HUDSON ASSOCIATES
LANDSCAPE ARCHITECTS

MANAWATU DISTRICT LANDSCAPE ASSESSMENT

27 November 2019

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For

Manawatu District Council

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Contents

Landscape Areas

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EXECUTIVE SUMMARY

Manawatū District Council (MDC) is undertaking a sectional review of its District Plan. As part of this process a comprehensive landscape assessment was considered timely, with a view to the results informing the development of plan provisions for the management of the Manawatū District's outstanding natural features and landscapes.

A first draft of the landscape assessment was completed in 2013. It has been the subject of initial consultation, stakeholder engagement, and further review since. During that time Manawatū-Wanganui Regional Council (Horizons) made operative the One Plan, which includes the Regional Policy Statement. The One Plan identifies the following five Outstanding Natural Features and Landscapes at a regional scale, although the plan acknowledges that these may be refined with further review and spatial definition at a District level.

- **Rangitikei River** - and river valley from Mangarere Bridge to Putorino and from Mangarere Bridge to the confluence of Whakaurekou River and Ohutu Stream
- **Ruahine Forest Park** (land administered by the Department of Conservation)
- **Ruahine Ridges** - The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks described in items (j) and (k)
- **Manawatū Gorge** - from Ballance Bridge to the confluence of the Pohangina and Manawatū Rivers, including the adjacent scenic reserve
- **Coastline** - Parts of the Coastline of the Region, particularly the Akitio Shore Platform, Castlecliff to Nukumaru coastal cliffs, Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes

The landscape assessment identifies and spatially defines the landscapes (and their characteristics and attributes) across the entire district as required by the One Plan. The landscapes and features are categorised as either outstanding natural landscapes (ONLs), outstanding natural features (ONFs) or significant amenity features (SAFs).

There are 15 areas identified as ONFs or ONLs (together referred to as ONFLs), including the refinement of two of the five areas identified at the regional scale in the One Plan. The two regional areas that have been refined are the Rangitikei River and the Coastline. The downstream extent of the Rangitikei River ONF has been reduced slightly at a District level, while the extent of the coastal Foxtangi Dunes has also been reduced.

The fifteen areas identified as ONFLs are listed at the end of the Executive Summary. The Ruahine Ranges and Manawatū Coastline are identified as ONLs, while the rest are identified as ONFs.

The Operative Manawatū District Plan (produced as a first-generation plan and made operative in 2002) identifies through Objective LU 9) at section 4.3.3 eight Outstanding Landscapes and (at Appendix 1C) two Outstanding Natural Features. These are:

Outstanding Landscapes:

a) Pohangina River and river valley.

b) Ōroua River and river valley upstream of the Mangoira Stream confluence.

c) Rangitikei River and river valley upstream of Putorino.

d) The ridgeline of the Ruahine ranges.

e) The Ruahine State Forest Park.

f) Pukepuke lagoon.

g) The coastline of the District, including the dune areas immediately adjacent to the sea.

h) The vistas from Stormy Point lookout and the Mt Stewart Memorial.

Outstanding Natural Features:

1. Concretion Terrace, Peka Road
2. Glow Worm Caves, Limestone Road, Apiti

The Outstanding Landscapes were derived from the then operative Regional Policy Statement which identified them by description. Of the eight Outstanding Landscapes, the following three have been altered in the current landscape assessment:

- Ōroua River and river valley (Expanded and reclassified as a SAF).
- Pohangina River & River Valley (Refined).
- Vistas from Stormy Point Lookout & Mount Stewart Memorial (Removed).

The remaining four Outstanding Landscapes, plus the two Outstanding Natural Features, retain recognition as ONFLs or SAFs in the current assessment, as follows:

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- Upper Ōroua River and River Valley (SAF
- Rangitikei River and river valley upstream of Putorino (ONF, slightly reduced).
- The ridgeline of the Ruahine ranges (ONL).
- The Ruahine State Forest Park (ONL).
- The coastline of the District, including the dune areas immediately adjacent to the sea (ONL).
- Concretion Terrace, Peka Road (incorporated into Rangitikei River ONF).
- Glow Worm Caves, Limestone Road (incorporated into Limestone Creek ONF).

SAFs have also been assessed at the district scale. These have been assessed using the same methodology as ONFLs but are not considered to reach the standard required for recognition as 'conspicuous, eminent, remarkable or otherwise outstanding'. However, they do have characteristics that distinguish them from common rural areas. These characteristics typically include the existence of remnant native vegetation in combination with pronounced topography, geomorphology, perceptual or cultural associations. Three areas have been assessed as SAFs, being:

- Mangoira Stream downstream of Mangahuia confluence
- Upper Ōroua River and River Valley
- Makiekie Creek

Regard has been had to the statutory framework in the assessment. Specifically, the One Plan and the RMA provide direction regarding landscapes within the District.

Sections 6 and 7 of the RMA, in particular s 6(b) and s 7(c), are important as these provide the statutory basis for identification, protection, maintenance and enhancement of ONFLs. Together, these sections work to protect ONFLs from inappropriate use and development or, enable maintenance and enhancement of the wider environment, or 'amenity values' in instances where the features and landscapes do not meet the criteria for "outstanding".

The One Plan requires spatial definition of these areas, which has been done by mapping their extent within the assessment. It also requires their relevant values to be considered when assessing effects of an activity on them. These values are established by applying the assessment factors listed in the One Plan (Table 6.1).[1]

The landscape assessment is the result of an iterative process. The first draft (2013) was prepared applying the general method required by the One Plan, with information gathered from a wide range of publicly available sources. The information is divided into three broad categories of Natural Science, Perceptual/Aesthetic, and Associational. These categories encompass the seven categories from the One Plan and also have regard to factors well established through case law, including the *Pigeon Bay* assessment criteria.

Since 2013 the landscape assessment has been the subject of further review, including (in part) as a consequence of consultation, public meetings, site visits, key stakeholder meetings and more recently, iwi engagement. In some cases there has been modification or refinement of some of the mapped ONFLs. In other cases, there has been further fine grain assessment of the values and characteristics of landscapes. There has also been inclusion of additional information relating to Māori cultural values as a result of the Deed of Settlement between Rangitikei o Manawatū and the Crown and Ngāti Apa and the Crown. The information contained in this assessment awaits their more detailed review, which may lead to modifications within this landscape assessment and possibly preparation of a separate cultural values report that will supersede much of the tangata whenua discussions in this current assessment. Until that time, cultural matters are referred to in this assessment, but its limitations are acknowledged as more detailed information is prepared by iwi.

In summary, the following areas have been found to be ONFLs or SAFs:

OUTSTANDING NATURAL FEATURES AND LANDSCAPES

ONFL 1	Outstanding Natural Landscape	Ruahine Ranges (Including forest park & ridges)
ONFL 2	Outstanding Natural Landscape	Manawatū Coastline
ONFL 3	Outstanding Natural Feature	Rangitikei River
ONFL 4	Outstanding Natural Feature	Mangamako Gorge
ONFL 5	Outstanding Natural Feature	Titirangi (Including Scenic Reserve)
ONFL 6	Outstanding Natural Feature	Dress Circle (Including Scenic Reserve)
ONFL 7	Outstanding Natural Feature	Mangoira Stream and Mangahuia Stream
ONFL 8	Outstanding Natural Feature	Makiekie and Limestone Creeks
ONFL 9	Outstanding Natural Feature	Upper Pohangina River
ONFL 10	Outstanding Natural Feature	Totara Regional Park (Including Scenic Reserve)
ONFL 11	Outstanding Natural Feature	Rangiwahia (Including Scenic Reserve)
ONFL 12	Outstanding Natural Feature	Nitschke/Gorton's Bush (Waitapu Stream Bush)
ONFL 13	Outstanding Natural Feature	Manawatū Gorge
ONFL 14	Outstanding Natural Feature	Pukepuke Lagoon
ONFL 15	Outstanding Natural Feature	Lake Kaikokopu

SIGNIFICANT AMENITY FEATURES

SAF 1	Significant Amenity Feature	Mangoira Stream (downstream of Mangahuia confluence)
SAF 2	Significant Amenity Feature	Upper Ōroua River and River Valley
SAF 3	Significant Amenity Feature	Makiekie Creek

1 The criteria within the One Plan are seen to align with well established criteria through case law, including *Pigeon Bay Aquaculture Limited v Canterbury Regional Council* [EnvC C179/2003] and the subsequent *Wakatipu Environmental Society Inc v Queenstown Lakes District Council* [2000] NZRMA 59 .

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INTRODUCTION AND PROCESS

This landscape assessment of Manawatū District has been undertaken using an expert-based approach. It reviews and builds on an earlier draft landscape assessment completed for Manawatū District Council (MDC), with a view to informing the development of district plan provisions to manage landscapes within the Manawatū District over the longer term.

The purpose of the assessment is to identify and map areas within the Manawatū District that qualify as Outstanding Natural Features or Landscapes (ONFLs). It has identified fifteen areas as having the significance to qualify as ONFLs. Two areas are identified as Outstanding Natural Landscapes (ONLs) and twelve as Outstanding Natural Features (ONFs). Additionally, three areas of Significant Amenity Features (SAFs) have been identified[1].

1 Background

A landscape assessment is being undertaken for MDC to identify and provide an understanding of the District's landscapes. The request for this work was made by MDC in late 2012, and fieldwork and the draft report were completed by early 2013. A draft of the identified ONFL and SAF mapped areas was released for public consultation in 2015. In 2016 visits were made to a number of farms to discuss mapped boundaries for these two landscape classifications, resulting in some minor amendments. The landscape assessment was revisited in 2017, with regard had to the cultural information that had become available through the Statements of Association and relevant Deeds of Settlement. At that stage some finer grain assessment was also completed regarding the values and characteristics of some of the ONFL mapped areas.

The assessment of the District's landscapes was motivated by a desire to clearly identify landscapes of significance within the District. The need for review was reinforced by the Manawatū-Wanganui Regional Council's (Horizons) One Plan, which requires territorial authorities to recognise and spatially define ONFLs identified in Schedule G of the One Plan. While Schedule G provides a list of ONFLs, the One Plan acknowledges that more detailed spatial definition will be required at a District level. It sets out a framework for territorial authorities to identify and consider the inclusion of landscapes; to add to, delete from, or otherwise alter, redefine or modify the One Plan ONFLs; and to establish the relevant values to be considered when considering effects on ONFLs.

1 Env Ct Decision 432 (Dec 2010) para 39 referencing QLDC District Plan definition of Visual Amenity Landscapes. *The visual amenity landscapes are the landscapes to which particular regard is to be had under Section 7 of the Act. They are landscapes which wear a cloak of human activity much more obviously – pastoral (in the poetic and picturesque sense rather than the functional sense) or Arcadian landscapes with more houses and trees, greener (introduced) grasses and tend to be on the District's downlands, flats and terraces.*

Schedule G of the One Plan identifies 15 ONFLs throughout the Manawatū -Wanganui region, with the following five ONFLs falling within Manawatū District:

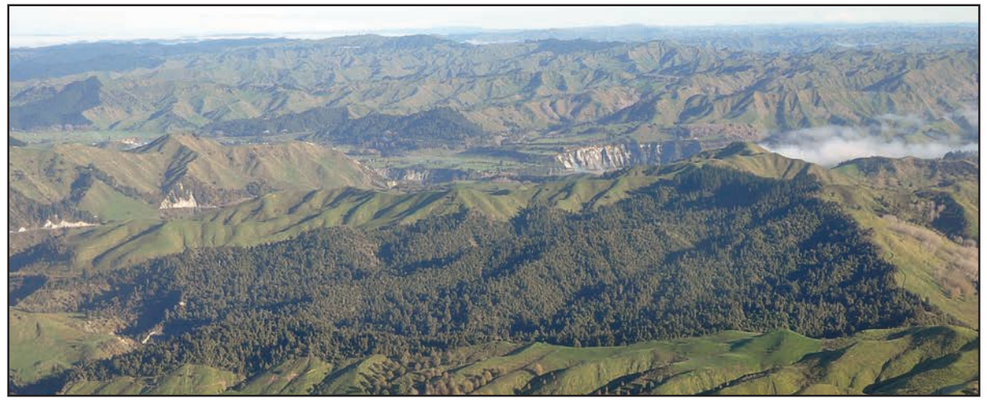
Rangitikei River and river valley from Mangarere Bridge to Putorino and from Mangarere Bridge to the confluence of Whakaurekou River and Ohutu Stream

Ruahine Forest Park (land administered by the Department of Conservation)

Ruahine Ridges The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks described in items (j) and (k)

Manawatū Gorge, from Ballance Bridge to the confluence of the Pohangina and Manawatū Rivers, including the adjacent scenic reserve

Coastline Parts of the Coastline of the Region, particularly the Akitio Shore Platform, Castlecliff to Nukumaru coastal cliffs, Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes



The five ONFLs have been considered in detail within this landscape assessment. As a consequence, three of the areas defined within Schedule G of the One Plan have been refined in extent in the District mapping and two have been combined. These refinements relate to the Rangitikei River ONFL, the Coastaline ONFL and the Manawatū Gorge. The downstream extent of the Rangitikei River ONFL has been reduced slightly, the extent of the MDC ONFL within the Foxtangi Dunes has been defined within the Coastline ONFL and the extent of ONFL in MDC jurisdiction within the Manawatū Gorge has been defined. The Ruahine Ridges within Ruahine Forest Park have been combined to form the Ruahine Range ONFL within the MDC landscape assessment.

The Manawatū Operative District Plan (2002) (operative District Plan) also identifies eight Outstanding Landscapes in Objective LU 9) at section 4.3.3 and two Outstanding Natural Features (at Appendix 1C). These landscapes are not mapped and rely on descriptions in a similar way to the One Plan. The eight Operative District Plan areas include:

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Outstanding Landscapes (listed in Objective LU 9):

a) Pohangina River and river valley.

b) Ōroua River and river valley upstream of the Mangoira Stream confluence.

c) Rangitikei River and river valley upstream of Putorino.

d) The ridgeline of the Ruahine ranges.

e) The Ruahine State Forest Park.

f) Pukepuke lagoon.

g) The coastline of the District, including the dune areas immediately adjacent to the sea.

h) The vistas from Stormy Point lookout and the Mt Stewart Memorial.

Outstanding Natural Features (listed in Appendix 1C):

1. Concretion Terrace, Peka Road
2. Glow Worm Caves, Limestone Road, Apiti

Of the eight Outstanding Landscapes (listed in Objective LU 9), all except one have been carried through into the landscape assessment as either an ONFL or SAF, with some of these being refined through the current assessment. The only one that has not been carried forward is the vista from Stormy Point lookout and Mt Stewart Memorial. Being a view rather than a landscape it is not considered appropriate for inclusion in the new assessment.Both Outstanding Natural Features (listed in Appendix 1C) have been carried through into the landscape assessment as part of the ONFLs.

Additionally, the Operative District Plan includes Appendix 1, with Appendices 1A, 1B, and 1C. These appendices have been considered in this assessment by covering the following topics:

1A Wetlands, Lakes, Rivers and their Margins,

1B Significant Areas of Indigenous Forest/Vegetation (Excluding Reserves),

1C Outstanding Natural Features

The landscape assessment has considered these areas and where appropriate, included these areas within the ONFLs or SAFs (see Review of Appendices 1A, 1B and 1C below):

SAFs have also been assessed at the district scale. These features have been assessed using the same One Plan methodology as ONFLs but professional judgement finds that they do not reach the standard required for recognition as outstanding.

However, SAFs do have characteristics that distinguish them from common rural areas, including remnant native vegetation in combination with pronounced topography, geomorphology, perceptual or cultural associations. Three areas have been assessed as SAFs, being:

- Mangoira Stream downstream of Mangahuia confluence
- Upper Ōroua River and River Valley
- Makiekie Creek

2 Issue to be Managed

This assessment is for the purpose of identifying, evaluating and mapping ONFLs. This work assists MDC in giving effect to the One Plan, which directs spatial definition of ONFLs at a district level. The spatial mapping supplements and refines the identification of significant landscapes at a regional scale by way of written description in the One Plan.

The landscape assessment has involved mapping the extent of the outstanding areas, describing them in terms of the One Plan and established case law (Pigeon Bay et al.) factors, and determining the landscape characteristics that relate to each area.

This work is intended, among other ways, to inform the development of objectives, policies and rules managing these landscapes within the Manawatū District over the longer term.

3 Legislative Setting

Key provisions of the RMA include:

Sn 6(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development.

Sn 7(c) The maintenance and enhancement of amenity values.

Sn 7(f) The maintenance and enhancement of the quality of the environment.

Outstanding landscapes are considered to be a section 6 matter, while amenity landscapes are considered to be an s7(c) matter. However, the ‘protection’ requirement of s6(b) can also imply a maintenance requirement when considering ONFLs.

Of further relevance is the New Zealand Coastal Policy Statement (NZCPS). The NZCPS is important for identification of ONFL’s in the coastal environment. The matters to be had regard to in this context generally align with the criteria identified in the One Plan (Table 6.1). The preservation of the natural character of the coastal environment, with regard to section 6(a), is assessed and reported on by the writer separately as part of the sectional District Plan review.

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4 Policy and Regulatory Setting

There is no universally accepted definition of ONFL. However, guidance is taken from the One Plan[2] (Policy 6-7, Table 6-1 and Schedule G) and criteria established through case law.

The five ONFLs within MDC identified in Schedule G of the One Plan are described in written form, rather than mapped. It is for the territorial authorities to spatially define ONFLs within a district. The One Plan further lists a set of assessment criteria at Table 6.1 (which have been derived from the *Pigeon Bay* factors discussed below) that are to be taken into account when identifying outstanding landscapes, and when territorial authorities are identifying or refining the areas listed in Schedule G. These include factors such as geographical and geological features and their contribution to the Region's character, ecological significance, cultural significance of the area, amenity, intrinsic, scientific and recreational values, and any recognised (national or regional) level of protection. All of these factors/criteria have been used in some way in assessing ONFLs for the Manawatū District through this assessment.

A correlation between the seven factores listed in Policy 6-7 of the One Plan and the factors listed in this landscape assessment can be categorised as follows:

ONE PLAN AND NATURAL FEATURES/LANDSCAPES	HUDSON ExPERT ASSESSMENT
Natural science factors	Natural science
Aesthetic values	Perceptual – Aesthetic
Expressiveness (Legibility)	Perceptual – Legibility/Expressiveness
Transient values	Perceptual - Transient
Shared and recognised values	Associational – Shared/recognised
Cultural and spiritual values for tangata whenua	Associational – Tangata whenua
Historic heritage values	Associational - Historical

5 Existing Information

Existing information drawn on for the preparation of the landscape assessment includes (but is not limited to) the following:

- District Plan Boundary and cadastral information from Quickmap
- Topographic and NZTopo50 mapping from Quickmap
- Aerial photography from Quickmap, MDC, Google & Bing Maps
- Conservation significance information from DoC websites
- DoC Actively Managed Historic Places
- One Plan Chapter 6 and Schedule G
- Operative Manawatū District Plan
- *Pigeon Bay Aquaculture Ltd and Others v Canterbury Regional Council* [1999] C32/99
- *Wakatipu Environmental Society v Queenstown Lakes District Council* [2001] C075/2001.
- *Upper Clutha Tracks Trust v Queenstown Lakes District Council [2010] NZ Env C 432*
- Meridian Energy submission on Rangitikei District Plan July 2012
- Rangitikei District Plan Hearing Panel 1 Decision Report October 2012
- Meridian Energy Environment Court Notice of Appeal dated 23 January 2013 on Rangitikei District Plan
- Oblique aerial photographs taken on flights over the District on 22 November 2012, 12 January 2013 and 1 June 2018
- Results of consultation undertaken in 2015 and 2016
- Statutory Acknowledgment Areas and any relevant Deed of Recognition

6 Consultation to Date

Consultation was undertaken in 2015 through public meetings. The mapped ONFL and SAF areas were presented at the meetings. Site visits were undertaken on request. Minor amendments were made following site visits in 2016. The minor amendments included the additional mapped areas and changes to ONFL and SAF boundaries. Further consultation was undertaken in 2019 , with submissions invited and received in August 2019 on Draft Landscape provisions.

7 Method

The landscapes have been assessed according to the *Pigeon Bay* factors, which is a list of landscape assessment factors established by the Environment Court in its decision on an appeal for a series of mussel farms in Pigeon Bay, Banks Peninsula.[3] These factors have been refined and evolved in subsequent case law such as Wakatipu Environmental Society Inc (WESI) v Queenstown Lakes District Council appeal (known from that case as the WESI factors[4]) and others. However, the case has taken on a greater prominence in rhetoric and is the commonly used name for the method of assessing the significance of landscapes. The general categories of Pigeon Bay and WESI are encompassed by the One Plan, which list seven categories and an additional eight sub categories.

The NZILA Best Practice Landscape Assessment Guidelines[5] considers landscape attributes fall into three broad categories: Biophysical elements, patterns and processes; Sensory Qualities; Spiritual,

2 For example, 'Conspicuous, eminent, remarkable or otherwise outstanding', Policy 6-7.

3 *Pigeon Bay Aquaculture Ltd and others v Canterbury Regional Council* [1999] C32/99

4 *Wakatipu Environmental Society v Queenstown Lakes District Council* [2001] C075/2001. These have been further refined in subsequent appeals, but the underlying principles remain the same.

5 NZILA Best Practice Note Landscape Assessment and Sustainable Management 10.1

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cultural and social associations, including both activities and meanings. These three broad categories of Biophysical, Perceptual (Sensory) and Associational are the standard that is widely used for assessments by practitioners, with varying sub categories under these broad headings.

The landscape assessment has addressed the Manawatū District's landscapes by considering eleven sub categories under these common three headings. These align with the seven One Plan categories, which have been accounted for within the landscape assessment criteria, and also consider and give effect to the intent of its sub categories. The One Plan states that *Territorial Authorities must take into account but not be limited to the criteria in Table 6.1.* The table below demonstrates how the factors of the One Plan and the detail in this report relate.

When considering Table 6-1 of the One Plan, in addition to other factors, the Natural Science category accounts for (a), the Perceptual category accounts for (b), (c), and (d), and the Associational category accounts for (e), (f) and (g).

ONE PLAN Natural Features & Landscapes Assessment Factors Table 6.1	**ONE PLAN Scope Table 6.1**		**NZILA**	**Assessment factors used in this report**
			BIOPHYSICAL	
(a) Natural science factors	Representative		Natural science	Geological/Geomorphological
	Research/education			Biological/Ecological:
	Rarity			Hydrological
	Ecosystem functioning			
			SENSORY	
(b) Aesthetic values	Coherence		Perceptual	Memorability
	Vividness			Legibility/Expressiveness
	Naturalness			Transient
	Memorability			Aesthetic
				Legibility/Expressiveness
(c) Expressiveness (Legibility)	Formative processes			Transient values
(d) Transient values	Transient values			
			ASSOCIATIONAL	
(e) Shared and recognised values	Local & wider community identity		Associational	Shared and recognised values
				Tangata whenua
(f) Cultural and spiritual values for tangata whenua	Māori values			Historical
				Recreation
(g) Historic heritage values	Historic			

While efforts have been made to obtain information relating to all eleven categories, inevitably greater information will be held in relation to each category than is known to the author. Any limitations with the depth of information contained in relation to each category will be assisted by the public plan making process. It is anticipated that additional information will come to hand via:

- Additional input by experts in each area (including more specific information around ecological values).
- Further input by the public, who are likely to have, for example, specific information on cultural associations or historic activities (relating to Associational Values such as Shared and Recognised values or Tangata Whenua values) that may have occurred but are unknown to the author in compiling the landscape assessment.

Notwithstanding, the results of the assessment process to date have shown a consistency in higher values occurring for specific areas over a range of factors for landscapes of significance. For example, high values may occur for geomorphology, ecology, hydrology, memorability, expressiveness, aesthetic and naturalness in the same area, and this can reinforce that a particular area has landscape significance. There is no scoring of factors, rather, it is then an expert judgment as to whether that area reaches the standard necessary to be considered outstanding. In some cases very high biophysical values may cause an area to be assessed as outstanding. In other areas it may be a combination of a number of factors being highly valued, and in other areas it may be high cultural associations that cause the outstanding ranking. This is decided by expert judgement and the description of key characteristics gives an indication of which factors have influenced this decision.

Those areas classed as ONL (and/or ONF) are generally of higher value in terms of natural science, perceptual or cultural criteria, with less human modification and greater aesthetic appeal.

When undertaking the assessment to arrive at the Summary of Key Characteristics, information is gathered on all three areas of Natural Science, Perceptual and Associative Values. For the first two, factors influencing their Elements, Patterns and Processes contribute to the assessment. For the Natural Science factors, factual information is gathered for the assessment. For the Perceptual factors, an assessment is made about aesthetic factors which combine to build an overall picture on the more subjective aspects of the landscape. To provide some guidance when reviewing this assessment, explanations are provided for some of the subjective words used in these categories in Attachment A.

Areas classed as SAFs may either adjoin an ONFL or stand alone, however they typically have some modification which provides clear evidence of human intervention, or reduced values in terms

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of natural science or perceptual values. SAFs are of lesser landscape value than ONLs but are of greater landscape value than the extensive (typically rural) land that makes up the rest of the district. Three SAFs are detailed in the assessment, which do not reach the level of significance required to be outstanding. Their significance is generally based on their remnant native vegetation and geomorphology, which is expressive of its formative process and memorable. They are however typically rated lower in terms of naturalness than similar outstanding features/landscapes due to the presence of productive land use.

While these amenity landscapes are of greater significance than other rural areas, it is a separate matter whether threats to their values warrants specific recognition through the District Plan. This is a matter that needs to be decided by MDC through its plan review.

8 Maori cultural values

RMA Section 6 lists 7 matters of national importance that all persons exercising functions and powers under the Act are required to recognise and provide for. One of these (s6(b)) concerns ONFLs, while another (s6(e)) concerns 'the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.'

Case law and the NZILA Best Practice Note 'Landscape Assessment and Sustainable Management 10.1' consider landscapes can be considered in relation to the three primary components of:

Description:

- *Biophysical elements, patterns, and processes*
- *Sensory qualities*
- *Spiritual, cultural and social associations, including both activities and meanings*

The description phase may involve collaboration with tangata whenua, stakeholders, communities, and other experts, utilising a range of sources of information.

These three components are generally described as Natural Sciences, Perceptual and Associational values and are referred to as such in the landscape assessment.

Following this descriptive phase, the practice note suggests characterisation then evaluation:

Characterisation: Expert interpretation of landscape character based on classification of different types of landscape, through:-

- *Identification of patterns of natural and cultural features, processes and influences.*
- *Analysis of their characteristics and spatial location, and the extent to which they are distinctive, representative or typical at the different scales.*

Evaluation: An explicit account and weighing up of the landscape values of the existing landscape including those expressed within the statutory context of the assessment. This stage will include engagement as appropriate with tangata whenua, communities, stakeholders and interest groups.

This process has been followed to date in preparation of the landscape assessment, with research and consultation taking place in the Description phase in order to gather base information on the three primary categories of Biophysical, Sensory and Associational. During consultation with several tangata whenua groups the dichotomy between RMA divisions and Maori world view was apparent. While the best practice guidelines seek to overcome this dichotomy by recognising the consideration of associational values as part of landscape values, the interpretation of outstanding and natural may have different meaning when considered through the RMA lens as opposed to the tangata whenua lens.

When a person gives their pepeha (an introductory '*speech')* this often involves sharing their whakapapa, which is about the recitation of genealogy – lineage or ancestry – it also literally means to '*place in layers*' or '*create a base*'. It places a person in their wider context, linking them to a common ancestor, their ancestral land, their waterways and their tribal (and sub-tribal) groupings. Hence, the literal translation fits with the broader meaning of ancestry and the expansive nature of its 'layers'.

In traditional Māori knowledge, as in many cultures, everything in the world is believed to be related. All is interconnected. The people are the land and relate to the features of the land as being of themselves and their ancestors.

The RMA process of identifying 'Outstanding' areas of the landscape from the rest of the landscape does not necessarily sit comfortably in this interconnected view. All the landscape is relevant to who a person is, not just the 'outstanding' part. Similarly, separating out 'natural' areas from other areas has the same issues, and that is without allowing for holistic views of ancestry forming part of the layering.

Appreciating that there are differences in world view and statutory confines, the landscape assessment allows for the recognition of the wider interpretation of tangata whenua but recognises that it does this within the confines of the s6(b) structure. Allowing Maori space and time to widen the assessment's spectrum will add to the understanding of the landscape, and this input is welcomed.

Initial consultation with Ngāti Apa and Rangitāne o Manawatū highlighted the associational values Maori held with Lake Pukepuke and Lake Kaikokopu, which once formed part of an historic inland waterway system parallel to the coastal edge and were a source of food, mana and ancestral

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significance. This, along with ecological significance, elevated these features to inclusion within the landscape assessment.

The assessment also refers to the Deed of Association and Settlement Acts with Areas of Interest and Statutory Acknowledgement Areas defined. Further associational information is welcomed through the consultation process.

9 Potential Issues

Some activities may threaten to adversely affect the landscape characteristics identified within this assessment. The effects of these activities on the ONFLs will depend on the specific characteristics of each ONFL, including geomorphology, visibility, form etc., and characteristics of the activities. Large scale activities may be more likely to adversely affect these characteristics, with wind farms, network utilities, river damming, vegetation clearance, drainage, pine plantation planting and earthworks all having potential to affect the values and characteristics of ONFLs depending on their scale, location and design.

Within the assessment sheets, specific threats have been identified under Potential Issues. These primarily relate to retention of native vegetation, control of exotic vegetation (particularly pine plantations), earthworks, built development and cultural values. In describing these issues, different wording has been used to describe three levels of potential effect. The descriptions below are intended to assist when utilising the landscape assessment to inform management of the ONFLs through the District Plan.

Area	Qualifier	Issue
ONL	Discourage	Built Development
ONF & ONL	Discourage	Adverse effects on cultural values
	Discourage	Loss of native vegetation
	Discourage	Establishment of exotic vegetation
	Discourage	Earthworks
	Discourage	Drainage
ONF	Restrict	Built Development
SAF	Restrict	Adverse effects on cultural values
	Limit	Loss of native vegetation
	Limit	Establishment of exotic vegetation
	Limit	Earthworks
	Limit	Built Development

9.1 Pastoral Farming

There are examples within the areas identified as ONFs where farming activities are already occurring to varying degrees. One such area is within the Rangitikei River ONF. These farming activities are primarily occurring on flat and gently sloping areas and their presence is dominated by the topography and geomorphology of the surrounding ONF. The activities do not prevent the areas outstanding classification. As farming can be accommodated it should be able to continue in the Rangitikei River ONF area where it is already occurring. On the other hand, removal or degradation of areas of indigenous vegetation and large scale earthworks would have an impact on these areas.

9.2 Pine Plantations

Pine plantations are not anticipated within any of the Manawatu ONFLs. This is because the regimented planting and harvesting of exotic species reduces the perceived naturalness of the Manawatu landscapes and also downgrades the perceived geomorphological values by covering the landform. Many ONFLs have substantial indigenous vegetation already and this should be retained. While some areas of pine may occur in some of the SAFs, it is recommended that they are not expanded as the plantations would detract from the perceived naturalness of these areas, which typically are recognized for their combination of incised topography and extensive native vegetation cover.

9.3 Built Form

Buildings and structures can affect an ONFL by introducing elements that are not natural, thereby reducing the perceived naturalness of the landscape or feature. Such elements typically affect the Perceptual aspect of the landscape assessment, affecting factors such as coherence and memorability. But they can also affect Associational factors such as cultural or shared and recognised where an area is known for its unbuilt character. Many of the ONFs identified in the landscape assessment are recognised for their cover of native vegetation and the naturalness and coherence this portrays. Structures can adversely affect this perceived naturalness, particularly if large or contrasting in colour. Where structures are placed also influences the effect they have. For example, placement on a skyline such as the ridgeline of the Ruahine Range will have greater affect than a structure placed on a side slope and being seen against a backdrop.

Size and scale will also influence the effect, with larger elements typically having greater effect. Small buildings and structures can potentially be accommodated in most ONFLs but their location, size, colour and design will influence their appropriateness. One ONFL where buildings or structures will adversely affect the characteristics of the existing landscape is the Manawatu Coastline. This 8km stretch has an absence of buildings, which are concentrated in small settlements at either end rather than scattered along the coastal edge. Preservation of this extensive unbuilt character will help maintain one of the factors contributing to its outstanding natural character and the introduction of any built elements could adversely affect this.

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9.4 Earthworks

The geology/geomorphology of the areas identified within this assessment play an important role in heightening the landscape classification. This is because the geology/geomorphology within the Manawatū District typically contributes to a number of key characteristics. For example, the Rangitikei River geomorphology allows expansive views along an open river corridor, is expressive in the way the dramatic escarpments expose the layered sedimentary mudstone rock, and also represents a complex and memorable landscape comprised of numerous patterns, processes and elements. These values are all connected to the presence and visibility of the underlying geology/geomorphology. Protecting the landform from screening or modification, such as pine plantations or large-scale earthworks, must therefore be considered. Mining (including quarrying) is one of the threats to the key characteristics under this heading.

9.5 Drainage

Wetlands have been drastically reduced throughout New Zealand and throughout the Manawatu District with the introduction of pastoral farming. This has occurred through drainage. Extensive wetlands once covered the areas inland of the coastal dunes, with a waterway system formed along the coast from Kapiti to Whanganui. Remnants remain, with only a series of small lakes and lagoons present along this entire coast. They not only had high ecological value, they also were of high value to Tangata Whenua. Protection against any additional drainage is recommended in the assessment in order to keep the remnants and potentially enhance their ecology and associational values.

10 Additions/Deletions

Areas detailed in both the One Plan and the Operative District Plan have been specifically considered in the landscape assessment. Of the five One Plan ONFLs, two (Ruahine Ridges and Ruahine Forest Park) have been combined within the forest park to form the Ruahine Range ONFL, one (Manawatū River) has been defined within the MDC jurisdiction), one (Rangitikei River) has been reduced slightly in its downstream extent, and one other (Coastline) has been defined in extent.

The area defined in the One Plan Schedule G as *Rangitikei River and river valley upstream of Putorino*. has been refined in this assessment for the District Plan. This refinement has been done in accordance with One Plan Policy 6-7 which states:

Territorial Authorities must take into account but not be limited to the criteria in Table 6.1 when:

b. considering adding to, deleting from, or otherwise altering, redefining or modifying the list of outstanding natural features or landscapes listed in Table G.1 of Schedule G,

The refinement of the Rangitikei River ONL from that described in the One Plan (Mangarere Bridge to Putorino) has been done in accordance with this policy. When reducing the length, criteria in Table 6.1 were considered (as they relate to the Assessment Criteria). The lower portion of this section did not have sufficient expressiveness/legibility or gorge-like containment in comparison to the character of the upper section of river to warrant its inclusion within the ONL.

The Coastline has also been refined from that described in One Plan Schedule G:

Parts of the Coastline of the Region, particularly the Akitio Shore Platform, Castlecliff to Nukumaru coastal cliffs, Foxtangi Dunes, Hokio Beach South Dune Fields and Santoft parabolic dunes.

Part of this definition applies to territorial areas beyond Manawatu, so are not applicable. The relevant part is the Foxtangi Dunes, which flow inland for a considerable extent from the coast towards Himitangi. It was assessed that the outstanding natural portion of this extensive pastoral landscape related to the coastal dunes and the adjacent Pukepuke Lagoon inland of the coastal edge. Lake Kaikokopu was also included as a SAF. It was not considered outstanding because of the extent of modification it had endured, but its high associational values for tangata whenua are recognised as adding to its value. The reason for not including the entire Foxtangi Dunes was the modified nature of the land cover, being pasture and pines, plus the considerable drainage that had occured which modified the hydrology and ecology considerably from its natural state.

From the Operative District Plan's ten ONFLs (two ONLs and eight ONFs), nine have been recognised in the assessment, while one (Vistas from Stormy Point Lookout & Mount Stewart Memorial), has been removed. Small areas of bush remain in place over the District, but these are more suitable for identification as ecological features and are better protected through the One Plan processes.

10.1 Vistas from Stormy Point Lookout & Mount Stewart Memorial

While the views obtained from these two vantage points in the District are highly memorable and expansive, the landscape content in view from these locations is not considered to qualify the areas as ONFLs. The protection of vistas is a separate planning issue to the identification and protection of ONFLs. This may be achieved through land purchase or possibly through plan provisions which control the size and position of trees/development which may block views from identified locations.

11 Area Names

This landscape assessment has identified a number of areas as either ONFLs or SAFs. Although cadastral boundaries can influence patterns in the landscape through changes in land use and ownership, the identified landscape areas have not been restricted by the cadastral boundaries in this case. In most situations, the landscape area boundary has been defined by a topographical feature or change in land cover. For ease of reference, each landscape area has been referred to in the following pages

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by the prominent attribute or feature of the surrounding area. A number of the features include scenic reserves. Where this is the case, the feature generally exceeds the cadastral limit if the scenic reserve has been named for the general area. Instead the presence of the scenic reserve has been noted (bracketed) in the name e.g. Titirangi (Including Scenic Reserve).

12 Conclusion

The key findings of the landscape assessment are:

- All five ONFLs described in the One Plan have now been spatially defined for the purpose of the District Plan review.
- Of the ten ONFLs described in the operative District Plan (which includes all the ONFLs in the One Plan), nine have now been spatially defined and included in the landscape assessment and one has been removed. Of the nine ONFLs in the operative District Plan, eight are identified as ONFLs and one as an SAF in the landscape assessment.
- The primary threats to ONFLs are removal of native vegetation, introduction of pines and exotic vegetation, earthworks and built development which reduces perceived naturalness. The threat to the Manawatu Coastline ONL is slightly different, with the introduction of exotic vegetation less of a threat due to the amount of acacia already present, but the introduction of buildings or structures considered inappropriate in this 8km stretch where buildings are currently absent. Drainage that may adversely affect the identified wetlands is also considered inappropriate.
- Current pastoral farming may continue in the Rangitikei River ONF as this does not threaten the key characteristics (geomorphology and perception of the mudstone terraces and cliffs). Earthworks and pine plantations may be a threat, however.
- Three SAFs have been identified. They are generally distinguished by their distinctive incised river channels and significant areas of native vegetation (albeit with the presence of grazing) or wetland characteristics. Retention of the native vegetation is important in maintaining one of their key characteristics, while oversight / restrictions on the extent of earthworks, drainage and exotic vegetation is recommended moving forward.

The results of the assessment process have shown a consistency in terms of higher values occurring for specific areas over a range of factors for landscapes of significance i.e. high values may occur for geomorphology, ecology, hydrology, memorability, expressiveness, aesthetic values, perceived naturalness and associational values in the same area. This reinforces the assessment that this particular area has landscape significance. It is then a value judgment as to whether that area is an ONFL or a SAF. However, ONFLs (apart from the Rangitikei River - Area 1) exclude productive farmland while SAFs include productive land. It is recommended that Area 1 have specific policy recognition for continuation of existing rural practices. As can be seen from the results, there are 15 ONFLs and 3 SAFs identified, which is roughly a 70:30 split between the two numerically, with the total area of ONFLs (included Ruahine Range) identified in the District covering over 300km^2 and SAFs covering nearly 15km^2.

This assessment relates to section 6(b), being ONFLs, and the hierarchy of planning instruments that fall under that such as the NZCPS, One Plan and Operative District Plan. It has reviewed the One Plan Schedule G areas and spatially defined the ONFLs in the District by assessing their characteristics with regard to criteria in the One Plan, as informed by the matters also identified in the Pigeon Bay and WESI decision.

The areas identified as SAFs are recognised under section 7(c). The primary distinction in management would be a restriction on the clearance of native vegetation, with restrictions on earthworks and exotic vegetation also able to be considered. The reason for identifying SAFs in this assessment is that these areas are of greater significance in terms of their combination of geomorphology and native vegetation than other rural areas. However, it is a separate matter whether threats to their values warrants separate recognition in district plan provisions. This is a matter that needs to be decided by Council.

After considering the Manawatū District's landscapes, the provisions of the One Plan and Operative District Plan, it is concluded there are two ONLs (Ruahine Range and Manawatū Coastline) and 12 ONFs. Additionally, three SAFs have been identified for Council consideration. There is a lesser concentration in the south of the District, but this is just a reflection of land modification over time. Having assessed the entire district, it is found that minimal areas in the south (apart from coast) meet ONFL criteria.

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OUTSTANDING NATURAL FEATURES AND LANDSCAPES

ONFL 1	Outstanding Natural Landscape	Ruahine Range (Including forest park & ridges)
ONFL 2	Outstanding Natural Landscape	Manawatū Coastline
ONFL 3	Outstanding Natural Feature	Rangitikei River
ONFL 4	Outstanding Natural Feature	Mangamako Gorge
ONFL 5	Outstanding Natural Feature	Titirangi (Including Scenic Reserve)
ONFL 6	Outstanding Natural Feature	Dress Circle (Including Scenic Reserve)
ONFL 7	Outstanding Natural Feature	Mangoira Stream and Mangahuia Stream
ONFL 8	Outstanding Natural Feature	Makiekie and Limestone Creeks
ONFL 9	Outstanding Natural Feature	Upper Pohangina River
ONFL 10	Outstanding Natural Feature	Totara Reserve (Including Regional Park)
ONFL 11	Outstanding Natural Feature	Rangiwahia (Including Scenic Reserve)
ONFL 12	Outstanding Natural Feature	Nitschke/Gorton's Bush (Waitapu Stream Bush)
ONFL 13	Outstanding Natural Feature	Manawatū Gorge
ONFL 14	Outstanding Natural Feature	Pukepuke Lagoon
ONFL 15	Outstanding Natural Feature	Lake Kaikokopu

SIGNIFICANT AMENITY FEATURES

SAF 1	Significant Amenity Feature	Mangoira Stream (downstream of Mangahuia confluence)
SAF 2	Significant Amenity Feature	Upper Ōroua River and River Valley
SAF 3	Significant Amenity Feature	Makiekie Creek

REVIEW OF APPENDICES 1A, 1B, 1C

ATTACHMENT 1

Within Appendix	Ref #	Name	ONFL/SAF
Appendix 1A:	W1	Lake Kaikokopu and the Kaikokopu Stream	Partially incorporated within Lake Kaikokopu (ONF)
	W3	Tangimoana Dump Dunes and Fernbird Area	Incorporated within Manawatū Coastline (ONL)
	W11	Foxtangi Dunes	Partially incorporated within Manawatū Coastline (ONL)
Supplementary List	18	East PukePuke Lagoon	PukePuke Lagoon (ONF)
Appendix 1B:	SA10	Mangoira/Ōroua Confluence Bush	Incorporated within Mangoira Stream (SAF)
	SA37	Hopkins Property (In Ōroua River SAF)	Partially incorporated within Upper Ōroua River and River Valley (SAF)
	SA40	Nitschke's Bush	Nitschke/Gorton's Bush (Waitapu Stream Bush) (ONF)
	SA41	Mangamako Gorge	Mangamako Gorge (ONF)
Appendix 1C:	OF1	Concretion Terrace	Incorporated within Rangitikei River (ONF)
	OF2	Glow Worm Caves	Incorporated within Makiekie and Limestone Creeks (ONF)

ATTACHMENT 2
Explanation of terms used in the assessment

Expansiveness

Used to describe the appreciation of wide open spaces and views. Typically views of more than 180˚ and sometimes up to 360˚. Long distance views are normally available, with objects diminishing in prominence and visibility due to distance and increasing dominance of the landscape in comparison to the object itself. The perception of expansiveness can be significantly reduced when large structures or features are seen in the foreground or mid ground, as they provide a focus that is well short of the natural horizon. Even if these structures do not block the view, their presence can provide a visual distraction and focus that disrupts the perception of expanse.

Expressiveness

Landscapes evolve over geological time. The ability to perceive evidence of this evolution reflects how expressive the landscape is of its formative processes. For example, the Rangitikei River escarpments are within an incised river bed and have evolved through erosion over time, therefore they are expressive of these geological processes. Highly expressive landscapes are often also dramatic, which in turn can make them highly memorable.

Memorability

A landscape becomes memorable when the image perceived by the viewer remains with them after they leave the site. It is not possible to fully define what makes landscapes memorable, as the combination of factors is numerous and of different importance to different people. However, the factors contributing to memorability include how dramatic the view is, the expansiveness, openness, simplicity, naturalness, coherence, vividness, expressiveness and rarity of the view, and the extent of panorama obtained. In terms this landscape assessment, the more memorable views are typically those with higher perceived naturalness and/or of greater dramatic quality due to their expressiveness of natural and formative processes.

Naturalness

Naturalness can be an indication of physical or perceptual modification. If physical, it relates to the scientific measure of modification that has occurred. For example, the native vegetation is browsed by possums or deer, so it has modified ecological naturalness. However, this same vegetation may appear intact and healthy and be unmodified by human activities, so has high perceived naturalness. Perceived naturalness relies on a visual interpretation of natural science factors such as ecosystems, while scientific naturalness relies on scientific confirmation of the extent of modification. A full native vegetation cover may appear unmodified and therefore have a high degree of perceived naturalness, but an ecologist may show modifications to varying degrees. Ecologically, it is modified but perceptually it is natural.

Openness

Typically an open landscape has few structures or features, as such elements would collectively start to create a sense of enclosure. Shelter belts, buildings, trees, and large structures can all contribute to a loss of openness, but they would need to be of sufficient prominence or density to actually limit visibility of parts of the view. This is different to loss of expansiveness, which can occur without loss of views.

Simplicity

Typically a simple landscape has a uniform land cover and even land form. Simplicity is lost when elements introduce diversity. These can be varied vegetation, new structures, earthworks, drainage etc. Structures such as wind turbines and access roads would reduce simplicity. However, in a somewhat ironic way, simple landscapes can also be well suited to visually accommodating wind turbines due to the simplicity of these large structures - the two can complement each other. When a simple landscape is of sufficiently large scale, it can potentially accept simple elements such as wind turbines, but it is important that ancillary features like roads and transmission lines have minimal impact. Other aspects of landscape character may be adversely affected, such as naturalness, if this is a feature of that particular part of the landscape.

Complexity

A complex landscape occurs when there are features, elements or patterns that individually or collectively contribute to diversity. The complexity may be in the vegetation cover or the landform. Typically, more complex areas are able to visually integrate additional features such as large structures due to the existing diversity that already exists.

Coherence

A coherent landscape occurs when there are features, elements or patterns that individually or collectively contribute to a cohesive appearance. The coherence may be in the vegetation cover or the landform, such as a full cover of native vegetation or a repetitive landform. Typically, more coherent areas can be visually identified as having a common character which can define the extent of an ONF or ONL.

Vividness

A vivid landscape occurs when there are features, elements or patterns that individually or collectively contribute to the landscape having ‘stand out’ or spectacular aspects within it. It is often accompanied by memorability e.g. ‘I vividly remember …’. It can also be linked to expressiveness due to the legibility of a scene such as an extensive coastal dune strip with no buildings. Vividness may not be limited to visual but may include transient values such as bird song or sea spray.

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PC65 Outstanding Natural Features and Landscapes

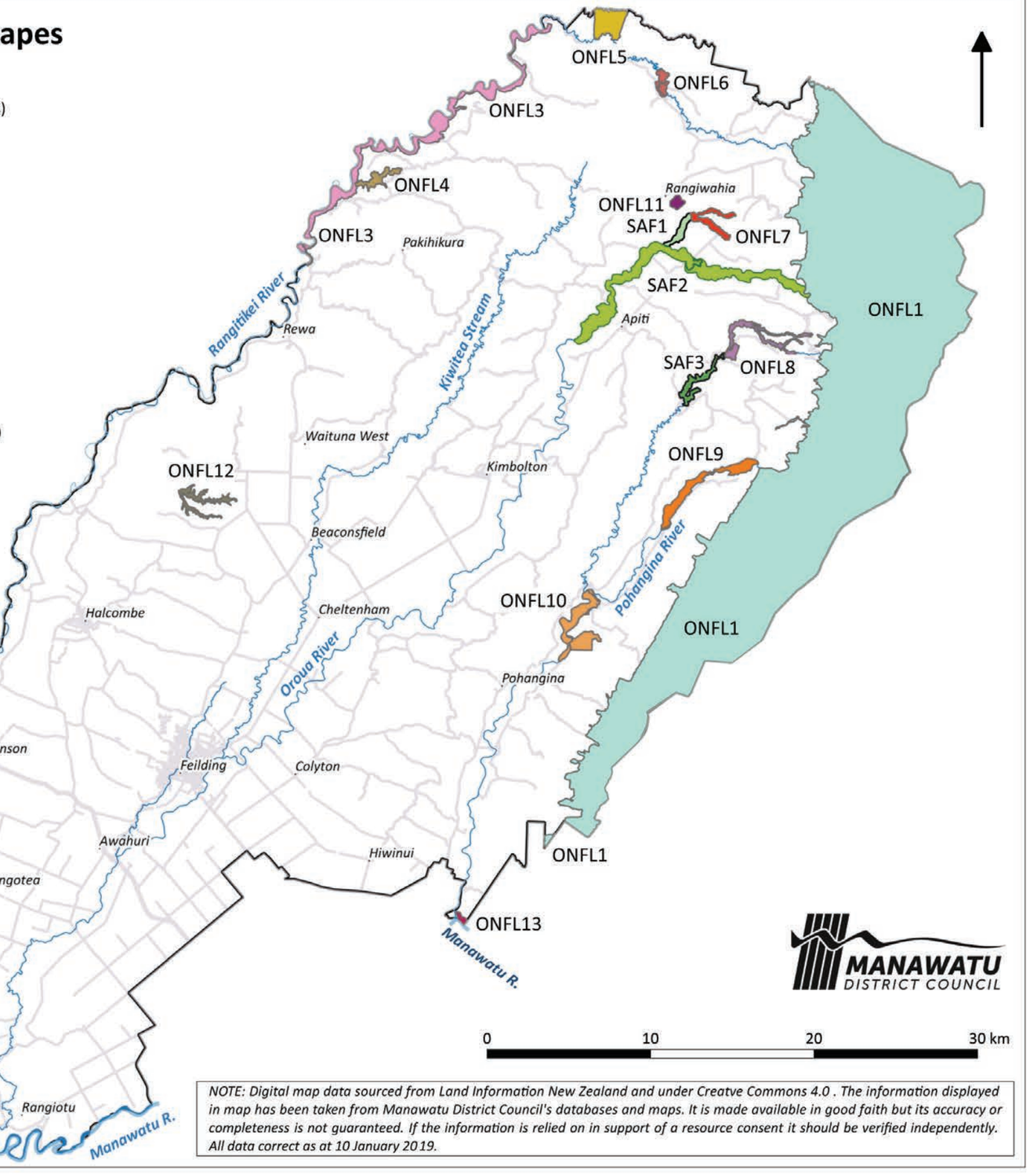
OUTSTANDING NATURAL FEATURES AND LANDSCAPES

- ONFL 1 - Outstanding Natural Landscape - Ruahine Range (including forest park & ridges)
- ONFL 2 - Outstanding Natural Landscape - Manawatū Coastline
- ONFL 3 - Outstanding Natural Feature - Rangitikei River
- ONFL 4 - Outstanding Natural Feature - Mangamako Gorge
- ONFL 5 - Outstanding Natural Feature -Titirangi (including Scenic Reserve)
- ONFL 6 - Outstanding Natural Feature - Dress Circle (including Scenic Reserve)
- ONFL 7 - Outstanding Natural Feature - Mangoira Stream and Mangahuia Stream
- ONFL 8 - Outstanding Natural Feature - Makiekie and Limestone Creeks
- ONFL 9 - Outstanding Natural Feature - Upper Pohangina River
- ONFL 10 - Outstanding Natural Feature - Totara Reserve (including Regional Park)
- ONFL 11 - Outstanding Natural Feature - Rangiwahia (including Scenic Reserve)
- ONFL 12 - Outstanding Natural Feature - Nitschke/Gorton's Bush (Waitapu Stream Bush)
- ONFL 13 - Outstanding Natural Feature - Manawatu Gorge
- ONFL 14 - Outstanding Natural Feature - Pukepuke Lagoon
- ONFL 15 - Significant Amenity Feature - Lake Kaikokopu

SIGNIFICANT AMENITY FEATURES

- SAF 1 - Significant Amenity Feature - Mangoira Stream (downstream of Mangahuia confluence)
- SAF 2 - Significant Amenity Feature - Upper Oroua River and River Valley
- SAF 3 - Significant Amenity Feature - Makiekie Creek

- Major Arterial (State Highway)
- Minor Arterial or Collector Road
- Local Road
- River or Stream
- Manawatu District



NOTE: Digital map data sourced from Land Information New Zealand and under Creatve Commons 4.0 . The information displayed in map has been taken from Manawatu District Council's databases and maps. It is made available in good faith but its accuracy or completeness is not guaranteed. If the information is relied on in support of a resource consent it should be verified independently. All data correct as at 10 January 2019.

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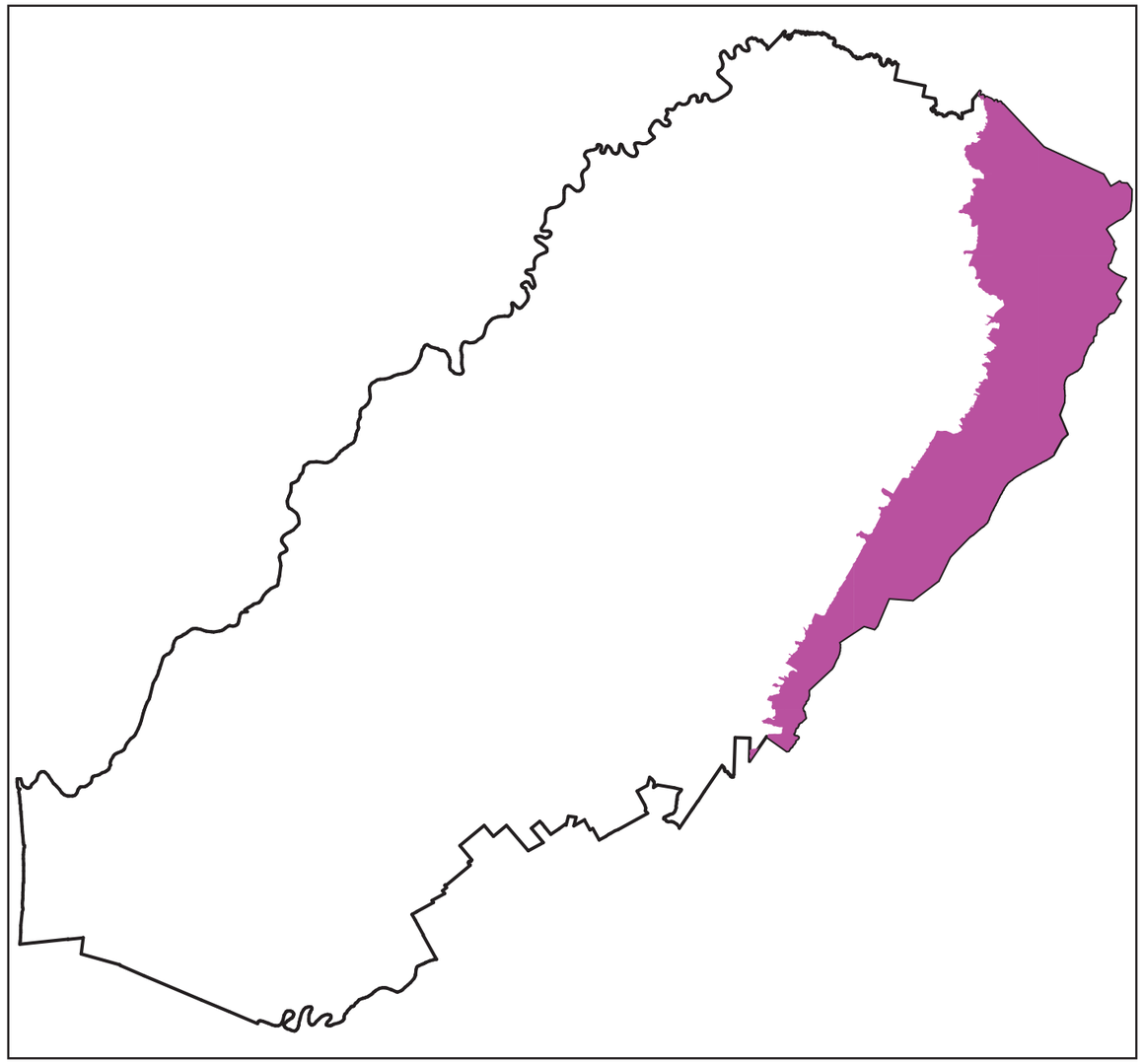
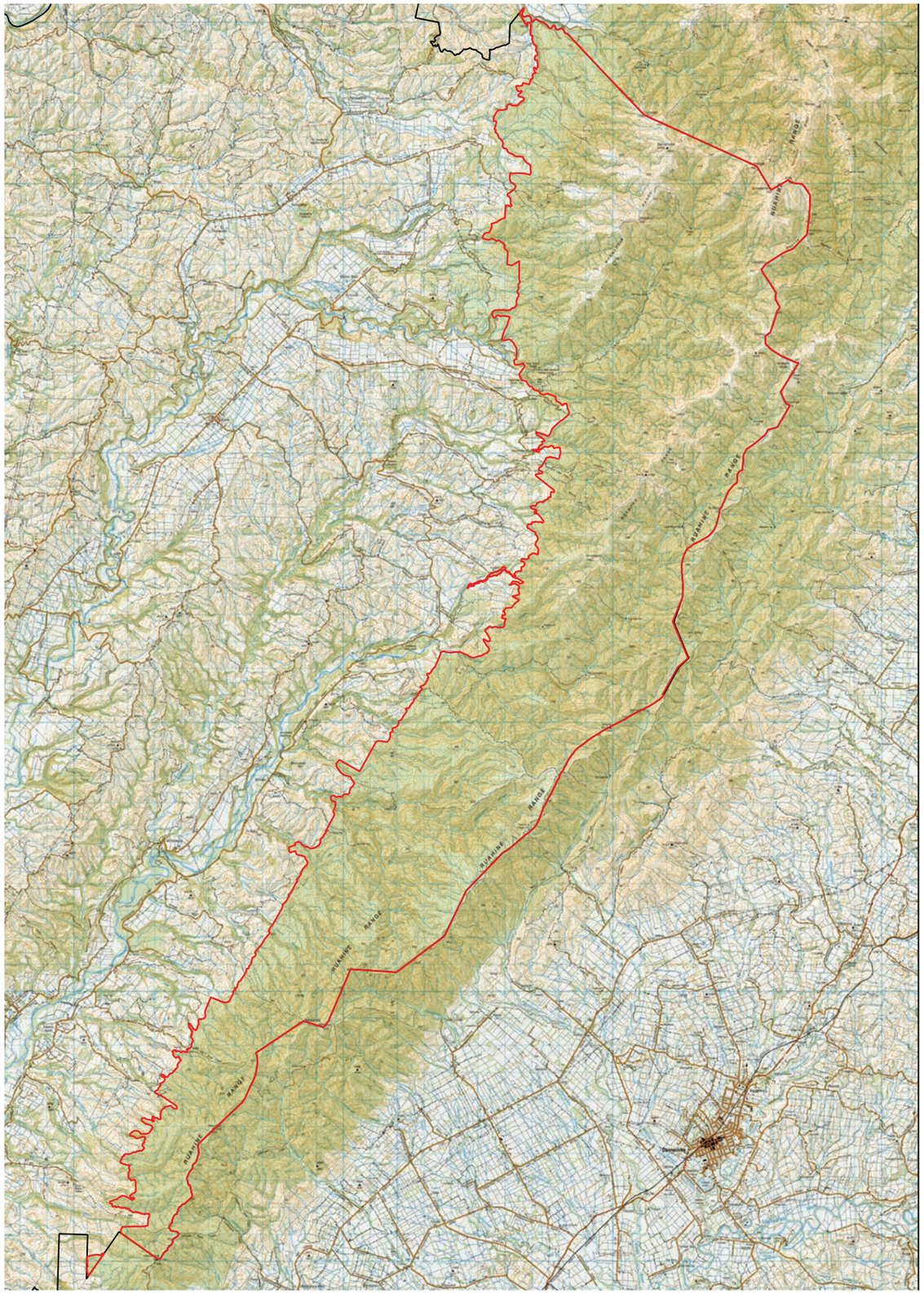
ONFL 1

Ruahine Range (Including Forest Park and Ridges)

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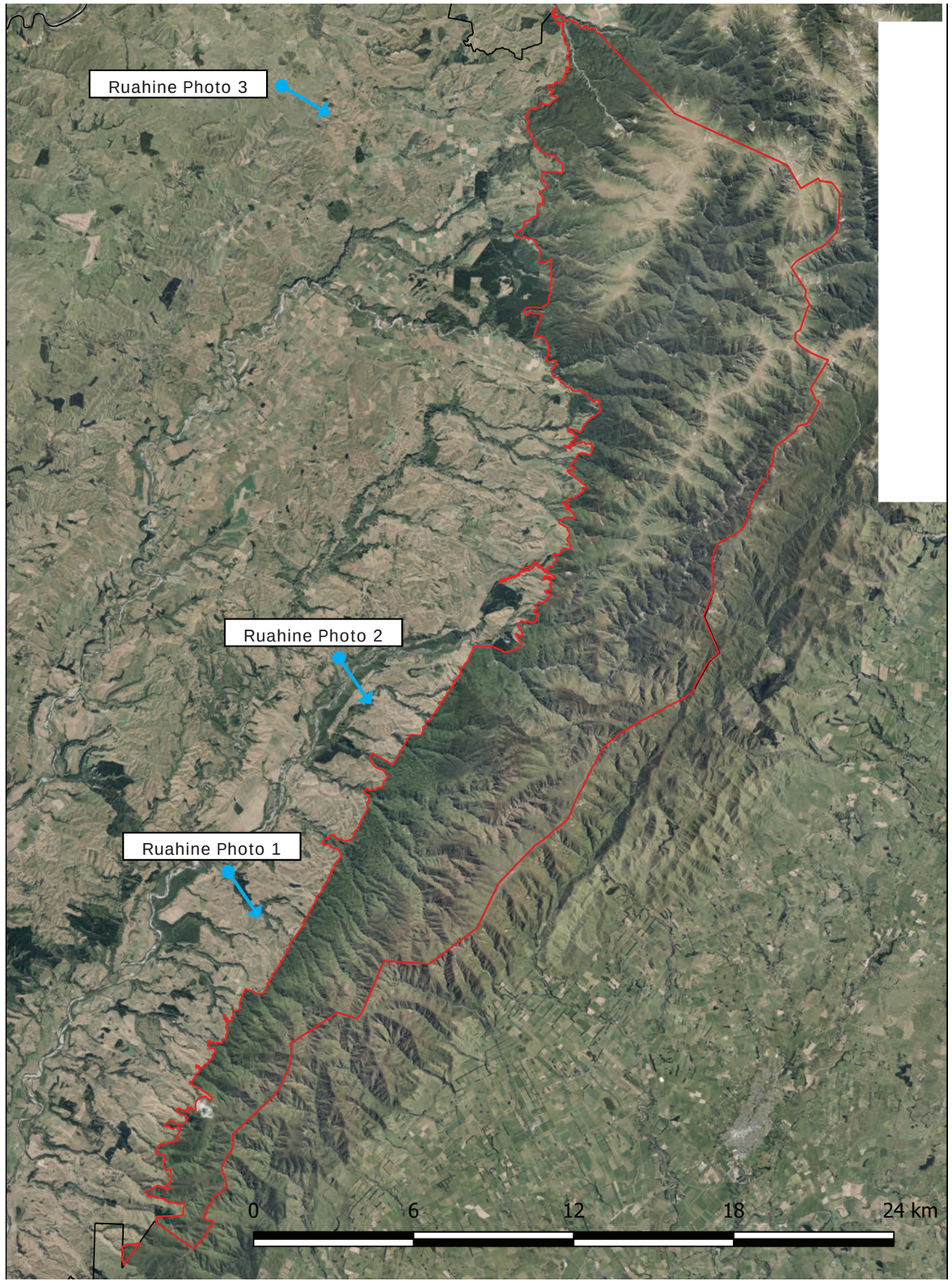
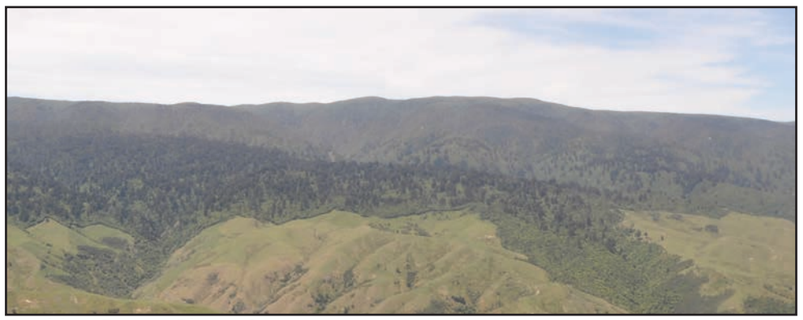

Ruahine Photo 3
Ruahine Photo 2
Ruahine Photo 1
0
6
12
18
24 km

Name:	Ruahine Range (Including Forest Park and Ridges)
Location:	NZ Topo BL35, BL36 & BM35
Description:	The Ruahine Range ONL includes land within the Ruahine Forest Park. The Manawatū District boundary runs along the ridgeline separating the western side of the Ruahine Range and Tararua District on the eastern side. The range stretches from the Manawatū Gorge in the south to beyond Mangaweka to the north, while the ONL starts 8km north of the Manawatū Gorge. Much of the skyline lies with Manawatū District, and much within Tararua District.
ONL/ONF/SAF:	Outstanding Natural Landscape

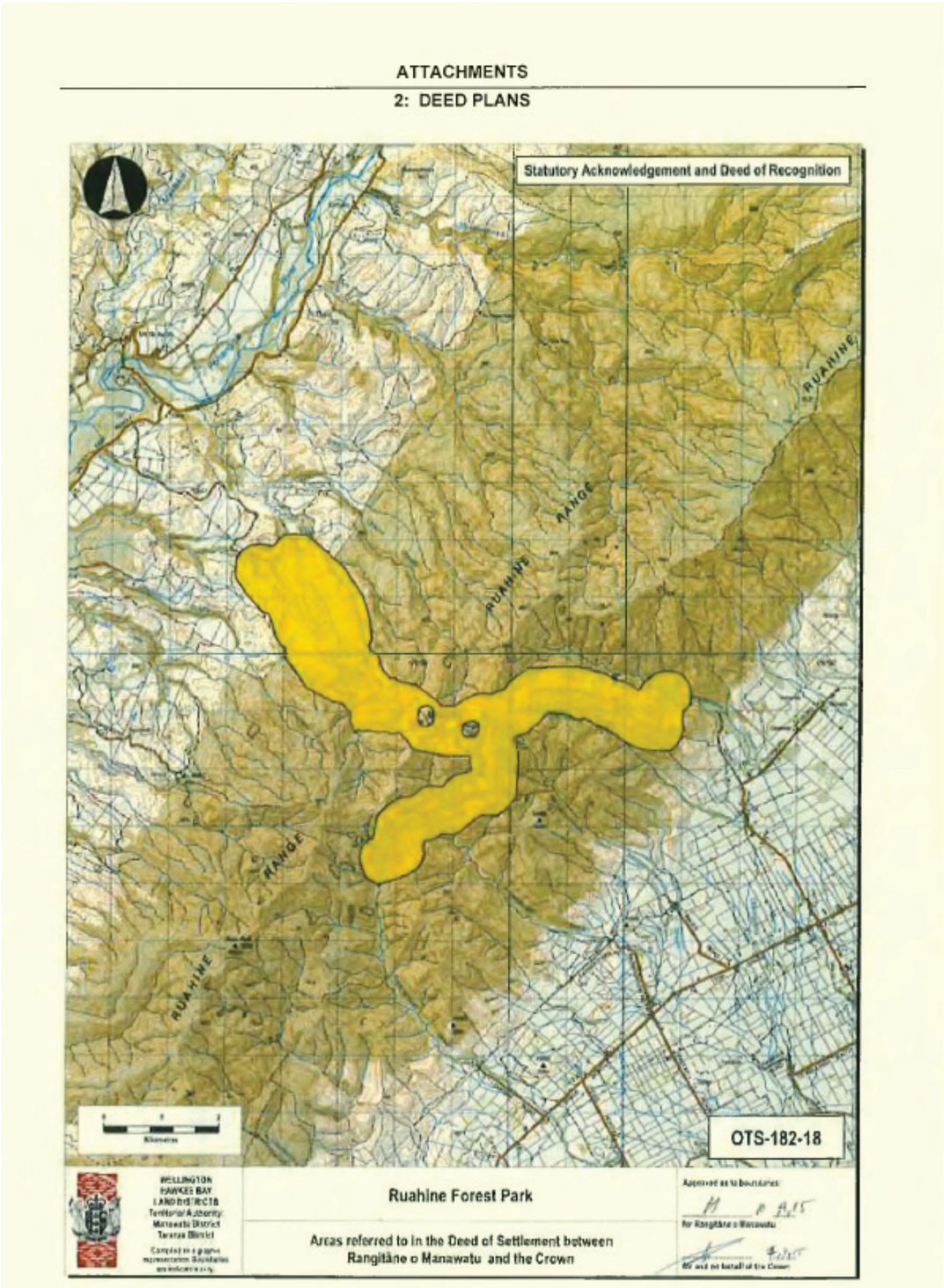
Natural Science	Geological/ Geomorphological:	It is the dominant geographical landmark in the Manawatū District comprising a sequence of mesozoic greywackes of the Torlesse terrane. Representative part of the axial range that extends along the Alpine Fault from Westland to Bay of Plenty. Originated through uplift that has occurred through the meeting of the Pacific and Australian tectonic plates. Folded landscape with patchwork of deeply incised drainage catchments. Ruahine Range has been the subject of geological research, such as the PhD of Dr M Marden on structure and lithology of the Torlesse terrane. Unique as the oldest and most dominant geological landmark in the Manawatū District.
Natural Science	Biological/Ecological:	The Ruahine Range contains a significant area of unmodified indigenous vegetation and is comprised primarily of the Ruahine Forest Park. Representative of the original podocarp and beech forest that covered much of the foothills and throughout the Pohangina and Ōroua Valleys. This intact forest is indicative of the area's mauri. It includes alpine beech forest and subalpine tussock, and is an important kiwi habitat. Subject of ecological research by DOC (and Forest Service before them) on impacts of pests including possums, deer, pigs. Appears to be a relatively healthy functioning ecosystem that is clearly evident in the landscape. An ecological feature of this size (300ha) is unique within the Manawatū District. It includes small fingers of indigenous vegetation in gullies running off the western side of the range and beyond the forest park boundary.
Natural Science	Hydrological	It includes the upper reaches of some watercourses, such as Bielski Gully – Te Ano Whiro Stream. It is an important catchment for the Rangitikei, Ōroua and Pohangina Rivers and their tributaries. The mauri from the catchment's mountains and forests is transported through the waterways to nourish the land.
Perceptual	Memorability	Highly memorability as the defining feature and reference landmark for the entire district, dominating the eastern horizon and visible from throughout the district as an expansive indigenous vegetation cover on the dominant axial mountain landform.
Perceptual	Legibility/Expressiveness	Ranges very expressive of tectonic uplift and highly legible as the eastern boundary of the Manawatū District. Steep river and drainage valleys display natural erosion processes over time through the greywacke geology.
Perceptual	Transient	Higher mountain ranges covered by snow in winter months. Ranges have a defining effect on the weather, which can change quickly. Exposed to extreme weather.
Perceptual	Aesthetic	High degree of coherence derived from the colour, texture, maturity and consistency of native vegetation which creates a vivid and visually striking pattern of land cover. When considered in combination with the land form, it is recognised as the most iconic landscape of the district.
Perceptual	Naturalness	Extensively covered in unmodified indigenous vegetation with high degree of perceived naturalness, isolation and wilderness values. Absence of built form, structures and roads contributes to the perceived naturalness. Both Whariti and Te Apiti windfarm are located south of the Ruahine Range ONL in Tararua District. No other network utilities are known within the Manawatū District Ruahine Range ONL.
Associational	Historical	Pockets of early European migration and settlement, although now largely devoid of human habitation. Colenso followed the track used by Māori from Te Awarua in the west to the Makaroro River in the east.
Associational	Recreation	Extensive tramping and eco-tourism. Many huts established over the years by clubs and DOC. Public access is available to the forest park from road ends. Access can also be obtained through private land if this can be arranged with local landowners. Sixtus Lodge and Outdoor Education Centre on Limestone Road is used as a base for school visits to the Ruahine Range and local area.

Ruahine Range Photo 1



Ruahine Range Photo 2

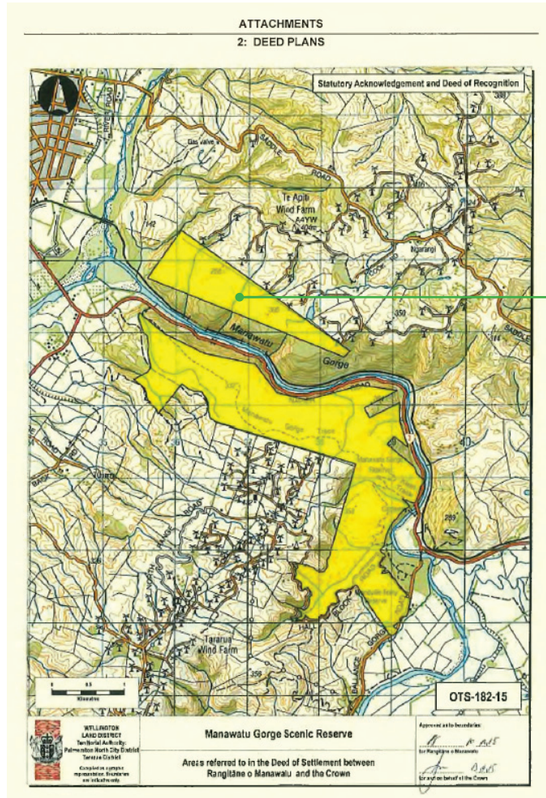
Ruahine Range Photo 3

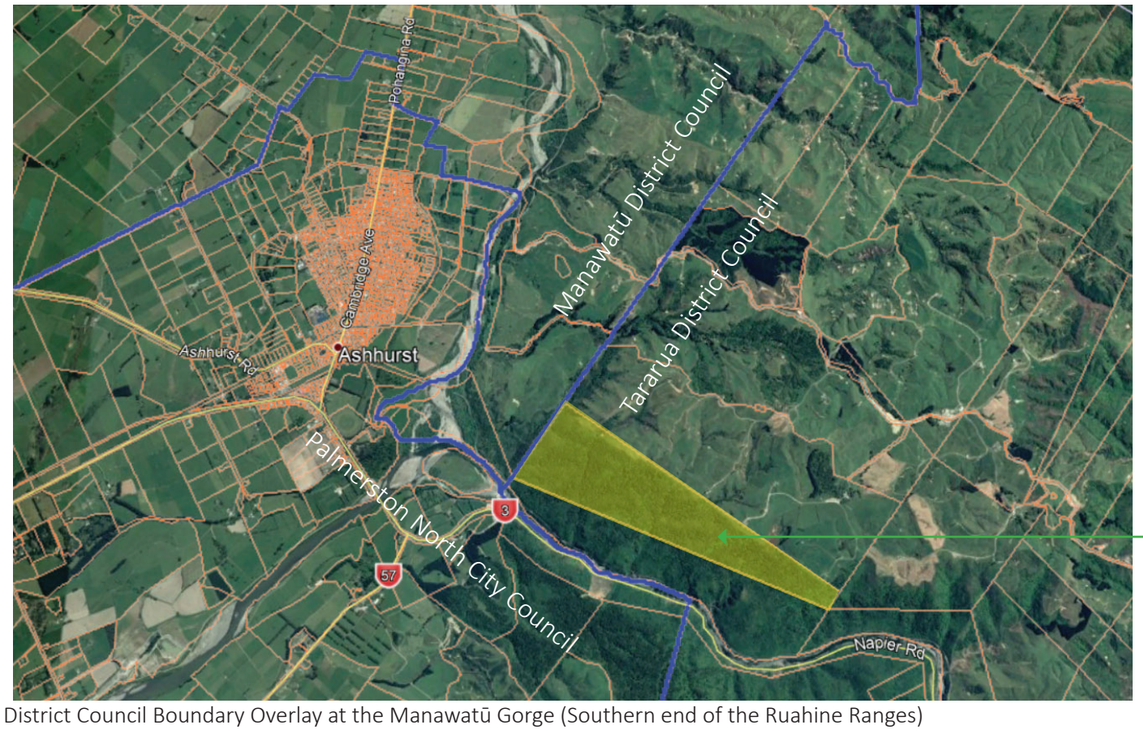


Ruahine Forest Park Portion from Statement of Association

Manawautu Gorge portion from Statement of Association

Located at the southern end of the Ruahine Ranges





District Council Boundary Overlay at the Manawatū Gorge (Southern end of the Ruahine Ranges)

Associational	Tangata Whenua	The Ruahine Range, under the Settlement Act, is acknowledged as an area of interest for Ngāti Apa, Rangitāne o Wairarapa, Rangitāne o Tamaki Nui-a-Rua, Ngāti Hauiti, and Rangitāne o Manawatū (for whom it is also a statutory acknowledgement area). In addition, the Settlement Act and Ororua Declaration recognise Ngāti Kahungunu in relation to the Range. The Ruahine Range holds great historical, cultural, spiritual and traditional significance to Rangitāne o Manawatū, as it is one of two mountain ranges that identify the iwi of Rangitāne. The long white cloud over the Range is said to be the taniwha Whangaimokapuna. The southern Ruahine Range is intrinsically connected and related to the activities of the Pohangina (River and Valley), Te Ahu a Turanga and Wharite as well as the numerous peaks along the Ranges of which the majority are named after Rangitāne o Manawatū ancestors. The Ruahine Range is named after the daughter of Turanga (Turangaimua, son of Turi, captain of the Aotea Waka). The Ruahine mountain range is a source of mauri for Rangitāne o Manawatū, hence the mauri is then transported by the waters of the Ōroua, Pohangina and Manawatū Rivers to the rest of the Rangitāne rohe. Peaks of significance to Rangitāne include Maharahara, Otumore, Tirahe, Te Hekenga, Te Ahu a Turanga. Wharite (Whare-tītī) Peak towards the south is also of significance but lies in the Tararua District east of the Manawatū boundary line. There is a rock on the hilltop in the Ruahine Range named Te Ahu a Turanga(imua)-(the sacred mound of Turanga (the elder child). It is located part way along the old Maori track that traverses west to east of the Ruahine Ranges. This peak is of great significance to Rangitāne o Manawatū as it is the place where Turangaimua, the son of Turi, the Captain of the Aotea waka was killed. Turangaimua settled in the Manawatū after marrying a Rangitāne o Manawatū woman, Parehuia. At some time after his marriage, Turangaimua journeyed to Tamaki nui a rua and Ahuriri, and joined with Rangitāne o Manawatū in fighting the local iwi. Unfortunately, the seemingly defeated Ahuriri iwi were not entirely vanquished and the Turangaimua group were overrun at a saddle on the Ruahine Range, just north of Te Āpiti. Turangaimua was killed in the ensuing battle, along with several Rangitāne o Manawatū chiefs. The slain were heaped in a mound and the site was named Te Ahu a Turanga, the mound of Turangaimua, at the entrance to the mountain Range. Te Ahu a Turanga is a significant waahi tapu, culturally, spiritually and historically to Rangitāne o Manawatū. The site is registered with the New Zealand Archaeological Association, as is the narrative associated with it. The Rangitāne o Manawatū Claims Settlement Act 2016 gives recognition to many areas throughout the Manawatū District, including those places listed above regarding the Ruahine Ranges. One particular area referred to in the Deed of Settlement between Rangitāne o Manawatū and the Crown follows ridgelines across the ranges from Mount Richards in the Pohangina Valley to Ruaroa in Tararua District (see map), via (but excluding) Maharahara (1095m) and Matanginui (1074m) peaks. Rangitāne o Manawatū also have an interest in the Manawatū Gorge Scenic Reserve (see map). However, the scenic reserve on the northern side of the Manawatū River lies within Tararua District and the scenic reserve on the southern side lies within Palmerston North City. The One Plan identifies 'The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks' as an ONFL. The Ruahine Range extends south as far as the Manawatū Gorge. The highest ridge extends along the full length of the Ruahine Range right down to the Manawatū Gorge Scenic Reserve which encloses the Manawatū Gorge. This includes the 6km of farmland between the southern end of the Ruahine Forest Park and the Manawatū Gorge. The ONL identified in the landscape assessment is refined in extent from that identified in the One Plan, which the One Plan makes provision for at the TLA scale. The landscape assessment has reduced the southern extent of the One Plan ONL and generally aligned it with the southern extent of the forest park This is due to the greater naturalness of the forest park compared to the modified state of the landscape between the forest park and Manawatū Gorge which contains grazed farmland and Te Apiti windfarm. In determining this ONL, consideration was given to the Rangitāne o Manawatū interests in both the Manawatū Gorge Scenic Reserve and the connection with Te Ahu a Turanga and Wharite (Whare-tītī) Peak. However, all lie within Tararua District so fall outside the jurisdiction of the Manawatū landscape assessment, even though they may be interpreted as being part of the ridgeline.

Associational	Shared/ Recognised	The One Plan recognises the qualities of the Ruahine Range as being 'the skyline's aesthetic cohesion and continuity, its prominence throughout much of the Region and its backdrop vista..' and gives protection through the following provisions: The Ruahine Ranges ONFL is in two parts: (j) The Ruahine Forest Park (land administered by the Department of Conservation) and (l) "the skyline" (or more correctly "The series of highest ridges and highest hilltops along the full extent of the Ruahine Ranges including within the Forest Parks described in item (j). Because the One Plan has been prepared through a public process, including public notification and hearings, these provisions reflect shared and recognised values of the Region. This reinforces the perceptual recognition that the prominence and memorability of the Ruahine Range causes this landscape to form a key part of the identity of the District.

Summary of Key Characteristics	Very high degree of naturalness due to the extensive covering of indigenous vegetation, dominance of large scale landforms, feeling of isolation, wilderness, and lack of human modification. Lack of built development which contributes to the perceived naturalness of the ranges as a defining backdrop to the District. Important recreational area. Highly memorable mountain range landform which contributes to the identity and sense of place of the District and Rangitāne o Manawatū. An existing large transmission tower at Wharite Peak lies outside Manawatū District but is located on one of the highest ridges, affecting the perceived naturalness of the Ranges as seen from Manawatū District.

Potential Issues	The high degree of perceived naturalness is derived from the dominance and expressiveness of the Ruahine Rang,e contrasting with the surrounding agricultural land form and land use. This could be threatened by clearance of indigenous vegetation for alternative land use; earthworks such as mining, roading or quarrying; large scale damming of rivers; large network utilities; and pests and weeds. It would assist with the protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; • discourage the establishment of exotic vegetation; • discourage built development; • discourage earthworks; and • discourage adverse effects on cultural values.

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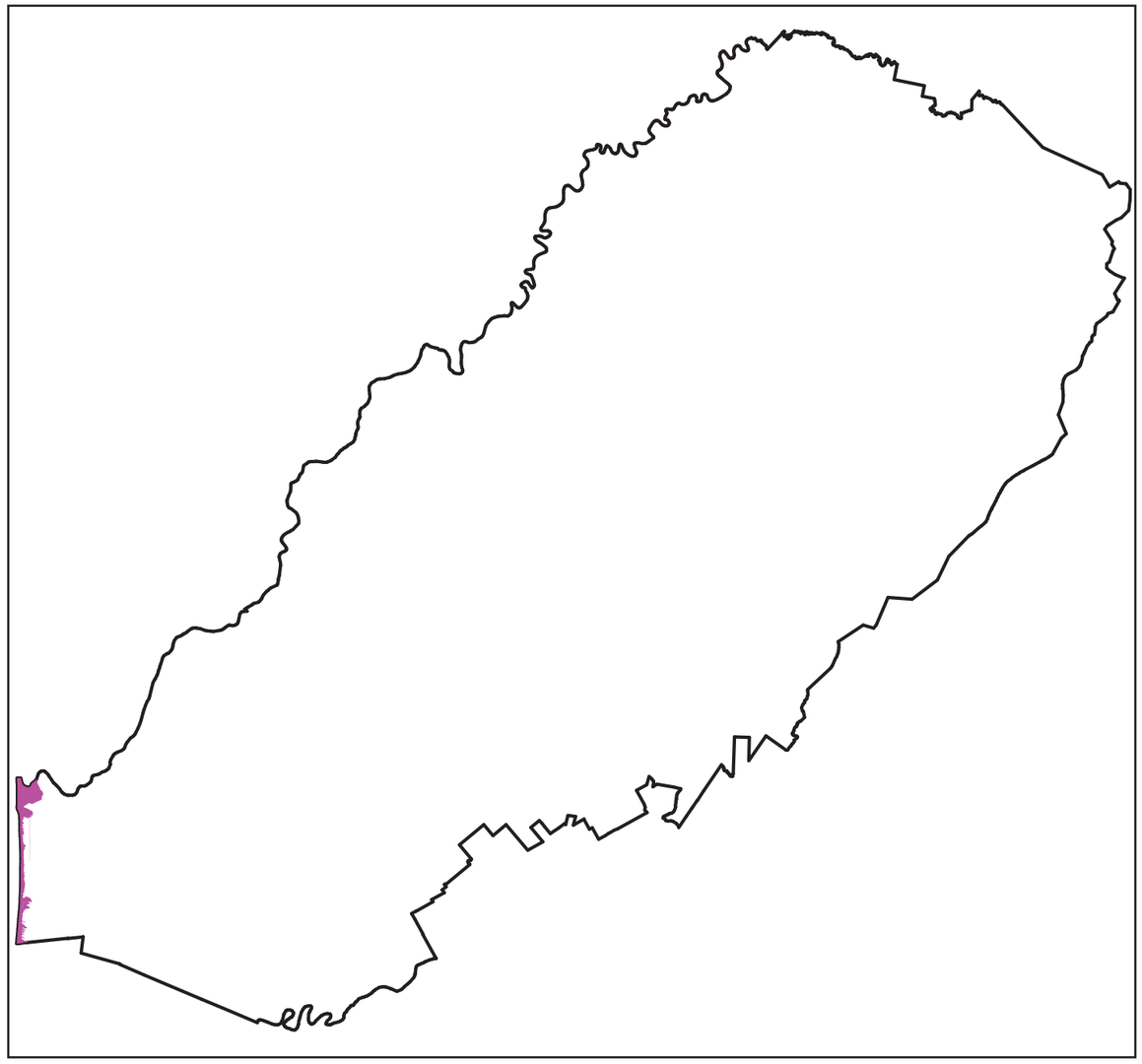
ONFL 2
Manawatū Coastline




Rangitikei River
PAREWANUI
SLOTTS FERRY ROAD
MAKU ST
Sch
B1BM
Tangimoana
TANGIMOANA BEACH ROAD
TANGIMOANA ROAD
ROAD
B1BQ
A4VW
17m
86
87
88
89
90
91
92
93
94
TANGIMOANA FOREST
A4W4
Gas valve
Pukeouko Lagoon
Kaikokopu
Hall
Stream
A4W5
22m
Himatangi Beach
Lake Kaikokopu
HIMATANGI BEACH ROAD
LAKE
Sherris
Lake Koputara
ROAD


Coastal Photo 2
Coastal Photo 3
Coastal Photo 1
0
1
2
3
4 km

Name:	Manawatū Coastline
Location:	NZ Topo 50 BM33
Description:	Coastal foredunes from Rangitikei River to District boundary south of Himatangi Beach
ONL/ONF/SAF:	Outstanding Natural Landscape

Natural Science	Geological/ Geomorphological:	Coastal dune system seaward of the Tangimoana pine plantation. Includes active dune areas located around Himatangi township containing the north-western edge of the Foxtangi Dunefield. This part of the dunefield is unique in that it is the last remaining area of functioning duneland ecosystem that remains in private ownership in the area between Himatangi and Foxton (primarily Horowhenua District), and is known as the Foxtangi RAP (DOC Recommended Area for Protection). These areas of the Foxtangi Dunefield either side of Himatangi (within Manawatū District) are recommended as ONL, excluding the areas containing pine plantation. The coastline soils are primarily deep, well drained sandy loam. Research has recognised the Manawatū dunefield as the best representative example of Holcene dune development in New Zealand, and one of the best examples of parabolic dune development in Australasia.
Natural Science	Biological/Ecological:	Modified vegetation with prevalence of coastal grasses and acacia covering dunes between the high water mark and pine plantations. Inland dunefields have been planted in pine plantation for erosion control however these lie outside the ONL within the productive Tangimoana Forest. This area contains part of the Tangimoana Dunes, where the rare spiked sand sedge (Eleocharis neozelandica) can be found, and Fernbird area listed in the District Plan (Operative 2002) Appendix 1A (W3), along with part of the Foxtangi Dunes, Appendix 1A (W11).
Natural Science	Hydrological	Coastal lagoons located inland of the ONL, which contribute to the hydrological functioning of the coastal processes where rivers and streams meet the sea, and transporting the mauri from the coastal grasses and dunes to the surrounding land. These include Pukepuke Lagoon and Lake Kaikokopu located inland of the dunes but set in farmland or adjacent to pine plantation. The ONL includes the mouth of the Rangitikei River and its coastal sand bank plus remnant flows across open floodplains in the southern oxbow. Pukepuke Lagoon relates to the hydrological functioning and is identified separately as a ONF.
Perceptual	Memorability	Memorable as an expansive unbuilt coastal foredune system.
Perceptual	Legibility/Expressiveness	Clearly expressive of coastal dune processes.
Perceptual	Transient	Climatic changes of onshore/offshore winds, sea spray and coastal birds.
Perceptual	Aesthetic	Extensive linear repetitive dune landform combined with the coastal grassland and native vegetation cover contributes to the coherence of this feature and is vivid particularly when observed from the beach. High aesthetic value due to naturalness and linear extent of unbuilt coastal frontage.
Perceptual	Naturalness	Generally high naturalness, but with some areas of modification due to tracks and non-native vegetation. Naturalness also influenced by proximity of settlements and pine plantations parallel to the beach.
Associational	Historical	The beach was the highway in early European times, with the Scott's Ferry serving the Rangitikei area from 1850 – 1908. A port operated at the Rangitikei River mouth servicing steamships from 1867-97 when flooding swept away all bridges across the Rangitikei and silted up the port, closing it forever. The coastal area is abundant in archaeological evidence, with over 35 recorded sites.

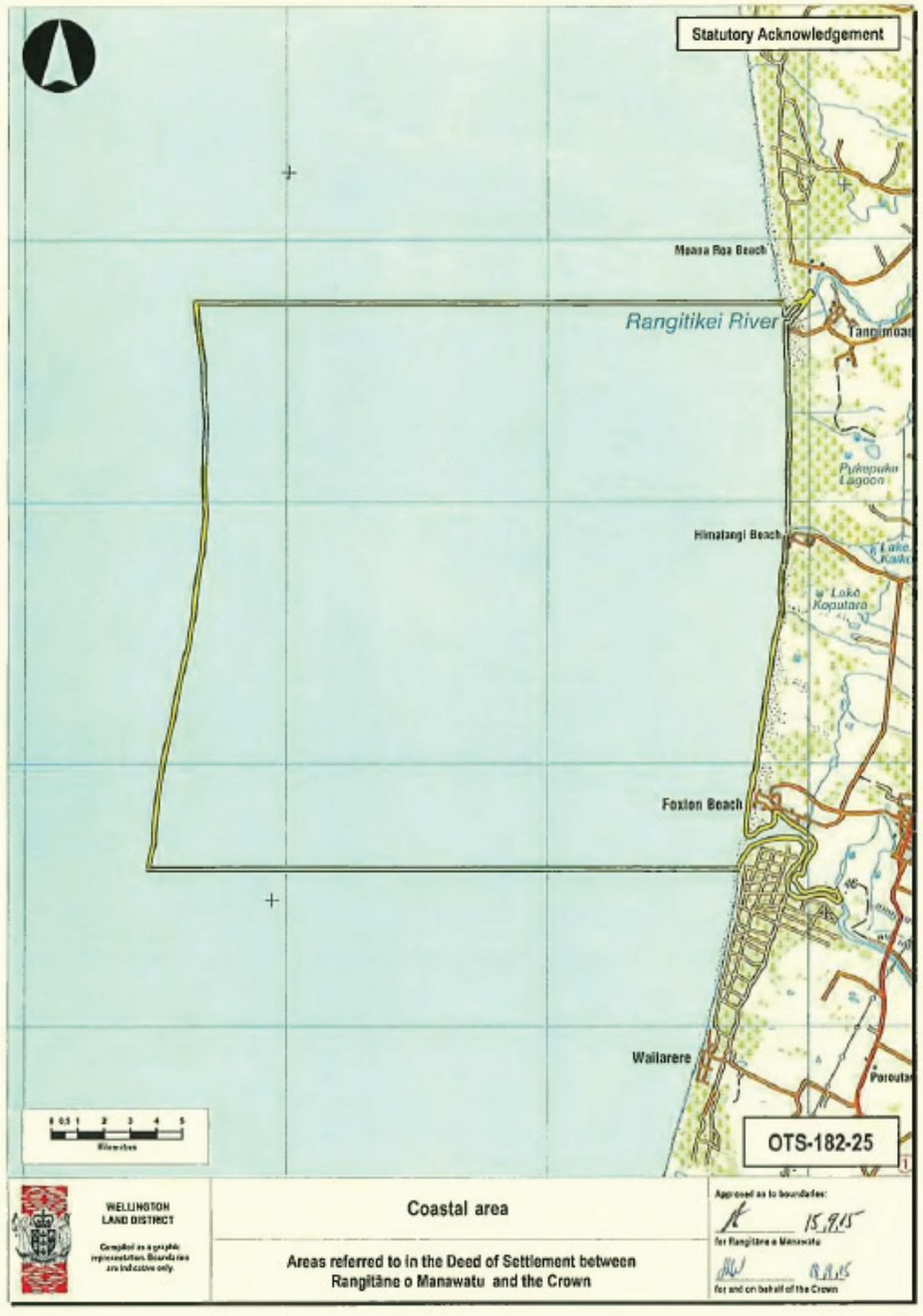
Coastal Photo 1

Coastal Photo 2

Coastal Photo 3

Tawhirihoe Scenic Reserve portion from Statement of Association

ATTACHMENTS
2: DEED PLANS



Coastal Area portion from Statement of Association

Associational	Tangata Whenua	Under the Settlement Act, the coastline is an area of interest, as well as a statutory acknowledgement area for both Ngāti Apa and Rangitāne o Manawatū. There are also cultural redress properties in Tangimoana. Foredunes are part of the wider coastal dune system, which was highly significant to Māori. Linked with the historic wetlands inland of the coastal dunes, fish (e.g. eels), flora (e.g. flax, pīngao) and fauna was an important food source for Māori. Numerous middens have been discovered inland of the sand dunes. Himatangi was an important source of a variety of foods for Rangitāne o Manawatū. The correct hyphenation of the Himatangi is said not to be Hima-tangi but Hi-matangi, and thereby provides a different tale. "Hi" means to fish, and Matangi was a Chief who lived in the mystic past in the Mohaka District of the East Coast. The name also refers to Matangi capturing and slaying a Taniwha in the area upon his settlement. Himatangi was also famous for the abundance of eel and birds available from the wetlands and dune lakes in the area. The mouth of the Rangitikei River being of strategic importance to Rangitāne o Manawatū as it provided an entrance to the Rangitikei and Central North Island. The name "Tangimoana" was allocated to a small coastal area. Traditionally the dune area around the town was referred to as Te Ruahine. The most recognised area or settlement (nearest to the present day township) was Tawhirihoe. Tawhirihoe was originally a pā, then a mahinga kai and cultivation, and finally the flat now known as Scott's Ferry and Tangimoana. The culturally significant feature of this coastline was the shellfish that were found in areas where the freshwater met the ocean and the wetland areas and small swallow dune lakes that were found between large dune structures. Within these lakes and the freshwater streams that feed them were a variety of native fish and eel as well as birds. Rangitikei River was one of the sites of significance for Ngāti Apa located along the coastline as a fishing station and tauranga waka of Tawhirihoe and the Rangitikei Heads. The latter area was noted as the place that Rangipowhatu, an early ancestor of the Ngāti Tauira hapū of Ngāti Apa (North Island), first settled. From there, his descendants moved into the Rangitikei Valley and populated the area. The Manawatū Coast has been an integral part of Rangitāne o Manawatū culture, history and existence with those connections being unbroken for over seven hundred years. These connection to the Manawatū Coast and coastal sand dune country have been recorded in waiata, korero and whaikaro. The coastline or area that was traditionally referred to as Okatia, the spirit that created the Manawatū River, resides on the coast. The coastal area is abundant in archaeological evidence, with over 35 recorded sites. Rangitāne o Manawatū earliest connections with the Manawatū Coast are recorded by their Kurahaupo ancestor, firstly Kupe who navigated the coastline from the East Coast around Te Whanganui a Tara and along the Manawatū River Estuary. Tawhirihoe Scientific Reserve is located immediately south of the Rangitikei River mouth. The reserve and dune-lands are of historical, cultural, spiritual and traditional significance to Rangitāne o Manawatū. Tawhirihoe was an important site and Nohonga area for people travelling along the coast or linking up with trails following inland to Pukepuke and Puketotara. The Tawhirihoe area has traditionally been a launching area for waka and Rangitāne o Manawatū fishing station. Rangitāne o Manawatū also commonly collected pipi along the coastline. The Tawhirihoe area had a number of large active dunes where traditionally plant and weaving resources such as pīngao were collected. Tawhirihoe and the adjacent coastline is recognised by DOC as a unique area for its flora, fauna and landforms. The area is also recognised by Rangitāne o Manawatū for this and the natural resources utilised by the iwi. The area is one of the last natural coastal (backshore – foredune) environments with a number of rare sedges and flora. This is one of the last places that the endangered native Katipo spider is found. The Katipo spider is an important figure within Rangitāne o Manawatū lore. Over recent years numerous archaeological sites have been discovered unearthing middens and numerous artefacts providing important insights into the early history and use of the area by Rangitāne o Manawatū. The Tawhirihoe Scientific Reserve is also recognised under the Statement of Association under the Rangitāne o Manawatū Claims Settlement Act 2016 and Ngāti Apa (North Island) Claims Settlement Act 2010.

Associational	Shared/ Recognised	Dunes recognised for the importance they play in coastal processes and high degree of perceived naturalness. The Tawhirihoe Scientific Reserve, located on the coast immediately south of Tangimoana, contains one of the last examples of a dynamic dune and ephemeral wetland system, which once stretched along the west coast. The Reserve is partially planted in exotic pine plantation, the areas of which are excluded from the ONL. The Natural Character Assessment for the Manawatū District Coastal Environment did not recognise any areas as Outstanding Natural Character. However, the Landscape Assessment does recognise some areas as an Outstanding Natural Landscape. This is due to the weighting on Associational values in a landscape assessment which are absent from a natural character assessment.

Associational	Recreation	Foredunes accessed from coastal settlements, although off-road bikes threaten their stability, particularly in proximity to these settlements.

Summary of Key Characteristics	Vital contribution to healthy functioning of coastal processes and erosion control with high perceived naturalness of the coastal landforms. High aesthetic values of expressiveness and naturalness resulting from extensive unbuilt coastal strip. Very high cultural associational values of spiritual well-being and kaitiakitanga for Māori. Some protection is also afforded under the NZCPS and the Statutory Authority.

Potential Issues	Coastal foredunes and estuaries define the landscape and contribute to the perceived naturalness, aesthetic values and associational factors. It would assist preservation of the key characteristics if the following were to occur: • discourage the loss of native vegetation; • discourage built development; • discourage earthworks; and • discourage adverse effects on cultural values.

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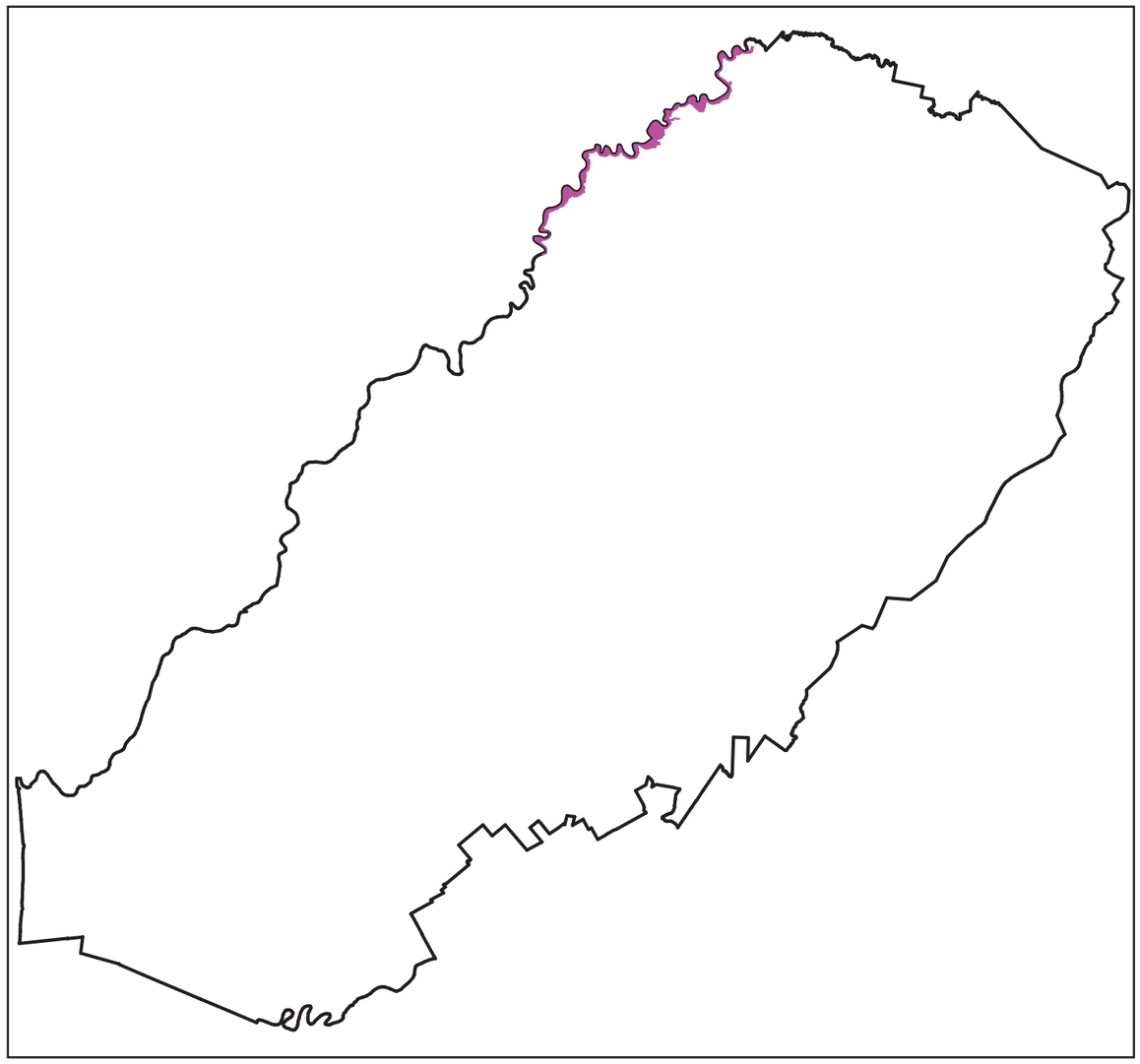
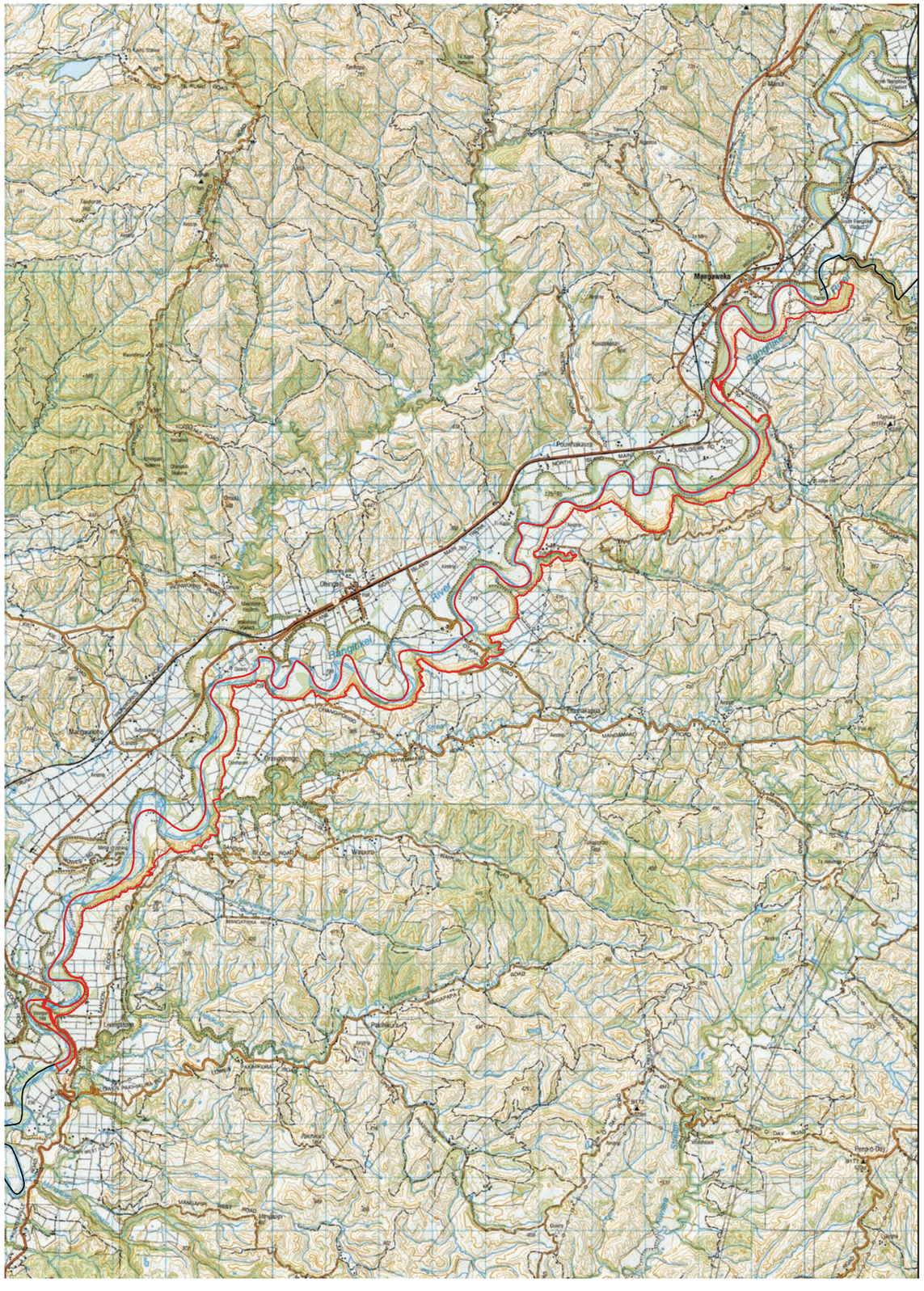
ONFL 3
Rangitikei River





Rangitikei
River

Rangitikei Photo 1
Rangitikei Photo 2
Rangitikei Photo 3
0
3
6
9
12 km

Name:	Rangitikei River
Location:	NZ Topo BK35, BL34 & BL35
Description:	Rangitikei River from Mangaweka to Vinegar Hill. Incised meandering river valley and gorges with exposed white mudstone escarpments.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Incised river valley created by erosion of river through the sedimentary soils, resulting in unique scalloped edges with exposed rock outcrops or mudstone bluffs. Erosion process is evident through the soft sedimentary layers of Plio-Pleistocene fossiliferous sediments. This area contains the Concretion Terrace which is listed in the District Plan (Operative 2002), Appendix 1C(OF1). The Rangitikei River has a limited area of river flats. These flats are well-drained in most places and are a result of alluvium being deposited when the river has been in flood.

Natural Science	Biological/Ecological:	Exotic vegetation and indigenous forest remnants on valley sides enhances ecological value and river quality while also creating a habitat for birdlife and increasing ecosystem health and mauri. Aquatic species present in the river include eels, koura, freshwater mussels, patiki (black flounder), inanga, and rainbow and brown trout.

Natural Science	Hydrological	The source for the Rangitikei River is in the Kaimanawa Ranges, rising from springs on Ngapuketurua. It is representative of one of New Zealand's longest rivers at 241km long, it is the third longest river in the North Island and the sixth largest North Island river in terms of water volume. Water in the river and from stream tributaries has significant quality and quantity values, particularly on uses downstream. A national water conservation order exists on the river as a means of protecting water flow, and in many respects, this has prevented hydro-electric development on the river. The flow of water changes along the river's course, which includes areas of rapids interspersed with deeper, quieter water. The Rangitikei River has a history of flooding and represents one of the educational opportunities of the river, which Massey University recognised and who have undertaken research on the historic channel change of the Rangitikei River at Bulls by assessing aerial photographs between 1955 and 2007. Flooding was traditionally celebrated by Māori as it formed part of the process of spreading mauri from the surrounding landscape, including from the mountains and forests, to nourish and feed the land and everything living on the land.

Perceptual	Memorability	Highly memorable landscape due to the scale and steepness of landform incision rising from the watercourse- more dramatic than surrounding folded landforms due to the presence of significant escarpments and waterway which contrasts with the surrounding modified pastoral landscape. The escarpments have a high degree of memorability and contribute to the identity and sense of place of the area.

Perceptual	Legibility/Expressiveness	Complex landform features are very expressive of the erosion processes of the river, with 'empty' scalloped ox-bows providing historical references to shifts in the river.

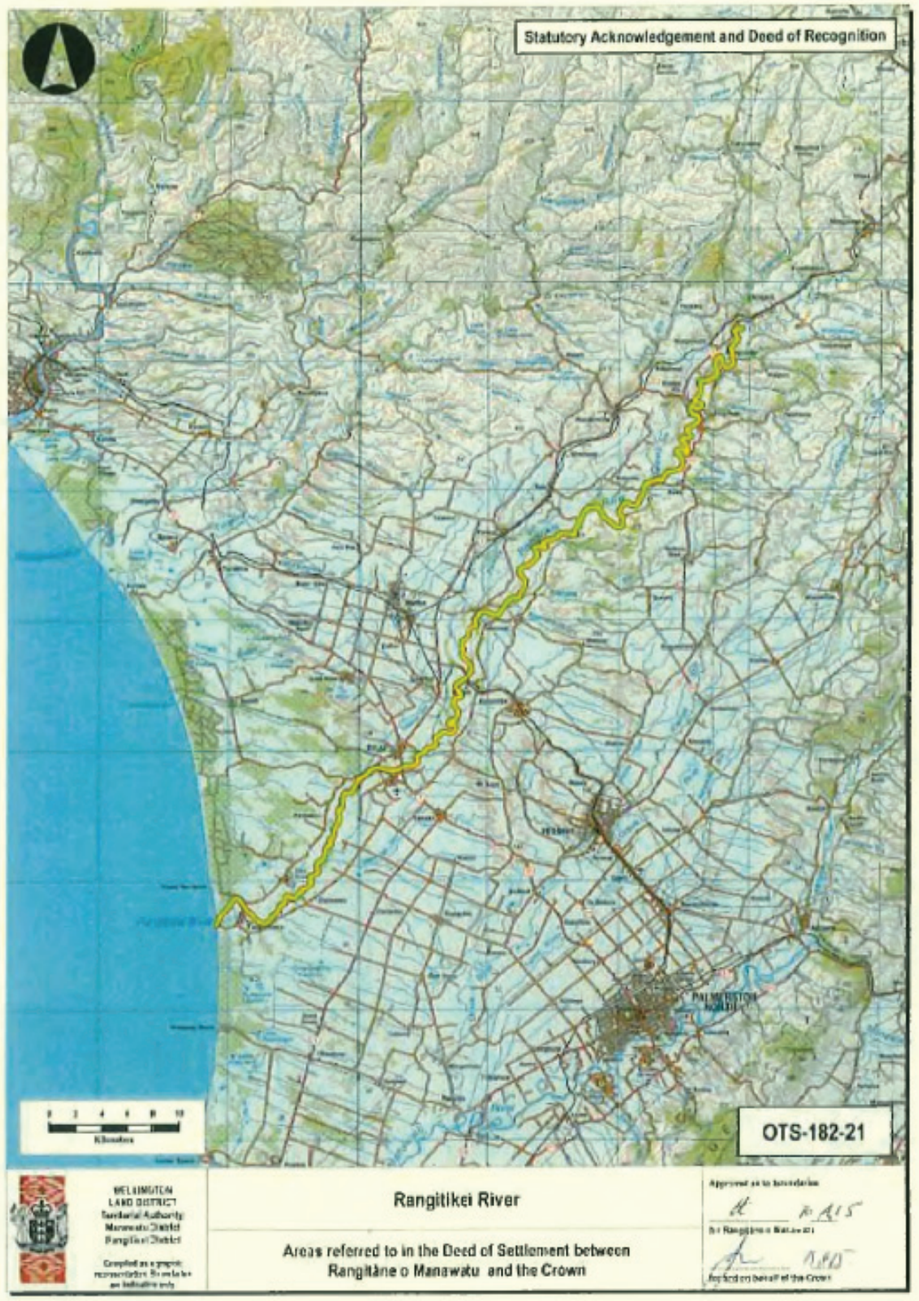
Perceptual	Transient	River valley has its own microclimate. Changes in the location of the river bed over time, as evidenced by the 'empty' scallops. River level changes reflective of headwater rains. Deep gorges likely to have some impact on microclimatic conditions, such as creation of mist on colder mornings.

Perceptual	Aesthetic	High aesthetic value due to its visually striking steep escarpments, cliffs and scalloping. These are a vivid, dramatic and awe-inspiring landscape feature characterised by a repetition of exposed eroding cliffs combined with a meandering scalloped watercourse in the deeply incised river valley, which provides coherence for this stretch of the Rangitikei River before it transitions into the flatter lands south of Vinegar Hill.

Perceptual	Naturalness	High degree of perceived naturalness despite some pastoral use within the river valley. Naturalness significantly contributed to by the dramatic escarpment features, scale of their erosion and the expressiveness of the river's meandering course over time as shown by the scallop shaped former ox-bows. Areas of farm land on the river flats have been included in the ONF because the river valley is viewed as an integrated whole between the river and escarpment top. The dominance of the geomorphology and topography is sufficiently strong to warrant the river corridor being read as a whole despite the presence of modified land cover. The river provides an important wildlife corridor.

Rangitikei Photo 1

Rangitikei Photo 2



Rangitikei River Map from Statement of Association

Rangitikei Photo 3- High voltage Bunnythorpe to Ongarue A (110Kv) transmission line crossing the Rangitikei River

Associational	Historical	Important travelling route since early settlement. Historic heritage, of particular historical importance are archaeological sites and high potential for archaeological site discovery. From the mid-1840s Pākehā settlers informally leased land from Ngāti Apa at several places south of the Rangitikei River. Rangitāne o Manawatū also leased out large areas of land in the 1840s to settlers in the vicinity of the Rangitikei River. During 1897 the river experienced its most significant flood since European settlement. The flood resulted in destroyed bridges and fords connecting townships, including bridges at both Mangaweka and Vinegar Hill. Flooding was so intense that large tōtara trees more than 300 years old were swept away near Vinegar Hill. At the lower end of the river homesteads were washed away and stock drowned. In 1958 the river was deemed as being navigable and, as such, became property of the Crown via the Coal-mines Act Amendment Act 1903. In 1959 under the Crown it became a soil conservation and river control reserve.

Associational	Tangata Whenua	Under the Settlement Act, the Rangitikei River is an area of interest for Ngāti Hauiti, Ngāti Apa, and Rangitāne o Manawatū (for the latter two iwi it is also a statutory acknowledgment area). Ngāti Tūwharetoa is also recognised under the Settlement Act in relation to the river. The naming of the Rangitikei River occurred during Haunui a Nanaia's pursuit of his wife, Wairaka, naming the rivers that he crossed along the way. Rangitikei has been literally translated to be the day of the long stride, however it refers to the good progress that was made by Haunui during his day travels before he encountered the river. The Rangitikei River is of historical, cultural, spiritual and traditional significance, as well as taonga to these iwi. The river is significant as a marker of the boundary of the rohe of Rangitāne o Manawatū. The river was a means of communication and was used as the main highway between the Central North Island and sea, and as a migration route (such as for Ngāti Tūwharetoa and Ngāti Raukawa). During the arrival of Europeans, Māori were noted in the Rangitikei area for travelling up and down the river by waka at pā sites along the way. The use of the Rangitikei River as a route relied on lack of conflict with the various iwi and hapū whose boundaries border the river. In this way the Rangitikei River was not only a physical link between tangata whenua but also a central component to the relationship link between the people. The Rangitikei River and the district's waterways were a vital means of gaining access to settlement, cultivation and mahinga kai sites. The soil was fertile, and transport to mahinga kai was significantly aided by river access, making rapid communication between pā possible, and hence it was an essential means of trade. During the migration of foreign iwi the river provided an easy method to gather and mobilise warriors from surrounding areas. The Rangitikei River, with its sheer cliffs, was ideally suited for traditional kainga (settlements) and elevated fortified defensive pā site. For Ngāti Apa (North Island), the Rangitikei River is the tribal domain for many hapū. The Rangitikei River was occupied by two major descent groups- Ngāti Tauira and Ngāti Kauae who descend from Papawhenua and the other group including Ngāti Tupua, Ngāti Tupataua, Ngāti Ika/Tumoetere, and Ngāti Tamatea who descend from Tuariki. Many of the Tuariki hapū were strongly interconnected with other hapū in the Whangaehu and Turakina areas. Ngāti Tupua and Ngāti Tupataua occupied the central reaches of the Rangitikei on a permanent basis but many of the other hapū only went to the upper areas of the Rangitikei for refuge from war parties and to snare birds, hunt pigs and catch eels. In 1840, Ngāti Apa signed the Treaty of Waitangi at Tawhirihoe pā, a Ngāti Apa kainga near the mouth of the Rangitikei River. This signified their first major engagement with the Crown. Ngāti Raukawa also have an interest in the Rangitikei River north of Ngāti Apa's specific areas of interest and they came to settle in the Manawatū district by travelling down the Rangitikei River valley sometime prior to 1840. For Ngāti Hauiti the Rangitikei River is defined as the heart of their lands, providing both physical and spiritual sustenance for generations.

Associational	Shared/ Recognised	The Rangitikei River is widely recognised by local people and forms a key part of the identity of the central Manawatū Region. Widely recognised for its boating and fishing opportunities. Iconic feature of the area which is widely written about, photographed, filmed and described. The white Papa cliffs contribute to the genius loci of the district. The area defined in the One Plan Schedule G as Rangitikei River and river valley upstream of Putorino has been refined in this assessment for the District Plan. This refinement has been done in accordance with One Plan Policy 6-7 which states: Territorial Authorities must take into account but not be limited to the criteria in Table 6.1 when: *b: considering adding to, deleting from, or otherwise altering, redefining or modifying the list of outstanding natural features or landscapes listed in Table G.1 of Schedule G,* The refinement of the Rangitikei River ONF from that described in the One Plan (Mangarere Bridge to Putorino) has been done in accordance with this policy. When reducing the length, criteria in Table 6.1 were considered (as they relate to the Assessment Criteria). The lower portion of this section did not have sufficient expressiveness/legibility or gorge-like containment in comparison to the character of the upper section of river (such as Vinegar Hill) to warrant its inclusion within the ONF.

Associational	Recreation	High level of recreational use, including swimming, rafting, jet boating, canoeing, kayaking (including an annual kayaking race) guided and unguided fishing (known for trophy rainbow and brown trout), walking, picnicking, and camping. Jet boating, rafting canoeing and kayaking on the Rangitikei River are rated highly at a national scale. There are many access points to the river from roads leading off SH1. Access across private land is also available for those who wish to walk up the river to view the cannonball concretions (spherical boulders) in the forest adjacent to the river.

Summary of Key Characteristics	High degree of perceived naturalness derived from the expressiveness of the formative processes of the Rangitikei River course which contrasts with the surrounding terrace landform. The dynamic qualities demonstrated by the legibility of the scallop features (formerly river bed), the dramatic appearance of the enclosing curved escarpments, the dominance of the river corridor, the prominence, visibility and beauty of the white, sheer, papa (mudstone) cliffs, and the unbuilt simplicity of the cliff edges and escarpment tops result in a highly memorable landscape feature. Areas of indigenous riparian vegetation contribute to the ecological and water quality values. Existing areas of grazing and productive land uses allow for visibility of the landform. A Trans Power high voltage transmission line Powerco pole lines cross this ONF.

Potential Issues	Earthworks and/or quarrying that may affect the integrity of the mudstone cliffs and scallops (including roading across the escarpments). Further degradation of native riparian vegetation which may lead to sedimentation of the river and destruction of wildlife habitat. Activities, including pine plantations, on the escarpments or terraces which may screen the geological features. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage earthworks; discourage adverse effects on cultural values; and restrict built development.

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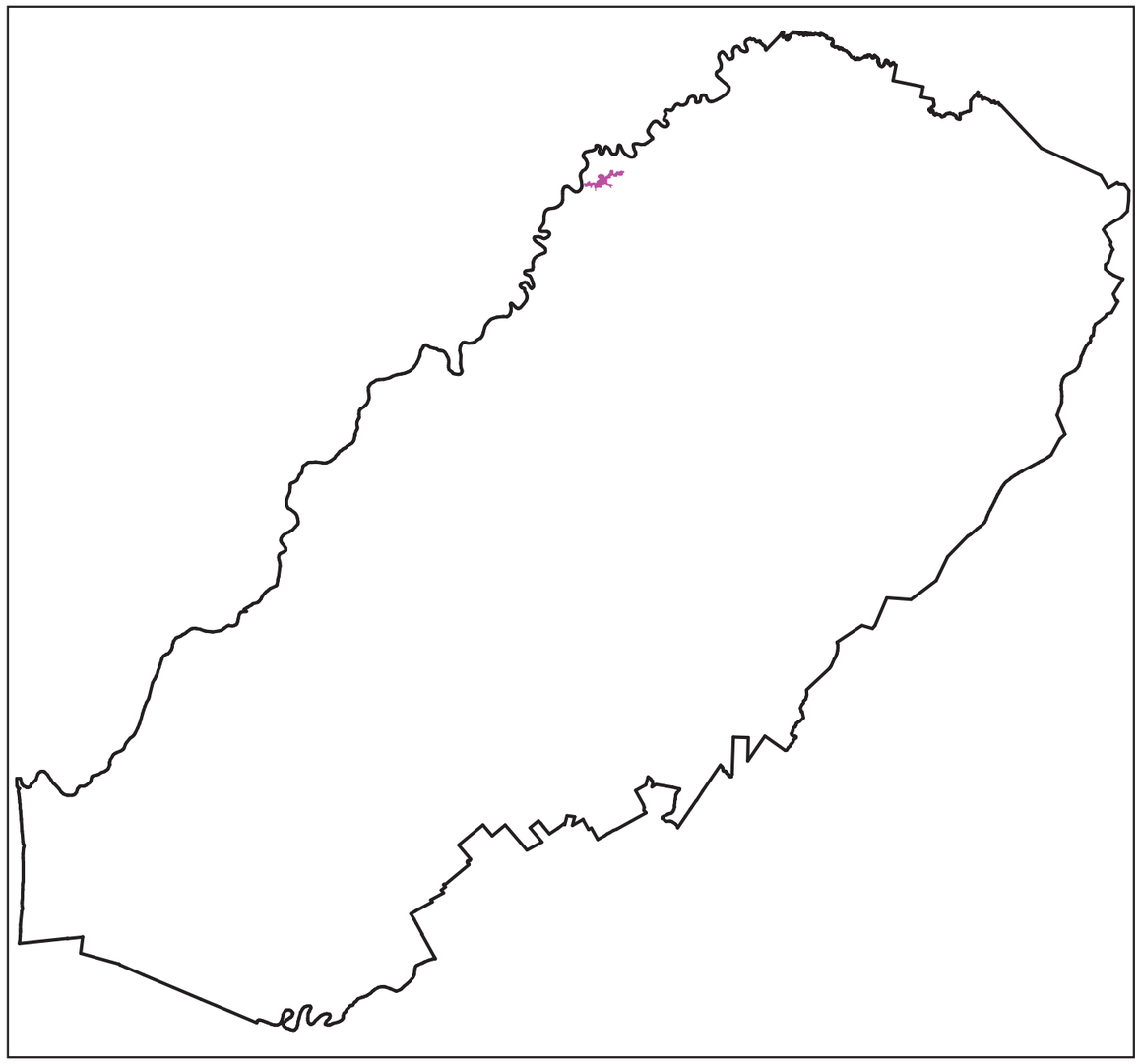
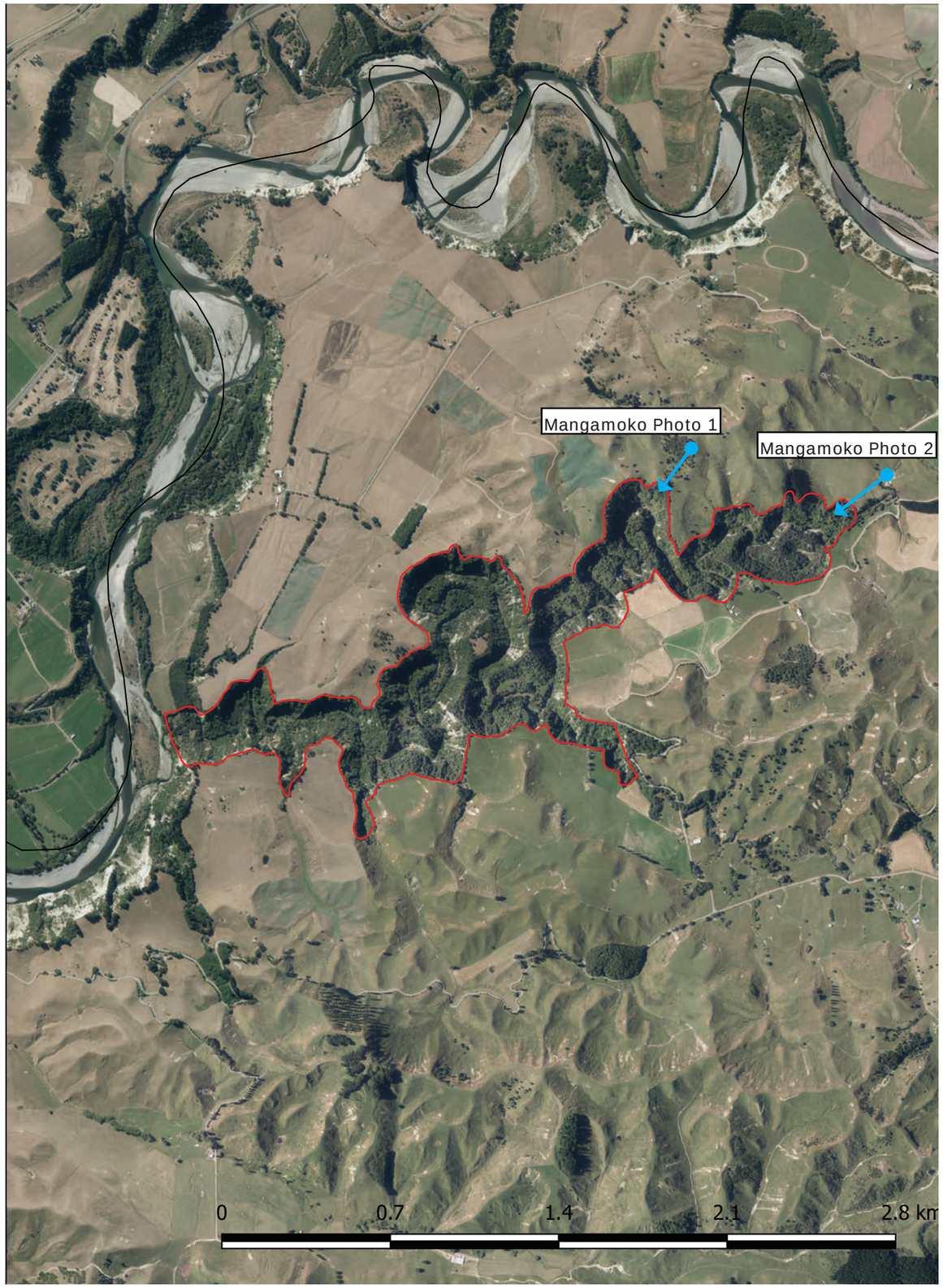
ONFL 4
Mangamako Gorge




Rangitikei
Quarry
196
259
302
200
ORANGIPONGO
ROAD
385
Mangamako
Orangipongo
Dunhaven
300
SANDON
BLOCK
ROAD
Waipuru
437
400
435
Mangatieka
Stream
MANGATIEKA RD


Mangamoko Photo 1
Mangamoko Photo 2
0
0.7
1.4
2.1
2.8 km

Name:	Mangamako Gorge
Location:	NZ Topo BL35
Description:	Mangamako Stream valley to the confluence with Rangitikei River. Incised river valley with exposed rocky escarpments and dense indigenous vegetation.
ONL/ONF/SAF:	Outstanding Natural Feature

Mangamoko Photo 1

Natural Science	Geological/ Geomorphological:	Representative of deeply incised valleys which characterise the area and are unique to the surrounds. The gorge is expressive of the erosion process of the stream through the sedimentary soils, resulting in a meandering watercourse with exposed rock outcrops or white mudstone bluffs that contrast with the surrounding pastoral landscape.
Natural Science	Biological/ Ecological:	Indigenous forest remnants on valley sides, which enhances ecological value and water quality, increasing ecosystem health and mauri, while also creating a habitat for indigenous and exotic birdlife. Mangamako Gorge is listed in the District Plan (Operative 2002), Appendix 1B (SA41). The Horizons Regional Council recommends the Mangamako Stream for trout spawning value in the Manawatū-Wanganui Region, with both brown and rainbow trout residing in the stream. Predictive modelling research by NIWA also shows that kōaro could be expected the Mangamako Stream (which are unique to tributary streams), while freshwater mussels, red-finned bullies, and rare longfin and shortfin eel have been recorded as present.
Natural Science	Hydrological	This gorge services a wide agricultural catchment area and contributes ecosystem functionality through erosion control and the maintenance of water quality and transportation of mauri before runoff reaches the Rangitikei River. During the summer the Mangamako Stream only flows intermittently.
Perceptual	Memorability	Highly memorable feature due to the extent of indigenous vegetation filling the deeply incised valley which contrasts dramatically with the surrounding modified pastoral landscape. This landscape feature has a high degree of memorability and an expressive gorge entrance where it connects to the Rangitikei River.
Perceptual	Legibility/ Expressiveness	Complex landform features that are expressive of the erosion processes of the Mangamako Stream demonstrated by its steeply incised character and tall escarpments.
Perceptual	Transient	Deep gorges likely to have some impact on microclimatic conditions, such as creation of mist on colder mornings. Fauna present in indigenous vegetation.
Perceptual	Aesthetic	Extensive indigenous vegetation throughout the valley system has a high degree of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in high aesthetic value. The combination of indigenous vegetation cover with the incised valley system has significance within the district through their rarity. A Powerco pole line crosses a southern arm of the feature with minimal effect.
Perceptual	Naturalness	High degree of perceived naturalness in the gully. Naturalness significantly contributed to by the extent of indigenous vegetation and expressiveness of the stream's erosion process. Provides an important ecological node along the Rangitikei River wildlife corridor.
Associational	Historical	Unknown
Associational	Tangata Whenua	Mangamako Gorge is an area of interest under the Settlement Act for Ngāti Apa and Ngāti Hauiti. Rangitāne o Manawatū only have statutory acknowledgement over the main stem of the Rangitikei River, not it's tributaries, so Mangamako Gorge is not an area of interest under the Settlement Act. Part of the area that Ngāti Apa asserted mana included from the confluence of the Makohine Stream and Rangitikei River, then south a short distance to the mouth of the Mangamako Stream. Additionally, in a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	Mangamako Gorge is adjacent to the Rangitikei River which is is widely recognised for its fishing opportunities.
Associational	Recreation	Limited opportunities for the public to experience this feature, along fishing does occur further upstream in the Mangamako Stream.
Summary of Key Characteristics		High degree of perceived naturalness derived from the expressiveness of the formative processes of the Mangamako Stream incised landform, which contrasts with the surrounding agricultural land use, and the limited built modification. Areas of indigenous riparian vegetation contribute to the ecological and water quality values and overall perceptions of naturalness. An existing Powerco pole line crosses a southern arm of the feature.
Potential Issues		The steeply incised valley system filled with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

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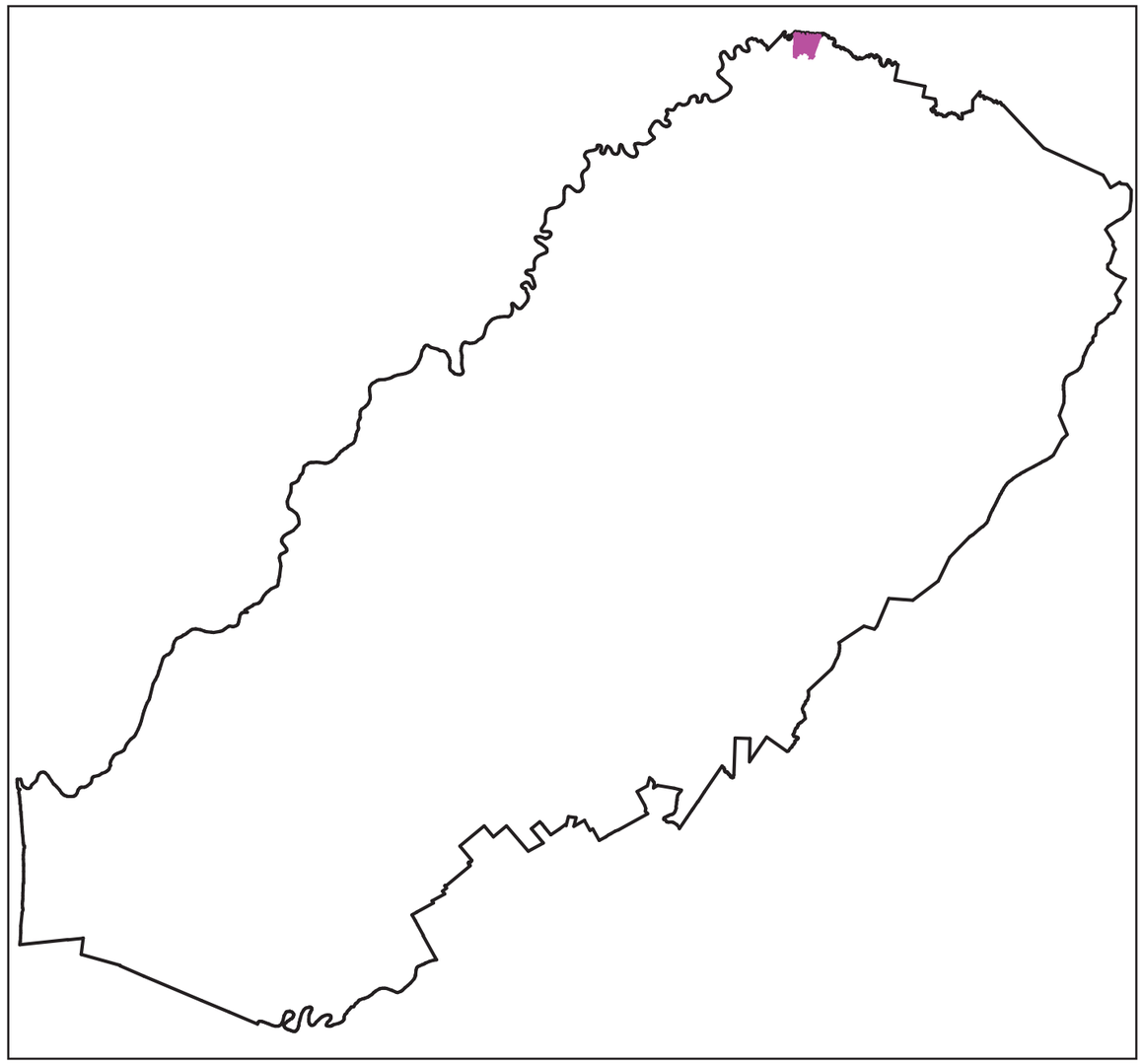
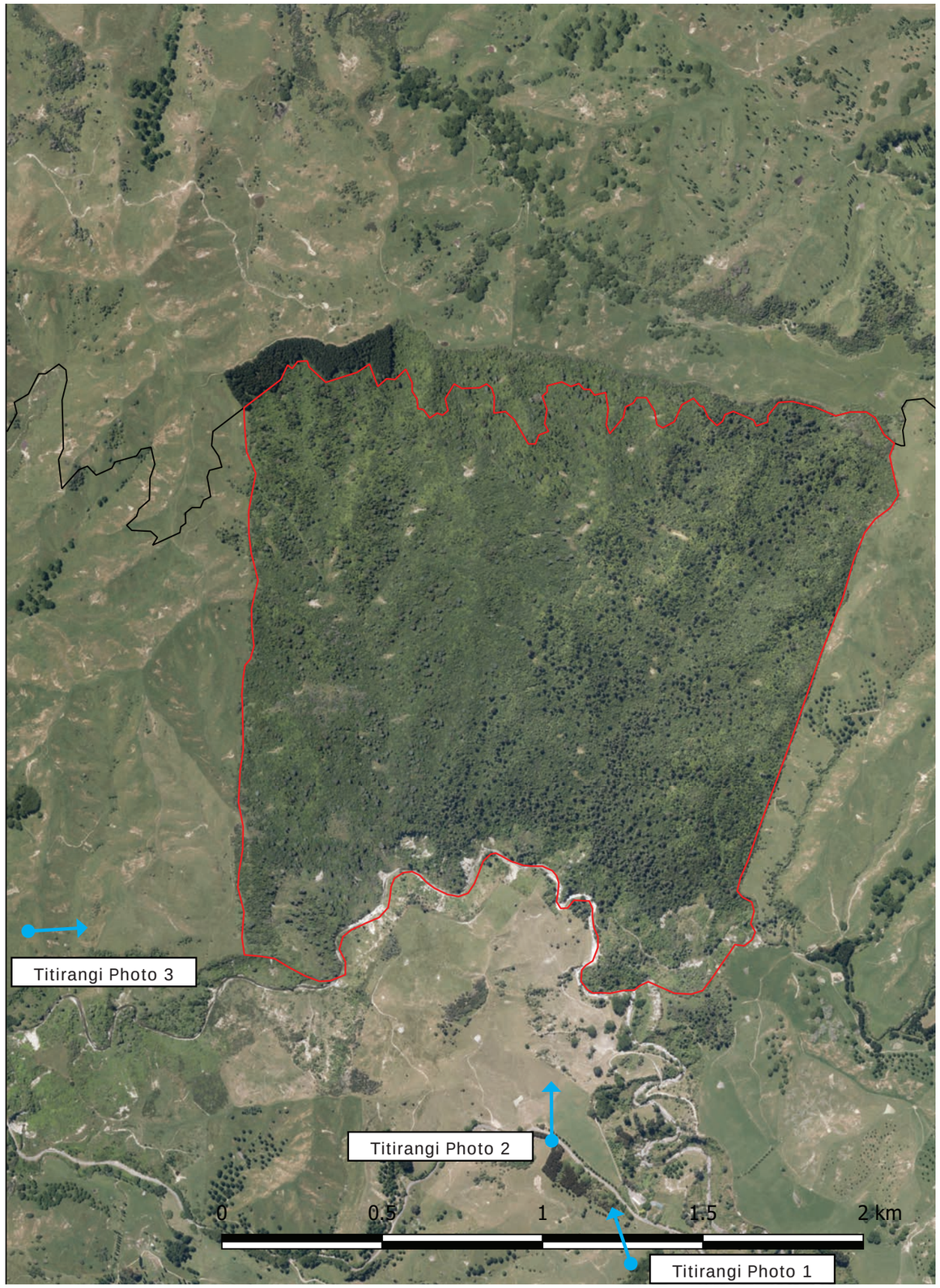
ONFL 5
Titirangi (Including Scenic Reserve)




Kawhatau
A6NT
629m
Stream
500
500
500
503
400
400
A6NU
529m
ROAD
Mangawhararikī

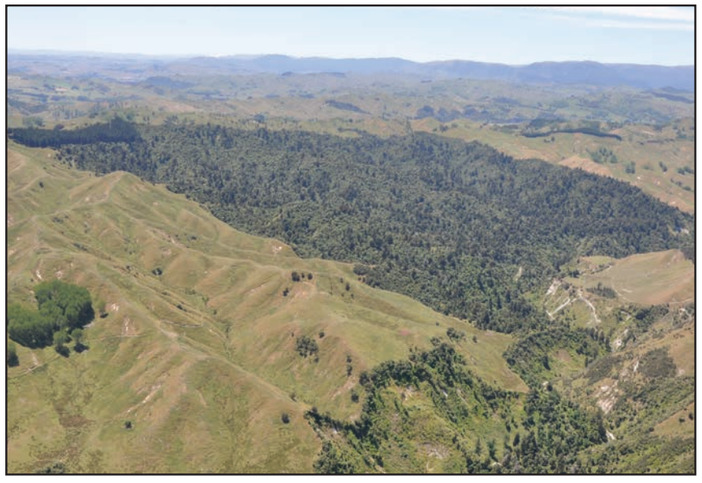

Titirangi Photo 3
Titirangi Photo 2
Titirangi Photo 1
0
0.5
1
1.5
2 km

Name:	Titirangi (Including Scenic Reserve)
Location:	NZ Topo BK35
Description:	Large stand (almost 300ha) of unmodified indigenous lowland forest extending from the ridgeline of the District's northern border down to Mangawhararikiri River.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Landform is representative of the typical surrounding area consisting of a folded landscape with numerous drainage pattern incisions evident.
Natural Science	Biological/Ecological:	Ecosystem health and mauri is reflected in the large stretches of indigenous flora and fauna habitat, including great examples of specimen trees such as kahikatea, rimu, miro, mātai and rewarewa. These specimens are rare in the area as much of the surrounding landscape was deforested during European settlement. The Titirangi Reserve is regarded as one of the best examples of lowland forest vegetation on the North Island. Survey research undertaken in February 2000 indicates a diverse range of native flora species in the reserve.
Natural Science	Hydrological	Numerous stream fingers and catchment contribute to the ecosystem functionality of the Mangawhararikiri River by feeding into the river and enabling the movement of mauri through the catchment. The Managawhararikiri River itself is a tributary of the Rangitikei River and is 33km long.
Perceptual	Memorability	Extensive cover of indigenous vegetation contributes to the simplicity of the feature and is indicative of what the land cover would have looked like prior to European settlement.
Perceptual	Legibility/Expressiveness	Drainage valleys are expressive of the natural erosion processes.
Perceptual	Transient	Transient value related to fauna of the forest.
Perceptual	Aesthetic	High degree of perceived naturalness of the whole feature is exhibited by the expansive indigenous forest and gives rise to vividness and a high degree of coherence.
Perceptual	Naturalness	Extensively covered in unmodified indigenous vegetation with high degree of perceived naturalness.
Associational	Historical	Unlike much of the surrounding landscape this extensive area of indigenous vegetation was never milled, the land was seen as too difficult to clear when the original European settlers arrived in the area. This makes this an important historical reference to previous land cover.
Associational	Tangata Whenua	Under the Settlement Act Titirangi is an area of interest for both Ngāti Apa and Ngāti Hauiti. Ngāti Apa had kainga in the area. Additionally, in a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	It is along the Manawatū Scenic Route, which is an alternative to SH1 and allows travellers to discover stunning scenery.
Associational	Recreation	There are limited opportunities for the public to experience this feature.

Summary of Key Characteristics	High degree of perceived naturalness derived from the expanse of unmodified indigenous forest which contrasts with the surrounding agricultural land use. Outstanding values supported by ridgeline to stream ecosystem and associational values. This area is regarded as being one of the best examples of lowland forest in the North Island. The two parallel high voltage power lines run past the reserve 1km to the east.
Potential Issues	The extensive and continuous expanse of native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

Titirangi Photo 1



Titirangi Photo 2

Titirangi Photo 3

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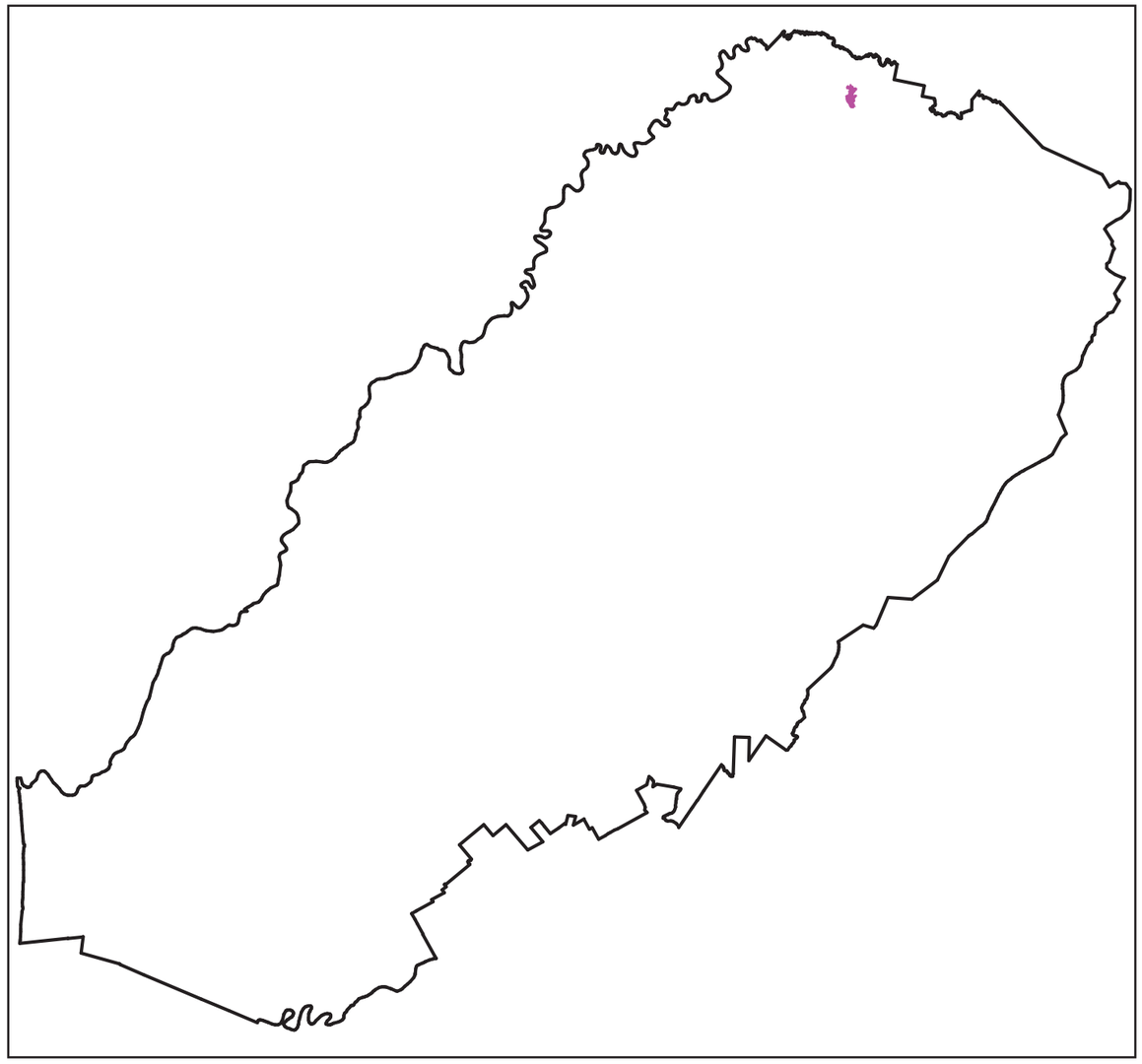
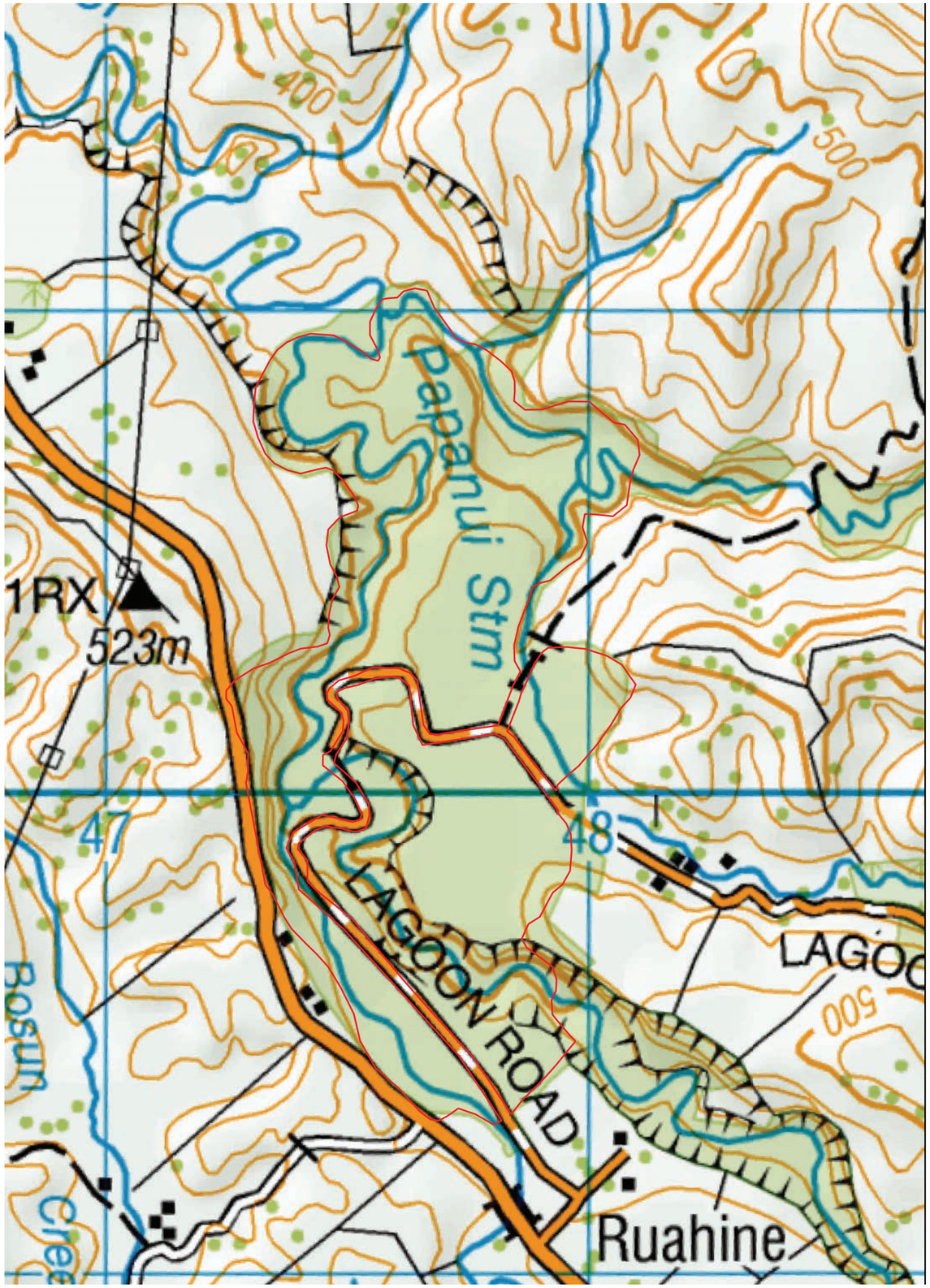
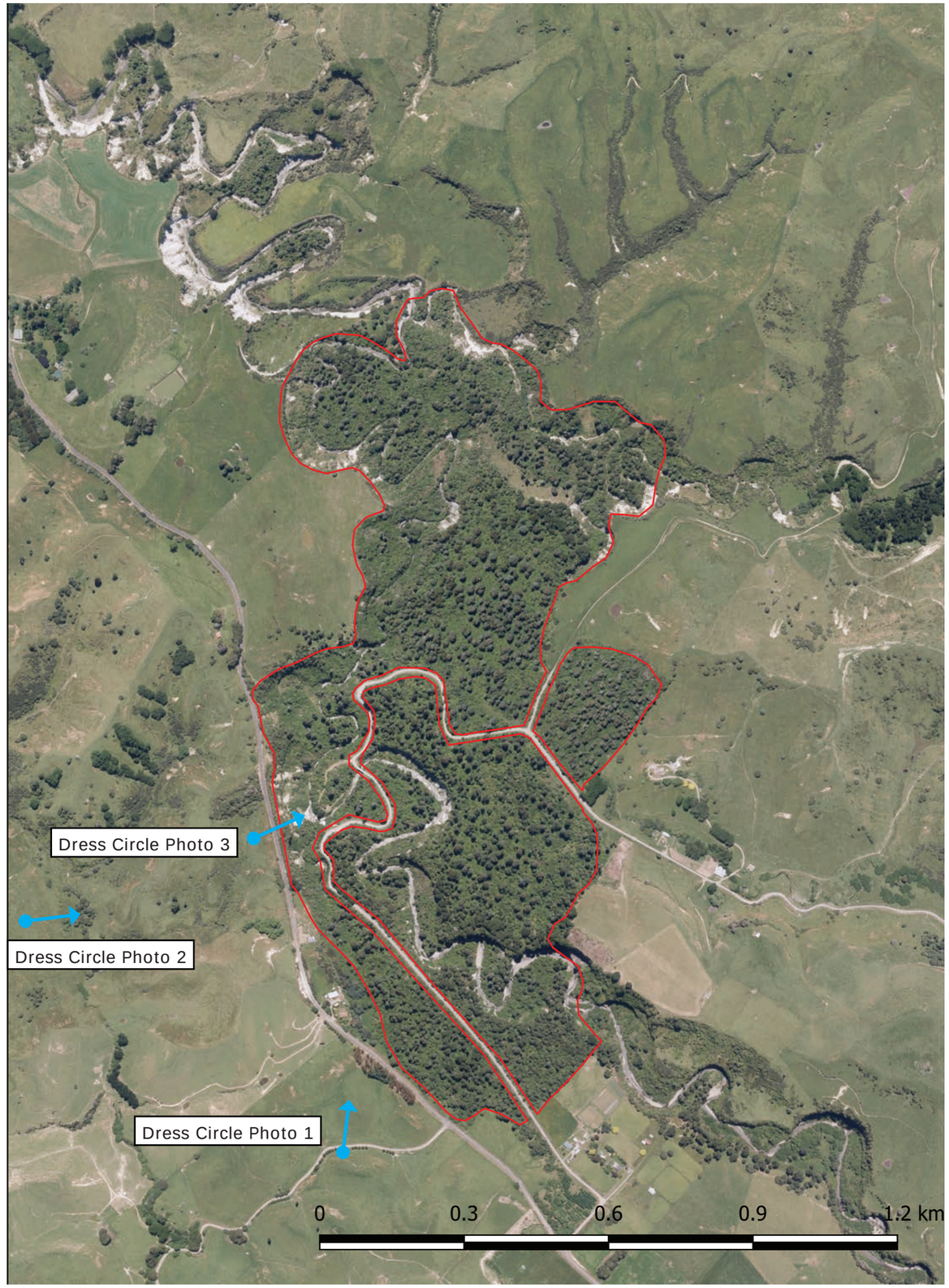
ONFL 6
Dress Circle (Including Scenic Reserve)




400
500
Papanui Stm
1RX
523m
47
48
LAGOON ROAD
LAGOO
500
Bosun
Cree
Ruahine


Dress Circle Photo 3
Dress Circle Photo 2
Dress Circle Photo 1
0
0.3
0.6
0.9
1.2 km

Name:	Dress Circle (including Scenic Reserve)
Location:	NZ Topo BK35 & BL35
Description:	Scenic reserve located around the Mangawharariki River. Indigenous vegetation cover spreading out from the incised valley stream onto the first terrace.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Indigenous vegetation contained within and adjacent to an incised valley created by erosion of stream through the sedimentary soils which contrasts with the surrounding pastoral landscape. Erosion process is evident through the expressive valley formation, presenting a geological educational opportunity. In places the unique formations of soft grey papa rock, with its many holes, has an appearance reminiscent of swiss cheese.
Natural Science	Biological/ Ecological:	Indigenous forest remnants on valley sides are representative of the land cover that would have once covered this area. The remaining native forest enhances ecological value and water quality, increasing ecosystem health and mauri, while also creating a habitat for indigenous and exotic birdlife.
Natural Science	Hydrological	Large agricultural catchment area upstream of this reserve. The dense vegetation contributes to the area's ecosystem health along the stream margins by helping maintain water quality and mauri. There are waterfalls located by the Dress Circle swimming hole. The Managawharariki River is a tributary of the Rangitikei River and is 33km long.
Perceptual	Memorability	Area has a high degree of memorability due to the composition of natural elements, being primarily the distinctive incised geomorphology and the indigenous vegetation within the valley. This also spreads up onto the terrace in places, extending the vegetation's influence as a coherent landscape feature.
Perceptual	Legibility/ Expressiveness	Incised river valley and escarpments along with the indigenous vegetation contrasts with the surrounding simple pastoral land cover causing the Papanui (meaning "big flat") Reserve to be clearly legible in its rural context. Incised valley clearly expressive of the erosive processes that have occurred over time and its mudstone derivation.
Perceptual	Transient	Transient value related to fauna of the forest, as well as the changing presence of waterfalls caused by flood waters corroding the soft rock.
Perceptual	Aesthetic	Scenic quality of the incised stream valley with large of tracts indigenous vegetation create a sense of cohesion, while the visually striking exposed mudstone (papa) cliffs contribute to the vividness of the landscape.
Perceptual	Naturalness	High degree of naturalness resulting from the combination of erosion processes and extent of indigenous vegetation.
Associational	Historical	Early settlers named the reserve as when they saw the surrounding cliffs it reminded them of the dress circle in an opera house.
Associational	Tangata Whenua	Under the Settlement Act the Dress Circle is an area of interest for both Ngāti Apa and Ngāti Hauiti. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/ Recognised	Early settlers gave the area its name because when they saw the surrounding cliffs they were reminded of the dress circle in an opera house. It has featured in AA magazines, is mentioned on the New Zealand Cycle Trail website, is on the Manawatū Scenic Route and is widely known.
Associational	Recreation	A popular swimming and picnic spot for over 100 years. There is also a walking track and is a known geocache site.

Summary of Key Characteristics	High degree of perceived naturalness derived from the expressiveness of the formative processes of the Mangawharariki River incised landform, which contrasts with the surrounding agricultural land use. Areas of indigenous riparian vegetation contribute to the ecological and aesthetic values. An existing high voltage transmission line passes across the Mangawharariki River 250m west of the Dress Circle ONF.
Potential Issues	The steeply incised landform valley system filled with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage loss of native vegetation; discourage establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

Dress Circle Photo 1

Dress Circle Photo 2

Dress Circle Photo 3

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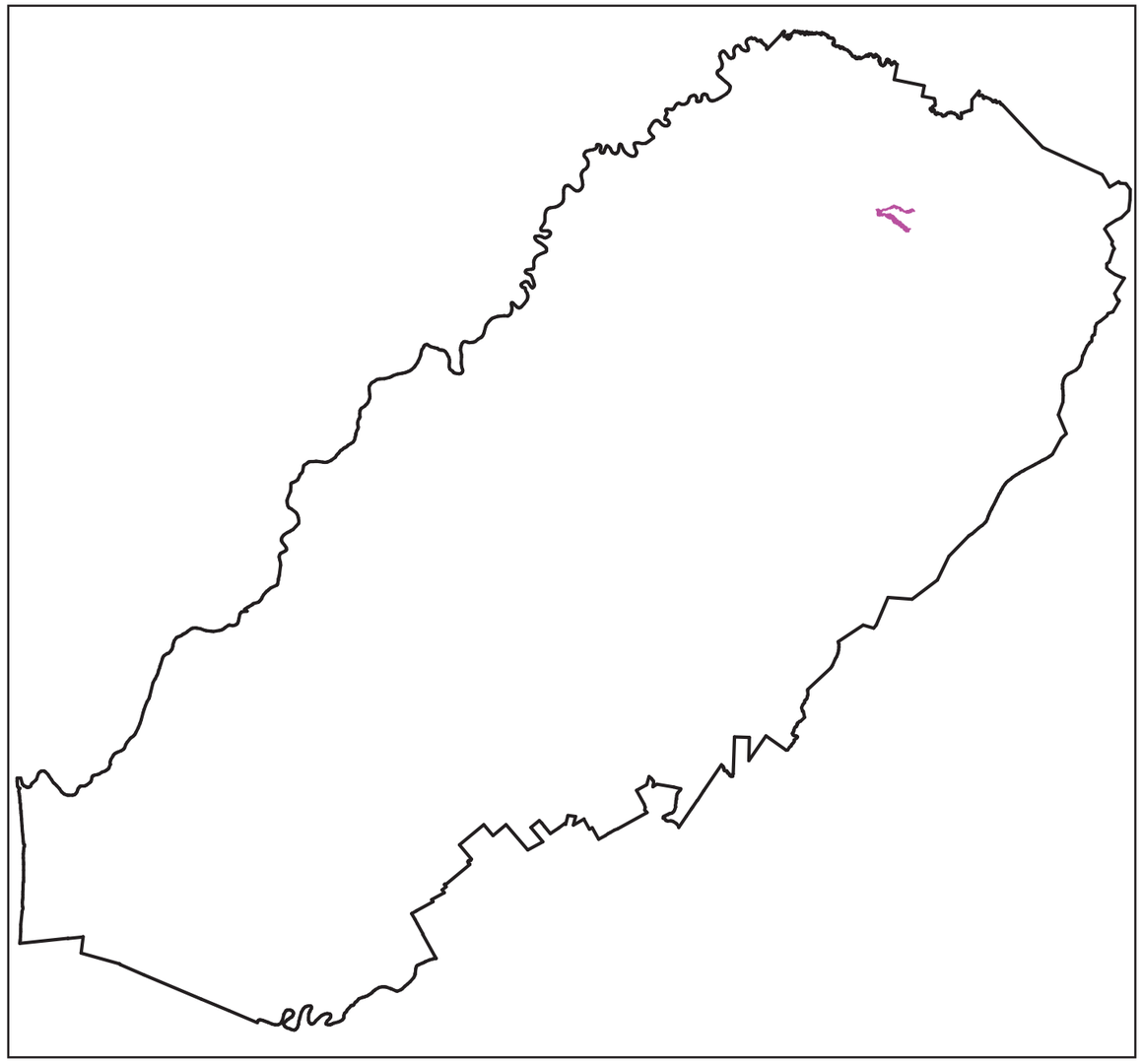
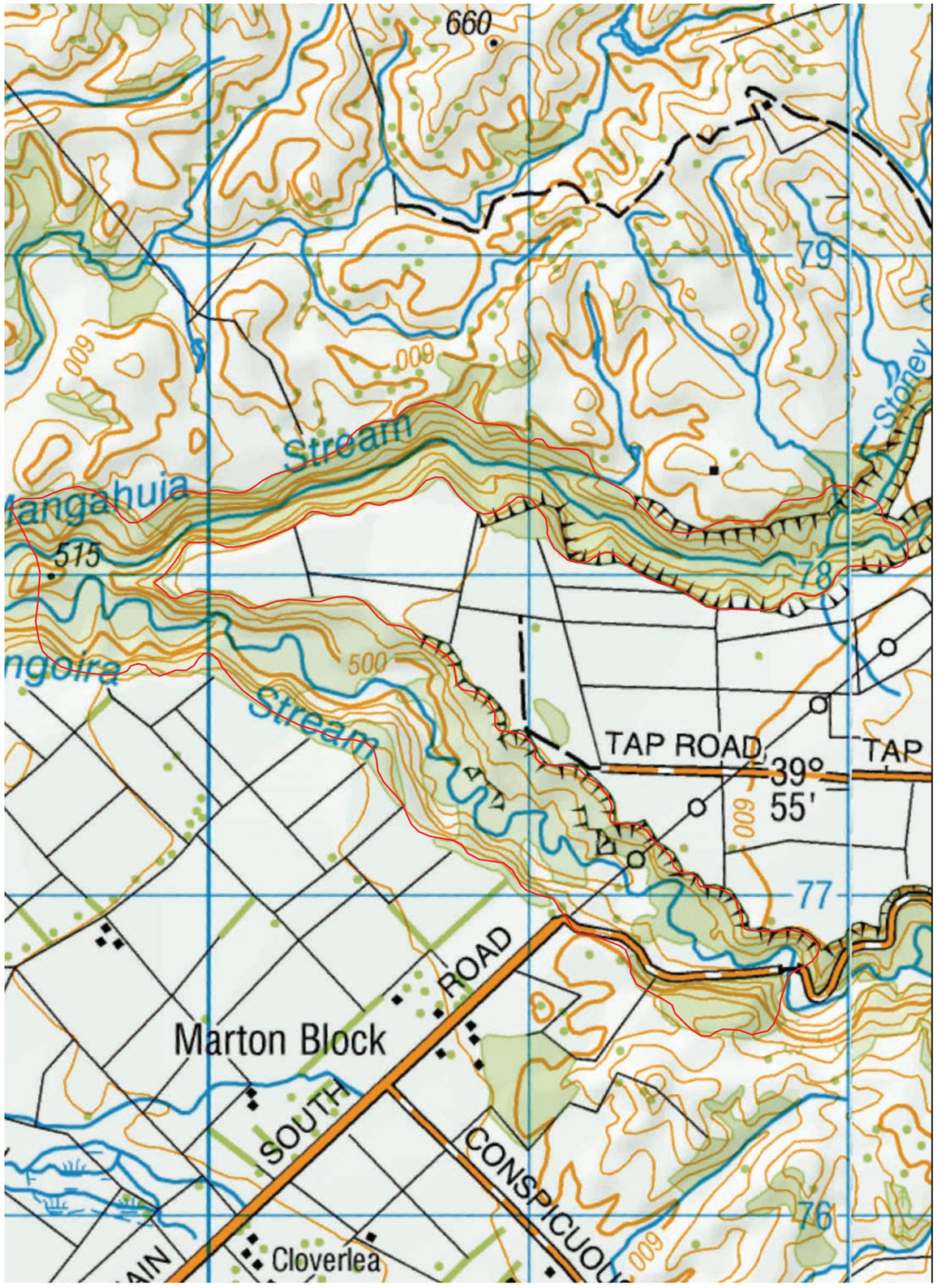
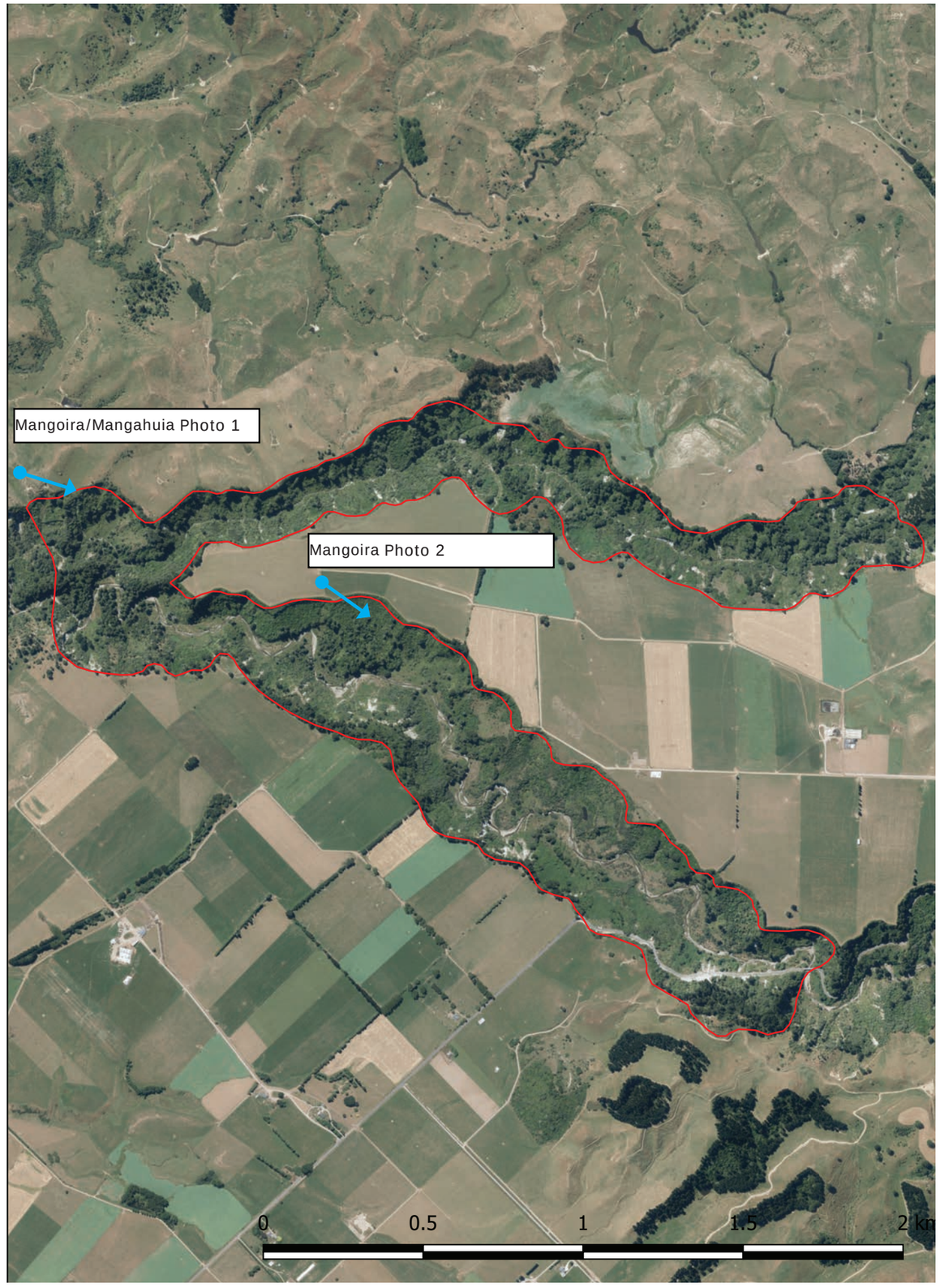
ONFL 7

Mangoira Stream and Mangahuia Stream




660
79
009
009
Stream
Mangahuia
515
78
500
Stream
TAP ROAD
39°
55'
TAP
600
77
ROAD
Marton Block
SOUTH
CONSPICUOUS
600
76
Cloverlea


Mangoira/Mangahuia Photo 1
Mangoira Photo 2
0
0.5
1
1.5
2 km

Name:	Mangoira Stream and Mangahuia Stream
Location:	NZ Topo BL35
Description:	Two incised stream valleys containing native vegetation cover.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Deeply incised stream valleys with steep sided faces and dense vegetation. Representative of the erosion processes of the water catchment area which has cut through soft marine sedimentary layers.
Natural Science	Biological/ Ecological:	Indigenous vegetation enhances ecological value, mauri and water quality. Mangahuia Stream is home to several unique and threatened native fish species, including the rare giant kokopu, banded kokopu, longfin and shortfin eels, inanga, and koura. Vegetation is composed of mixed podocarp-broadleaf forest and scrubland, as well as some sedgeland. Red beech is found along the ridges and represents the main type of tree species. Research completed as part of the 1997 Weed Survey of Scenic Reserves found that there is some evidence of browsing but there is little sign of pressure from pest animals, and a good covering of seedlings is present on the forest floor.
Natural Science	Hydrological	Riparian vegetation maintains water quality from agricultural land runoff and contributes to ecosystem health and movement of mauri through the area.
Perceptual	Memorability	Contrasts to the modified pastoral landscape and is more dramatic than surrounding folded/flattened terrace landforms.
Perceptual	Legibility/ Expressiveness	Highly legible landform features which are expressive of the erosion processes of the stream demonstrated by the steeply incised escarpment.
Perceptual	Transient	Low transient value, although fauna and likely microclimatic conditions in gullies.
Perceptual	Aesthetic	Extensive indigenous vegetation throughout the valley system has a high degree of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape. The combination of indigenous vegetation cover with the incised valley system has significance within the district through their rarity.
Perceptual	Naturalness	Whilst the area is surrounded by a largely modified pastoral landscape, a high degree of degree of perceived naturalness within the gullies is exhibited by the extent of indigenous vegetation remnants and regeneration.
Associational	Historical	Unknown
Associational	Tangata Whenua	Under the Settlement Act the streams are acknowledged as an area of interest for Ngāti Apa and Ngāti Hauiti. Mangahuia means “stream of the huia,” a bird once abundant in the area, while Mangoira translates to “essence of a shark”. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	Unknown
Associational	Recreation	While there are DOC tramping tracks further east upstream, outside of the boundaries of the ONF, there are none within the ONF, limiting public access. Mangoira Stream has been known to be used for riverbed four-wheel driving.

Summary of Key Characteristics	High degree of perceived naturalness derived from the expressiveness of the formative processes of the two incised stream corridors which contrasts with the surrounding terrace landform and agricultural land use. Areas of indigenous gully vegetation contribute to the ecological, aesthetic and water quality values.
Potential Issues	The incised valley systems filled with native vegetation define the feature and contribute to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following was to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

Mangoira/Mangahuia Photo 1

Mangoira Photo 2

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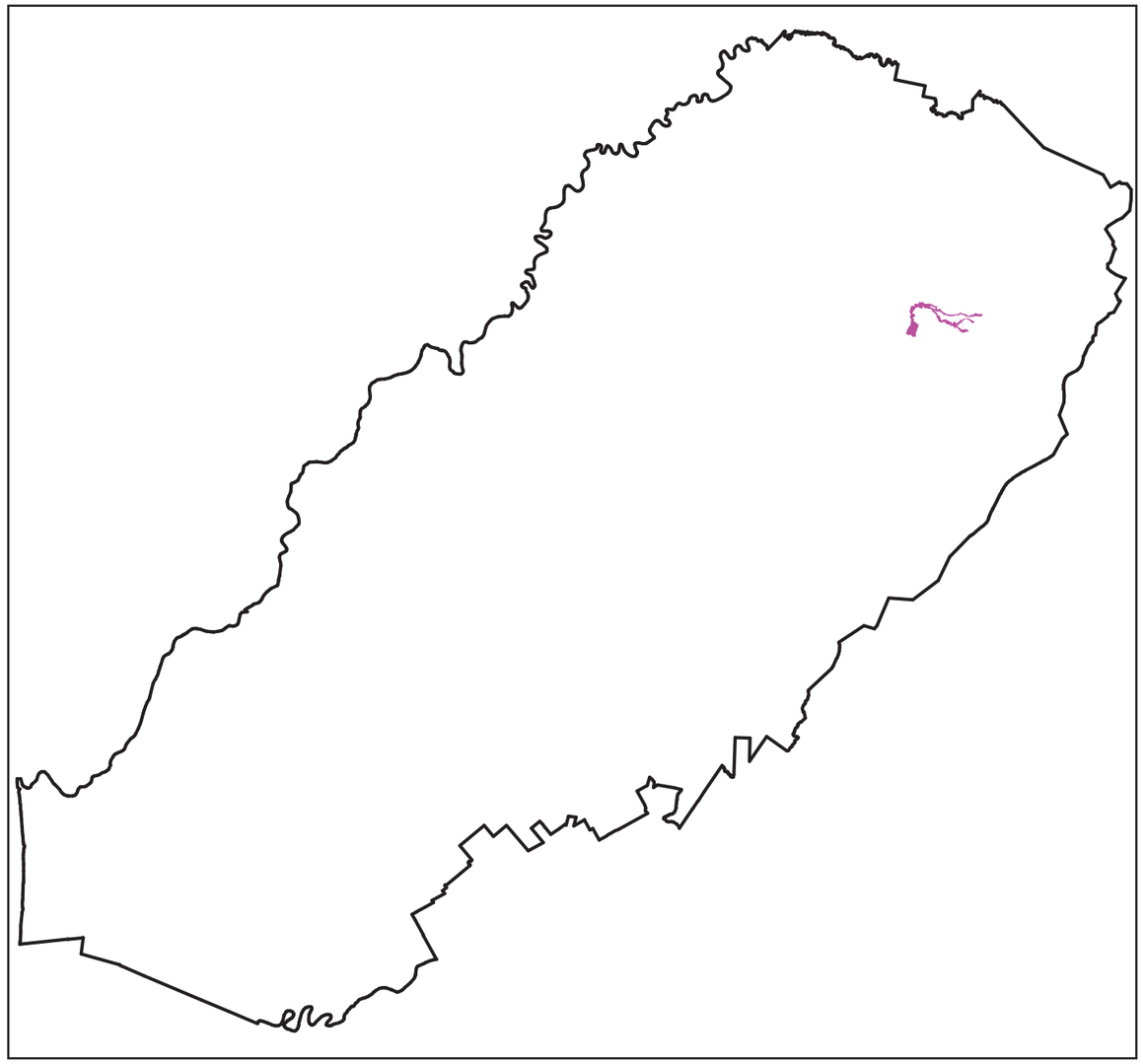
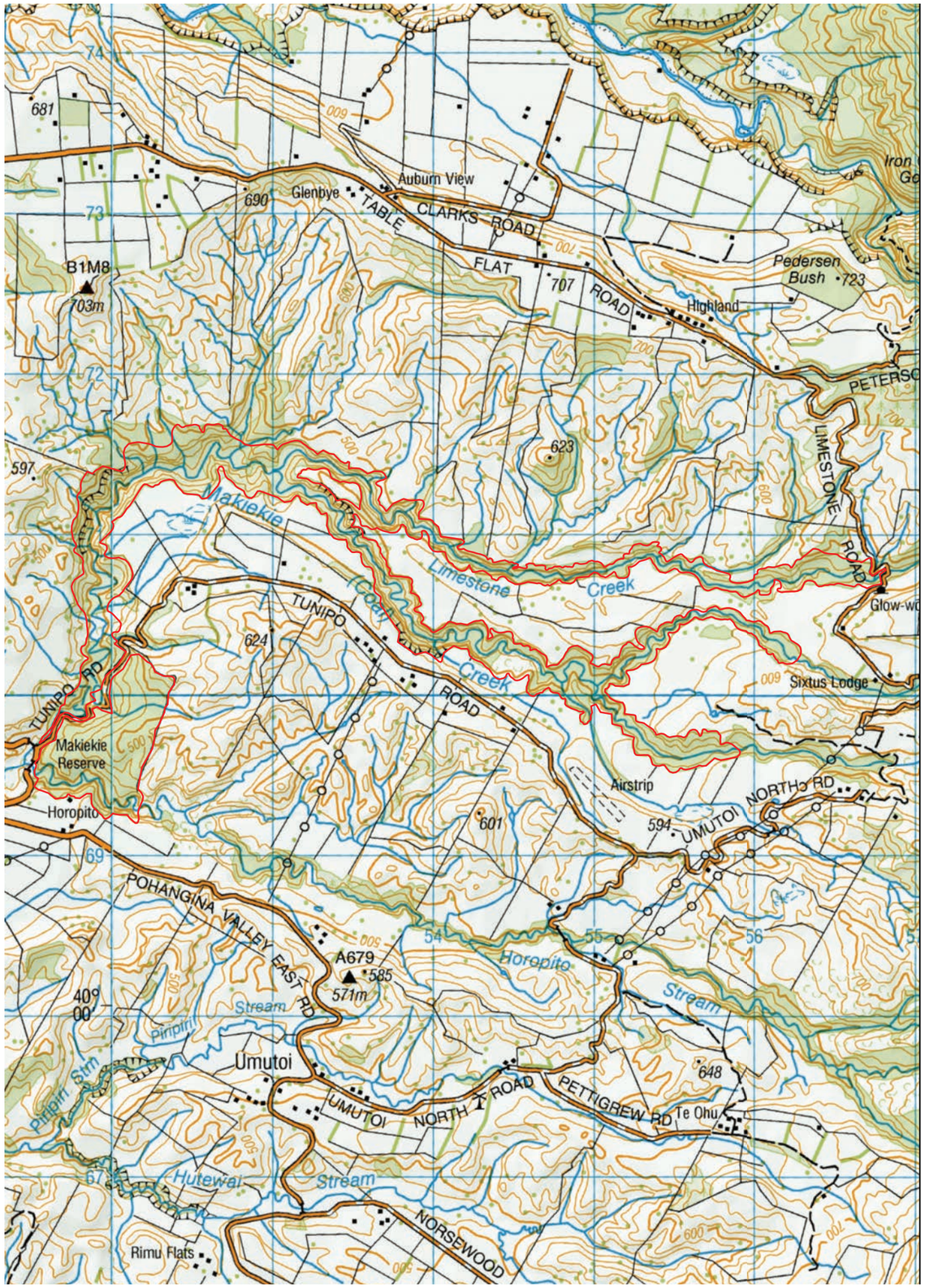
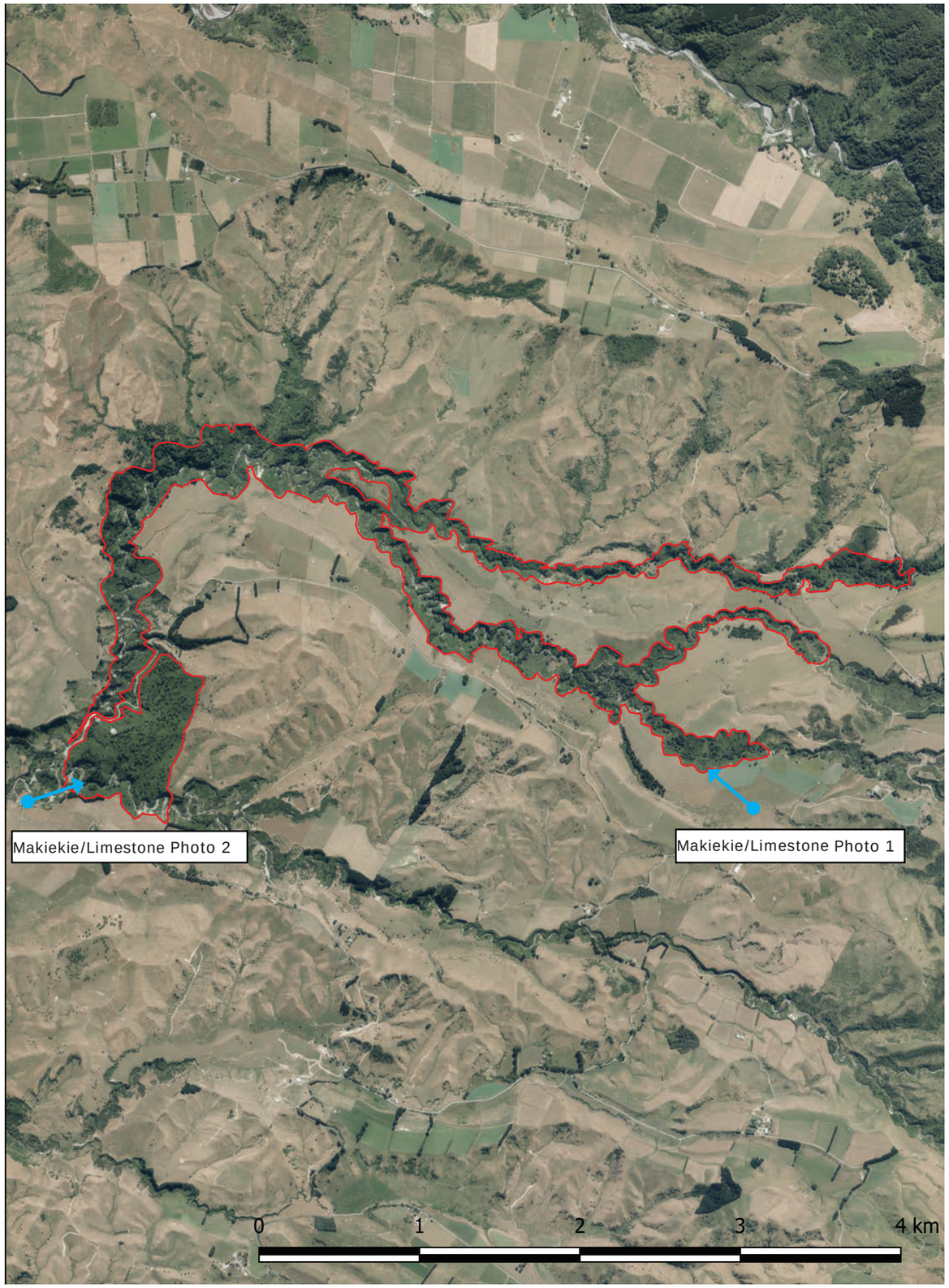
ONFL 8
Makiekie and Limestone Creeks




681
690
Glenbye
Auburn View
TABLE FLAT ROAD
CLARKS ROAD
707
B1M8
703m
Highland
Pedersen Bush
723
623
597
Makiekie
Limestone Creek
TUNIPO ROAD
624
Makiekie Reserve
Horopito
Sixtus Lodge
Airstrip
601
594
UMUTOI NORTH RD
LIMESTONE ROAD
POHANGINA VALLEY EAST RD
A679
585
571m
Horopito Stream
Umutoi
UMUTOI NORTH ROAD
PETTIGREW RD
Te Ohu
648
Hutewai Stream
NORSEWOOD
Rimu Flats


Makiekie/Limestone Photo 2
Makiekie/Limestone Photo 1
0
1
2
3
4 km

Name:	Makiekie and Limestone Creeks
Location:	NZ Topo BL35 & BL36
Description:	Series of deeply incised narrow gorges feeding down from the Ruahine Ranges and culminating in a large area of indigenous lowland forest at Makiekie Reserve. Comprising parts of Limestone Creek (downstream of glow worm caves) and Makiekie (Coal) Creek downstream to Makiekie Reserve. The identified ONF abuts the Ruahine Range ONL at Limestone Road (glow worm caves) but is identified as a separate ONF due to different (river) character compared to Ruahine Range character.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Erosion process of the stream is evident through the creation of steeply incised stream valleys, which are representative of this feature type characteristic of the local area. Relatively small scale when compared to other river valleys within the District which makes them an unusual and unique feature. Strong contrast to the terrace form of the surrounding agricultural land use. This area contains the Glow Worm Caves which are listed in the District Plan (Operative 2002), Appendix 1C(OF2).

Natural Science	Biological/ Ecological:	Indigenous forest remnants in Makiekie Reserve and on the valley sides, which enhances ecological value, increasing ecosystem health and mauri, while also creating a habitat for indigenous and exotic birdlife. The forest includes an interesting mix of conifer and broad-leaf species, as well as beech forest. In the Makiekie Scenic Reserve large rimu and tōtara are plentiful. There are also mature red beech trees up to 35m tall in some places, as well as younger, regenerated stands that have come up following wind damage. Horizons Regional Council recommends Makiekie Creek for trout fishery value in the Manawatū-Wanganui Region. Makiekie Creek was also included in a published research article by Michael K. Joy and Russell G. Death who undertook a biological assessment of rivers in the Manawatū-Wanganui region investing macroinvertebrates.

Natural Science	Hydrological	This ecological system has a catchment which includes the Ruahine Ranges as well as a wide agricultural area and this contributes to the maintenance of water quality and mauri before reaching the Pohangina River then Manawatū River.

Perceptual	Memorability	Memorable due to the contrast between the vegetated hillsides and incised gullies, and the surrounding agricultural land use and terrace landform.

Perceptual	Legibility/Expressiveness	Expressive of the formative geomorphological processes.

Perceptual	Transient	Stream level changes reflective of headwater rains. Deep gorges likely to have some impact on microclimatic conditions, such as creation of mist on colder mornings. Transient value related to fauna of the forest.

Perceptual	Aesthetic	Extensive indigenous vegetation throughout the valley system has a high degree of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in a high scenic quality. The combination of indigenous vegetation cover with the incised valley system has significance within the District through their rarity and is an excellent example of indigenous lowland forest.

Perceptual	Naturalness	High degree of perceived naturalness exhibited by the formative process and indigenous vegetation cover.

Associational	Historical	Unknown.

Makiekie/Limestone Photo 1

Makiekie/Limestone Photo 2

Associational	Tangata Whenua	Under the Settlement Act the Makiekie and Limestone Creeks are an area of interest to Ngāti Apa, Rangitāne o Manawatū, and Ngāti Hauiti. Ngāti Kahungunu are also acknowledged in relation to the area under the Settlement Act and Ōroua Declaration. Makiekie Creek was also a source of vivianite, a mineral that was used as a blue pigment for the face painting of warriors for battle. This was the only source for Rangitāne o Manawatū and so was of military significance. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.

Associational	Shared/ Recognised	Sixtus Lodge located just east of ONF, is used by school groups who often use the local tracks for outdoor recreation. While Glow Worm caves located under Limestone Road are at the eastern edge of ONF. Includes the Makiekie Scenic Reserve, recognised for its ecological and scenic values, which is also located along the Manawatū Scenic Route. Recognised on the AA Traveller website.

Associational	Recreation	Forms part of a tramping route, Deerford Track to Makiekie Creek which is used for both walking and hunting.

Summary of Key Characteristics	High degree of perceived naturalness derived from the expressiveness of the formative processes and extent of indigenous vegetation which contrasts with the surrounding terrace landform and agricultural land use. Areas of indigenous riparian vegetation contribute to the ecological and water quality values.

Potential Issues	The incised valley system with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

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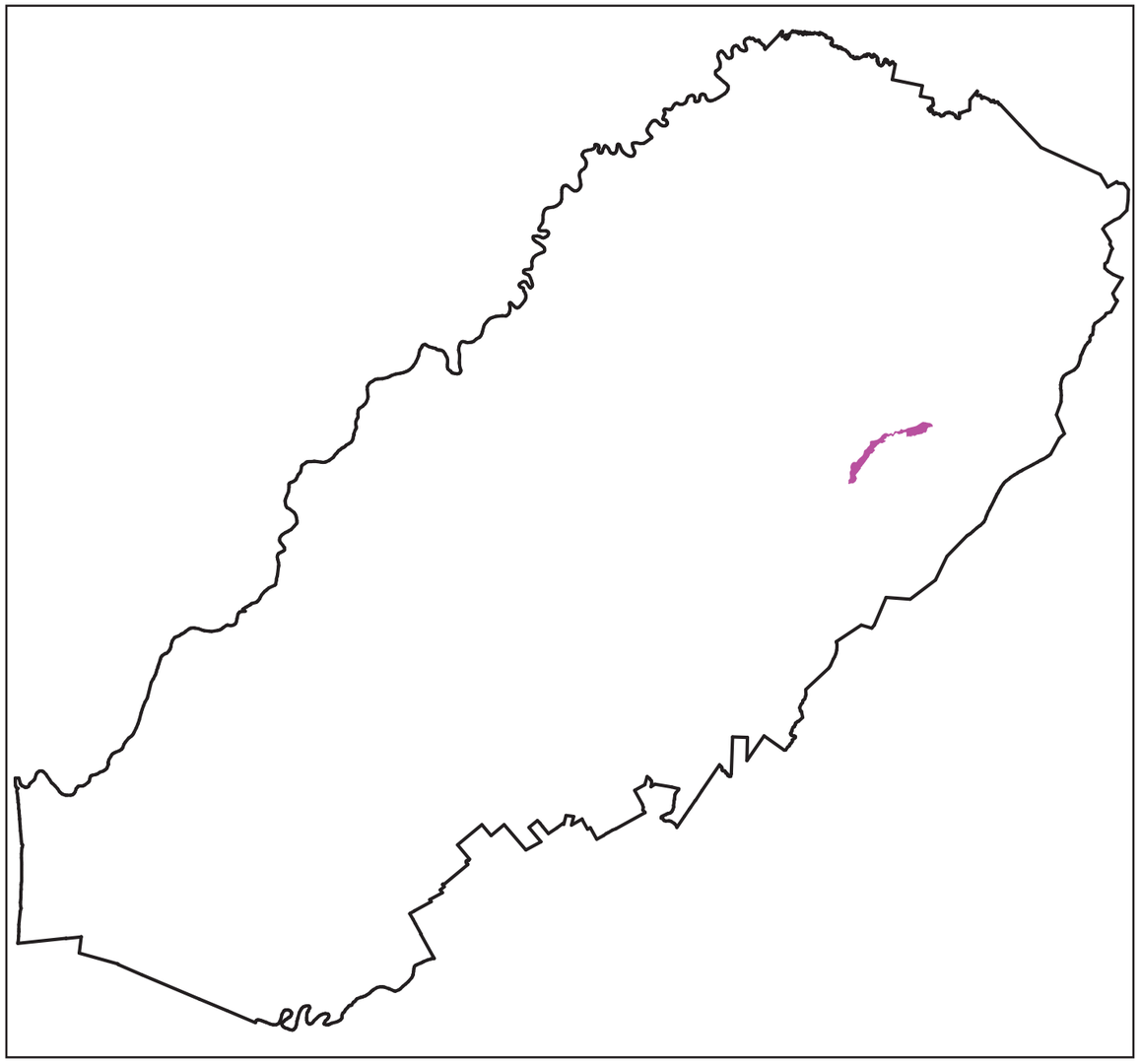
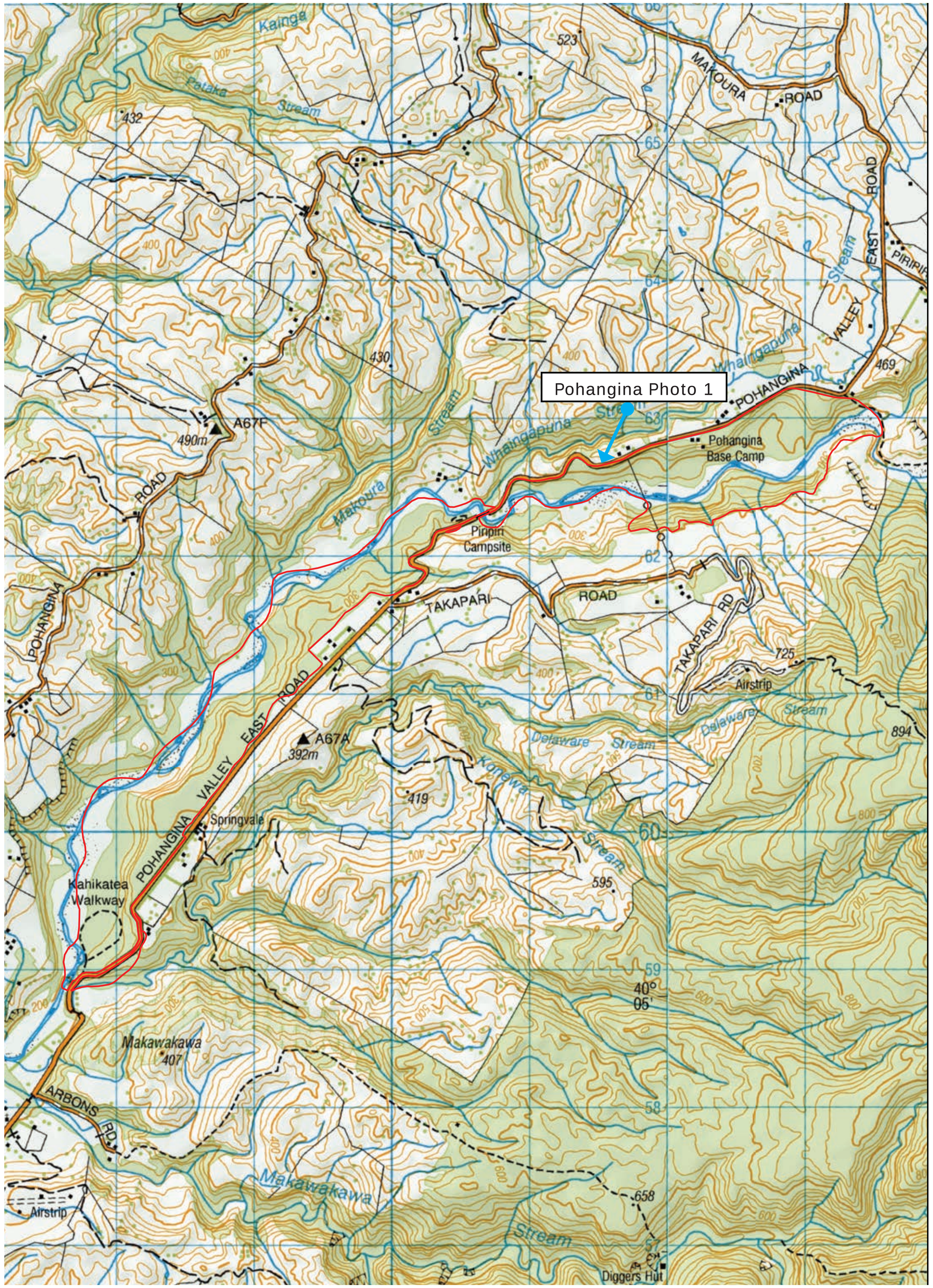
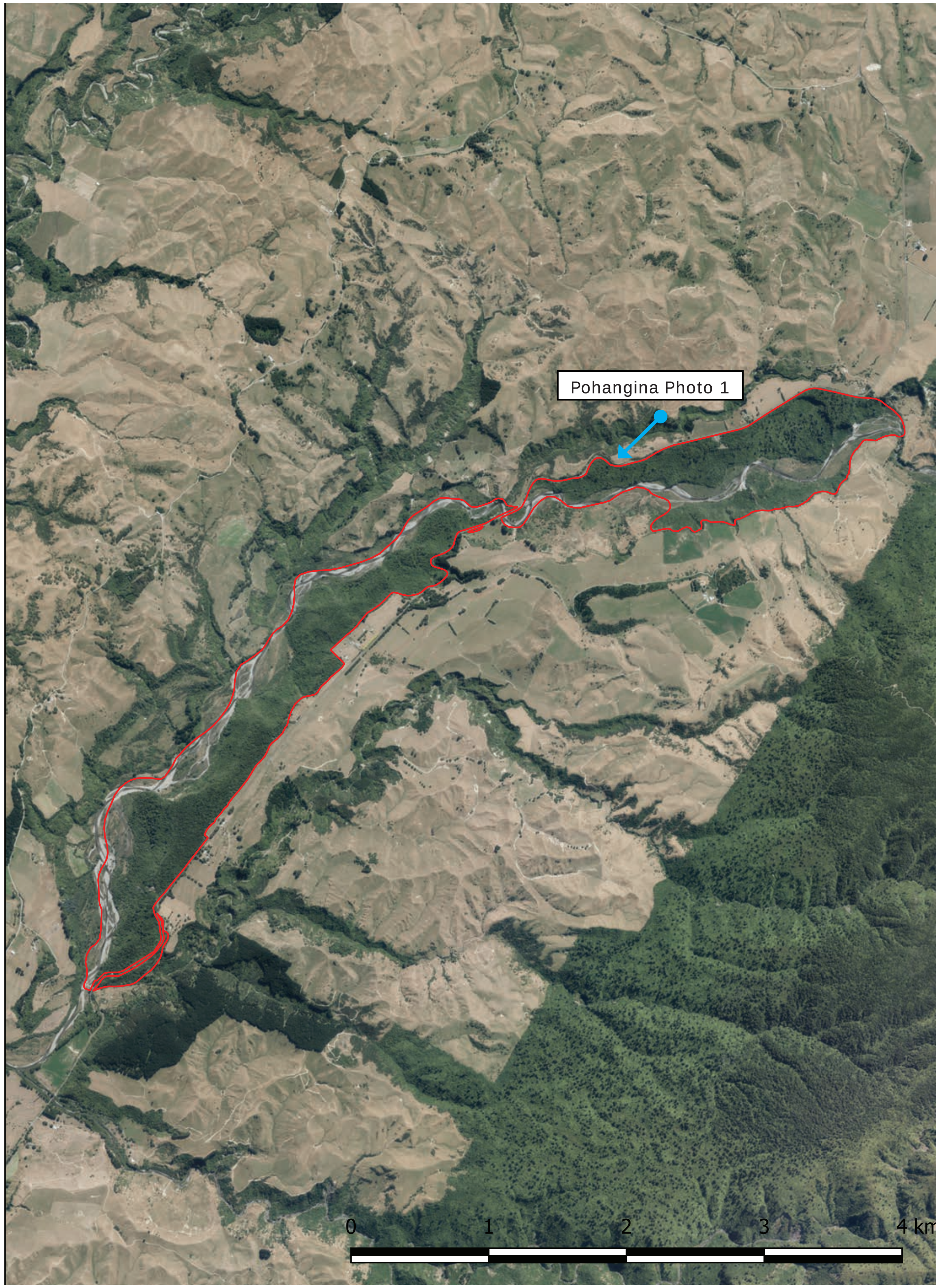
ONFL 9
Upper Pohangina River




Pohangina Photo 1
Pohangina Base Camp
Piripiri Campsite
TAKAPARI
ROAD
TAKAPARI RD
Airstrip
POHANGINA VALLEY EAST ROAD
Springvale
Kahikatea Walkway
A67F
490m
A67A
392m
Makawakawa
407
ARBONS RD
Airstrip
Diggers Hut
MAKOURA ROAD
Delaware Stream
Komako Stream
Makawakawa Stream
Whaingapuna Stream
Makoura Stream
Pataka Stream
Kainga


Pohangina Photo 1
0
1
2
3
4 km

Name:	Upper Pohangina River	
Location:	NZ Topo BL35 & BL36	
Description:	An area of native forest adjacent to the Pohangina River.	
ONL/ONF/SAF:	Outstanding Natural Feature	
Natural Science	Geological/ Geomorphological:	Erosion process of the river is evident through the creation of a river valley and terrace.
Natural Science	Biological/Ecological:	Large stretch of indigenous flora and fauna habitat representative of what would have once been throughout the Pohangina Valley and reflective of the area's mauri. Vegetation is dominated by kahikatea forest in the wetter areas and tōtara forest in the drier areas. In parts these kahikatea are mature and large in size,with kahikatea of this size being rare. The Pohangina River is considered to have a valuable trout fishery resource as well as a number of native fish species including bullies, kōkopu, brown mudfish and eels. Pohangina River provides educational opportunities, including the study of macroinvertebrate and physiochemical river composition studies (such an investigation by students at Piripiri was led by freshwater ecology scientist Dr Alex James through the PTC Trust).
Natural Science	Hydrological	Indigenous forest cover protects water quality, enhancing ecosystem health and mauri of the water. The Pohangina River is one of the Manawatū River's main tributaries. The river originates in the western foothills of the Ruahine Range and flows close to the range until it merges with the Manawatū River at the western end of Te Āpiti.
Perceptual	Memorability	Area has high memorability as a large stand of dense indigenous vegetation adjacent to the braided Pohangina River. Bold form of the Podocarp trees rising up out of the native bush is striking.
Perceptual	Legibility/Expressiveness	The extent of indigenous vegetation is sufficient to be clearly legible as a remnant forest area typical of that which would have once been predominant throughout the Pohangina Valley.
Perceptual	Transient	Fluctuations in river level and some flooding is likely. Transient values related to fauna of the forest. Pohangina Valley tends to get a lot of cloud and has its own microclimate, being close to the foothills of the Ruahine Range, thus, the very climate itself gives a separate identity to the area.
Perceptual	Aesthetic	High aesthetic appeal due to the extent of unmodified indigenous vegetation along the margin of the river which provides a high sense of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in a high scenic quality.
Perceptual	Naturalness	High degree of perceived naturalness within the defined ONF exhibited by the vegetation cover which typically extends from the river's edge to the top of the first river escarpment.
Associational	Historical	Surrounding area was cleared for farming and timber, meaning this area has value in being a remnant of what vegetation once covered the region.
Associational	Shared/Recognised	The river runs along the Manawatū Scenic Route, which is an alternative to SH1 and allows travellers to discover stunning scenery.
Associational	Tangata Whenua	Under the Settlement Act, the Upper Pohangina River is an area of interest for both Ngāti Apa and Rangitāne o Manawatū. Ngāti Kahungunu are also acknowledged under the Settlement Act and Ōroua Declaration in relation to the area. During the 19th century Māori occupation sites along the Pohangina River were frequent. The river provided plentiful supplies of food sources (particularly eels) as well as easily navigable routes. Dense surrounding forest also supplied quantities of birds and berries. Rangitāne o Manawatū traditionally collected hinau, rata and hebe berries for food resources, along with other selected native trees. The Pohingina River is of historical, cultural, spiritual and traditional significance to Rangitāne o Manawatū. Through Rangitāne o Manawatū traditions such as waiata, korero and whakairo. A battle occurred between Rangitāne o Manawatū and a neighbouring iwi who crossed the Ruahine Range via Te Ahu a Turanga and entered the Pohangina Valley. The battle was known as "Te Wai Whakatane o Ngāti Kahungunu," which translates to the battle title "the water where the blood of Ngāti Kahungunu was made to flow". The area and river mean 'ulcerated night', 'Po' meaning night and 'hanga' meaning ulcerated. This suggests that the valley had been a place where bloodshed had occurred between Rangitāne o Manawatū and their enemies. Thus, this was a place of darkness and there was a degree of fear attached to the area because of bloodshed. The second level of meaning was the very ulcerated or dissected nature of the landscape itself, lots of little streams with valleys cutting down in to the area.
Associational	Recreation	Public walking tracks and camping grounds contained within the reserve. Within the ONF there is the DOC Pohangina Base and Piripri campsites. There is good trout fishing and hunting upstream of the Piripiri campsite. A scenic four-wheel drive opportunity is also available on the nearby Takapari Road. At the southern end of the ONF there is the DOC 'Kahikatea Walk' which provides an easy walking opportunity, that is suitable for both young and old, to experience the broad-leaf forest.
Summary of Key Characteristics	Landform with an extensive indigenous forest from the valley floor to the top of the river terrace. Composition of the vegetated escarpments adjacent to the watercourse hold high levels of perceived naturalness, which contrasts with the surrounding productive farmland. Pohangina Valley East Road passes through the area, as does have a pole transmission line.	
Potential Issues	The extent of native vegetation and enclosure within the valley defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.	

Pohangina Photo 1

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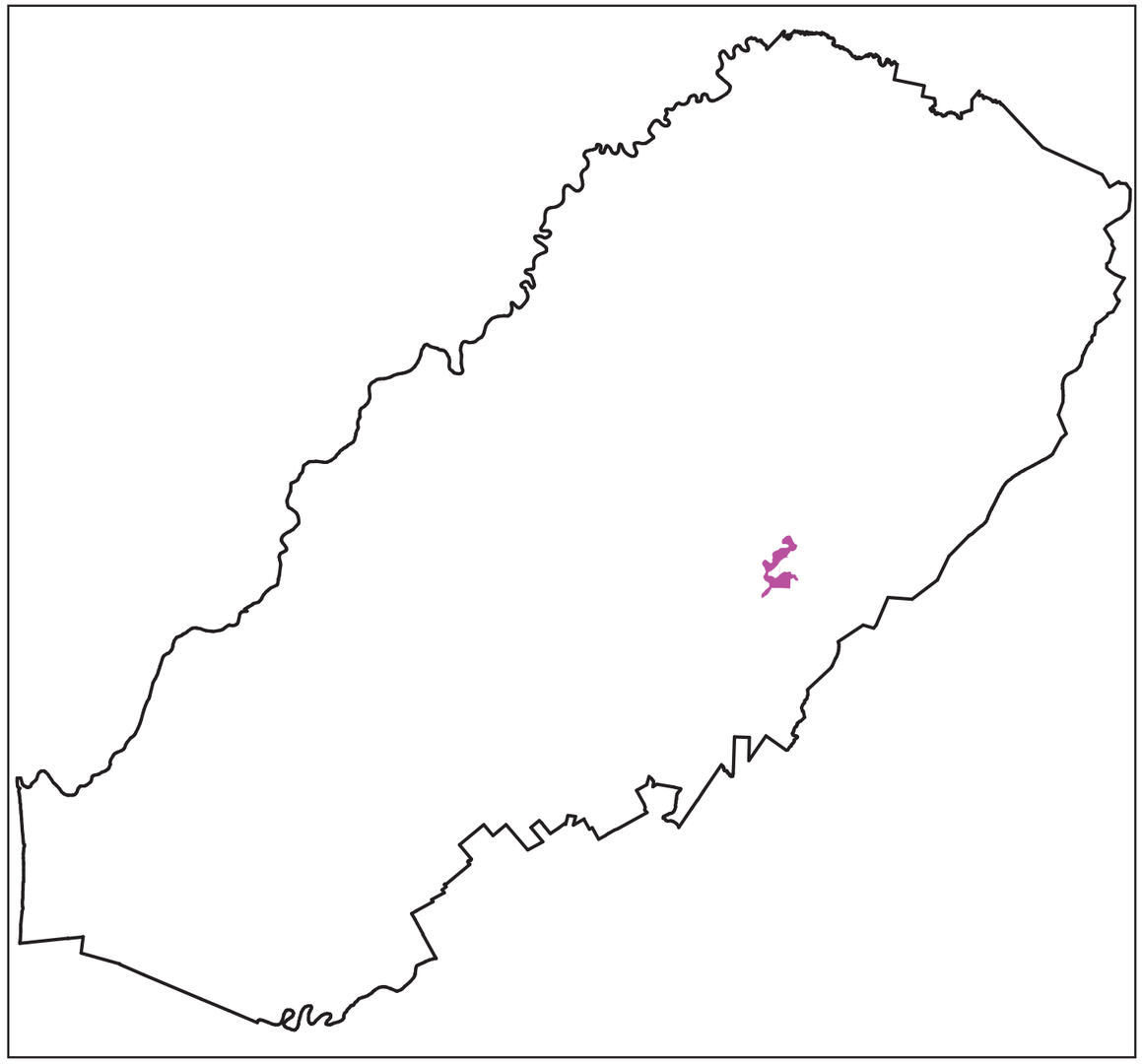
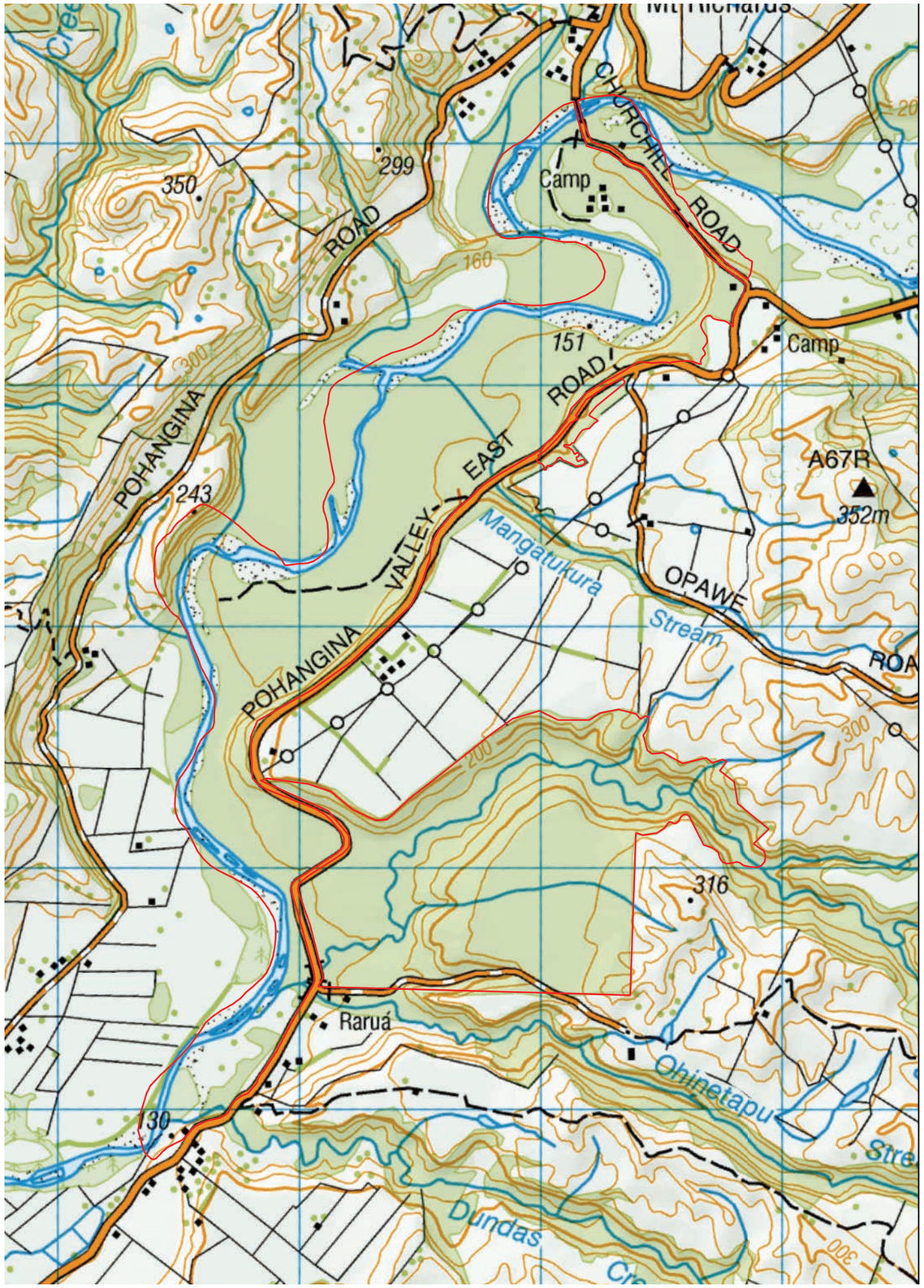
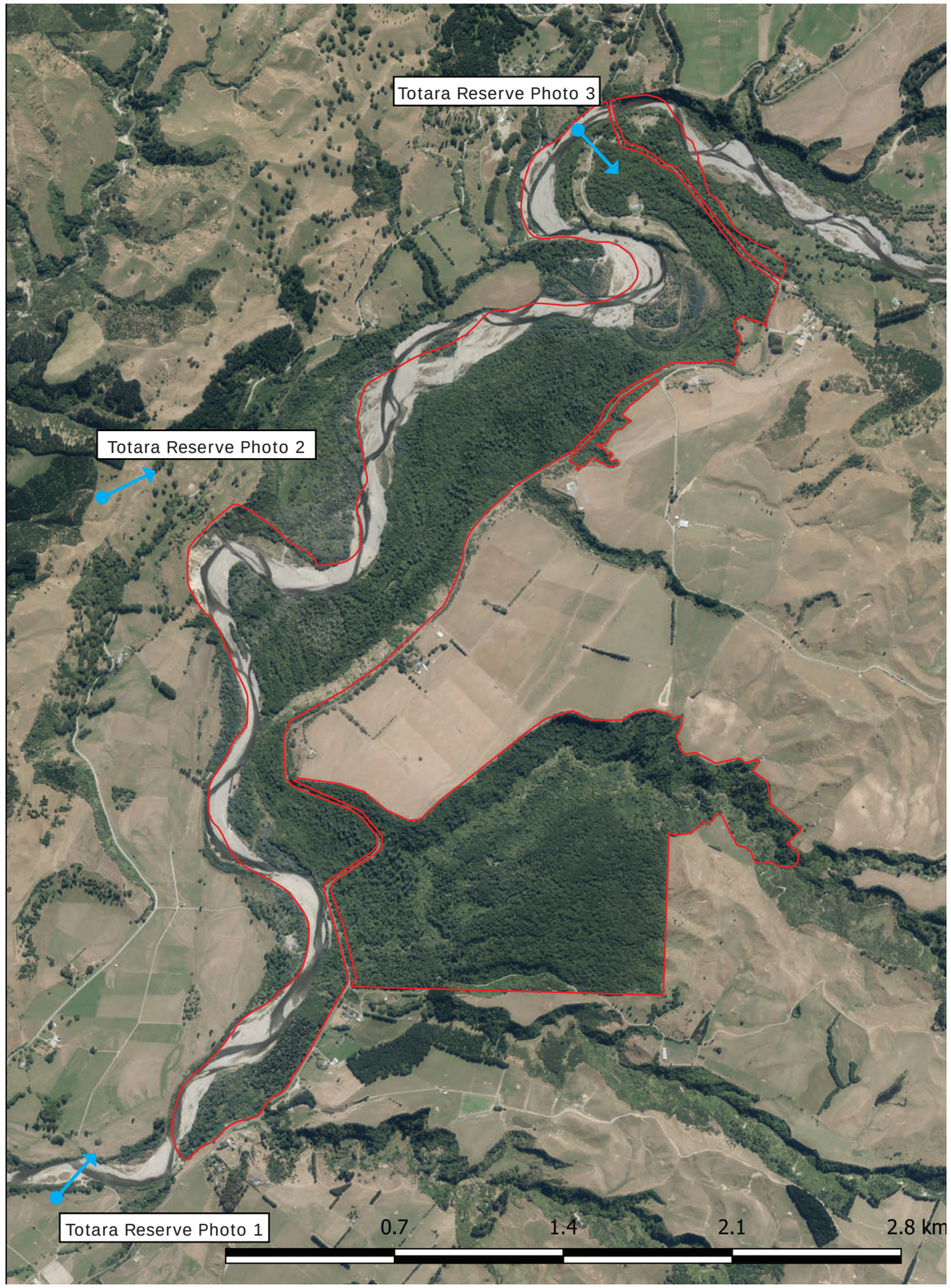
ONFL 10
Totara Reserve (Including Regional Park)




Mt Richards
CHURCHILL
ROAD
Camp
299
350
160
151
ROAD
Camp
POHANGINA
ROAD
300
243
EAST
VALLEY
A67R
352m
Mangatukura
Stream
OPAWE
ROA
POHANGINA
200
300
316
Raruá
Ohinetapu
30
Dundas
300


Totara Reserve Photo 3
Totara Reserve Photo 2
Totara Reserve Photo 1
0.7
1.4
2.1
2.8 km

Name:	Tōtara Reserve (including Regional Park)
Location:	NZ Topo BL 35
Description:	A Regional Park Scenic Reserve of approximately 350ha of native forest adjacent to the Pohangina River.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Erosion process of the river is evident through the creation of a river valley and terrace which scours the adjacent cliffs. The cliffs adjacent to the Pohangina River in the Tōtara Reserve are made of ancient, weakly consolidated, weathered river gravels with sparse consolidated silt (Turitea Formation, about a million years old).

Natural Science	Biological/Ecological:	Large stretch of indigenous flora and fauna habitat representative of what would have once been throughout the Pohangina Valley. The reserve is a much-prized area of bush with podocarp forest covering hills and valleys and is a rare remnant of lowland forest in the Manawatū District, reflecting the mauri of this area. It is a healthy ecosystem and is considered the finest forest remnant in the Manawatū Ecological District (Manawatū Plains Ecological District – PNA Report – June 1995). It is a valuable ecosystem habitat for many indigenous species of plant of bird species. Predominant trees include tōtara, mātai, rimu and kahikatea. Specifically, vegetation is dominated by kahikatea forest in the wetter areas and tōtara forest in the drier areas. There are also some black beech trees and tree ferns. Native birds in the reserve include tui, fantail, waxeye, morepork, bellbird, kingfisher, and kererū. The Pohangina River is considered to have a valuable trout fishery resource as well as a number of native fish species including bullies, kōkopu, brown mudfish and eels. The diverse ecology of the area provides an educational opportunity for nature studies. Horizons Regional Council have installed wētā hotels in the reserve to demonstrate the lack of predators in the park and are part of on-going research by biodiversity and ecologist employees at the Council.

Natural Science	Hydrological	Pohangina River flows along the western edge of Tōtara Reserve Regional Park and is prone to flooding. Flooding was traditionally celebrated by Māori as a means of spreading mauri through the landscape. The river has a low gradient in the reserve and a gentle flow which travels through a series of pools and riffles on a fine gravel bed.

Perceptual	Memorability	Area has high memorability as a large stand of mature dense indigenous vegetation adjacent to the braided Pohangina River. Bold form of the mature Podocarp trees rising up out of the native bush is striking.

Perceptual	Legibility/Expressiveness	The extent of indigenous vegetation is sufficient to be clearly legible as a remnant forest area typical of that which would have once been predominant throughout the Pohangina Valley.

Perceptual	Transient	Fluctuation in river level and some flooding is likely. Transient values related to fauna of the forest. Pohangina Valley tends to get a lot of cloud and has its own microclimate, being close to the foothills of the Ruahine Range. For this reason, the very climate itself gives a separate identity to the area.

Perceptual	Aesthetic	High aesthetic appeal due to the extent of unmodified indigenous vegetation along the margin of the river which provides a high sense of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in a high scenic quality.

Perceptual	Naturalness	High degree of degree of perceived naturalness exhibited by the vegetation cover which typically extends from the river's edge to the top of the first river escarpment.

Totara Reserve Photo 1

Totara Reserve Photo 2

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Associational	Tangata Whenua	Under the Settlement Act, the Upper Pohangina River is an area of interest for both Ngāti Apa and Rangitāne o Manawatū. During the 19th century Māori occupation sites along the Pohangina River were frequent. The river provided plentiful supplies of food sources (particularly eels) as well as easily navigable routes. Dense surrounding forest also supplied quantities of birds and berries. Rangitāne o Manawatū traditionally collected hinau, rata and hebe berries for food resources, along with other selected native trees. The area was also known for a specific type of tōtara which could only be found in this place. The trees were used by Rangitāne o Manawatū to create waka and were prized for their strength, length, and straightness of bough. The Pohingina River is of historical, cultural, spiritual and traditional significance to Rangitāne o Manawatū. Through Rangitāne o Manawatū traditions such as waiata, korero and whakairo. A battle occurred between Rangitāne o Manawatū and a neighbouring iwi who crossed the Ruahine Range via Te Ahu a Turanga and entered the Pohangina Valley. The battle was known as "Te Wai Whakatane o Ngāti Kahungunu," which translates to the battle title "the water where the blood of Ngāti Kahungunu was made to flow." The area and river mean 'ulcerated night', 'Po' meaning night and 'hanga' meaning ulcerated. This suggests that the valley had been a place where bloodshed had occurred between Rangitāne o Manawatū and their enemies. Thus, this was a place of darkness and there was a degree of fear attached to the area because of bloodshed. The second level of meaning was the very ulcerated or dissected nature of the landscape itself, lots of little streams with valleys cutting down in to the area.

Totara Reserve Photo 3

Associational	Historical	Surrounding area was cleared for farming and timber in the late 1860s, meaning this reserve has value in being a remnant of vegetation that once covered the region. In 1886 the reserve was set aside for state forest purposes, being originally preserved for its timber. When state forest status was cancelled in 1946 the land was declared a recreation reserve and was prized for its scenic values at a time when lowland forest elsewhere in the Manawatū had all but vanished. In 1975 this status was changed from recreation to scenic. It is a popular camping area. The first camping in the area took place in the 1920s at what was originally called the Pohangina Boys' Camp. Established by the YMCA, the site is now known as Camp Rangi Woods after YMCA general secretary Charles "Rangi" Woods and is in farmland at the northern end of the reserve. Today Tōtara Reserve is co-governed by Rangitāne o Manawatū and HRC.

Associational	Shared/Recognised	Popular camping ground easily accessible from Palmerston North and Manawatū Districts. Administered by the Horizons as a Regional Park. Council interest in Tōtara Reserve is due to the ecological significance and recreational importance of the area. It is used by a wide range of visitors from Feilding and Palmerston North including school groups, scouts, guides and army platoons, as well as casual visitors. The reserve is also along the Manawatū Scenic Route, which is an alternative to SH1 and allows travellers to discover stunning scenery. The Totara Reserve Management Plan is in place and provisions should allow for implementation of this despite its identification as an ONF.

Associational	Recreation	Public walking tracks, picnic areas, fishing, swimming holes, and camping grounds are contained within the reserve. One of these walks includes the 'Fern Walk', which was developed to encourage Manawatū residents and visitors to the Region to venture into the outdoors. Maintenance and improvement of these facilities should be encouraged.

Summary of Key Characteristics	Coherence of indigenous vegetation cover of the landform from the valley floor to the top of the river terrace. High level of perceived naturalness due to the composition of the vegetated escarpments adjacent to the watercourse which contrast with the surrounding productive farmland. Popular camping and visitor area. A natural feature that is easily accessible by the public thereby enhancing public appreciation of natural features. Maintenance of tracks and public facilities should be facilitatedand not discouraged through the planning process.

Potential Issues	The valley floor and terraces filled with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational recreational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; • discourage the establishment of exotic vegetation; • discourage adverse effects on cultural values; • discourage earthworks; and • restrict built development.

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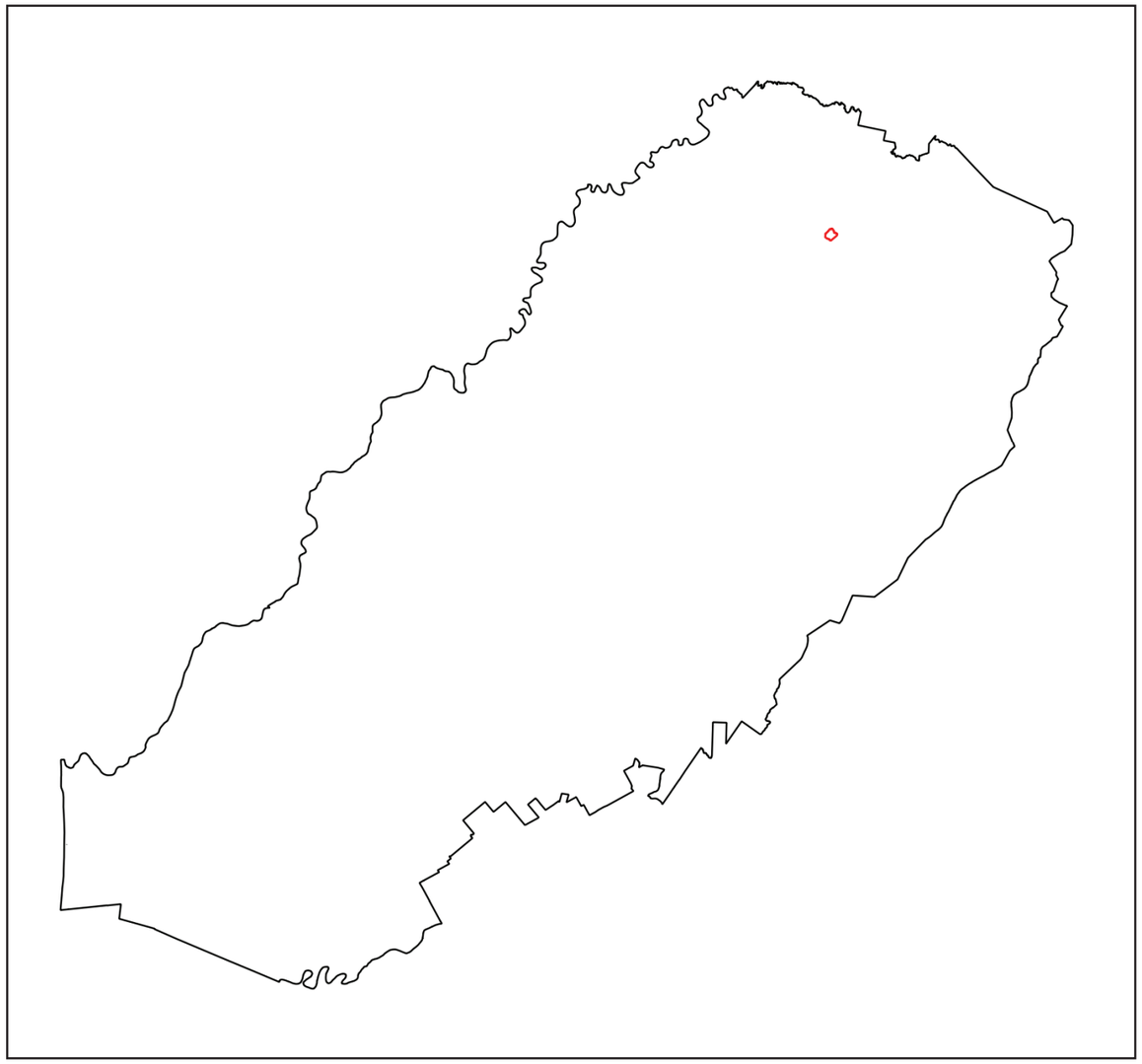
ONFL 11

Rangiwahia (Including Scenic Reserve)




Sch
Hall
Rangiwahia
Rangiwahia
Reserve
634


Rangiwahia Photo 1
0
0.2
0.4
0.6
0.8 km

Name:	Rangiwahia (including Scenic Reserve)
Location:	NZ Topo BL35 & BL36
Description:	Area of original podocarp forest left untouched by the early settlers with the intention that it would provide a water catchment for the growing local town. Rangiwahia Scenic Reserve covers approximately 50ha. Rangiwahia ONF extends over the area of native vegetation (not the town). It is larger but encapsulates the Scenic Reserve, thus the name.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Representative of a typical part of the rolling to steep hill country of the upper Ōroua River Valley, with the flat valley of Rangiwahia Township to the north.

Natural Science	Biological/Ecological:	Indigenous forest remnant of over 50ha in the Rangiwahia Scenic Reserve with very high ecological values and mauri, and represents the historic land cover of the area. Reserve provides habitat for indigenous and exotic birdlife. Untouched, virgin podocarp forest with mature species including rimu, miro, mātai, maire, kahikatea, rewarewa and several species of rata. This diversity of large forest species illustrates the reserve's healthy ecosystem and make it a rare feature in the largely deforested surrounding landscape, as well as a unique area for research and education.

Natural Science	Hydrological	Uniquely, this ecological system was set aside as a water catchment for the growing town in Rangiwahia by the early settlers. Surrounded by agricultural land use, with waters flowing into the Kiwitea Stream to the north and the Ōroua River to the south, with both joining together at Feilding.

Perceptual	Memorability	Memorable due to the strong contrast between the dense and tall original indigenous vegetated reserve and the surrounding agricultural land use.
Perceptual	Legibility/Expressiveness	Expressive of the indigenous vegetation that once covered the entire district.
Perceptual	Transient	Transient value related to fauna of the forest.
Perceptual	Aesthetic	Extensive indigenous vegetation throughout the reserve has a high degree of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in a high scenic quality. The quality of indigenous vegetation cover has significance within the district through their rarity and is an excellent example of indigenous lowland forest.
Perceptual	Naturalness	High degree of naturalness exhibited by the indigenous vegetation cover.
Associational	Historical	Set aside as a water catchment for supplying the original village of Rangiwahia around 1860.
Associational	Tangata Whenua	Under the Settlement Act the reserve is an area of interest for Ngāti Apa, Rangitāne o Manawatū, and Ngāti Hauiti. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	Focus of tracking and tree naming work by keen locals and supported by a grant from the Fonterra Grass Roots Fund.
Associational	Recreation	Walking tracks marked through the reserve for local recreation. It is also a known geocache site.

Summary of Key Characteristics	High degree of perceived naturalness derived from extent of indigenous vegetation which contrasts with the surrounding agricultural land use. The indigenous vegetation contributes to the ecological and water quality values.
Potential Issues	The extensive and continuous expanse of native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

Rangiwahia Photo 1

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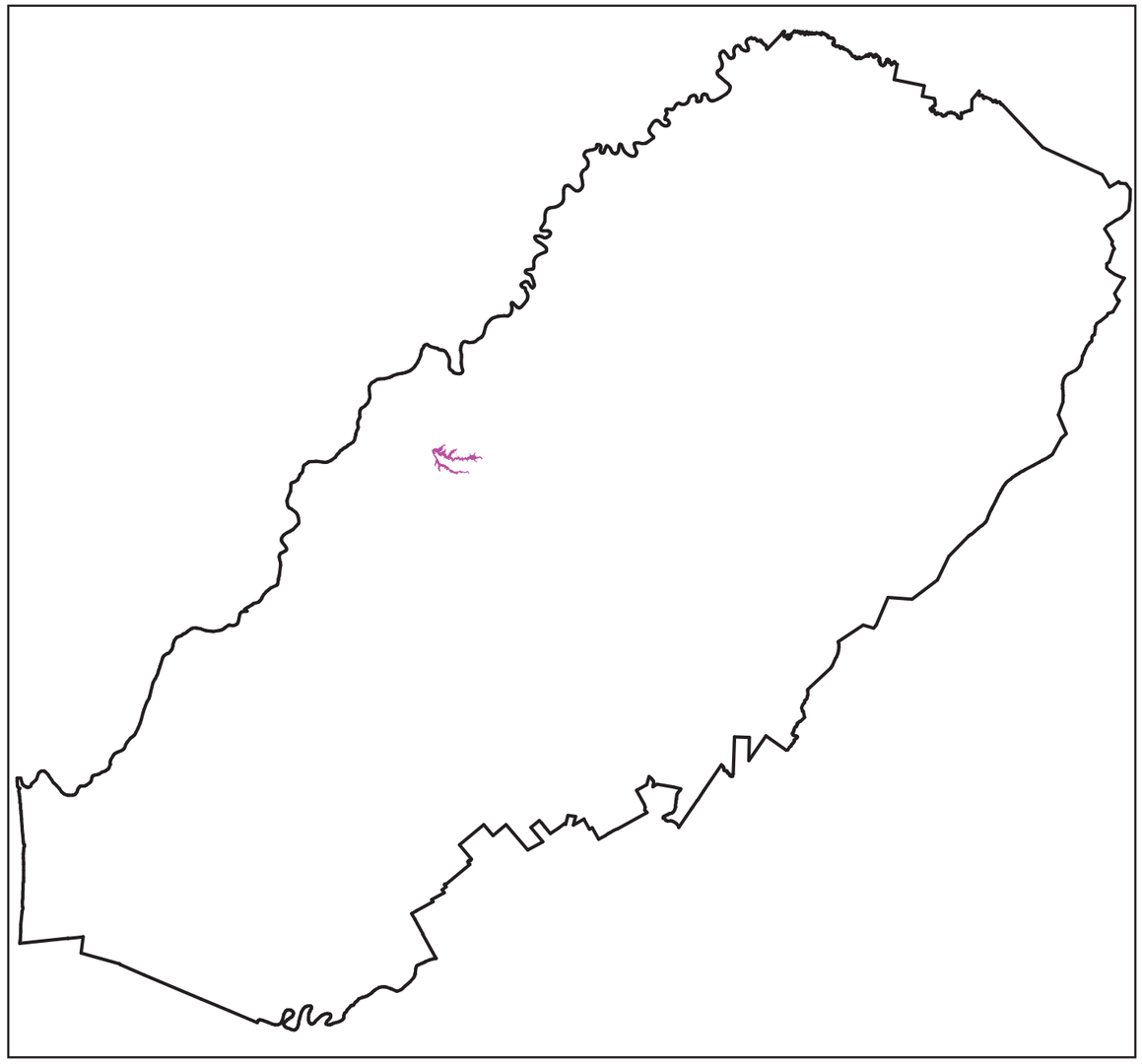
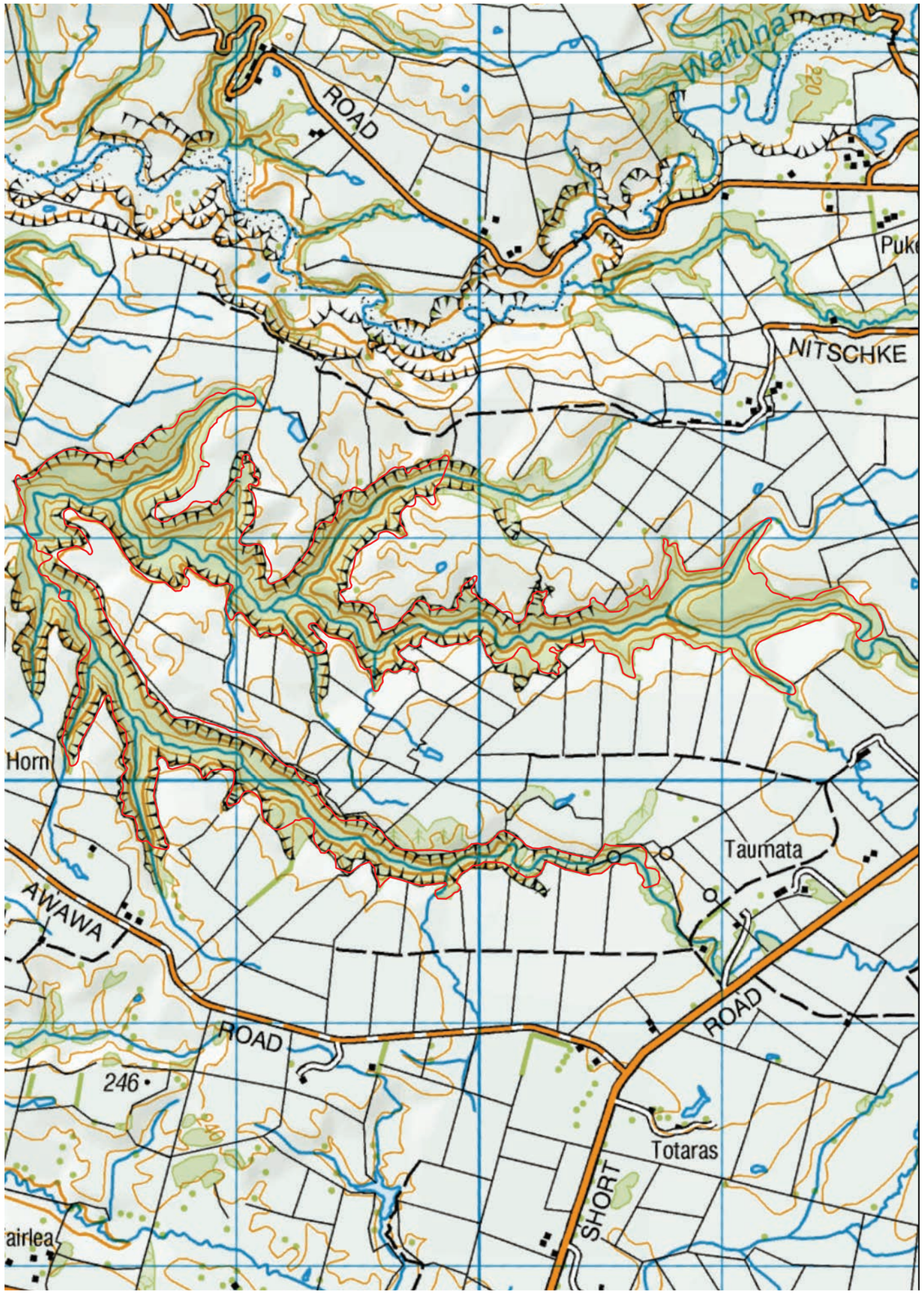
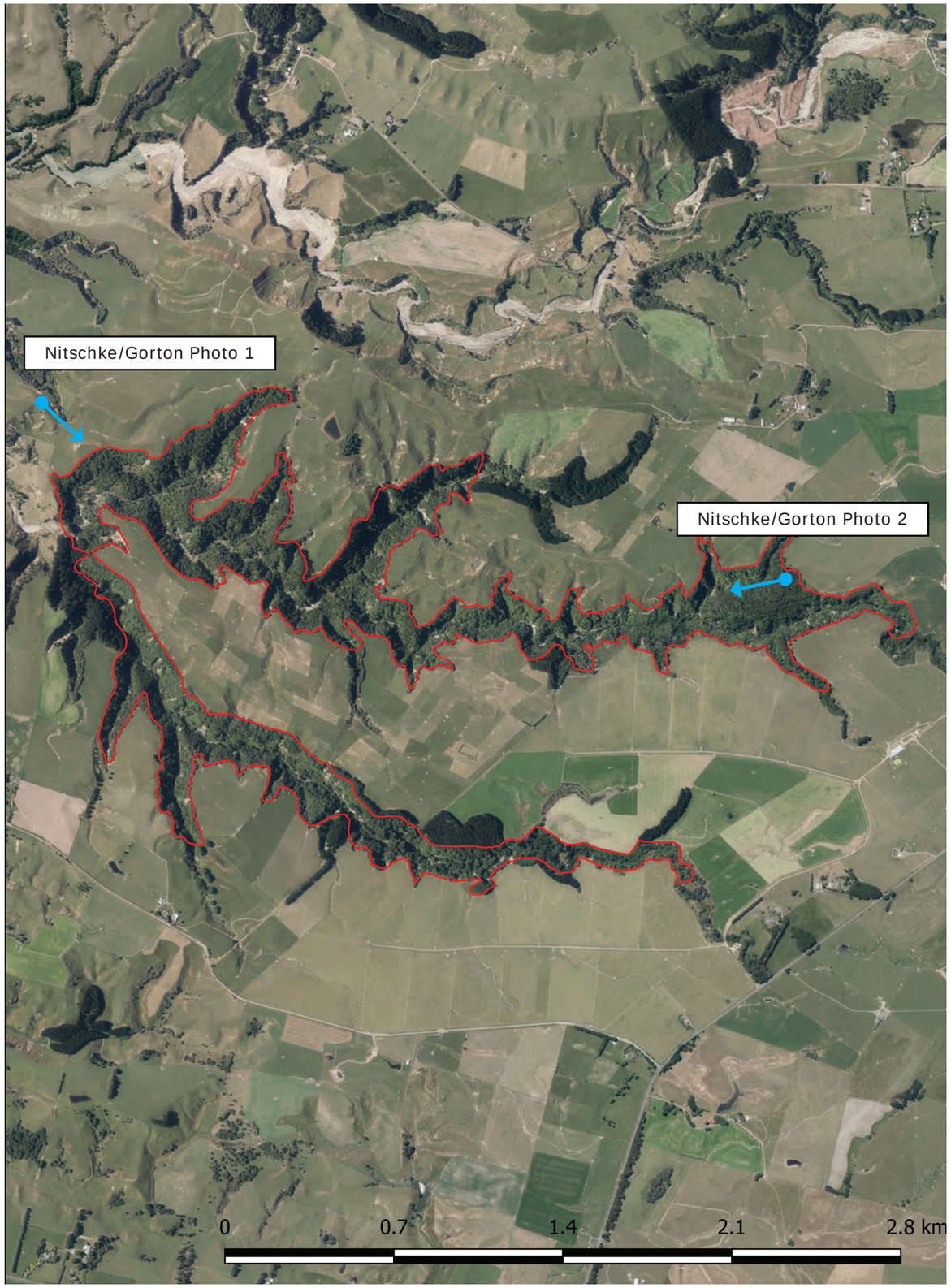
ONFL 12
Nitschke/Gorton's Bush
(Waitapu Stream Bush)




ROAD
Waitiina
220
Puk
NITSCHKE
Horn
Taumata
AWAWA
ROAD
ROAD
246
Totaras
SHORT
airlea


Nitschke/Gorton Photo 1
Nitschke/Gorton Photo 2
0
0.7
1.4
2.1
2.8 km

Name:	Nitschke/Gorton's Bush (Waitapu Stream Bush)
Location:	NZ Topo BL34
Description:	Series of gullies steeply incised into the landform primarily containing dense native vegetation.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Representative of a deeply incised stream valley with steep sided faces and dense native vegetation which is characteristic of this area. Expressive of the erosion processes of the water catchment area which has cut through soft marine sedimentary layers.
Natural Science	Biological/ Ecological:	Indigenous vegetation enhances ecological value, biodiversity, ecosystem functionality, and mauri. The feature is representative of land cover that was once common in the area but is no longer, making it a rare feature. It was a Recommended Area for Protection (RAP) in DOC's PNAP survey report (1995) and is listed in the District Plan (Operative 2002- Appendix 1B) as Natural Area SA40. As part of DOC's survey research was undertaken on the vascular plants present in the area. The plant habitats range from very dry ridges through to dripping wet mudstone banks, and the vegetation from kānuka scrub and kānuka forest, with tōtara and kōwhai to patches of tall tawa and rimu.
Natural Science	Hydrological	Riparian vegetation improves mauri and water quality from agricultural land runoff, adding to ecosystem health. Tributary to the Waituna Stream, which feeds into the Rangitikei River.
Perceptual	Memorability	Memorable feature due to the steeply incised gully spur terrain with its dense dark native vegetation which covers these gullies and their contrast with the modified folded/flattened landforms of the pastoral surrounds.
Perceptual	Legibility/ Expressiveness	A highly legible small scale topographical feature set within a simple landform of gently rolling pasture. The steeply incised gullies contrast with the relatively flat terrain of the surrounding landform. This contrast is accentuated by the variance in colour form and texture between the dark native vegetation within the gully and the light pasture grass of the surrounding landforms.
Perceptual	Transient	Strong transient values are not readily apparent, although likely fauna values and microclimatic conditions in gullies.
Perceptual	Aesthetic	Extensive indigenous vegetation throughout the valley system has a high degree of legibility and coherence which reinforces its vividness both as a feature and in contrast to the surrounding modified landscape. The combination of indigenous vegetation cover with the incised valley system has significant aesthetic appeal within the district through their rarity.
Perceptual	Naturalness	Whilst the area is surrounded by a largely modified pastoral landscape, there is a high degree of naturalness within the gullies due to their containment and the extent of indigenous vegetation remnants.
Associational	Historical	Old tōtara stumps indicate past logging.
Associational	Tangata Whenua	Under the Settlement Act the bush is an area of interest for both Ngāti Apa and Rangitāne o Manawatū. Ngāti Apa extensively used Waituna Stream for its plentiful fishing resources and built pa tuna or eel weirs in the stream. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	Managed as a QEII National Trust property, the 200ha Nitschke Bush is recognised for its botanic values, although there remain ongoing management challenges due to its relative smallness and isolation and proximity to productive agricultural activities and potential weed sources. Large remnants of forest such as Nitschke's Bush are rare on the Manawatū Plains, especially those with some flat terrain, and this area of bush gives a glimpse into the District's pre-agricultural landscapes.
Associational	Recreation	Limited opportunities for the public to experience this feature.

Summary of Key Characteristics	High degree of perceived naturalness derived from the combination of vegetation and expressiveness of the landform's formative erosion processes. This feature stands out due to the contrast with the flatness of the surrounding agricultural land use. Areas of indigenous riparian vegetation within the gully systems contribute to the botanical, ecological and aesthetic values.
Potential Issues	The incised valley system with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

Nitschke/Gorton Photo 1

Nitschke/Gorton Photo 2

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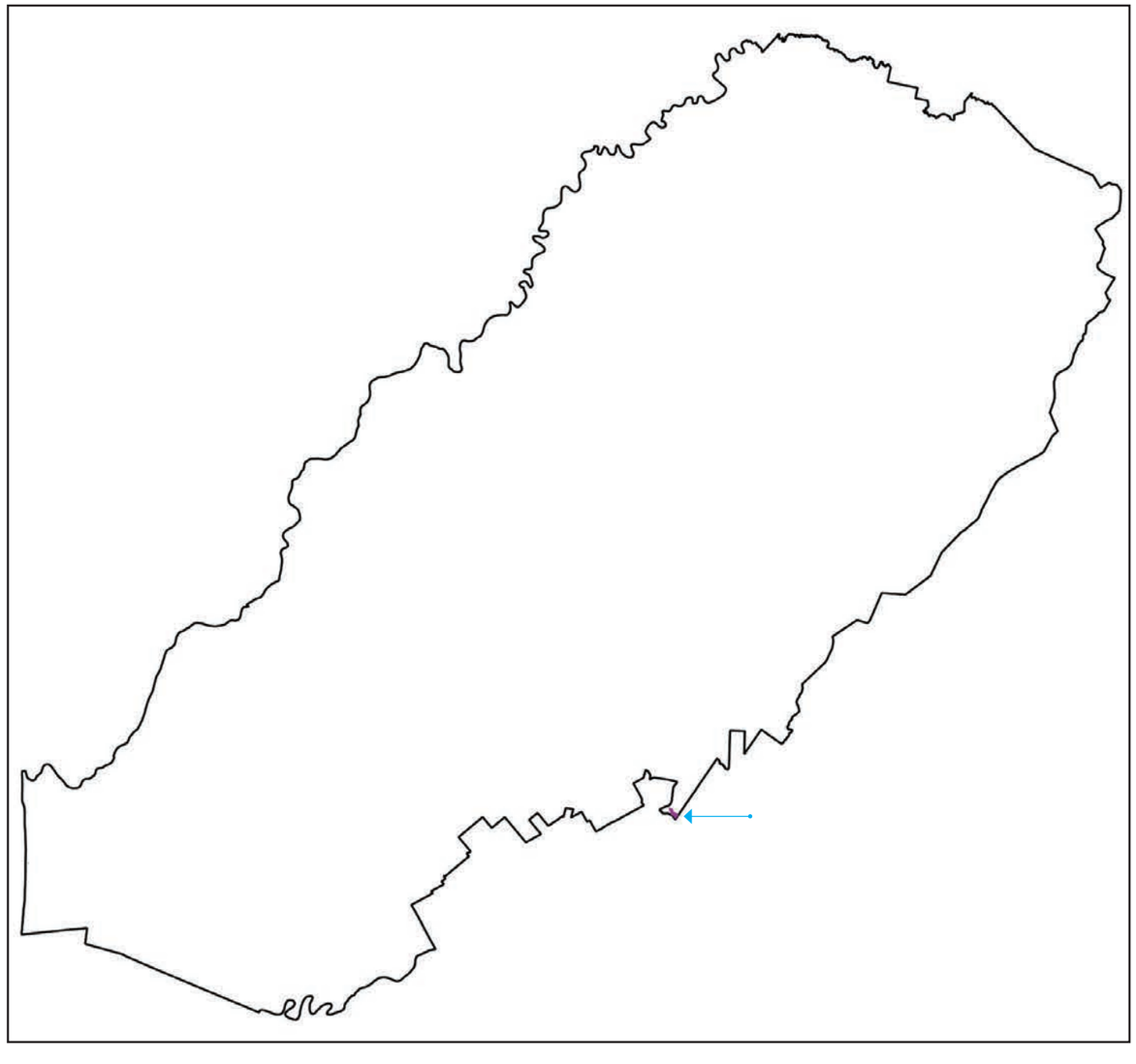
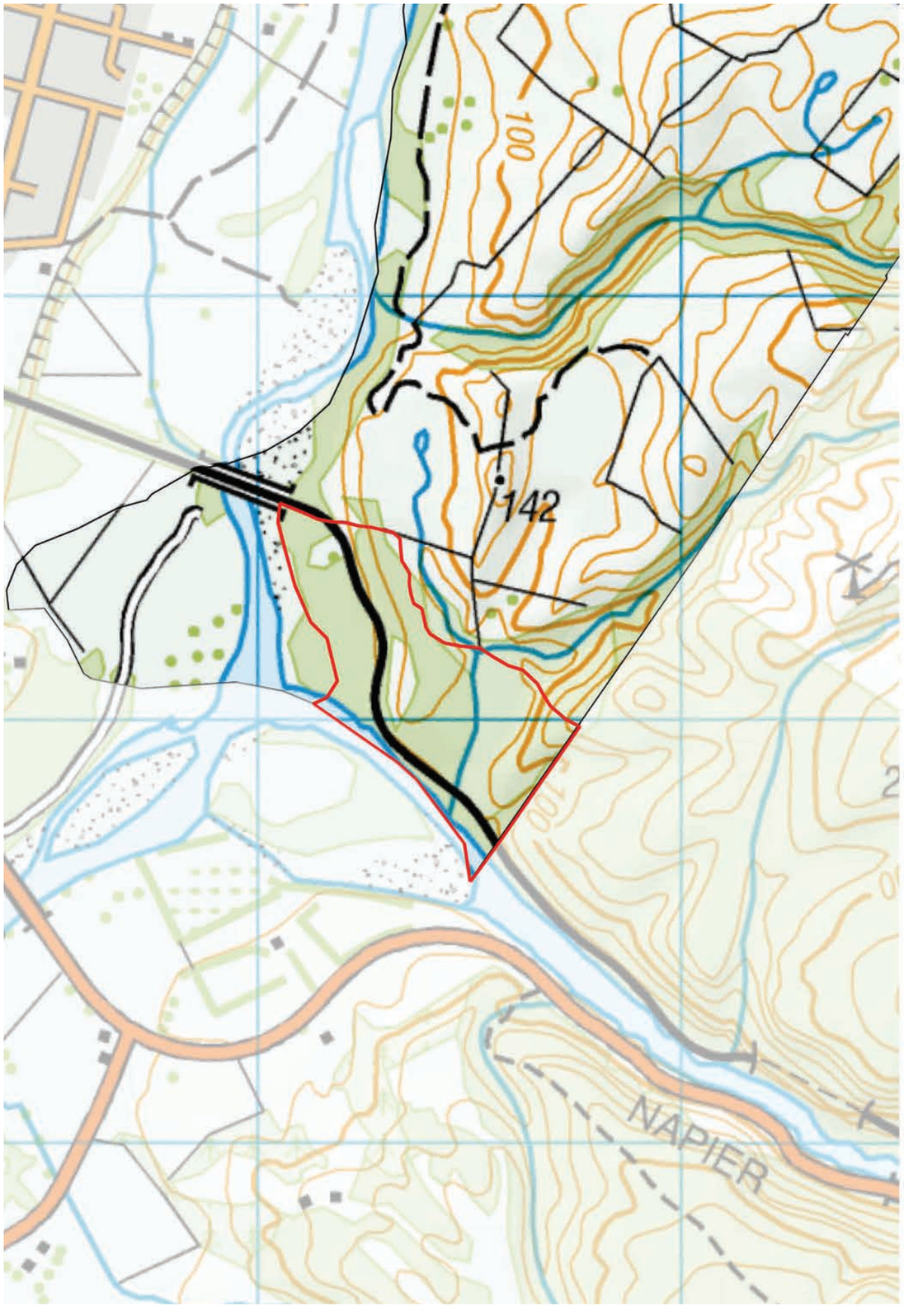
ONFL 13
Manawatū Gorge




100
142
NAPIER


Gorge Photo 1
Gorge Photo 1
0
400
800
1200
1600 m

Name:	Manawatū Gorge
Location:	NZ Topo BM35
Description:	A small portion of the Manawatū Gorge is located along the eastern boundary of Manawatū District at the confluence of the Pohangina and Manawatū Rivers. The area of Manawatū Gorge within the Manawatū District would not warrant ONL status by itself, however due to the positioning of district boundary lines, a small area near the western entrance of the Manawatū Gorge must be considered as part of the gorge landscape feature and therefore given some recognition within the Manawatū District Plan. The following description relates to the Manawatū Gorge in its entirety. It is noted that the gorge area identified within Manawatū District contains a land parcel with a Kiwi Rail Designation and proposed NZTA highway designation, which do not prevent the area being given ONF recognition.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	Geological feature. Erosion has retained a river passage from east to west as the Ruahine and Tararua Ranges have been formed over the last million years by uplifted greywacke rock between two major faults.

Natural Science	Biological/ Ecological:	Adjacent to the Manawatū Gorge Scenic Reserve, sharing a common boundary with the reserve's western end. Ecological significance and mauri provided by its regenerating indigenous vegetation and remnant native shrubland, dominated by tawa and titoki forest. The area contains kānuka, rewarewa, matai, hinau, ribbonwood, mature pukatea, kahikatea, high value old-growth forests, Threatened-Nationally Critical swamp maire (which is now rare in the Manawatū), and a rare raupō-dominated seepage wetland ecosystem. This forest is also unusual because of the predominance of giant maidenhair fern. The fern is only found in the Manawatū, making it quite unique. This diverse range of flora indicates good ecosystem functionality, and is representative of the vegetation that once covered much of the surrounding area. Recent research surveys show that there are no obvious signs of possum browsing on palatable species, a good indication of ecosystem health. This rare biodiversity listed below offers research and educational opportunities. Seven lizard species are potentially present within the area, including At-Risk lizard species. The shingle riverbed habitat of the Manawatū River adjacent to the area supports a diversity of wetland and riverbed birds such as Caspian tern (Nationally Vulnerable), black- (Nationally Critical) and red-billed (Declining) gull, and banded (Nationally Vulnerable) and black-fronted dotterel. The old-growth forests in the area support a diversity of common forest bird species and potentially Threatened and At-Risk species such as North Island kākā (Recovering), whitehead (Declining), and North Island rifleman (Declining). The seepage wetland potentially supports birds specialised for swamp habitats such as marsh crake (Declining) and Australasian bittern (Nationally Critical).

Gorge Photo 1

Gorge Photo 2

Natural Science	Hydrological	Significant feature that allows the Manawatū River to drain both east and west of the main divide. The Manawatū River is a main artery in the network of rivers of the area and contains a strong amount of mauri. It is the only place in New Zealand (and the Southern Hemisphere) where a river begins its journey on the opposite side of the main divide to where it joins the sea, making it a rare feature. Confluence of the Pohangina and Manawatū Rivers.
Perceptual	Memorability	Dramatic large scale feature which is memorable because of the steepness of landform incision rising from the watercourse.
Perceptual	Legibility/Expressiveness	Deeply incised river gorge that bisets an main divide, which illustrates natural process of tectonic movement and river erosion.
Perceptual	Transient	Continued erosion and slips may reduce the gorge's Outstanding Qualification.
Perceptual	Aesthetic	Visual and scenic characteristics, particularly provided by its simple, yet striking, and distinct landform. The deep incision of the gorge reinforces the vividness of the area, while the diverse native vegetation provides a sense of coherence which contrasts distinctly with the surrounding modified landscape.
Perceptual	Naturalness	High degree of naturalness, particularly the extensive indigenous vegetation at higher elevations, modified by the presence of road and rail on opposing sides of the gorge.
Associational	Historical	Important landmark and travelling route for both Māori and European settlers. Since European settlement surrounding areas have been extensively cleared for use as agriculture or converted into urban areas. This clearance of native vegetation is reflected in today's land cover being predominately exotic. In the 20th century Ashhurst was a prospering town due to its reliance on the nearby Manawatū Gorge, which provided essential industries such as forestry, farming (especially dairying), and tourism. In 1871 work began on establishing the Manawatū Gorge road and was completed in 1872. In the 1880s the Crown created a Forest Reserve along the line of the Ruahine and Tararua Ranges, north and south of the gorge. In the late 19th century a railway line from Napier through the gorge was also planned. To enable this railway project to go ahead land was set aside under the Public Works Act, including an area of land which was gazette for the purpose of a railway in 1880. It covered 83 acres and was situated north-east of the confluence of the Manawatū and Pohangina Rivers and north of Parahaki Island. The railway line was completed in 1891.

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Associational	Tangata Whenua	The gorge is an area of interest for Rangitāne o Manawatū, Rangitāne o Wairarapa o Rangitāne Tamaki Nui-a-Rua, and Raukawa ki te Tonga (although they do not have a Settlement Act). An archaeological survey undertaken in 1997 revealed numerous archaeological sites which clearly showed that settlement of Māori was concentrated in close vicinity to waterways as the rivers and streams provided canoe access to the Central North Island. Most bends of the Manawatū River display evidence of settlement sites, pā, gardens, and kainga, as do the fertile river banks and terraces along the river. The Manawatū River and its tributaries, as well as the adjacent forests, were important food sources and provided plentiful supplies, enabling Māori occupation in the Manawatū Gorge. Rangitāne o Manawatū has an interest in the Manawatū Gorge Scenic Reserve, but their area of interest north of the Manawatū River is within Tararua District. They also have an interest in the scenic reserve south of the Manawatū River, but this is within Palmerston North City Council jurisdiction. The area of interest for Rangitāne o Manawatū within the Manawatū Gorge Scenic Reserve is not within Manawatū District. A small area of land within Manawatū District abuts the Manawatū Gorge Scenic Reserve's western boundary. High level of cultural importance to Māori associated with ancestry and legends. Important travel and trade route for early Māori. Parahaki Island at the mouth of the Manawatū Gorge was a kainga (village) and was once a food source and extensive restoration planting is currently underway coordinated by Te Kauru-Hapū Collective and returning a part of it to a mahinga kai site. The island is also a burial site, making it absolutely inalienable being a wahi tapu. The island is said to have been retained by Rangitāne following the sale of the 250,000 acre Ahuaturanga Block (site of the present day Palmerston North) to the Crown in 1864. Rangitāne o Manawatū, Rangitāne o Wairarapa and Rangitāne Tamaki Nui-a-Rua ancestors settled in the Manawatū over seven hundred years ago and have an unbroken connection with the land and waterways since that time. The river was the main route for travel and communication and provided abundant resources. The ancestors of Rangitāne arrive in Aotearoa aboard the Kurahaupō waka. Whatongā, a captain of the waka, is attributed to discovering and exploring the Manawatū River catchment area. He named the great expanse of bush cover Te Taperenui o Whatongā or the great district (food/supply/resources) of Whatongā. The name 'Manawatū' was bestowed on the river by Tohunga over six hundred years ago, his name was Haunui a Nanaia. Whilst searching for his wife Wairaka, Haunui came upon the Manawatū River where it exits to the sea. The sheer width of the river mouth took his breath away (stand still), hence manawa (breath), tū (to stand still). The Manawatū River was central to Rangitāne cultural values system. It was created through the spirit of Okatia who gave life to a tōtara tree growing on the slopes of the Puketoi Range in the Hawke's Bay. The tōtara made its way down the mountain Ranges of Rauhine and Tararua and forced its way through these ranges. It created the Manawatū Gorge, giving the river the ability to make its way out to sea. Although Rangitāne have interests in the Manawatu Gorge entrance, it is owned by LINZ and leased to farmers, thus excluded from the treaty settlements. Te Āpiti, commonly referred to as the Manawatū Gorge, is of paramount importance to Rangitāne o Manawatū. Te Āpiti is the Rangitāne o Manawatū name for the Manawatū Gorge. Te Āpiti has many meanings including split or cleft, to place side by side, or to have two of. It represents the two sides of the gorge. Not only did Te Āpiti provide a means of crossing from east to west but crucially it connected the eastern and western boundaries of Rangitāne o Manawatū. Te Ahu a Turanga is also the name of the peak above Te Apiti, on a traditional crossing place used by Rangitāne o Manawatu. This peak is of great significance to Rangitāne o Manawatu as it is the place where Turangaimua, the son of Turi, the Captain of the Aotea waka was killed. Te Āpiti was a significant route of transport and communication passageway between the western and eastern Rangitāne communities. Thus, the area is symbolic of connectivity between people, places and environments. Also, Te Āpiti is the meeting place of the two great forests of Whatongā, the Ruahine and the Tararua Ranges. Located with the Manawatū River in Te Au Rere a te Tonga, is a red-coloured, tapu rock also known as Te Ahu a Turanga which holds the mauri of the river and Rangitāne o Manawatū. The rock rises and falls with the flood waters and is never covered by the waters. It is said that when rock is red in colour it is a call for caution to all who pass by.

Associational	Shared/Recognised	The gorge provides the main transportation link between the east and west for the Central North Island and is widely recognised and remembered by travellers. The adjacent scenic reserve is recognised in the One Plan as an ONFL, as is the Manawatū River down to its confluence with the Pohangina River. The 'Tawa Loop' walking track is also part of Kiwi Guardians, which is a nationwide programme for children to learn about nature. The ONF contains a land parcel with a Kiwi Rail Designation, which does not prevent the area being given ONF recognition. Similarly, a highway designation is consented through the ONF. Careful design of the highway by bridging and retention of ecological values will allow the area to retain recognition as an ONF with the highway designation in place.

Associational	Recreation	Manawatū Gorge DOC walking and biking tracks accessed either via the Woodville or Ashhurst end. Also, jetboating, kayaking, canoeing, and steam train.

Summary of Key Characteristics	High natural character derived from the expressiveness of the formative processes of the Manawatū River watercourse. The dynamic qualities demonstrated by the legibility of the steep incision rising from the watercourse are a highly memorable landscape feature. The majority of the Manawatū Gorge is located outside of the Manawatū District, however protection of the western gorge entrance landform and native vegetation will ensure that the overall values will be maintained. The extent of existing development (road and rail) throughout the gorge is acknowledged, however the openness and simplicity of the gorge entrance landform is an important characteristic.

Potential Issues	The extent of the Manawatū Gorge Scenic Reserve and the visual extension of the native vegetation cover into Manawatū District, native vegetation and enclosure within the valley defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

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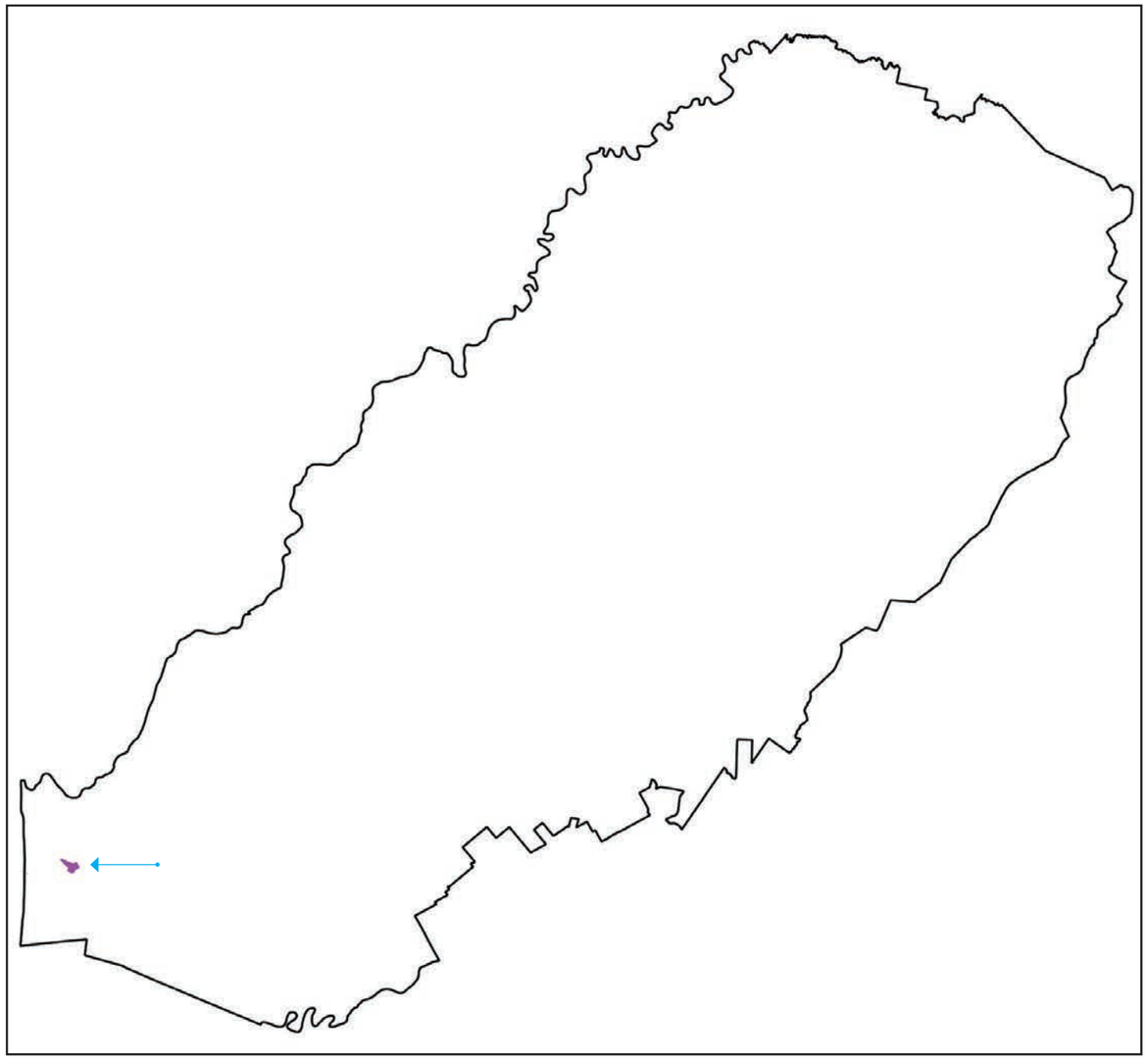
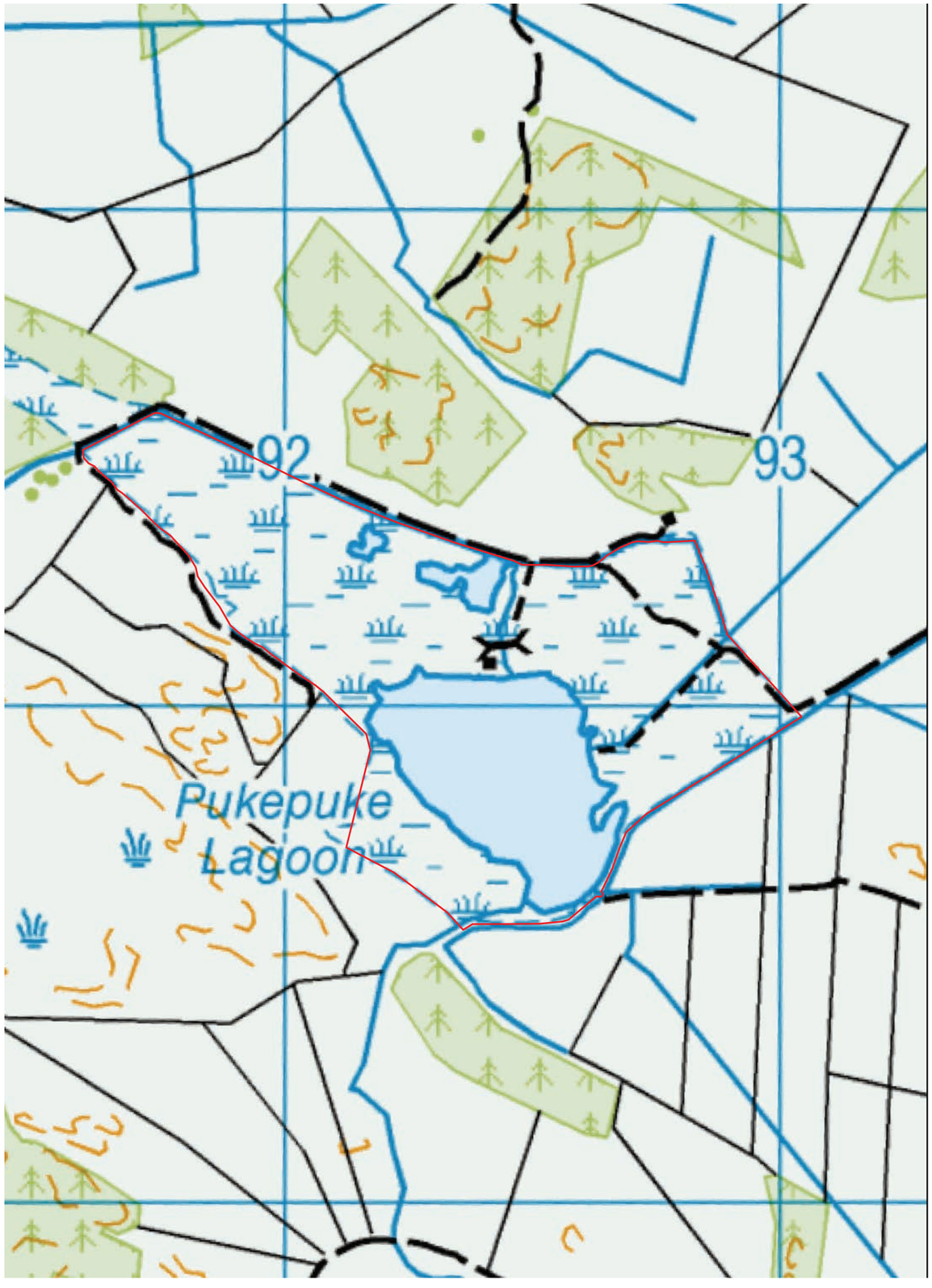
ONFL 14
Pukepuke Lagoon




92
93
Pukepuke
Lagoon


0
0.3
0.6
0.9
1.2 km
Pukepuke Lagoon Photo 1

Name:	Pukepuke Lagoon
Location:	NZ Topo BM33
Description:	The Pukepuke Lagoon Conservation Area covers approximately 80ha and consists of a dune lake (around 15ha in size) surrounded by wetland and a small sand dune area.
ONL/ONF/SAF:	Outstanding Natural Feature

Natural Science	Geological/ Geomorphological:	The formation of Pukepuke Lagoon is closely associated with the development of the Manawatū dune field, which forms part of New Zealand's largest dune field. Pukepuke Lagoon is a dune wetlands and, therefore, is representative of one of New Zealand's most threatened and rare ecosystem types in New Zealand. The dune lake is a result of the formation of sand dunes along the coast near Tangimoana. Pukepuke Lagoon lies at the margin of a belt of stable sand dunes. The lagoon previously occupied a notably larger area to the northwest of its current, relatively recent location. Only a few dune lakes remain in the district, with Pukepuke Lagoon being one of two most notable ones. The lagoon is shallow and migrated eastward with sand movement. The sand dunes have now stabilised, and the shape and location of the lagoon is unlikely to change dramatically. The composition of the lake bed is sand and is likely underlain by silt/iron pan, however there are also areas of sandy gravel.

Natural Science	Biological/ Ecological:	It is an important, diverse wetland habitat for over sixty bird species, including both native and introduced birds. A number of species rarely found elsewhere in the Region live at Pukepuke Lagoon, including the North Island fernbird, spotless crake, marsh crake, New Zealand shoveler and New Zealand scaup. The royal spoonbill and variable oystercatcher visit the wetland occasionally. Two rare Nationally Threatened and globally threatened species, the New Zealand dabchick and the Australasian Bittern, are also found here. Other birds reported seen at the lagoon include black swans, shags and New Zealand falcon. The New Zealand Ecological Society journal published an article on the 'Use of Pukepuke Lagoon by Waterfowl'. The study looked at waterfowl population studies at the lagoon, which was the first such study in New Zealand at the time. The lagoon also has a large, scientifically and biologically important population of short finned eel. Long finned eel, brown mudfish and īnanga are also present. Weir systems have been improved to enable native fish species to swim into the lagoon, including eels. Three wetland herbs which are rare elsewhere in the Region have been found at Pukepuke Lagoon. These are Hydrocotyle pterocarpa, Zannichellia palustris and dwarf musk. The New Zealand Ecological Society journal also published an article on 'The History and Present Vegetation of the Macrophyte Swamp at Pukepuke Lagoon'. Other articles published in the journal on studies undertaken on Pukepuke Lagoon include ferret biology, and the activity and dispersal of pukeko. The New Zealand Wildlife Service researched waterfowl at Pukepuke until the late 1960s. In 2015, freshwater ecologists from NIWA carried out research on Pukepuke Lagoon, where they found plants growing across the bottom of the lagoon, which was predominately native, and is a good indicator of the ecology of the lagoon and a healthy ecosystem/ecosystem functioning. The ecologists were happy with the results and stated that the lagoon still held high biodiversity values. The same survey was carried out in 2001 and the vegetation results were almost the same, another good sign. They also compared their results to research conducted in 1978 and concluded that there has been no significant change in vegetation status or condition in those 25 years between the studies.

Natural Science	Hydrological	The current lagoon's catchment area of approximately 2,300ha consists of the upper Boss Stream catchment and the northern part of the original lagoon catchment. It is located four kilometres south of the lower Rangitikei River and approximately four kilometres from the coast. The lagoon is representative of the largest in a series of coastal lagoons, making it significant. Sand dunes prevent inland water runoff escaping out to sea. It contains a shallow lake up to two metres deep, drying out occasionally in summer droughts. Water quality and quantity is affected by surrounding farming activities. To prevent flooding of adjacent farmland, a sectioned weir has been constructed across the lagoon outlet. This helps to maintain water levels in the summer and minimises flooding in the winter. The coastal lake systems in the area connect with the ocean through Kaikokopu Stream and the stream connected to Pukepuke Lagoon crossing the coastal margin. The care and protection of these coastal margins is integral to the health of the fisheries at the coastal margin itself and further inland. The diversity and health of the vegetation in the lagoon indicates that Pukepuke Lagoon's water quality is high and that it is in very good condition with a healthy ecosystem.

Pukepuke Lagoon Photo 1

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Perceptual	Memorability	Memorable feature due to the expansive water of the lagoon and the dense vegetation which surrounds the water and contrasts with the textures and colours of the surrounding pastoral and plantation landscape.
Perceptual	Legibility/ Expressiveness	Expressive of the wetland habitat that once covered a much larger area in the district. A highly legible small scale landscape feature set within a mosaic of paddocks and plantation forestry. This contrast is accentuated by the variance in texture and seasonal colour between the surrounding landforms.
Perceptual	Transient	Migratory birds and seasonal colour changes and growth pattern with plants. Changing water levels with the seasons.
Perceptual	Aesthetic	Expansive water body and intactness of remnant surrounding indigenous vegetation has a high degree of legibility and coherence which reinforces its vividness as a rare feature and provides a contrast to the surrounding modified landscape.
Perceptual	Naturalness	Whilst the area is surrounded by a largely modified pastoral landscape, there is a high degree of naturalness within the lagoon area due to the extent of the lake and the indigenous vegetation remnants.
Associational	Historical	Over the last century the area has been drained, contributing to the reduction of the wetland's size. When the Crown acquired the Pukepuke Reserve in the 1950s, the former Māori owners of the reserve negotiated the retention of fishing rights within the lagoon, with the agreement held under a deed of trust. That agreement is still honoured today, and the lagoon continues to be used by Parewanui hapū who make their journey to the lagoon to gather eels. In 1968, Pukepuke Lagoon became a wildlife management reserve through the Ministry of Internal Affairs, and was managed by the Wildlife Division (Wildlife Service). The Wildlife Service wrote a management plan for the lagoon in 1977, which was later expanded on in 1987 and included objectives and policies for Pukepuke Lagoon. In 1987, with the formation of DOC, management shifted from the Wildlife Division to DOC, renaming the lagoon from Pukepuke Wildlife Reserve to Pukepuke Lagoon Conservation Area.
Associational	Tangata Whenua	Under the Settlement Act the lagoon is an area of interest and statutory acknowledgement area for both Ngāti Apa and Rangitāne o Manawatū. The lagoon is within the domain of Ngāti Kauae and Ngāti Tauira, both of Ngāti Apa (North Island). Specifically, Pukepuke was known as a kainga site for Nga Potiki and Ngāti Rangiwaho (who were part of Ngāti Tauira hapū). Ngāti Apa occupied a fortified pā at Pukepuke until around 1840 and after that visited the area seasonally to gather food. Many significant battles occurred at the pā, and which have helped to shape Ngāti Apa's history with the area. The pā was a defensive island pā situated in the middle of the lagoon. Pā at Pukepuke were not just seasonal residences but were utilised as permanent residences prior to the arrival of European settlement by hapū of Ngāti Kauae and Ngāti Tauira. Lakes Omanuka, Pukepuke and Kaikokopu provided valuable mahinga kai and an abundance of tuna (eel) to Rangitāne o Manawatū in the early times. They are the places where Rangitāne o Manawatū would stop overnight to replenish food stocks and to rest while travelling between Rangitikei and Manawatū. Lakes Omanuka and Kaikokopu remain in Māori ownership however the title of Lake Pukepuke is now vested in DOC. Pā were established on the southern side of the Pukepuke Lagoon. Mahinga kai were also established and are still utilised today. The lagoon provided resources such as harakeke, inanga, eels and birds. Land Court records pertaining to the Himatangi Block reveal that the area was an important source of eel, fern root, kokapu, koko (tui), kererū and kiekie. Numerous cultivations were situated along the coast, particularly Himatangi. A variety of native and migrating birds were located in the wetlands, lagoons, lakes and swamps at Himatangi and Pukepuke. Rangitāne o Manawatū oral histories record a number of battles occurring in the vicinity and over the lagoon. Today, Ngāti Apa and Rangitāne o Manawatū have access rights and traditional fishing rights for long finned and short finned eels. Both iwi have immense cultural, spiritual, historical and traditional association with Pukepuke Lagoon.
Associational	Shared/ Recognised	The lagoon has been described as one of the district's natural treasures (recorded in a newspaper article in the 2002 'Manawatu District State of the Environment Report') and is recognised under the MDC District Plan, Map fourteen, as a Conservation Area and under Appendix 1 – Heritage Places. Numerous articles on research undertaken at Pukepuke Lagoon have been published in the New Zealand Ecological Society journal, as well as an article in the Notornis: Journal of the Ornithological Society of New Zealand and New Zealand Journal of Zoology. Research on Pukepuke Lagoon is included in the book by Joseph J. Kerekes titled 'Developments in Hydrobiology: Aquatic Birds in the Trophic Web of Lakes'. Pukepuke Lagoon is also recorded on the 'Protected Planet' website, which is managed by the United Nations Environment Conservation Monitoring Centre with support from IUCN and its World Commission on Protected Areas.
Associational	Recreation	Pukepuke Lagoon House is available for accommodation for those visiting the site. There are also bird hides for viewing birds and wildlife watching, as well as a short walkway which includes a boardwalk. Gamebird hunting ballots are held for duck shooting on the lagoon. Access has remained relatively restricted, which has been thought to have assisted in the lagoon retaining its relatively good health and diversity.

Summary of Key Characteristics	Pukepuke Lagoon has a range of scientific attributes (landforms, flora and fauna), along with significant historical, cultural and recreational values. High degree of natural character derived from the ecological health of the lagoon, including the presence of many bird species (some rare), healthy native vegetation, and good water quality. This feature stands out due to the modified surrounding agricultural and plantation forestry land use. Areas of riparian vegetation within the area and the open water of the lake contribute to the botanical, ecological and aesthetic values. High cultural associational values are recognised as part of the ONF values.
Potential Issues	The open water and remnant native vegetation defines the feature and contributes the natural character, perceived naturalness, aesthetic values, and associational factors. It would assist protection of the key characteristics if the following were to occur: • discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development.

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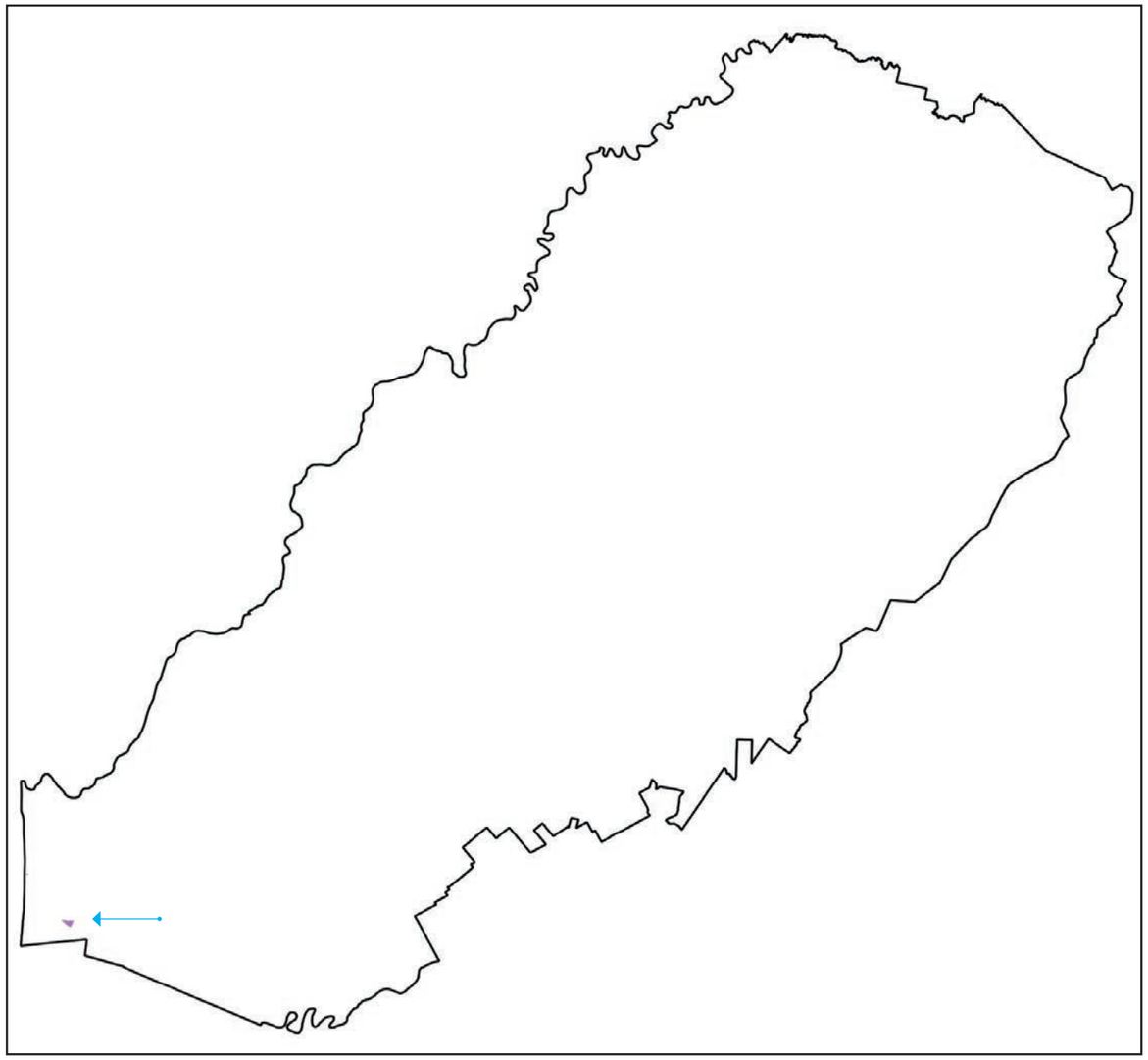
ONFL 15
Lake Kaikokopu




14
Lake
Kaikokopu
HIMATANGI


Lake Kaikokopu Photo 1
0
0.3
0.6
0.9
1.2 km

Name:	Lake Kaikokopu
Location:	NZ Topo BM33
Description:	Dune lake with native riparian margins.
ONL/ONF/SAF:	Outstanding Natural Feature

Lake Kaikokopu Photo 1

Natural Science	Geological/ Geomorphological:	Basin-type dune lake formed at the boundary of two dune forming phases. Shallow lake with a sandy bottom. Lake Kaikokopu is a dune wetland and, therefore, is representative of one of New Zealand's most threatened and rare ecosystem types in New Zealand.
Natural Science	Biological/Ecological:	Indigenous raupō and Carex secta comprise the majority of the lake's vegetation, however crack willow is also present, which reduces the ecological integrity of the area. In recent times, Horizons (Manawatu-Wanganui) Regional Council has cited the importance of the connected Kaikokopu Stream for native fish spawning, as well as for redfin bullies. Due to the migratory nature of these species the protection of the connecting water systems is important in retaining and further enhancing what remnant native fishery there is. The lake is an important breeding and feeding area for two rare, threatened species of waterfowl, the New Zealand dabchick and Australasian bittern. It is important for a number of other bird species, reflecting the lake's ecosystem functionality and mauri.
Natural Science	Hydrological	Shallow lake that has an inlet stream (Kaikokopu Stream) and an outflow through the dunes to the nearby ocean. Seventy-five percent of the lake is open water. Due to Kaikokopu Stream's shallow depth and low flows for much of the summer period E. coli concentrations can breach contact recreation guidelines at times, especially following rainfall, reducing the mauri of the water. However, in 2016 the Kaikokopu Stream Revitalisation Project was undertaken which included riparian planting. Since this project, the stream has performed better hydrologically and future research through fish surveys will be used to determine ecological conditions of the stream.
Perceptual	Memorability	Expansive water of the lake and riparian vegetation which surrounds the water contrasts with the textures and colours of the surrounding pastoral and plantation forestry landscape.
Perceptual	Legibility/Expressiveness	Expressive of the wetland habitat that once covered a much larger area in the district.
Perceptual	Transient	Migratory birds and seasonal colour changes and growth pattern with plants.
Perceptual	Aesthetic	Significant aesthetic appeal as a result of the vividness of the lake, which provides a general pattern of land cover coherence, combined with the remnant riparian vegetation.
Perceptual	Naturalness	A moderate degree of perceived naturalness exists within the lake due to the presence of the combination of indigenous vegetation and its open body of water. This character is however degraded by the extent of pastoral farming, drainage and plantation forestry which surrounds the area.
Associational	Historical	Some afforestation has been undertaken in the surrounding area, primarily for revenue purposes but also to stablise the land.
Associational	Tangata Whenua	Under the Settlement Act, Lake Kaikokopu is an area of interest for Rangitāne o Manawatū and Ngāti Apa. Lake Kaikokopu provided valuable mahinga kai and an abundance of tuna (eels) to Rangitāne o Manawatū in the past. It was a place that Rangitāne o Manawatū would stop overnight to replenish food stocks and to rest while travelling between Rangitikei and Manawatū. Lake Kaikokopu remains in Māori ownership. Lake Kaikokopu is located within Himatangi. The correct hyphenation of the word is said not to be Hima-tangi but Hi-matangi. "Hi" means to fish, and Matangi was a chief who lived in the mystic past in the Mohaka District of the East Coast. The name also refers to Matangi capturing and slaying a taniwha in the area upon his settlement. Himatangi was famous for the abundance of birds and eels available from the wetlands and dune lakes in the area, namely one of these was Lake Kaikokopu. As a result of the early land transactions between the Crown and Ngāti Apa (North Island), access to many of the resources along the coastal area became very difficult and limited. Reserves were established around coastal lakes, including Lake Kaikokopu, but no legal access was provided for these land areas. Traditionally, Lake Kaikokopu was accessed mainly for tuna but also for kōkopu, mudfish, inanga and kakahi (freshwater mussel). Ngāti Kauae and Ngāti Rangiwaho, hapū of Ngāti Apa, traditionally used the lake for catching tuna. They also had a settlement at Lake Kaikokopu and there were several pā on islands in the lake.
Associational	Shared/Recognised	Listed as a heritage place under Appendix 1 of the MDC District Plan. Recognised as having outstanding landscape values and therefore recognised as an outstanding waterbody under the Draft NPS for Freshwater Management. The significant values of outstanding waterbodies are to be protected (National Policy Statement for Freshwater Management 2019 Policy 10).
Associational	Recreation	Lake Kaikokopu is privately-managed for gamebird hunting.

Summary of Key Characteristics	Moderate degree of perceived naturalness derived from the presence of indigenous vegetation combined with the expressiveness of the lake which contrasts with the surrounding agricultural and plantation forestry land use. The rarity of this habitat type, its rare fauna species and high cultural associations, its remnant hydrological connectivity with Lake Pukepuke and other dune lakes along the coastal edge all elevate this remnant dune lake and wetland to be considered an Outstanding Natural Feature.
Potential Issues	The open water and remnant native vegetation defines the feature and contributes to perceived naturalness, aesthetic values, and associational factors. It would assist preservation of the key characteristics if the following were to occur: • restrict adverse effects on cultural values; limit the loss of native vegetation; limit the establishment of exotic vegetation; limit earthworks and drainage; and limit built development.

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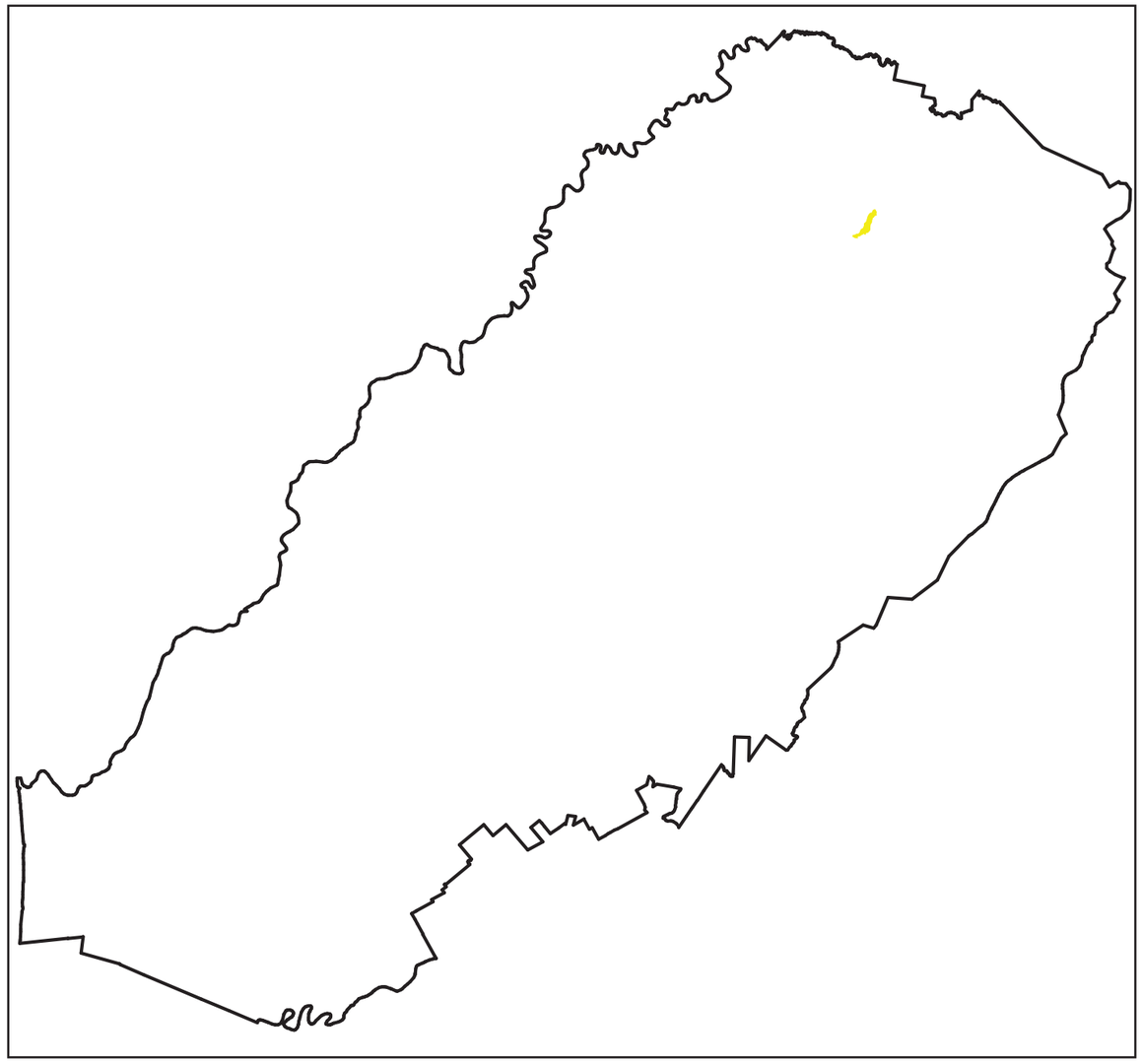
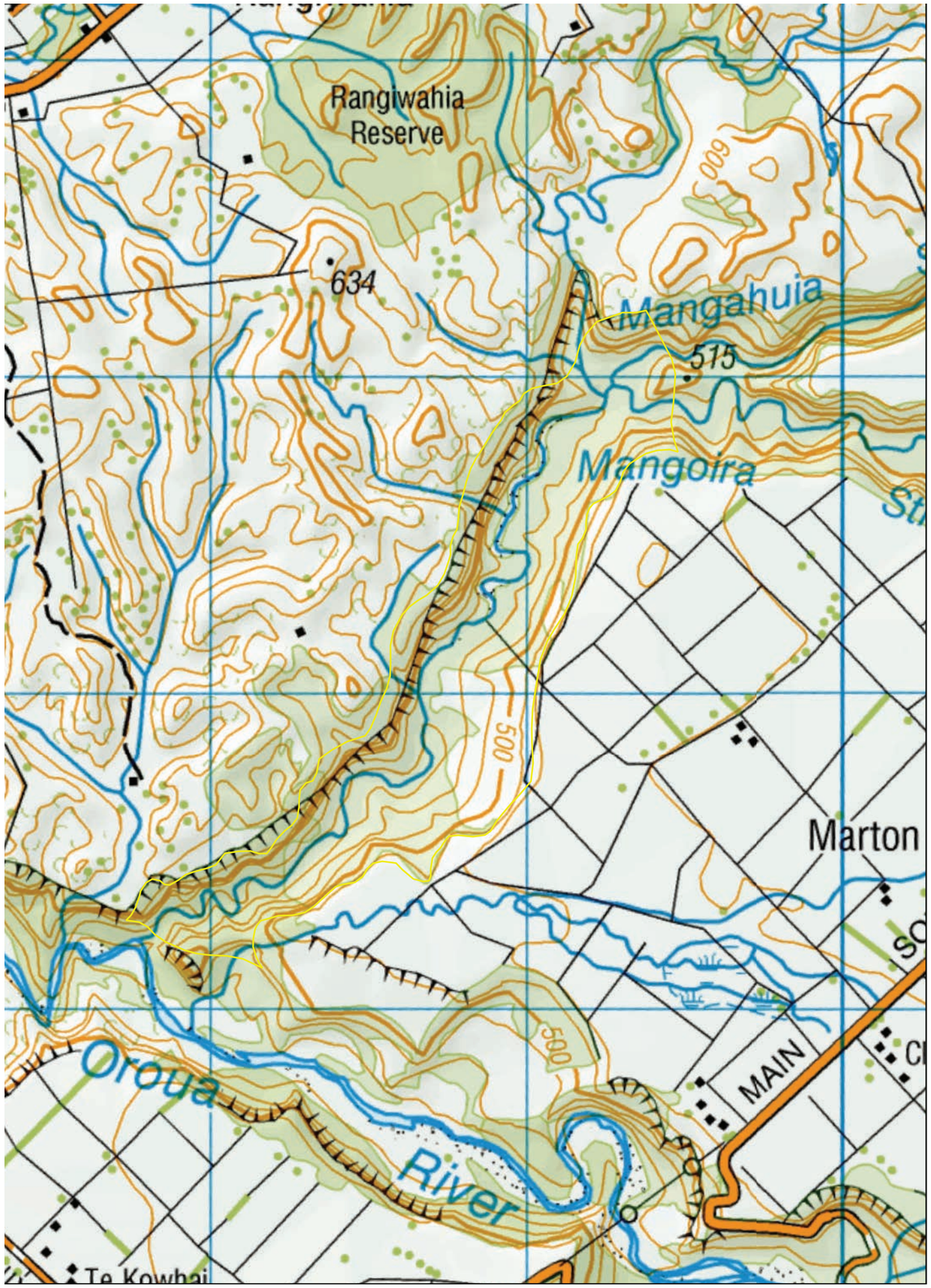
SAF 1

Mangoira Stream

(Downstream of Mangahuia Confluence)




Rangiwahia
Reserve
634
Mangahuia
515
Mangoira
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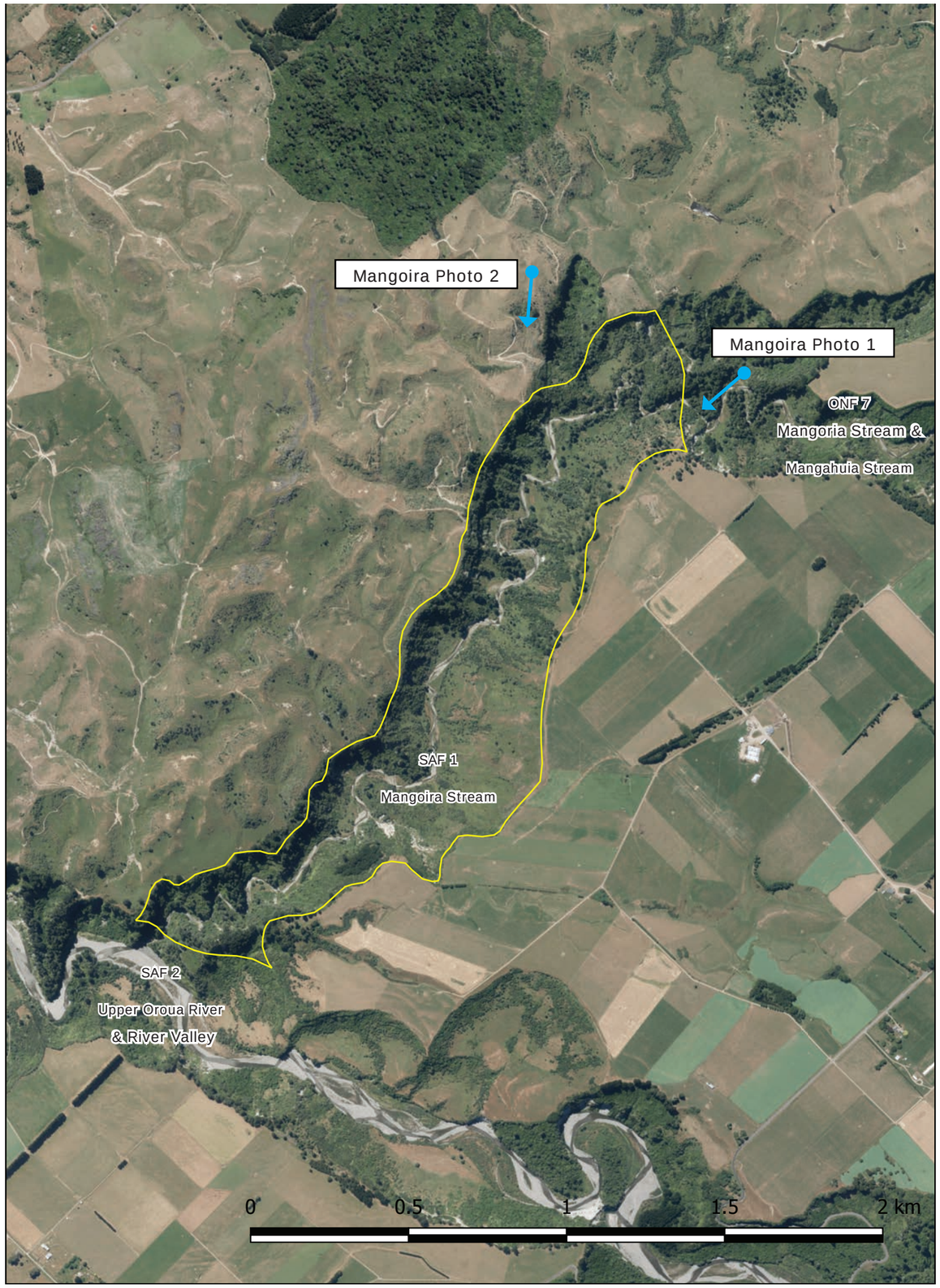
500
Marton
MAIN
Oroua
River
Te Kowhai


Mangoira Photo 2
Mangoira Photo 1
ONF 7
Mangoria Stream &
Mangahuia Stream
SAF 1
Mangoira Stream
SAF 2
Upper Oroua River
& River Valley
0
0.5
1
1.5
2 km

Name:	Mangoira Stream (downstream of Mangahuia confluence)
Location:	NZ Topo BL35
Description:	Incised stream valley corridor feeding into the Ōroua River.
ONL/ONF/SAF:	Significant Amenity Feature

Natural Science	Geological/ Geomorphological:	Incised stream valley with steep sided faces. Representative of the erosion processes of the water catchment area which has cut through the soft marine sedimentary layers.
Natural Science	Biological/Ecological:	Mix of exotic and indigenous vegetation. Ecological value is reduced by the presence of pasture in the valley. A research survey undertaken on vascular plants of the Mangoira Stream marginal strip showed that, of native species, shrubland is dominant on the terrace faces with some older podocarps scattered throughout the lower half of the stream valley. Sedgeland occupies the wetter slopes. These older podocarps are rare in the Manawatū due to past extensive deforestation. Further downstream, on the river floodplain, red beech and divaricate shrubs are present. Podocarps also occur amongst the beech above the floodplain, forming a mixed podocarp-broadleaf forest. This area contains the Mangoira/Ōroua Confluence Bush listed in the District Plan (Operative 2002), Appendix 1B (SA10).
Natural Science	Hydrological	Riparian vegetation improves water quality from agricultural land runoff and contributes to ecosystem health and mauri. River floodplain appears to flood regularly. Traditionally Māori celebrated flooding as it is a means of nourishing the land and all living on it with mauri from the surrounding landscape, transported through the flood waters.
Perceptual	Memorability	The valley system contrasts with the modified pastoral landscape and is more dramatic than the surrounding folded/ terraced landforms.
Perceptual	Legibility/Expressiveness	Clearly legible incised valley system that is expressive of the erosion processes that have occurred within the raised sedimentary landform.
Perceptual	Transient	Possible fauna values and likely microclimatic conditions in gullies.
Perceptual	Aesthetic	Significant aesthetic appeal as a result of the combination of remnant native vegetation, which provides a pattern of land cover coherence contrasted by the surrounding agricultural land use, and the vividness of the eroded valley system that has been formed by the incised river valley.
Perceptual	Naturalness	Naturalness is degraded by the presence of pastoral farmland on the slopes of the valley.
Associational	Historical	Unknown.
Associational	Tangata Whenua	Tributary to the Ōroua River, which has extensive cultural associations for Māori. Under the settlement Act the stream is an area of interest for both Rangitāne o Manawatū and Ngāti Hauiti. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	The western escarpment rising up out of the water course is recognised as a Conservation Area within the District Plan and is within DOC control.
Associational	Recreation	While there are DOC tramping tracks further east upstream, outside of the boundaries of the SAF, there are none within the SAF, limiting public access. Mangoira Stream has been known to be used for riverbed four-wheel driving.

Summary of Key Characteristics	More modified than an ONF in terms of vegetation cover and presence of pasture. Moderate degree of perceived naturalness derived from the existing native vegetation combined with the expressiveness of the formative processes of the stream corridor landform which contrasts with the surrounding agricultural land use and flatter landform.
Potential Issues	The incised river channel with partial cover of native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist maintenance of the key characteristics if the following were to occur: • Restrict adverse effects on cultural values; limit the loss of native vegetation; limit the establishment of exotic vegetation; limit earthworks; and limit built development.

Mangoira Photo 1

Mangoira Photo 2

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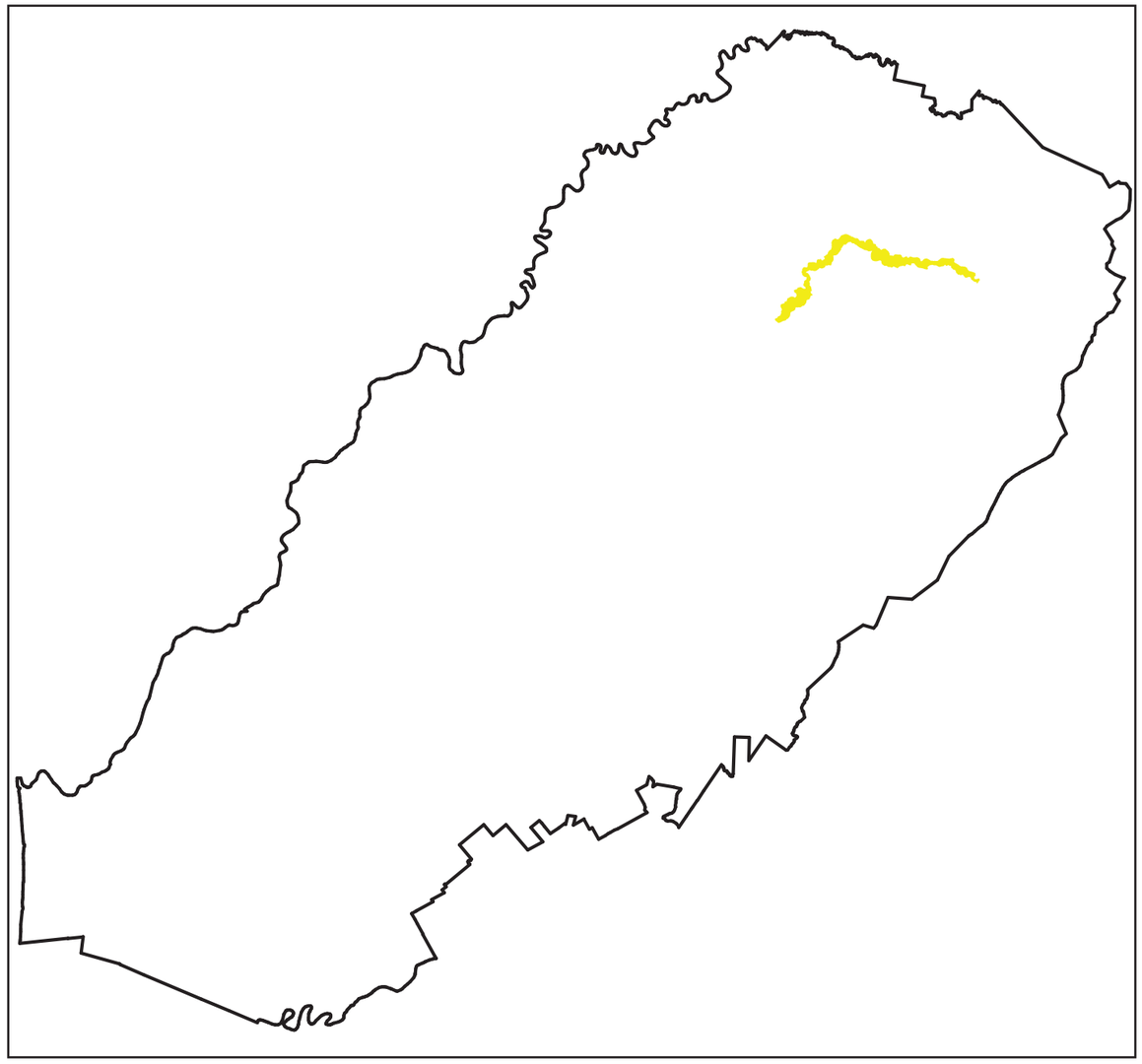
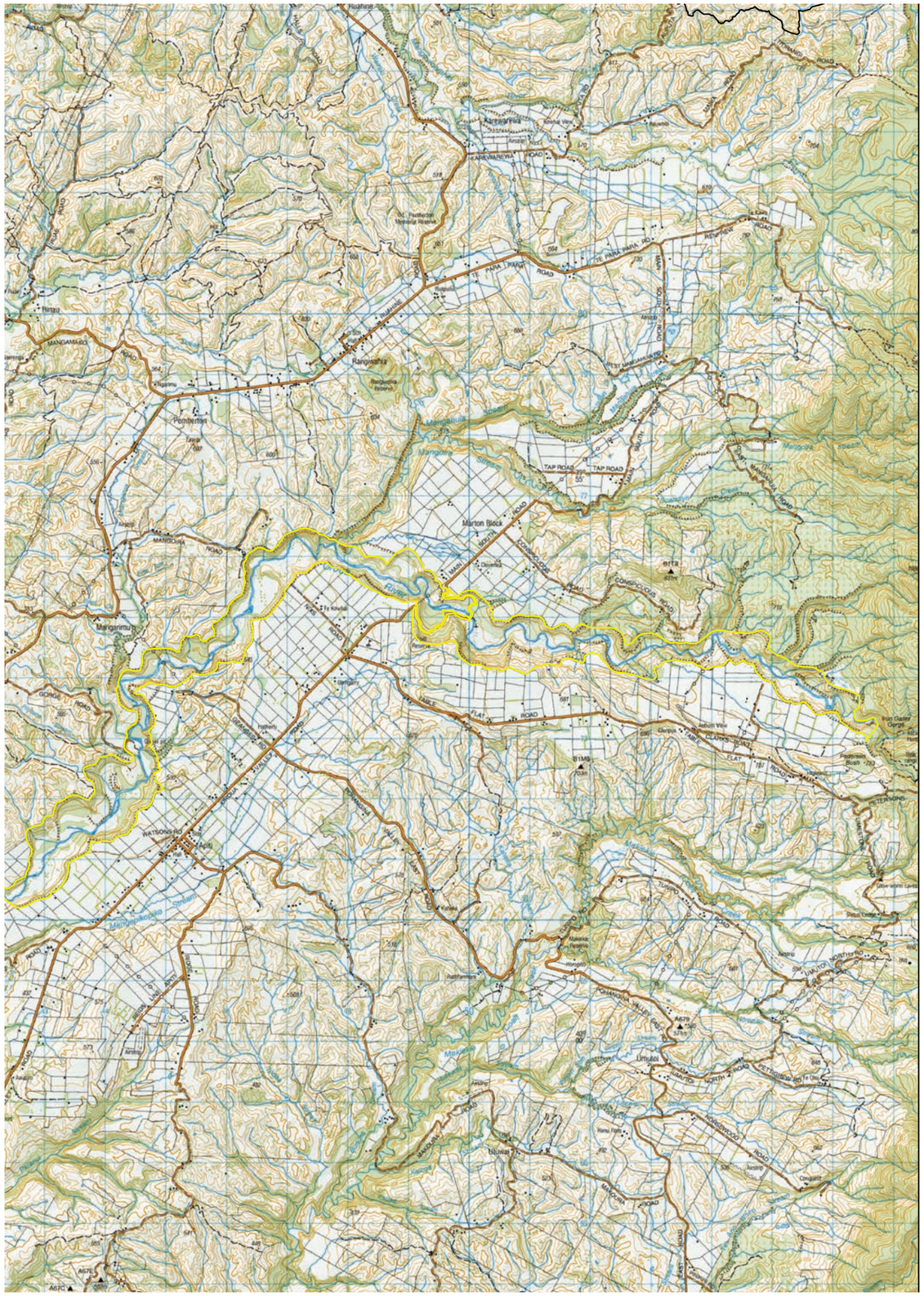
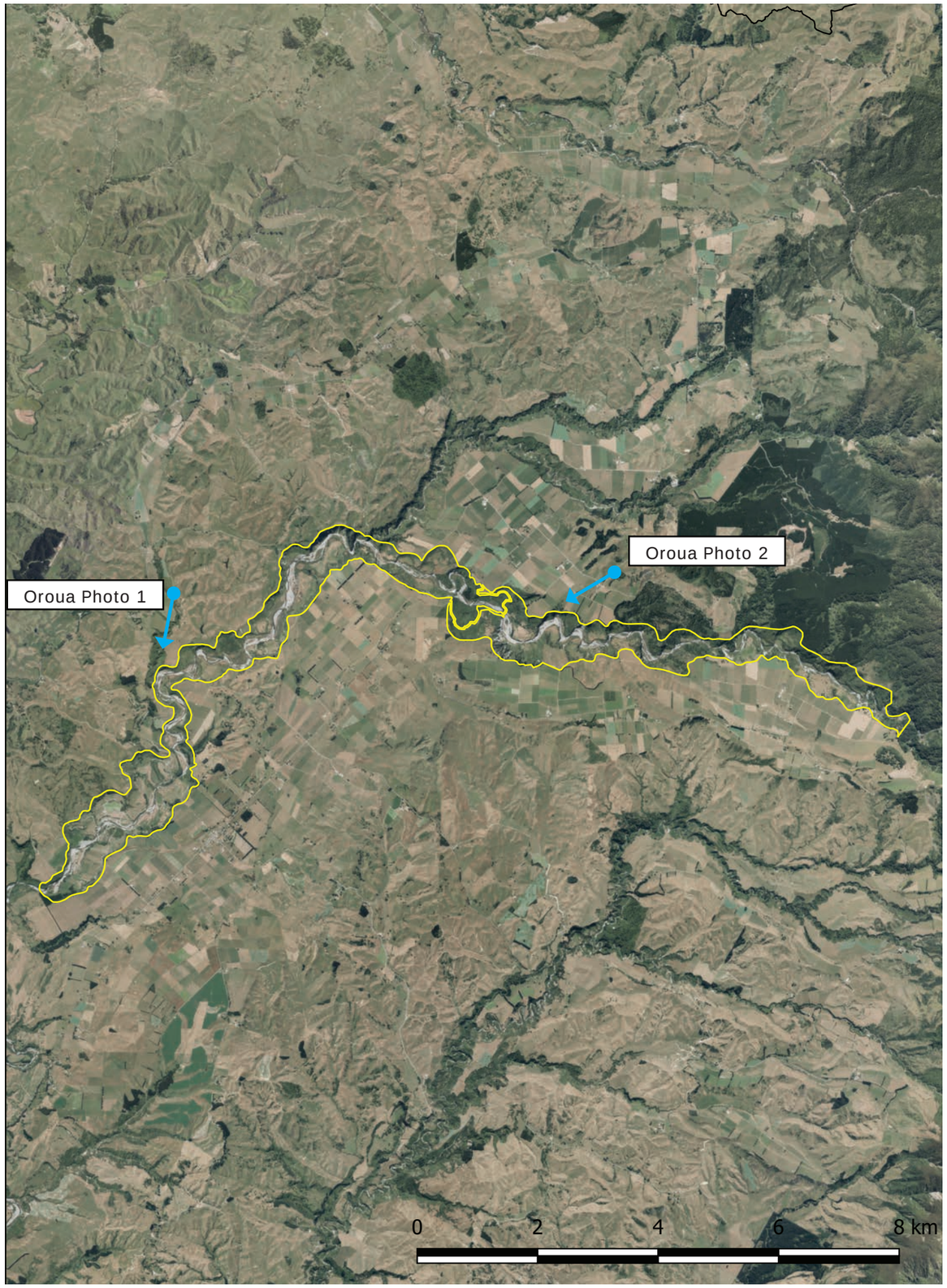
SAF 2
Upper Ōroua River and River Valley






Oroua Photo 1
Oroua Photo 2
0
2
4
6
8 km

Name:	Upper Ōroua River and River Valley
Location:	NZ Topo BL35 & BL36
Description:	Upper Ōroua River corridor consisting of incised valley with a mix of exotic and indigenous vegetation.
ONL/ONF/SAF:	Significant Amenity Feature

Oroua Photo 1

Oroua Photo 2

Natural Science	Geological/ Geomorphological:	Deeply incised stream valleys with steep sided faces. Representative of the erosion processes of the water catchment area which has cut through soft marine sedimentary layers leaving old ox-bows and exposed papa mudstone escarpments.
Natural Science	Biological/Ecological:	Mix of exotic and indigenous vegetation. Ecological value is reduced by the presence of pasture in the valley. This area contains the Hopkins Property which is listed in the District Plan (Operative 2002), Appendix 1B (SA37). Trout recorded in the Ōroua River. Abuts Ruahine Range ONL but identified as a separate SAF due to different (river) character compared to Ruahine Range character.
Natural Science	Hydrological	The Ōroua River is one of the main rivers flowing out of western Ruahine Forest Park. Riparian vegetation improves water quality from agricultural land runoff, contributing to ecosystem health and mauri. Received 2018 New Zealand River Award for demonstrating long-term trend improvements in water quality, specifically in relation to dissolved reactive phosphorus. Information based on research data for the river collated by LAWA. The Ōroua River was the most improved in the Horizons Region, making it a unique waterbody in the area with enhanced ecosystem functionality.
Perceptual	Memorability	Memorable due to the dramatic geomorphology with bends and escarpments which contrast with the folded/terraced landforms of the surrounding pastoral landscape.
Perceptual	Legibility/Expressiveness	Clearly legible landform features very expressive of the erosion processes of the river, with 'empty' scalloped ox-bows and white papa escarpments providing historical references to shifts in the river.
Perceptual	Transient	Possible fauna values and likely microclimatic conditions in gullies.
Perceptual	Aesthetic	Significant aesthetic appeal as a result of the native vegetation, which provides a general pattern of land cover coherence, combined with the striking scale of the incised river valley with its old river bends and vivid white cliff escarpments.
Perceptual	Naturalness	Whilst the area is surrounded by a largely modified pastoral landscape, a moderate degree of perceived naturalness exists within the gullies due to the presence of mudstone cliffs and indigenous vegetation. This character is, however, reduced by the extent of pastoral farming on both the valley slopes and valley floor.
Associational	Historical	Slightly upstream, to the east of the SAF boundary, is the Alice Nash Memorial Heritage Lodge. This is only of historic associational value only and does not affect the extent of the SAF. Access to the lodge is via a track which was a former logging road, indicating past forestry activites in the area.
Associational	Tangata Whenua	Under the Settlement Act the SAF is an area of interest for Ngāti Apa and Ngāti Hauiti. Ngāti Tuwharetoa are also acknowledged under the Settlement Act, and Ngāti Kauwhata in the Ōroua Declaration in relation to the area. Ngāti Apa (North Island) acknowledge that other iwi have interests in the Ōroua River. These include Ngāti Kauwhata, Ngāti Hauiti and Rangitāne. Ngāti Tauira was a shared Rangitāne – Ngāti Apa hapū located around the Ōroua River above Mangawhata (meaning eel drying), extending to the Rangitikei River and coastal area. Ngāti Apa (North Island) is linked to the Ōroua River through the ancestor Matangi. Flocks of birds would gather along the river and occupy certain areas. Matangi heard of this and travelled from the Wairarapa region to see these birds. As he drew near the birds would take flight and soar into the sky, hence naming the surrounding land on the lower left bank of the Ōroua River 'Aorangi'. Hapū of Ngāti Apa (North Island)- Ngāti Tumokai, Ngāti Tauira, and Ngāti Rakei, and Ngāti Apu- occupied the surrounding lands of the Ōroua River. The land was fertile and would be cultivated extensively by these hapū. Kainga, pā, urupa, and eel fisheries were located along the Ōroua River. The Ōroua River is of historical, cultural, spiritual and traditional significance to Rangitāne o Manawatū. The histories and traditions of Rangitāne o Manawatū such as waiata, korero and whakairo outline the connections Rangitāne o Manawatū have with the Ōroua River. One of the most significant qualities is the mauri that flows from the central Ruahine Range through the rohe connecting the Range to the wetlands and sand country and finally to the Manawatū River. This fertile land also contained some of the richest food supplies in the Manawatū Region, with the most desired item being tuna (eel) which could be caught in huge quantities from the waters of the swamps adjacent to the riverbanks and streams. Other traditional resources gathered along the river included the mountain cabbage (tōī, Cordyline indivisa) and harvesting of medicinal plants.
Associational	Shared/ Recognised	The Ōroua River was the recipient of a 2018 New Zealand River Award from Accord member Horizons Regional Council. The awards were judged by a panel of scientists using long-term data collected from New Zealand Rivers and awarded to rivers which showed long-term trend improvements in water quality. The Ōroua Catchment Care Group, through the leadership of Ngāti Kauwhata representatives, are partnering with landowners in river quality improvement work, such as riparian planting and fencing. Additionally, the area is along the Manawatū Scenic Route, which is an alternative to SH1 and allows travellers to discover stunning scenery.
Associational	Recreation	Public walking tracks, camping, hunting, and fishing. Just to the east upstream, outside the boundary of the SAF, is the Iron Gate Gorge, Alice Nash Memorial Heritage Lodge, and Iron Gate Hut Track.
Summary of Key Characteristics		More modified than an ONF in terms of vegetation cover and presence of pasture. Moderate degree of perceived naturalness derived from the expressiveness of the formative processes of the river corridor landform which contrasts with the surrounding agricultural landform. Areas of indigenous riparian vegetation contribute to the perceived naturalness and ecological and water quality values. A pole transmission line crosses the river valley at Apiti Reserve linking Ōroua Valley Road and Main South Road and does not adversely affect the key characteristics of the Amenity Area.
Potential Issues		The incised river channel, with large areas of native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist preservation of the key characteristics if the following were to occur: • restrict adverse effects on cultural values; limit the loss of native vegetation; limit the establishment of exotic vegetation; limit earthworks; and limit built development.

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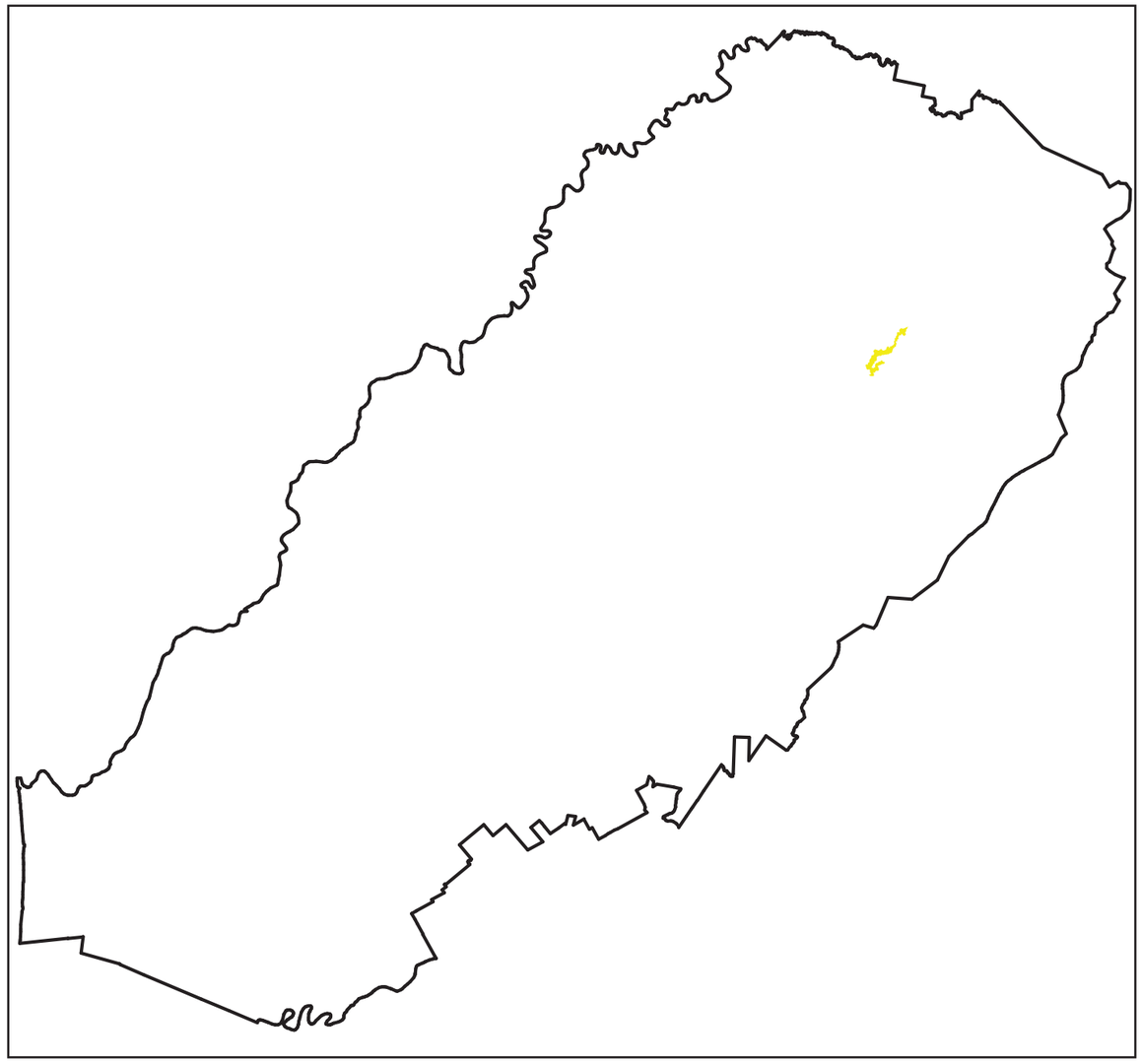
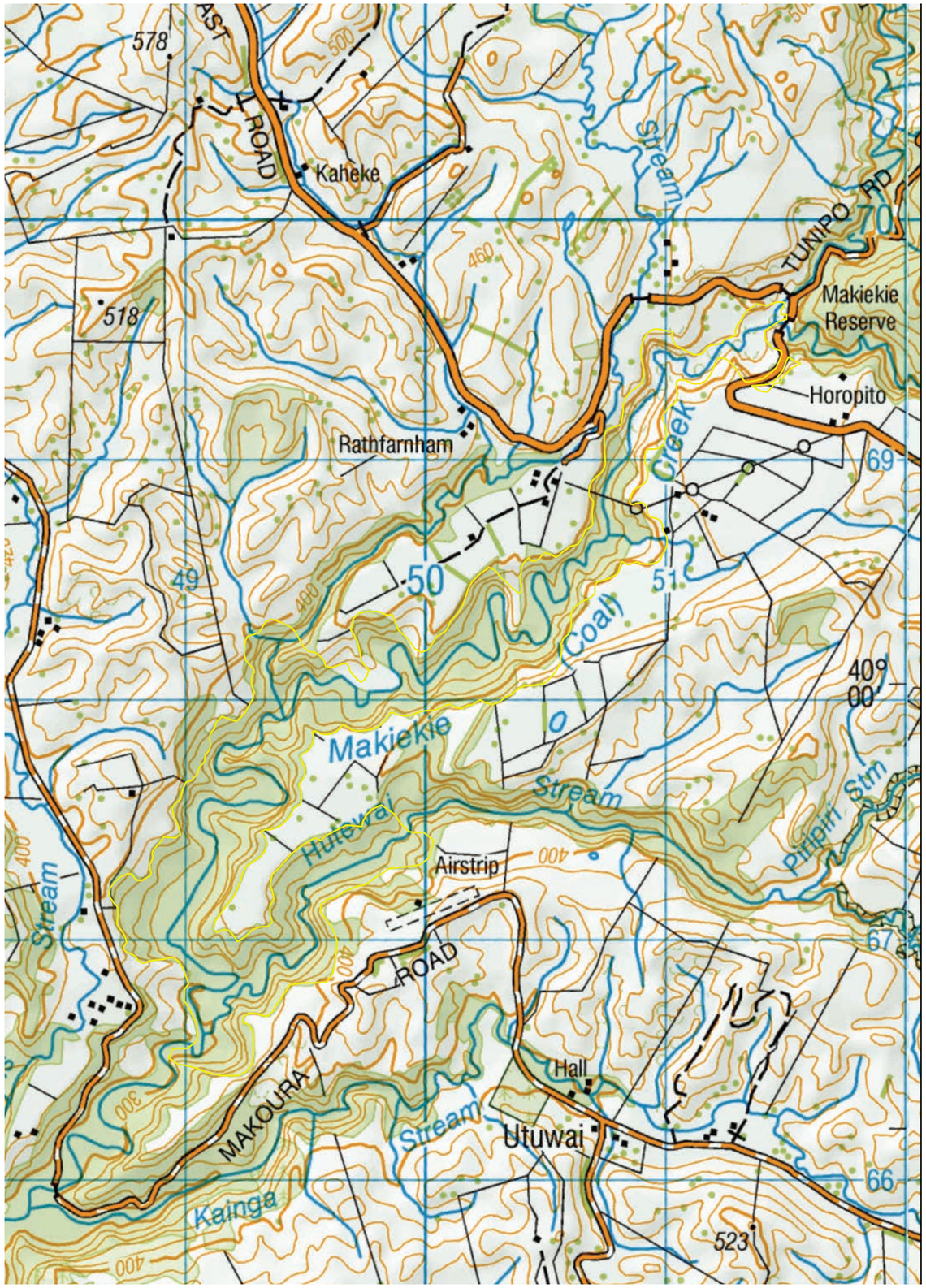
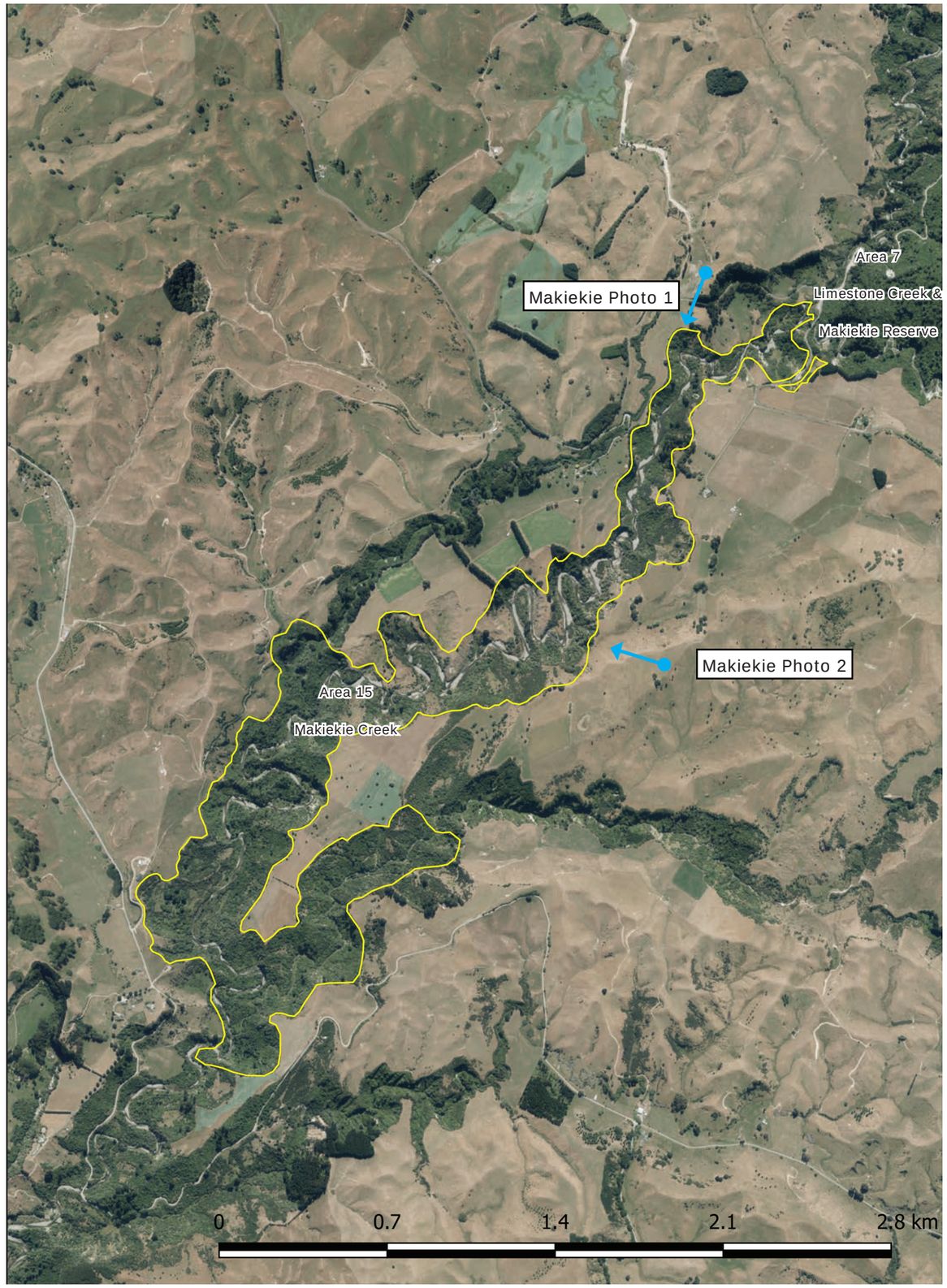
SAF 3
Makiekie Creek




578
500
ROAD
Kaheke
Stream
TUNIPO RD
70
460
518
Makiekie
Reserve
Horopito
Rathfarnham
Creek
69
49
50
51
400
Coal
40°
00'
Makiekie
Stream
Hutevai
Airstrip
400
Pihipiri Stm
Stream
400
67
ROAD
MAKOURA
Hall
Stream
Utuwai
66
Kainga
300
400
523


Makiekie Photo 1
Area 7
Limestone Creek &
Makiekie Reserve
Makiekie Photo 2
Area 15
Makiekie Creek
0
0.7
1.4
2.1
2.8 km

Name:	Makiekie Creek
Location:	NZ Topo BL35
Description:	Incised stream valley downstream of Makiekie Reserve.
ONL/ONF/SAF:	Significant Amenity Feature

Natural Science	Geological/ Geomorphological:	Incised stream valley with steep sided faces. Representative of the erosion processes of the water catchment area which has cut through soft marine sedimentary layers.
Natural Science	Biological/Ecological:	Mix of exotic and indigenous vegetation. Ecological value is reduced by the presence of pasture in the valley. There are indigenous forest remnants in Makiekie Reserve and on the valley sides. These enhance ecological value, increase ecosystem health and mauri, while also creating a habitat for indigenous and exotic birdlife. The forest includes an interesting mix of conifer and broad-leaf species, as well as beech forest. In the Makiekie Scenic Reserve large rimu and tōtara are plentiful. There are also mature red beech trees up to 35m tall in some places, as well as younger, regenerated stands that have come up following wind damage. Due to large scale deforestation in the District areas of remnant native bush, such as in this SAF, are rare for the area and are representative of what land cover used to look like. Horizons Regional Council recommends Makiekie Creek for trout fishery value in the Manawatū-Wanganui Region. Makiekie Creek was also included in a published research article by Michael K. Joy and Russell G. Death who undertook a biological assessment of rivers in the Manawatū-Wanganui region investing macroinvertebrates.
Natural Science	Hydrological	Riparian vegetation improves water quality from agricultural land runoff, contributing to ecosystem health and mauri of this area and the wider catchment downstream.
Perceptual	Memorability	Contrasts with the modified pastoral landscape and is more dramatic than surrounding folded/terraced landforms.
Perceptual	Legibility/Expressiveness	Complex landform feature which is expressive of the erosion processes of the river.
Perceptual	Transient	Possible fauna values and likely microclimatic conditions in gullies.
Perceptual	Aesthetic	Significant aesthetic appeal as a result of the native vegetation, which provides a general pattern of land cover coherence, combined with the striking scale of the incised river valley with its old river bends and vivid white cliff escarpments.
Perceptual	Naturalness	Whilst the area is surrounded by a largely modified pastoral landscape, a moderate degree of perceived naturalness exists within the gullies due to the presence of the combination of indigenous vegetation and the meandering river course, and mudstone cliffs. This character is however degraded by the extent of pastoral farming on both the valley slopes and valley floor.
Associational	Historical	Unknown.
Associational	Tangata Whenua	Under the Settlement Act Makiekie Creek is an area of interest for Rangitāne o Manawatū and Ngāti Hauiti. Makiekie Creek is a tributary to Pohangina River, which was known by Māori as a place of darkness and with a degree of fear attached to the area because of previous bloodshed. Another level of meaning was the very ulcerated or dissected nature of the landscape itself, lots of little streams with valleys cutting down in to the area. Makiekie Creek was also a source of vivianite, a mineral that was used as a blue pigment for the face painting of warriors for battle. This was the only source for Rangitāne o Manawatū and so was of military significance. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
Associational	Shared/Recognised	Adjacent to the Makiekie Scenic Reserve, recognised for its ecological and scenic values. Additionally, the area is along the Manawatū Scenic Route, which is an alternative to SH1 and allows travellers to discover stunning scenery.
Associational	Recreation	Upstream, east of the SAF boundary, Makiekie Creek forms part of a DOC tramping route, Deerford Track to Makiekie Creek, which is used for both walking and hunting. While outside the identified extent of the SAF, this indicates the associative values relating to the wider area. There are no DOC tracks within the SAF itself, limiting public access.

Summary of Key Characteristics	Moderate degree of perceived naturalness derived from the presence of indigenous vegetation combined with the expressiveness of the formative erosion processes which contrasts with the surrounding agricultural land use and terraced form.
Potential Issues	The incised river channel, with large areas of native vegetation, defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist preservation of the key characteristics if the following were to occur: • restrict adverse effects on cultural values; limit the loss of native vegetation; limit the establishment of exotic vegetation; limit earthworks; and limit built development.

Makiekie Photo 1

Makiekie Photo 2