets of native bush remain within deep gullies or folds in the topography.

Land use and landscape legibility on lower elevations of the hills south of Renwick are changing with gradual conversion to vineyards and life-style plots. The dry grasses are giving way to relatively intense management techniques. Small-scale quarries, a golf course, oxidising ponds and farmsteads occupy the lower slopes, with the more elevated hill slopes remaining in pasture or forestry plantation. A network of small unsurfaced local roads and tracks traverse these hills, mainly along the spines or ridges of the hill spurs. These provide pastoral farming access and form part of the Wither Hills Farm Park's mountain biking and walking tracks.

State Highway 1 and overhead transmission lines traverse the eastern end of the dry hills, notably at the Dashwood and Weld Passes. The inter-island 350kV HVDC line also follows State Highway 1 through this area, en-route northwards to Fighting Bay in the Marlborough Sounds.

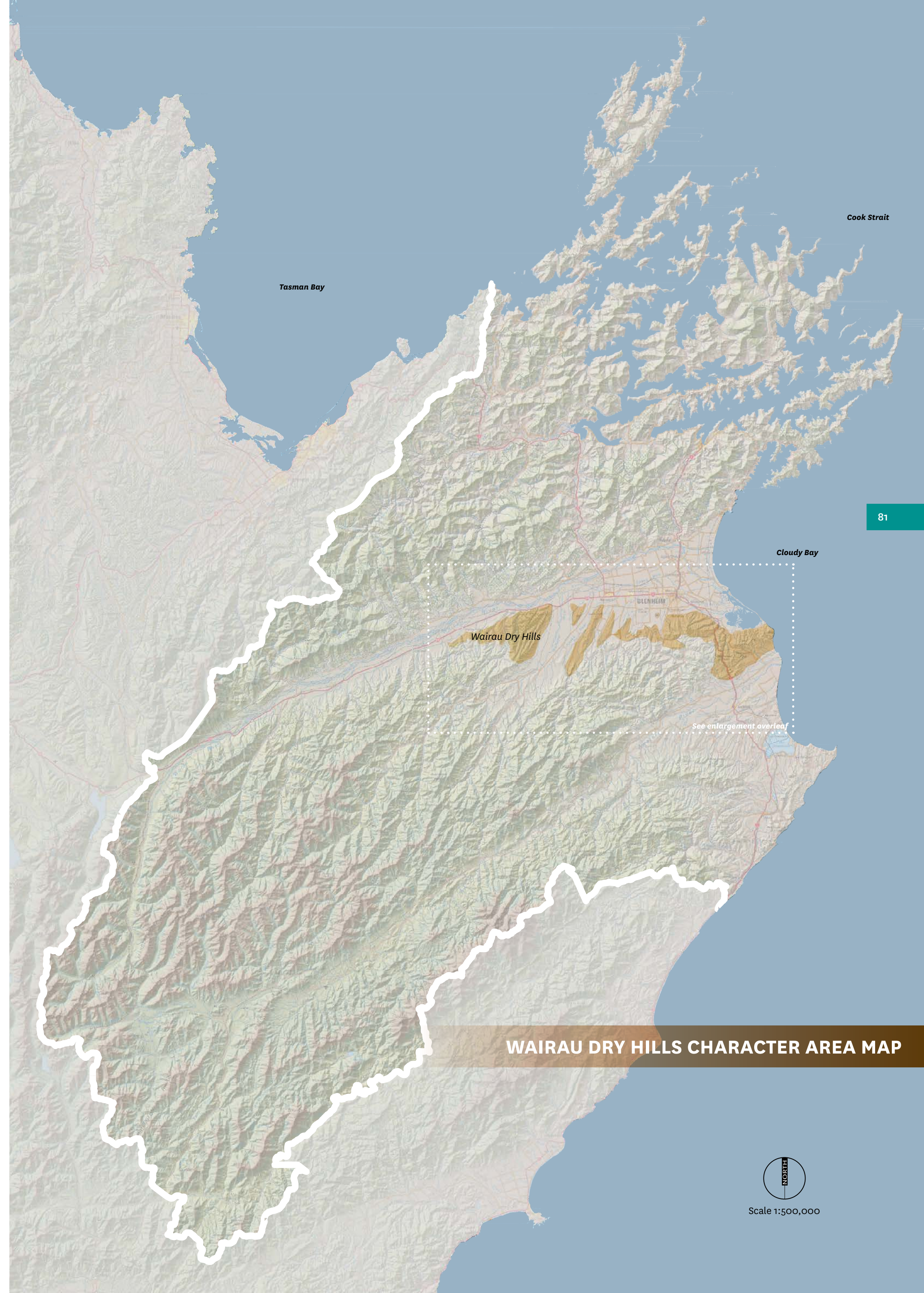
The area has a rich history, with Dashwood and Redwood Passes being of historical significance. These passes still retain vestiges of indigenous vegetation, particularly manuka, flax and cabbage trees, which add to their historical and aesthetic qualities.



Golden grass cover characterises the Wairau Dry Hills. The lack of woody vegetation in some parts accentuates the hill's geomorphic patterns - the hills often having the appearance of crumpled silk or fur.



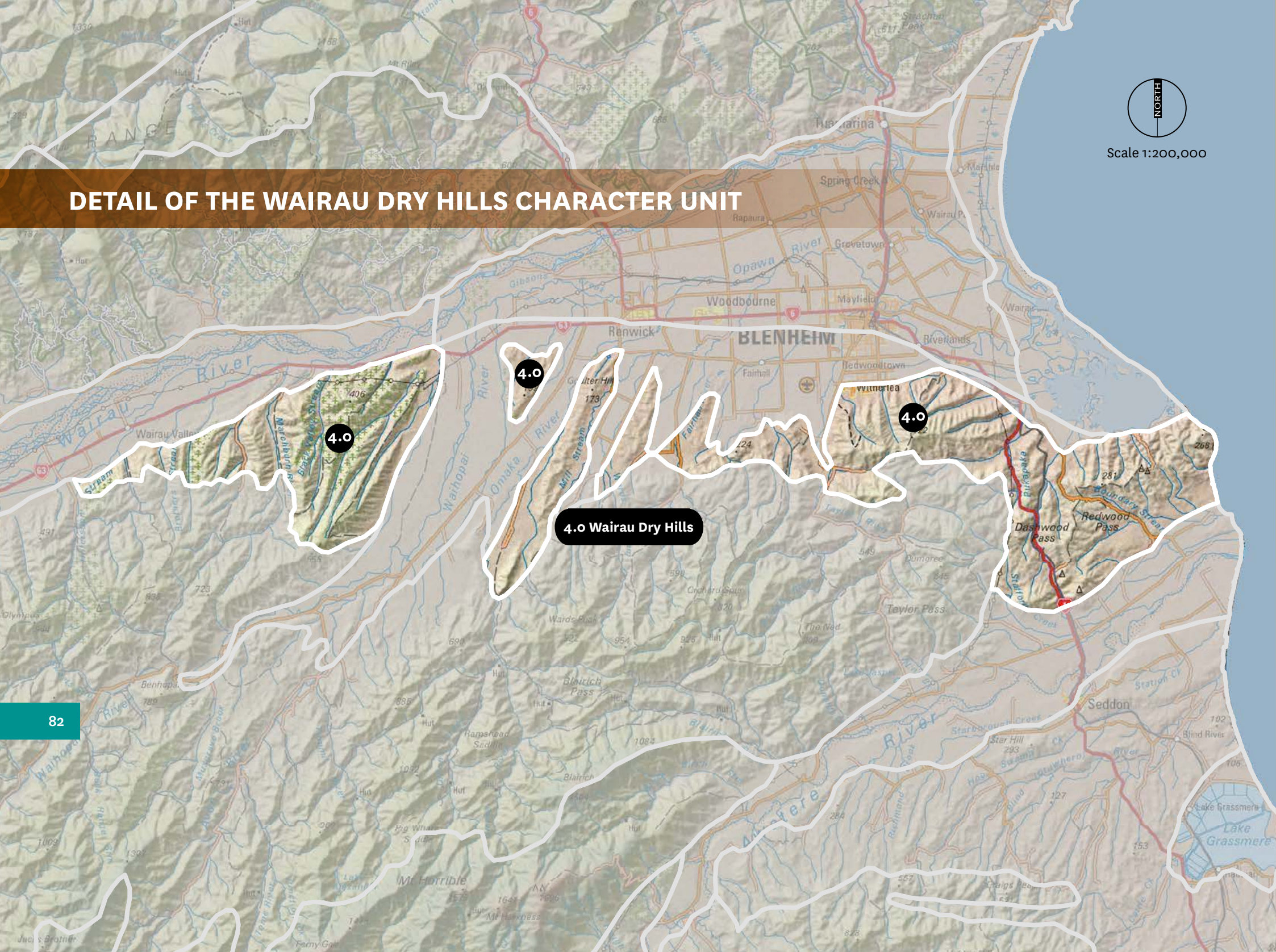
Pockets of development encroaching into the Wairau Dry Hills are evident south of Blenheim. Here roads have been built for a developing area of housing, along with pockets of vineyards, pine plantations and small artificial lakes.



WAIRAU DRY HILLS CHARACTER AREA MAP



Scale 1:500,000



DETAIL OF THE WAIRAU DRY HILLS CHARACTER UNIT

Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values

The bulk of the hills comprise Mesozoic greywacke, which have been eroded by glacial and alluvial activity, and coupled with the dry climate, the soils are characteristically dry, resulting in gully erosion. Immediately south of the Wairau Lagoons, and extending along the toe of the hills is the Wairau abandoned sea-cliffs. These are good examples of abandoned sea cliffs and stacks dating back to the early Holocene. The Dry Hills character area extends to the impressive White Bluffs/Te Parinui o Whiti at the coast. These massive sea-cliffs are considered a regionally significant landform.

Ecological and Biological Values

It is thought that the bulk of this hill country was once covered in totara and beech forest, but very little of this vegetation remains. The formerly extensive silver tussocklands noted at the time of European arrival are also greatly reduced. Consequently all those sites where pockets of kanuka forest, grey scrub and silver tussock remain are considered special. At the White Bluffs/Te Parinui o Whiti, nationally threatened plants can be found amongst the eroded cliff faces, that proliferate within the slot gorges. These are considered significant tracts of native forest vegetation.

SENSORY VALUES

Aesthetic Values

In summer the bleached golden appearance of this pastoral working landscape provides a pleasant contrast with the green vineyards of the plains below. At the coast, the sheer white sea-cliffs between the Wairau lagoons and the Awatere River valley are a striking feature.

ASSOCIATIVE VALUES

Shared and Recognised Values

These dry hills are a familiar Marlborough landscape to many. They include the hills that travellers on State Highway 1 pass through on the way to Blenheim. They often form the background in images marketing the wine region and provide an easily accessible, popular network of mountain bike and walking trails.

Heritage Values

A handful of archaeological sites indicate early Māori activity in the area while the Dashwood and Redwood Passes are a reminder of early European exploration in the area, when the routes were opened up between Canterbury and Marlborough as an alternative to move away from the coastline, which was the main route until the turn of the century.

Tangata Whenua Values

White Bluffs/Te Parinui o Whiti mark an important territorial boundary. Ngāi Tahu claim rights on the east coast of the South Island up to this point and a Ngāi Tahu conservation covenant is overlaid on the bluffs.

Refer to Section D: Outstanding Natural Features and Landscapes for information on the following ONFLs within the Wairau Dry Hills:

19: White Bluffs/Te Parinui o Whiti

Refer to Section E: Landscapes and Features with High Amenity Area for information on the following:

B: The Southern Hills, including Wither Hills and Dashwood Pass area

C: Wairau River and its margins including Spring Creek



KEY LANDSCAPE CHARACTERISTICS:

WAIRAU DRY HILLS

- The dry hills south of Blenheim: an important branding image that contrasts with the highly managed Wairau Plain;
- The exposed geology of White Bluffs/ Te Parinui o Whiti;
- The Dashwood and Redwood Passes;
- Provide topographical relief to the plains due to their high level of visual coherence;
- The large-scale and often geometrically shaped coniferous forestry plantations that occupy parts of the lower slopes of the western hill range;
- Relatively unencumbered from buildings and noticeably 'clean' undeveloped ridges and spurs.

Left: Commercial forestry plantations on the Wairau Dry Hills.

Right: White Bluffs/Te Parinui o Whiti determine the southern extent of Cloudy Bay and the northern extent of Clifford Bay and act as the principal division between the Wairau and Awatere River valleys.



5.0

MOUNTAINOUS INTERIOR

General Landscape Character Area Description

The mountainous Marlborough landscape is mostly rugged high country, which comprises of a number of landscape areas. Due to the scale, breadth and difficult terrain, wide areas are difficult to access. This character unit is the largest landscape character unit in the district, occupying approximately 45% of the Marlborough landmass, and is noted for its wild, barren and often inhospitable qualities. Productive land use is generally confined to the valleys or plateaus, and is limited to extensive grazing, due to the terrain, difficulty of access and the harsh climate. The remaining, non-pastured land comprises of areas of native forest, alpine vegetation and exposed scree and rocks. The Department of Conservation (DOC) manages most of the land in this landscape.

Settlement within this landscape is limited and is generally of European origin. The Molesworth station occupies the southern part of the district and is the largest station in the country at 180,476 hectares, is a significant high country farm. It is managed by the Department of Conservation with Landcorp Farming Limited responsible for lease-hold farming operations. The station encompasses a wide variety of mountainous landscape features and is mostly contained within the Clarence River catchment.

Recreation within this landscape character area includes skiing at the Rainbow Ski area on the St. Arnaud Range, mountain climbing, tramping, walking, rafting, fishing and hunting, as well as horse trekking and camping at Molesworth. An annual mountain cycle-race between the Molesworth homestead and Hanmer Springs every November is an extremely popular event.

5.1 GLACIATED MOUNTAIN RANGES AND MOLESWORTH STATION

The Glaciated Mountain Ranges and Molesworth Station comprise the majority of this landscape character unit, as well as forming a substantial part of Marlborough. This exposed, mountainous and vast landscape is mountainous and comprises a number of ranges, with some rising to 2,500 metres a.s.l. The principal ranges are the Boddington Range to the south and the Raglan Range to the north, east of which are a network of smaller ranges. The mountains have been recently (in geological terms) shaped by glacial activity and clearly show glaciated valleys, where cirques, fluvial valley floor outwash terraces, ablation and terminal moraine, lakes, fans, meandering floodplains, backswamps, extensive scree and bedrock outcrops are evident.

Elevation ranges between 380 to over 2,500 metres a.s.l. Vegetation above 1,100 metres a.s.l. mainly comprises snow tussock, subalpine scrub, alpine and rockfield vegetation. On the lower slopes, is induced short-tussock grassland, matagouri and manuka scrubland and remnant beech forest.



A number of the district's large river headwaters are in these mountains, including those of the Awatere, Acheron, Waihopai and Clarence Rivers. There are three catchments, each containing a substantial part of the upper drainage basins of the Wairau, Awatere and Clarence Rivers.

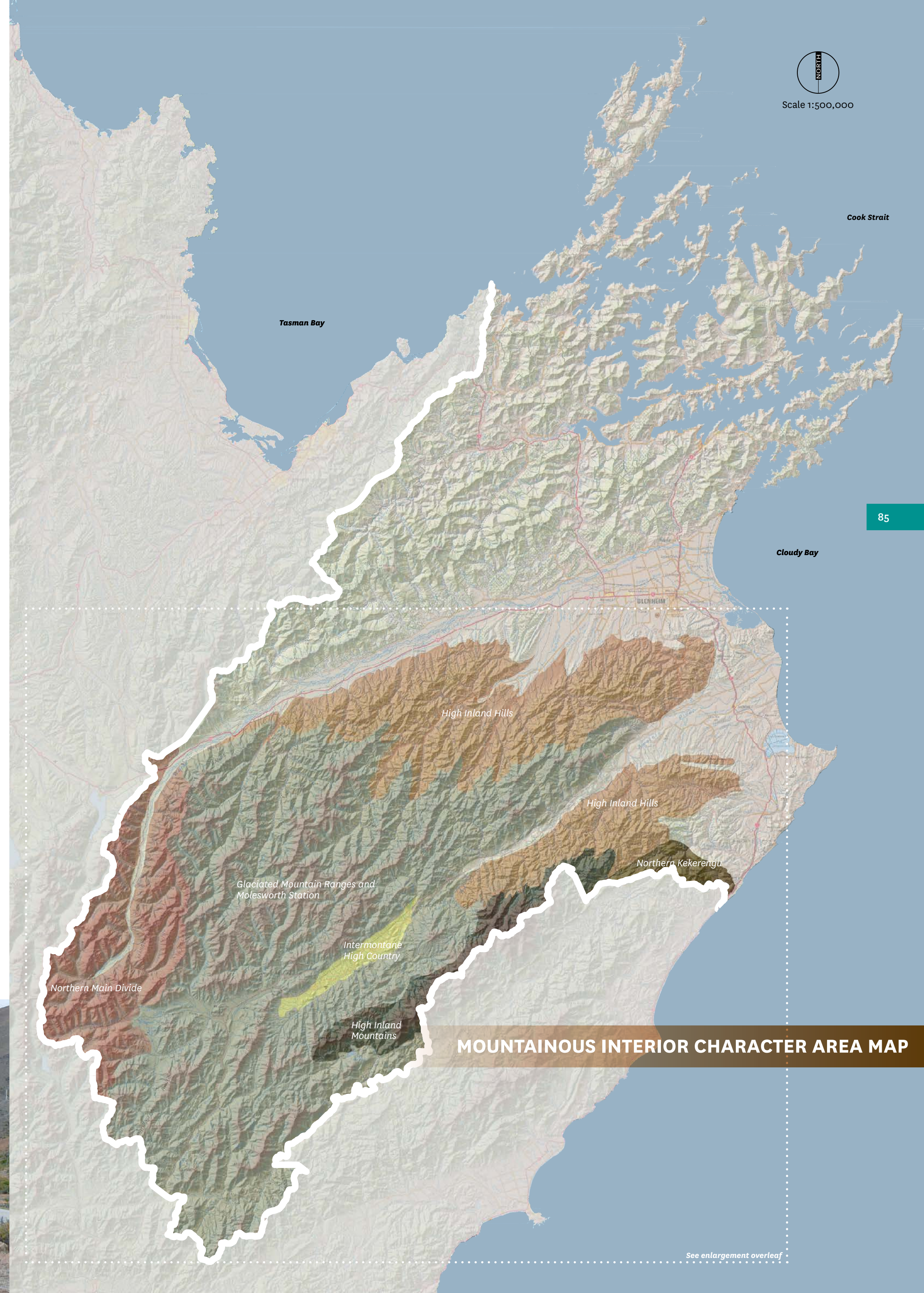
The Tarnedale wetlands, which include Bowscale Tarn, Fish Lake, Lake Sedgemere and Island Lake, are important ecologically and contain the unique fish named the tarnedale bully. Lake McRae is a glacial-filled lake close to the Inland Kaikouras and is the only significant body of water in the area.

Most of this landscape is managed by DOC for recreation and conservation purposes, as well as extensive grazing. The *Molesworth Management Plan* outlines management regimes to protect Molesworth's conservation and recreation values without severely affecting its role as a high country station. Landcorp Farming Limited is responsible for farming operations under lease agreement with DOC. Of the buildings within the Molesworth settlement area, the Molesworth Cob House, built in 1869, is listed by Heritage New Zealand as a significant building. Also in this landscape are the Muller, Langridge and Middlehurst high country stations. Due to the elevated conditions, land use is restricted to high country pastoral farming/grazing.

The area is accessed by road via the Acheron Road (a gravel road which connects Blenheim to Hanmer Springs via the Molesworth Station). This road is open in its entirety for only a few weeks per year, due to frequent extreme weather.

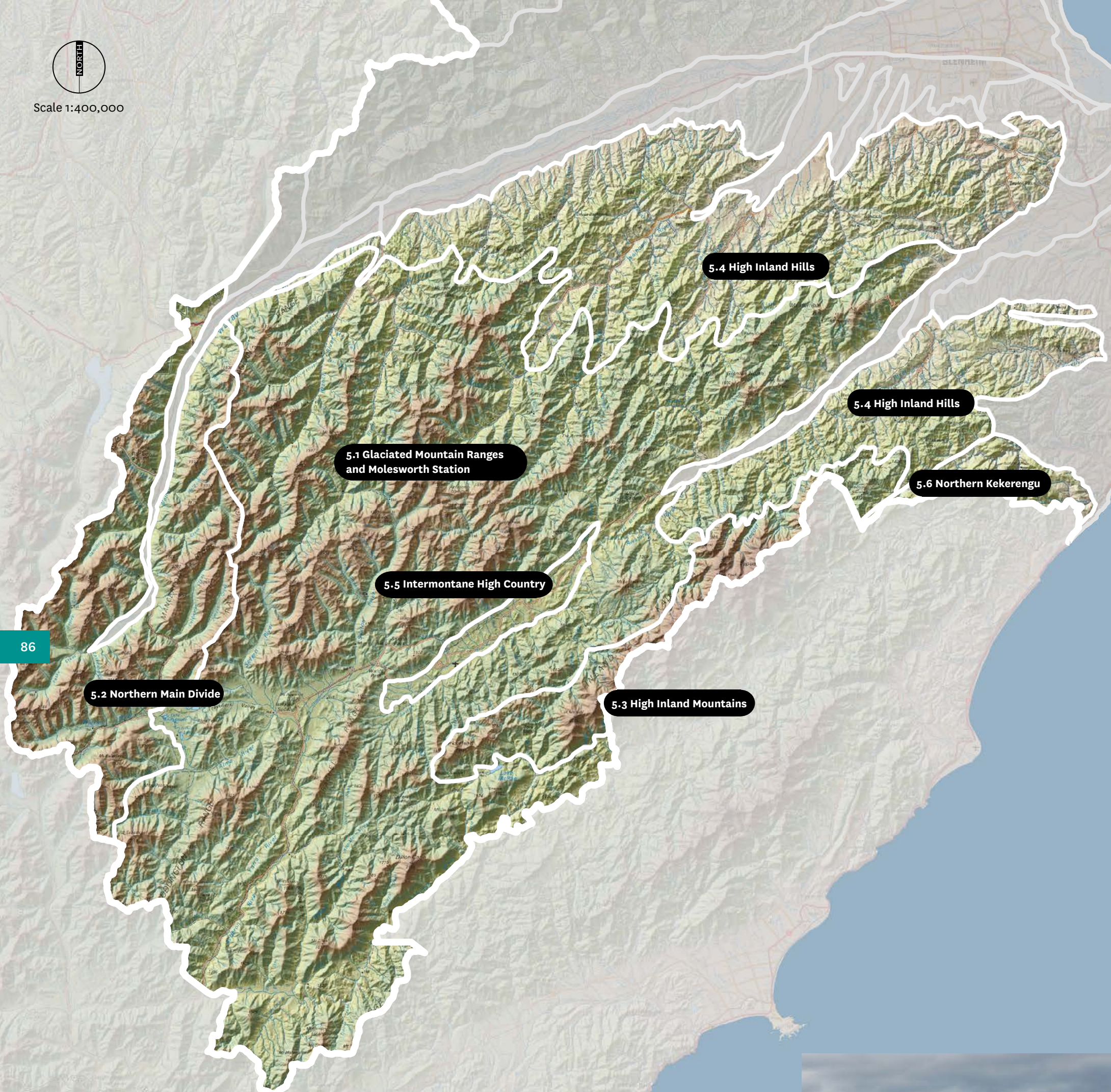
To the south of the Clarence River, beyond the Molesworth Station, the district boundary sinuously follows the catchment of the Hossack River catchment, providing a boundary with the Hanmer Range to the west and the Amuri Range to the east.

Heading south on the Molesworth Road beside the Acheron River, close to the confluence with the Guide River. The majority of the Molesworth Station landscape is the result of glacial activity, where broad valleys are enclosed by high peaks. The barren appearance of the valley bottom is principally due to the dry gravels and alluvial deposits. *Hieracium*, the exotic flatweed, is prolific within the Molesworth Station area and prevents native grasses from growing.



MOUNTAINOUS INTERIOR CHARACTER AREA MAP

See enlargement overleaf



5.2 NORTHERN MAIN DIVIDE

The Northern Main Divide landscape occupies the south-western corner of the district. It is contained by the St. Arnaud Range to the west and the Raglan Range to the east, and includes the headwaters of the Wairau River on the Alpine Fault. The Turk Range and northern part of the Crimea Range form the southern boundary of this landscape. This area comprises steep to precipitous, heavily glaciated mountains with elevations reaching 2,300 metres a.s.l. The Wairau River flows northwards through the glacially eroded U-shaped Main Divide valley, where extensive areas of bare rock, scree, and cirque basins dominate above 1,400 metres a.s.l.

The vegetation includes snow tussock and subalpine scrub, and modified fescue-snow tussock grassland, manuka and matagouri scrub, remnant and extensive beech forest clothed slopes below 1,500 metres a.s.l.

Access to the area is via the Wairau-Hanmer Springs Hydro Road, which parallels two overhead transmissions lines.

The Rainbow Ski Field within the St. Arnaud Range is accessed from the Wairau-Hanmer Springs Hydro Road, as are numerous walking and tramping tracks.

5.3 HIGH INLAND MOUNTAINS

The High Inland Mountain landscape encompasses the Inland Kaikoura Range, which comprises steep to precipitous high mountains, with areas of extensive bare rock, scree, glaciers, minor cirque basins and steeply dissected lower mountain footslopes. Elevation ranges from 1,000 to 2,885 metres a.s.l. with Tapuae-o-Uenuku, at 2,885 metres a.s.l. being the highest mountain in the district, often snow-covered and identified as an important Geopreservation Inventory Site (being New Zealand's only recorded occurrence of ZR-bearing pyroxene). The Inland Kaikoura Range is very exposed and of recent geological formation. Only the north-western side facing slopes are within Marlborough, with the south-eastern side within the neighbouring Kaikoura District.

The Inland Kaikoura Range supports a variety of vegetation, which is of ecological interest due to the extreme climatic conditions. Alpine vegetation occurs above 1,300 metres a.s.l., At lower elevations, there is highly modified and depleted fescue tussock grassland, manuka and matagouri scrub and small remnants of beech forest and open totara woodland.

The Kaikoura Ranges are imbued with spiritual and traditional values. Tapuae-o-Uenuku is significant to local iwi and was named as the 'watcher' by James Cook. The area is also highly regarded by mountain climbers and trampers and is one of the first places on Earth to see in the new day.

5.4 HIGH INLAND HILLS

The high inland hills represent the transition between the southern Wairau and Awatere River valleys and the more mountainous landscape of the district's south-western corner. The geomorphology of this landscape is one of strongly rolling to steep and, in places, very steep moderately dissected hill and mountain country.

This landscape type occurs in two areas, one to the south of the Wither Hills and one to the south of the Awatere River (refer to map p86). Common to both areas are the exposed rocky outcrops on the tops of hills, ridges and spurs and rock-strewn sides evident on the upper slopes. Elevation in the northern area (south of the Wither Hills) ranges from 10 metres a.s.l. to 1,504 metres a.s.l. at the Blairich Range. In the Blue Mountain Range, south of the Awatere River, elevation ranges from 200 metres a.s.l. to 1,243 metres a.s.l. Most of both of these areas is below 1,300 metres a.s.l.

The majority of this landscape is in pastoral use, with pockets of manuka and tussock on higher elevations. On the lower elevations, vegetation is mainly scrub, comprising matagouri, manuka, gorse and broom, areas of mixed native scrub in gullies and around rock outcrops, and minor areas of remnant native forest. Within the mid to upper Waihopai and Avon River valleys, the landscape is generally settled farmland, constricted further upstream by the enclosing high hills.

There is a network of walking tracks in the landscape to the north of the Blairich Range and some mountain biking tracks extend from Taylor Pass Road further eastwards.

5.5 INTERMONTANE HIGH COUNTRY

The Intermontane High Country comprises the glacial-formed intermontane upper Awatere River valley. Elevation varies from 700 metres a.s.l. at the eastern extents close to Middlehurst Road and Middlehurst Station, to over 1,000 metres a.s.l. close to the Molesworth Station at the western end. It is an exposed landscape with an alpine climate.

The landscape is hard-rock hill country with occasional spurs and ridge-cresting rock outcrops. This landscape is contained to the north by the high dry mountains associated with Shingle Peak (at 2,089 metres a.s.l.) and Mount Murphy (at 1,827 metres a.s.l.) and to the south by a generally lower, more fractured range of hills, which include Mount Muller, which rises to 1,405 metres a.s.l. These southern hills extend in elevation further southwards and form the foothills to the Inland Kaikoura Range.

Far Left: A rural station block at the northern end of the Molesworth high country plateau. The photograph illustrates the dry, arid nature of this landscape, especially during the summer.

Below: The exposed landscape of Isolated Flat on the Molesworth Road. This valley is an extensive outwash plain, bounded by the Awatere Fault (at right). The Department of Conservation's pamphlet on the Molesworth Station states that "From January until April, masses of tall, white gentian flowers can be seen growing amongst clumps of short tussock and pasture grass. Introduced blue borage (*Echium vulgare*) also grows profusely, the blue flowers attracting bees". In relation to cultural history, the DOC pamphlet writes: "In 1850, explorers Mitchell and Dashwood wrote of Isolated Flat: "The soil and the grass here were much improved and good cattle stations might be farmed but I fear the immense quantity of speargrass and other prickles would prove an obstacle for sheep".





The clearance along the length of the overhead electricity transmission corridor has resulted in an unnatural line in the glacial-carved upper Wairau River valley.

The western extents of this landscape include part of the Molesworth Station, including Molesworth homestead. Historically, the Molesworth area has been important to both Māori and Europeans in their occupation and settlement of the area. Access to the station is via the unsealed Awatere Valley Road, which extends southwest from State Highway 1 at Seddon to Hanmer Springs.

Extensive areas of the Intermontane High Country have been modified due to its historic uses, with large areas colonised by exotic *Hieracium*, exotic sweet briar and native matagouri scrub, as well as extensive areas of bare ground. Areas of indigenous vegetation such as mountain beech, tend to be localised in concentrated areas close to streams and within gullies.

A wide range of recreational pursuits are undertaken in the area including fishing, hunting, walking and mountain biking, and the landscape context is important to the enjoyment of many visitors. A campsite close to the Molesworth homestead is popular.

5.6 NORTHERN KEKERENGU

This landscape is predominantly steep to occasionally precipitous limestone coastal-hill country and is closely associated in land typing with the mountainous landscape south of the district. The area's geology is principally limestone and mudstones with minor volcanic elements also evident. Elevation ranges from 60 metres a.s.l. close to the sea to 1,244 metres a.s.l. at Ben More Peak. The upper Waima River and its minor tributaries traverse this landscape, flowing eastwards into the Awatere Dry Hills Character Area and the sea.

At its western end the area includes the northern slopes of the Chalk Range and include limestone features such as Sleepy Peak, Razorback Ridge and Whales Back. The Chalk Range reaches an average height of 950 metres a.s.l. with a high point of 1,078 metres a.s.l. immediately south of the Razorback Ridge. Further westwards, the limestone hills of Isolated Hill at 1,1039 metres a.s.l. and the northern ridge of Ben More constrain the valley that divides them. This precipitous division contains Isolation Stream, a tributary to the Waima River and the sheer cliffs of Sawcut Gorge. Several pools alongside Isolation Stream contain sulphur.



The braided nature of the Wairau River wends its way through the upper valley, depositing extensive areas of gravel and alluvial material.



Cirques and tarns on mountain tops and interconnecting ridges. Parts of this area are under snow for at least six months of the year, due to the high elevation.

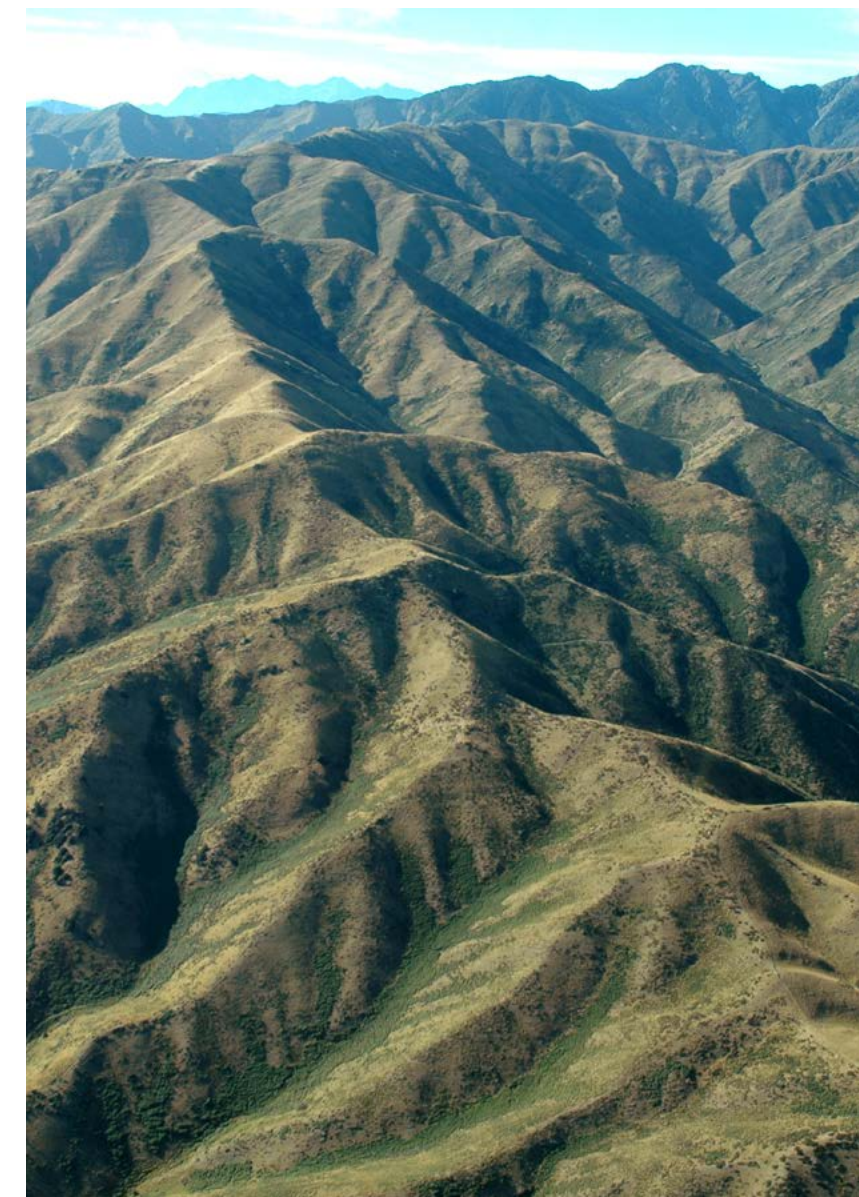
Woodside Creek, immediately south of Wharanui, displays good limestone exposure due to river and weathering processes. This was critical in developing the hypothesis of a meteorite impact due to the high levels of iridium found within the exposed limestone: - and the only site of its kind within the Southern Hemisphere.

Vegetation cover varies from extensive scrub-free silver tussock grassland, to grass and beech and lowland podocarp forest. Productive land use is difficult due to the terrain, although high country pastoral farming is evident.

Access to the area is limited to an unsealed road that follows the Waima River from its river mouth and terminates at Blue Mountain Station. From here a walking track leads to Sawcut Gorge and Isolated Hill where a hut is located close to the headwaters of Isolation Creek.

KEY LANDSCAPE CHARACTERISTICS: MOUNTAINOUS INTERIOR

- Expansive, rugged mountainous terrain;
- Distinctive and culturally significant peak of Tapuae-o-Uenuku;
- Limestone features on the upper Waima River including Sawcut Gorge and those at Woodside Creek;
- Historic and cultural values associated with the Molesworth Station;
- Geomorphological expressiveness of landform formation, particularly:
 - u-shaped glacial valley of the upper Wairau;
 - elevated Molesworth plateau;
 - glaciated valleys, cirques, mountains and headwaters of rivers within the Molesworth Station.



The crumpled and moderately dissected landform and lack of vegetation cover creates a clear and legible landscape.

View of the Inland Kaikoura Mountains looking south from the upper Awatere Valley. The rugged skyline ridge forms part of the district's south-eastern boundary. The Inland Kaikoura Range supports very little vegetation on its upper elevations, due to the majority of the peaks rising well above 2,000 metres a.s.l.. Other than Tapuae-o-Uenuku at 2,885 metres a.s.l., other significant peaks on the ranges north-east/ south-west axis include Saint Bernard at 2,255 metres a.s.l., Mount Cold at 2,348 metres a.s.l. and Mitre Peak at 2,621 metres a.s.l..

Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values

Natural elements, patterns (both landform and land cover) and processes dominate this landscape. The mountainous interior contains a remarkable variety of soils/ geology substrate, which highly demonstrates its formative processes. The Alpine Fault, which traverses the western part of this landscape is clearly legible and displays very high levels of naturalness. The limestone country within the eastern part of this landscape displays dramatic landform features, such as the Chalk Range, Sawcut Gorge and Ben More. The Inland Kaikoura Range, notably Tapuae-o-Uenuku, clearly displays its recent formative processes. The zirconium aegirine rock feature of Tapuae-o-Uenuku is a Geopreservation Site of national significance.

Ecological and Biological Values

The majority of this landscape is protected by conservation status. High country pastoral farming occurs in the upper Awatere River valley, notably at Molesworth station. The Molesworth Station area is highly significant for the presence of endemic and rare species of flora and fauna, especially its wetlands around Lake Sedgemere.

SENSORY VALUES

Aesthetic Values

The mountainous interior comprises a significant portion of the district and retains a high degree of aesthetic coherence due to its vast scale and grandeur. The Inland Kaikoura Range (along with the parallel Seaward Kaikoura Range in Canterbury) dominate the north-eastern part of the South Island and form an important backdrop to the district. This vast mountain landscape is extremely memorable for its rich variety of geological and biological elements, ranging from hanging valleys, scree covered slopes, inland basins, limestone features and jagged snowy peaks.

ASSOCIATIVE VALUES

Shared and Recognised Values

Due to the conservation status of the majority of this landscape, the shared and recognised values are extremely high.

Heritage Values

Although not as in numerous as other parts of the district, the heritage values evident within this landscape clearly display the pioneering skills of early European settlers. Molesworth and Tarnedale Stations are evidence of this, as is the Molesworth to Hanmer Springs Road and the Wairau to Hanmer Springs Hydro Road.

Tangata Whenua Values

The mountainous environment dividing the Marlborough Sounds from the Canterbury Plains meant that many inland routes were sourced by early food-gathering Māori. The highest mountain in the district, Tapuae-o-Uenuku is imbued with spiritual and traditional values and is acknowledged under Schedule 90 of the Ngāi Tahu Claims Settlement Act 1998 for cultural, spiritual and historic associations.

Refer to Section D: Outstanding Natural Features and Landscapes for information on the following ONFLs within the Mountainous Interior:

22. The Chalk Range

23. The Inland Kaikoura Range

24. The Main Divide and Leatham Conservation Area

25. Molesworth Station and Upper Clarence

Refer to Section E: Landscapes and Features with High Amenity Area for information on the following:

D: Upper Awatere Valley and Awatere River

6.0

AWATERE RIVER VALLEY

General Landscape Character Area Description

The Awatere River, in south Marlborough, is the second largest river in Marlborough after the Wairau and follows a remarkably straight, northeast course. The course of the river has been determined by the active Awatere Fault that runs parallel to, and south of, the Wairau Fault and larger Wairau valley. While sharing many similar characteristics to its 'sister' valley, the Awatere River valley has a drier climate and the soil is less fertile.

While the headwaters of the Awatere River begin near Barefell Pass, fed by tributaries from the inland Marlborough and Kaikoura ranges, this landscape character area extends from the Upcot Saddle northeast to the coast. At Woodmans Bend, near the confluence of the Medway and Awatere Rivers, the valley begins to broaden into flat river terraces.

Vegetation reflects the extreme climate in the valley and the human disturbance that has occurred here through a history of burning and grazing. The valley lies in both the Inland Marlborough and Clarence Ecological Regions and forms the boundary between a number of ecological districts. While some pockets of indigenous beech and mixed hardwood forest persist in the surrounding hills, land cover in the upper Awatere River valley is predominantly a mix of high-producing grassland and low-producing modified tussock grassland. In the lower valley, the vegetation mix is predominantly grassland (or pasture) with an increasing level of vineyard development. The riparian margins of the Awatere River are largely colonised by willow and poplar species.

The Awatere River valley was part of a network of routes used by Māori to travel between Marlborough, Nelson, the West Coast and Canterbury. European history is mostly associated with the valley's use for pastoral farming. Today, a predominantly gravel, 4WD road provides access through the valley to Molesworth Station and on to Hanmer. The 350kV HVDC transmission line also follows the relatively easy contours of the river valley to its head and continues on into the Acheron catchment.

State Highway 1 crosses the Awatere River in the lower reaches, passing through Seddon, the main settlement in this character area.

The valley is the gateway to important recreation areas such as the Inland Kaikoura Range. The Hodder Valley, for example, which branches south from the Awatere River, is a popular route to Mt Tapuae-O-Uenuku (the highest summit in the Range). The 4WD trip up the valley into the historic Molesworth Station and beyond is also a very popular, scenic trip through a remote part of high country New Zealand.



6.1 UPPER AWATERE VALLEY

The Upper Awatere Valley sub-character landscape area, between Mt Upcot and the Medway River confluence, is narrow, with hills that rise steeply on either side of the Awatere River. These fragile slopes are part of the hard rock, moderately steep to steep broken hill country that surrounds the valley. The river, which largely cuts a single channel through this part of the valley, is the focus of this intimate, semi-enclosed landscape. For travellers climbing towards the Upcot saddle, the dramatic skyline created by the fractured landforms of the Inland Kaikoura Ranges comes into view. The peak of Barometer (1,780 metres a.s.l.), in the inland Marlborough ranges is also an important landmark from within the Upper Awatere Valley landscape.

The upper valley continues to be managed as a number of high country stations. The land cover is predominantly rough grassland, with some tussockland, as well as indigenous beech and mixed hardwood forest remnants and scrub, particularly in the side valleys, that extend beyond the character area. A number of original cob cottages, homesteads and the remains of other structures associated with the early years of pastoral farming can be found up the valley.

The upper valley provides access to good backcountry tramping and hunting and is used for trout fishing. As well as providing a 4WD opportunity, the Road through Molesworth to Hanmer is also used by cycle tourists as part of an alternative route between Christchurch and Blenheim. The Black Birch Observatory sits on the ridgeline of the Black Birch Range above Woodmans Bend.

The only road access into this area is via the gravelled road through Molesworth, which generally follows the terrace above the river. Apart from occasional farmsteads and other farming related structures, the road and the modified vegetation is the main cue to the extent of human modification in the area. Like many high country landscapes, while not pristine wilderness, the natural characteristics remain dominant. The area is sufficiently difficult to access and off-the-beaten-track, that despite the cultural influences, the overall character is one of remoteness and isolation.



The Awatere River cuts through the broken hill country of the upper Awatere valley. Occasional steep and precipitous cliffs rise 50 metres or more high, often devoid of vegetation. Due to the broken terrain, pockets of invasive exotic vegetation colonise river pockets, gullies and steep valley slopes.



Cook Strait

Tasman Bay

Cloudy Bay

Awatere Plains

Upper Awatere Valley

See enlargement overleaf

AWATERE RIVER VALLEY CHARACTER AREA MAP



Scale 1:500,000



SUB-CHARACTER UNITS OF THE AWATERE RIVER VALLEY

Scale 1:200,000

6.1 Upper Awatere Valley

6.2 Awatere Plains



Memorial to William Horace McLachlan and his wife Margaret Ann McLachlan on the Molesworth Road in the upper Awatere valley. This memorial marks the site at Cow Creek where the pioneers upgraded the Molesworth Road from 1934 to 1937.

6.2 AWATERE PLAINS

At Jordan, the Awatere River valley floor widens and, after Woodmans Bend, the character of the landscape noticeably changes. As the valley opens up, the river bed becomes wider and the braids and terracing more pronounced. The strongly developed river terraces and the contrast between them and the surrounding extensively farmed hills is a key characteristic of this landscape area. The high, steep, and relatively uniform slopes of the Black Birch Range that contain the north bank of the river also provide a contrast with the lower, broken fingers of the Haldon Range to the south. These fingers extend gradually into the plains of the lower river and form part of the Awatere Dry Hills Character Area. Gravels that are washed down the Awatere River have formed the flood plain that pushes out into Clifford Bay.

Altmarloch, at Woodmans Bend, is one of the oldest properties in the Awatere area. The station homestead was built in 1861 using totara barged up the river.

The small town of Seddon sits above the Awatere River, at the edge of the Awatere dry hills character area. Originally the town was a service centre for the surrounding mixed arable farming activities. During the Second World War a linen flax mill was established there to produce linen fibre as a contribution to the war effort. Today, the flat, fertile river terraces are characterised by the as a number of wineries that have become established in the area. Many established exotic shelterbelts also remain.

Until late 2007 the only bridge crossing the lower Awatere River was a unique road/rail bridge on which the rail crossed on an upper deck, and State Highway 1 crossed on a wooden lower deck.

KEY LANDSCAPE CHARACTERISTICS:

AWATERE RIVER VALLEY

- A narrow, northeast-oriented river valley with wider, flat river terraces towards the coast;
- Spectacular river-cut terraces and cliffs;
- Steep, fragile hill country in the upper Valley;
- The road through Molesworth;
- Developing viticulture industry on the plains.

Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values

The Awatere River valley, although not as broad or long as its sister the 'Wairau', nevertheless contains some interesting geological features, predominantly moulded by the Awatere Fault. Deep, incised river cliffs have formed in places creating distinctive terraces caused by the erosion of the soft-underlying rock. Whilst not a Geopreservation Site, the river terraces clearly display a high level of legibility which demonstrate the formative processes.

Ecological and Biological Values

Much of the land surrounding the upper Awatere River is grazed, with some of the higher ground in the adjacent Mountainous Interior Landscape Character Area managed by DOC. The riverbanks and valley floor vegetation have been considerably modified however some pockets of indigenous riparian vegetation remain. The river remains an important area of habitat for native bird species.

Very little native vegetation remains on the Awatere plains, although the margins of the Awatere River contain occasional pockets of native remnants. Areas of grey scrub and kanuka treeland occur on the hill slopes and coastal gullies and small forest remnants are found in the shelter of the gorged tributaries.

SENSORY VALUES

Aesthetic Values

The Awatere River has created spectacular river terraces and cliff formations along much of the river corridor, as it carves through the soft-rock hills and valley floor. The scenic road to Molesworth runs parallel to the river, providing intimate views towards it and often passing through deep cuttings and narrow gorges. There are regular views up the valley towards the rugged peaks of the mountainous interior. The Upcot Saddle, which reaches 867 metres a.s.l., affords tremendous views of the adjacent Inland Kaikoura Range and peak of Tapuae-o-Uenuku. The road passes close by a few old farmsteads and buildings with tall exotic trees hinting at the age of the properties.

ASSOCIATIVE VALUES

Shared and Recognised Values

There are high shared and recognised values associated with travellers passing across this valley by rail and State Highway 1 and, more particularly, travelling up the valley into the remote mountainous interior.

Heritage and Cultural Values

European explorer and pastoralist, Frederick Weld, noted a number of Māori trails, including one linking the Awatere Valley with the Waihopai Valley (Te Tau Ihu o Te Waka, Hilary Mitchell).

The Awatere River valley was used by Māori to travel between Marlborough and Canterbury, crossing through various mountain passes.

Refer to Section E: Landscapes & Features with High Amenity Area for information on the following:

D: Upper Awatere Valley and Awatere River

A distinctively new land use pattern is occurring in the lower Awatere River valley. Like the broader Wairau River valley to the north, vineyards are gradually replacing former soft fruit, orchard and agricultural pasture land. The intensively cultivated vineyards contrast with the surrounding Awatere Dry Hills.



7.0



AWATERE DRY HILLS

General Landscape Character Area Description

This landscape area is bounded on the east by the coastline from Clifford Bay around Cape Campbell, south to the boundary with the Kaikoura District at Willawa Point on the Kaikoura coast. It extends inland to the hills east of the Flaxmere River and to the Blue Mountain Range. The hills in the west rise to about 1,000 metres, whereas in the eastern areas they typically range between 200 and 400 metres. These dry, lowland hills are landforms that are essentially characteristic throughout even though they encompass some diverse landscapes.

The hills are strongly undulating and steeply dissected with numerous small peaks and hollows and they are subject to extensive erosion. The Chancet Rocks expose traces of ancient fossils through its weathered faces and are identified as a site of international scientific importance in the Geopreservation Inventory. Much of this area experiences extremely low rainfall so the grass-covered hills regularly have a soft, golden brown appearance.

The coast from Cape Campbell to the Waima/Ure River is little modified and highly expressive of its geological formation. Places of particular interest include Cape Campbell/Te Karaka, which marks the southern extent of Cook Strait, Ward Beach and the Chancet Rocks and Needles Point and the ephemerally wet Lake Elterwater/Okaiinga. The main rivers in the area are Flaxbourne River, Waima River and Blind/Otuwhero River.

The land cover in this landscape is predominantly pastoral grassland with small pockets of cropping on the better soils and vineyards gradually extending into the hills, changing the landscape character. Native shrublands occupy many of the gullies in the coastal hills.

The rugged and relatively inaccessible coastline is home to seals, seabirds, and Hector's dolphins. Lake Elterwater also provides habitat for a number of bird species and is enjoyed for bird watching opportunities.

Archaeological sites, particularly ovens and middens, found along the coast around Cape Campbell and south of Ward Beach, indicate the importance of the coast to Māori who lived in and travelled through the area.

The iconic golden-colour of the pastoral grasses that characterise the inland part of this character area, as seen from a location on State Highway 1, south of Lake Grassmere. Due to the relatively uncluttered nature of the landscape in this part of the character area, any element, such as a cabbage tree, copse of trees or power line, becomes instantly evident.

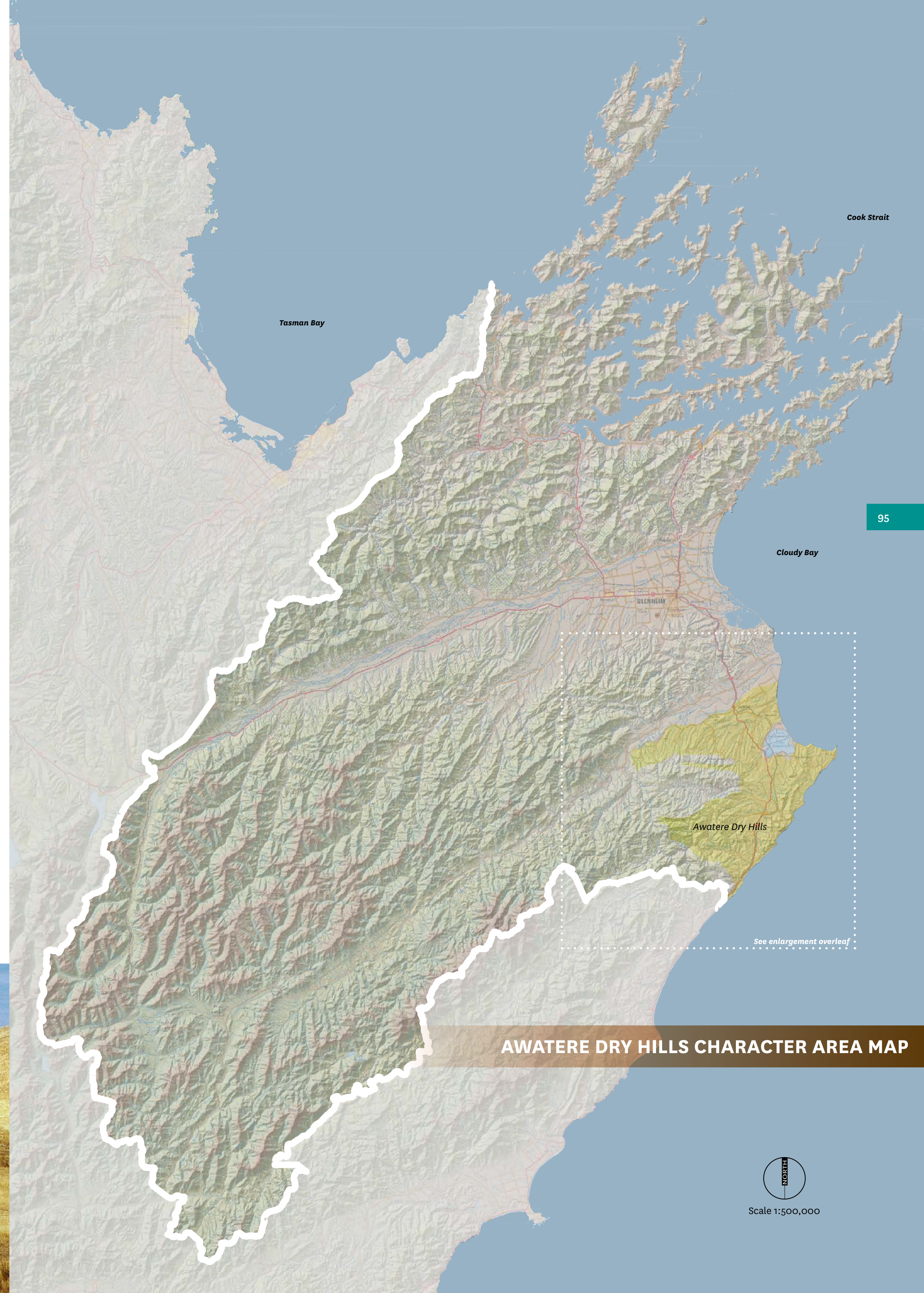
Flaxbourne Station played an important role in the growth of sheep farming in New Zealand as it was the first great pastoral station in the South Island. It was originally a vast block of land stretching from north of the Awatere River to Kekerengu in the south and encompassing much of the land in this character area. London Hill Station on Lake Elterwater was part of the Far London Block on the original Flaxbourne Station.

State Highway 1 closely follows the coast for a short distance north of Willawa Point before heading inland at the Waima River through the middle of this landscape. The experience of being surrounded by endless velvety brown hills is familiar to any who travel this way. The road passes through Ward, the main township in this otherwise sparsely settled area. Public road access through this area is relatively limited, with large areas of the hills west of State Highway 1 quite isolated.

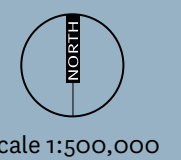
There is a small coastal reserve at Marfells Beach from where it is possible to walk, across private land to the historic lighthouse at Cape Campbell.

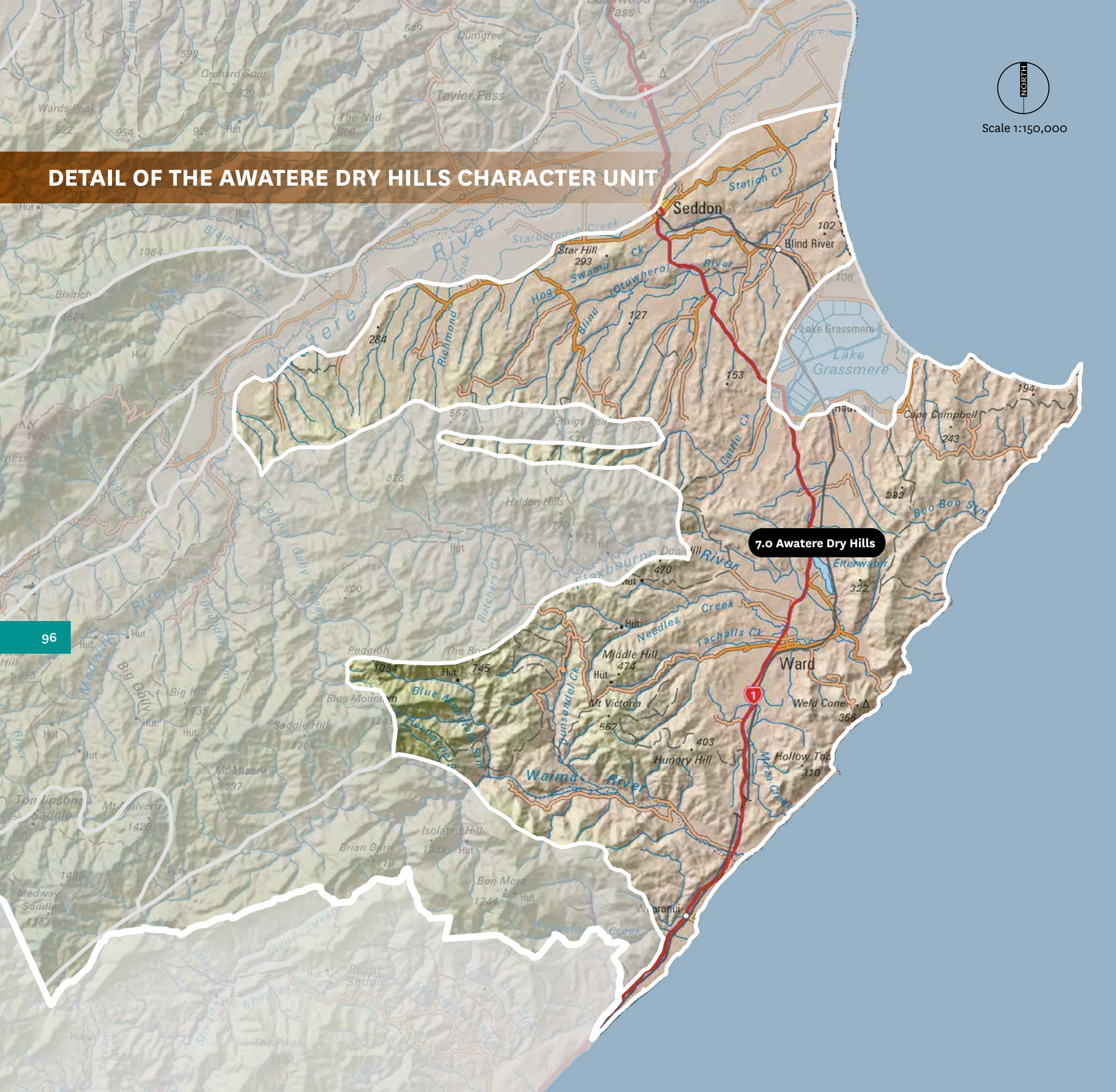
KEY LANDSCAPE CHARACTERISTICS: AWATERE DRY HILLS

- Velvety brown undulating hills;
- Gradual encroachment of vineyards on lower elevations;
- The ephemerally wet Lake Elterwater;
- Coastal cliffs at Cape Campbell
- The exposed fossils at Chancet Rocks;
- Rich European social history;
- Rugged coastline south of Cape Campbell.



AWATERE DRY HILLS CHARACTER AREA MAP





DETAIL OF THE AWATERE DRY HILLS CHARACTER UNIT

Scale 1:150,000

7.0 Awatere Dry Hills

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Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values
 The landscape is strongly undulating and due to its geological makeup, is highly erosional, which has created some spectacular geological features, noticeably at the coast. As a result, the landscape is highly legible and clearly expresses its formative processes in the eroding terraces, spurs, crests and hill summits. The coastline of this landscape includes a number of geopreservation sites, with the Chancet Rocks ranking as an international site of scientific importance. South of Cape Campbell, the coastline reveals some dramatic and spectacular scenery, including the Needles and the limestone ridge.

Ecological and Biological Values
 Due to the climate and the variety of the underlying geology of this area and the fragility of the land close to the coast, the ecological and biological values are relatively unique. Rare and endemic flora is common in sheltered rocky areas of this landscape. Some species are endemic to only very small areas, such as the Waima Valley. Threads of conservation areas are associated with inland river systems, such as the Flaxbourne River and Needles Creek/ Tachalls Creek north of Ward. Lake Elterwater is an interesting ephemeral wetland and contains some important plant communities.

SENSORY VALUES

Aesthetic Values
 The landscape is predominantly pastoral, undulating grassland, which is particularly pleasant, especially during the summer months when the grass turns a golden colour. Vineyards are gradually encroaching into the north foothills of this Awatere Dry Hills character area from the Awatere River valley, introducing a distinctive contrast between the verdant, irrigated vines and the golden dry hills. The inland part this landscape, due to its predominantly pastoral land use and gently undulating landform, provides a high degree of visual coherence.

It is the coastline, however, that provides the greatest visual drama in this landscape. The spectacular rocky outcrops of the Needles and Chancet Rocks along the limestone coastline south of Cape Campbell are extremely memorable and display very high levels of naturalness. Cape Campbell itself is a visually interesting landmark peninsula and forms the southern extent of Clifford Bay. The incised form of the river mouths (including the Blind River and Station Creek) at the coastal edge also display a high level of naturalness. The State Highway 1 coastal road from the Waima Bridge to the southern point of the district contains high scenic values.

ASSOCIATIVE

Shared and Recognised Values
 The Flaxbourne area retains a strong social history stretching back to the 1840s when Charles Clifford and Frederick Weld leased land from Ngati Toa to tend merino sheep. Earthquakes of 1848 and 1855 severely damaged the area, with many buildings collapsing. Much is written about these early days of European settlement which, is highly valued by the community. State Highway 1 runs through the middle of this landscape from which access to the coast is obtained at Ward Beach

Heritage and Cultural Values
 Two ancient pa are known to have existed on the coast – Okainga to the east of Lake Grassmere and Te Karaka at Cape Campbell, but after the 1830s, the Awatere coastal area appears to have been used primarily for seasonal visits rather than permanent settlement (Mitchell & Mitchell, 2004). A number of Māori ovens and middens have also been located south of Needles Point.

Refer to Section D: Outstanding Natural Features & Landscapes for information on the following ONFLs within the Awatere Dry Hills:

20: The Limestone Coast

Refer to Section E: Landscapes & Features with High Amenity Area for information on the following:

F: Wharanui Coastline



Small-scale vineyards within the Awatere Dry Hills.

State Highway 1 at the Waima Bridge. This photograph is close to the point where State Highway 1 turns inland and views towards the sea are lost when travelling northwards. The silt discharged into the Pacific by the Waima River is evident in the centre of the photograph.



8.0

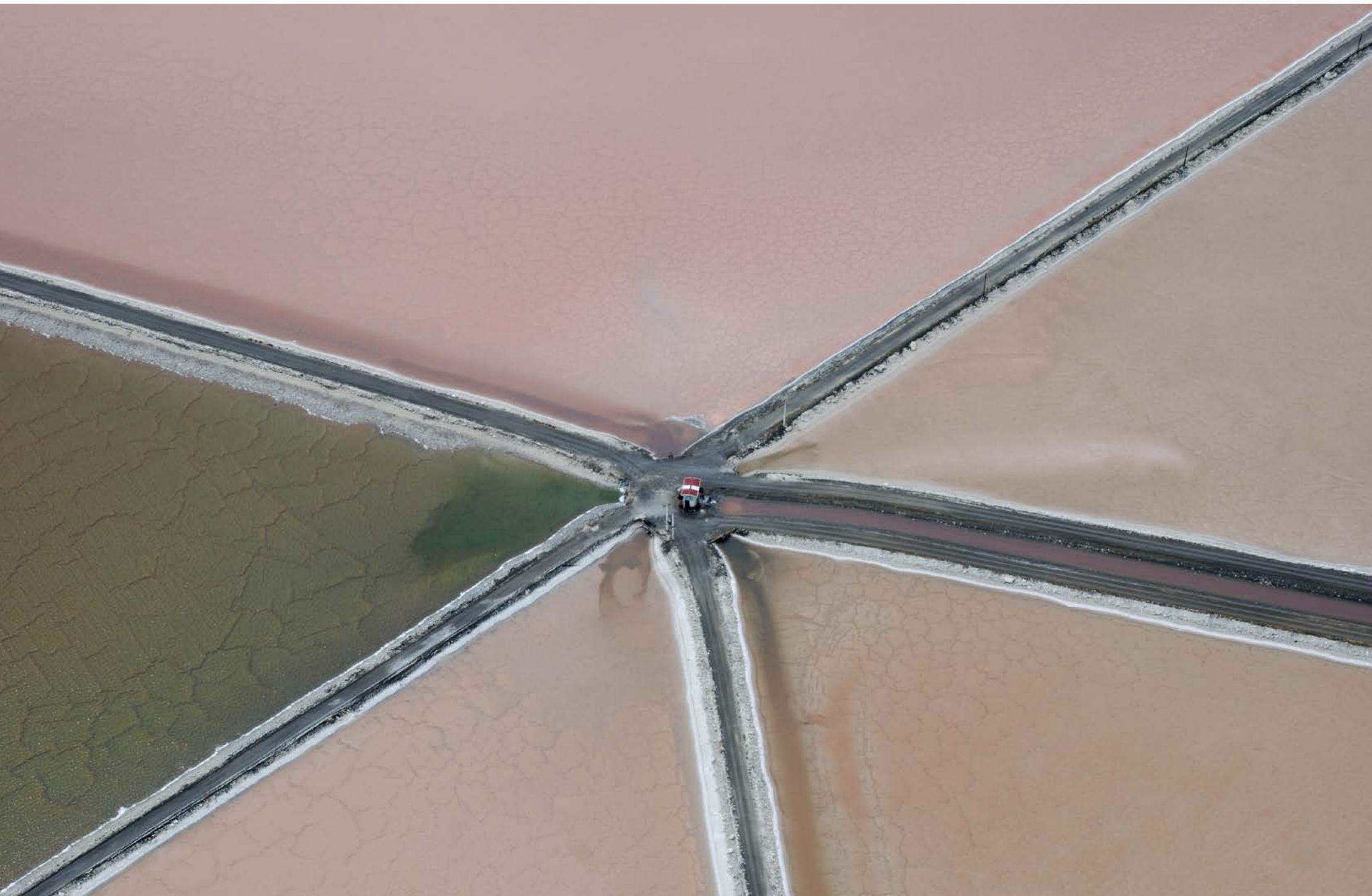
LAKE GRASSMERE

General Landscape Character Area Description

This coastal fringe landscape type comprises the large saline lake and the surrounding shoreline of Lake Grassmere, which is located immediately north of Cape Campbell and some six kilometres south of the mouth of the Awatere River. The lake is the creation of recent fluvial and lagoonal deposits, has an elevation of between 0-3 metres a.s.l. and has no natural inflow. The geology of the area comprises predominantly poorly bedded sandstone and siltstone material with extensive areas of marine deposits located within the eastern part of the landscape, adjacent to the coast. Apart from its association with Clifford Bay to the lakes' north-east, the majority of the lake is surrounded by the undulating Awatere Dry Hills Character Area.

The lake is some four kilometres wide and covers an area close to 17 km². The low-lying nature of the lake, its proximity to Clifford Bay and the area's dry and relatively warm climate make the lake ideal for salt extraction. It has been extensively modified for this purpose. A shingle barrier beach and sand divide the lake from the sea. Seawater is carefully pumped into a series of solar evaporation ponds, where it is pumped and moved between the ponds, its salinity increasing until crystallisation occurs. One of the most distinctive components of the salt works, the ponds' pink colouration is caused by algae and shrimps that thrive in the saline conditions. At ground level, glimpses of the vivid pink waters contrast with the golden grass hills. From the air, a spectrum of colours can be seen, where the ponds appear like a giant paintbox. At the end of summer, piles of gleaming white salt are visible from the State Highway.

A small building located on the intersection of five salt drying evaporation ponds. The differing colourations indicate different stages of the salt drying process. Access to the ponds is via the slender causeways that divide the ponds. Access to the ponds is restricted.



Cook Strait

Tasman Bay

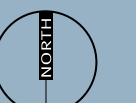
Cloudy Bay

99

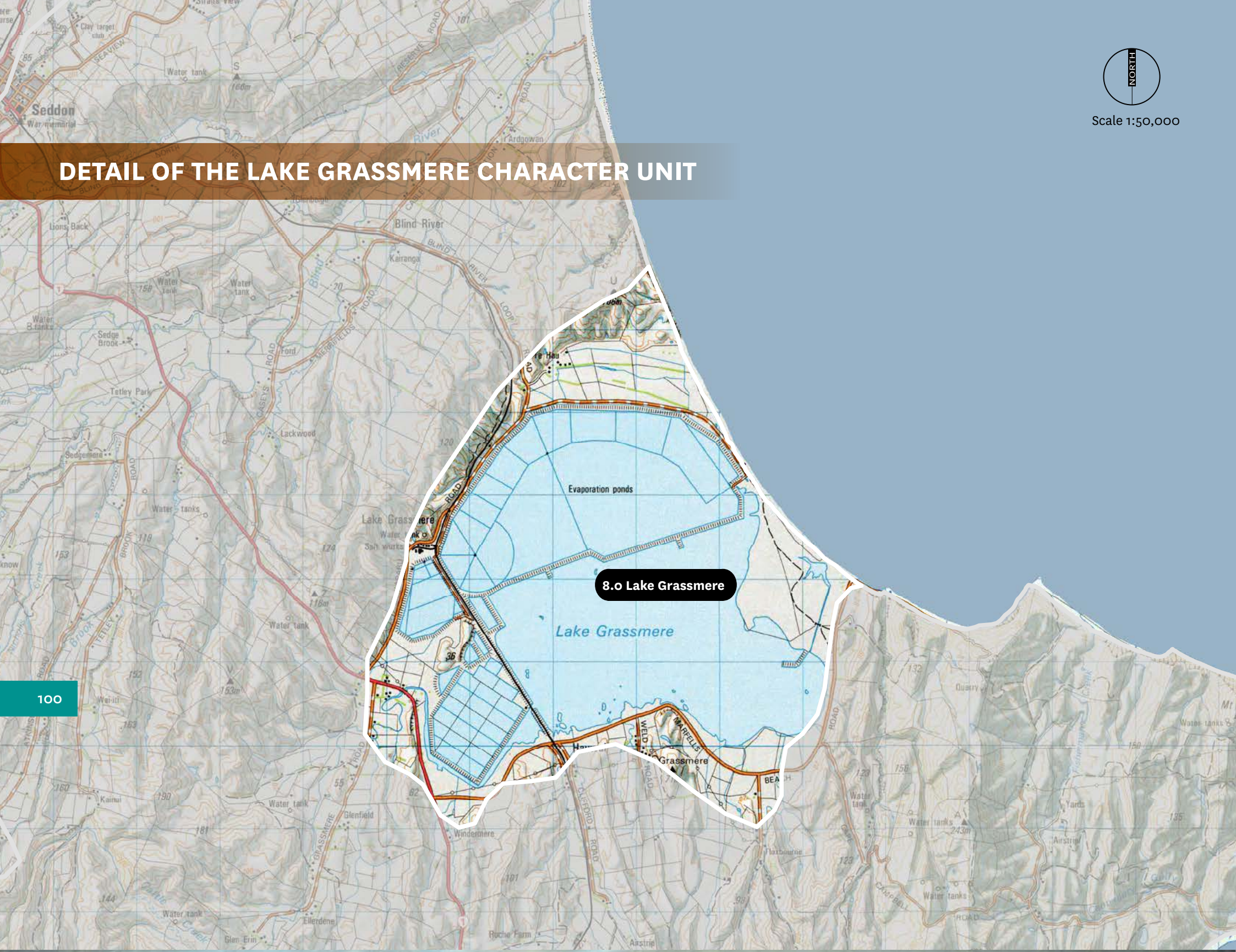
Lake Grassmere

See enlargement overleaf

LAKE GRASSMERE CHARACTER AREA MAP



Scale 1:500,000



DETAIL OF THE LAKE GRASSMERE CHARACTER UNIT

Scale 1:50,000

8.0 Lake Grassmere

100



Until the 1940s the Lake Grassmere lake bed was a large, flat expanse that was generally a dustbowl in summer and a muddy puddle in winter. During the Second World War it was used as a bombing range, and an aerodrome was also located there (www.terara.govt.nz).

Between Lake Grassmere and the foredunes of Marfell's Beach is a very small tidal lagoon, which forms part of the larger lake.

State Highway 1 is located at the lake's western end and the Picton to Kaikoura railway line crosses the western half of the lake near Hauwai. Numerous small buildings associated with the salt works are located in groups on the lake's northern margin, and are accessed by Kaparu Road.

The area has a wealth of historical Māori and European associations. The Māori name for the area is Kaparātehu (translated as 'wind-ruffled waters'), where, according to legend, ancient settlements existed in the area where the lake is currently located, and Kupe, the navigator, poured salt on the area, thus creating the lake. Many moa bones, middens and human remains have been found in the area.

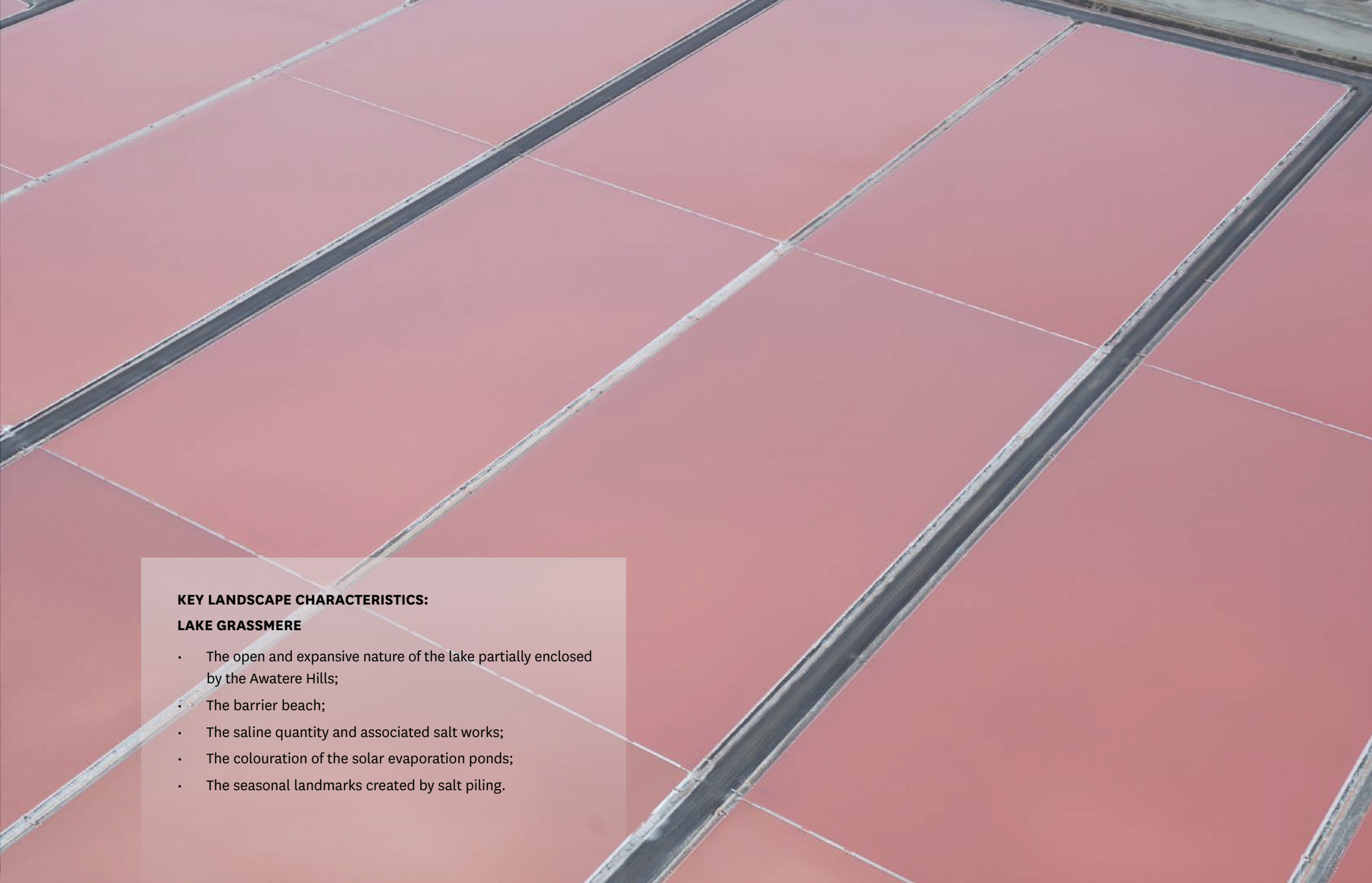
The shingle beaches near Marfell's Beach and Lake Grassmere are important stopover sites for migratory birds, and have included species such as the New Zealand dotterel, red-necked stint and red-necked phalarope.

The lake is also a major feeding and roosting site for large numbers of waders such as the bar-tailed godwit, pied stilt and South Island pied oystercatcher and knot (South Marlborough Significant Natural Areas Project, 2005).

There is a DOC Campsite at Marfell's Beach at the southern extent of Lake Grassmere and a walk, which extends south from the campsite towards Cape Campbell. Lake Grassmere offers good bird-watching opportunities and recreational sea fishing is undertaken at the coast.

The saltworks at Lake Grassmere provide New Zealand with nearly half the country's salt requirements and remain an important employer in the area.

Left: The division between the solar salt-drying evaporation ponds to the north of the lake and the waters to the south.
Below: The vivid-pink colouration of the salt-drying process



KEY LANDSCAPE CHARACTERISTICS:

LAKE GRASSMERE

- The open and expansive nature of the lake partially enclosed by the Awatere Hills;
- The barrier beach;
- The saline quantity and associated salt works;
- The colouration of the solar evaporation ponds;
- The seasonal landmarks created by salt piling.

Landscape Character Area Evaluation

BIOPHYSICAL / NATURAL SCIENCE VALUES

Geological Values

The low lying, former estuarine landscape retains a small portion of its formative processes, however it has been heavily modified by man to create the saline lake. Therefore, the legibility and expressiveness of the area's landscape is not as evident as it once was, although due to its low-lying nature, its containment by the calcareous geology and its proximity next to the coast, the lake does retain localised geological value.

Ecological and Biological Values

The lake is highly valued for its bird life, particularly its location as a major feeding and roosting site for wading birds.

SENSORY VALUES

Aesthetic Values

Lake Grassmere is a noted feature when driving along State Highway 1 due to its expansive, flat nature and colouration.

ASSOCIATIVE VALUES

Heritage and Cultural Values

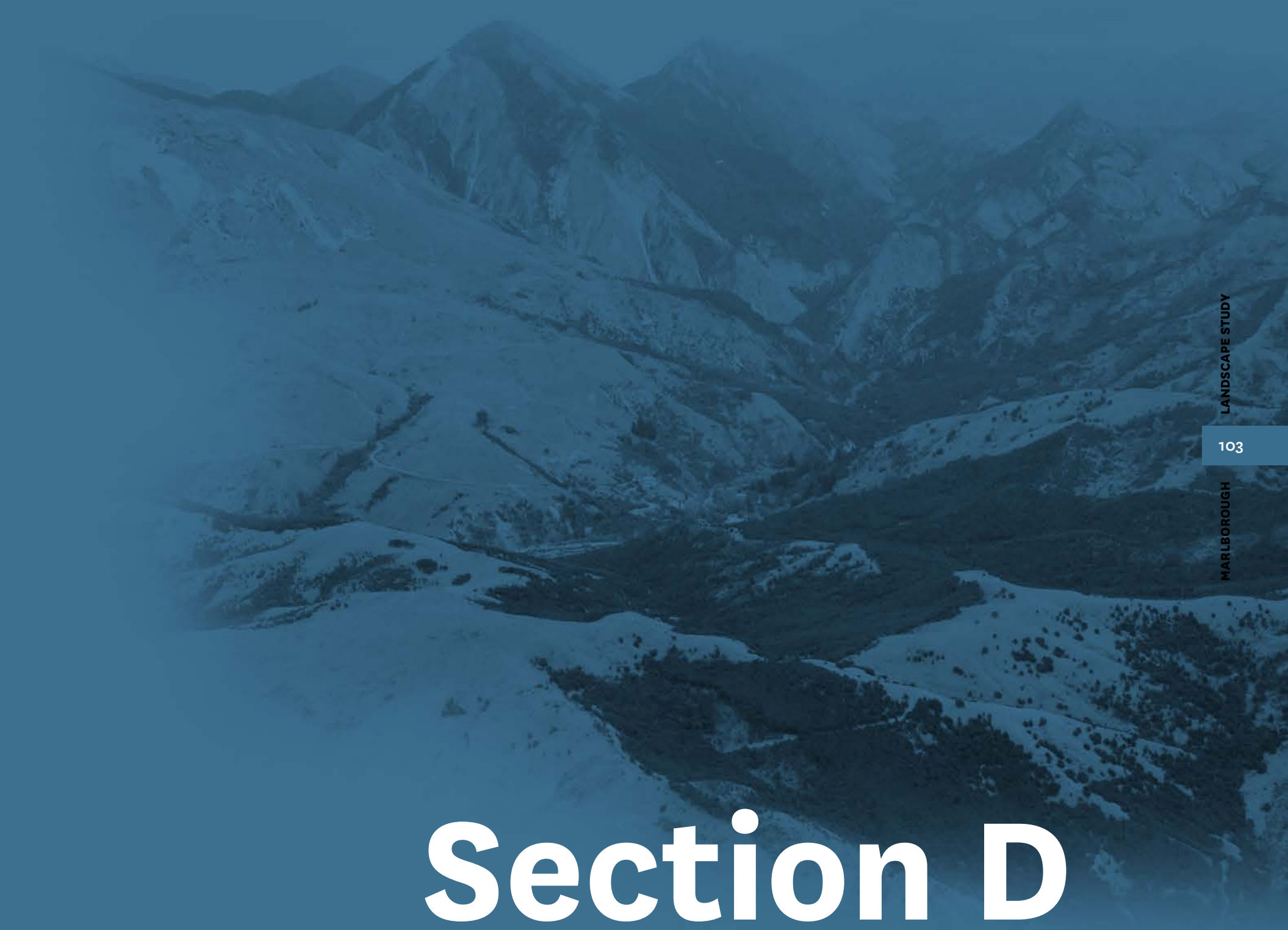
The area is relatively rich in historical values, notably associated with the development of the salt works in the early 1940s and the building of State Highway 1 and the railway.

Lake Grassmere is recognised for important spiritual and cultural legends.

A number of Māori sites of historic interest have been found along the coastal strip of Lake Grassmere, including oven stones, a midden, ridge pits and human and moa remains.

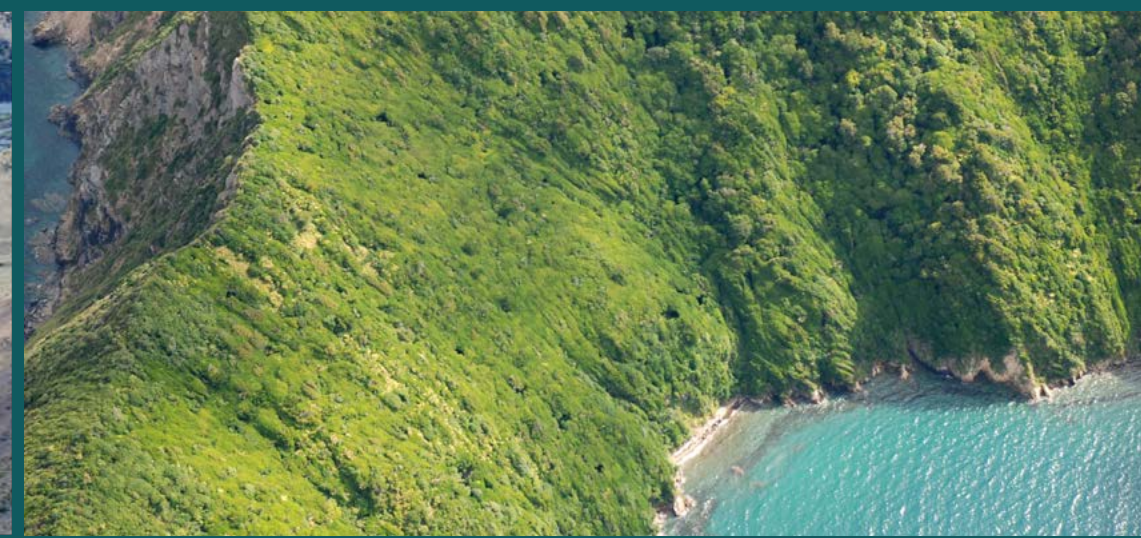
Refer to Section E: Landscapes & Features with High Amenity Area for information on the following:

E: Lake Grassmere



Section D

Outstanding Natural Features and Landscapes



IDENTIFICATION OF OUTSTANDING NATURAL FEATURES AND LANDSCAPES

After Outstanding Natural Features and Landscapes (ONFLs) were identified in 2009 Landscape Study, engagement with land owners potentially affected by these ONFLs took place during 2011 to 2015 [refer to page 10]. Consultation with the community on the extents of identified ONFL areas was not part of the original 2009 study. The subsequent consultation process was to further clarify the identified values and characteristics that underpin the identified ONFLs as well as to, where necessary, refine the extent of the mapping as it relates to individual properties.

During the identification and mapping of ONFLs in the 2009 Landscape Study, private land was not visited and was mapped based on aerial photographs and topographical maps. This mapping was drawn at 1:50,000 scale. The 2011-2015 review of the ONFLs as they related to private land gave the landowners the opportunity to invite site visits. Where visits were made, site specific characteristics and values were better understood, resulting in refinement in some areas of the ONFL.

Targeted engagement took place in all identified ONFL areas. James Bentley, landscape architect of Boffa Miskell undertook all engagement in the Southern Marlborough areas identified as ONFLs, which included the Roberston, Bryant and Richmond Ranges, the Wairau Lagoons, the Main Divide and Molesworth Station, the Inland Kaikouras, Chalk Range and Limestone Coast. Landscape architect Liz Gavin, of Canopy Landscape Architects, undertook engagement within the Marlborough Sounds. All visits were accompanied by Marlborough District Council Planner, Emma Richardson. In addition, other MDC representatives, including councillors attended community meetings.

As a result of this engagement, a number of ONFLs identified in the pre-consultation 2009 version of the study were refined. No whole areas were deleted, however a few small areas, notably in the Marlborough Sounds, were amended and/or added. The principal changes that took place were around boundaries and how these made sense to people on the ground. Consequently, the maps shown on the preceding pages have been mapped at scales more refined than 1:50,000.

Some further changes to the seascape areas of the outer Marlborough Sounds have also been made, separate from the consultation process. These changes were prompted by the publication of the *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment* (2014) and further work regarding seascapes.

Outstanding Natural Features and Landscapes of Marlborough

The extent of Outstanding Natural Landscapes (ONLs) and Outstanding Natural Features (ONFs) is outlined on the facing map and illustrates the broad mapped coverage in Marlborough. The following pages list these ONLs and ONFs, which are arranged within either the Marlborough Sounds Landscape Character Area or the numerous Landscape Character Areas to the south, which are collectively described here as the Southern Marlborough Landscape Character Areas.

As outlined on page 20 of this study, **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, such as the Queen Charlotte Track, which would traverse the eastern Marlborough Sounds landscape) or seen as the whole of an outlook (e.g. the Southern Hills/Wairau Valley perceived from Blenheim). For the purpose of this Landscape Study, the landscape is perceived at a regional perspective, to encapsulate broad-scale views, and also at a district/local perspective to capture more intimate and local views.

Landscape 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) features are defined more readily by land cover characteristics.

The identification of both landscapes and features is scale-dependent, e.g. the whole of the Marlborough Sounds could be identified as a feature when seen as a whole from a satellite aerial view (regional scale), while landscapes, such as Tennyson Inlet, and features, such as islands, bays or peninsulas, occur within it when perceived from within. Therefore, small landscapes can nest within larger landscapes.

This Landscape Study considers landscape at the finer district scale, for purposes of landscape management. The identification of ONFs and ONLs within this study are clearly shown in the mapping. The contextual landscape of ONFs, irrespective of whether or not that wider landscape is outstanding, has also been mentioned. ONLs and ONFs can, collectively be referred to as ONFLs.

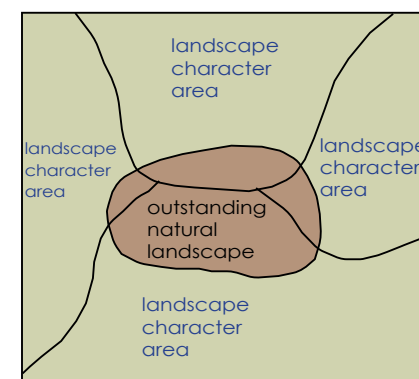
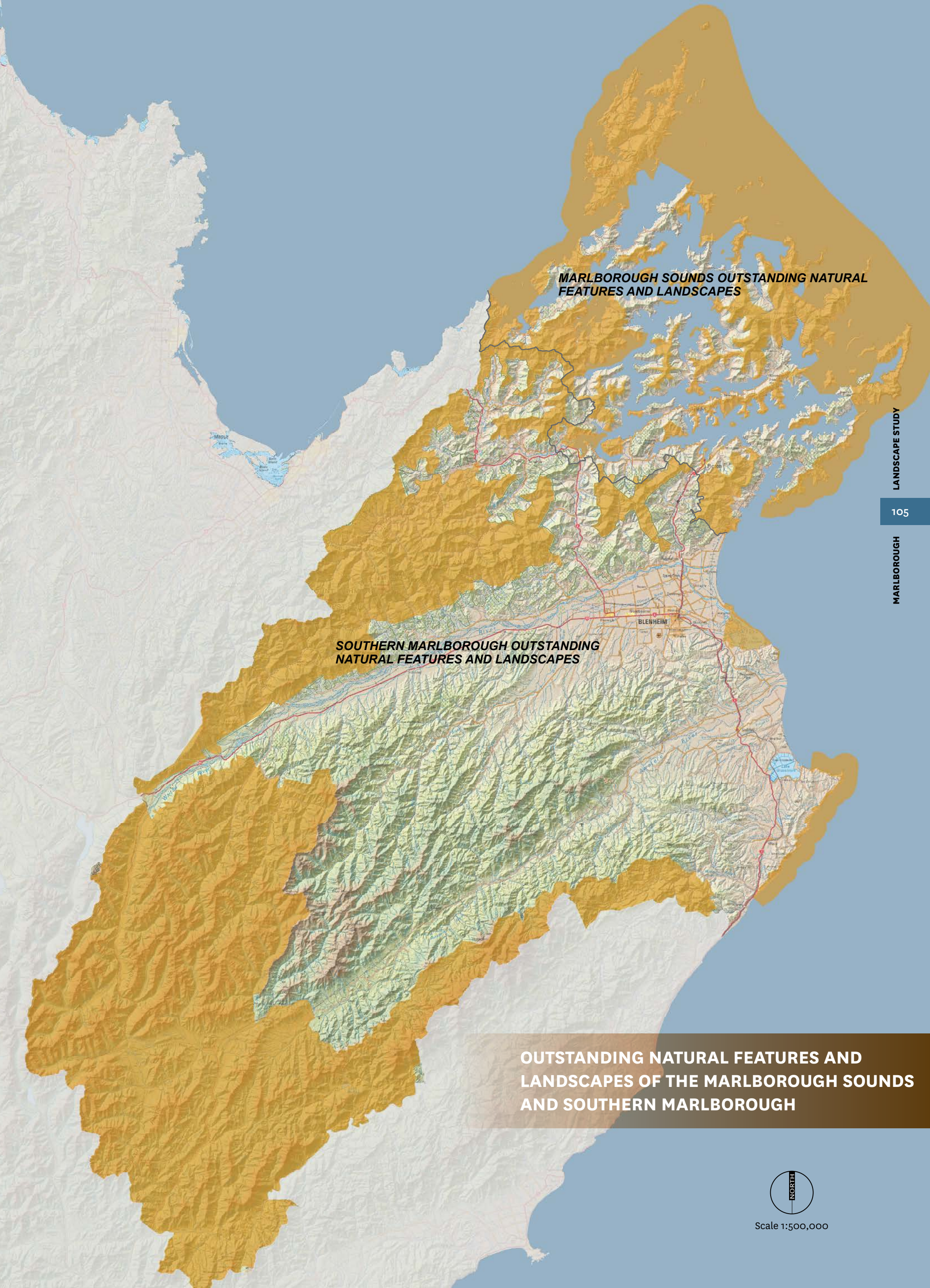


Figure 1: ONFL boundary is wholly independent and crosses adjoining landscape character areas

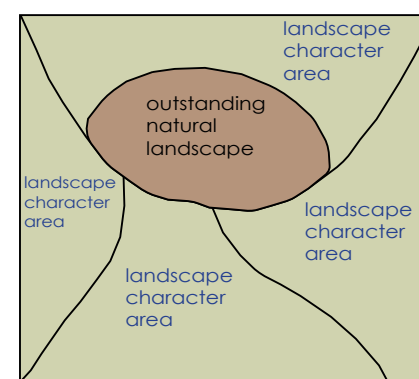


Figure 2: ONFL boundary partially follows landscape character area boundary

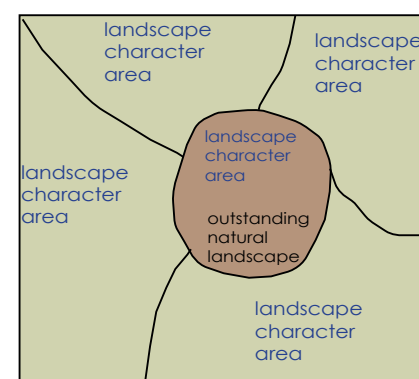


Figure 3: ONFL boundary coincides with landscape character area boundary

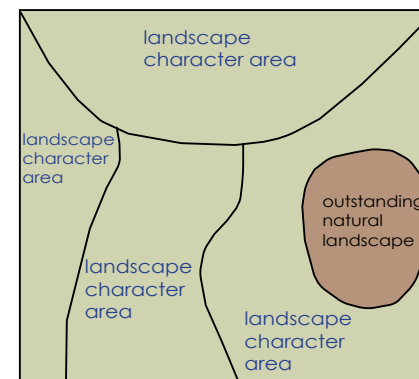
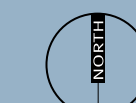


Figure 4: ONFL boundary occurs independent and within a landscape character area boundary



Above: D'Urville Island

OUTSTANDING NATURAL FEATURES AND LANDSCAPES OF THE MARLBOROUGH SOUNDS AND SOUTHERN MARLBOROUGH



Scale 1:500,000

OUTSTANDING NATURAL FEATURES & LANDSCAPES OF THE MARLBOROUGH SOUNDS (1-18)

At a national scale, the Marlborough Sounds is perceived as one landscape - identified in this report as the Marlborough Sounds Coastal Landscape. At the regional/district scale, the Marlborough Sounds has two distinctive character units, namely the Inner Sounds Landscape and Outer Sounds Landscape.

Outstanding Natural Landscapes and Features within the Sounds context have been mapped and identified with orange or gold colouration. The balance land (i.e. land not identified as outstanding) is of a high amenity although it is not outstanding at a regional/district level. The Marlborough Sounds Coastal Landscape encompasses both the inner and outer Sounds.

In the Outer Sounds Landscape Unit there is one Outstanding Natural Landscape and many Outstanding Natural Features. Some of these Outstanding Natural Features are within landscapes that are not outstanding but are of high amenity.

Within the Inner Sounds Landscape Unit there are no identified Outstanding Natural Landscapes, principally due to the small scale of this character unit. The Inner Sounds Character Unit does, however, contain Outstanding Natural Features.

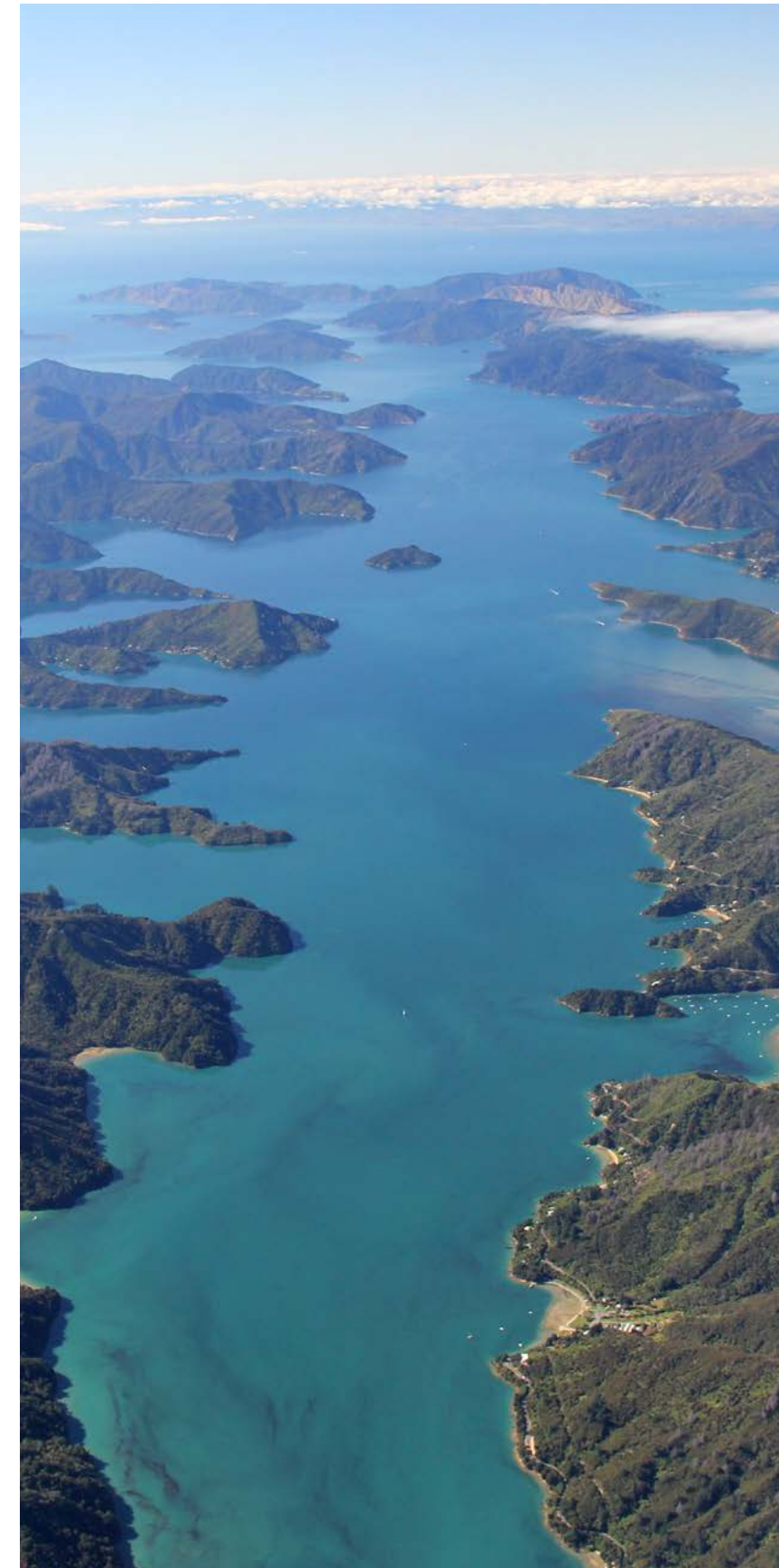
Within the Marlborough Sounds context (at the regional/district scale), there is only one Outstanding Natural Landscape and that is the Outer Sounds Landscape. The remaining identified areas are ONF's that are either contained within the Outer Sounds ONL or are simply within the landscapes that are not outstanding (i.e. the Marlborough Sounds Coastal Landscape).

The single ONL (being the Outer Sounds ONL) is mapped separately on page 109. This is to avoid confusion with the individually mentioned ONF's. As well as the map, the characteristics and values that underpin the ONL are listed. It encompasses numerous ONF's that have their values listed separately on following pages.

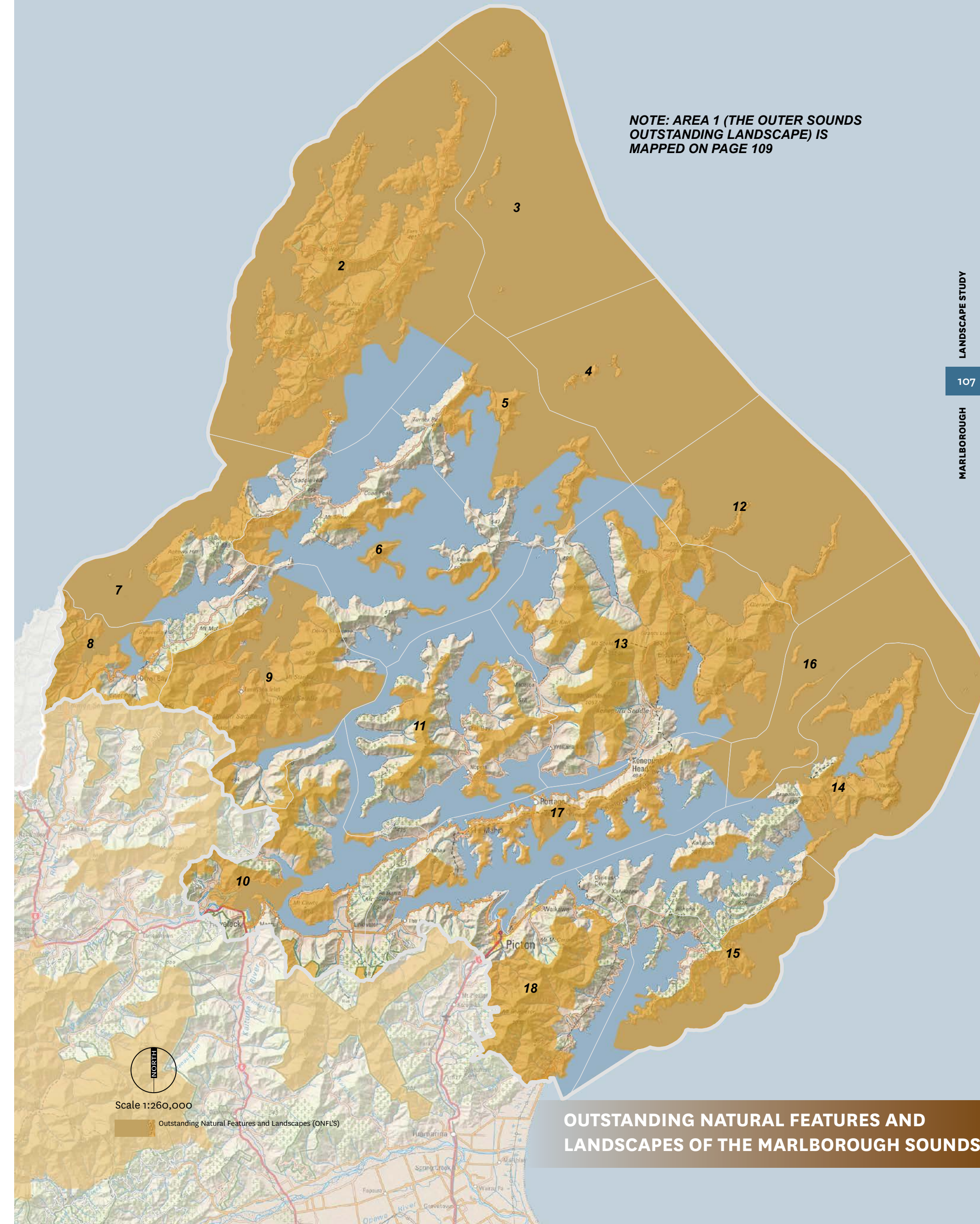
To assist in outlining the associated values and characteristics of the listed ONL and ONF's (of which 18 have been recorded for the Marlborough Sounds), the map on page 107 has artificially divided the landscape into 17 'areas'. These areas all contain ONF's. These are not Landscape Character Areas or Landscape Character Units; they are simply a way of collating geographically, the ONF's and their associated characteristics and values.

OVERVIEW OF ALL OUTSTANDING NATURAL FEATURES AND LANDSCAPES WITHIN THE MARLBOROUGH SOUNDS

1	Outer Sounds Landscape ONL	Page 108
2	D'Urville Island/ Rangitoto Ke Te Tonga including French Pass ONFs	Page 110
3	Rangitoto Islands, Stephens Island and Trio Islands ONFs	Page 112
4	Chetwode Islands, Titi Island and Sentinel Rock ONFs	Page 114
5	Port Ligar, Forsyth Island and Kaitira headland ONFs	Page 116
6	Maud Island, Mt Shewell, Fitzroy Bay and Eastern Tawhitinui Reach ONFs	Page 118
7	Islands of Croisilles Harbour and Northern Coastline ONFs	Page 120
8	Whangarae Inlet and Okiwi Bay ONFs	Page 122
9	Tennyson Inlet and Northern Nydia Bay ONFs	Page 124
10	Havelock (Pelorus) Estuary, Mt Cawte and Northern Hills ONFs	Page 126
11	Forested ridges around Crail Bay ONFs	Page 128
12	Cape Jackson, Cape Lambert and Alligator Head ONFs	Page 130
13	Mt. Stokes and surrounds ONFs	Page 132
14	Arapawa Island and East and West Heads ONFs	Page 134
15	Exposed Eastern Coastline ONFs	Page 136
16	Islands of North-Eastern Queen Charlotte Sound including White Rocks and The Brothers ONFs	Page 138
17	Northern lands of Inner Queen Charlotte Sound ONFs	Page 140
18	Mt. Robertson ONFs	Page 142



Above: Queen Charlotte Sound.



1: OUTER SOUNDS LANDSCAPE

The open waters and series of islands and exposed peninsulas, headlands and bays that extend out into Cook Strait and Tasman Bay.

1: OUTER SOUNDS LANDSCAPE	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the Outer Sounds Landscape has been assessed as an ONL at the district scale, when mapped and assessed at that scale. The extent of mapping of this landscape has been informed to some extent by the <i>Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment</i> , (Boffa Miskell et al. 2014).
Mapping Approach	This area was mapped using the Seascape Mapping Approach. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> Northernmost part of the highly legible drowned narrow ridge system, noticeably at Cape Jackson. Numerous Geopreservation Sites of National and Regional Importance, including the submerged ridgeline under French Pass Nationally significant seascape (Cook Strait). Swirling high flow currents of French Pass, Allen Straight, and Tory Channel. Salt tolerant low growing herb and shrub species. Island communities nationally and internationally important with distinct rare biotic assemblages (i.e. Motuara, Brothers and White Rocks, Long Island Kokomohua). Many predator-free island sanctuaries (Motuara Island, Blumine Island and Stephens Island/Takapourewa Island). Extensive areas of vegetated elevated slopes, notably of D'Urville, Mt Stokes, Mt Furneaux, Bobs Peak Extensive areas of modified grasslands. Subalpine vegetation of Mt Stokes. Nationally significant broadleaf species and nationally significant endemic cliff vegetation on Arapawa island.
Perceptual	<ul style="list-style-type: none"> Expansive views of the open sea broken up by the outer peninsulas, rocky outcrops, steep exposed seacliffs and Islands. Exposed, remote and rugged seascape. All islands have very low modification levels. High legibility and visual coherency of the grasslands on the drowned ridge coastline. High sensory values associated with the wild windswept coast and high winds, rough sea, high-energy waves and associated sea spray. Very high levels of perceived naturalness due to limited modification. Impressive and weathered coastal cliffs and rocky windswept islands. Prevalent high winds from Cook Strait and extreme weather conditions providing highly transient conditions.
Associative	<ul style="list-style-type: none"> Rich in past Māori and European cultural use including prehistoric quarries and copper mines, whaling and pa sites. Strong Tangata Whenua association and spiritual affinity with outer Sounds seascape and coastline. Many linked to Kupe's visit [Conservation Management Strategy, DoC, 1993]. Noted 'entrance points' into Tory Channel, Queen Charlotte Sound and Pelorus Sound. Strong recreational areas, including walking, boating, fishing and diving. Noted DOC conservation areas.

Outer Sounds Landscape: Rating **OUTSTANDING NATURAL LANDSCAPE**

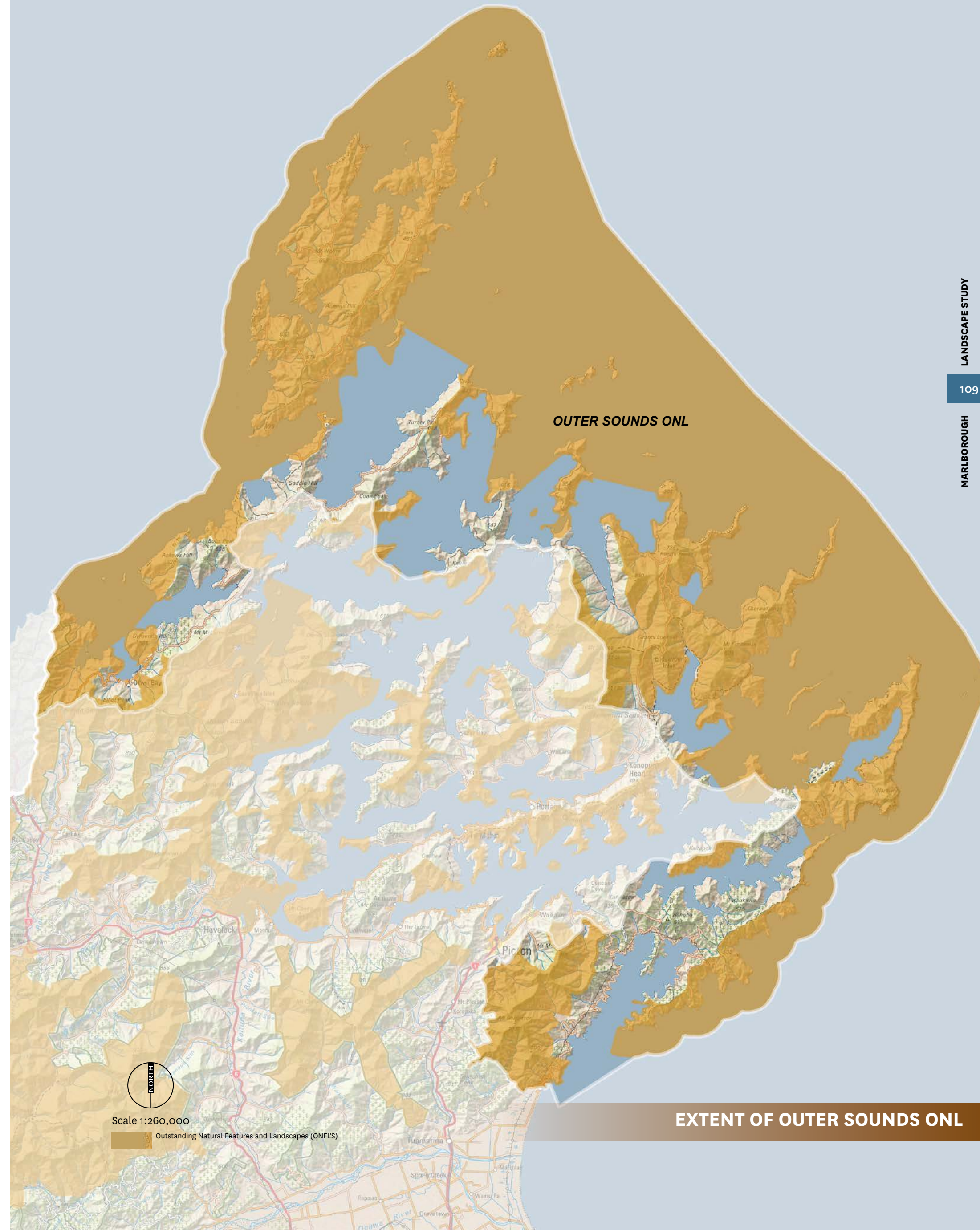
Evaluation
 Based on the above values, the **Outer Sounds Landscape** (as mapped) has been identified as an ONL due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

The Outer Sounds Outstanding Natural Landscape comprises the open waters and series of islands and exposed peninsulas, headlands and bays that extend into Cook Strait and Tasman Bay. This landscape encapsulates the wide variety of rugged, often windswept landforms which are imbued with rich cultural and historical associations. Perceptually the Outer Sounds Outstanding Natural Landscape provides uninterrupted open seascape vistas of the very end of this drowned landscape.

This area of the Marlborough Sounds is the least modified. It contains some of the district's most important predator-free islands holding outstanding levels of natural character.



Above: Rangitoto Islands, located off the north-eastern coast of D'Urville Island



2: D'URVILLE ISLAND / RANGITOTO KI TE TONGA INCLUDING FRENCH PASS

2: D'URVILLE ISLAND/ RANGITOTO KI TE TONGA INCLUDING FRENCH PASS

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, D'Urville Island and French Pass have been assessed as ONFs at the district scale, when mapped and assessed at that scale. D'Urville Island is the largest island in the Marlborough Sounds and lies within the western part of the Outer Sounds ONL. French Pass, together with its associated waters, also lies within this western part of the ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature and Ridge Approach as well as the Seascape Mapping Approach.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> The island has a unique ultramafic 'mineral belt' that traverses the length of the island. As a result of this mineral belt, unique vegetation flourishes. Geopreservation sites include: D'Urville Island copper mines; prehistoric argillite quarries; Paddock Rocks; Greville Harbour sand dunes and coastal features; Greville Harbour boulder spit; French Pass submerged ridgeline and equalising waters; Mt. Ears prehistoric argillite quarry and Cape Stevens wind-funnelled sand dune. A large proportion of indigenous land cover from coast to mountain tops, including lowland forest, is intact; and is one of the largest tracts of indigenous vegetation cover remaining in Marlborough. There are numerous other biotic communities that include dune, spit, beach, lagoon, freshwater wetland, estuarine and alluvial that are all very distinctive and rare in the Marlborough Sounds. Very strong currents occur in the vicinity of French Pass with dangerous eddies and undercurrents with strong tidal mixing. There are abundant populations of native fish found around the island's waters and indented coves and harbours. There are also native freshwater fish within D'Urville Island's freshwater ecosystems. Minimal land and marine development with highly natural coastline. French Pass contains a largely unmodified near-shore coastal marine environment with very sheltered shores. High flow habitats are associated with Current Basin and French Pass. Rocky outcrops are a feature of south western D'Urville Island. The vegetated elevated slopes of central D'Urville Island illustrate one of the most extensive and exceptional tracts of lowland forest in the district. This tract, coupled with the largely unmodified marine environment and the waters of French Pass all hold outstanding levels of natural character. The remaining parts of D'Urville Island hold high and very high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Attractive harbours with sheltered intimate bays and calm waters. Many visually interesting landforms such as D'Urville Peninsula and the waters at French Pass. Key views to narrow passage and currents at French Pass from Channel and Collinet Points. Exposed and dramatic western coastline including long-distance seascape views to adjacent islands. The waters of French Pass are visually dramatic due to their strong current movement. The submerged ridge at French Pass forms a distinctive reef. Minimal land and marine development with highly natural coastline. High experiential values associated with remoteness and lack of modification.
Associative	<ul style="list-style-type: none"> French connection - named after French Admiral Dumont D'Urville who sailed the <i>Astrolabe</i> through French Pass and just barely managed to get through. Large proportion of DOC land. Eco-tourism destination. Historic development of argillite quarries to extract argillite for cutting tools and the importance of that resource to local tribal identity. Early copper mines. Early Māori settlement and activities. Early European whaling and farming activities. Heritage New Zealand plaque commemorates Captain Cook's last anchorage point in NZ in Whareata Bay.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, all of **D'Urville Island / Rangitoto Ki Te Tonga including French Pass** have been identified as ONFs within the Outer Sounds ONL due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

D'Urville Island (Rangitoto Ki Te Tonga) is the largest island in the Sounds and the eighth largest island in New Zealand. Situated at the northern extremity of the Sounds, it is separated from the mainland by French Pass. The submerged ridgeline under French Pass, a geopreservation site, causes unusually swift tidal currents that are highly legible and fascinating to watch.

Other geopreservation sites identified on the Island include a cluster of argillite source sites. These have important archaeological values due to their potential to provide information about the extractive techniques used to obtain the stone material and to better understand New Zealand prehistory and cultural change. The location of argillite quarries appears in at least one legend that tells the story of the flight of Poutini (the taniwha of the god Ngahue) from Whatini. Each place of refuge identified in the story relates to a stone resource location including Tahanga, Mayor Island and D'Urville Island thereby serving as a form of oral map of source sites (NZHPT report on Oparapara (Samson Bay) Argillite Quarries, 2008).

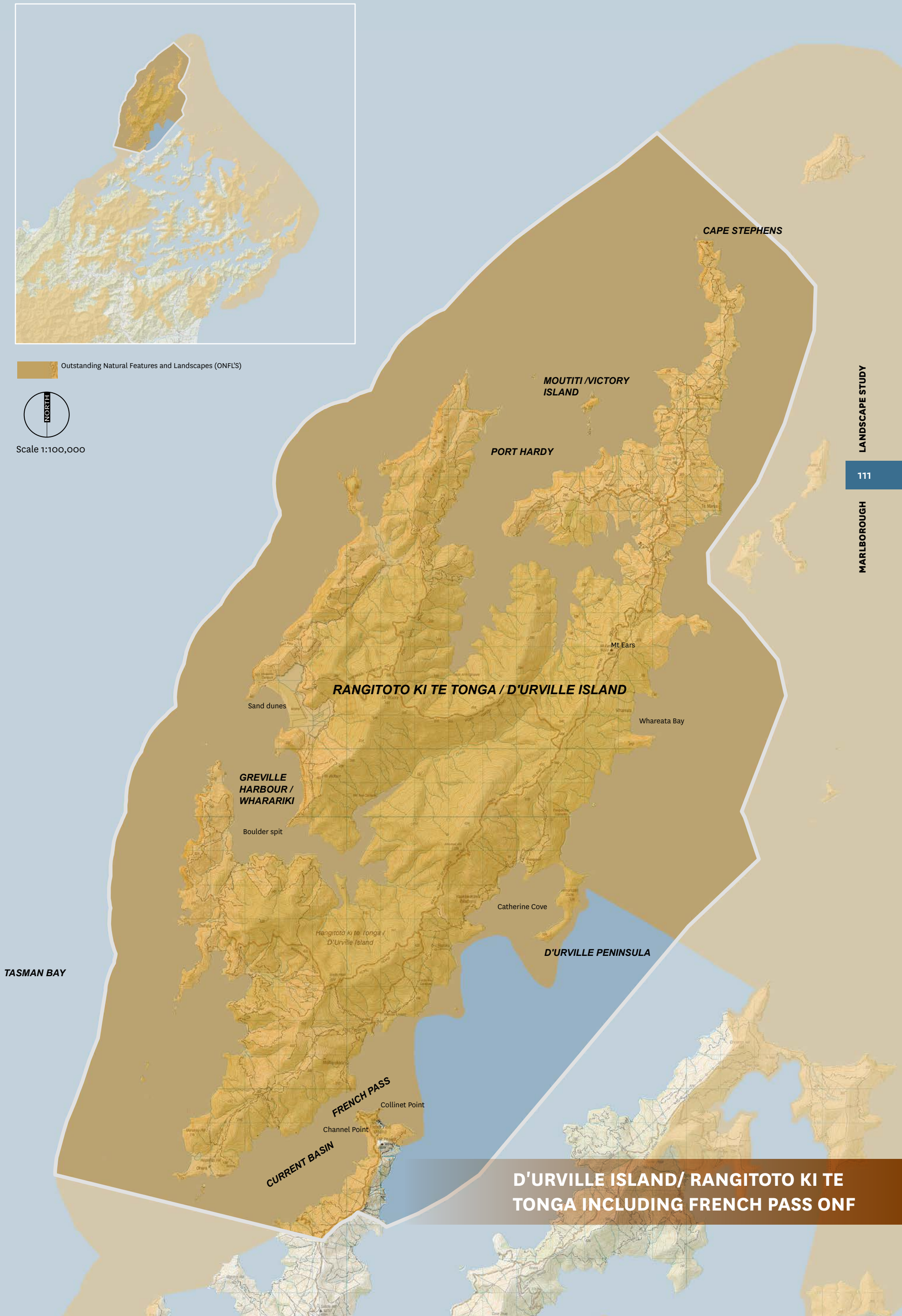
Considerable archaeological evidence and documentation remains to tell of the Island's rich Māori and European history, including connections with two early European explorers, D'Urville and Cook.

Although much of the Island was cleared by early European settlers, approximately a third of it remains in native bush today. Much of it is managed as conservation land and has significant ecological values, enjoyed by the Island's few residents and its visitors, who are drawn to its remote and highly natural setting.

Modifications include: Sounds Residential zoning at Kapowai Bay and Whareata Bay. Buildings, access roads, power lines, jetties, forestry and vegetation clearance. Moorings scattered along the bays within the coastal area. Marine farms within Catherine Cove. French Pass Settlement excluded. Lighthouse within Middle Bank Reef, French Pass.



Above: Boulder spit and sand-dunes with lagoon (background) Greville Harbour.



D'URVILLE ISLAND/ RANGITOTO KI TE TONGA INCLUDING FRENCH PASS ONF

3: RANGITOTO ISLANDS, STEPHENS ISLAND AND TRIO ISLANDS

Includes open waters and Jag Rocks / Nga Kiore.

3: RANGITOTO ISLANDS, STEPHENS ISLAND AND TRIO ISLANDS	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape Rangitoto Islands, Stephens Island and Trio Islands have been assessed as ONFs at the district scale, when mapped and assessed at that scale. The above named islands are located within the north-western part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach as well as the Seascape Mapping Approach. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> Highly exposed islands which have steep and exposed sea cliffs and wind-swept rocky coastlines. The islands are above-water remnants of ancient ridges and spurs directly associated with the drowned valley system which formed the Marlborough Sounds; comprising of strata and schist. Stephens Island is predator-free. Jag Rocks/ Nga Kiore support some of the largest habitats for the brachiopod community and is of national significance. The isolated Trio Islands are habitat for tuatara, king shag and are also predator-free. All islands hold very low level of modification. Islands contain endemic herbfields and tussock communities. All islands and their associated coastal waters harbour unique species and hold outstanding levels of natural character.
Perceptual	<ul style="list-style-type: none"> Spectacular rugged coastal cliff features on Rangitoto and Stephens Islands. The outer islands are the most exposed to the sea of any areas in the Sounds and act as visual reference points from Cook Strait. Strong currents sweep through Stephens Passage. Low modification of water environments. Sense of remoteness.
Associative	<ul style="list-style-type: none"> A radar station was established on Stephens Island during World War Two. Diving and fishing.

Rating: **OUTSTANDING NATURAL FEATURES**

Evaluation

Based on the above values, the **Rangitoto Islands, Stephens Island, Trio Islands and Jag Rocks** have been identified as ONF's within the Outer Sounds ONL due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

These isolated islands at the northern to north-eastern tip of D'Urville Island display exceptional characteristics that are clearly linked with the area's exposure to the sea. Their weathered sea-cliffs and hardy vegetation, tilted from the wind, are highly expressive of their exposed maritime position and are highly memorable. The area is visited by divers and fishing expeditions.

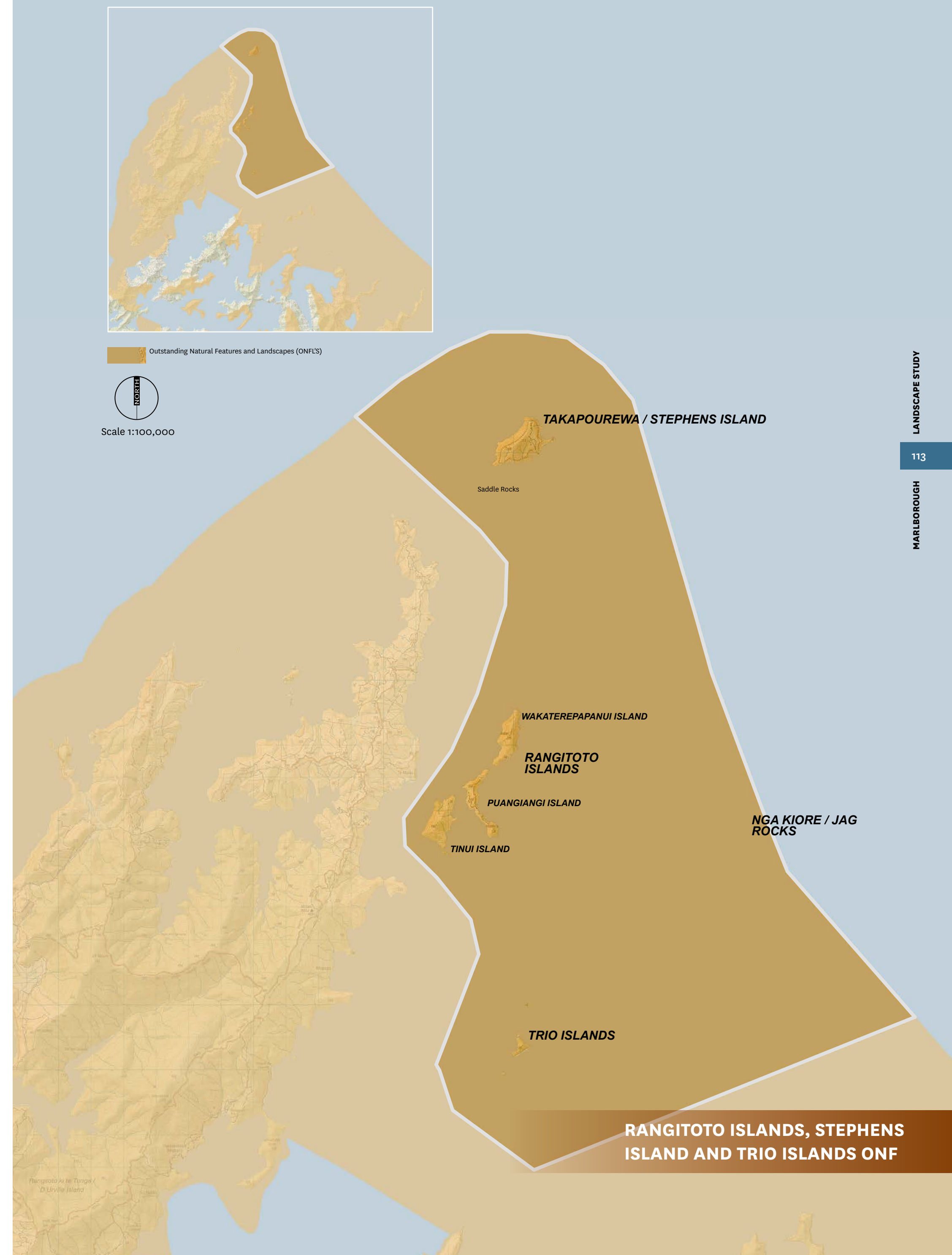
Sea conditions range from very exposed around northwestern D'Urville and Takapourewa (Stephens Island) to exposed further south-east at Trio Islands. Stephens Passage between Stephens Island and D'Urville Island is noted for its extremely strong currents. Takapourewa (Stephens Island) is particularly noteworthy for its complex reef habitats and high diversity of macroalgae, invertebrates and fish. The island is predator-free and supports many nationally threatened species including New Zealand's largest population of tuatara.

The smaller Trio Islands are also predator-free, supporting populations of tuatara and king shag. Jag Rocks/ Nga Kiore is one of many rock stacks off the coastline of D'Urville Island but is particularly noteworthy as the rocks support some of the largest NZ brachiopod communities, which are of national significance. Spectacular cliff formations are also clearly legible on the Rangitoto and Stephens Islands.

Modifications (mostly on Stephens Island) include: some vegetation clearance, buildings, a lighthouse on Stephens Island and occasional tracks and moorings.



Above: Trio Islands



RANGITOTO ISLANDS, STEPHENS ISLAND AND TRIO ISLANDS ONF

4: CHETWODE ISLANDS, TITI ISLAND AND SENTINEL ROCK

Includes Nukuwaiata, Te Kakaho, Moturaka and Titi Islands, Sentinel and Ninepin Rocks.

4: CHETWODE ISLANDS, TITI ISLAND AND SENTINEL ROCK

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the Chetwode Islands, Titi Island and Sentinel Rock have been assessed as ONFs at the district scale, when mapped and assessed at that scale. These ONFs are located within the central part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach as well as the Seascape Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Highly exposed islands which hold steep and exposed sea cliffs and wind-swept rocky coastlines. The Chetwode Islands are considered the most ecologically significant predator-free islands in the Sounds, harbouring the yellow-crowned parakeet, robin, kaka, rare vegetation species and coral reef habitat for a high diversity of fish species. Titi Island and Sentinel Rock are also of national significance due to their predator-free status. All islands hold very low level of modification. The islands contain endemic shrublands, herbfields and tussockland communities. All islands and their associated coastal waters harbour unique species and support no or very low levels of modification. All hold outstanding levels of natural character.
Perceptual	<ul style="list-style-type: none"> Many spectacular rock stacks are present at the southern end of the Chetwode Islands. The outer islands are the most exposed to the sea of any areas in the Sounds and act as visual reference points from Cook Strait. Rugged and exposed in appearance.
Associative	<ul style="list-style-type: none"> A number of Māori pits, middens and terraces are located on the Chetwode Islands.

Rating:

OUTSTANDING NATURAL FEATURES

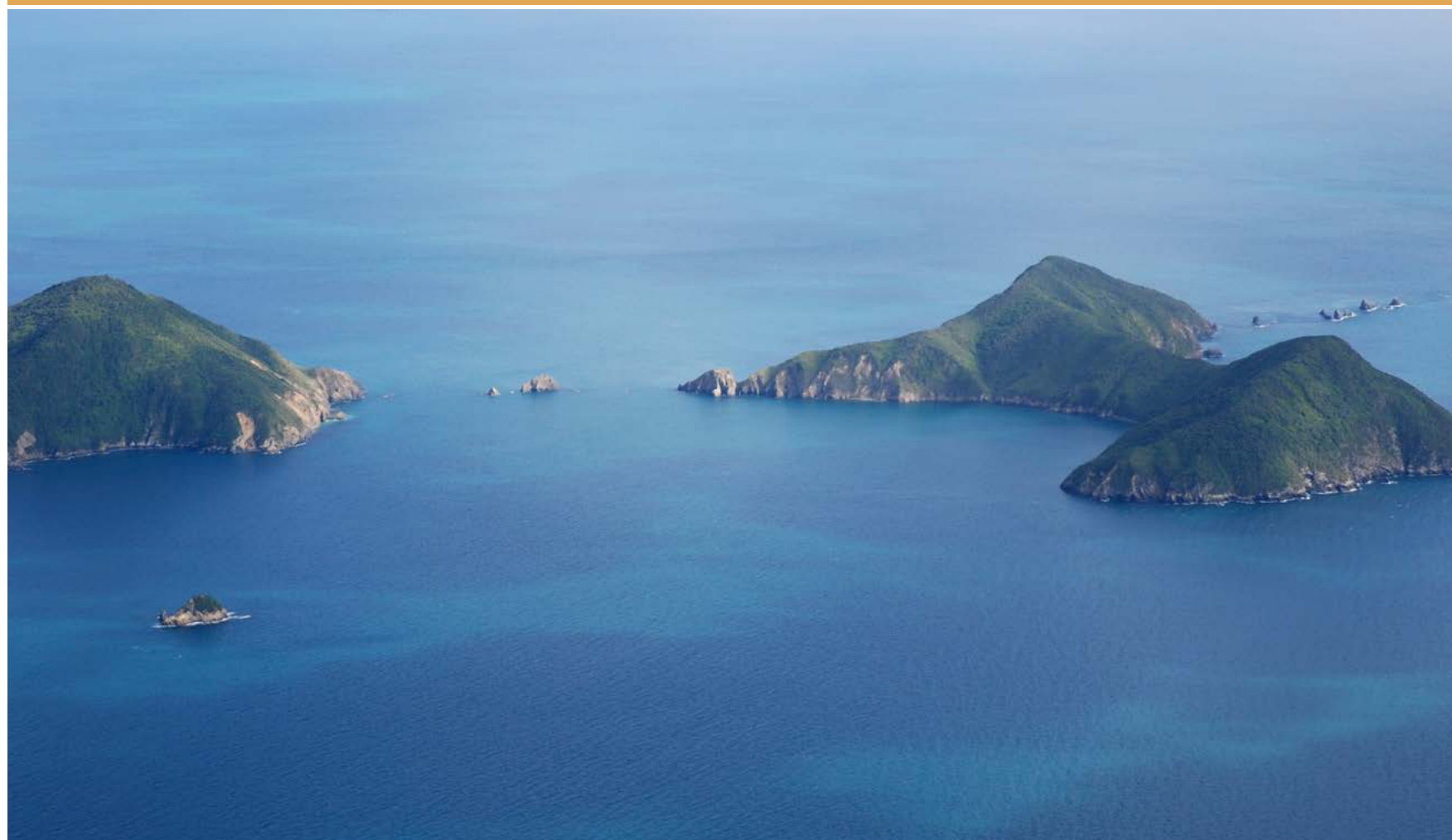
Evaluation

Based on the above values, the **Chetwode Islands, Titi Island and Sentinel Rock** have been identified as ONF's within the Outer Sounds ONL due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

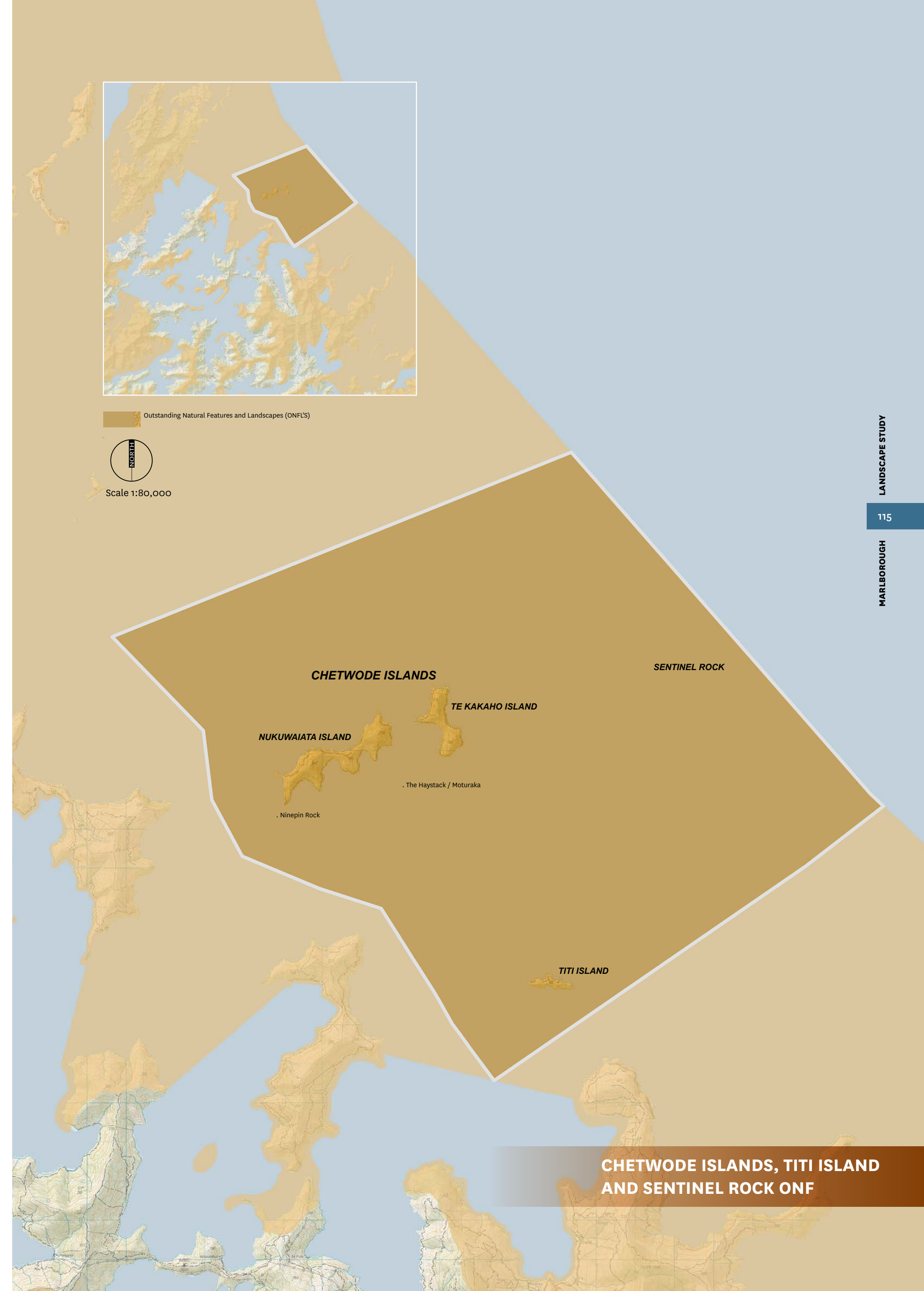
The Chetwodes, Titi Islands and Sentinel Rock are characterised by their rugged, exposed isolation. These waters are infrequently visited and are amongst the most remote in the Sounds. The islands themselves have a very low level of modification, containing endemic vegetation and are surrounded by numerous offshore reefs. A number of Māori pits, middens and terraces are located on the Chetwode Islands.

Both the Chetwodes and Titi Island are Department of Conservation Nature Reserves, are both of national significance and are predator-free. The Chetwodes are the most ecologically significant islands in the Sounds, harbouring the yellow-crowned parakeet, robin, kaka, rare vegetation species and coral reef habitat for a high diversity of fish species.

Modifications include a lighthouse at Ninepin Rock (Chetwode Islands).



Above: The Chetwode Islands.



5: PORT LIGAR, FORSYTH ISLAND AND KAITIRA HEADLAND

Includes Port Ligar, Cannon Hill, Te Akaroa, Kaitira (West and East Entry Points), Forsyth Island, Duffers Reef, Allen Strait and Bird Island.

5: PORT LIGAR, FORSYTH ISLAND AND KAITIRA HEADLAND

Scale of Mapping and Assessment The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Port Ligar, Forsyth Island and Kaitira headland have been assessed as ONFs at the district scale, when mapped and assessed at that scale.

Mapping Approach This area was mapped using the Contained Landscape Feature Approach as well as the Seascape Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Where the waters of exposed Cook Strait and more sheltered Pelorus Sound meet. Areas within Forsyth Bay and Waitata Reach, including Port Ligar have been identified as being of national significance for king shag feeding and breeding habitat, including Duffers Reef. Bird Island is nationally significant for reef heron breeding. Both Forsyth Island and the Kaitira headland hold high levels of natural character. The open waters between Port Ligar, the Kaitira headland and northern Forsyth Island also hold high levels of natural character, principally due to low levels of modification.
Perceptual	<ul style="list-style-type: none"> Rugged, exposed outer coastal slopes and narrow isthmus landform at Port Ligar. Interesting landform of Duffers Reef and the neck at the head of Forsyth Bay. Dramatic pinch point at Allen Strait in to Forsyth Bay. Visually dramatic headland of Clay Point.
Associative	<ul style="list-style-type: none"> Recognised entry/ exit point of Pelorus Sound between Kaitira (East Entry Point) and Te Akaroa (West Entry Point). Evidence of early Māori settlement clustered around Port Ligar and Orchard Bay including a Pa. Evidence of early European settlement at Port Ligar. Te Kopi and Sir Bernard Fergusson Scenic Reserves in Waterfall Bay, Port Ligar, Bulwer Scenic Reserve in Waitata Bay. Historic gun emplacement at Post Office Point on the Kaitira headland. Private Forsyth Island is a destination for travellers.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Port Ligar, Forsyth Island, the waters between Te Akaroa and the Kaitira headland and Bird Island** have been identified as ONF's due to their exceptional biophysical and associative and very high sensory landscape values.

The rugged, exposed outer coastal slopes and peninsulas give way to the more sheltered embayments of Port Ligar and Forsyth Bay at the entry to Pelorus Sound. Identifiable features include the rugged, narrow isthmus landform at Port Ligar, the interesting landform of Duffers Reef, a chain of small islands and stacks off the north-western tip of Forsyth Island and the neck at the head of Forsyth Bay. The narrow pinch point of Allen Strait, between southern Forsyth Island and the mainland, forms a visually enclosing entrance into Forsyth Bay.

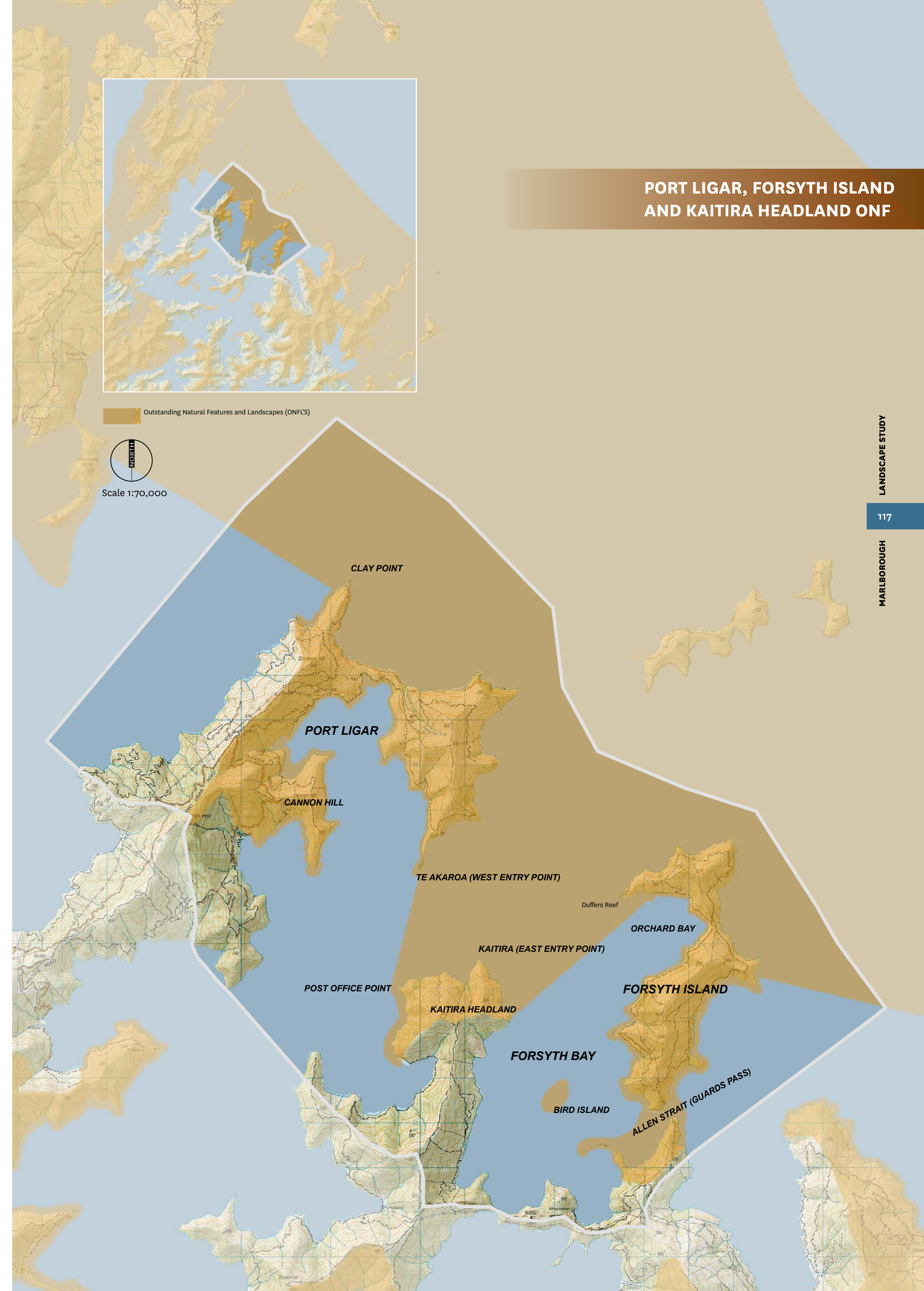
Whilst some land has been cleared for pasture, there are limited structures on the land, especially around northern Port Ligar. Waterfall Bay features native vegetation of local value, fragmented bird habitat and some uncommon plant species.

Duffers Reef is a nationally significant nesting area for king shags. Areas within Forsyth Bay and Waitata Reach, including Port Ligar have also been identified as being of national significance for king shag feeding and breeding habitat. Bird Island is nationally significant for reef heron breeding.

Modifications include moorings; marine farms adjacent to the Port Ligar headland, extending to Makata Rock; vegetation clearance; forestry; roads and tracks; jetties; buildings; and powerlines.



Above: Bird Island (middle), Forsyth Bay.



PORT LIGAR, FORSYTH ISLAND AND KAITIRA HEADLAND ONF

6: MAUD ISLAND, MT. SHEWELL, FITZROY BAY AND EASTERN TAWHITINUI REACH

Including Tawero Point; Tawhitinui Reach and Waitata Reach.

6: MAUD ISLAND, MT. SHEWELL, FITZROY BAY AND EASTERN TAWHITINUI REACH

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Maud Island, Mt Shewell, Fitzroy Bay and Eastern Tawhitinui Reach have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach as well as the Landuse Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Mt. Shewell is nationally significant for <i>Powelliphanta hochstetteri obscura</i> (New Zealand giant snail) and diverse plant species. Maud Island is internationally significant, as a predator-free island sanctuary, harbouring nationally threatened species of invertebrates, birdlife and the entire population of the Maud Island frog. Fitzroy Bay - nationally significant beech forest/lowland/coastal broad leaf and internationally significant waters. Largely intact podocarp-broadleaf forest in Kauauroa Bay (eastern Tawhitinui Reach). Maud Island largely cloaked in regenerating shrubland and forest. Remnant indigenous forest on the elevated slopes of Mt Drew. Maud Island is a visually striking, unique landform and holds outstanding natural character. Fitzroy Bay, Mt. Shewell and parts of Kauauroa Bay hold very high levels of natural character due to the indigneous bush cover. The remaining areas hold high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Impressive peak of Mt Shewell at the head of Admiralty Bay. Interesting distinct pyramidal form of Maud Island. Low levels of modification. Road to Admiralty Bay/French Pass passes through the bush above Fitzroy Bay – contributing to the scenic journey. Frequent, intimate bays with sheltered waters, notably Fitzroy Bay/ Savill Bay/ Garne Bay/ Waiona Bay and Kauauroa Bay. Area typified by slender peninsulas (notably Tawero and Whakamawahi Points) and broad bays. Visually impressive Yellow Cliffs at the southern head of Waitata Bay.
Associative	<ul style="list-style-type: none"> Historic gun emplacement on Maud Island. Peninsulas of Tawero Point and Whakamawahi Point act as gateway features to central Pelorus Sound.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Maud Island, Mt Shewell, Fitzroy Bay and Eastern Tawhitinui Reach**, have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

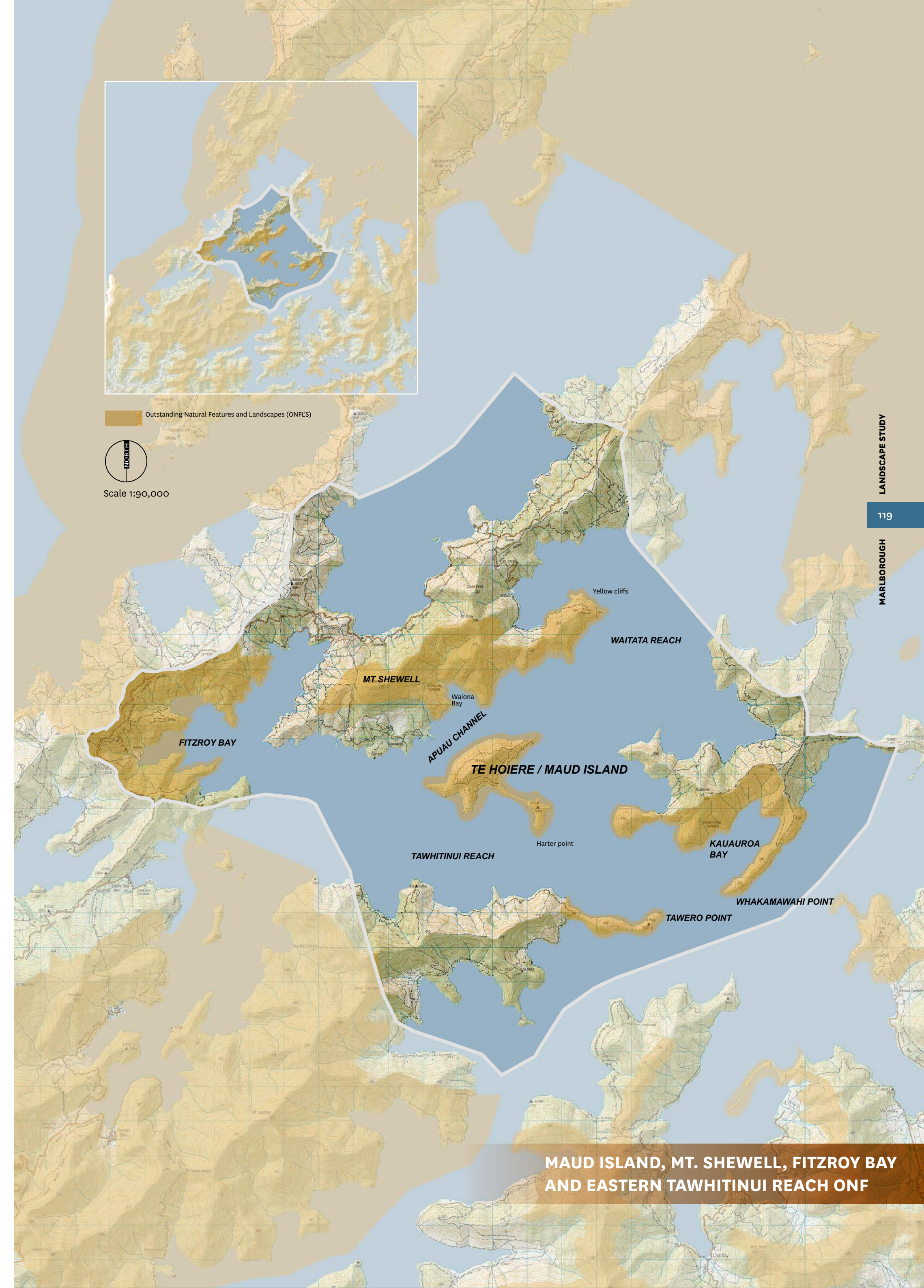
Maud Island is an important island sanctuary containing nationally threatened species. The island landform provides a distinctive pyramidal skyline linking to the slender neck of Harter Point. Most of the Island is cloaked in regenerating shrubland and forest. Māori settlement and use of the resources in this part of the outer Sounds is evident in the intense clusters of archaeological remains.

The impressive peak of Mt Shewell, the sheltered waters of Apuau Channel and intimate bays of this coastline are highly legible. Of the remaining indigenous forests within the area, much appears on more elevated slopes (Mt. Shewell) and the western slopes of Waiona Bay and around the elevated slopes of Fitzroy Bay. The continuous undeveloped coastline in this area is highly natural. Mt Shewell Scenic Reserve features nationally significant, diverse plant species.

Modifications include: vegetation clearance; forestry and tracks on Maud Island; buildings; jetties; tracks and limited moorings adjacent to marine farms around Tawhitinui Reach.



Above: Maud Island.



MAUD ISLAND, MT. SHEWELL, FITZROY BAY AND EASTERN TAWHITINUI REACH ONF

7: ISLANDS OF CROISILLES HARBOUR AND NORTHERN COASTLINE

Including Motuanauru, Otuhaereroa, Moukikiriri Islands, Askews Hill and Taipare and Papawai Bays

7: ISLANDS OF CROISILLES HARBOUR AND NORTHERN COASTLINE	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the islands of Croisilles Harbour and Northern Coastline have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach, Seascape Approach as well as the Ridges & Spurs Mapping Approach. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> • Geopreservation site: Matarau Point beach ridges. • Geopreservation site: Pakiaka Point boulder bank and lagoon. • Nationally significant ecological values on Croisilles Islands (Motuanauru, Moukikiriri and Otuhaereroa Islands). • Nationally significant ecological values of the cusplate forelands at Matarau Point. • Nationally significant ecological values of island communities, with distinct and rare biotic assemblages. • The marine environment and islands of Croisilles Harbour and part of the northern coastline hold outstanding levels of natural character. The remaining coastal waters of the northern bays (Taipare Bay and Papawai Bay) and Askews Hill hold very high levels of natural character.
Perceptual	<ul style="list-style-type: none"> • Scenic bush pockets and key viewpoints to D'Urville Island and French Pass. • Prominent/distinctive coastal ridgelines to Askews Hill. • Impressive sequence of rugged, exposed bays and open waters along northern coastline. • High levels of naturalness due to limited modification. • Cape Soucis/Raetihi and Askells Hill, including the water, form the impressive entrance to Croisilles Harbour.
Associative	<ul style="list-style-type: none"> • Numerous Māori archaeological sites, notably around the islands.
Rating:	OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Islands of Croisilles Harbour and Northern Coastline** have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

Croisilles Harbour opens into Tasman Bay and is the westernmost part of the mainland Sounds. The area's key values relate to the number of geopreservation sites and ecologically significant areas, which are expressive of the coastal location and are also valued for the important habitat they provide.

At the outer, rugged and exposed coastline, prominent and distinctive coastal ridgelines extend from Okuri Point southwards to Askews Hill. Whilst some of this land is cleared or planted in exotic forestry, there are intact indigenous forests on the more elevated slopes of Askews Hills, Bobs Peak and Okuri Peak. A rare, nationally important altitudinal sequence from ridgetop to seafloor exists at Big Bay.

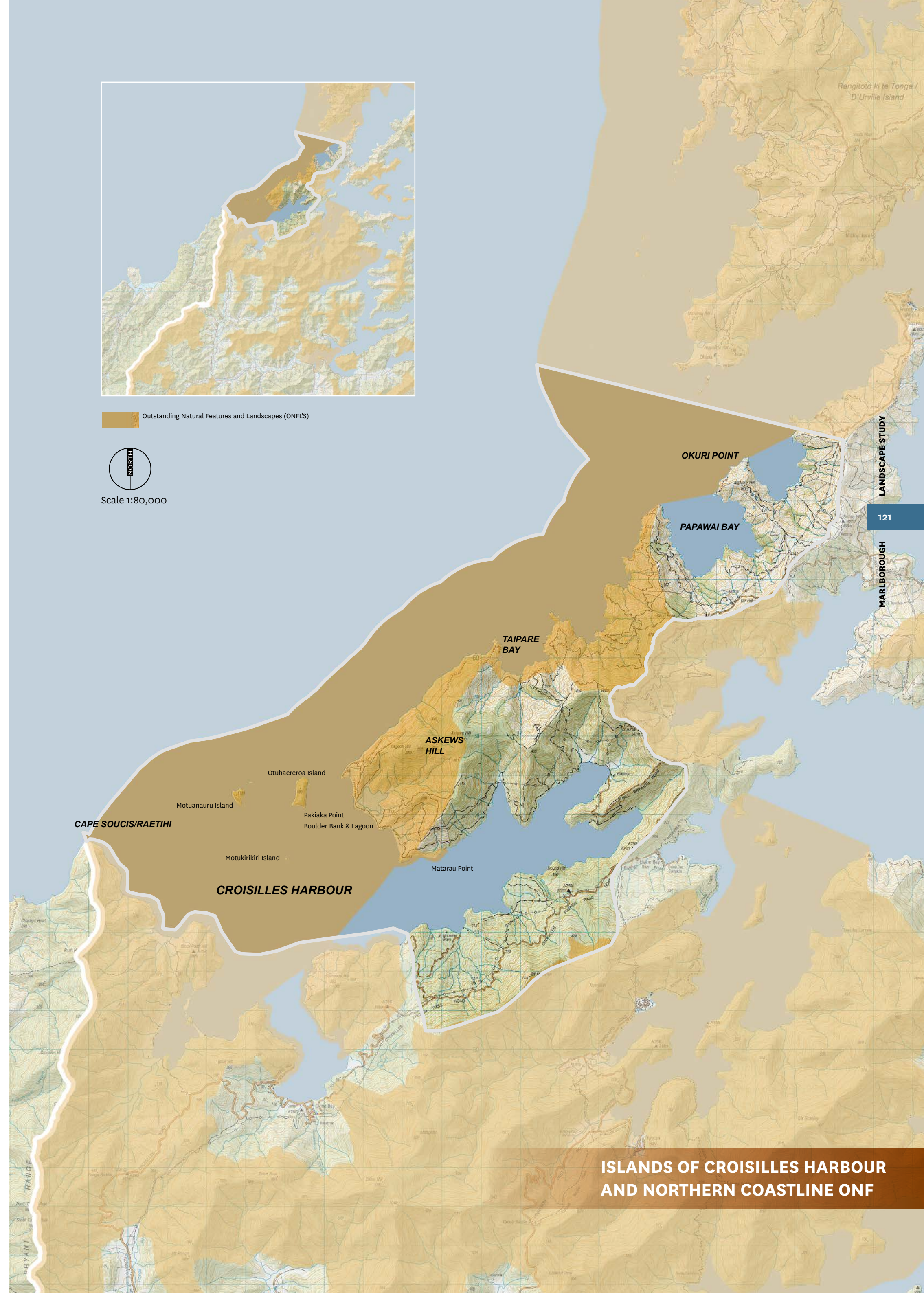
The geopreservation sites include the Matarau Point beach ridges and the Pakiaka Point boulder bank and lagoon, both at the base of Askews Hill at the eastern entrance of Croisilles Harbour. The Pakiaka Point boulder bank and lagoon shelters largely intact herbfield and salt marsh communities, extensive sand/mud flat habitats and sinuous tidal channels.

The cusplate forelands at Matarau Point have been identified as having ecological values of national significance. Also identified as nationally significant are, the Croisilles Islands for a range of ecological values. Motuanauru Island and Otuhaereroa Island have distinct and rare biotic assemblages, which are highly productive. The waters surrounding the islands exhibit high levels of naturalness due to limited modification to the waterbody. The islands create a highly natural, bush-clad visual entrance to Croisilles Harbour and are unmodified.

Modifications include: tracks, power lines, cleared vegetation and pasture, forestry, buildings.



Above: Motuanauru, Otuhaereroa Islands, Pakiaka Point boulder bank and lagoon, slopes of Askews Hill.



ISLANDS OF CROISILLES HARBOUR AND NORTHERN COASTLINE ONF

8: WHANGARAE INLET AND OKIWI BAY

Includes Whangarae Bay and Estuary, Cape Soucis/Raetihi, Clock Point Hill, Symonds Hill, Croisilles Hill and elevated north-western slopes of Elliott Peak, Editor Hill and Matapehe.

8: WHANGARAE INLET AND OKIWI BAY

Scale of Mapping and Assessment The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Whangarae Inlet and Okiwi Bay have been assessed as ONFs at the district scale, when mapped and assessed at that scale.

Mapping Approach This area was mapped using the Contained Landscape Feature Approach, Seascape Approach as well as the Ridges & Spurs Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Geopreservation site: Whangarae Bay estuary and sand pits. Nationally significant ecological values in Whangarae Bay associated with the relatively unmodified estuarine habitat. The Whangarae Estuary is the only spit-formed estuary in the Marlborough Sounds. Whangarae Bay, Cape Soucis/Raetihi and the elevated parts of Croisilles Hill, Elliot Peak, Editor Hill and Matapehe hold outstanding levels of natural character due to their upland intact vegetation assemblages. The remaining area (except Symonds Hill which holds high natural character) retains very high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Impressive sequence of rugged, exposed bays. Impressive enclosing headlands of Symonds Hill and Goat Hill to Okiwi Bay. Visually dramatic headland of Cape Soucis/Raetihi demarcates south-western boundary between Marlborough and Nelson. High levels of naturalness due to limited modification.
Associative	<ul style="list-style-type: none"> Sheltered bay notable for holiday and recreational pursuits.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Whangarae Inlet and Okiwi Bay** have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

The southern shores of Croisilles Harbour have a number of identifiable features. The exposed, prominent rugged headland of Cape Soucis/Raetihi forms Marlborough's south-western extent whilst the impressive enclosing headlands of Clock Point Hill, Goat Hill and Symonds Hill enclose Whangarae Bay and estuary and Okiwi Bay.

The Okiwi Bay bach settlement is the main area of settlement in Croisilles Harbour, and popular as a haven for recreational activities including diving, watersports and fishing in the sheltered waters of the harbour and beyond.

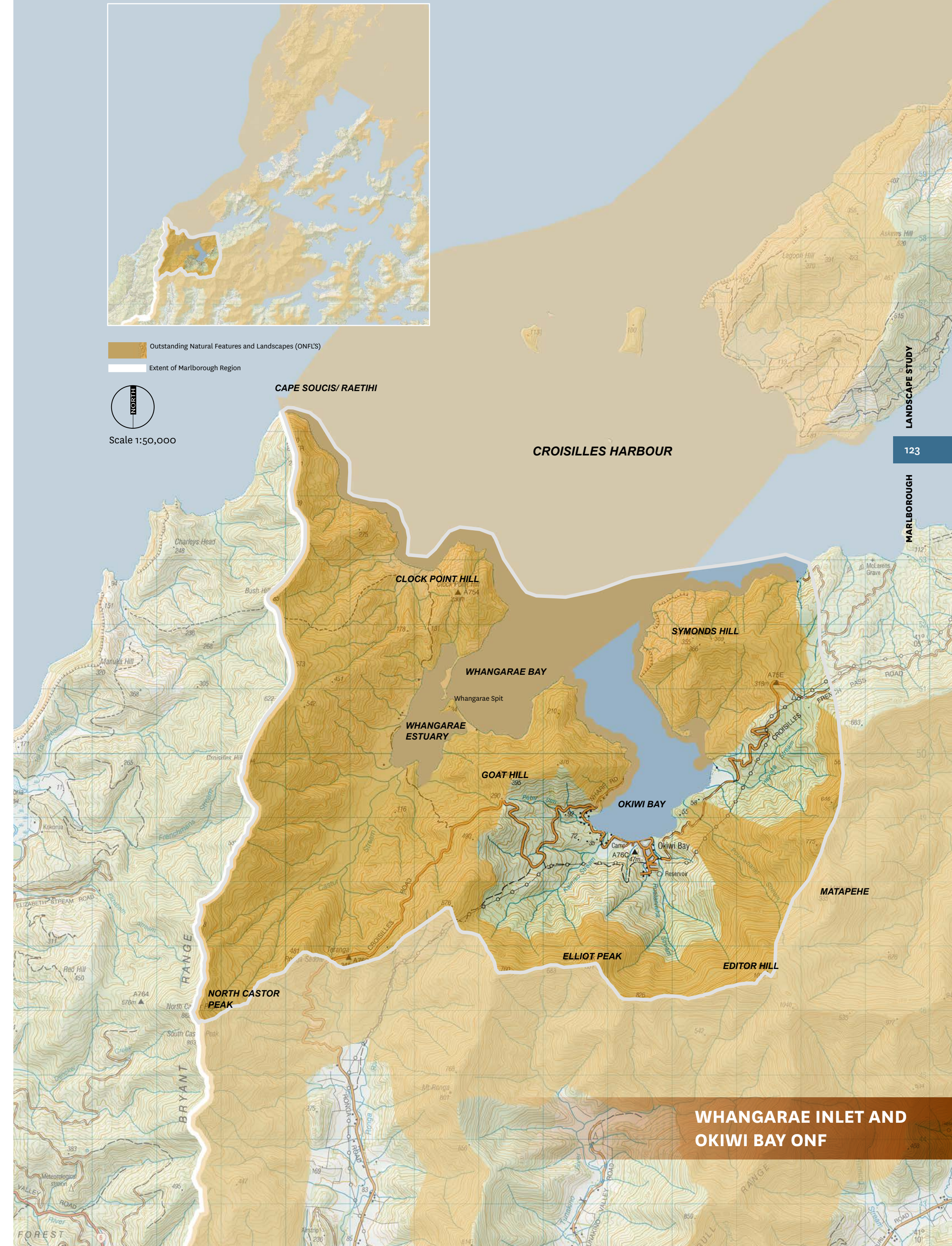
The forested ridges of the northern Rai River catchment form a mountainous fringe to this area, extending southwards from Whangarae estuary and Okiwi Bay to North Castor Peak at the end of the Bryant Range and Elliott Peak at the end of the Bull Range. Intact upland vegetation is evident on the slopes above Okiwi Bay, and a finger of this extends to the coast near Taiwhati Point.

Despite a history of land clearance and farming around its margins, Whangarae estuary is an excellent example, in the context of Marlborough of a relatively unmodified estuary. The only spit-formed estuary in the Marlborough Sounds, Whangarae estuary is a habitat for several regionally rare birds including banded rail and fern bird. Outside of the estuary, the Croisilles Harbour marine environment supports a unique shallow sand community notable for the presence of the New Zealand lancelet (the southern-most population of this patchily distributed species).

Modifications include: cleared vegetation, tracks, forestry, roads, buildings, a jetty, marine farms, limited moorings.



Above: Whangarae Estuary.



WHANGARAE INLET AND OKIWI BAY ONF

9: TENNYSON INLET AND NORTHERN NYDIA BAY

Includes Elaine, Nydia, Penguin, Fairy Bays and Tennyson Inlet, Mt Stanley, Devils Staircase and Nydia Saddle.

9: TENNYSON INLET AND NORTHERN NYDIA BAY

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Tennyson Inlet and Northern Nydia Bay have been assessed as ONFs at the district scale, when mapped and assessed at that scale. These ONFs are located within the western part of the Inner Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach, Seascape Approach as well as the Ridges & Spurs Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Nationally significant intertidal and subtidal areas - wetlands habitat. Nationally significant broad leaf/beech forest and bird habitat. Very high degree of coastal natural character along the majority of Tennyson Inlet. Nationally significant vegetation flanking the northern side of Nydia Bay. Nationally threatened plants on Tennyson Inlet islands (Tawhitinui Island, Awaiti Island and Tarakaipa Island) Tennyson Inlet and Nydia Bay support some of the largest tracts of lowland coastal forests in Marlborough. Nationally important altitudinal sequences of primary forest from ridgetop to sea floor. The majority of Tennyson Inlet and northern Nydia Bay hold outstanding levels of natural character due to the exceptional tract of unmodified indigenous forest from ridgetops to seafloor.
Perceptual	<ul style="list-style-type: none"> Vegetated southern backdrop ridge from Kaiuma Saddle to Mt. McLaren. Tennyson Inlet is an attractive deep, enclosed bay with bush to shoreline and frequent, intimate bays with sheltered waters. Integrity of bush throughout Tennyson catchment – lack of development and coherency of landscape/seascape catchment. Scenic road journey over Oporuri Saddle into Tennyson Inlet. Nydia Bay has a largely unmodified section of coast from the head of Nydia Bay to Jacobs Bay. High experiential values due to unmodified vegetation cover.
Associative	<ul style="list-style-type: none"> Almost entire Tennyson catchment is DOC land. The dolphin, Pelorus Jack, accompanied ships between French Pass and the entrance to Pelorus Sound and was the first dolphin in the world to be protected by law. The Nydia Track connects Tennyson Inlet with Kaiuma Bay, north of Havelock through mainly forested slopes.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Tennyson Inlet and Northern Nydia Bay** have been identified as an ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

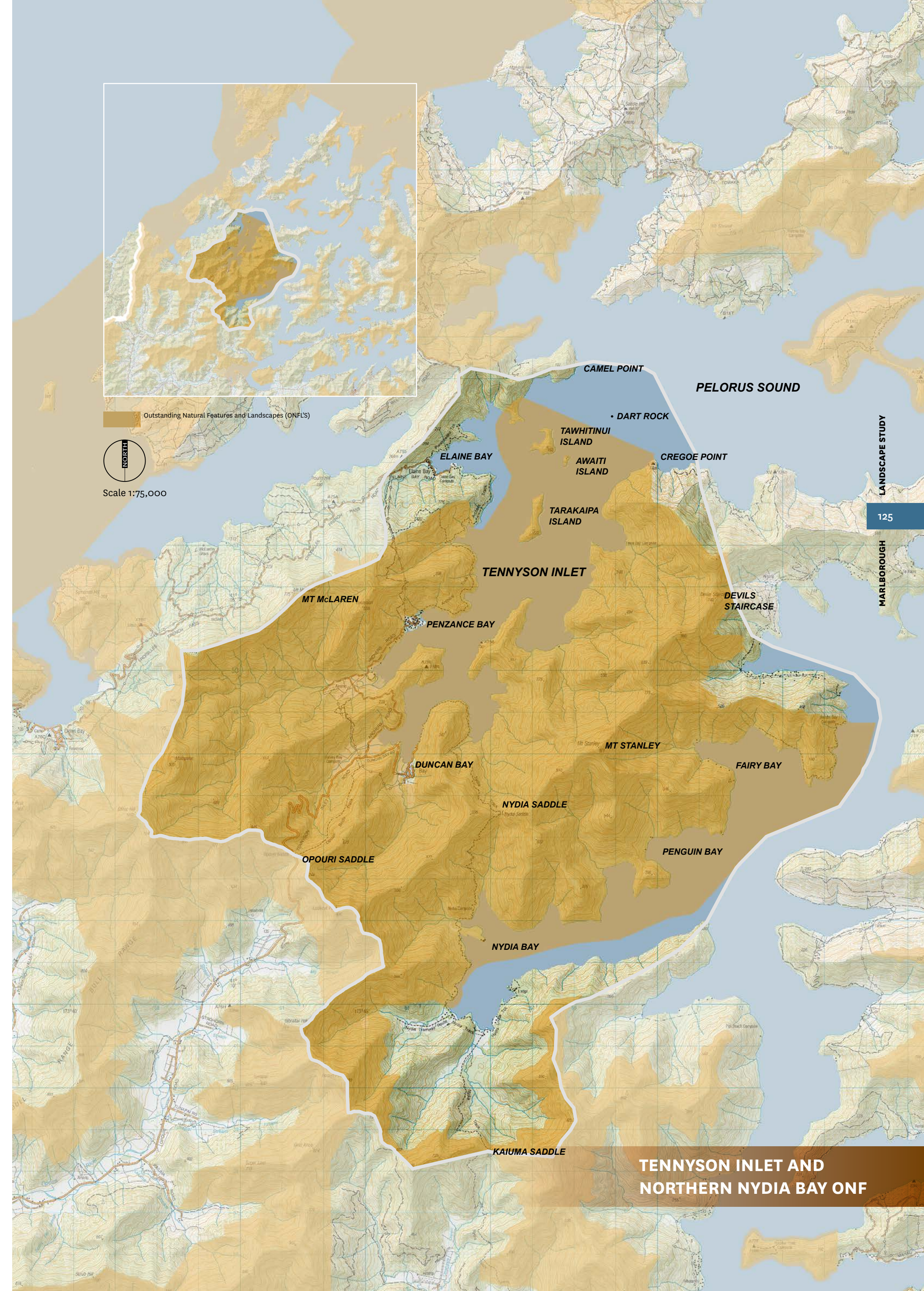
The coastline is moderately dissected with numerous large, deeply indented inlets such as Tennyson Inlet and Nydia Bay between large and prominent headlands. Today, the area's upland forest communities and estuaries are still largely intact. Original forests are featured on lower altitude hillslopes and toe slopes, and coastal forests are largely intact in Tennyson Inlet, and from Nydia Bay to Fairy Bay. The area features a vegetated southern backdrop from Mt. McLaren in the west to Kaiuma Saddle in the south. Tennyson Inlet provides a coherent natural landscape/seascape interface. The inlet's intertidal/ subtidal areas, its broadleaf/beech forest and altitudinal sequences of primary forest from ridgetop to sea floor are considered a nationally significant broad leaf/beech forest and bird habitat. Nationally threatened plants are also present on Tennyson Inlet island's and the intertidal and subtidal areas of wetland habitat at Tennyson Inlet are also considered nationally significant.

Tennyson Inlet is an attractive deep, enclosed bay with bush to shoreline and frequent, intimate bays with sheltered waters. Almost the entire Tennyson Inlet catchment is DOC land and has high experiential values due to unmodified vegetation cover. Although largely unmodified, the area is accessed by land via the scenic road journey over Oporuri Saddle into Tennyson Inlet or via the the Nydia Track which connects Tennyson Inlet with Nydia Bay.

Modifications include: vegetation clearance and pasture, roads, buildings, power lines, moorings and jetties. Duncan Bay and Penzance Bay settlements are excluded.



Above: Tennyson Inlet



10: HAVELOCK (PELORUS) ESTUARY, MT CAWTE AND NORTHERN HILLS

Includes waters of Pelorus Sound around Havelock estuary. Includes Cullen Point, Kaiuma Saddle, Putanui Point and Mt. Cawte.

10: HAVELOCK (PELORUS) ESTUARY, MT. CAWTE AND NORTHERN HILLS	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Havelock (Pelorus) Estuary, Mt Cawte and Northern Hills have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping approach	This area was mapped using the Contained Landscape Feature Approach, Seascape Approach as well as Contour Line and Landuse Mapping Approaches. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> • Pockets of nationally significant broad leaf/beech forest. • Attractive areas where native bush remains dominant, particularly where it extends from hilltops to water's edge and where forestry and other signs of development are less evident, such as Kaiuma Saddle and Mount Cawte. • Geopreservation site: Pelorus and Kaituna river deltas. • High estuarine values throughout the complex estuarine delta system at the head of Pelorus Sound (Kaituna/Pelorus and Mahakipawa), which supports extensive saltmarsh and invertebrate communities. • Important fresh water wetland communities adjoining estuarine areas. • Havelock estuary (or Pelorus River estuary) holds outstanding levels of natural character due to its distinctive intact remnant alluvial communities. Kaiuma Saddle and associated ridges and the southern flanks of Mt. Cawte hold very high levels of natural character. Putanui Point and elevated lands around Havelock retain high levels of natural character.
Perceptual	<ul style="list-style-type: none"> • Interesting coastal interface of tidal flats formed by river deltas at Havelock. • Scenic setting of township amongst native bush at water's edge, with boat activity. • Memorable intertidal delta and network of waterways. • The Havelock (Pelorus River estuary) is the largest estuarine area in the Marlborough Sounds. It retains many of its natural qualities. • Putanui Point, with its regenerating lands vegetation cover, is prominent.
Associative	<ul style="list-style-type: none"> • Cluster of early Māori and European archaeological sites in and around Kaiuma Bay. • The Nydia (walking) Track connects Tennyson Inlet with Kaiuma Bay, north of Havelock through mainly forested slopes. • Noted boating area around Havelock with access to waters of western Marlborough Sounds.
Rating:	OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Havelock estuary, Mt Cawte and Northern Hills** have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

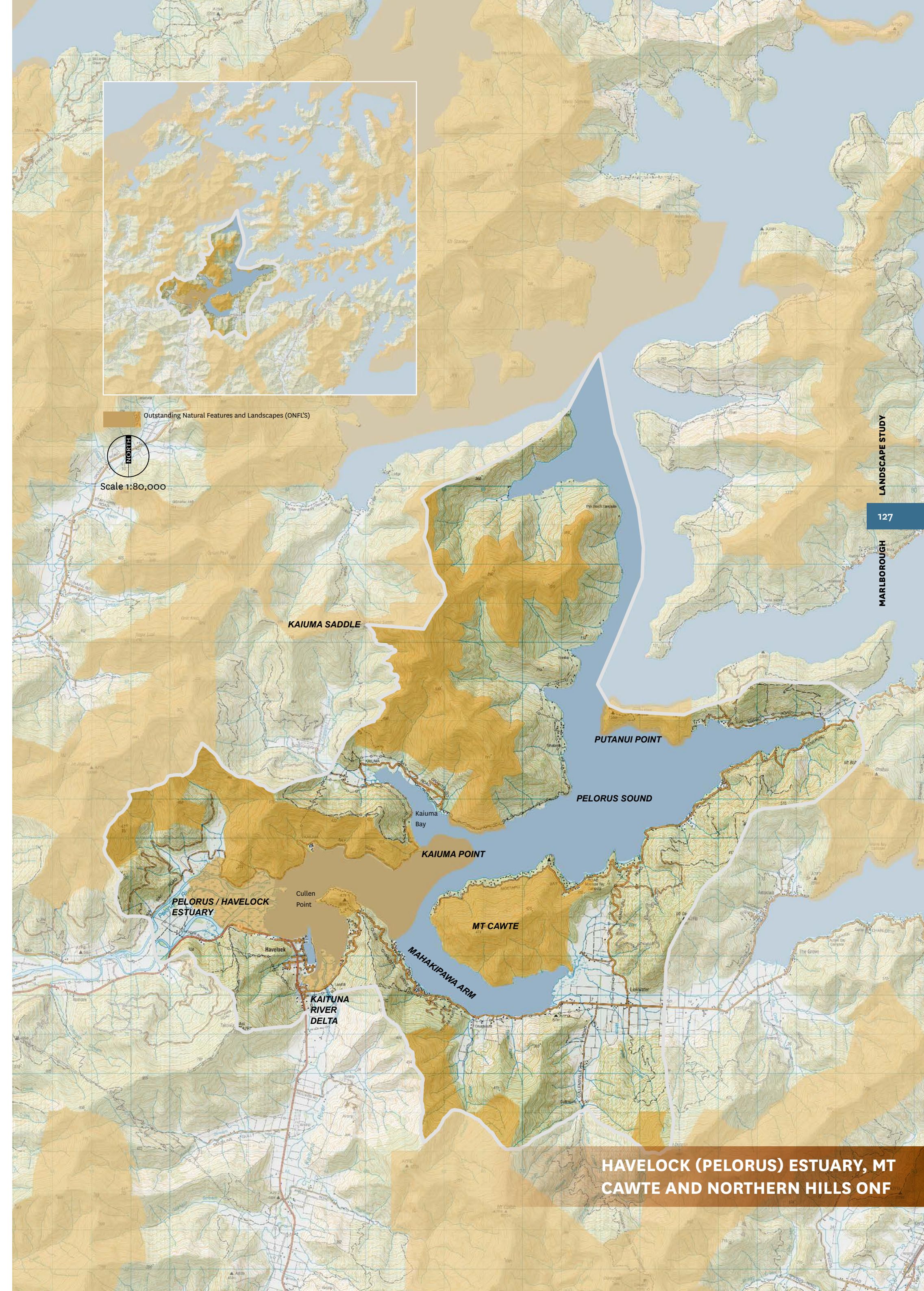
The sheltered waters, their tidal influence, and the bustling boating activity around Havelock contribute to the aesthetic, shared and recognised, heritage and ecological values of the area. The two river deltas that drain into the Sounds are particularly highly valued as geological features, however they also have high legibility, aesthetic and transient values as the rise and fall of the tide dramatically changes their appearance and that of the wider valley.

A geopreservation site is present at the Pelorus and Kaituna river deltas, where a complex estuarine delta system also supports important freshwater wetland communities including extensive saltmarsh and invertebrate communities. There are areas of significant broadleaf/beech forest on the upland slopes and an altitudinal sequence from ridge to water's edge are present at Mt Cawte and Kaiuma Saddle.

Modifications include: roads and tracks, powerlines, limited moorings, dredging of Estuary and evident increased presence of boat traffic.



Above: Mt Cawte from Pelorus Sound. Hoods Bay is seen in the foreground



HAVELOCK (PELORUS) ESTUARY, MT CAWTE AND NORTHERN HILLS ONF

11: FORESTED RIDGES AROUND CRAIL BAY

Includes Ouokaha Island, peaks and ridges to the west of Crail Bay including headlands of South East Bay in Pelorus Sound. Bobs Knob and headlands south of Nopera in Kenepuru Sound, including Kaiaho Point.

11: FORESTED RIDGES AROUND CRAIL BAY

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the Forested Ridges around Crail Bay have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping approach	This area was mapped using the Contained Landscape Feature Approach as well as Contour Line and Landuse Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Bobs Knob Scenic Reserve – nationally significant for plant and animal diversity (near Crail Bay). Nationally threatened <i>Powelliphanta hochstetteri obscura</i> (NZ native giant snail) on western ridge of Pelorus Sound. Extensive upland forest, notably at the ridges and peaks. Much of the forested ridges contain very high levels of natural character due principally to the indigenous, unmodified vegetation. Very High terrestrial natural character at Yncyca Bay.
Perceptual	<ul style="list-style-type: none"> Ridge dividing Kenepuru and Pelorus Sounds provides a vegetated backdrop to both waterbodies providing high levels of naturalness. Several interesting peninsula landforms, including Hopai Bay, Kaiaho Point and the indented peninsula around St. Omer, Gold Bay Reef and Weka Point. Unmodified and slender Ouokaha Island extends off Hopai Bay peninsula and acts as a feature of this part of the bay.
Associative	<ul style="list-style-type: none"> DOC reserve extends along the ridges of much of this area.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

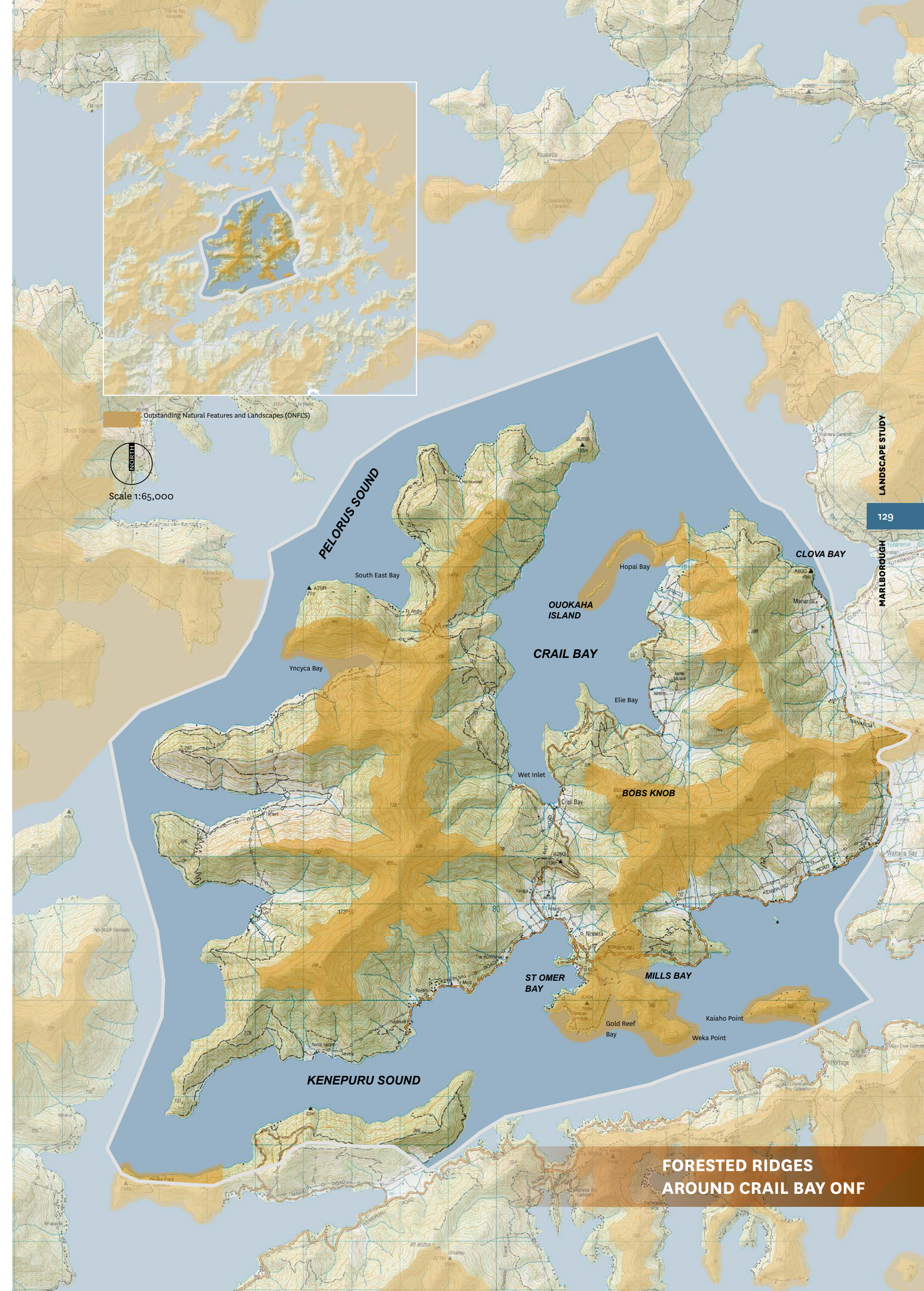
Based on the above values, the **Forested Ridges around Crail Bay** have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

Situated on the landform separating Pelorus Sound from Kenepuru Sound, the upland forested ridges of this area are largely under DOC management. Upland vegetation communities, including those of the Bobs Knob Scenic Reserve at the southeastern head of Crail Bay, are nationally significant for plant and animal diversity. A large area of indigenous vegetation extends in places from Bobs Knob to the water's edge and, at the northern side of Kenepuru Sound, at St Omer Bay, Gold Reef Bay, Weka Point and Mills Bay. Distinctive peninsula landforms at Hopai Bay and Kaiaho Point are interesting and highly memorable.

Modifications include: road (Kenepuru) and tracks, vegetation clearance, forestry, powerlines, buildings, jetties, moorings and the partial inclusion of a limited number of marine farms.



Above: Waters of Crail Bay. Ouokaha Island and the peninsula enclosing Hopai Bay are seen in the midground.



**FORESTED RIDGES
AROUND CRAIL BAY ONF**

12: CAPE JACKSON, CAPE LAMBERT AND ALLIGATOR HEAD

Outer Headlands of Port Gore, Waitui Bay and Guards Bay including Cape Jackson, Cape Lambert, and Alligator Head, including associated waters.

12: CAPE JACKSON, CAPE LAMBERT AND ALLIGATOR HEAD

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Cape Jackson, Cape Lambert and Alligator Head have been assessed as ONFs at the district scale, when mapped and assessed at that scale. These ONF's are within the central part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature Approach and Seascape Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Geopreservation site: Cape Jackson drowned ridge crest. Cape Lambert headland vegetation, exceptional biodiversity on both Cape Lambert and Cape Jackson. Steep eroded cliffs and rocky shores, dominated by high energy waves define this exposed landscape. Cape Jackson, Cape Lambert and the interconnecting outer waters hold outstanding levels of natural character.
Perceptual	<ul style="list-style-type: none"> Cape Jackson is a superb example of a drowned ridge crest. Impressive ridgeline of the forested high peaks above Guards Bay and Port Gore, leading to Mount Stokes. Cape Jackson, Cape Lambert and Alligator Head have wild and rugged forms that are extremely legible and assist in defining the two outer Sounds bays of Port Gore and Waitui Bay. Largely unmodified coast. Cape Jackson marks the western entrance to Queen Charlotte Sound. The lighthouse is very memorable and used as a reference point. High experiential values, which are due to remote and expansive seascape vistas of a wild and exposed nature. The darkness of the night sky adds to the sense of remoteness.
Associative	<ul style="list-style-type: none"> Popular areas for open ocean fishing. Headlands act as navigational landmarks for boats.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Cape Jackson, Cape Lambert and Alligator Head** have been identified as ONF's due to their exceptional biophysical and associative landscape values and very high sensory landscape values.

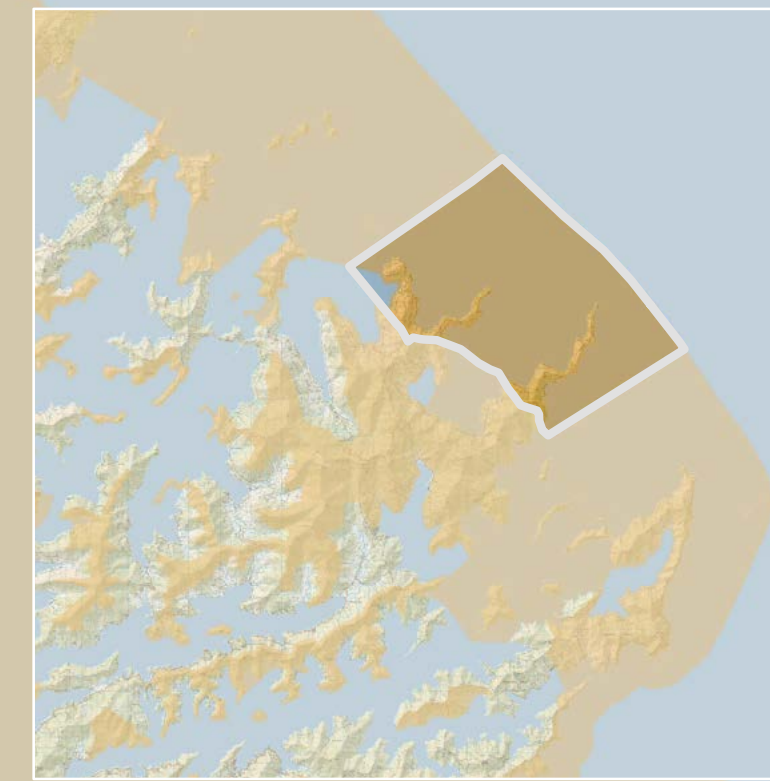
Steep eroded cliffs and rocky shores, dominated by high energy waves, define this exposed landscape. This is a largely unmodified section of coast, with exposed rocky bluffs, headlands and reefs. Cape Jackson, Cape Lambert and Alligator Head retain wild and rugged forms that are extremely legible, which assist in defining the two outer Sounds bays of Port Gore and Waitui Bay. Cape Jackson is a superb example of a drowned ridge crest and is a listed geopreservation site. Exceptional biodiversity is exhibited at Cape Lambert and in the threatened plants, remnant forest and regenerating native vegetation of Cape Jackson.

The night skies here are some of the darkest in the country and add to the sense of remoteness. Access is primarily by boat, and the area is popular for fishing in the more exposed ocean waters. A privately maintained track (known as the Outer Queen Charlotte Track) extends from Ship Cove to the Cape Jackson lighthouse, providing direct land access with this exposed coastline where expansive open ocean vistas are experienced. Cape Jackson lighthouse is very memorable and used as a reference point, marking the western entrance to Queen Charlotte Sound. An impressive ridgeline of forested high peaks above Guards Bay and Port Gore, leads to Mount Stokes, a prominent feature to this ONF. Due to the factors listed above, the outer peninsulas hold very high experiential and associative values.

Modifications include: a lighthouse (Cape Jackson), vegetation clearance, tracks, power lines, buildings and moorings. There are Marine Farms in Pig Bay. A small man-made breakwater is located at Anakakata Bay, south of Cape Jackson.



Above: Cape Lambert (foreground) and Cape Jackson (distant, far right).

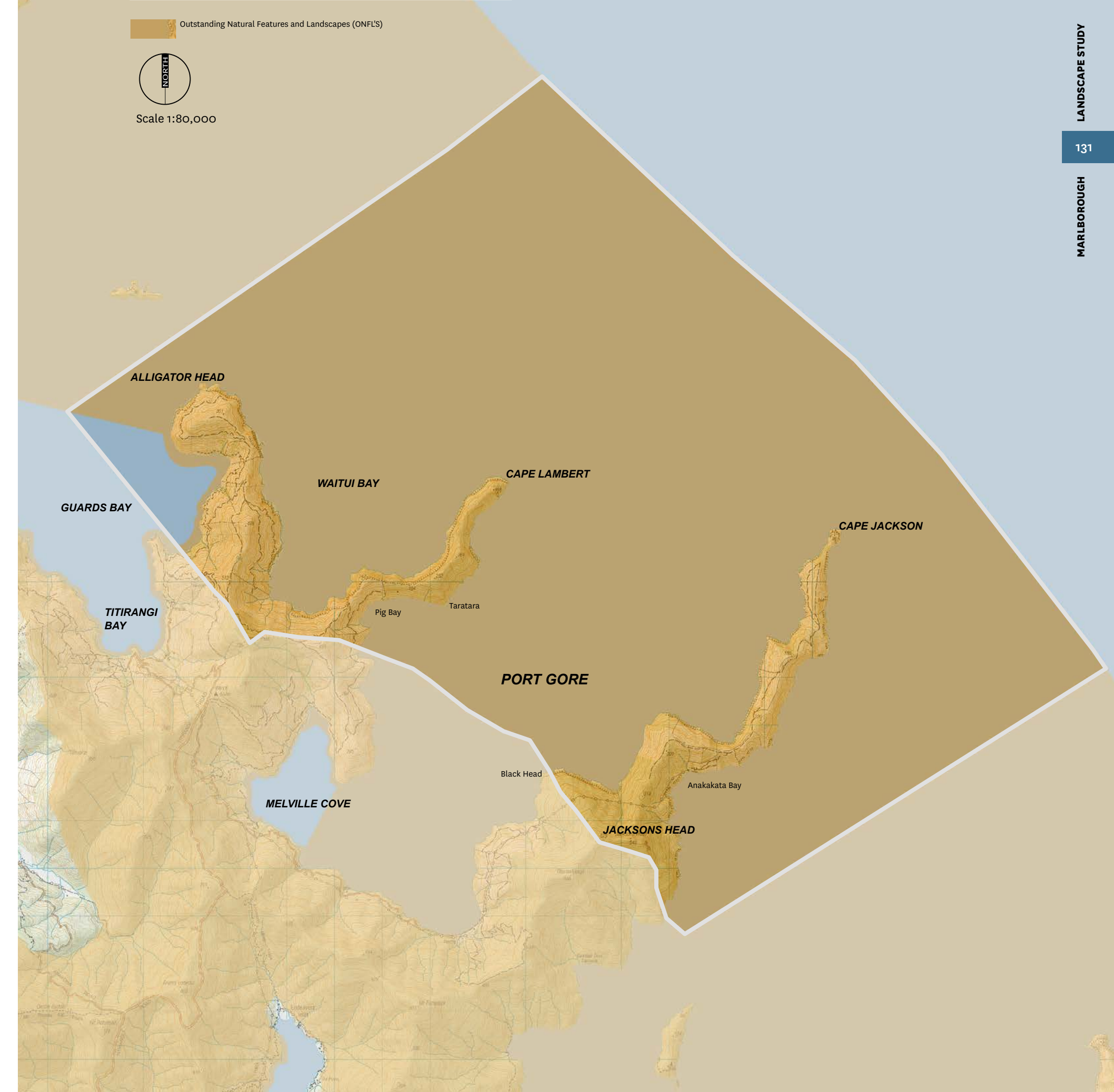


CAPE JACKSON, CAPE LAMBERT AND ALLIGATOR HEAD ONF

Outstanding Natural Features and Landscapes (ONFLS)



Scale 1:80,000



13: MT. STOKES AND SURROUNDS

Includes Mt Kiwi, Mt McMahon, Mt Furneaux and Oterawhanga, Inner Port Gore, Endeavour Inlet, Ship Cove, Resolution and Beatrix, Anakoha and Titirangi Bays.

13: MT. STOKES AND SURROUNDS

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Mt Stokes and its surrounds have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area was mapped using the Contained Landscape Feature, Seascape and Landuse Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> The highest peak and one of the most dominant landforms in the Marlborough Sounds, reaching 1,203 metres a.s.l. The slopes of Mt Stokes rises steeply, right from sea level. Original forest covers most of the upper slopes of Mt Stokes and its summit supports the only occurrence of subalpine vegetation in the Marlborough Sounds. The indigenous vegetation cover is internationally significant as it supports areas of alpine to coast vegetation sequences. The natural biodiversity is high due to the range of altitude, landform and habitat. Regionally outstanding primary podocarp-broadleaf forest between Ship Cove and Resolution Bay. Mt. Stokes and its associated connecting peaks and ridges and Ship Cove and Resolution Bay hold outstanding levels of natural character due to regenerating bush and low modification. Remaining areas retain high and very high levels of natural character. Mt. Furneaux is nationally significant for its podocarp/broad leaved forest.
Perceptual	<ul style="list-style-type: none"> Impressive forested peak and ridges of Mt. Stokes rising above Endeavour Inlet. The area straddles the inner and outer Sounds where extreme weather can also contribute to transitory and experiential values. The area is particularly memorable where the level of modification is least. The mountain top and ridges define and frame the associated bays and exhibit very high remote and experiential values.
Associative	<ul style="list-style-type: none"> Ship Cove is described by DOC as an 'icon' site, where explorer James Cook once landed. There are numerous Māori archaeological sites around the shores of Mt. Stokes, including many pa sites and middens and pre-historic stoneworks at Titirangi Bay. Ship Cove is generally known as the start of the Queen Charlotte Track. The sunken <i>Mikhail Lermontov</i> in Port Gore is one of the world's top wreck dives at 37m deep.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Mt Stokes and Surrounds** have been identified as ONF's due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

Mt. Stokes is one of the most dominant landforms in the Marlborough Sounds, with upland ridge crests and summits reaching 1,203 metres a.s.l. A number of watercourses that extend from this central massif have long, high gradients in which the water quality is amongst the highest in the Sounds. Original forest covers most of the upper slopes of the Stokes massif and its summit. The ONF supports the only occurrence of subalpine vegetation in the Sounds. Alpine to coast vegetation sequences descend from the summit in several locations throughout the ONF, including Titirangi Bay, Beatrix Bay at Te Puraka Point, Ship Cove, Port Gore and Endeavour Inlet. There are also numerous areas of regenerating native bush within lower parts of Port Gore, Guards Bay, Anakoha Bay and Beatrix Bay. Natural biodiversity is high due to the range of altitude, landform and habitat types, especially enhanced by subalpine communities. This is part of the larger Mt Stokes area managed by the Department of Conservation and is identified as having internationally significant ecological values.

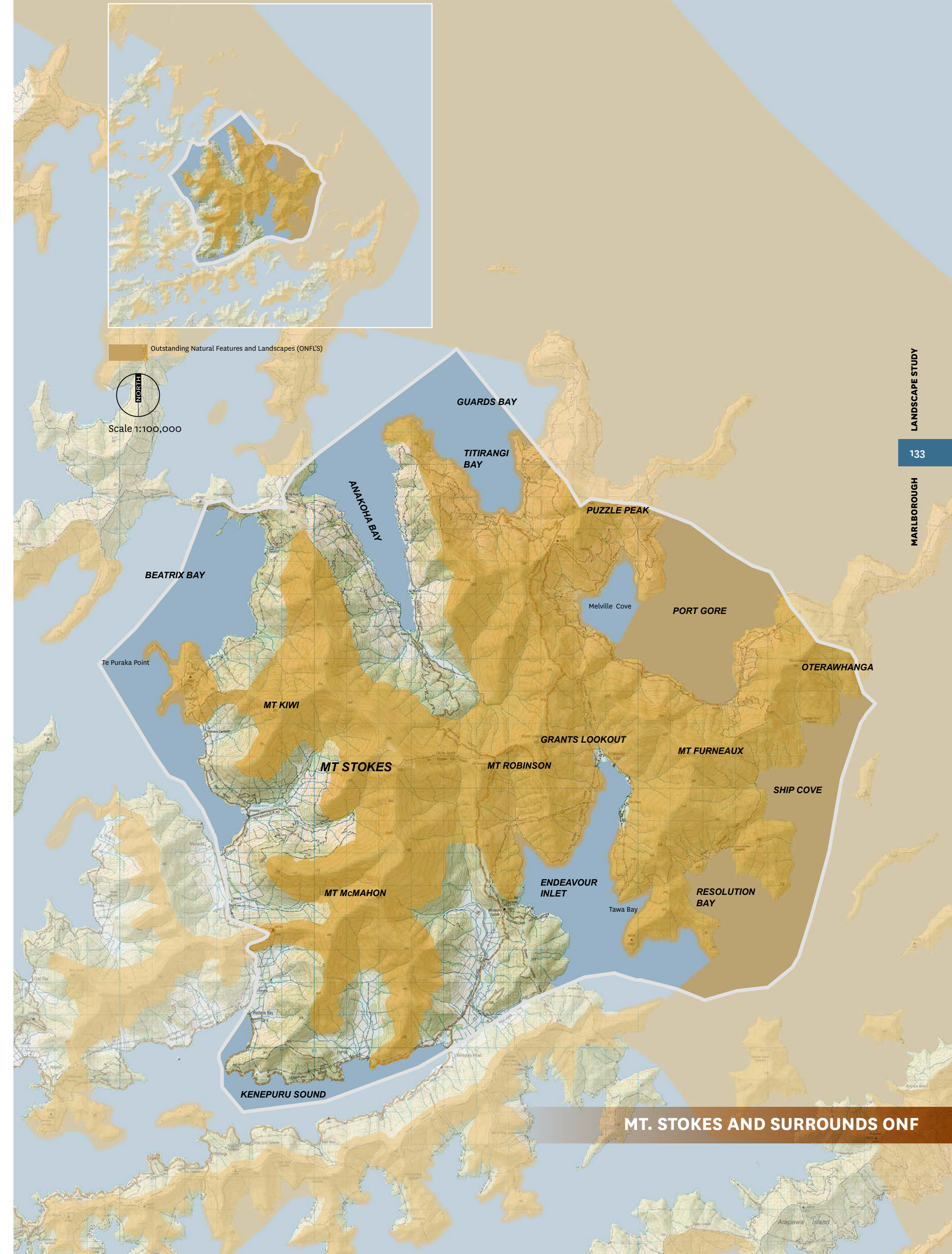
The area straddles the inner and outer Sounds, where extreme weather can also play an important aspect in the area's experiential values. The embayments encircling the central peak of Mt Stokes include some of the most recognisable areas in the Sounds including Ship Cove, Endeavour Inlet and Port Gore. The impressive peaks and connecting ridges define and frame the bays and seascapes within this ONF and, due to their lack of modification, the area retains very high remote and experiential values. Key peaks surrounding Mt Stokes include Mt Kiwi, above Beatrix Bay, Mt Robinson and Grants Lookout immediately east of Mt Stokes, Mt Furneaux and Puzzle Peak and Oterawhanga, backing Port Gore. The waters around Endeavour Inlet have been identified as having nationally significant ecological values, particularly for Hector's Dolphin.

Ship Cove, with its mature native bush setting, is described by DOC as an 'icon' site. The Queen Charlotte Track starts in this area – it is a popular, well-known walking/mountain biking track. There is considerable evidence of early Māori settlement/activity throughout the area, a notable site being the stone workings at Titirangi Bay. As Captain Cook's first landing point in the Sounds and point of sustained early European and Māori contact, Ship Cove is a key heritage site in the Sounds. Archaeological sites also feature at Endeavour Inlet, associated with later antimony workings.

Modifications include: roads and tracks, power lines, cleared vegetation, buildings, jetties, and properties in Tawa Bay and Resolution Bay. There are marine farms at Te Puraka Point (Beatrix Bay). Residential areas within Endeavour Inlet and the Pines settlement are excluded from the ONF.



Above: Inner Port Gore.



MT. STOKES AND SURROUNDS ONF

14: ARAPAWA ISLAND AND EAST AND WEST HEADS

Includes northern Arapawa Island, West Head and East Head and southern flanks of Kaitapeha.

14: ARAPAWA ISLAND AND EAST AND WEST HEADS

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Arapawa Island and East and West Heads have been assessed as ONFs at the district scale, when mapped and assessed at that scale. They are ONF's within the eastern part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature, Seascape and Landuse Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Geopreservation site: Tory Channel East Head. Arapawa Island Reserves – nationally significant original cliff vegetation and rare species. Possum free. The eastern flanks of Arapawa Island support some of the best remaining examples of Cook Strait mixed broadleaf forests and are nationally significant. Highly natural coastal cliffs and large southerly swells are typical of this high-energy coastline, which is minimally modified. Steep coastal cliffs and rocky reefs dominated by high-energy wave action provide a unique coastal habitat. Easternmost parts of Arapawa Island hold outstanding natural character due to the unmodified cliffs. Remaining northern parts of Arapawa Island and Kaitapeha hold high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Gateway to South Island and Marlborough Sounds from Cook Strait ferry route. Dramatic, narrow entrance to the Tory Channel between East Head and West Head. Dramatic coastal processes are highly legible along the length of the Arapawa Island's steep coastal cliffs and rocky reefs. Semi-exposed to very exposed coast. Strong tidal currents on the outer edge of the Sounds. Experiential and naturalness values high along Kaitapeha Peninsula and northern Arapawa Island including East Bay and parts of Tory Channel.
Associative	<ul style="list-style-type: none"> Early whaling stations, including the first shore whaling station at Te Awaiti and Fisherman's Bay. Pa sites and other archaeological evidence of early Māori settlement line the coast of Tory Channel.

Rating:

OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Arapawa Island and East and West Heads** have been identified as ONF's due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

Dramatic coastal processes are highly legible along the length of Arapawa Island's steep coastal cliffs and rocky reefs. The outer coast of Arapawa Island features nationally significant original cliff vegetation whilst the south-facing slopes of the island feature nationally significant regenerating coastal forest.

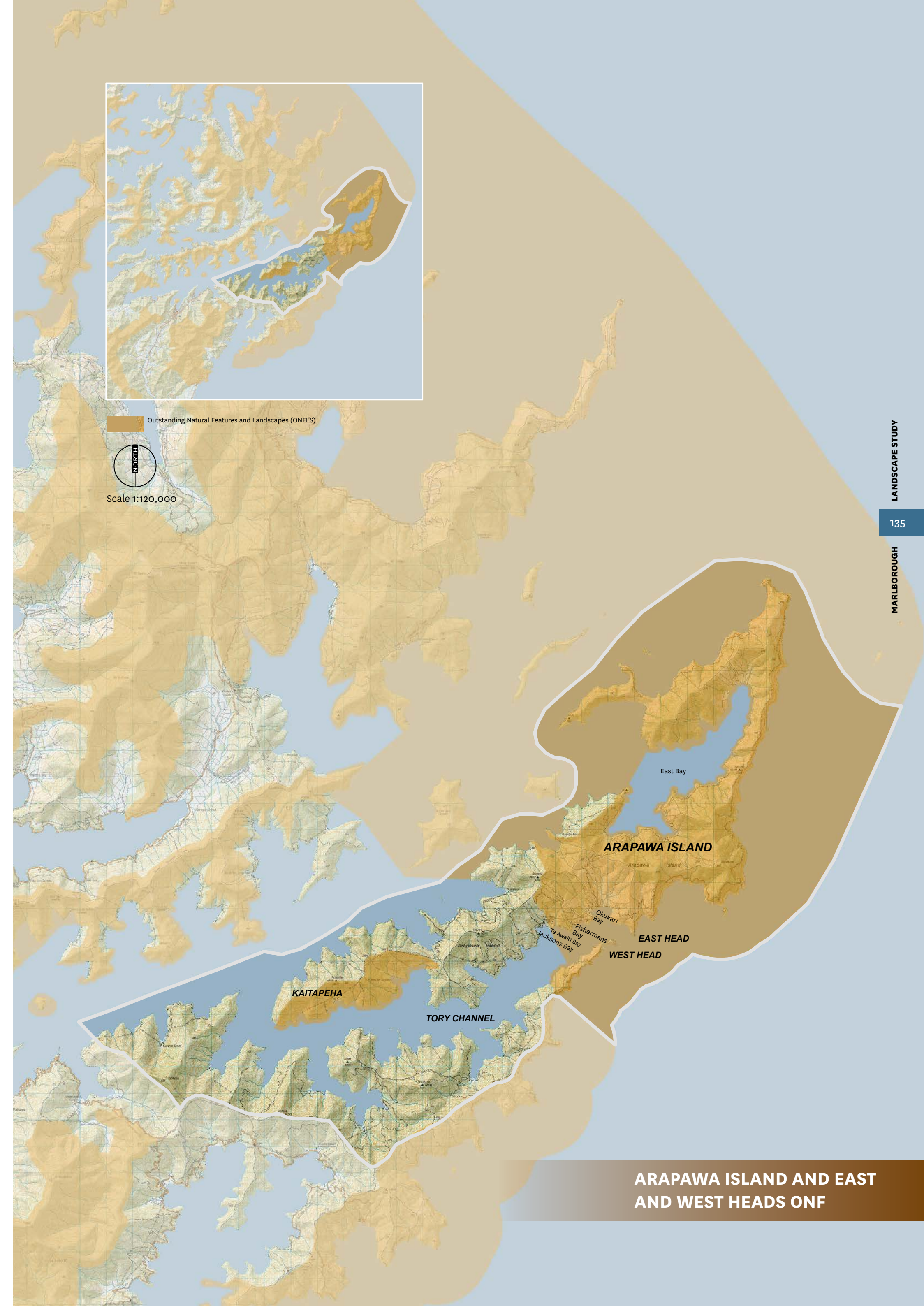
Tory Channel features as the marine gateway to the South Island and Marlborough Sounds via the dramatic, narrow entrance to Queen Charlotte Sound between East Head (a geopreservation site) and West Head. Kaitapeha Peninsula, at the entrance to Tory Channel, is a legible forested landmark. The waters around East Bay have nationally significant ecological values, particularly for Hector's dolphin.

There is considerable evidence of early Māori settlement/activity throughout the area, with sites particularly intense around East Bay, Arapawa Island. The first whaling station in New Zealand was established in Tory Channel, at Te Awaiti in 1827 by Londoner John Guard and is reputed to be the first European settlement in the South Island.

Modifications include: cleared vegetation and pasture, power lines, tracks, buildings, and moorings. Modifications also include the heritage sites at Okukari Bay. Aquaculture is present in East Bay and isolated parts of Tory Channel.



Above: Cliffs of eastern Arapawa Island.



ARAPAWA ISLAND AND EAST AND WEST HEADS ONF

15: EXPOSED EASTERN COASTLINE

West Head to Robertson Point, including Glasgow Bay and Fighting Bay (Oraumoa).

15: EXPOSED EASTERN COASTLINE

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the Exposed Eastern Coastline have been assessed as ONFs at the district scale, when mapped and assessed at that scale. This ONF lies within the eastern part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature, Seascape and Ridges and Spurs Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Nationally significant seascape – steep coastal cliffs, rocky reefs, boulder beds, coves and bays. Geopreservation site: Fighting Bay (regionally important) Torlesse Schist. Exposed, steep, rugged sea-cliffs, rocky reefs, boulder beds and coves/ bays. Highly natural coastal cliffs and large southerly swells typify a high-energy coastline. Highly indented coastline and intricate bluff system between Robertson Point (Port Underwood) and Tory Channel. The lower portions of this exposed coastline retains very high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Dramatic cliffs and rocky shoreline define the eastern coastline and are extremely memorable, despite the plantation forestry on the upper ridge. Numerous, continuous sequence of rocky bays and coves.
Associative	<ul style="list-style-type: none"> Pa sites and other archaeological evidence of early Māori settlement line the coast of Port Underwood. Signing of the Treaty of Waitangi on Horahora Kakahu Island in 1840. Early whaling station at Robertson Point.

Rating:

OUTSTANDING NATURAL FEATURES

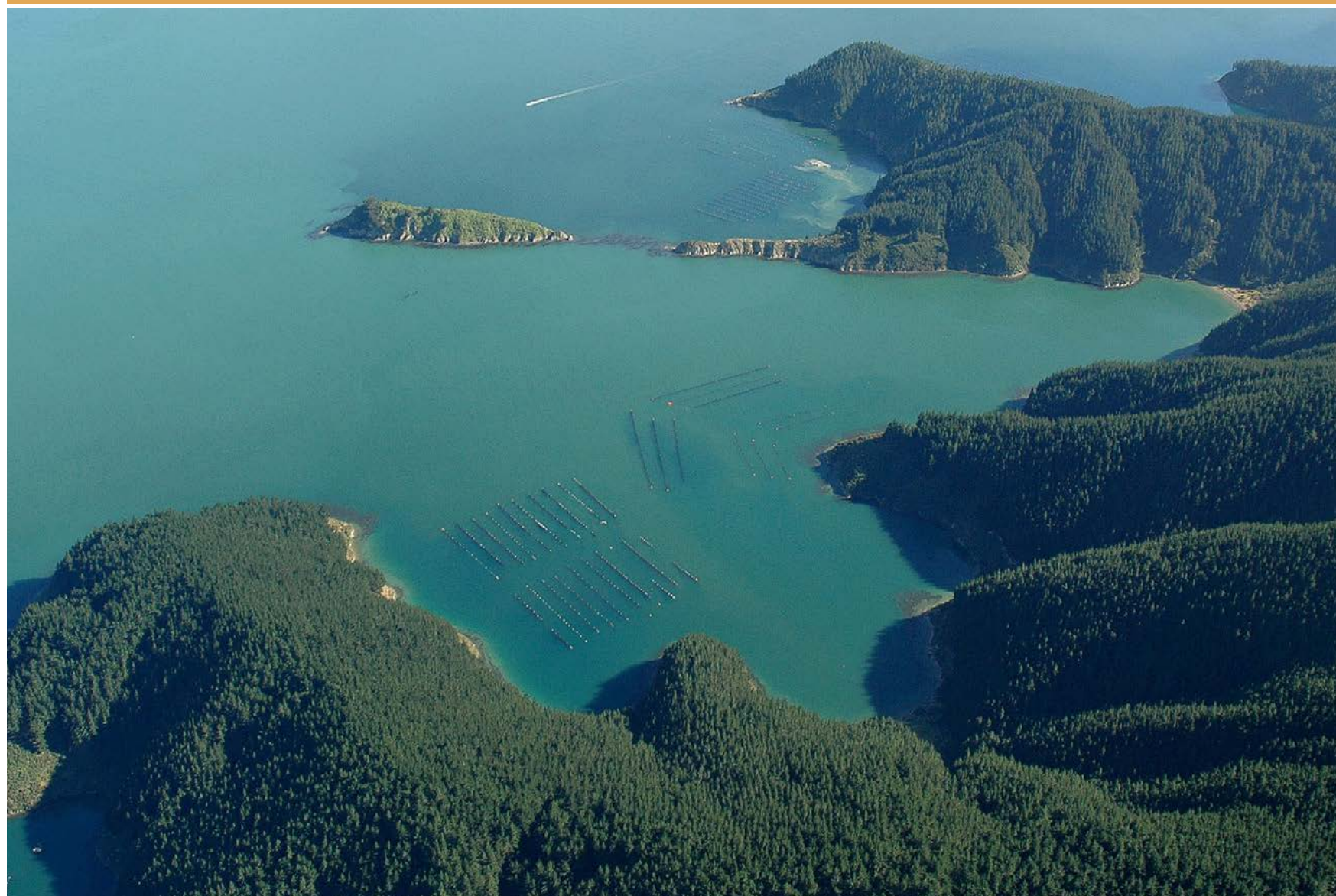
Evaluation

Based on the above values, the **Exposed Eastern Coastline** has been identified as ONF's due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

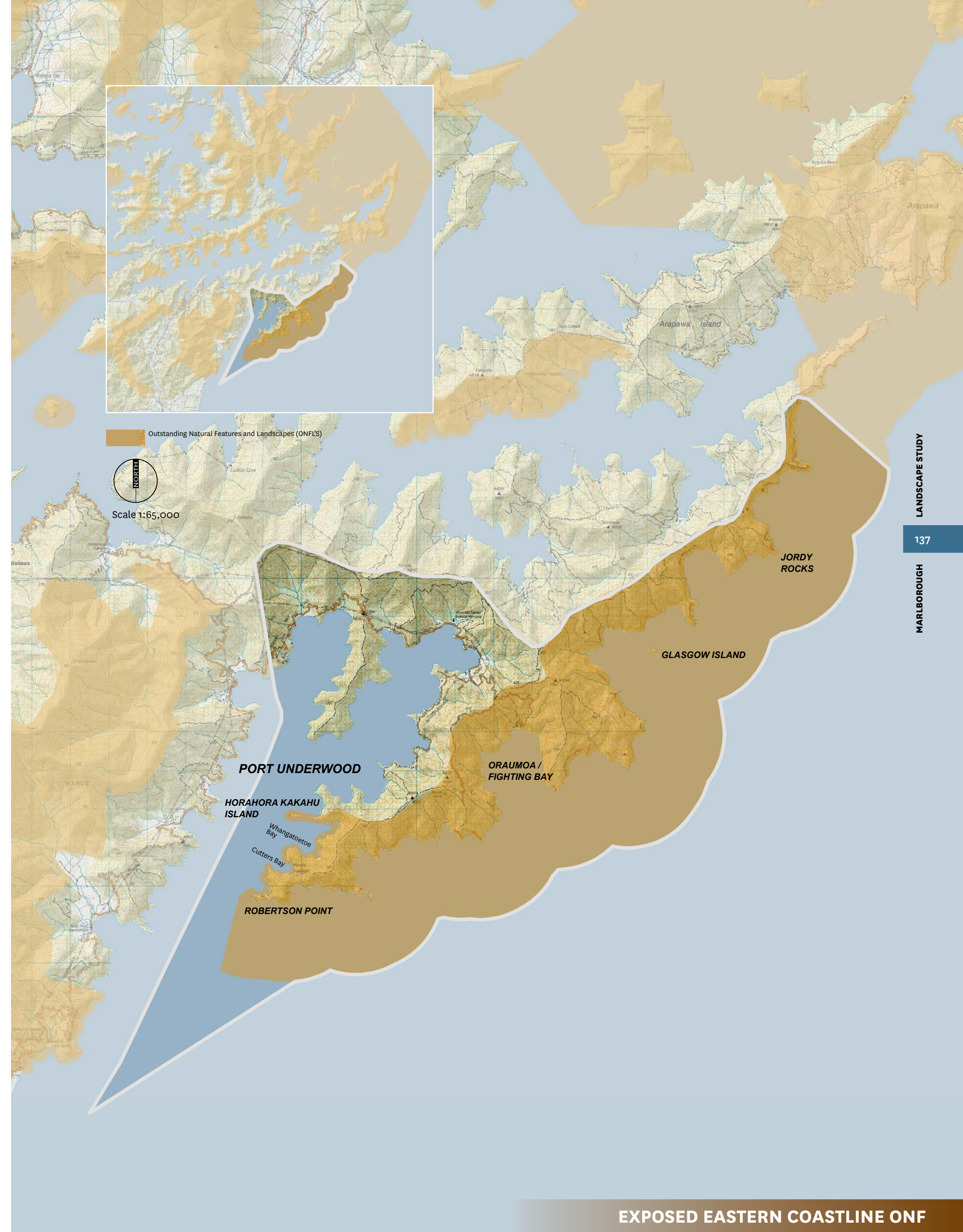
The south eastern Cook Strait coastline of Port Underwood extends northwards to shortly south of West Head and features exposed, steep and rugged sea cliffs with rocky reefs, boulder beds and coves/bays.

The eastern coastline of Port Underwood displays a wealth of history, ranging from old whaling stations and mission stations to cottages and cemeteries. The Treaty of Waitangi was signed on Horahora Kakahu Island, the site of the former Horikaka Pā.

Modifications include: cleared vegetation, forestry, tracks, roads, buildings, high voltage cable station (Fighting Bay), and a limited number of moorings in Cutters Bay and Whangatoetoe Bay. Adjacent to marine farms in Cutters and Whangatoetoe Bay.



Above: Whangatoetoe Bay and Horahora Kakahu Island, Port Underwood.



EXPOSED EASTERN COASTLINE ONF

16: ISLANDS OF NORTH-EASTERN QUEEN CHARLOTTE SOUND, INCLUDING WHITE ROCKS AND THE BROTHERS

Including Long, Motuara, Oruawairua/Blumine and Matapara/Pickersgill Islands.

16: ISLANDS OF NORTH-EASTERN QUEEN CHARLOTTE SOUND INCLUDING WHITE ROCKS AND THE BROTHERS

Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the islands of North-Eastern Queen Charlotte Sound, including White Rocks and the Brothers, have been assessed as ONFs at the district scale, when mapped and assessed at that scale. These ONF's lie within the eastern part of the Outer Sounds ONL.
Mapping Approach	This area was mapped using the Contained Landscape Feature and Seascape Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Geopreservation site: Long Island cusplate foreland. The islands have an exposed, steep and rocky character and are remnants of mountain ridges that pre-date submergence of the former landscape. Long Island is an island sanctuary and of international significance as a marine reserve. Internationally and nationally significant are the Brothers Islands (for tuatara) and White Rocks (for Duvaucel's gecko). There are very low levels of modification evident on all islands. The islands are important for their uninterrupted natural sequences, from ridgetop to sea floor. Motuara Island is recognised as nationally significant due to its regenerating bush, many species of native bird endangered on the mainland and its predator-free status. The waters around these islands and up the Endeavour Inlet have been identified as having nationally significant ecological values, particularly for Hector's dolphin. Pickersgill Island is recognised as regionally significant for its flora and fauna. Blumine Island is recognised as nationally significant due to it being home to the world's most endangered kiwi, the rowi as well as other endangered birds. It is also predator-free. The south Brothers island is one of the most pristine seabird islands in New Zealand. All islands and most interconnecting waters hold outstanding natural character.
Perceptual	<ul style="list-style-type: none"> These rugged, exposed outer islands are highly legible and are highly natural due to their bushclad slopes and lack of modification. Their location at the entrance to Queen Charlotte Sound makes them excellent reference points for boats. Strong tidal currents and considerable wave action are present. The Brothers islands are clearly legible as a group of islands that are amongst the most exposed islands in Marlborough.
Associative	<ul style="list-style-type: none"> A 12 metre-high wooden lighthouse built in 1877 stands on The Brothers. There are numerous Māori and European heritage and archaeological sites on these islands.

Rating: **OUTSTANDING NATURAL FEATURES**

Evaluation

Based on the above values, **Islands of North-Eastern Queen Charlotte Sound including White Rocks and The Brothers** have been identified as ONF's due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

The cluster of smaller islands at the mouth of Queen Charlotte Sound form an attractive land/water interface. These Islands include Blumine Island, Pickersgill Island, Long Island, Motuara Island, Kokomohua Islands, The Twins, Motungarara Island and White Rocks. The smaller islands are island sanctuaries and are valued internationally and nationally for their significant ecological values. The area is highly valued for its European and Māori heritage, including the World War Two infrastructure that remains evident, the early whaling history and the extensive early Māori archaeological sites and stories relating to the area. The area is also valued for the recreational use and nature tourism potential of this part of Queen Charlotte Sound.

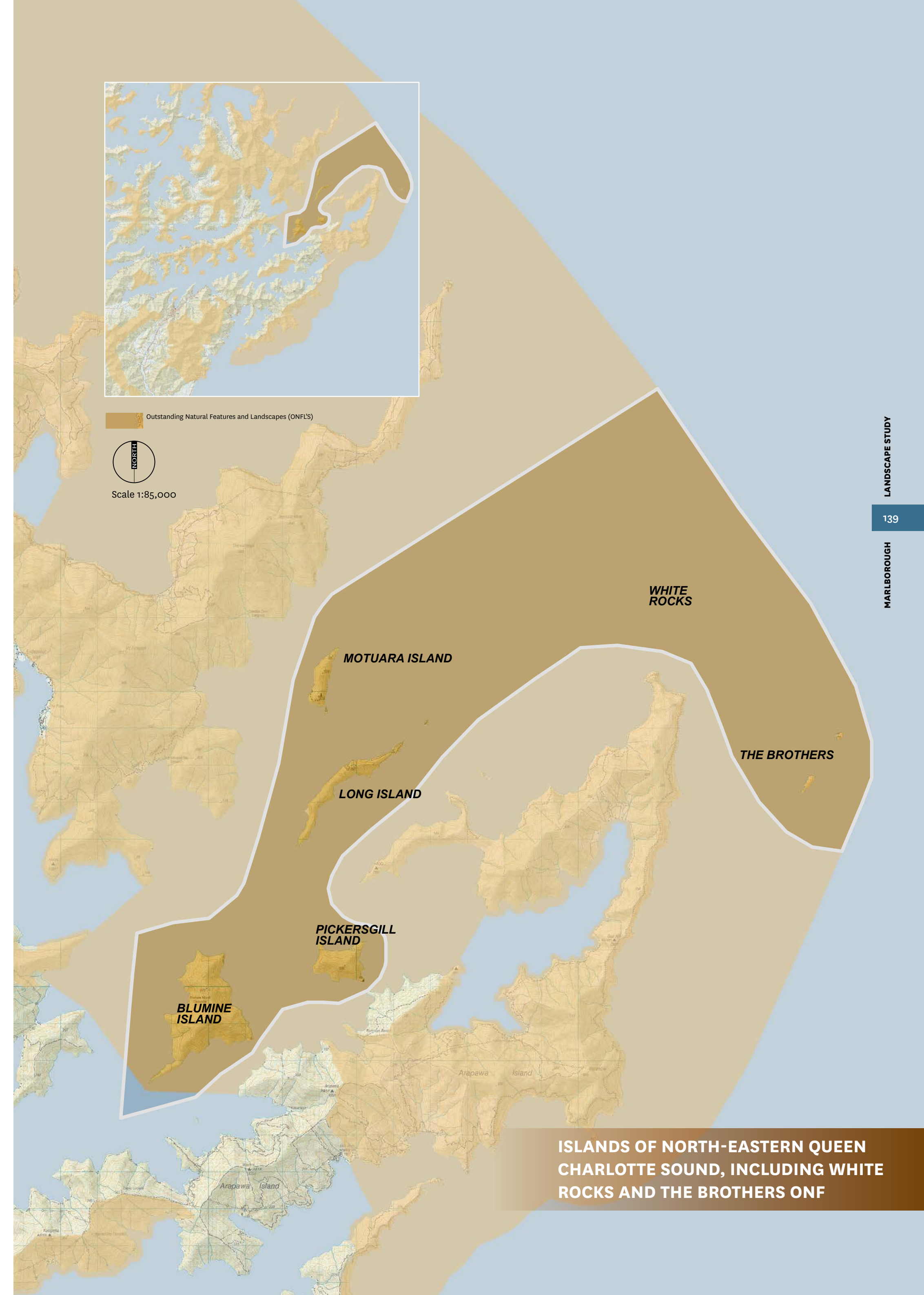
Large areas of the waters in Queen Charlotte Sound are of international and national scientific ecological significance. Blumine Island and Arapawa Island Reserves are considered nationally significant for ecological values.

The highly exposed White Rocks feature unique native New Zealand and Cook Strait species of international significance. The eastern-most point of the Marlborough Sounds, The Brother islands, are of international and national significance due to their tuatara populations and the high wooden lighthouse built in 1877.

Modifications include: lighthouse on eastern part of the Brothers island, track (Motuara Island), and a gun emplacements on Bulmine Island.



Above: Motuara Island (foreground), Long Island (middle-right) and Cape Koamaru (in the distance towards the left of the photo).



ISLANDS OF NORTH-EASTERN QUEEN CHARLOTTE SOUND, INCLUDING WHITE ROCKS AND THE BROTHERS ONF

17: NORTHERN LANDS OF INNER QUEEN CHARLOTTE SOUND

Including bays of northern Queen Charlotte Sound, Onahau, Allports Island, Kaipupu Point and Mabel Island

17: NORTHERN LANDS OF INNER QUEEN CHARLOTTE SOUND	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, the Northern Lands of Inner Queen Charlotte Sound have been assessed as ONFs at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area was mapped using the Contained Landscape Feature, Landuse and Ridges and Spurs Mapping Approaches. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> Allports Island, Kaipakirikiri Bay and southern flanks of Onahau Bay are of localised ecological value. Predator-free island of Allports Island. Forested headland of Kaipupu Point managed as a "mainland island" with high natural character values. Regionally important tracts of primary forest in Kumutoto Bay and impressive forest sequences on southern flanks of Onahau Bay. Allports Island, Kaipakirikiri Bay and southern flanks of Onahau Bay retain very high levels of natural character and the remaining areas hold high natural character values.
Perceptual	<ul style="list-style-type: none"> Impressive views into Kenepuru Sound and wider Queen Charlotte Sound from Queen Charlotte Track. Intriguing regular indentation of bays between Houhou Point and Snake Point. Land cover remains predominantly native bush and regenerating scrub, providing an attractive contrast to and setting for the towns and baches. High experiential values in Queen Charlotte Sound, especially in relation to Kaipupu Point and Mabel Island where they are visible from Picton.
Associative	<ul style="list-style-type: none"> Popular area for recreational activities and habitation. The popular Queen Charlotte Track extends through this area as a well-known walking/mountain biking track. Travellers enjoy views from the Cook Strait ferries, which pass through Queen Charlotte Sound to, and from, Picton. Evidence of early Māori settlement and activities around the coastline. The bush-covered islands of Allports and Mabel assist boaties as navigational landmarks.
Rating:	OUTSTANDING NATURAL FEATURES

Evaluation

Based on the above values, **Northern Lands of Inner Queen Charlotte Sound** have been identified as ONF's due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

Queen Charlotte Sound is the easternmost of the main Sounds and the part that New Zealanders are generally most familiar with (Corydon Consultants, Perception Survey, 2001). For many inter-island ferry travellers, Queen Charlotte Sound may be their only experience of the Marlborough Sounds. The most commonly visited part of the Sounds (Croydon Survey), Queen Charlotte Drive, is a well-known slow and winding route between Havelock and Picton with scenic views down to the bays.

The intriguing regular indentation of bays in the sound are highly memorable, providing an attractive contrast to and setting for the towns and baches of Queen Charlotte Sound. Large proportions of the bays, headlands and ridges on the northern side of Queen Charlotte Sound are in DOC ownership. Within these areas, the impressive forested peak of Mt. Bolton, the lower southern slopes of Mt Stokes, and the bays and headlands of the mainland between Onahau Bay and the Bay of Many Coves are of ecological value. Of particular value is the predator-free island of Allports Island, north east of Picton. Large areas of the waters in Queen Charlotte Sound are of international or national scientific ecological significance.

The Māori name for Queen Charlotte Sound is Totaranui, for the totara trees that grew there. Totaranui was an important trade route for early Māori, with evidence of their settlements and activities throughout the area. A large number of people also use the Queen Charlotte Track, which follows the ridge that divides Kenepuru Sound from Queen Charlotte Sound, providing panoramic viewing into both areas.

Modifications include: cleared vegetation, tracks, powerlines, forestry, buildings, jetties, and moorings.



Above: Queen Charlotte Sound.



NORTHERN LANDS OF INNER QUEEN CHARLOTTE SOUND ONF

18: MT. ROBERTSON

Includes northern end of Robertson Range, Mt Robertson, Mt McCormick and Whites Bay.

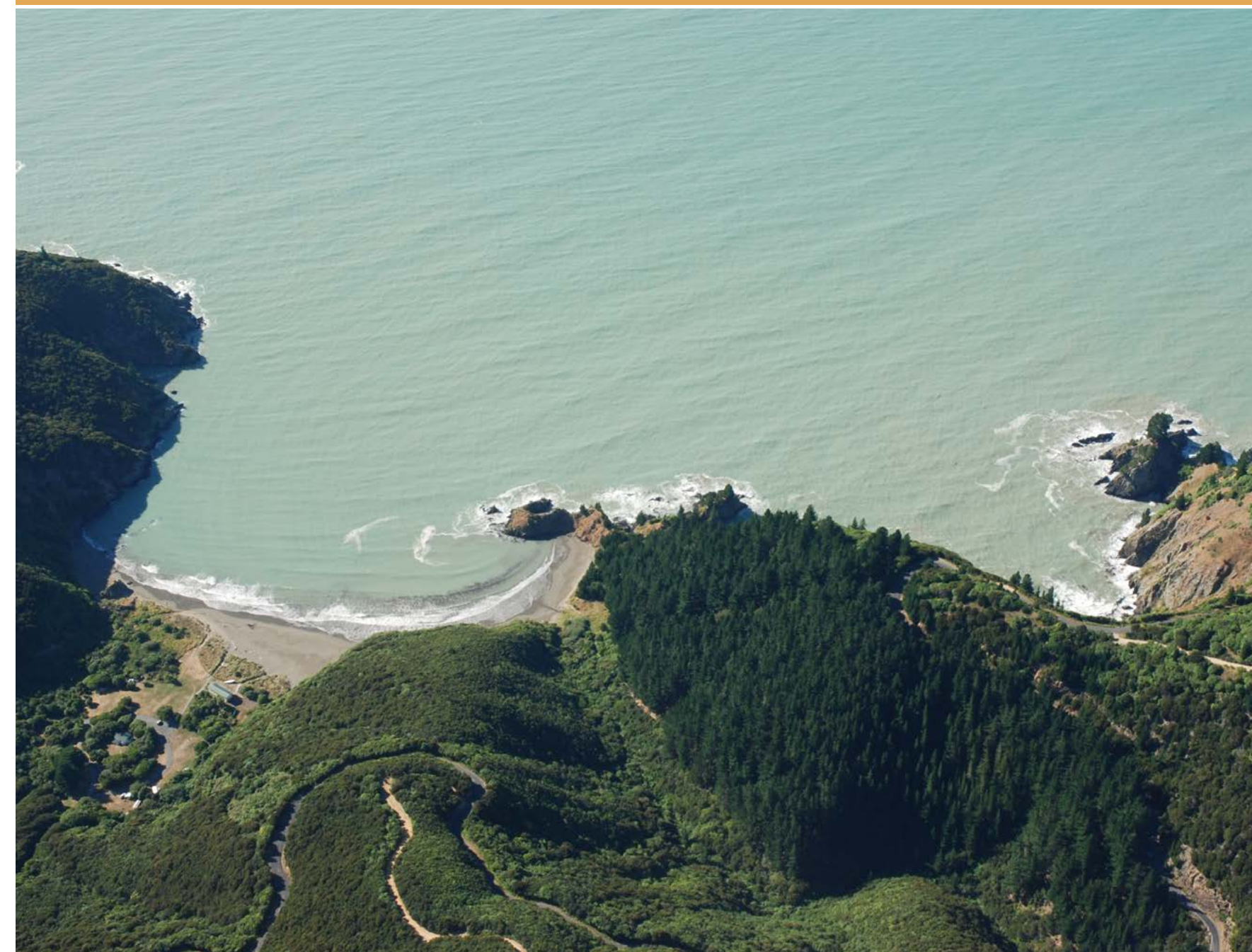
18: MT. ROBERTSON	
Scale of Mapping and Assessment	The Marlborough Sounds is an ONL at a national scale. Within this wider landscape, Mt Robertson has been assessed as an ONF at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area was mapped using the Landuse Mapping Approach. Refer to page 21.
Landscape Characteristics and Values Summary	
Biophysical	<ul style="list-style-type: none"> The Robertson Range extends down to the coast at Rarangi, providing shore-to-ridgetops altitudinal sequence of national significance. Elevated parts of Mt. Robertson that are within the coastal environment hold very high levels of natural character, and lower parts hold high levels of natural character.
Perceptual	<ul style="list-style-type: none"> Visually important backdrop to Wairau Valley. The sheltered nature of Whites Bay is extremely memorable, retaining high levels of visual amenity.
Associative	<ul style="list-style-type: none"> Whites Bay Cable Station. Popular destination for camping and recreational activities (including walking the Mt. Robertson Summit Route).

Rating: **OUTSTANDING NATURAL FEATURE**

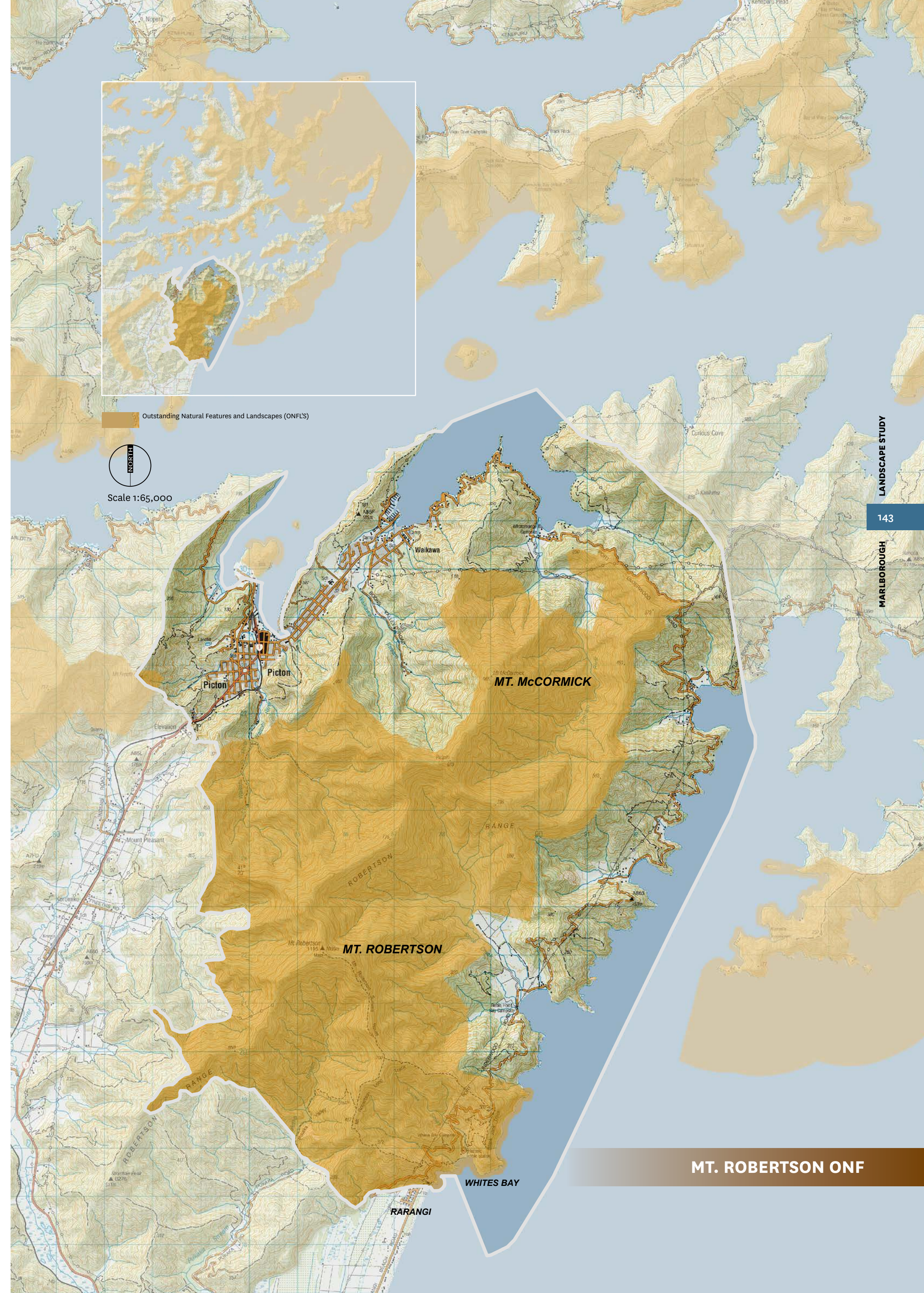
Evaluation
 Based on the above values, **Mt. Robertson** has been identified as an ONF due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

Situated at the northern-most point of the Robertson Range, Mt Robertson features a large scenic reserve which skirts the majority of its mid to upper eastern slopes from Rarangi to the peak of Mt McCormick, which separates Queen Charlotte Sound and Port Underwood. The area features regenerating and mature beech forest. Of particular importance is the coast at Rarangi and Whites Bay where a shore-to-ridgetop altitudinal vegetation sequence is of national significance. The rocky headlands and sandy shores of Whites Bay are backed by regenerating native bush. Scenic and short DOC tracks lead to the bluffs above Whites Bay where panoramic views of Port Underwood, Cook Strait and Cape Campbell are seen. Whites Bay features a historic cable station, which connected the first telegraphic link between both the North and South Islands in 1866.

Modifications include: cleared vegetation, powerlines, buildings, Port Underwood Road, and tracks.



Above: Whites Bay coastline below Mt Robertson.



MT. ROBERTSON ONF

OUTSTANDING NATURAL FEATURES & LANDSCAPES OF SOUTHERN MARLBOROUGH (19-27)

Southern Marlborough encompasses all land in the Marlborough region south of the Marlborough Sounds. This area holds a number of different Landscape Character Areas, with the main three being the Northern Wairau River Mountains (which includes the Richmond Range); the River Plains and Salt Marsh (i.e. the Wairau and Awatere areas) and the Mountainous Interior (i.e. Molesworth and the Inland Kaikoura Range). These areas are comprehensively described within Section C of this study.

Outstanding Natural Landscapes and Features of Southern Marlborough have been mapped in the study and identified with orange or gold colouration. Like the Marlborough Sounds, there are broad landscape areas as well as smaller landscape areas that nest within the broader landscapes.

In total, nine outstanding areas have been identified: four Outstanding Natural Landscapes (ONLs) and five Outstanding Natural Features (ONFs). The identified areas are listed in the box to the right and on the facing map.

As with the Outer Sounds ONL, the four ONLs identified in Southern Marlborough all contain a number of features that contribute to the characteristics and values that underpin the ONL. For example, the Molesworth ONL contains a number of river valleys and mountain ranges, lakes, tarns and peaks that collectively contribute to the whole being greater than the sum of its parts. All such 'features' of these ONLs have not been individually identified (as for the Marlborough Sounds), however key features have been noted.

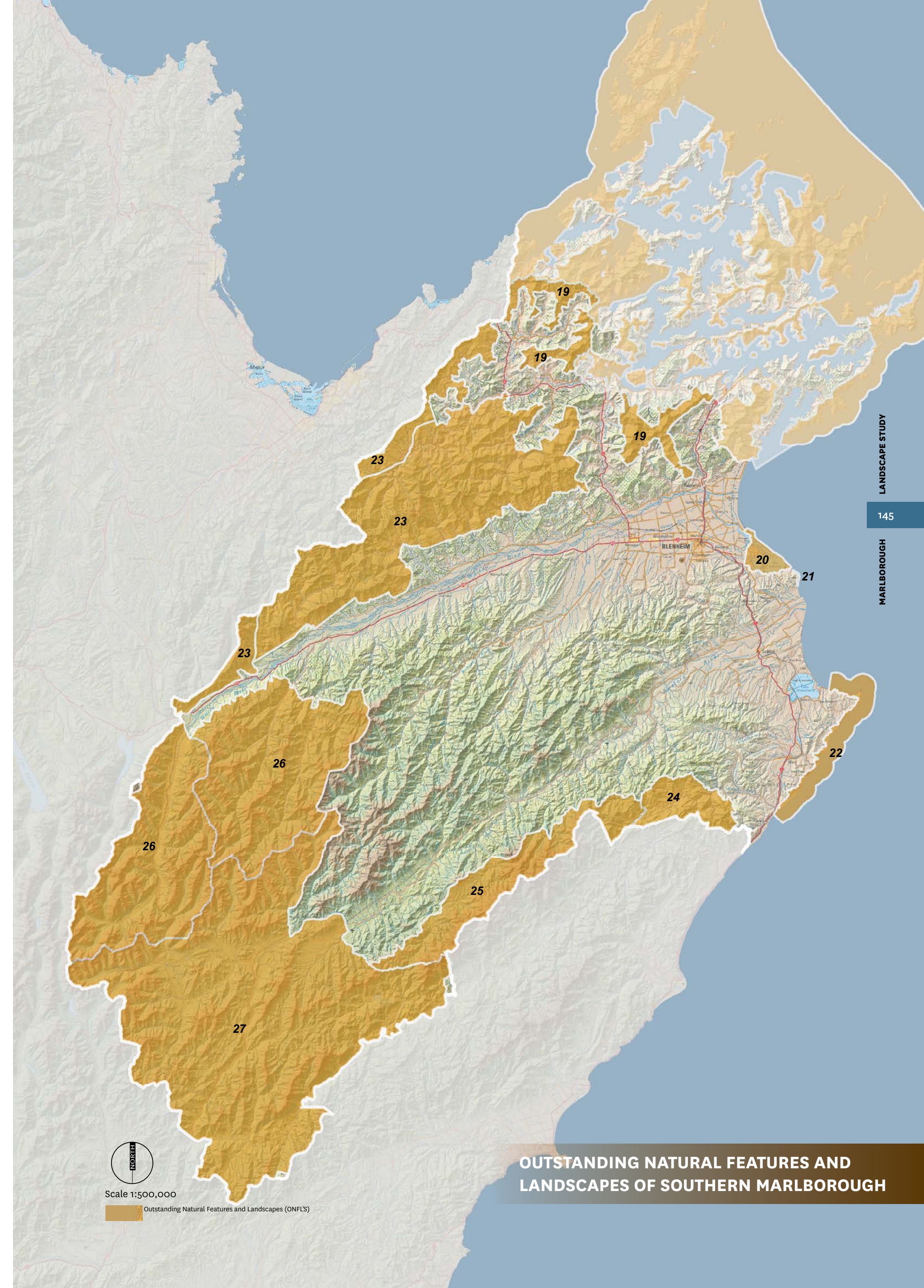
The nine South Marlborough ONFs and ONLs are described and evaluated in the same way as those of the Marlborough Sounds, where a values table, accompanying map, and an evaluation describes each one.

OVERVIEW OF ALL OUTSTANDING NATURAL FEATURES AND LANDSCAPES WITHIN SOUTHERN MARLBOROUGH

19	Mt. Duncan/ Mt. Rutland/ Mt. Cullen ONFs	Page 146
20	The Wairau Lagoons ONF	Page 148
21	White Bluffs/Te Parinui o Whiti ONF	Page 150
22	The Limestone Coastline ONL	Page 152
23	Bryant Range, Upper Pelorus River Area and Richmond Range Conservation Estate and Red Hills Range ONL	Page 154
24	The Chalk Range ONF	Page 156
25	The Inland Kaikoura Range ONF	Page 158
26	The Main Divide and Leatham Conservation Area ONL	Page 160
27	Molesworth Station and Upper Clarence ONL	Page 162



Above: The Acheron River, Molesworth



OUTSTANDING NATURAL FEATURES AND LANDSCAPES OF SOUTHERN MARLBOROUGH



Scale 1:500,000

Outstanding Natural Features and Landscapes (ONFLs)

19: MT. DUNCAN/MT. RUTLAND./MT. CULLEN

Conservation Estate of elevated forested peaks and ridge lines of northern Bryant Range, Bull Range, Mt. Rutland, Mt. Cullen and Mt. Duncan Ridges.

19: MT. DUNCAN/MT. RUTLAND./MT. CULLEN

Mapping Description	This area is part of the Mt. Richmond landscape. The Mt. Duncan / Mt. Rutland / Mt. Cullen Ranges are considered to be Outstanding Natural Features of this broader landscape.
Mapping Approach	This area was mapped using the Contained Landscape Feature, Landuse and Ridges and Spurs Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> • Geopreservation site: Okiwi Bay Pelorus Schist. • The hilly ranges are largely covered in indigenous beech and broadleaf forest. • Unencumbered by development.
Perceptual	<ul style="list-style-type: none"> • Visually important elevated backdrop of indigenous and regenerating vegetation to the Rai, lower Pelorus and Kaituna River valleys. • These, undeveloped and vegetated ridges in northern parts of the valleys provide visually attractive natural patterns, noticeably the Mt. Duncan ridge.
Associative	<ul style="list-style-type: none"> • Mount Richmond Forest Park provides a semi-remote forest experience currently characterised by unmodified landscape. • The area is managed by DOC.

Rating:

OUTSTANDING NATURAL FEATURES

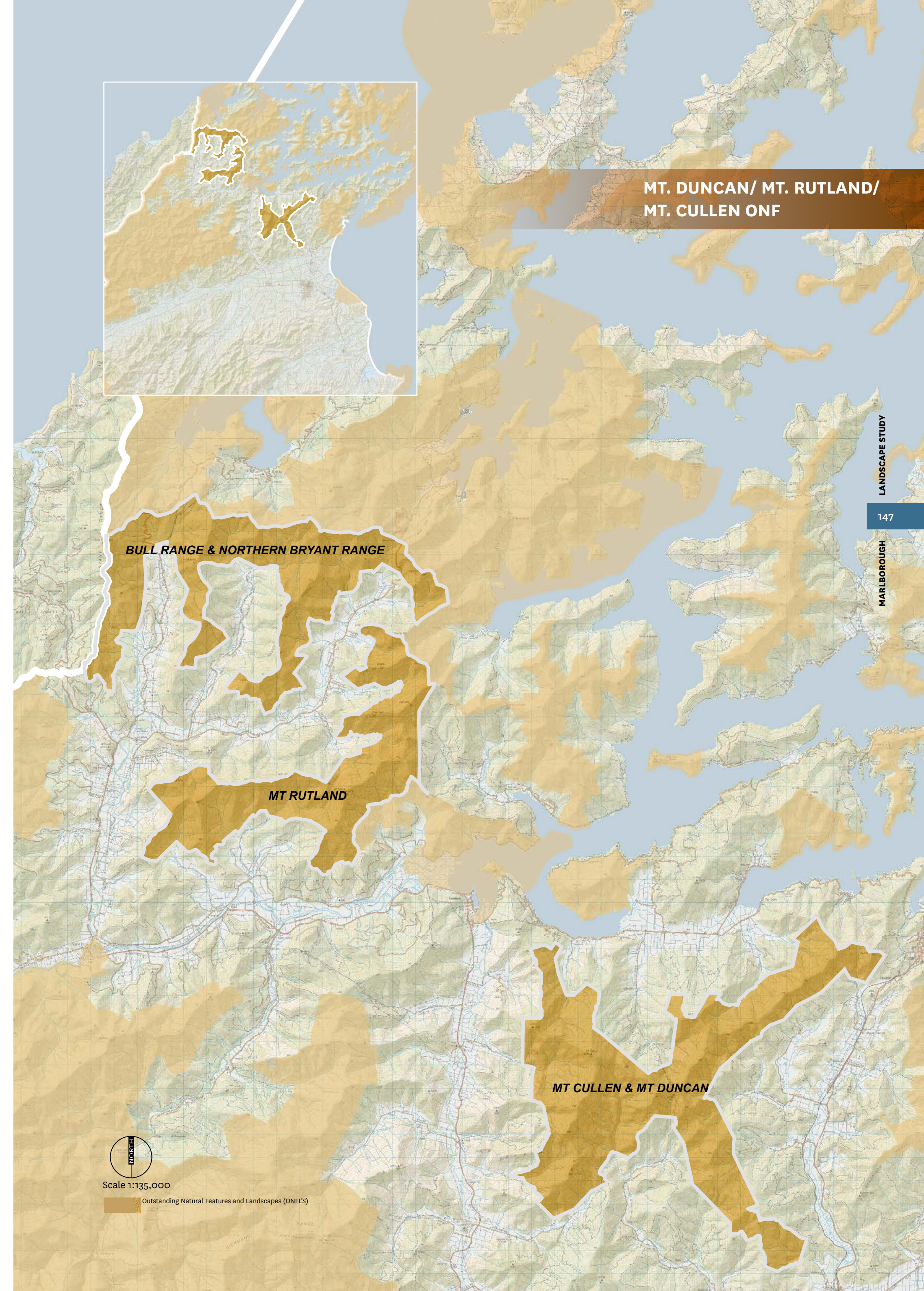
Evaluation

Based on the above values, **Mt. Duncan / Mt. Rutland / Mt. Cullen** have been identified as ONFs due to their exceptional biophysical and associative landscape values and very high sensory landscape values. The indigenous forest in conservation estate, which covers the elevated ridges, assists in framing the adjacent valleys as well as providing a strong and continuous natural framework connecting a number of valleys.

Modifications include: occasional walking tracks, back country huts, masts, overhead transmission line to Okiwi Bay, part of Ronga/ Croisilles Road (by Ronga Saddle), a disused mine (near Mt. Cullen) and trig stations.



Above: Vegetated steep slopes of the Rai River valley.



**MT. DUNCAN/ MT. RUTLAND/
MT. CULLEN ONF**

BULL RANGE & NORTHERN BRYANT RANGE

MT RUTLAND

MT CULLEN & MT DUNCAN



Scale 1:135,000

Outstanding Natural Features and Landscapes (ONFLS)

20: THE WAIRAU LAGOONS

Lagoon at the mouth of the Wairau River, including Te Pokohiwi/Boulder Bank.

20: THE WAIRAU LAGOONS

Mapping Description	This area forms part of the Wairau Landscape. The Wairau Lagoons are considered to be Outstanding Natural Features of this broader landscape.
Mapping Approach	This area has been mapped using the Landscape Feature Approach (i.e. Lagoons and boulder barrier). Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Wairau Boulder Bank/Te Pokohiwi, lagoon and delta are geopreservation sites identified as nationally significant landforms. Highly natural wetland, being a large coastal lagoon-estuarine system and unique estuarine ecosystem, protected as a DOC Reserve. The lagoons are of national importance for wading birds. Wairau Bar dry shrublands.
Perceptual	<ul style="list-style-type: none"> Aesthetically interesting and broadly unmodified landforms of the estuarine landscape and boulder bank. Expansive open sea views out to Cloudy Bay and White Bluffs/Te Parinui o Whiti. Ebb and flow of weather-protected coastal waters.
Associative	<ul style="list-style-type: none"> Māori/early polynesians archaeological sites, including middens, campsites and moa remains on the boulder bank and around the Wairau Lagoons. New Zealand's oldest archaeological site. One of the first landing points in New Zealand by early Polynesians, some 700 years ago. Cultural importance of the Wairau Lagoon and Wairau Boulder Bank acknowledged by the Crown in iwi Treaty of Waitangi settlement. Wairau Lagoons Walkway. Impressive SS <i>Waverley</i> shipwreck.

Rating:

OUTSTANDING NATURAL FEATURE

Evaluation

Based on the above values, **The Wairau Lagoons** has been identified as an ONF due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

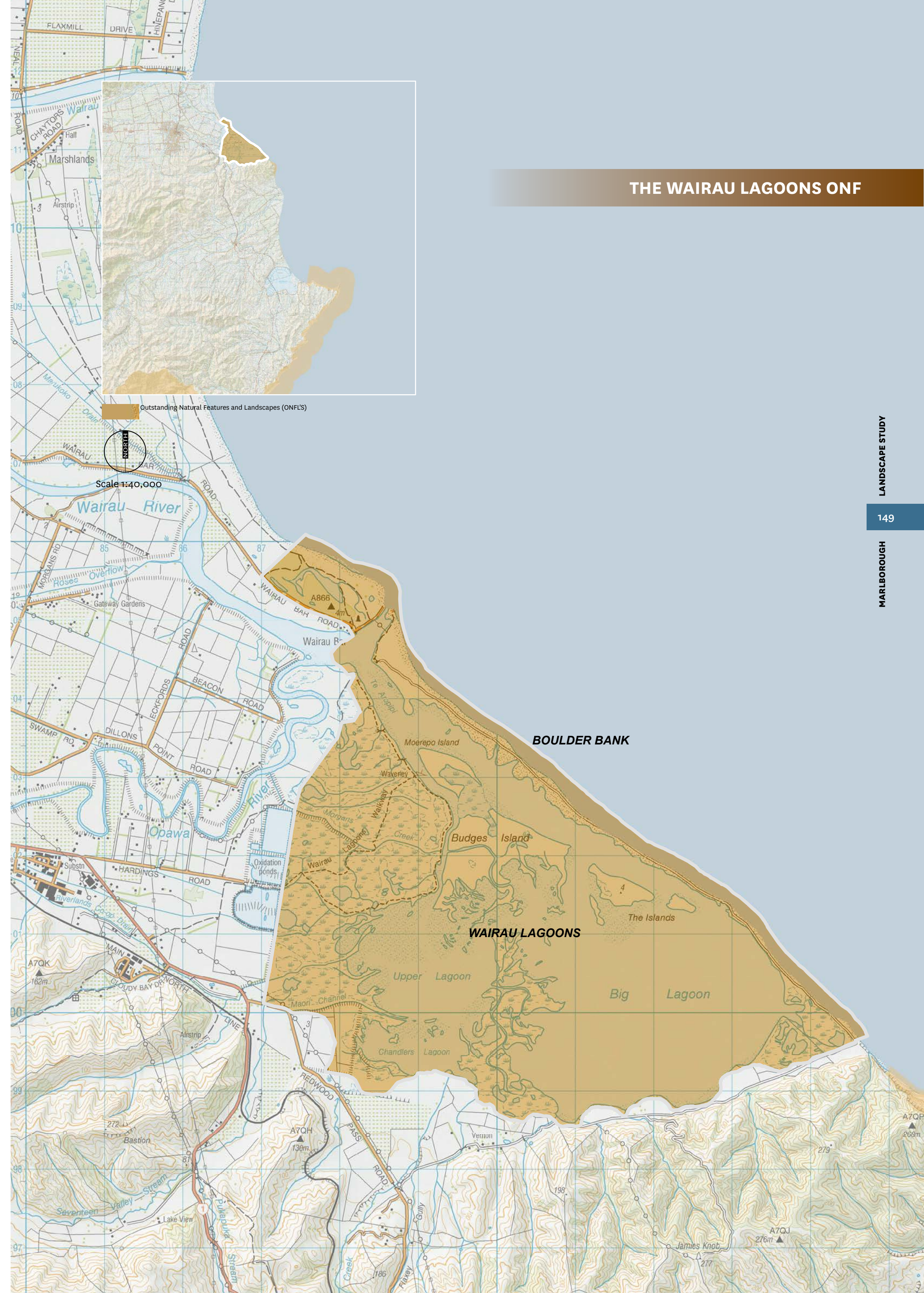
The coastal area and river mouth, which includes the Wairau Boulder Barrier/Te Pokohiwi and lagoon, contributes important biophysical values to the Wairau River valley landscape. The Wairau boulder bank and lagoons are nationally significant as intact geological landforms, and provide nationally significant habitats for native, vulnerable and rare waterfowl and birds. The lagoon features extensive glasswort herbfields alongside rushes, sedges, estuarine herbs and grasses. The lagoon and boulder bank afford expansive sea views out to Cloudy Bay and the backdrop of White Bluffs/Te Parinui o Whiti.

The Wairau Lagoons are significant culturally to tangata whenua and are exceptional generally for the archaeological remains that have been identified there. A number of Māori/early Polynesian archaeological sites, including middens, campsites, and moa remains, are located on the boulder bank and around the Wairau lagoons; the oldest archaeological site in New Zealand. There is evidence to suggest that the boulder bank was one of the first landing points on New Zealand by early Polynesians some 700 years ago. The Crown, through iwi settlements, has declared the Wairau Lagoons and Wairau Bar as areas of cultural importance.

Modifications include: Wairau Lagoons Walkway track, small footbridges over watercourses, the southern extent of the Wairau Bar Road, a house close to the tip of the Wairau Bar and the shipwreck of the SS *Waverley*. This ONF excludes the oxidation ponds, the small collection of buildings at the terminus of the Wairau Bar Road and modified farmland south of the road as well as modified land south of the lagoons, close to the southern hills.



Above: Wairau Lagoons.



THE WAIRAU LAGOONS ONF

21: WHITE BLUFFS/TE PARINUI O WHITI

Bluffs separating Cloudy and Clifford Bays.

21: WHITE BLUFFS/TE PARINUI O WHITI

Mapping Description This area forms part of the South Marlborough coastal landscape. White Bluffs/Te Parinui o Whiti are considered to be an Outstanding Natural Feature of this broader landscape.

Mapping Approach This area has been mapped using the Landscape Feature Mapping Approach (i.e. Bluff faces, beaches and immediate vegetated gullies fronting the Pacific Ocean). Refer to page 21.

Landscape Characteristics and Values Summary

- | | |
|--------------------|--|
| Biophysical | <ul style="list-style-type: none"> • High legibility of the predominantly grass-covered hills and exposed coastal bluffs. • Geopreservation site: White Bluffs/Te Parinui o Whiti. • Dry coastal forest and treeland vegetation within gully systems. • Significance as the largest sea-cliffs in Marlborough. |
| Perceptual | <ul style="list-style-type: none"> • Visually dramatic and striking geological form, resultant of various tectonic, erosional and climatic forces at work. |
| Associative | <ul style="list-style-type: none"> • A Ngāi Tahu conservation covenant is overlaid on White Bluffs/Te Parinui o Whiti. |

Rating:

OUTSTANDING NATURAL FEATURE

Evaluation

Based on the above values, **White Bluffs/Te Parinui o Whiti** have been identified as an ONF due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

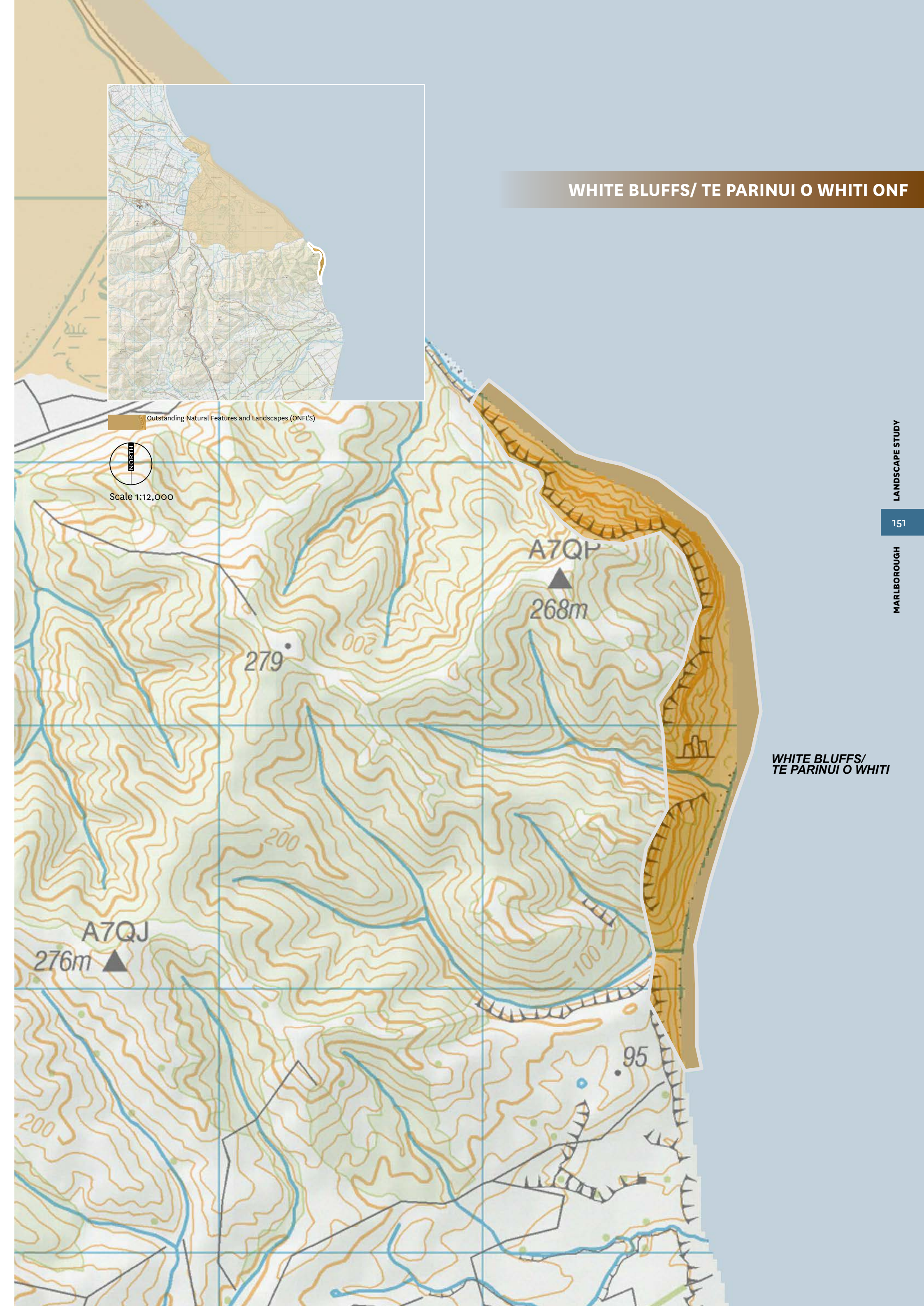
The visually dramatic White Bluffs/Te Parinui o Whiti are a striking feature, a landform that is regionally significant for its geomorphological values, and has the largest tract of native forest vegetation in the area. White Bluffs/Te Parinui o Whiti mark an important territorial boundary, with Ngāi Tahu claiming rights on the east coast of the South Island up to White Bluffs/Te Parinui o Whiti. A Ngāi Tahu conservation covenant is overlaid on the bluffs.

Modifications include: limited or no modifications. Modified pasture land on top of the bluffs is excluded from the ONF.



Above: White Bluffs/Te Parinui o Whiti.

WHITE BLUFFS/ TE PARINUI O WHITI ONF



WHITE BLUFFS/
TE PARINUI O WHITI

22: THE LIMESTONE COASTLINE

Eastern coastline from Cape Campbell to the Waima River.

22: THE LIMESTONE COASTLINE

Mapping Description	This area forms part of the South Marlborough Coastal Landscape. The Limestone Coast has been assessed as an ONL at the district scale, when mapped and assessed at that scale.
Mapping Approach	This area has been mapped using the Ridges and Contours Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> Geomorphology of limestone coastline includes several coastal geopreservation sites: Needles Point Cretaceous-Tertiary boundary Flaxbourne River folds and thrusts, and the Chancet Rocks. Broad and deeply incised mudstone shore platforms and offshore reefs characterise the marine environment around Cape Campbell. Colonies of New Zealand fur seals at Chancet Rocks and the Needles. Coastal platforms and ecological values of importance, with Marlborough endemic flora common, rocky areas (including the Marlborough rock daisy) and gullies. All of these features are interlinked by beaches, cliffs and back dunes and hill country, which share the same geology and erosional and tectonic forces, culminating in an extremely impressive and legible coastline that clearly expresses its formative processes.
Perceptual	<ul style="list-style-type: none"> Unencumbered, predominantly pastoral land retains a high level of visual coherence. Highly expressive coastline from the slender Cape Campbell to Waima/ Ure River. Complex geology creates spectacular landforms and features that are particularly scenic along the coastline.
Associative	<ul style="list-style-type: none"> A number of Māori archaeological sites are associated with this area, including two ancient pa sites on the coast, as well as a number of ovens and middens. Possible European associations relating to the limeworks at Chancet. High recreational values, particularly at Marfells Beach and Ward Beach.

Rating:

OUTSTANDING NATURAL LANDSCAPE

Evaluation

Based on the above values, **The Limestone Coastline** has been identified as an ONL due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

The Limestone Coastline provides the greatest visual drama in the south Marlborough landscape. The spectacular rocky outcrops of the Needles and Chancet Rocks along the Limestone Coastline south of Cape Campbell are extremely memorable and display very high levels of naturalness. The State Highway 1 coastal road from the Waima Bridge to the southern point of the district contains high scenic values.

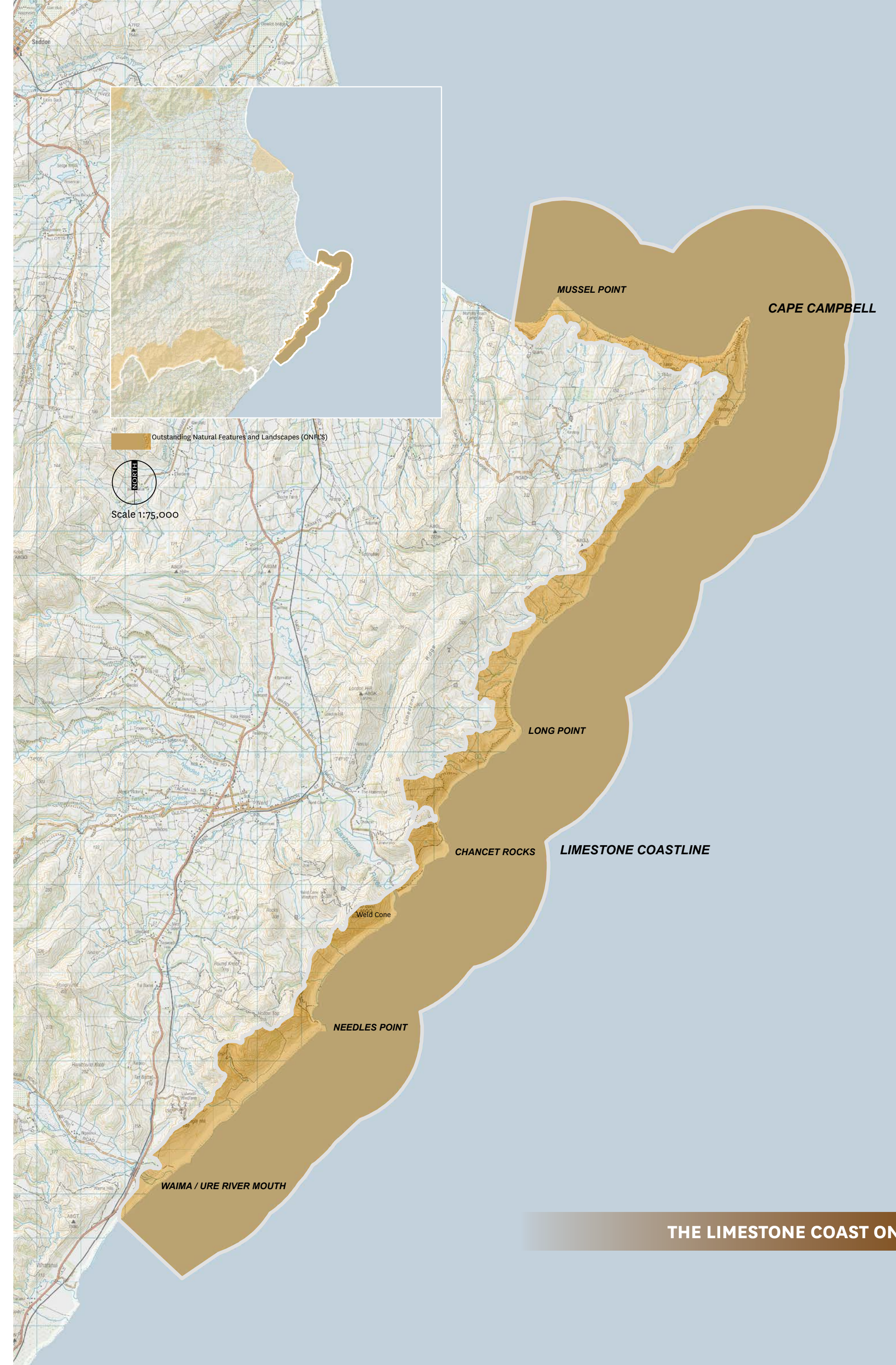
The coastline of this ONL is largely unmodified and very exposed. The area has remote values and access is limited to a few locations, including Ward Beach and a small number of points south of the Waima River. Walks along the sandy shoreline to the impressive limestone outcrops of the Needles and Chancet Rocks are backed by steep terrain where views towards the open ocean are gained. Views from Cape Campbell lighthouse are spectacular, where panoramic vistas of the sweeping curve of Clifford Bay and the southern shores of the North Island are evident. Other than farm-related activity on the land, this coastline is unmodified, with no aquaculture or jetties/ wharves. The area, once visited, is extremely memorable.

Prominent reef areas in the north (including Cape Campbell) give way to extensive sand/gravel shores in the south and large offshore *Macrocystis* (kelp) beds are also present off this coastline. The coastal cliffs and escarpments have small low indigenous forest remnants and unusual, highly distinctive herbfields with nationally threatened species. The dunes and coastal flats also contain nationally threatened species. The Canterbury Gully dunefield, located just south of Cape Campbell, contains nationally threatened ecosystem types and plant species. The coastal scarps and flats have nationally significant ecosystems, including dunes and salt turfs, and good sequences of native coastal vegetation. Several areas are set aside for conservation of natural values through QEII National Trust covenants.

Modifications include: pastoral land, occasional fences, farm tracks, a gravel road leading to the lighthouse, a lighthouse and collection of small buildings (including a small overhead powerline), an airstrip, a small quarry, and the Ward beach buildings and road end. This area also includes the eastern extent of Marfells Beach Road.



Above: Cape Campbell.



THE LIMESTONE COAST ONL

23: BRYANT RANGE, UPPER PELORUS RIVER AREA, RICHMOND RANGE CONSERVATION ESTATE AND RED HILLS RIDGE

Mountainous area forming the western boundary of the Marlborough Region, including Onamalutu Reserve.

23: THE BRYANT RANGE, UPPER PELORUS AREA, RICHMOND RANGE CONSERVATION ESTATE

Mapping Description	Based on mapping and assessment at the district scale, the Bryant Range, Upper Pelorus River Area, Richmond Range Conservation Estate and Red Hill Range are an Outstanding Natural Landscape.
Mapping Approach	This area has been mapped by the Ridges and Contours Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> High geological legibility. Geopreservation sites include: Lake Chalice debris dam; Wellington Gold Mine, Top Valley; Pelorus Bridge river gorge; Onamalutu Valley metachert, Dun Mountain and Alfred Stream earthflow (regionally important geological feature). The ecological values are of national significance. A band of ultramafic rock extends through Red Hills area, which leads to stunted, sparsely distributed plants that are quite unique to the area. Mount Richmond Forest Park contains relatively unmodified native vegetation including alpine herbfields, beech forest and ultramafic zone vegetation. The small Onamalutu Scenic Reserve and its unique remnant of virgin podocarp forest provide an example of the forests that once covered the alluvial plains of the Wairau and surrounding valleys. The Pelorus Bridge Scenic Reserve is one of the last stands of river-flat forest in Marlborough. Mount Richmond Forest Park provides habitat for native bird species including Blue duck, New Zealand falcon and South Island kaka. Lake Chalice, located in the Forest Park, is unusual in that its only fish are the native koaro.
Perceptual	<ul style="list-style-type: none"> Very high levels of natural character, due to unmodified landscape in the upper Pelorus River catchment. Visually interesting rusty tinge in Red Hills and Dun Mountain which is discernible from the Wairau Valley and Nelson and is extremely memorable. The skyline of the Richmond Range forms a key feature in the Marlborough landscape, especially as the northern backdrop of the Wairau valley. Mt Richmond and Johnston Peak are the highest peaks, and highly visible. Mt Fishtail is a distinctive peak. Very high scenic quality of Lake Chalice, one of the few natural lakes in this area.
Associative	<ul style="list-style-type: none"> The remains of old gold mines in valleys of the Richmond Range and Wairau River north bank. Some interest by early European prospectors in minerals around Dun Mountain. Archaeological sites in the area indicate use of the argillite resource. A number of tramping tracks in DOC-managed Mount Richmond Forest Park, including tracks to Mt Richmond and Lake Chalice. The park provides a semi-remote, forest wilderness experience.

Rating:

OUTSTANDING NATURAL LANDSCAPE

Evaluation

Based on the above values, **Bryant Range, Upper Pelorus River Area and Richmond Range Conservation Estate and Red Hills Ridge** have been identified collectively as an ONL due to the exceptional biophysical and associative landscape values and very high sensory landscape values.

The hills, valleys, ridges and mountains of the Bryant, upper Pelorus area and Richmond Range include the highest and most recognisable peaks of north Marlborough. The ONL covers peaks, ridgetops and remote conservation land, extending from the peaks backing Pelorus Sound to the upper, narrow valley of the Wairau River at the Red Hills Ridge.

Much of this large area lies within conservation estate and remains predominantly in indigenous forest. It contains high ecological and biological values and is of scientific interest due to the underlying geology of the mineral belt.

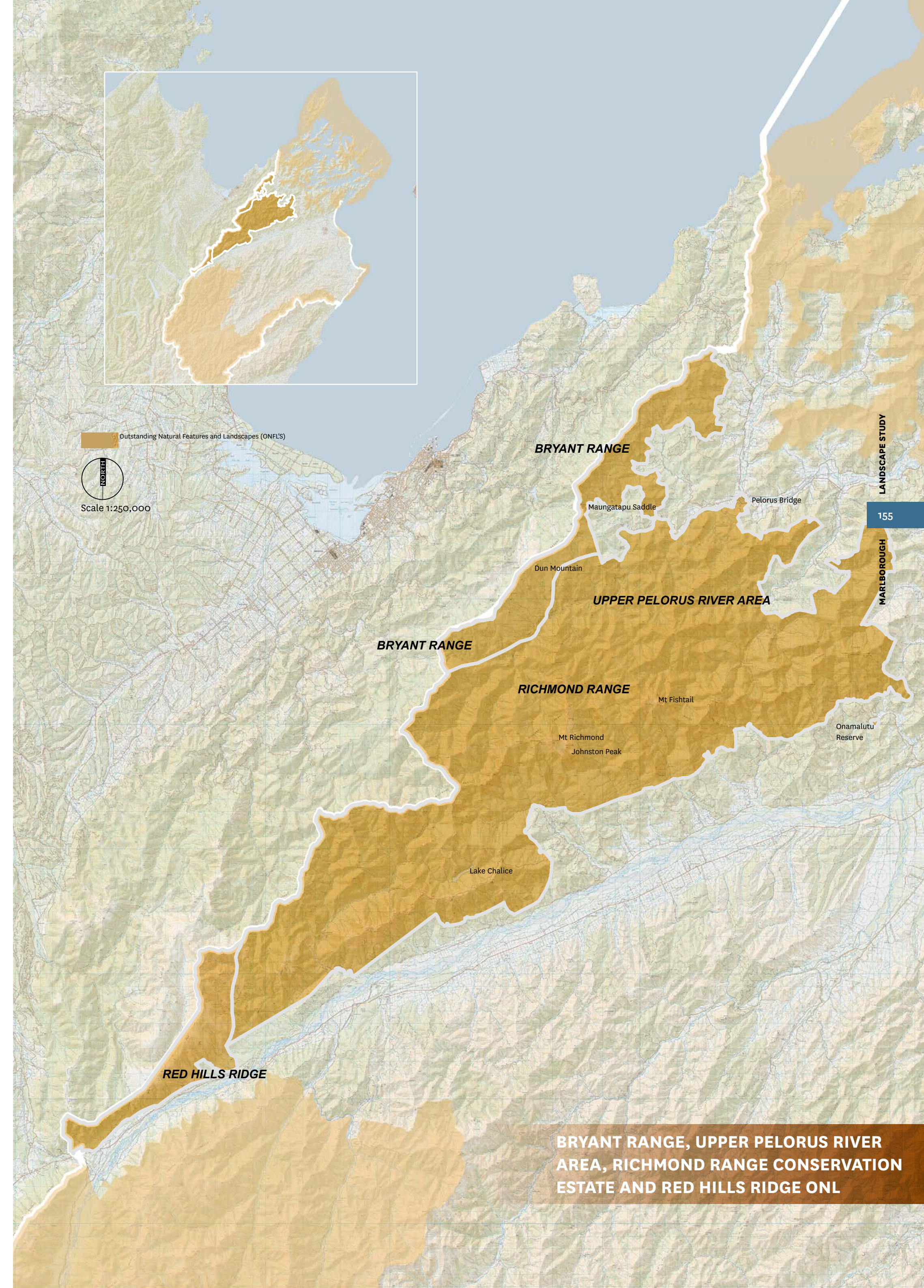
Being under DOC management, this area also incorporates a high level of scenic and recreational value, providing public access to many semi-wilderness recreational opportunities, such as in and adjacent to the Pelorus River. These ranges also form a visual backdrop north-west of Blenheim and the Wairau River Plains, the steep, bush-covered upper slopes and impressive skyline appreciated from a number of well-travelled roads.

Cultural heritage values relate to the Māori archaeological sites identified in the area (particularly along the Wairau side of the ONL) and the legible fabric that remains from the history of gold mining, and, to a lesser extent, timber milling and farming that occurred in the area.

Modifications include: numerous backcountry tracks and huts, overhead power line over Maungatapu Saddle, and a small section of Mount Richmond Road. Onamalutu Reserve area contains a track and interpretation boards. The ONL excludes forestry areas, tracks and modified lower valley slopes.



Above: Lake Chalice, Richmond Range.



BRYANT RANGE, UPPER PELORUS RIVER AREA, RICHMOND RANGE CONSERVATION ESTATE AND RED HILLS RIDGE ONL

24: THE CHALK RANGE

Including the spectacular Sawcut Gorge

24: THE CHALK RANGE

Mapping Description This area forms part of the Mountainous Interior Landscape. The Chalk Range is considered to be an Outstanding Natural Feature of this broader landscape.

Mapping Approach This area has been mapped using the Contained Landscape Features Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical

- Particularly interesting geology with limestone outcrops, including geopreservation sites in Isolated Creek and Sawcut Gorge.
- Highly legible limestone features and outcrops along Waima River and Chalk Range.
- Landscape clearly expresses its formative processes, via tectonic forces and fluvial and glacial activity.
- Endemic Marlborough plants on limestone scarps.

Perceptual

- Prominent limestone ridge of the Chalk Range is visually impressive and memorable.
- Towering cliffs and enormous boulders add visual drama to the landscape.
- Spectacular chasm of 150 metre-deep Sawcut Gorge, in places only 2 metres wide, is visually dramatic.

Associative

- Sawcut Gorge area valued for its unique DOC-managed recreation opportunities.

Rating:

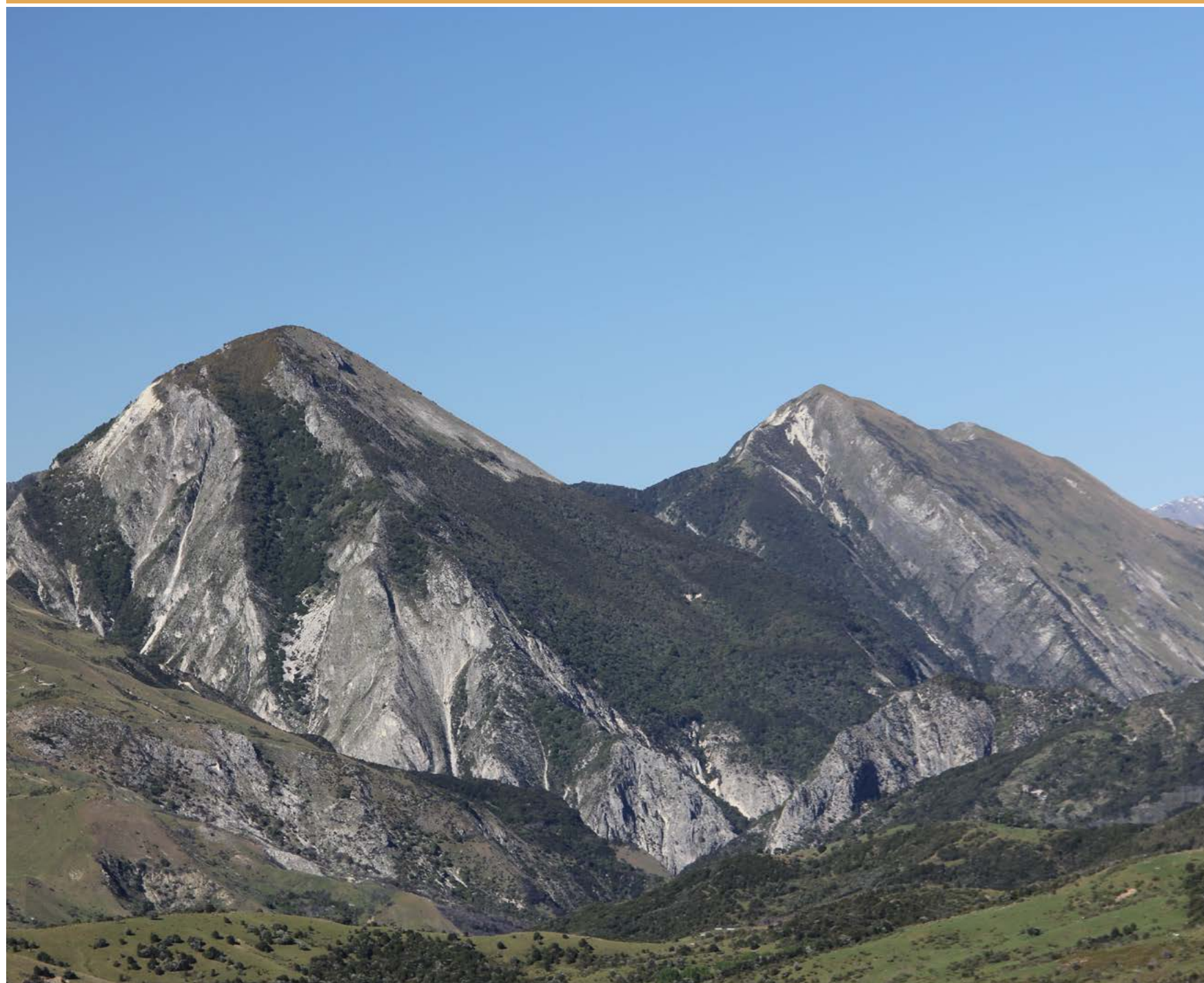
OUTSTANDING NATURAL FEATURE

Evaluation

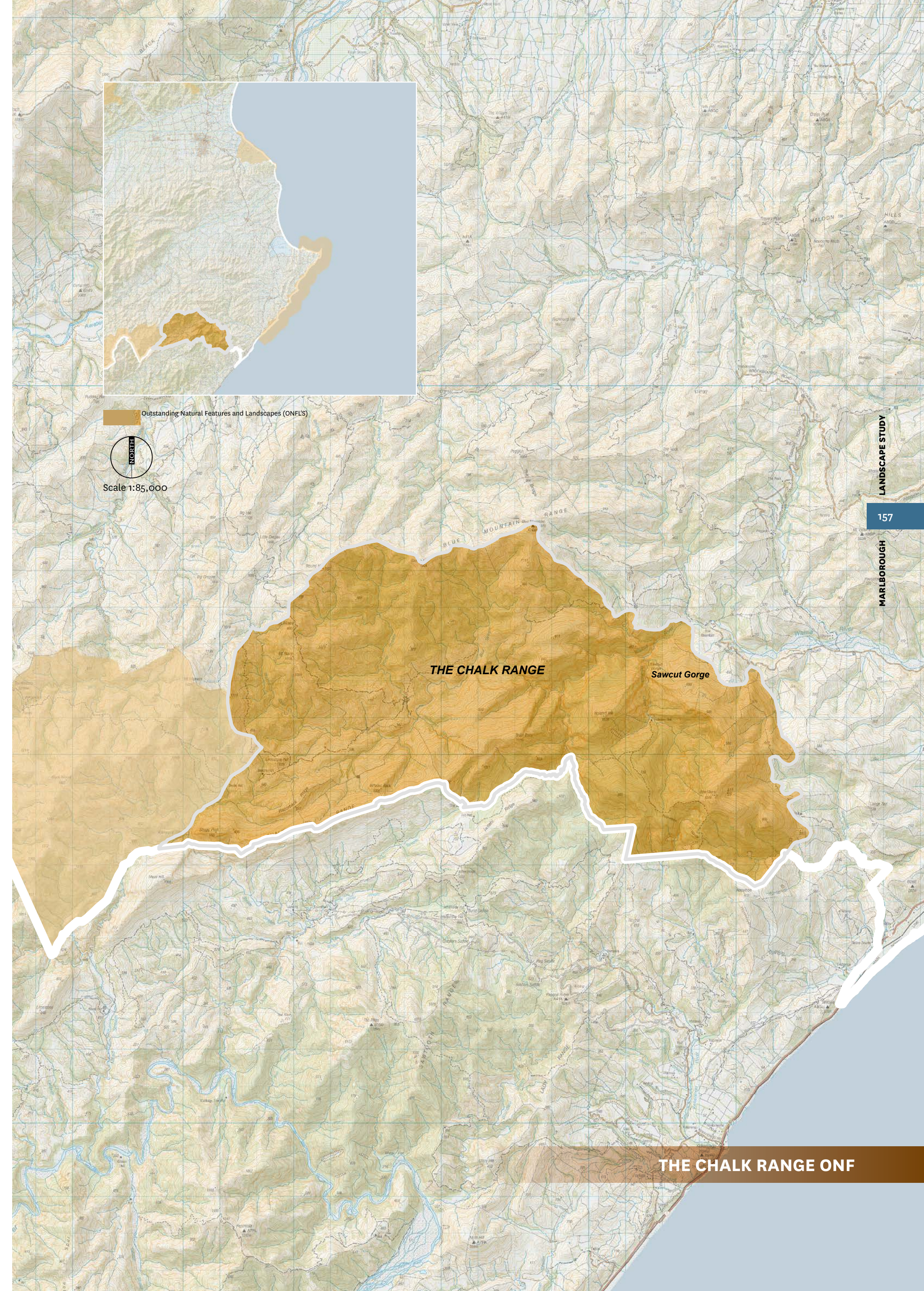
Based on the above values, **The Chalk Range** has been identified as an ONF due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

The limestone country within the northern Kekerengu Valley is exceptional, displaying towering cliffs of considerable height, overhanging vegetation and the spectacular Sawcut Gorge.

Modifications include: farm tracks, walking tracks, backcountry huts, pasture, sparsely-located farm related buildings and structures (i.e. stockyard), fencing, and a mast on Ben More.



Above: The Chalk Range.



THE CHALK RANGE ONF

25: THE INLAND KAIKOURA RANGE

Mountain Range at the south eastern extent of Marlborough.

25: THE INLAND KAIKOURA RANGE

Mapping Description This area forms part of the Mountainous Interior Landscape. The Inland Kaikoura Range is considered to be an Outstanding Natural Feature within this broader landscape.

Mapping Approach This area has been mapped using the Contained Landscape Features Mapping Approach. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> The high, exposed and jagged ridge of the Inland Kaikoura Range is extremely legible. Geopreservation sites include Tapuae-o-Uenuku zirconium aegirine; Hodder River weathering features; Lake McRae fault trace and landslides (Clarence Valley); and Lake McRae debris and dam. A diverse range of indigenous fauna, especially insects and lizards. A number of nationally threatened plant species are present.
Perceptual	<ul style="list-style-type: none"> The rugged form, grand scale and sheer vertical prominence make the entire range a visually spectacular and dramatic landscape. Range forms backdrop to the eastern side of the District from within the Awatere Valley. Visually impressive peaks of Mount Tapuae-o-Uenuku, Mount Alarm and Mitre Peak.
Associative	<ul style="list-style-type: none"> Tapuae-o-Uenuku is the highest peak in Marlborough (and highest mountain in New Zealand outside of the Southern Alps). It is highly recognised as an icon by many trampers and climbers. The Inland Kaikoura Range is imbued with spiritual and traditional values. Tapuae-o-Uenuku is acknowledged in Ngai Tahu Claims Settlement Act for cultural, spiritual, historical and traditional associations.

Rating:

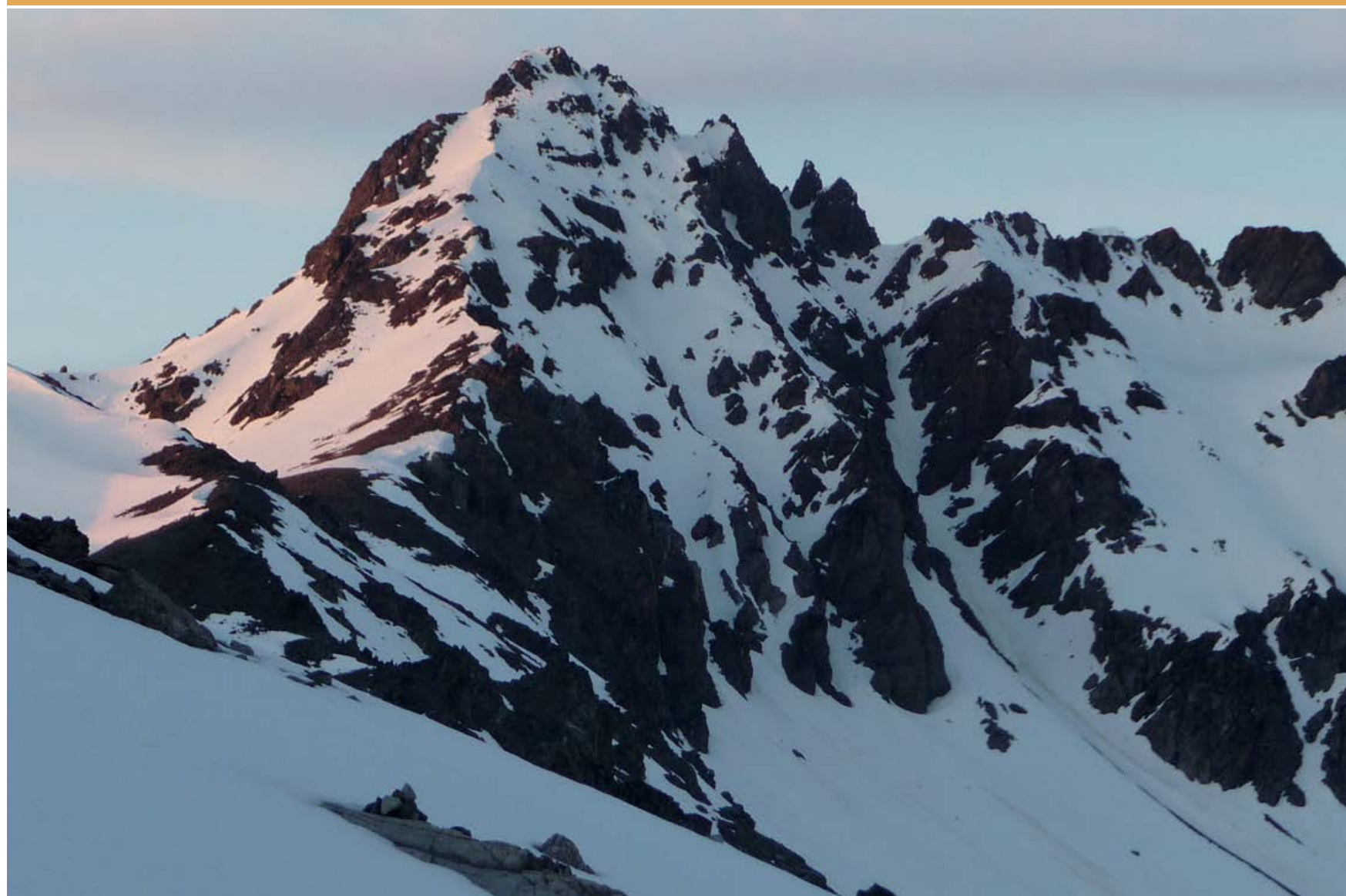
OUTSTANDING NATURAL FEATURE

Evaluation

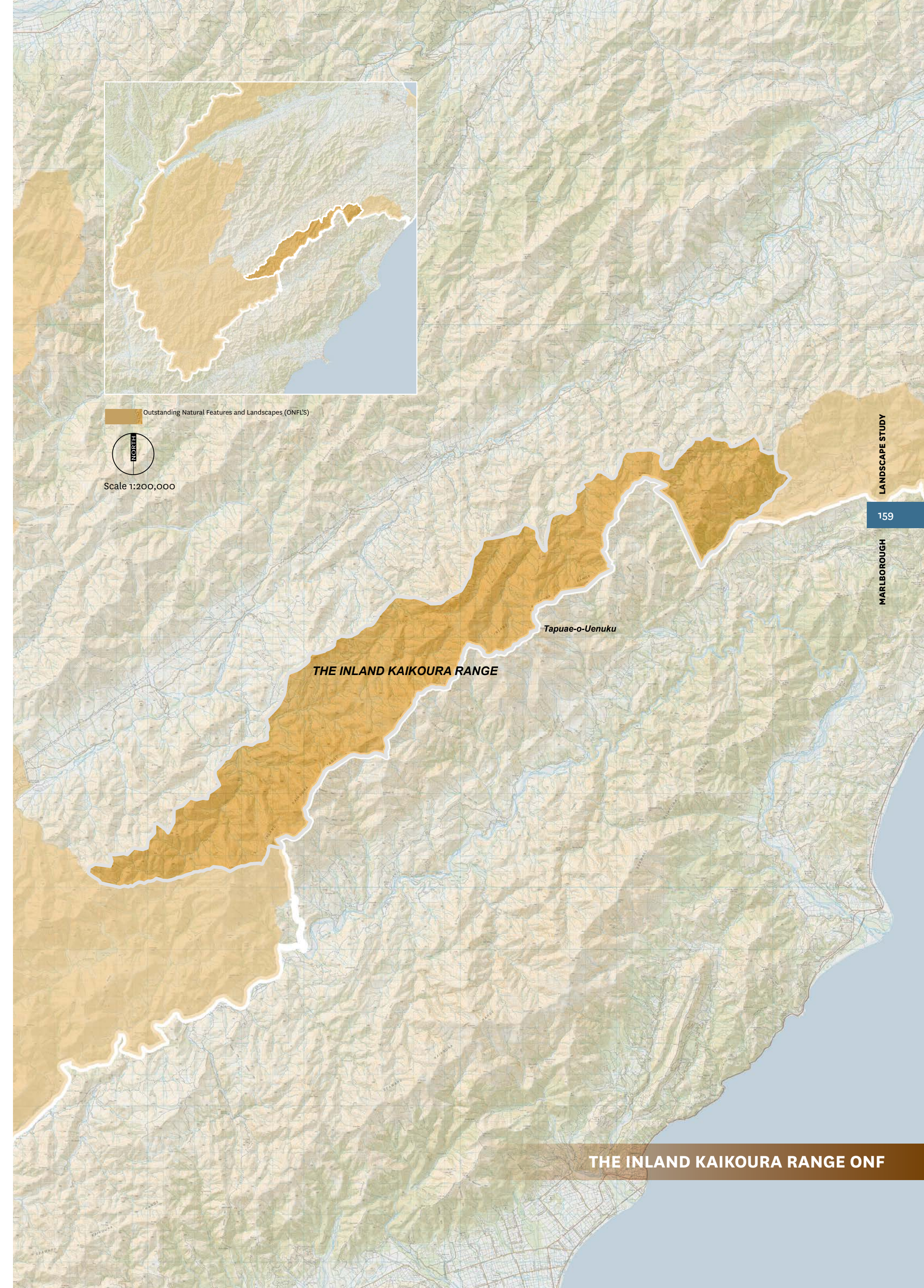
Based on the above values, **The Inland Kaikoura Range** has been identified as an ONF due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

The mountains of the Inland Kaikoura Range gain the highest elevation within Marlborough, with Tapuae-o-Uenuku at 2,885 metres a.s.l. being the highest mountain in the district. This mountainous range comprises a series of glaciated valleys, rugged mountain tops and major high country river valleys. The Inland Kaikoura Range denotes a visually impressive backdrop in views from the Awatere Valley. The Inland Kaikoura Ranges are imbued with spiritual and traditional values. Tapuae-o-Uenuku is significant to local iwi and was named as the 'watcher' by James Cook. The area is also highly regarded by mountain climbers and trampers and is one of the first places on Earth to see in the new day.

Modifications include: farm tracks, walking tracks, backcountry huts, pasture, sparsely-located farm related buildings and structures (i.e. stockyard), fencing, and trig stations.



Morning light on Mt. Alarm, part of the Inland Kaikoura Range.



THE INLAND KAIKOURA RANGE ONF

26: THE MAIN DIVIDE AND LEATHAM CONSERVATION AREA

Southern Alps at the upper Wairau River valley.

26: THE MAIN DIVIDE AND LEATHAM CONSERVATION AREA

Mapping Description	The Main Divide and Leatham Conservation Area, as mapped on page 161 collectively form a part of the broader Mountainous Interior and has been assessed as being an Outstanding Natural Landscape.
Mapping Approach	This area has been mapped using the Ridges and Spurs, Landuse and Contained Landscape Features Mapping Approaches. Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> • Geomorphological legibility of tectonic movement. • Constriction of Wairau River by Hell's Gate. • Geopreservation sites include Upper Wairau landslide, Turkeys Nest Basin solifluction slope, Waterfall Stream and Cow Stream moraines, Barber Stream rock glacier/ landslide. • Highly legible and impressive straight glacial-carved U-shaped valley of main divide. • Overwhelmingly indigenous beech forest covers the sides of the upper Wairau River valley • Wairau River and tributaries provide braided riverbed habitats, important for several native bird species.
Perceptual	<ul style="list-style-type: none"> • Visual dominance of the large braided river, primarily in the upper valley. • Surrounding steep slopes and skyline ridges are key features on the journey up the valley. • Contrast of snowy peaks and dark indigenous vegetation on the mountain sides is highly memorable. • Openness and magnificent large-scale alpine character of elevated mountain peaks leads to high degree of visual coherence. • Highly natural appearance of upper Wairau River valley with human modification limited to the transmission line and road. • Very high levels of natural character in Leatham and Branch Rivers.
Associative	<ul style="list-style-type: none"> • Majority of landscape within conservation areas. Leatham Conservation Areas and Rainbow Valley popular for skiing, fishing, four wheel driving, mountaineering and tramping. • Remote recreational opportunities. • Passes in the upper Wairau River valley were part of overland routes used by Māori.

Rating:

OUTSTANDING NATURAL LANDSCAPE

Evaluation

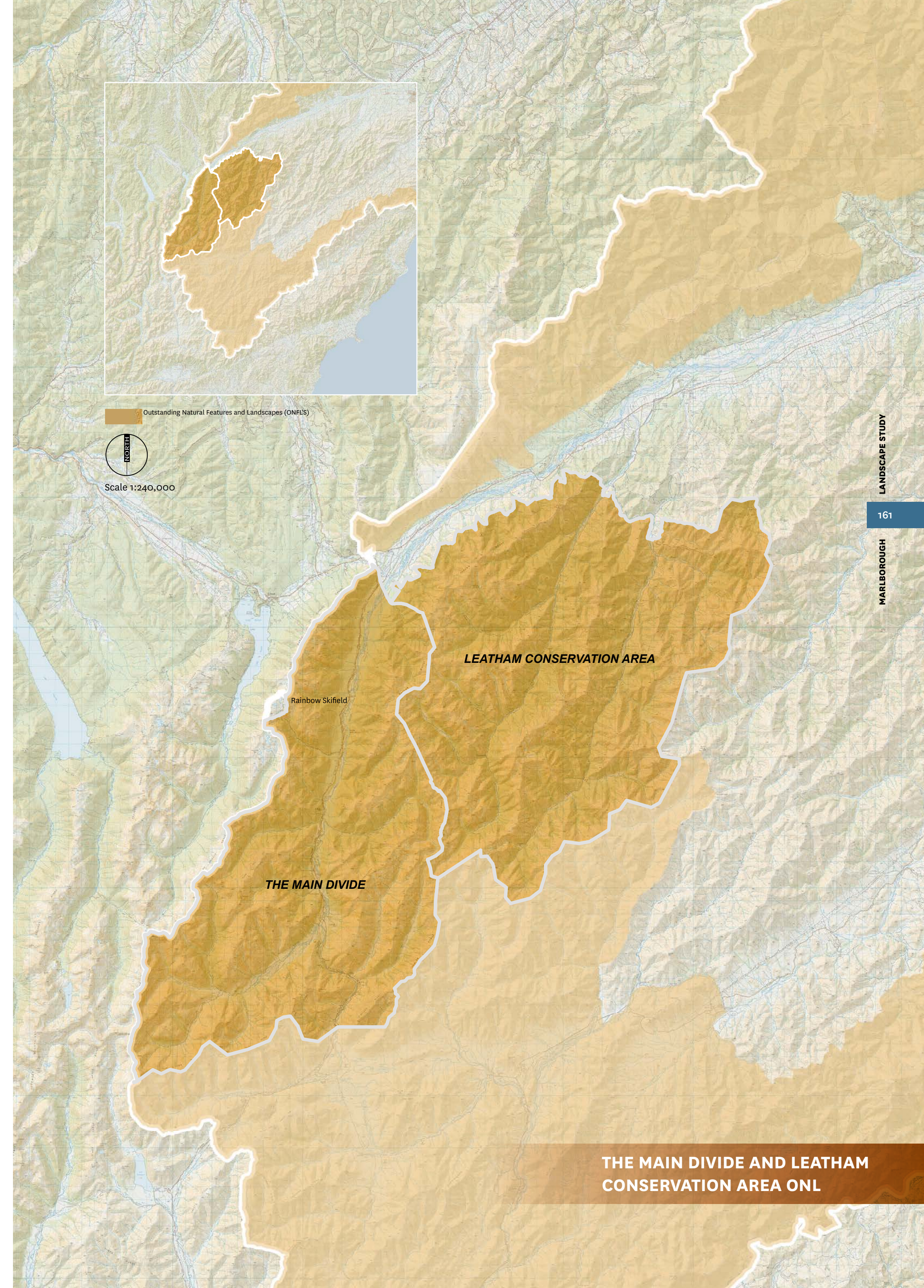
Based on the above values, **The Main Divide and Leatham Conservation Area** has been identified as an ONL due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

The upper Wairau River valley primarily derives its landscape value from the steep, beech-clad mountain slopes and tussock-clad tops of the main divide that enclose it. This visually distinctive valley provides access to a variety of wilderness recreation experiences. The Leatham Conservation Area in the remote ridges and valleys above the true right bank of the river is popular with experienced hunters and trampers who take advantage of DOC routes such as the Leatham to Molesworth Route. The Leatham and Branch Rivers have very high natural character and the Leatham Conservation Area is also popular for fishing and four wheel driving. The Main Divide area of this ONFL features the headwaters of the Rainbow and Wairau Rivers and includes the Turk, Stafford and Mangerton Ridges and the Raglan Range. The area is largely experienced from the Wairau-Hammer Springs Hydro Road, which extends from Hammer Springs into the upper Wairau River valley. The Wairau River valley was also used by Māori to access overland routes through the mountains, including the saddles of the Branch, Leatham and Waihopai to the upper Awatere and Acheron/Saxton catchments of the Clarence River.

Modifications within Leatham Conservation Area include: tracks, backcountry huts, occasional small quarries, some exotic vegetation, and trig stations. Modifications within the Main Divide include: Wairau-Hammer Springs Hydro Road, HDVC transmission line (and exclusion zone), Rainbow ski field road, backcountry tracks and huts, RNZAF training camp, buildings, stockyards, small areas of pasture, trig stations and masts, and areas of exotic vegetation around the river. The ONL excludes the Rainbow ski field.



Above: Scotts Knob above Silverstream within the Leatham Conservation Area.



THE MAIN DIVIDE AND LEATHAM CONSERVATION AREA ONL

27: MOLESWORTH STATION AND UPPER CLARENCE

Iconic Molesworth Station.

27: MOLESWORTH STATION AND UPPER CLARENCE

Mapping Description	Molesworth and Upper Clarence, as mapped on page 163 collectively form a part of the broader Mountainous Interior and has been assessed as being an Outstanding Natural Landscape.
Mapping Approach	This area has been mapped by the Landuse Mapping Approach (i.e. Conservation Estate). Refer to page 21.

Landscape Characteristics and Values Summary

Biophysical	<ul style="list-style-type: none"> High geomorphological legibility with geopreservation sites, including Saxton River faulted terraces, Isolated Flat, Tarndale- Sedgemere fault trace (Awatere Fault) and Tarndale flats. Altitude ranges from 549 metres a.s.l. to over 2,100 metres a.s.l. Molesworth area is of national ecological significance, with over 70 threatened species within the conservation area. Molesworth supports one of New Zealand's most diverse lizard faunas. Wetlands around Lake Sedgemere support a variety of native flora.
Perceptual	<ul style="list-style-type: none"> Molesworth Station is one of Marlborough's and Canterbury's iconic high country landscapes. Molesworth Station and Upper Clarence retain high legibility through its remoteness and unencumbered land use. Molesworth Station and Upper Clarence retain high levels of naturalness. The ONL holds memorable and visually dramatic landscape elements, such as rugged mountain tops, valleys, scree slopes, unmodified rivers, tarns (including Lake McRae) and cultural features. The entire mountainous area is subject to extreme weather conditions, with hot, dry summers and harsh winters.
Associative	<ul style="list-style-type: none"> The Molesworth Station is a New Zealand icon and destination for heritage tours. Remote recreational opportunities, including horse trekking, cycling, rafting, fishing, hunting and camping. The Molesworth area has both rich Māori and European heritage values. At 180,787 hectares, Molesworth is home to New Zealand's biggest farm, supporting the country's biggest herd of beef cattle. An early inland route via the upper Wairau was used by Māori travelling south through Molesworth. The Clarence River valley was used by Māori travelling from the river mouth to Waiau.

Rating:

OUTSTANDING NATURAL LANDSCAPE

Evaluation

Based on the above values, **Molesworth Station and Upper Clarence** has been identified as an ONL due to its exceptional biophysical and associative landscape values and very high sensory landscape values.

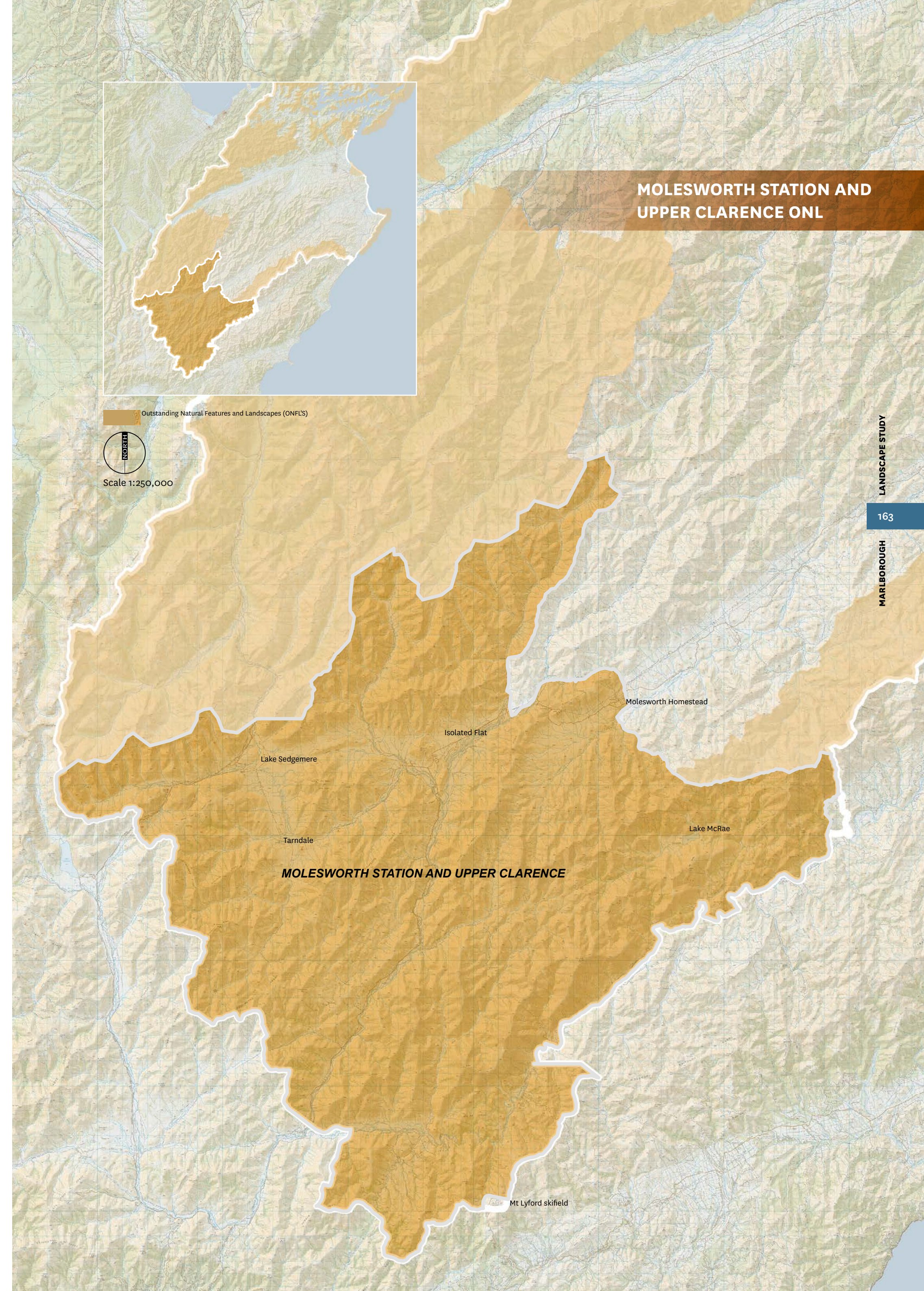
This area is almost entirely contained within conservation estate, containing many remote and scenic mountain ranges including the Boddington, Rachel, Inkerman Ranges and the Bullen Hills. The ONL area includes the upper reaches of many Canterbury and Marlborough rivers. There are numerous tarns and lakes. Notable rivers include the Clarence, Wairau and Awatere. Molesworth Station is a remote area surrounded by snow-capped peaks, stunning river valleys, extensive tussock lands and pasture. It is a working farm, but, nevertheless contains high levels of ecological interest. The Molesworth Station is highly significant for the presence of endemic and rare species of flora and fauna, with over 70 threatened species present. The wetlands around Lake Sedgemere are of notable value and the Molesworth area in general supports one of New Zealand's most diverse lizard faunas.

The station, which occupies the southern portions of the district, is one of Marlborough and Canterbury's iconic high country landscapes. Molesworth contains memorable and dramatic landscape elements, including, rugged mountain tops, valleys, scree slopes, unmodified rivers and cultural features. The entire mountainous area is subject to extremes of weather, with hot summers and harsh winters, typical of continental climates. Although not as numerous as in other parts of the district, the heritage values within this area are highly evident, especially at Molesworth and Tarndale Stations. Access to the area is from the Wairau-Hammer Springs Hydro Road, which extends from Hammer Springs into the upper Wairau and the Awatere valleys. The Molesworth area was a link within the network of Ngai Tahu trails developed throughout the South Island for mahinga kai purposes. The journeys, sites and stories relating to the trails are recorded in Ngai Tahu traditions and are of high significance (DOC).

Modifications include: farm tracks, walking tracks and backcountry huts, Awatere Valley Road and Wairau-Hammer Springs Road, buildings, stockyards, HDVC transmission line (and exclusion zone), occasional small quarries, some exotic vegetation around rivers, pasture, trig stations and masts. Excludes Mt. Lyford skifield.

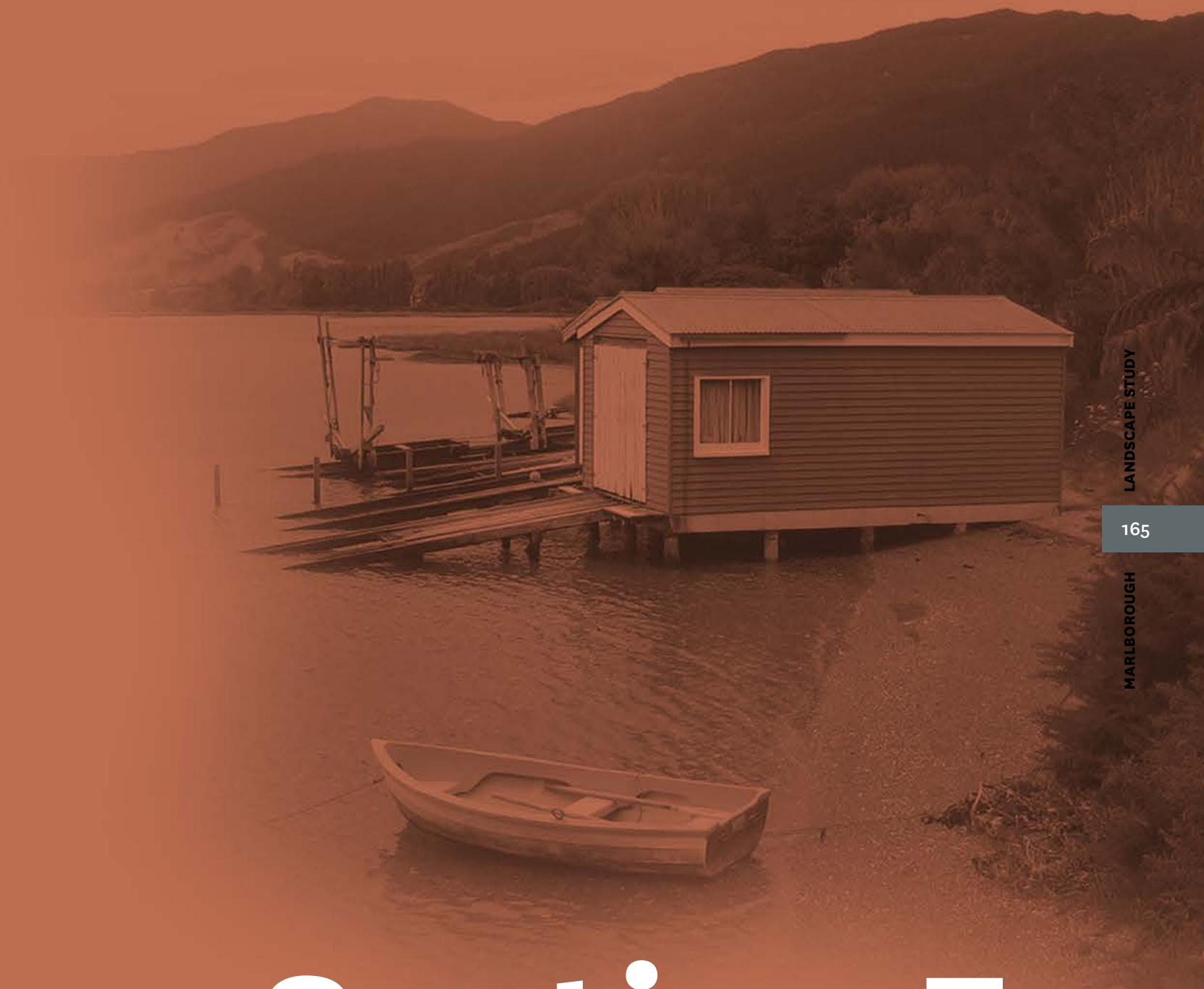


Above: Bowscale Tarn.



MOLESWORTH STATION AND UPPER CLARENCE ONL

MOLESWORTH STATION AND UPPER CLARENCE



Section E

High Amenity Landscapes & Features



INTRODUCTION TO LANDSCAPES & FEATURES WITH HIGH AMENITY

As outlined within Section A of this study, landscapes and features that do not reach the threshold of being determined an ONF or ONL but that hold high amenity and environmental characteristics and values are determined as Landscapes and Features with High Amenity within this report. Within the 2009 Landscape Study, such landscapes and features were called Visual Amenity Landscapes or VALS.

Under the RMA 1991, amenity is captured within Section 7 (Other matters), and notably within:

- (c) the maintenance and enhancement of amenity values; and
- (f) the maintenance and enhancement of the quality of the environment.

The RMA 1991 defines amenity as:

'those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes'

The quality of the environment is not defined by the RMA 1991. The amenity and environmental quality focus of these investigations has been visual amenity. The study team has addressed the important visual amenity features or characteristics that occur outside the areas identified as outstanding.

Within the 2009 Landscape Study, a number of landscapes and features were identified as holding high amenity values. These areas are listed A-F in the table to the right and extend from the top of Marlborough to the bottom and encompass a range of landscapes and features. Generally, these areas tend to be areas that hold strong visual or scenic characteristics and be more modified (culturally) than ONFLs. From the list of areas included in the 2009 Landscape Study, MDC determined that only two areas, the Marlborough Sounds and The Southern Hills would likely require planning mechanisms to ensure that the identified high amenity values would be maintained.

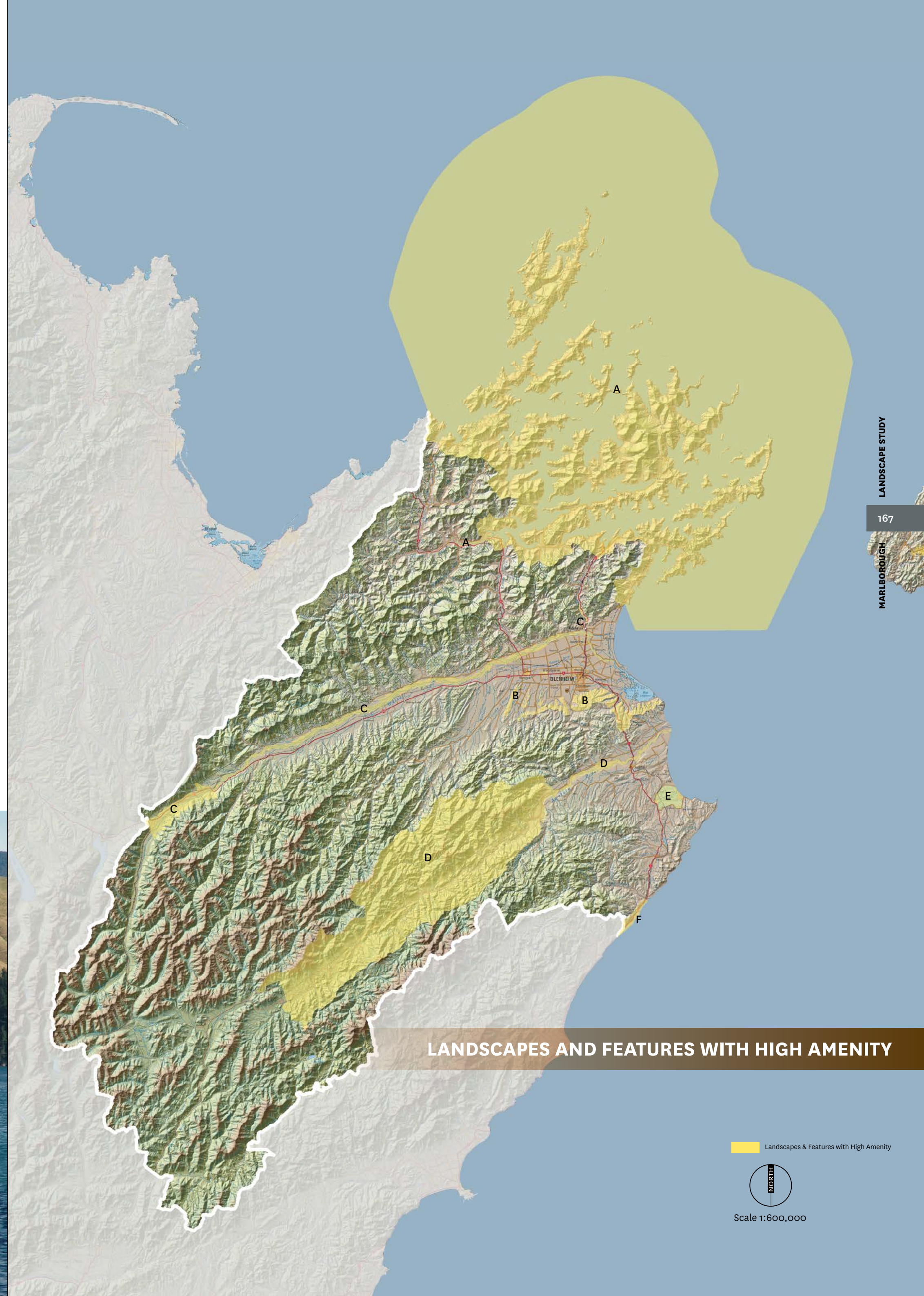
Extensive landowner consultation occurred from 2011 to 2015, with particular community emphasis taking place around the Southern Hills, especially in terms of identifying the 'extent' of the land originally identified. From this, a range of mapping considerations were adopted to ensure that only the highest-rated areas were captured. These mapping considerations included using topographical contours, land parcel boundaries and land use activity.

Below: Nikau Bay, Pelorus Sound.

For the Marlborough Sounds, it was confirmed through the consultation period that the entire area should be a 'significant landscape' under Section 7 of the RMA, and that within this landscape, there are numerous Outstanding Natural Landscapes and Features that 'nest' within it.

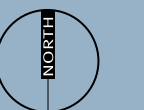
The following pages outline the six identified Landscapes and Features with High Amenity. A table accompanies the maps outlining the necessary characteristics and values that support that area being identified. The extent of the mapped Southern Hills area and accompanying tables reflect the outcomes from the consultation exercise.

HIGH AMENITY LANDSCAPES AND FEATURES		
A	Marlborough Sounds	Page 168
B	The Southern Hills, including Wither Hills and Dashwood Pass area	Page 170
C	Wairau River and its margins including Spring Creek	Page 172
D	Upper Awatere Valley and Awatere River	Page 174
E	Lake Grassmere	Page 176
F	Wharanui Coastline	Page 178



LANDSCAPES AND FEATURES WITH HIGH AMENITY

Landscapes & Features with High Amenity



Scale 1:600,000

A: MARLBOROUGH SOUNDS COASTAL LANDSCAPE

Marlborough Sounds.

MARLBOROUGH SOUNDS COASTAL LANDSCAPE

Mapping Description The entire Marlborough Sounds Coastal Environment, up to and including the coastal environment line.

Landscape Characteristics and Values Summary

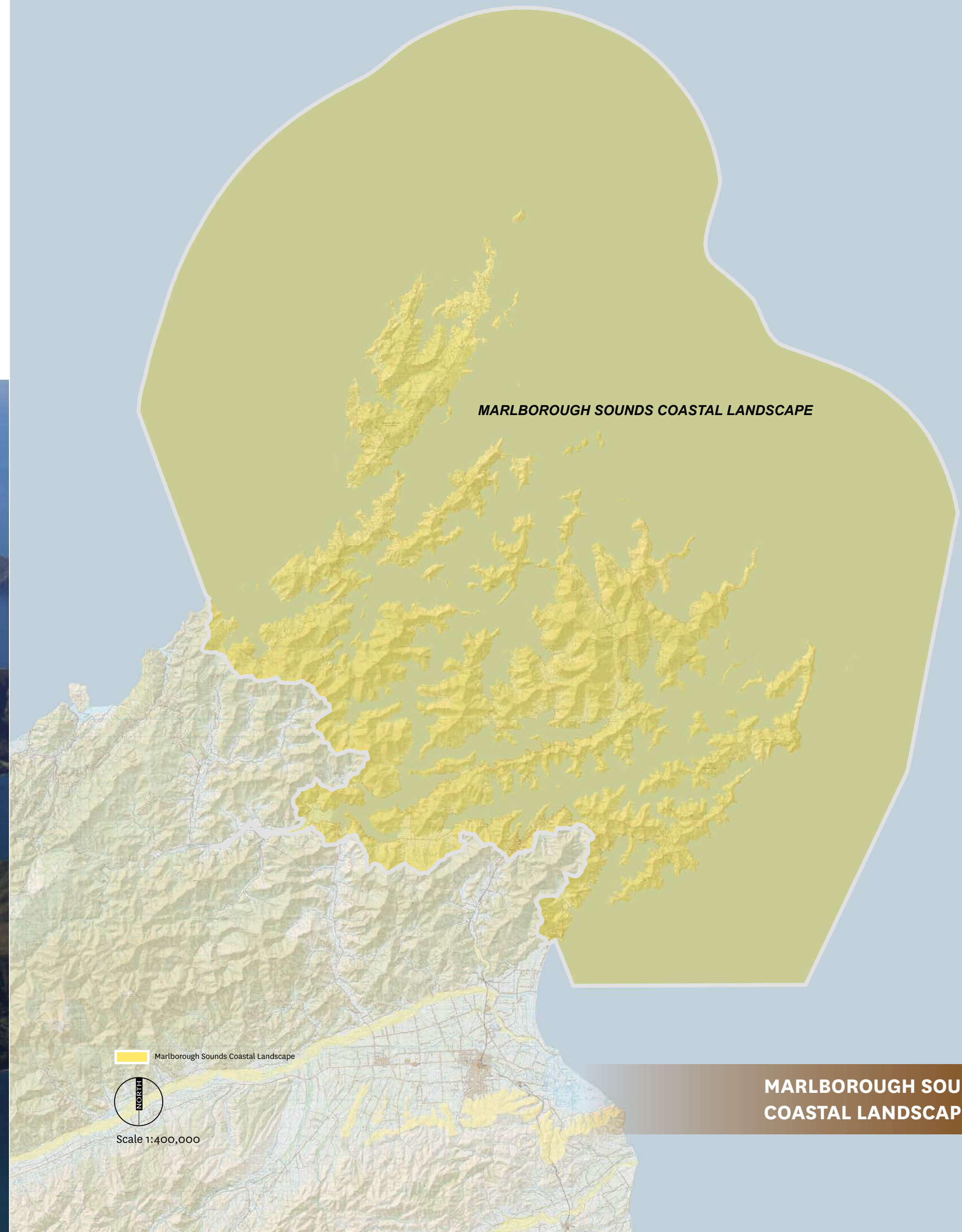
- Distinctive, fractured pattern of the Marlborough Sounds coastline.
- Slender peninsulas and range of islands provide distinctive landscape containing very high aesthetic values.
- Combination of rocky coastlines, vegetated and grassy ridges and small coves, bays and inlets portrays an overwhelming sense of naturalness.
- The area is imbued with cultural and historic values. It is extremely memorable.
- Outer Sounds are more rugged and exposed to the varying climatic conditions in the Cook Strait.
- Inner Sounds more sheltered and visually defined by forest-clad ridges and mountain tops which promote the intimacy experienced from within the waters.
- Many of the smaller bays in Inner Sounds show little evidence of human intervention, and the level of visual intactness remains high.
- Small settlements, generally nestled closely at the head of a bay, retain a high level of aesthetic coherence, contained by the steep, often vegetated sides of the enclosing ridge.
- High levels of naturalness, recreational values and visual coherence.

Rating:

HIGH AMENITY LANDSCAPE & FEATURE

The network of headlands, bays, inlets and islands of this distinctive coastline contain very high aesthetic and associative values. The rich cultural history of the Marlborough Sounds, including its high levels of naturalness and recreational values combine to create a highly memorable coastal landscape. Within this Coastal landscape there are ONLs and ONFs - refer to previous chapter of this study.

Below: Waitata Reach.



**MARLBOROUGH SOUNDS
COASTAL LANDSCAPE**

B: THE SOUTHERN HILLS, INCLUDING WITHER HILLS AND DASHWOOD PASS AREA

Iconic hills to the south of the Wairau Plain.

THE SOUTHERN HILLS, INCLUDING WITHER HILLS AND DASHWOOD PASS AREA

Mapping Description Mapped using 100, 120 and 140m contour lines (and where appropriate land use) to include the ridges and spurs of the hills that extend into the plains and their immediate backdrop. Refer to page 21.

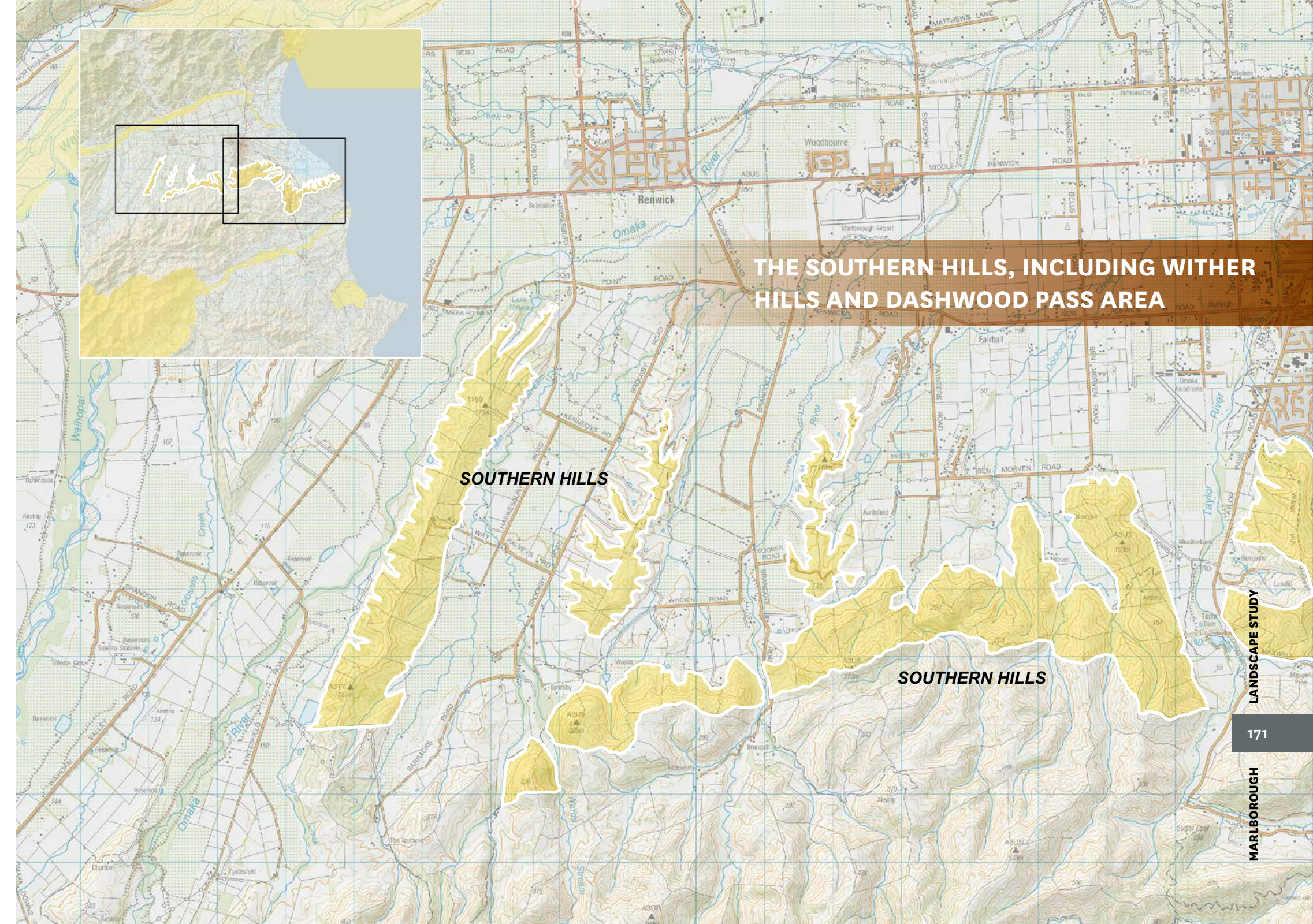
Landscape Characteristics and Values Summary

- Soft, undulating hills act as an important backdrop to Blenheim and contrast with the varied land use practices across the Wairau Plains.
- Southern Hills provide topographical relief to the flat plains.
- The Hills provide a high level of visual coherence due to their prominent and mostly unencumbered nature from buildings and noticeably 'unmodified' ridges and spurs.
- Dry hills around Dashwood Pass and Redwood Pass are particularly scenic.
- Golden, homogenous undulating form is an iconic feature of Marlborough.
- The openness of the hills provides recreational and transient values, offering panoramic views of the Wairau Valley.
- Wither Hills Farm Park is a popular recreation area and Redwood Pass is popular for mountain biking.

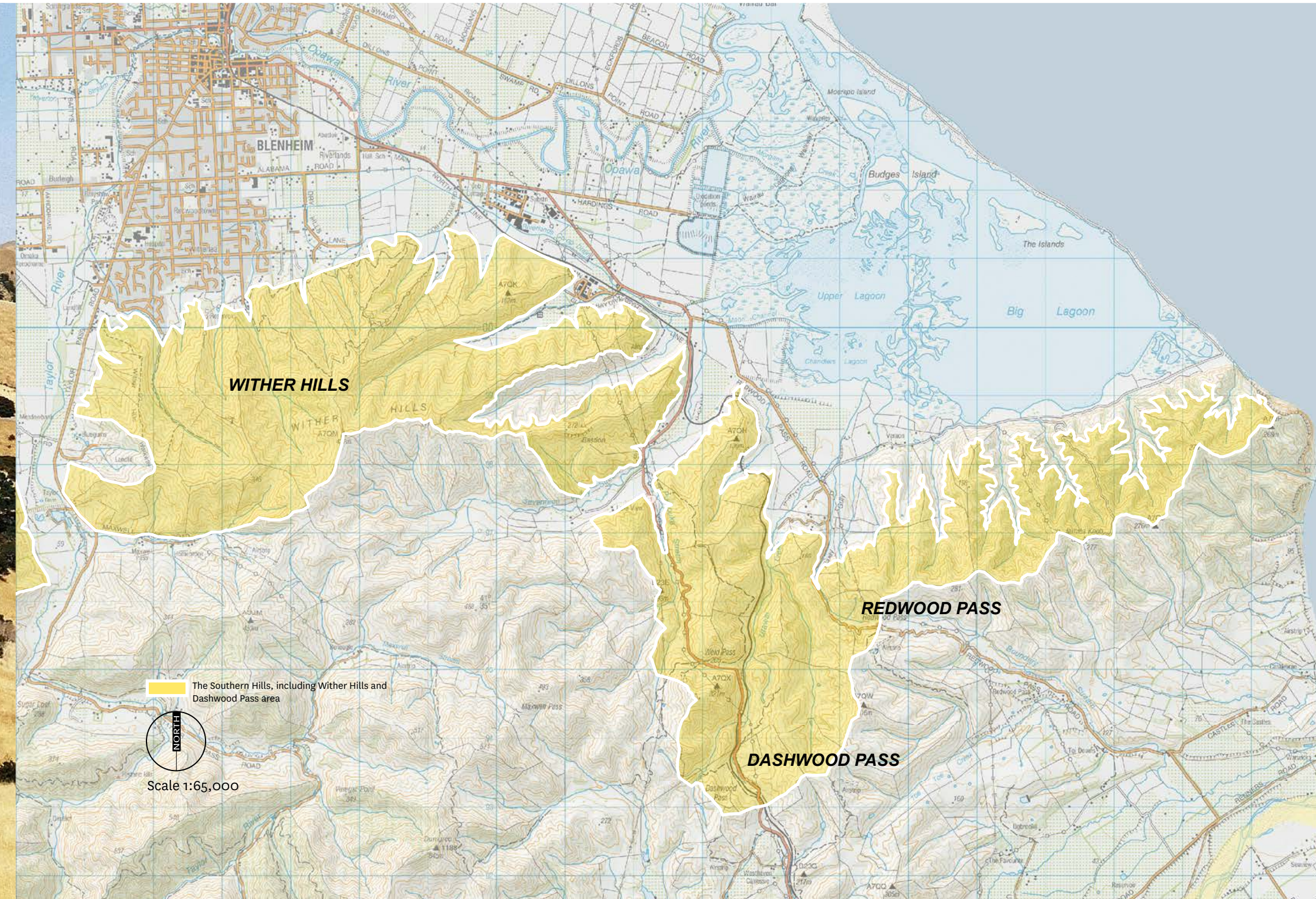
Rating: HIGH AMENITY LANDSCAPE & FEATURE

The key values of this area are sensory values related to the visual coherence of the hills in terms of their homogenous undulating form and colour, and the way in which they provide a visual contrast to the rows of vines that stretch across the plains

They have become so evocative of south Marlborough. This is due in part to their presence as the visual backdrop to the population centre of Blenheim and because so many people pass through these hills on State Highway 1.



Below: Bleached grasslands of the Southern Hills during summer



C: WAIRAU RIVER AND ITS MARGINS INCLUDING SPRING CREEK

Marlborough's longest River traverses a variety of landscapes and holds high scenic values below the Main Divide.

WAIRAU RIVER AND ITS MARGINS INCLUDING SPRING CREEK

Mapping Description Mapped using landscape feature (i.e. river and its immediate margins). Refer to page 21.

Landscape Characteristics and Values Summary

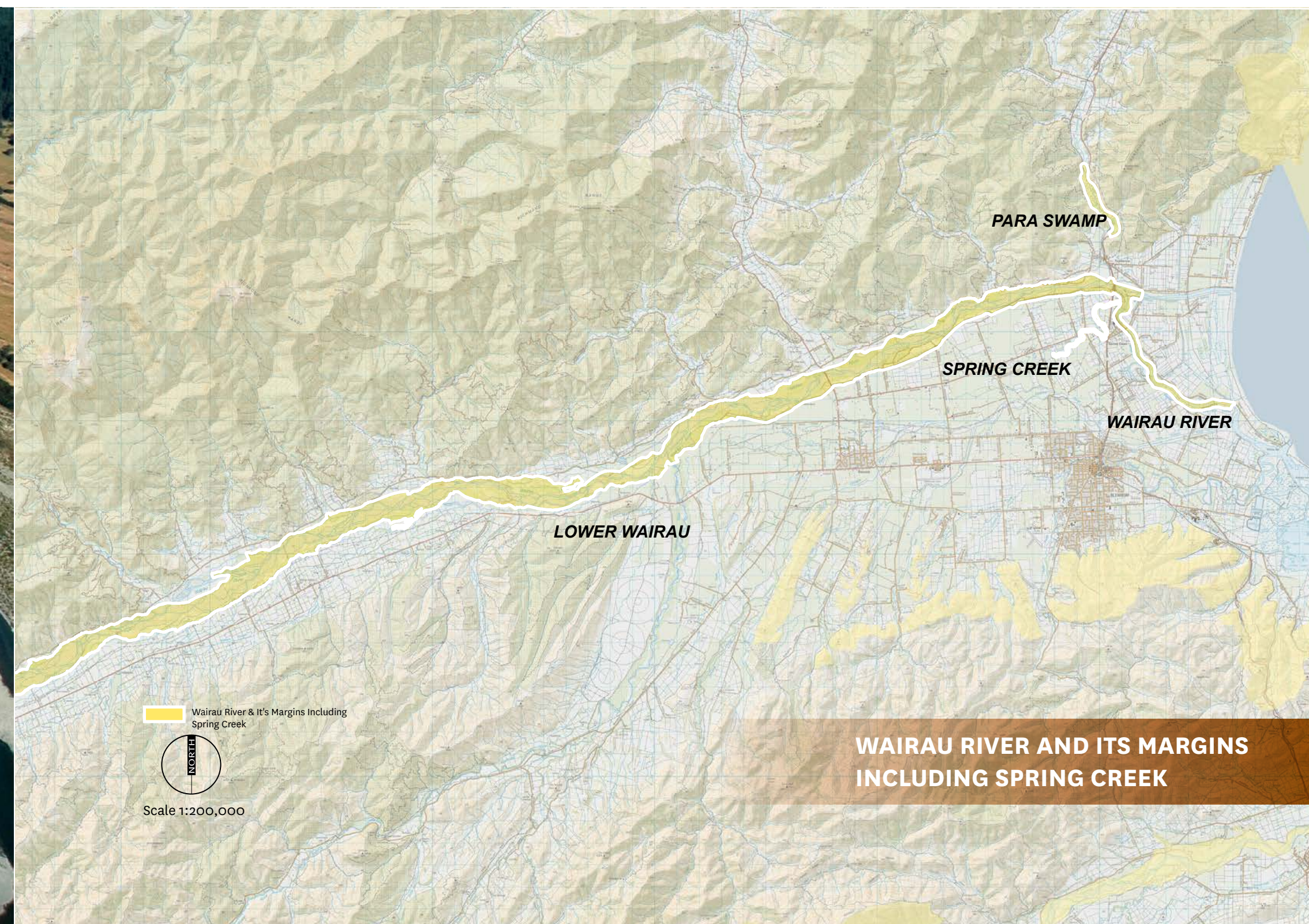
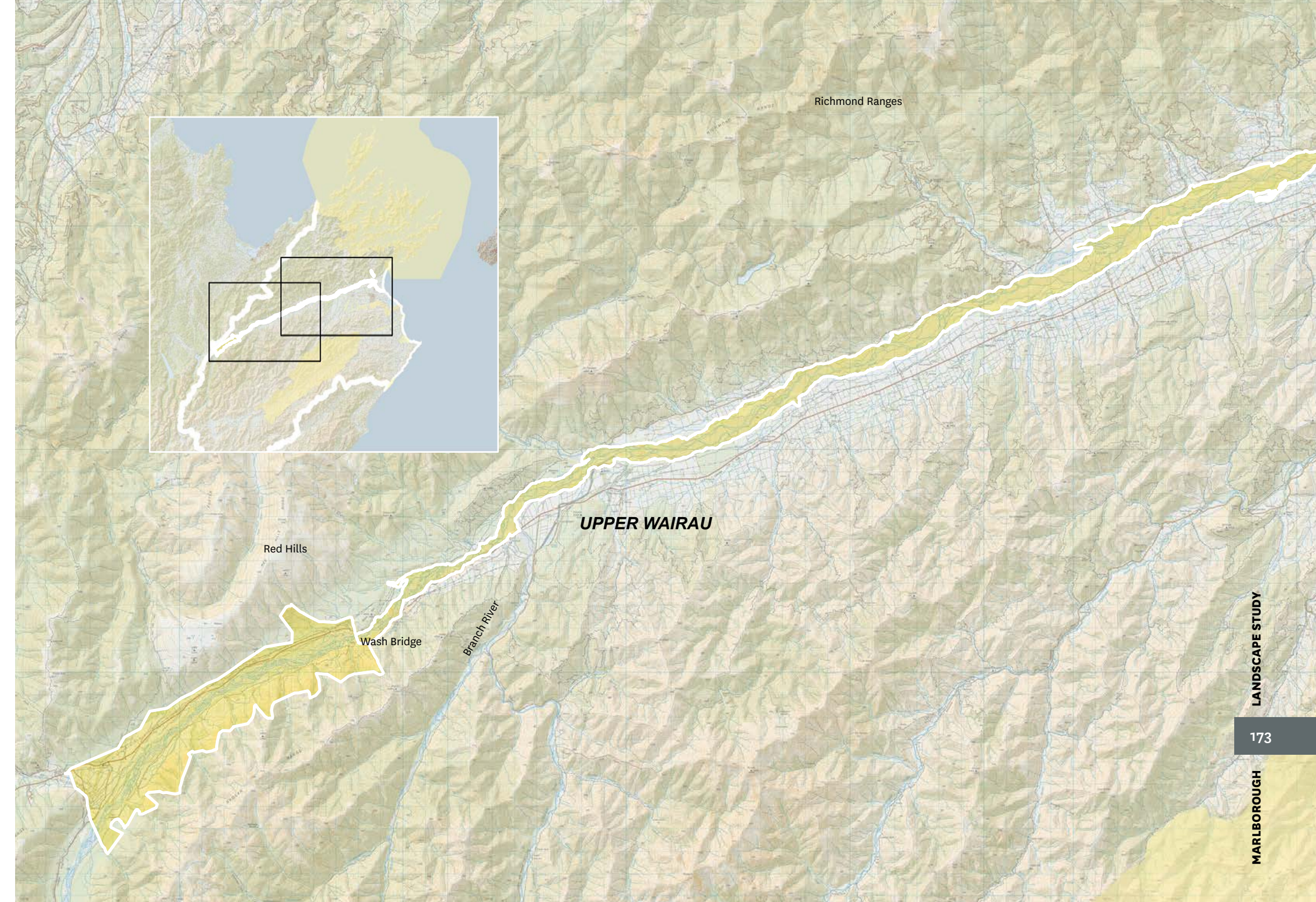
- Wairau River and tributaries provide distinctive braided riverbed habitats, particularly important for several native birds.
- Dominance of the large braided river as the focus of the valley landscape, particularly from Wash Bridge eastwards.
- Higher level of naturalness supported by enclosing mountains from Wash Bridge upstream.
- Attractive, meandering river channels and streams, including Spring Creek.
- Para swamp is an extensive area in the Tuamarina valley that has been identified as a wetland on international importance, and is very notable when travelling on State Highway 1 between Blenheim and Picton.

Rating:

HIGH AMENITY LANDSCAPE & FEATURE

Below Wash Bridge, the Wairau River and its margins have experienced modifications as a result of flood control works and colonisation of exotic marginal species, such as willow and gorse, which downplays the rivers degree of naturalness. Within this area and more particularly below the confluence of the Branch River, dramatic and extensive changes to the land use character of the landscape of the valley and the river margins over recent times have influenced the degree of the rivers naturalness. From the Wash Bridge downstream, the key features of the valley are the vistas that travellers are drawn to, of the fingers of the Dry Hills extending into the plains, the peaks and ridges of the Richmond Range and the Red Hills, and the exposed aggregate of the river bed and its braids. Consequently, the Wairau River from Wash Bridge to the sea is identified as a High Amenity Landscape & Feature.

Below: Braids of the Wairau River



D: UPPER AWATERE VALLEY AND AWATERE RIVER

Rural, undulating river valley with spectacular river forms and viewpoints.

UPPER AWATERE VALLEY & AWATERE RIVER

Mapping Description Mapped using landscape feature (i.e. river and its immediate margins) for the lower river and by visual catchment for the upper valley. Refer to page 21.

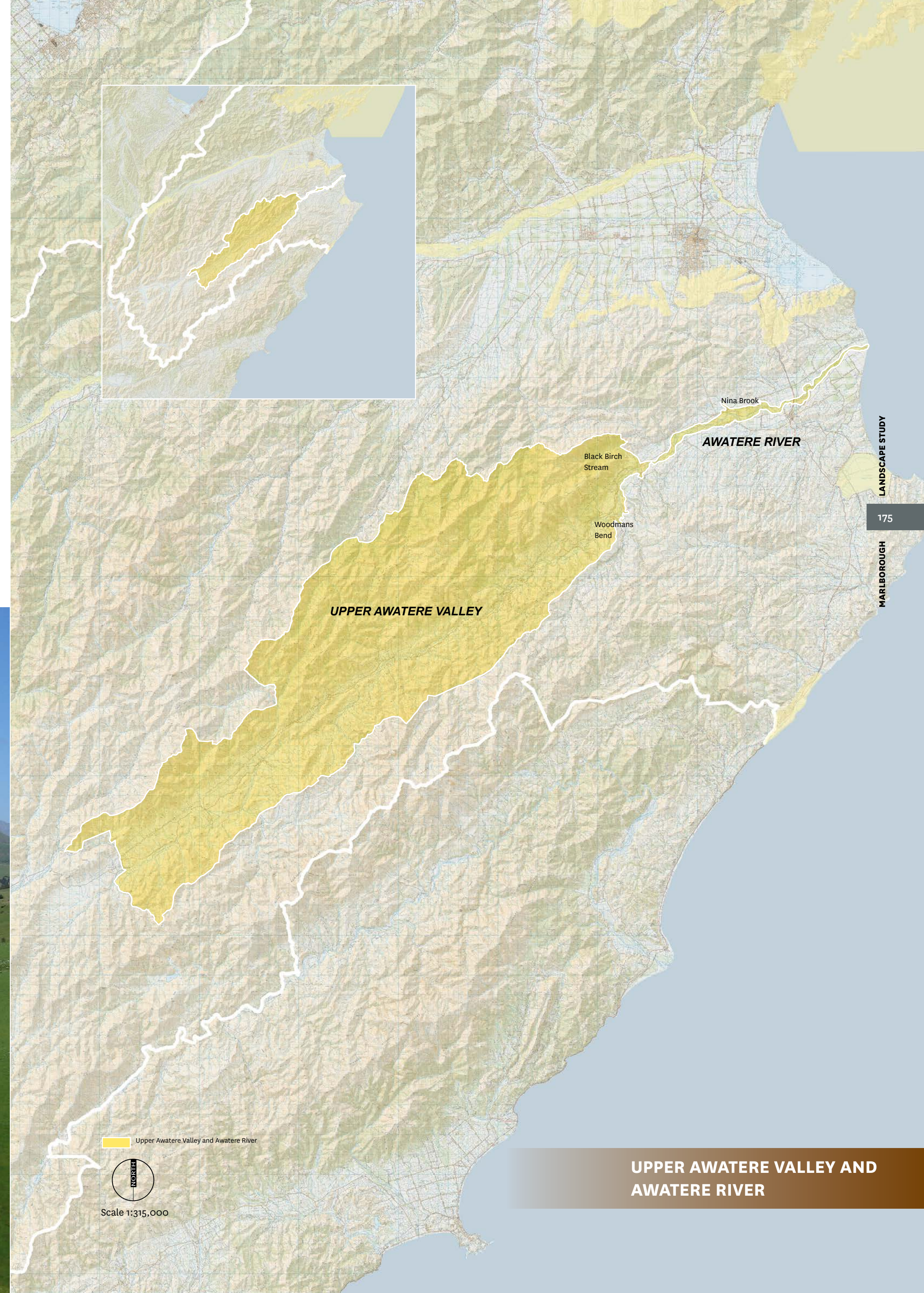
Landscape Characteristics and Values Summary

- The upper Awatere Valley displays very high scenic values, where views towards the Inland Kaikouras, the mountainous terrain beyond and the eroding river terraces of the Awatere River are extremely impressive.
- High legibility of the river terraces.
- Distinctive gorge landform at Nina Brook provides a refuge for native species, including populations of rare broom species.
- The river is considered to provide important fish and bird habitat.
- Impressive long distance views of a settled valley landscape from the majority of the Molesworth Road.
- The striking vertical cliffs that support the flat river terraces along parts of the Awatere River.

Rating: HIGH AMENITY LANDSCAPE & FEATURE

This landscape areas principal value is associated with sensory attributes, predominantly along the river corridor and within the upper Awatere Valley. The striking river terraces add visual drama to the lower valley, while the valley begins to gradually constrict at Black Birch Stream when travelling southwards. Beyond Woodmans Bend, as the road steepens, the high peaks of the upland mountainous landscape provide become visible and provide a spectacular backdrop to the upper valley.

Below: Viewpoint from a location on the road to Molesworth in the upper Awatere valley



UPPER AWATERE VALLEY AND AWATERE RIVER

F: WHARANUI COASTLINE

Dramatic coastline where State Highway One and the railway are closely aligned affording close-up views of this rugged landscape.

WHARANUI COASTLINE

Mapping Description Visual catchment approach. Refer to page 21.

Landscape Characteristics and Values Summary

- The relative complexity of the geology creates spectacular landforms and features, that are highly scenic, particularly along the coastline;
- The velvety dry brown hills contrast with the verdant valleys;
- Public roads are limited, so both State Highway 1 and the railway attract the majority of use, wending their way through the undulating dry hills, marking the division between the Kaikoura coast and the northern Marlborough river valleys.
- Open coast views, mainly unobstructed from State Highway 1 and the railway.

Rating:

HIGH AMENITY LANDSCAPE & FEATURE

This High Amenity Landscape and Feature includes the southern-most part of Marlborough from the Waima River to Willawa Point. The relatively complex geology of this area creates spectacular landforms and features that are particularly scenic when travelling through this area either via road or by train. The close relationship with the rugged coastline adds a further dynamic to this constantly changing landscape.

Below: Coastal landscape of Wharanui





Section F

Appendices



APPENDIX 1: REFERENCES AND BIBLIOGRAPHY

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C180/99	Wakatipu Environmental Society v Queenstown-Lakes District Council [2000]
NZEnvC 432	Upper Clutha Tracks Trust v Queenstown Lakes District Council [2010]
NZEnvC 387	High Country Rosehip Orchards Limited v Mackenzie District Council [2011]
A78/2008	Okura Great Park Society v North Shore City Council [2008]
NZEnvC72	Port Gore Marine Farms v Marlborough District Council [2012]
NZSC38	Environmental Defence Society v New Zealand King Salmon [2014]
NZHC767	Man O War Station Limited v Auckland Council [2015]

Internet sources

A selection of the main internet sources that were used for this Study are listed below:

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Geological and Biological:	www.archsite.org.nz www.teara.govt.nz www.doc.govt.nz www.wikipedia.org www.wetlandtrust.org.nz
Planning:	www.marlborough.govt.nz www.legislation.govt.nz
Other:	www.discovermarlborough.co.nz http://marlboroughnz.com/ www.nzila.co.nz www.wine-marlborough.co.nz www.niwa.co.nz www.aquaculture.org.nz

Logging of commercial pine plantations are a common sight in north Marlborough.



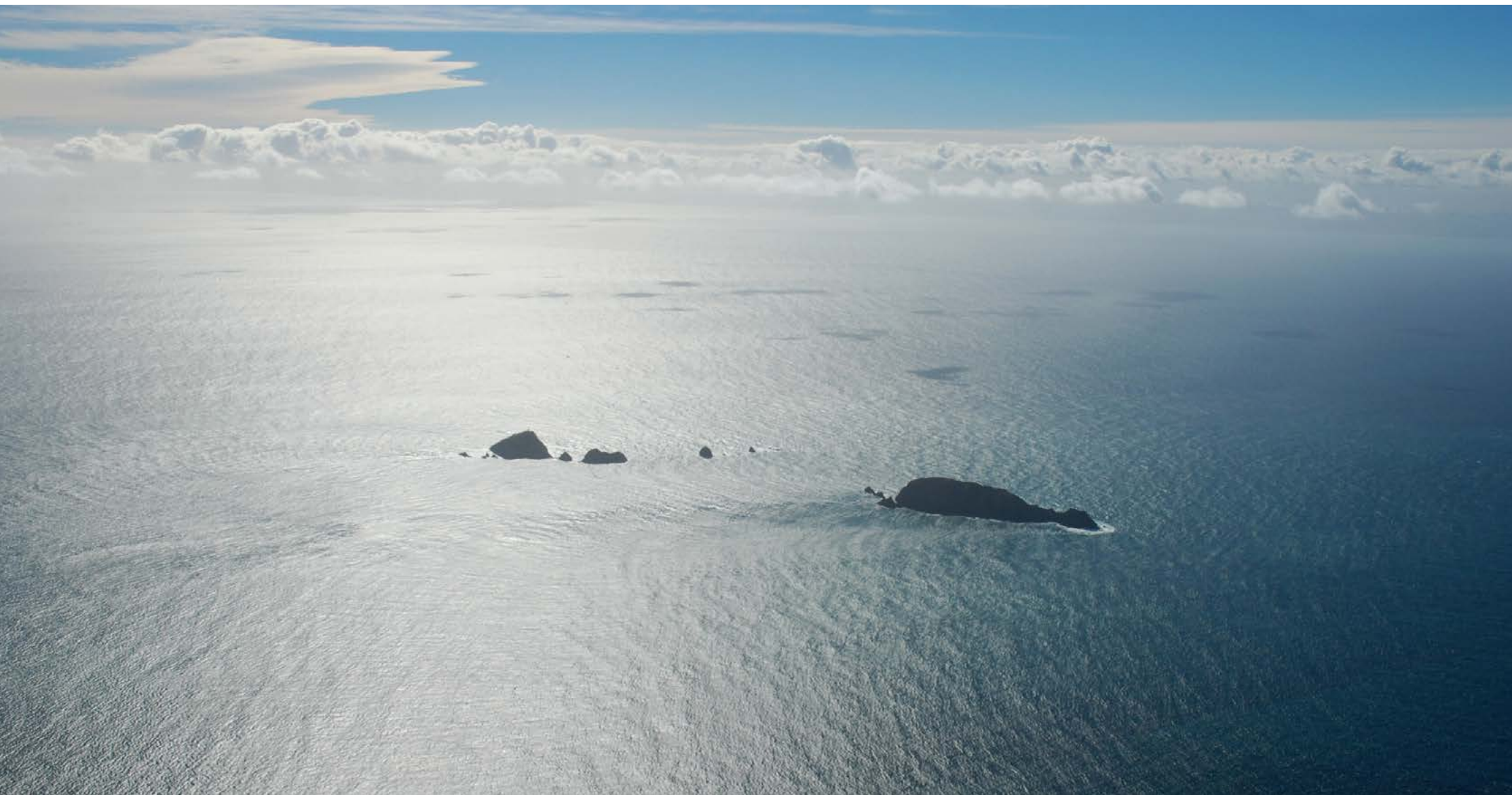
APPENDIX 2: GLOSSARY

Alluvial deposits	Combination of soils and sediments deposited by a river or stream, generally comprising silt, sand or clay matter.
Alpine Zone	All areas above the shrubline, including red tussock tussockland, mossfield and herbfield.
Boulder bank, gravel beach and/or bar	Elongate or linear deposits of coarse debris formed by wave action and long-shore currents.
Braided	Where the river flows in multiple interconnected and often shallow channels divided by deposited material.
Cirque	An amphitheatre-like valley, or valley head formed at the head of a glacier by erosion. Many glacial cirques contain ponds or 'tarns' dammed by bedrock or moraine.
Coast & Coastal	The area where the land meets the sea which includes the CMA. Refer to <i>Natural Character of the Marlborough Coastal Environment</i> (Boffa Miskell et al, 2014).
CMA	Coastal Marine Area.
Colluvial hillslope	Slopes, mostly between 8 and 25 degrees, where mass-movement, creep and sheet erosion have deposited at least 0.3m of debris and soil on the landform surface. Includes many lower slopes and footslopes.
Commercial exotic forestry	Areas of managed pine tree plantations.
Estuarine	Relating to the tidal mouths of rivers.
Forest	Woody vegetation dominated by trees, shrubs and tree ferns in which tree cover exceeds shrub and tree fern cover and trees are of major importance in the canopy;
Grassland	Vegetation in which grasses are the predominant growth form; e.g. <i>paspalum</i> grassland.

Intermontane	A landscape feature such as plateaus or basin that lie within a mountainous setting.
Lagoon	A body of shallow salt water separated from the sea by a sandbank, shingle bar or coral reef.
Lakes, ponds or tarns	Areas of permanent, fresh, standing water.
Landscape	This is referenced more explicitly within Section A, page 14 of this report.
Landscape Attribute	Comprise biophysical features, patterns and processes; sensory qualities; and spiritual, cultural, and social associations, including both activities and meanings.
Landscape Character	Is a distinctive combination of landscape attributes that give an area its identity.
Moraine	An accumulation of glacially formed debris, found in current and formerly glaciated environments.
Permian age	A geologic period and system. It is the last period of the Paleozoic era, some 299 to 251 million years ago.
Plateau	Extensive flat or gently sloping (<16 degrees) areas, more than 100m above sea level, with large parts of their total surface at a similar level, commonly on at least one side by an abrupt descent.
Ria	Another name for a drowned river valley.
Riparian margins or edges	The banks of a river channel.
Ridge (or ridgetop)	Gently sloping or flat (<16degrees) areas along ridges or small areas at the tops of hills and mountains. Soils may be shallow or deep depending on their origin and erosion history.
Riverbed	Area of a river channel not covered by water.
Sand or mud beach, bar and/ or flats	Areas of fine deposits formed by wave action and long-shore currents.

Scree	Deposits of angular rock fragments that exhibit intermittent movement on slopes at the base of cliffs or steep rocky slopes. (Stabilised scree slopes are classified as colluvial hillslopes or colluvial steeplands.)
Scrubland	Woody vegetation in which shrubs are the predominant growth form but which do not form a semi-continuous canopy as in scrub; e.g. manuka shrubland
Sounds	A network of sea drowned valleys caused by a combination of tectonic subsidence and rising sea levels.
Swamp	A shallow, permanently flooded inland area of land, supporting a rich biodiversity of aquatic flora and fauna.
Tarn	A mountain lake or pool formed by a cirque excavated by a glacier.
Terminal Moraine	Moraine that forms at the end of the glacier, or the present boundary of the glacier.
Terrane	A fragment of crustal material formed on or from a tectonic plate
Triassic age	A geologic period and system. It is the first period of the Mesozoic era, some 251 to 199 million years ago.
Tussockland	Vegetation in which tussocks are the predominant growth form. These may be tussock grasses, tussock sedges or other herbaceous plants with densely clumped linear leaves such as <i>Chionochloa spp.</i> ; e.g. red tussock tussockland.
Watercourse	The actual water covered part of a river channel.
Wetland	Land with permanently high water table although not submerged all the time.

The Brothers Islands. The most easterly extent of the Marlborough District.



The dry foothills meet the plains.



APPENDIX 3: GEOPRESERVATION INVENTORY

New Zealand has a unique and extremely diverse natural landform, geology and soil heritage, due to its location and formative processes. The Geological Society of New Zealand (Hayward, B.W; Kenny, J.A and Johnston, M.R (1999) Inventory and Maps of Important Geological Sites and Landforms in the Nelson and Marlborough Regions, including Kaikoura District. Geological Society of New Zealand Miscellaneous Publication 104.) has identified and listed information regarding the internationally, nationally and many of the regionally important earth science sites throughout the country, irrespective of their current protected status.

Within Marlborough there are 71 recognised sites of geological importance, ranging from historic areas of mining to submerged ridgelines, dammed lakes and sea cliffs. Whilst the majority of these sites/ landscapes have been mapped by hand by the Society in their reference books, they have been indicated by locator spots for this study on the map on page 29. However, their mapped extents have been referenced and in some locations form the boundary of the ONL or ONF.

Each Site is listed for its Importance and Significance.

For Importance, the Inventory categorises the Sites into three levels (A-C):

A: International: Site of International Scientific Importance;

B: National Site of National Scientific, Educational or Aesthetic Importance;

C: Regional: Site of Regional Scientific, Educational or Aesthetic Importance;

For Vulnerability, each Site has been classified (1-5) depending on its perceived vulnerability to human activities:

1. Highly vulnerable to complete destruction or major modification by humans;
2. Moderately vulnerable to modifications by humans;
3. Unlikely to be damaged by humans;
4. Could be improved by humans activity;
5. Site already destroyed (not necessarily by human activity).

ID	Name	General location	Importance	Vulnerability
1	Wairau boulder barrier, lagoon and delta	South side of the mouth of Wairau River	B	1
2	Woodside Creek Cretaceous-Tertiary boundary	100 m up gorge of Woodside Creek	A	2
3	Wharanui earth flow	2 km southwest of Wharanui.	C	3
4	East Riverlands gullying	North of Seventeen Valley Stream bridge	C	2
5	Blind River Miocene-Pliocene fossil sequence	In stream section of Blind River for 5km downstream from Waterfall Road	B	3
6	Rarangiri beach ridges and swamp	Rarangiri	C	2
7	Upper Wairau landslide	North bank, upper Wairau River, 2.5 km west of Island Gully junction.	C	3
8	Riverlands sand dunes	North side of highway 1 at Riverlands.	C	2
9	Isolated Creek Sawcut Gorge	In upper reaches of Waima (Ure) River	C	3
10	Seymour Square War Memorial clock tower	Middle of Blenheim city's Seymour Square.	C	2

ID	Name	General location	Importance	Vulnerability
11	Taylor Pass lime kiln	Close to Taylor Pass Road	C	1
12	Blue Mountain gabbro complex	Surrounding Blue Mountain summit, within a radius of 1 km in all directions	B	3
13	Mt Ears prehistoric argillite quarry, D'Urville Island	D'Urville Island. Main north-south ridge leading up to Mt. Ears from Black Beach, Port Hardy	B	3
14	Okiwa Bay Pelorus Schist	Logging road south of The Grove, Okiwa Bay.	C	3
15	Awatere River complex landslide	South bank of Awatere River, 400 m east of Upton Brook	C	3
16	Upton Brook rejuvenation gorge and fossils	Upton Brook, true right bank of Awatere River, where road crosses Upton Downs Road, 20 km SW of Seddon.	B	3
17	French Pass submerged ridgeline	Running from D'Urville Island to mainland, between Reef Point and Channel Point.	C	3
18	Greville Harbour coastal features	East side of entrance to Greville Harbour, D'Urville island.	C	2
19	Greville Harbour boulder spit	Almost cutting Greville Harbour, D'Urville Island into two halves.	B	3
20	D'Urville Island copper mines	On the ridge on the SE side of D'Urville Island.	C	2
21	Ohana Bay prehistoric quarry	Occurs at or very near sea level, just NE of Ohana Bay, D'Urville Island.	C	2
22	Blairich solifluction stripes	Blairich Peak, headwaters of Black Birch Stream, tributary of Awatere River.	B	3
23	Pelorus and Kaituna River deltas	Covering a large area at the mouths of the Pelorus and Kaituna Valleys and extending into the upper parts of Pelorus Sound.	C	2
24	Paddock Rocks	2 km belt extending NNW from point north of Te Puna Bay across entrance to Manuhakapakapa Bay, southern D'Urville Island.	C	3
25	Waihopai River faulted terraces (Alpine Fault)	On the eastern banks of the Waihopai River for 1.5 km extending east from the Hwy 63 bridge.	C	3
26	Penk River Cretaceous olistostromes	River banks of Penk River, up to 1 km upstream of confluence with Awatere River.	C	3
27	Onamalutu Valley metachert	South side of the Onamalutu River.	C	2
28	Matarau Point foreland beach ridges	North side of Croisilles Harbour.	B	2
29	Pakiaka Point boulder bank and lagoon	NE entrance to Croisilles Harbour.	C	2
30	Lake Alexander debris dam	Towards the head of the Tummil River.	C	3
31	Wakamarina alluvial gold mining	Pinedale (Wakamarina) Motor camp area	C	3

ID	Name	General location	Importance	Vulnerability
32	Hodder River weathering features	Hodder River and Gut Stream junction.	B	3
33	Hodder River weathering features	Beside Hodder River, 400m downstream of junction with Staircase Stream.	B	3
34	Whangarae Bay estuary and sand spits, Croisilles Harbour	South side of Croisilles Harbour, west coast of Marlborough Sounds.	C	2
35	Grey River faulted terraces (Awatere Fault)	Grey River, near junction with Awatere River.	C	3
36	Pelorus Bridge river gorge	Adjacent to State Highway 6 at Pelorus Bridge. 500 m stretch of Pelorus River passing through rock gorge from 100 m above bridge to 300 m below junction with Rai River. Also includes 500 m section of Rai River gorge from junction with Pelorus upstream.	C	3
37	Alfred Stream earthflow	Earthflow crosses the saddle between the true right and true left branches of Alfred Stream	C	3
38	Wairau River braids	Lower Wairau River bed between junctions with Goulter River and Bartletts Creek.	C	3
39	Elliot Valley fault trace junction	4 km East of Lake McRae, on true left slopes of Elliot Valley	C	3
40	Wellington Gold Mine, Top Valley	Top Valley, north bank of the Wairau.	C	3
41	Lake McRae fault trace and landslides (Clarence Fault)	Lake McRae, between Elliot and Tweed Rivers.	B	3
42	Lake McRae debris dam	Inland Kaikoura Range, 4 km west of Elliot Hut.	C	3
43	Turkeys Nest Basin solifluction slope	Bounds Range (north face) at head of Wai River.	B	3
44	Lake Challice debris dam	Richmond Range.	C	3
45	Waterfall Stream and Cow Stream moraines	Upper Waihopai Valley.	C	3
46	Barber Stream rock glacier/ landslide	North end of Barber Stream, tributary of Leatham River.	C	3
47	Needles Point Cretaceous/Tertiary boundary	Needles Point.	B	3
48	Branch River faulted terraces (Alpine Fault)	0-1 km east of Branch R. and 100 m south of main road.	A	2
49	Saxton River faulted terraces (Awatere Fault)	Where Molesworth Road crosses Saxton River.	C	3
50	Tory Channel East Head	Two km section of coast from east end Okakuri Bay to East Head and northwards up the Cook Strait coast for 800 m.	C	3

ID	Name	General location	Importance	Vulnerability
51	Cape Jackson drowned ridge crest	8 km long narrow peninsula that leads to Cape Jackson, north from Jackson Head.	B	3
52	Isolated Flat	Central Molesworth, northwest side of Acheron River valley between junctions with Saxton and Severn Rivers.	C	3
53	Wairau Valley offset terminal moraine	North bank of Wairau River between Wash Bridge and Shingle Stream.	B	3
54	Long Island cusped foreland	South and west side of Long Island, Queen Charlotte Sound.	C	3
55	Fighting Bay Torlesse schist	Fighting Bay, Marlborough Sounds.	C	3
56	Chancet Rocks Cretaceous/Tertiary boundary	Chancet Rocks, 1.5 km north of Flaxbourne River.	A	1
57	Endeavour Inlet antimony workings	2km inland from head of Endeavour Inlet, Queen Charlotte Sound.	B	3
58	Flaxbourne River folds and thrusts	Three closely associated areas clustered around Flaxbourne River mouth	C	3
59	Titirangi prehistoric stonework	East side of Titirangi Bay.	C	2
60	Blind River mouth Pliocene fossils	In cliffs on west side of mouth Blind River.	C	3
61	White Bluff sea cliff	At the southern end of the Wairau River boulder bank.	C	3
62	Tarndale flats	Watershed between Acheron and Wairau catchments.	B	2
63	Tarndale-Sedgemere fault trace (Awatere Fault)	Lake Sedgemere area, upper Wairau River catchment.	C	2
64	Waima dune field	South of Waima (Ure) River mouth.	C	2
65	Wairau abandoned sea cliffs	South side of the Wairau Lagoon, to State Highway 1 turnoff along Redwood Pass, to White Bluffs/Te Parinui o Whiti.	B	3
66	Starborough Creek Pliocene fossils	Extends from Seddon township to Awatere River downstream from main highway bridge.	B	3
67	Waterfall Stream and Cow Stream moraines	South face of Bounds Range in Upper Waihopai Valley.	C	3
68	Cape Stephens wind-funneled sand dune	On west side of Cape Stephens, 3km south of northern tip of D'Urville Island.	C	3
69	Tapuenuku zirconium aegirine	Cliff exposure just below summit of Tapuenuku on its northern side.	B	3
70	Horse Flat coal measure fossils	North bank of the mid Clarence River, opposite Horse Flat.	B	3
71	Wairau Valley lateral moraine	On south bank of Wairau River, between Dover and Bush Camp Streams.	C	3

APPENDIX 4: PRESSURES AND THREATS TO MARLBOROUGH'S ONF AND ONL VALUES

The Marlborough Landscape Study 2015 has identified a number of Outstanding Natural Features and Landscapes (RMA section 6b). These areas contain a range of landscape values that are considered to be 'outstanding' at a district scale.

As part of the final stages of the study the team has identified potential pressures and threats, which may threaten these landscapes and their values. All of the outstanding natural features and landscapes identified are highly sensitive to change and should be managed in order to protect the 'outstanding' landscape values.

The Sounds, coastal and mainland landscapes are subject to differing pressures, which are outlined and addressed below. At a generic level landscape change is often, but not always, brought about by economic drivers. Traditional pastoral farming activities and the relatively recent large-scale conversions to viticulture has strongly influenced and shaped Marlborough's landscapes.

In the Sounds, the buoyant real estate market in New Zealand has seen ongoing demand for coastal property and residential sites in locations of high natural beauty. Commercial forestry in the Sounds landscape has also resulted in relatively large landscape change.

Generally, threats arise where:

- activities become larger in scale and therefore a more dominant and singular feature of the landscape e.g., large scale forestry compared with small scale tree planting interspersed with indigenous outcrops and open pasture;
- housing is developed in locations that detract from open and natural characteristics or in more intensive clusters that contrast with the mosaic pattern or open coastal character that currently exists;
- planting and/or structures obscure or alter the outline of natural landforms; earthworks alter natural contours;
- threats also arise through cumulative change i.e., landscape change arising over time from incremental development or "creep" where an existing modification in the landscape is used to justify further change.

More specifically, these effects are often related to only a few key activities, such as earthworks, loss of areas of significant indigenous vegetation, and the placement of buildings, structures and tree plantings in the landscape. These individual threats have been addressed separately below.

Earthworks

Earthworks can leave exposed and cut surfaces, which contrast with surrounding vegetation and the natural contour. As a consequence they can be visually prominent and unsightly. Earthworks can potentially alter the shape and slope of the natural contour, particularly if straight/sharp lines are left, which contrast with a more rounded topography. Cuttings on steep slopes which are prone to erosion can also create unnatural patterns that in turn amplify excessive scaring.

When considering effects created by earthworks consideration should be given to the scale, volume, depth and location (visibility) of the area subject to the earthworks.

Building and Structures

Buildings and structures can modify or dominate a landscape depending on their location in relation to topography and vegetation, and their colour, material finish, height and size.

In addition, buildings such as dwellings can result in modification of the surrounding land area as a result of consequential changes such as domestication of the landscape with gardens, washing lines, driveways etc.

In the Sounds and other coastal areas structures can include jetties, piers, wharves and marine farms, which can all influence the naturalness of a landscape, particularly where there is limited evidence of existing human modification. Ridgelines and sensitive viewshafts are particularly vulnerable to telecommunication towers.

Structures – Land

When considering the effects of buildings and structures within an ONFL, consideration should be given to:

- different types of buildings; and
- the variation offered by topography and vegetation for location of buildings and structures;
- cumulative effects;
- visibility;
- encroachment (physical and visual) on heritage and outstanding natural features and landscapes; as well as
- domination in areas of high natural character.

Structures – Water

Water based structures such as jetties and marine farms can impact on the seascape and undermine the natural character values of the coastal environment.

When considering the effects of water based structures in a coastal environment consideration should be given to:

- siting (location of structure in bay);
- bulk (intensity and size of structure proposed);
- design.

Vegetation Change/Removal

In some landscapes, it is the vegetation that contributes strongly to the area's landscape values. This can include exotic planting where it is of a smaller scale and has been planted in harmony with the topography and land cover features present in the landscape. In other cases, it is the presence of indigenous vegetation which contributes to the landscape values. The loss of this vegetation may have significant landscape and visual effects and could diminish an ONFL. Although pines can devalue a landscape or feature, they can (in combination with other attributes of the landscape), collectively meet the threshold of being 'outstanding', such as those in outer Port Underwood.

Tree Planting

Tree planting can have a visual effect where the planting provides a stark contrast to the openness of a landscape. This contrast could result from the scale as well as the appearance of the planting. Tree planting for commercial purposes tends to be linear and ordered in its layout and consist of a singular species. Access tracks and areas of felling may be visually prominent, especially in steep terrain. This results in an "unnatural" appearance compared with indigenous vegetation which consists of a variety of plants of different scale, colour and texture and which generally conforms to the natural contour of the land.

When considering effects of tree planting consideration should be given to the scale of the planting, its layout (spacing and pattern), the species and purpose of the planting. It is accepted that amenity planting and indigenous re-vegetation tends to avoid a large scale and uniform layout while shelterbelts are an anticipated part of the rural environment. It may therefore be inappropriate and unnecessary to impose controls on non-commercial planting. Location and visibility are important considerations, and encroachment (physical and visual) on heritage and outstanding natural features could result in the visual obscuring of these areas and features. Sky-lining may also present an unnatural contrast which is inappropriate in outstanding landscapes. Consideration of cumulative effects when assessing scale may also assist in avoiding physical encroachment of trees in outstanding and heritage landscapes.



Forestry in the Sounds can have a severe visual impact on amenity values.

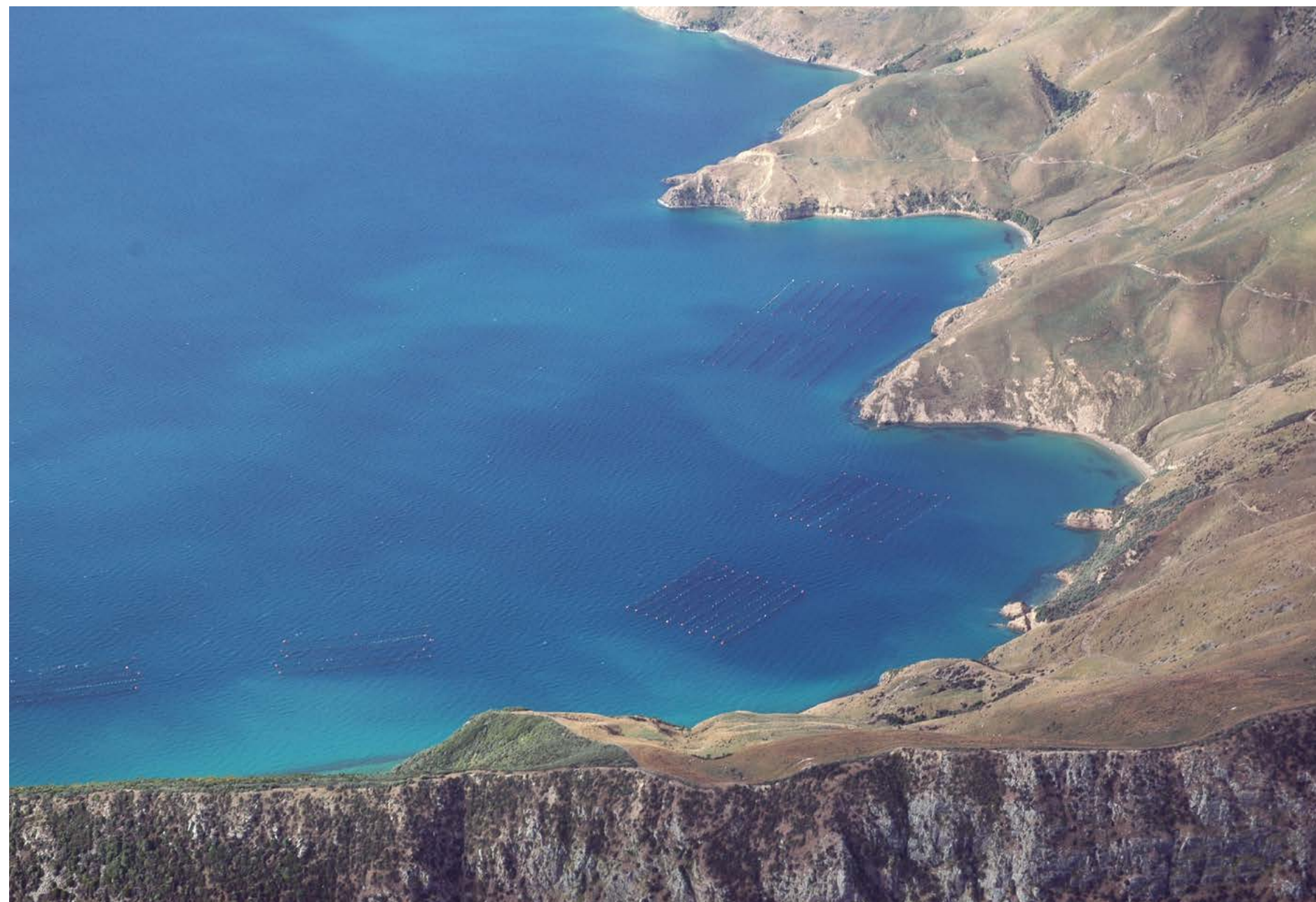
Specific sensitivities to certain Landscape Character Areas

Character Area	Key Sensitivities to the identified values	Likely Threats	Comments
Marlborough Sounds	Impact on biophysical and sensory values through native vegetation removal	<ul style="list-style-type: none"> • Subdivision (particularly on higher ground); • Forestry 	Removal of native vegetation can result in adverse visual and landscape effects on biophysical and sensory values through erosion and the visual contrast between other uncleared areas. Removal of vegetation reduces the naturalness of an area.
	Maintenance of the visual coherence of areas displaying very high levels of naturalness (including both land and water) (mainly ONFLs)	<ul style="list-style-type: none"> • Earthworks for roading and subdivision; • Sprawling extent of subdivision growth into areas overwhelmingly unmodified; • Encroachment of weeds (e.g. wilding pines, gorse); • Aquaculture; • Forestry. 	Introduction of human modifications into areas displaying very high levels of naturalness can affect the biophysical and sensory values of a landscape and seascape. Encourage 'clustering' in already modified areas. Commercial forestry and other introductions of non-native plant species and creation of unnatural patterns can reduce the naturalness of an area.
	Visual sensitivity of ridgelines and upper slopes (in particular undeveloped parts)	<ul style="list-style-type: none"> • Utility structures; • Buildings. 	Highly visible development on ridgelines may adversely affect the aesthetic values and natural form of ridgelines.
	Open grasslands are visually sensitive to human modifications;	<ul style="list-style-type: none"> • Forestry; • Intensification of landuse; • Earthworks for tracks; • Encroachment of weeds (e.g. wilding pines, gorse). 	Encroachment of human modifications can adversely affect sensory values, such as the visual coherence of an open peninsula or headland. This can affect the perceived naturalness of an area.
	Maintenance of the visual amenity of working landscapes displaying a coherent character (including both land and water) (mainly areas of High Amenity)	<ul style="list-style-type: none"> • Earthworks for roading and subdivision; • Quarrying; • Sprawling extent of subdivision growth into areas overwhelmingly unmodified; • Forestry; • Activities that may appear to dominate a landscape 	Intensification of areas that currently contain open characteristics through landform and land cover should be avoided. Includes incongruous earthworks, tracks, building locations.
	Seascapes	<ul style="list-style-type: none"> • Sea-based industries including: aquaculture, off-shore wind farms, oil rigs, offshore drilling; • Marinas; • Dredging/ trawling 	Development within seascapes can adversely affect the natural and open characteristics of the area.
Richmond Range	Visual sensitivity of ridgelines and upper slopes (in particular undeveloped parts)	<ul style="list-style-type: none"> • Utility structures; • Buildings; • Earthworks; • Mining and quarrying; • Native vegetation clearance 	Development on undeveloped or unmodified ridgelines can adversely effect the aesthetic values. Considerations should include location, size, colour, scale and access.
	Biophysically important areas of native vegetation on lower-lying land (such as that at Pelorus Bridge and Onamalutu Reserve)	<ul style="list-style-type: none"> • Native vegetation clearance; • Forestry; • Mining and quarrying; • Buildings and structures (e.g., subdivision and utilities) 	Biophysical and sensory values of low-lying native bush cover can be adversely affected by land use change.
Wairau River	Vulnerability of biophysical values in upper valley	<ul style="list-style-type: none"> • Native vegetation clearance; • Forestry; • Earthworks; • Quarrying and mining; • Utilities; • Subdivision. 	Biophysical and sensory values of low-lying native bush cover can be adversely affected by land use change.
	Biophysical values of the Wairau Lagoons	<ul style="list-style-type: none"> • Utilities (such as powerlines crossing lagoons); • Subdivision on lagoon margins. 	Human modifications can affect the biophysical, sensory and associative values of the lagoons. Development around the perimeter of the lagoons should also be restricted.
Wairau Dry Hills	Open grasslands of the hills are visually sensitive to change	<ul style="list-style-type: none"> • Earthworks for subdivision and roading (particularly on higher ground); • Forestry; • Vineyards; • Wind Farms; • Quarrying and mining; • Structures and building on skylines. 	The Wairau Dry Hills (particularly the Wither Hills, Southern Hills and Redwood/ Dashwood passes) contain important sensory values to Marlborough in terms of their visual coherence. Characteristics such as their homogenous undulating form, distinctive colour and open values unencumbered by modifications through built structures and unnatural vegetation patterns.

This table continues overleaf.

Character Area	Key Sensitivities to the identified values	Likely Threats	Comments
Mountainous Interior	Substantial unnatural vegetation changes to areas	<ul style="list-style-type: none"> Native vegetation clearance; Forestry; Quarrying and mining. 	Introduction of commercial forestry to natural areas such as Molesworth, the Main Divide, the Leatham Area, upper Awatere and northern Kekerengu could adversely affect the exceptional and very high biophysical and sensory values of these areas.
	Visual openness of the Upper Awatere Valley from the Molesworth Road	<ul style="list-style-type: none"> Large-scale intensification of landuse (through forestry, agriculture, earthworks (including quarries) and buildings and structures). 	Maintaining the open character of high country farms as well as the limited presence of human built forms.
Awatere River Valley	Visual legibility of the river cliffs and terraces	<ul style="list-style-type: none"> Forestry on the lower terraces; River structures/ modifications (including gravel extraction). 	The sensory and legibility values of the river cliffs and terraces positively contribute to the aesthetic values of the Awatere River.
	Visual openness of the Upper Awatere Valley from the Molesworth Road	<ul style="list-style-type: none"> Large-scale intensification of landuse (through forestry, agriculture, earthworks (including quarries and mining) and buildings and structures). 	Maintaining the open character of high country farms as well as the limited presence of human built forms.
Awatere Dry Hills	Highly expressive and visually coherent naturalness of the 'Limestone Coastline' is sensitive to change	<ul style="list-style-type: none"> Intensification of farming practices (e.g., vineyards); Forestry; Prominent buildings and structures including wind farms. 	The introduction of significant changes to landuse along the limestone coast could erode the exceptional biophysical and sensory values.
	Views from the State Highway One towards the Wharanui coastline is visually sensitive	<ul style="list-style-type: none"> Shelterbelts; Forestry; Subdivision; Buildings and structures. 	The Wharanui coastline represents either the last or first opportunity to view the Pacific Ocean from State Highway One. Maintain views of the coast along this stretch.
Lake Grassmere	Views from the State Highway towards the lake are sensitive	<ul style="list-style-type: none"> Shelterbelts; Forestry; Structures and buildings. 	Maintaining the openness of views from the State Highway.

The location of aquaculture can affect the values and characteristics of an ONF or ONL.



APPENDIX 5: RMA PART II & NZCPS POLICY 15 EXCERPTS

Part II [Purpose and Principles] of the Resource Management Act 1991 (RMA 1991) are outlined below. Relevant Landscape considerations have been underlined.

RMA Part 5: Purpose

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
- (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

RMA Part 6: Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development;
- (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development;
- (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;
- (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers;
- (e) the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga;
- (f) the protection of historic heritage from inappropriate subdivision, use, and development;
- (g) the protection of protected customary rights.

Section 6(f): nserted, on 1 August 2003, by section 4 of the Resource Management Amendment Act 2003 (2003 No 23).

Section 6(g) replaced, on 1 April 2011, by section 128 of the Marine and Coastal Area (Takutai Moana) Act 2011 (2011 No 3).

Part 7: Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—

- (a) kaitiakitanga;
- (aa) the ethic of stewardship;
- (b) the efficient use and development of natural and physical resources:
- (ba) the efficiency of the end use of energy;
- (c) the maintenance and enhancement of amenity values;
- (d) intrinsic values of ecosystems;
- (e) [Repealed]
- (f) maintenance and enhancement of the quality of the environment;
- (g) any finite characteristics of natural and physical resources:

- (h) the protection of the habitat of trout and salmon;
- (i) the effects of climate change;
- (j) the benefits to be derived from the use and development of renewable energy.

Section 7(aa) inserted, on 17 December 1997, by section 3 of the Resource Management Amendment Act 1997 (1997 No 104).

Section 7(ba) inserted, on 2 March 2004, by section 5(1) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

Section 7(e) was repealed, on 1 August 2003, by section 5 of the Resource Management Amendment Act 2003 (2003 No 23).

Section 7 (i) inserted, on 2 March 2004, by section 5(2) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

Section 7 (j) inserted, on 2 March 2004, by section 5(2) of the Resource Management (Energy and Climate Change) Amendment Act 2004 (2004 No 2).

NZCPS (2010) Policy 15: Natural features and natural landscapes

To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use and development:

- (a) avoid adverse effects of activity on outstanding natural features and outstanding natural landscapes in the coastal environment; and
- (b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activity on other natural features and natural landscapes in the coastal environment;

including by:

- (c) identifying and assessing the natural features and natural landscapes of the coastal environment of the region or district, at minimum by land typing, soil characterisation and landscape characterisation and having regard to:
 - (i) natural science factors, including geological, topographical, ecological and dynamic components;
 - (ii) the presence of water including in seas, lakes, rivers and streams;
 - (iii) legibility or expressiveness - how obvious the feature or landscape demonstrates its formative processes;
 - (iv) aesthetic values including memorability and naturalness;
 - (v) vegetation (native and exotic);
 - (vi) transient values, including presence of wildlife or other values at certain times of the day or year;
 - (vii) whether the values are shared and recognised;
 - (viii) cultural and spiritual values for tangata whenua, identified by working, as far as practicable, in accordance with tikanga Māori; including their expression as cultural landscapes and features;
 - (ix) historical and heritage associations; and
 - (x) wild or scenic values.

(d) ensuring that regional policy statements, and plans, map or otherwise identify areas where the protection of natural features and natural landscapes requires objectives, policies and rules; and

(e) including the objectives, policies and rules required by (d) in plans.