

ONF 6: Onetahua/Farewell Spit and Tidal Flats

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

High to very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale and uniqueness of the spit landform (international significance), rare vegetation and rich fauna values.

Perceptual Values

- a. The **high to very high naturalness values** arising from the dominance of natural landscape features, patterns and processes as a consequence of the relatively unmodified nature of the area and its sense of remoteness and wilderness, albeit influenced by tourism to some degree.
- b. The **very high aesthetic and memorability values** of the area as a consequence of the area’s dramatic, highly attractive and engaging visual character, its sense of remoteness and the unique physical character.
- c. The **very high legibility and expressiveness values** due to the visibility and abundance of physical attributes that enable a clear understanding of the landscape’s formative processes due to the visibility and abundance of physical attributes that enable a clear understanding of the landscape’s formative processes.
- d. The **very high transient values** associated with the coastal processes, climatic characteristics and birdlife.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high historic values** associated with the lighthouse and shipwrecks in the area.
- c. The **very high shared and recognised values** associated with Farewell Spit/Onetahua.
- d. The **very high recreational and scenic values** associated with Farewell Spit/Onetahua and largely drawing from the aesthetic, naturalness and memorability qualities associated with the area, together with their strong sense of remoteness and ‘getting away from it all’.

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

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

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

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

Landform/Geological Feature Type: A-Large Landform.

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

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

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

The feature coincides with an area of outstanding natural character (generally as a consequence of the high or very high ecological values).

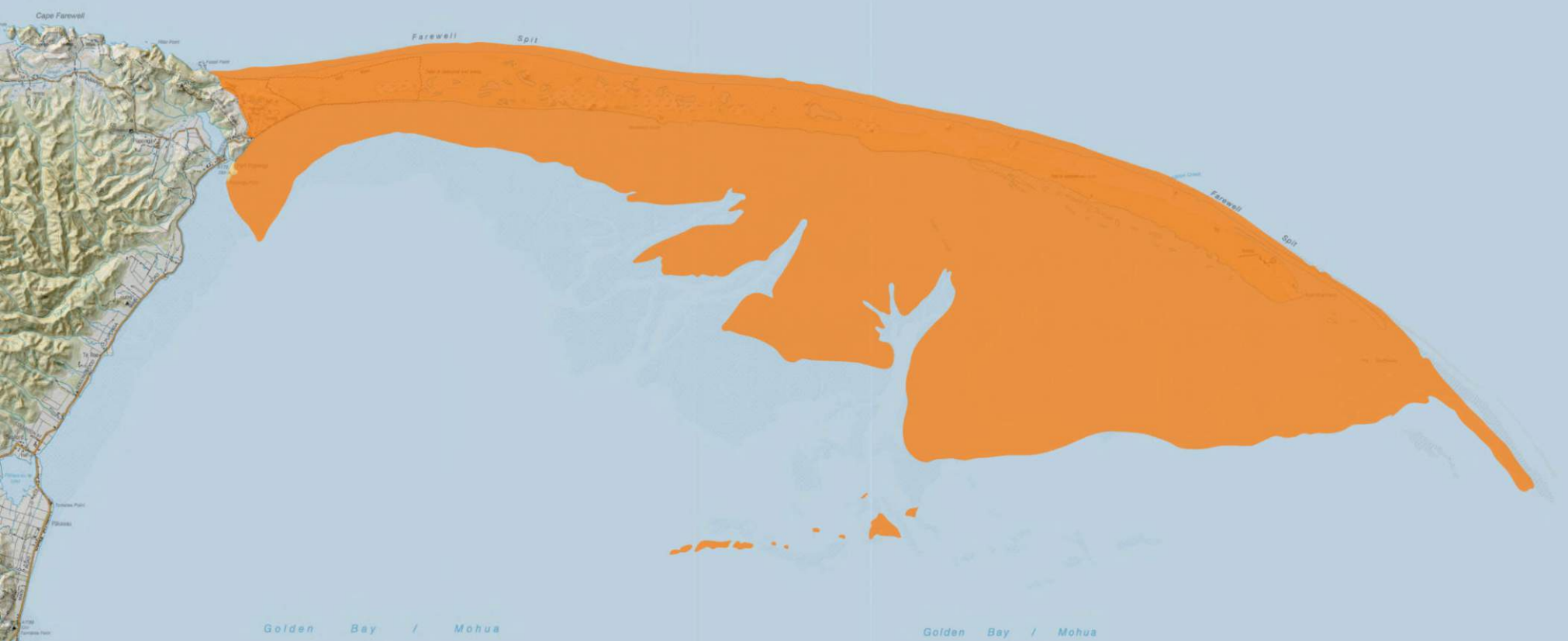
PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

A degree of modification is evident at Farewell Spit/Onetahua and includes: the visitor facilities including carpark, interpretation signage, toilets, walking track and viewing platforms and the working farm at its southern end; tracks, the lighthouse and (regulated) tourist passenger vehicles.



Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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The relatively modest scale and character of these modifications and the relatively limited level of human activity, together with their role in enabling an appreciation and understanding of the more natural features (landform, vegetation and fauna) means that they do not appreciably detract from the sense of naturalness associated with Farewell Spit. In the majority of locations, there is a very high sense of remoteness. Overall, naturalness is rated as **high to very high**.

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

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

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

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

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

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

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

- The spit landform.
- The extensive tidal flats landform.
- The dune and wetland vegetation communities.
- Regenerating bush features.
- Fauna habitat.
- The lighthouse.
- A sense of remoteness and wildness.
- The darkness of the night sky.
- For cultural values, see **Appendix H**.

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

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





ONF 7: Hāmama and Tākaka Valley Sinkholes

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale, proliferation, intactness and rarity of the sinkholes. Water and vegetation patterns contribute to these values in places.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the sinkholes, despite their modified pastoral context.
- b. The **high legibility and expressiveness values** due to the exposed nature of the landforms.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The high geoscience values of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

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

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Best examples of numerous small sinkholes in valley floor where gravels have collapsed into dolines dissolved in the marble-limestone beneath.
- b. Sinkholes in gravel alluvium overlying marble or limestone are uncommon in New Zealand, especially in such a concentration.

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

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Some regenerating bush and riparian cover.

Particularly significant **hydrological** attributes include:

- a. Some sinkholes filled with water permanently or periodically.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

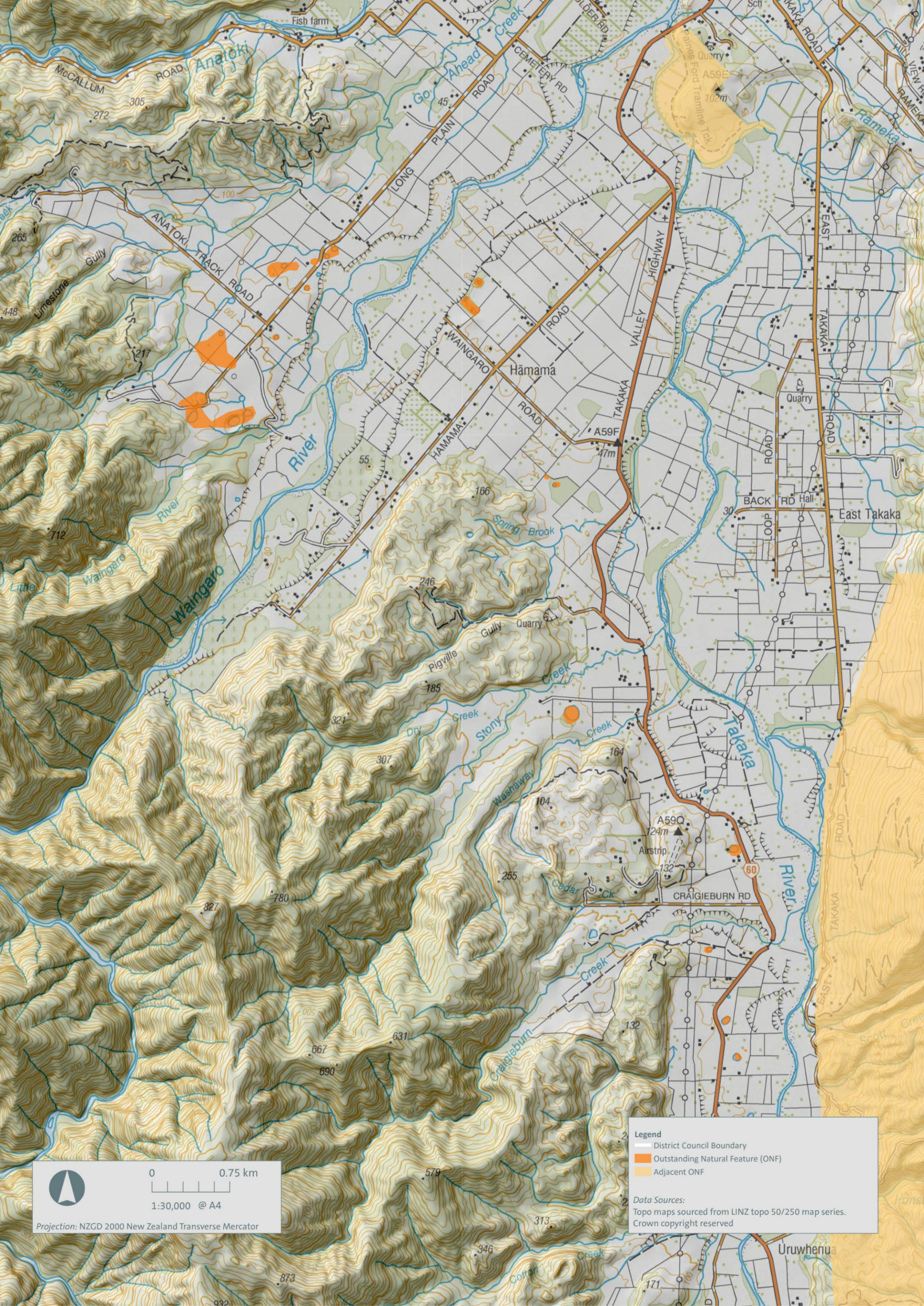
The exposed nature of the landforms, particularly those in pastoral cover or filled with water, enables an appreciation of the landscape’s formative processes. Potential for explaining the origins of these sinkholes and the underground aquifer system that feeds Te Waikoropupū freshwater springs in the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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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



- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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00.75 km

1:30,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

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

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

- The sinkhole landforms.
- The bush and riparian setting.
- The low-key and modest built development character (including low-intensity pastoral farming).
- For cultural values, see **Appendix H**.

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

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



ONF 8: Horse Terrace Bridge Gorge

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the intactness and rarity of the bush-fringed sluice-like gorge landform coupled with a dramatic and dynamic major river system.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the road, bridge and pastoral farming context of the local area. The enclosed vegetated character of the area plays a role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within ONF 8.
- b. The **very high aesthetic and memorability values** of the area as a consequence of the spectacular and highly engaging views from the bridge of the river and gorge set within a lush bush context.
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms and river. The visual accessibility of the gorge (via the bridge) is of importance in this regard.
- d. The **high transient values** as a consequence of the highly dynamic qualities of the river itself.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **moderate-high shared and recognised values** associated with the feature.
- c. The **moderate-high recreational and scenic values** associated with the feature.

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

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Narrow sluice-box-like gorge cut through hard Miocene sedimentary rocks and viewable from Horse Terrace Bridge on Matakитaki Road.
- b. Hard band of sedimentary rocks crosses valley, with river cutting a narrow gorge through it. Beautifully shaped potholes and erosional features. Probably formed as a result of glacial moraine blocking the original river course, causing deviation and erosion through this hard rib of rock.
- c. Excellent example of a narrow sluice-box gorge through hard rocks on a major river.

Narrow sluice-box-like gorges rare nationally.

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Mature bush context.

Particularly significant **hydrological** attributes include:

- a. The dynamic waters of the Matakитaki River.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

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

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

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



MATAKĪTAKI

Murty
711

648

ROAD

A5L1

344m

Hall

Horse Terrace

Murty
Flat

Upper Matakītaki

JBROOKS

ROAD

751

860



0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

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

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

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

- The gorge landforms.
- The hard sedimentary rock exposures
- The bush setting.
- The historic Horse Terrace Bridge.
- The low-key and modest built development character (including signage).
- For cultural values, see **Appendix H**.

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

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



ONF 9: Kākā Point and Island

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **high physical values** due to the scale, rarity, prominence and ease of visibility of the granite cliffs set within a regenerating native bush and coastal setting.

Perceptual Values

- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the modification throughout the top of Kākā Point (including roading, car parking, grassed areas, signage).
- b. The **very high aesthetic, scenic, and memorability values** of the area as a consequence of: the highly engaging and appealing views of the coastal cliffs and landforms set within a lush bush and dynamic seascape context from the popular area of Kaiteriteri; and the highly attractive views afforded from Kākā Point itself out over Kaiteriteri and Tasman Bay.
- c. The **very high legibility and expressiveness values** due to the exposed nature of the landforms and their high public profile.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **very high shared and recognised values** associated with Kākā Point and Island.
- c. The **high recreational and scenic values** associated with the area.

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





Tokongawha Point

Tokangawhā / Split Apple Rock

Towers Bay

33 Ngaio Island

Ngaio Bay

Honeymoon Bay

Breaker Bay

Kākā Island

Kaiteriteri

Torlesse Rock

Dummy Bay

Stephens Bay

Anarewa Point

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

Rocky headlands and islands are not abundant in the district.

Landform/Geological Feature Type: B Small Landform

Particularly significant **ecological** attributes include:

- a. Regenerating bush context to the cliffs.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

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

For **cultural values**, see **Appendix H**.

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

Popular scenic and recreation destination.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

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

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

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

- The coastal cliffs and rock formations.
- The bush setting.
- For cultural values, see **Appendix H**.

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

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

ONF 10: Labyrinth Rocks Karst

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

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

Perceptual Values

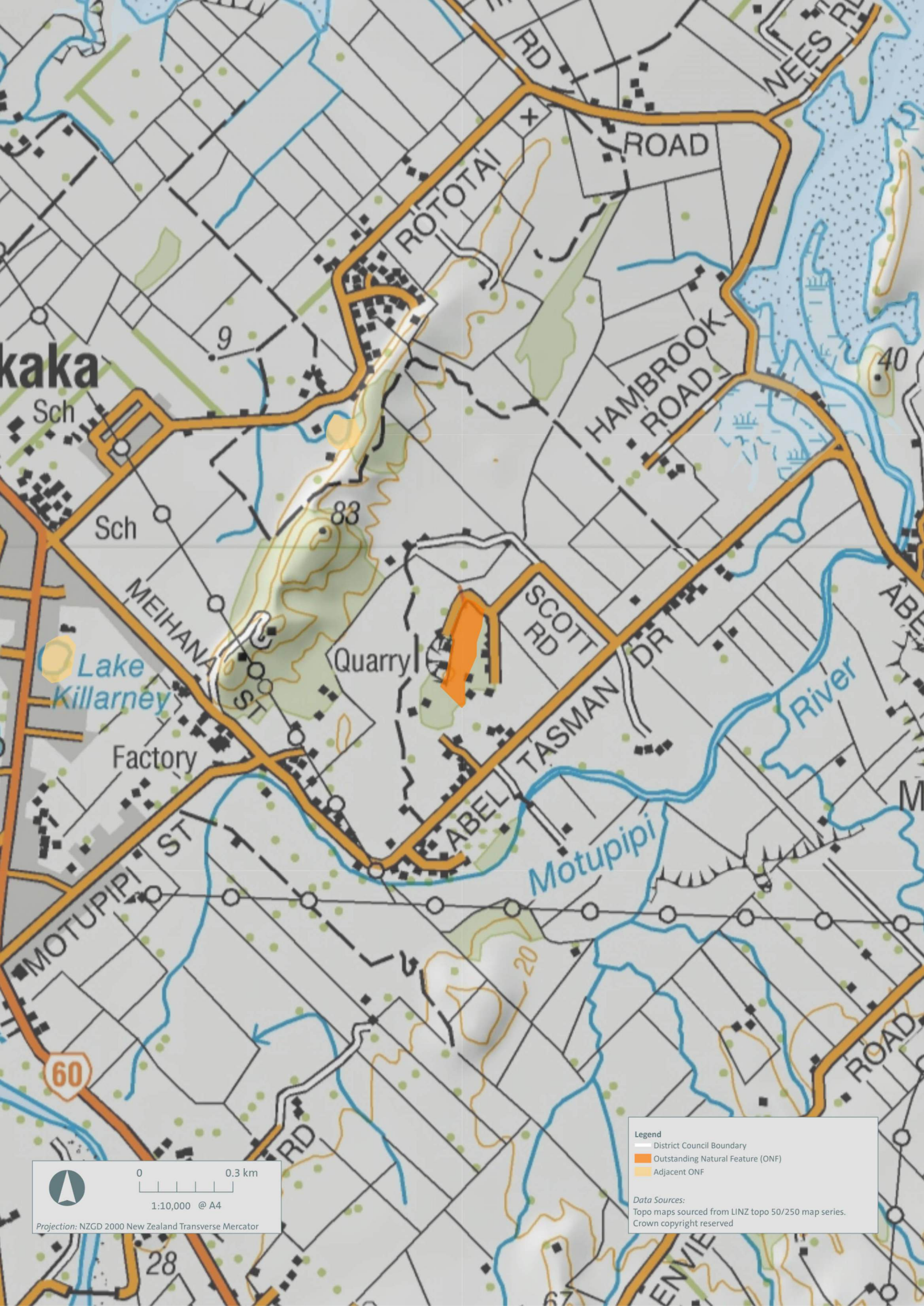
- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the karst formations, despite the existing maze of tracks and figurines.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the highly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

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high recreational values** of the area.

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





kaka

Sch

Sch

MEIHANA ST

Quarry

SCOTT RD

CABEL TASMAN DR

Motupipi

River

MOTUPIPI ST

60

0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

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

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Some regenerating bush cover.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

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

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

- The intricate karst formations.
- The bush setting.
- The low-key and modest built development character (including tracks).
- For cultural values, see **Appendix H**.

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

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

ONF 11: Lake Killarney Sinkhole Lake

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

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

Perceptual Values

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

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high recreational values** of the area.

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





Waitapu

Tākaka

Takaka

Lake Killarney

Oxidation ponds

Quarry

Factory

Quarry

SPEC

ROAD

60

28

88

9



0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Some regenerating bush cover.

Particularly significant **hydrological** attributes include:

- a. Freshwater lake.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

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

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

- The freshwater sinkhole lake.
- The vegetated setting.
- For cultural values, see **Appendix H**.

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

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

ONF 12: Lower Matakitaki Landslide

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **high physical values** due to the scale, rarity, legibility and ease of visibility of the landslide landform.

Perceptual Values

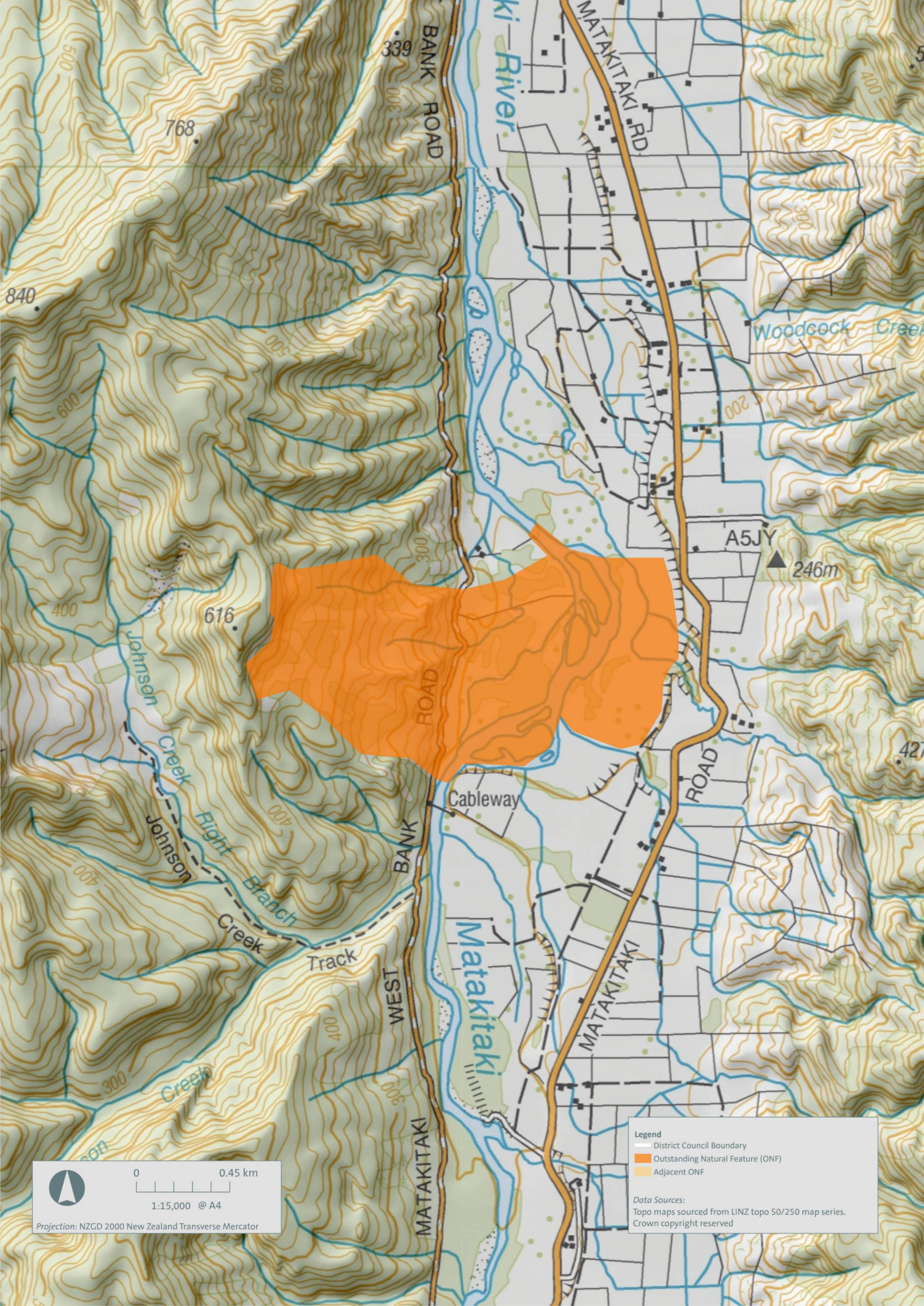
- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite the modification to the landform to form farm tracks; and the fragmented and, in places, exotic vegetation cover.
- b. The **high legibility and expressiveness values** due to the exposed nature of the landform and its public profile.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high historic values** associated with the area.

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







00.45 km

1:15,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

District Council Boundary

Outstanding Natural Feature (ONF)

Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.

Crown copyright reserved

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Classic landslide with a clear scarp in Miocene sedimentary rocks high above the west side of the river and extensive bouldery deposits on the valley floor and across the river.
- b. The historically most significant and memorable landslide brought down by the Murchison Earthquake.

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

Landform/Geological Feature Type: A Large Landform.

PERCEPTUAL ATTRIBUTES AND VALUES

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

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

The extent of ONF 12: Lower Matakitaki Landslide corresponds to the clearly recognisable ‘footprint’ of the landslide.

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

- The landslide landforms.
- For cultural values, see **Appendix H**.

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

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

ONF 13: Maruia Falls

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

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

Perceptual Values

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

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high shared and recognised values** associated with ONF 13.
- c. The **high recreational and scenic values** associated with the falls.

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





WINGARRY RD

A5JH
291m ▲

Jecklin

Creek

Straight 360

Goat

Creek

Maruia Falls

ROAD

Pipeline

Cableway

Shenandoah

POINTON

Lower Maruia Bridge

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.
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0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

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

Landform/Geological Feature Type: B Small Landform.

Particularly significant **hydrological** attributes include:

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

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

Informal lookout and low-key signage.

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

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

- The Maruia Falls.
- The bush and cliff setting.
- The low-key and modest built development character (including signage).
- For cultural values, see **Appendix H**.

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

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

ONF 14: Motueka Sand Spit

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

High rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

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

Perceptual Values

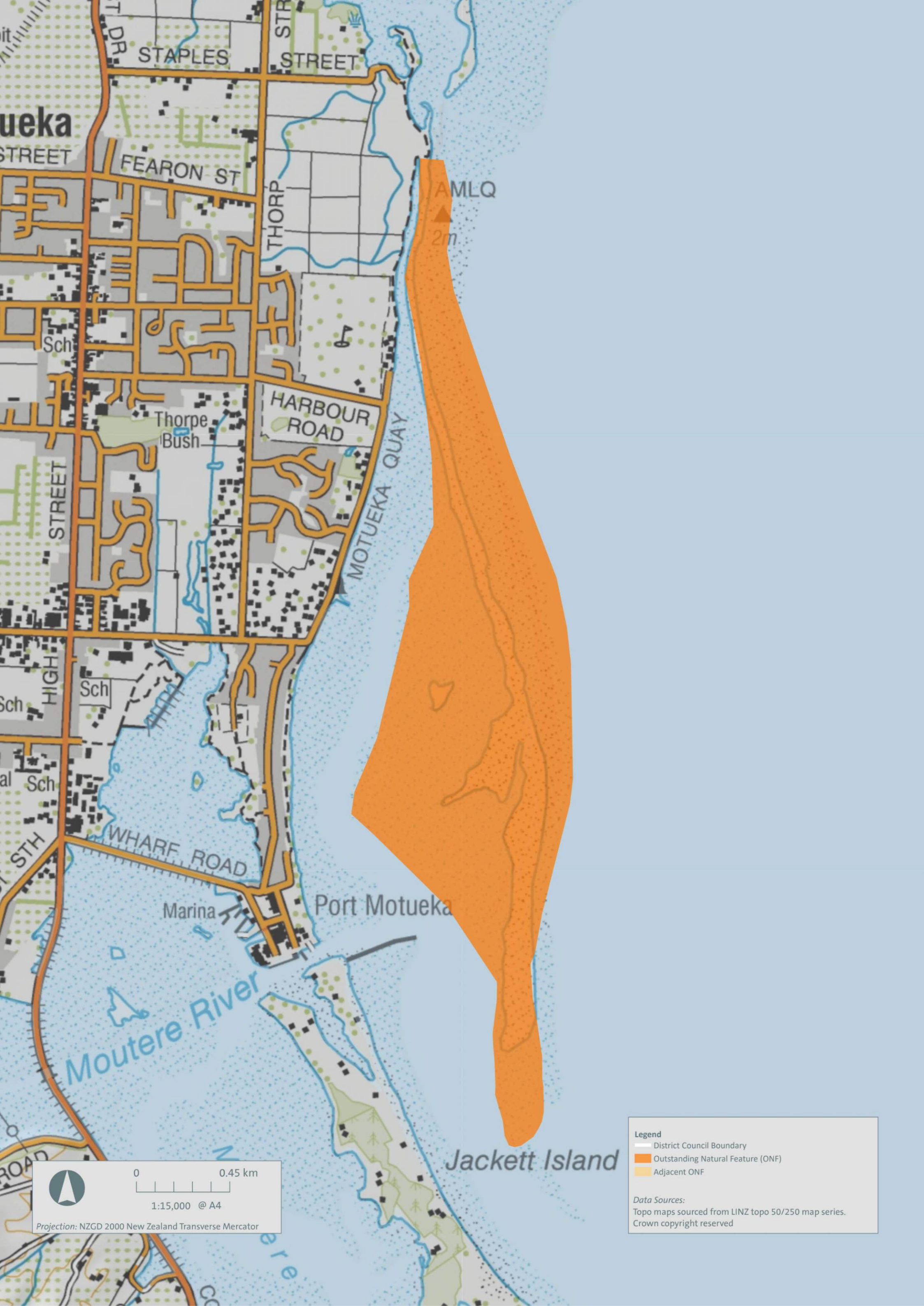
- a. The **very high naturalness values** arising from the dominance of natural landscape features, patterns and processes as a consequence of the relatively unmodified nature of the immediate area, its sense of wildness (deriving from the coastal context) and the low-key character of built modification.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

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high shared and recognised values** associated with Motueka sand spit.
- c. The **high recreational and scenic values** associated with Motueka sand spit and largely drawing from the aesthetic, naturalness and memorability qualities associated with the area, together with the strong sense of endemicity that they convey.

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





Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

Long feathered sand spits uncommon in Tasman Bay.

Landform/Geological Feature Type: A-Large Landform.

Particularly significant **ecological** attributes include:

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

Particularly significant **hydrological** attributes include:

- a. Highly tidal estuarine waters and seascape.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

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

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

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

- The spit landform.
- The extensive tidal flats landform.
- The dune and wetland vegetation communities.
- Fauna habitat.
- A relative sense of wildness and isolation.
- The darkness of the night sky.
- For cultural values, see **Appendix H**.

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

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

ONF 15: Motupipi Hogback

GENERAL DESCRIPTION OF AREA

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

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale, intactness and rarity of the limestone ridge formation. The regenerating bush cover to the area adds to these values.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the Motupipi Hogback.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the distinctive and appealing views of the bush-covered limestone ridge formations from the surrounding settled valley; and the visual impression of the area as a more ‘natural’ landscape feature within the pastoral lowlands of the Tākaka Valley.
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms and the appreciation of such values afforded by the visibility of the area.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

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

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

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

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

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

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

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

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

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

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

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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





00.5 km

1:20,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

 District Council Boundary

 Outstanding Natural Feature (ONF)

 Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.

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

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

- The limestone rock formations.
- The bush setting.
- The low-key and modest built development character.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE
INAPPROPRIATE WITHIN ONF 15

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



ONF 16: Moutere Bluff to Kina Coastal Cliffs

GENERAL DESCRIPTION OF AREA

ONF 16: Moutere Bluff to Kina Coastal Cliffs corresponds to the discontinuous sequence of steep and high sea cliffs extending northwards from the northern end of Te Mamaku/Ruby Bay to the southern end of Kina Beach.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

The largely unmodified nature of the landforms themselves means that they rate as **high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale, rarity and visibility of the conglomerate cliffs set within a native bush and coastal setting.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite its modified context.
- b. The **high aesthetic, scenic, and memorability values** of the area as a consequence of the highly engaging and appealing views of the conglomerate cliffs set within a dynamic seascape context.
- c. The **very high legibility and expressiveness values** due to the exposed nature of the landforms and their high public profile.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

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



Tasman Bay

Moutere Bluff

Te Mamaku / Ruby Bay

- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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1:20,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Largest and best exposures of Moutere Gravels - one of Tasman’s most significant rock units. These fill the Moutere Graben and underlie a vast area of the Tasman District. The gravels were derived from the rising Southern Alps, south of the Alpine Fault, between 3 and 5 million years ago, before the mountains to the east and west began rising. The cliff exposures include sand lenses and channel fills in the gravels which help explain their fluvial plain origins.
- b. Easily accessible opportunities to explain the recent history of uplift of the mountains of the Tasman District and the subsidence of the Moutere Graben followed by more recent uplift and erosion.
- c. Only substantial sea cliffs along the Tasman Bay coast between Tahunanui and Riwaka River.

Landform/Geological Feature Type: B Small Landform

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Dramatic close, mid-range and longer-range views of the highly sculptural cliffs set against a dynamic seascape context. This includes views from the scattered reserves along the cliff sequence.
- b. Sweeping and attractive close, mid-range and longer-range views from the top of the cliffs out over Tasman Bay.

The visibility of the cliffs from much of the Nelson coastal area at a range of distances means that the area reads as somewhat of a local landmark.

The largely unmodified nature of the cliffs themselves together with their dramatic scale (up to approximately 60m high) and immediate seascape context means that they rate as high in terms of naturalness. This is despite the modified landward context of the features, which includes a pastoral land use and rural living development.

The exposed nature of the cliffs enables an appreciation of the landscape’s formative processes. Several sections of the cliff sequence coincide with Council Reserves. The access afforded via these reserves and the coastline more generally serves to enhance these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

The extent of ONF 16: Moutere Bluff to Kina Coastal Cliffs corresponds to the discontinuous sequence of steep sea cliffs extending northwards from the northern end of Te Mamaku/Ruby Bay to the southern end of Kina Beach. The ONF captures the cliff landforms only and excludes the flanking reserve areas.

KEY CHARACTERISTICS AND QUALITIES OF ONF 16 TO BE PROTECTED FROM ADVERSE EFFECTS

- The coastal cliffs.
- Exposures of the fluvial gravels in the cliffs.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 16

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Exotic vegetation.
- Infrastructure on the cliffs (e.g. cell phone towers, large signage).
- Inappropriate built development (as a consequence of its location, scale and/or design), including: buildings, infrastructure, and erosion structures.



ONF 17: Mt Arthur Marble Karst and Caves

GENERAL DESCRIPTION OF AREA

ONF 17: Mt Arthur Marble Karst and Caves encompasses the marble mountains of Mt Arthur within Kahurangi National Park and is located within ONL 2 Parapara Kahurangi Ranges. (NB part of this feature extends outside of the Tasman District).

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these areas of karst and caves means that they qualify as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the area is unmodified, including the landforms and the alpine / subalpine vegetation communities.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the rarity and uniqueness of the karst and cave formations and the high ecological values associated with the alpine and subalpine vegetation communities.

Perceptual Values

- a. The **very high naturalness values** associated with the karst and cave feature due to its unmodified state enhanced by the sense of remoteness associated with the area.
- b. The **high aesthetic and memorability values** of the feature as a consequence of the highly attractive views from the mountain tops, out over the karst feature, wider national park, lower-lying settled plains and coast, and the memorable and striking views back to the distinctive mountain peaks from the wider district.
- c. The **high legibility and expressiveness values** due to the exposed nature of the karst formations in particular. The public accessibility of the area (via hiking track) serves to enhance these values.
- d. The **very high remoteness and wildness values** as a consequence of the relative inaccessibility of the area and its unmodified character and context.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high recreational and scenic values** due to the location of the feature within Kahurangi National Park on a popular hiking route, and as a mecca for recreational cavers.

These various highly rated attributes and values come together to firmly establish the Mt Arthur Marble Karst and Caves as an outstanding and spectacular feature that stands apart from much of the balance of the district.

Photograph source: <https://nelsontrails.co.nz/mt-arthur/>





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Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. One of the best areas of glacio-karst in the southern Hemisphere.
- b. Mt Arthur is a large marble massif reaching 1809m with extensive alpine and glaciated karst and deep cave systems.
- c. The feature contains the two deepest caves in New Zealand: Nettlebed Cave 889 m deep (and 24.3 km long) and Ellis Basin System 775 m deep (and 28.7 km long).
- d. Windrift Cave, Falcon Cave, Gorgoroth Cave, Thomo Thyme Cave System and Pearse Resurgence.
- e. Windrift Cave is a vertical shaft system 300 m deep which intersects horizontal streamway, vadose and phreatic development ends in sump. 4410 m of surveyed passage.
- f. Nettlebed contains some of oldest speleothems in NZ and blue stalactites.
- g. Thomo Thyme Cave system is source of the Pearse Resurgence. It has complex speleogenesis controlled by complex folding of marble and schist.
- h. Pearse Resurgence drains many of the marble caves and is the deepest known water-filled cave in Australasia.

NZ Geopreservation Inventory Importance rating of International.

Landform/Geological Feature Type: B Large Landform; F Cave.

Particularly significant **ecological** attributes include:

- a. Intact alpine and subalpine vegetation communities.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Highly attractive mid and long-range views from the mountain top out over the national park, ‘settled’ plains and coastline.
- b. Highly attractive close, mid and longer-range views out over the karst feature itself.
- c. Distinctive and memorable views of the mountain peaks from Northwest Nelson, including Richmond and Nelson City.

The distinctive and dramatic landforms (and vegetation) make the area highly visually appealing and memorable.

The visibility of the elevated peak landforms from the wider district means that the landform feature reads as somewhat of a landmark along the ranges separating Tasman Bay from Golden Bay.

The largely unmodified nature of the landform and vegetation cover, and the relative isolation of the area within which it is set, means that the feature rates as **very high** in terms of naturalness.

The exposed nature of the karst landforms in particular enables an appreciation of the landscape’s formative processes. The public visibility of the area (via hiking track) serves to enhance these values.

There is a very high sense of remoteness and wildness due to the isolated location of the feature (accessible by hiking track only).

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

Historic pastoral land use.

High recreational and scenic values as located on hiking track route that is popular with locals.

One of the most valued recreational caving areas in New Zealand.

The boundaries of ONF 17: Mt Arthur Marble Karst and Caves corresponds to the ‘footprint’ of the caves and karst area.

KEY CHARACTERISTICS AND QUALITIES OF ONF 17 TO BE PROTECTED FROM ADVERSE EFFECTS

- The karst landform features.
- The caves and their entrances and exits.
- The alpine and subalpine vegetation communities.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 17

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development including: buildings, infrastructure, signage, tracks, seating, as a consequence of its location, scale and/or design.
- Exotic vegetation.

Photograph source: <https://nelsontrails.co.nz/mt-arthur/>



Photograph source: <https://nelsontrails.co.nz/mt-arthur/>



ONF 18: Mt Owen Marble Karst and Caves

GENERAL DESCRIPTION OF AREA

ONF 18: Mt Owen Marble Karst and Caves encompasses the marble mountains of Mt Owen within Kahurangi National Park. The feature is located within ONL 2 Parapara Kahurangi Ranges.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these areas of karst and caves means that they qualify as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the area is unmodified, including the landforms and the alpine / subalpine vegetation communities.

Very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the rarity and uniqueness of the karst and cave formations and the high ecological values associated with the alpine and subalpine vegetation communities.

Perceptual Values

- a. The **very high naturalness values** associated with the karst and cave features due to their unmodified state enhanced by the sense of remoteness associated with the area.
- b. The **high aesthetic and memorability values** of the features as a consequence of the highly attractive views from the mountain tops, out over the karst features, wider national park and the memorable and striking views back to the distinctive mountain peaks from the wider district.
- c. The **high legibility and expressiveness values** due to the exposed nature of the karst formations in particular. The public accessibility of the area (via hiking tracks) serves to enhance these values.
- d. The **very high remoteness and wildness values** as a consequence of the relative inaccessibility of the area and its unmodified character and context.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high recreational and scenic values** due to the location of the feature within Kahurangi National Park and on a popular hiking route, and as a mecca for recreational cavers and adventure speleologists.

These various highly rated attributes and values come together to firmly establish the Mt Owen Marble Karst and Caves as an outstanding and spectacular feature that stands apart from much of the balance of the district.



MARINO MOUNTAINS

LOOKOUT RANGE

MARINO

OWEN VALLEY

A4L9

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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1:40,000 @ A4
Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. One of the best areas of glacio-karst in the Southern Hemisphere.
- b. Mt Owen is a large marble massif, reaching 1875m, with extensive alpine and glaciated karst and deep cave systems.
- c. Bulmer Cavern currently at 63.5 km in survey length and 755 m deep is the longest cave in New Zealand.
- d. Vertical shaft systems from the surface intersect ancient phreatic passages now characterised by lots of rockfall breakdown. Secondary vadose development often present in floor of passage, (in marble).
- e. Owen Ice Cave is the best ice cave in New Zealand with ice speleothems.
- f. Many other caves are known and mapped within the Mt Owen massif.
- g. Mt Owen itself is the highest peak in Kahurangi National Park.

Landform/Geological Feature Type: B Large Landform; F Cave.

Particularly significant **ecological** attributes include:

- a. Intact alpine and subalpine vegetation communities.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Highly attractive and memorable mid and long-range views from the mountain top out over the national park.
- b. Highly attractive and striking close, mid and longer-range views out over the striking surface karst feature itself from the tracks in the area.
- c. Distinctive and memorable views of the mountain peaks from Northwest Nelson, including Richmond and Nelson City.

The distinctive and dramatic landforms (and vegetation) make the area highly visually appealing and memorable.

The visibility of the elevated peak landforms from the wider district means that the landform feature reads as somewhat of a landmark along the ranges backdropping Tasman Bay.

The largely unmodified nature of the landform and vegetation cover, and the relative isolation of the area within which it is set, means that the feature rates as **very high** in terms of naturalness.

The exposed nature of the karst landforms in particular enables an appreciation of the landscape’s formative processes. The public visibility of the area (via hiking tracks and scenic flight route) serves to enhance these values.

There is a very high sense of remoteness and wildness due to the isolated location of the feature (accessible by hiking track only).

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

High recreational and scenic values as located on hiking track routes that are popular with locals and scenic flight route.

One of the most valued recreational caving areas in New Zealand.

The most cherished attraction for adventure speleologists in New Zealand.

The boundaries of ONF 18: Mt Owen Marble Karst and Caves corresponds to the ‘footprint’ of the marble caves and karst area.

KEY CHARACTERISTICS AND QUALITIES OF ONF 18 TO BE PROTECTED FROM ADVERSE EFFECTS

- The karst landform features.
- The caves and their entrances and exits.
- The alpine and subalpine vegetation communities.
- The sense of remoteness and wildness.
- The darkness of the night sky.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 18

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



Photographs supplied by James Bentley

ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence

GENERAL DESCRIPTION OF AREA

ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence corresponds to a cutting on the disused Nuggety Creek Road across the Buller river from State Highway 6 above the Buller River (true left side), roughly midway between Longford and Owen River. It also includes rock exposures on both sides of the river in this vicinity.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the fossil exposure and sedimentary sequence means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The feature is in a relatively unmodified state (albeit arising from a road cutting) although the immediate context is modified by the old road and scrub/exotic vegetation.

Naturalness of the feature is rated as **moderate-high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the intactness, geoscience importance and rarity of the features.

Perceptual Values

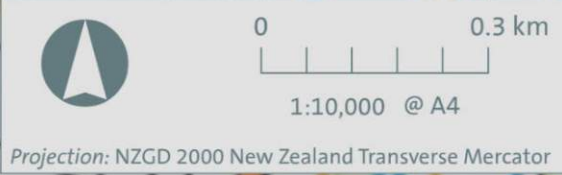
- a. The **moderate high naturalness values** of the feature, taking into account the fact that the feature was revealed by a road cutting, and is flanked by exotic and scrub vegetation.
- b. The **moderate high memorability values** of the site as a consequence of: The spectacular leaf fossils.
- c. The **high legibility and expressiveness values** due to the exposed nature of the geological sedimentary rock sequence, the easily recognised character of the fossil leaves and the public profile of the feature near a highway.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high geoscience values** associated with the feature as a consequence of the regard with which it is held in by the geological community, its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish the Nuggety Creek Road Fossil Leaves and Sedimentary Sequence as an outstanding and spectacular geological feature. Whilst the range of attributes and values that are represented in the feature is more limited than some of the other identified ONFs in the district, the intactness, geoscience importance and rarity of the attributes and values present favours an outstanding classification.





Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Exposures of conglomerate, sandstone, carbonaceous mudstone, coal and rich middle Miocene leaf fossils.
- b. Excellent example of a fossil leaf deposit in alluvial sedimentary rock sequence.
- c. One of most diverse and well-preserved Miocene fossil leaf localities in NZ. Type locality of some species of leaf fossils. Best of two easily accessible exposures of the fluvial valley deposits of the Longford Syncline in Murchison area.
- d. Well-preserved leaves of middle Miocene age, uncommon nationally.
- e. Landform/Geological Feature Type: E - Small Exposure

The extent of ONF 19: Nuggety Creek Road Fossil Leaves and Sedimentary Sequence corresponds to the extent of the sedimentary rock exposures in the riverbed and the road cutting only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 19 TO BE PROTECTED FROM ADVERSE EFFECTS

- The physical features described above.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 19

- Inappropriate earthworks, mining and/or quarrying. Some road work could enhance the exposure.
- Any built development (as a consequence of its location, scale and/or design), including: roading, infrastructure, erosion protection works, signage and buildings.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Fossil leaves are easily recognisable and are likely to be memorable, particularly to those who have not seen them before.

The road cutting has exposed the natural sequence of sedimentary rock which was not visible previously. Overall, naturalness is rated as **moderate-high**.

The exposed nature of the fossil leaves and sedimentary sequence enables an appreciation of part of the geological history of the region.

The accessibility of the area enhances these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

ONF 20: Paines Ford, Irvines Cave, Oxbow and Spring

GENERAL DESCRIPTION OF AREA

ONF 20: Paines Ford, Irvines Cave, Oxbow and Spring comprises a collection of karst formations within a stand of bush, set in pastureland on the eastern side of the Tākaka River (just south of Tākaka). The feature also includes the abandoned oxbow channel of the Tākaka River that was cut off in the 1930s, a cave and a spring.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

Whilst pastureland is evident within Paines Ford, the relatively unmodified character of the limestone, bush and river elements together with the reserve use of the pastoral areas means that more natural landforms, patterns and processes remain to the fore.

High rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **high physical values** due to the scale, rarity and visibility of the limestone formations set within a native forest and river setting, the rarity and complexity of the multi-level cave system, and the freshwater spring.

Perceptual Values

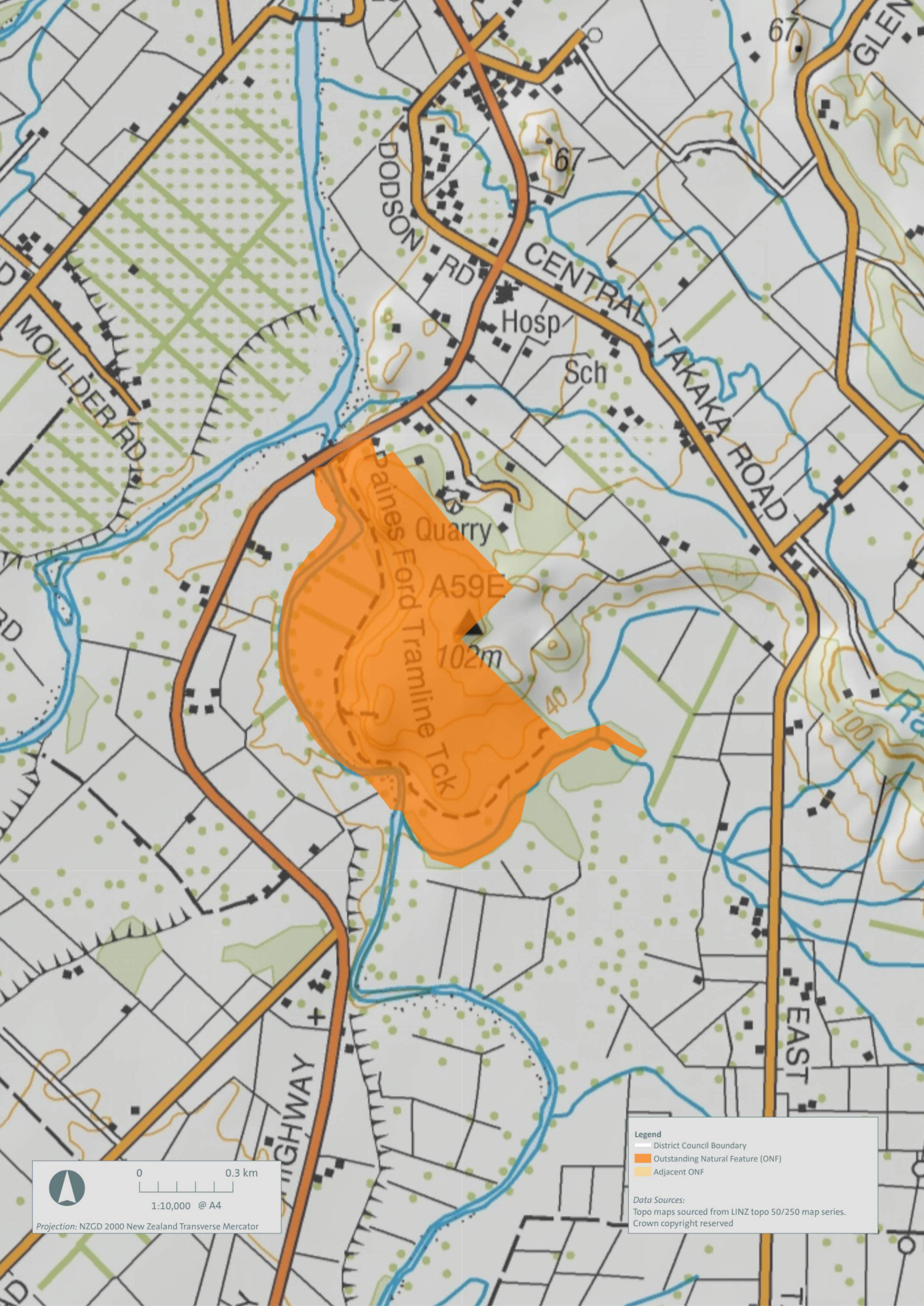
- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the Paines Ford area. This is despite the walking track, signage, reserve facilities and pastoral areas.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush bush and river context; and the visibility of the area from SH60 Tākaka Valley Road which serves to confer a landmark quality to the area.
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms and the appreciation of such values afforded by the public accessibility of the area.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high shared and recognised values** associated with Paines Ford.
- c. The **very high recreational and scenic values** associated with Paines Ford and the reserve by the recreational rock-climbing community.

These various highly rated attributes and values come together to firmly establish Paines Ford, Irvines Cave, Oxbow and Spring as an outstanding and spectacular landscape feature that stands apart from much of the balance of the district.





- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. One of the best and most easily visible examples of stalactites formed on exposed limestone bluffs.
- b. Good examples of hooked biokarst.
- c. Multi-level Irvine Cave system with a complex maze of passages and impressive speleothems in a well-preserved condition. Caves of this complexity rare in the Tasman District.

Biokarst stalactite uncommon in Tasman and New Zealand more generally.

Groups of stalactites formed high on imposing bluffs of Oligocene Tākaka Limestone. Solution processes still active in wet season.

Limestone bluffs: Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: Bluffs - D Large Exposure; Irvines Cave – F Cave; Oxbow and Spring - C Active Natural System.

Particularly significant **ecological** attributes include:

- a. Regenerating bush context for much of the area.

Particularly significant **hydrological** attributes include:

- a. Excellent example of a freshwater spring which is uncommon in the Tasman District. Strongly flowing spring issuing from a vent in Tākaka Limestone, situated in the abandoned bed of the Tākaka River, cut off as an oxbow in the 1930s. The flow sustains a watercourse now choked with willows. Part of Arthur Marble - Tākaka Limestone aquifer.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Dramatic close and mid-range views of the limestone formations set within a bush and river context.
- b. Impressive longer range views from SH60 Tākaka Valley Highway across to the limestone bluffs set within a bush context and which forms a marked contrast with the predominantly pastoral working rural landscape context.
- c. Highly engaging close-range views of cave features.

The scale and sculptural qualities of the limestone formations juxtaposed with the bush and river setting (including the oxbow and spring) make the area highly visually appealing and memorable. The visibility of Paines Ford from the state highway means that these qualities are elevated such that the area reads as somewhat of a landmark.

The vivid contrast between the more natural bush fringed landforms and the surrounding working rural landscape throughout the alluvial flats of the Tākaka Valley and the busy highway contributes to this appeal and memorability.

The dominance of the more natural landscape elements, features and patterns and relatively limited level and sympathetic character of modification (walking tracks, signage, facilities etc.) is such that naturalness is rated as **high**.

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

Within Paines Ford, the reserve status of the area contributes a sense of restfulness.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

Walking track follows the alignment of a tramline that operated between the early 1880s and 1905 and was used to take timber from the Tākaka Valley down to Waitapu wharf.

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

Extremely popular for rock climbing. The limestone bluffs at Paines Ford are described as one of best rock-climbing areas in New Zealand.

Popular swimming holes and walking track.

Picnic facilities, toilets and carpark support the use of the area for recreational purposes.

The boundaries of ONF 20: Paines Ford, Irvines Cave, Oxbow and Spring 'capture' the extent of the DoC Reserve and extend onto small areas of adjoining private farmland (adjacent the watercourse) where the landform and vegetation patterning is such that the private land reads as part of the broader Paines Ford, Irvines Cave, Oxbow and Spring landscape feature.

KEY CHARACTERISTICS AND QUALITIES OF ONF 20 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations.
- The caves.
- The freshwater spring and oxbow.
- The bush setting.
- The immediate Tākaka River context.
- The low-key and modest built development character (including signage and the visitor facilities).
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 20

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

ONF 21: Pūponga Point

GENERAL DESCRIPTION OF AREA

ONF 21: Pūponga Point corresponds to the sea stack, cliffs and intertidal platforms at Pūponga Point near the western end of Farewell Spit.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the sea stack, cliffs and intertidal platforms means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

The largely unmodified nature of the landforms themselves together with their (predominantly) regenerating bush cover means that they rate as **high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to its well-exposed sedimentary rock sequence, disconformity and fossils.

Perceptual Values

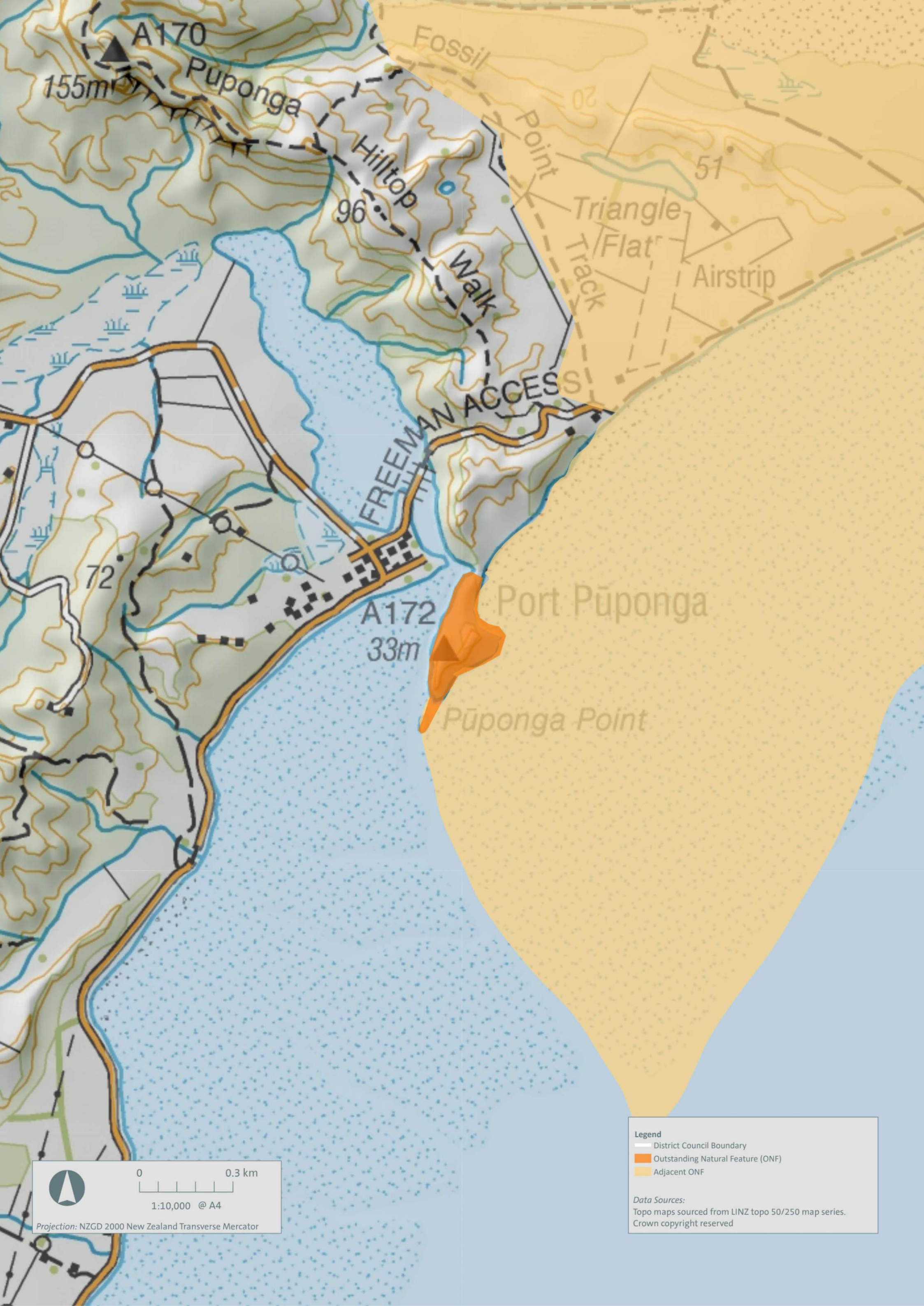
- a. The **high naturalness values** arising from the largely unmodified nature of the landforms themselves together with their (predominantly) regenerating bush cover.
- b. The **high aesthetic, scenic, and memorability values** of the area as a consequence of: the highly engaging and appealing views of the coastal cliffs and landforms set within a lush bush and dynamic seascape context from Pūponga, the water and the Farewell Spit and Pūponga Farm Park (DoC Reserve).
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms and their public profile.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

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





A170

155m

Pūponga

Hilltop

96

Walk

FREEMAN ACCESS

Fossil

Point

Triangle Flat

Airstrip

Port Pūponga

Pūponga Point

A172
33m

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Best representative sequence in NW Nelson of strata deposited here between 65 and 25 million years ago (Paleocene to Oligocene).
- b. Fluvatile sandstone (Abel Head Sandstone) and conglomerate (Farewell Conglomerate), and fossil bearing glauconitic sediments disconformably overlying Pakawau Group (Farewell Formation). Exposed equivalents of the extensive subsurface strata in Taranaki Basin to the north.
- c. Oligocene fossil echinoids and molluscs (in greensand) and disconformity uncommon in Tasman District.

NZ Geopreservation Inventory Importance rating of Regional.

Landform/Geological Feature Type: D - Large exposure; E - Small exposure.

Particularly significant **ecological** attributes include:

- a. Mature coastal cliff vegetation and regenerating bush features.

Particularly significant **hydrological** attributes include:

- a. Highly dynamic seascape context that effectively surrounds the point.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Highly attractive mid and longer-range views of the dramatic and highly sculptural sea stack, cliffs and intertidal platforms from settlement, the water and the Farewell Spit and Pūponga Farm Park (DoC Reserve).

The distinctive and visually pleasing qualities of the prominent coastal landform with its lush bush and highly dynamic seascape setting make the area highly visually appealing and memorable. The visibility of the Pūponga Point effectively as a standalone coastal landform from the scenic route of Collingwood Pūponga Main Road and the walkways within Farewell Spit and Pūponga Farm Park at a range of distances means that these qualities are elevated such that the landform feature reads as somewhat of a landmark framing the settlement of Pūponga and demarcating ‘the end of the mainland coastline proper’.

The vivid contrast between the more natural bush fringed landforms and the immediate context characterised by the small settlement of Pūponga and some pastoral farming contributes to this appeal and memorability.

The largely unmodified nature of the landform and vegetation cover together with their dramatic seascape context means that they rate as **high** in terms of naturalness.

The exposed nature of the cliff, intertidal platforms and sea stack landforms enables an appreciation of the landscape’s formative processes. The ease of public visibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

The boundaries of ONF 21: Pūponga Point corresponds to the point landform and intertidal rock platforms only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 21 TO BE PROTECTED FROM ADVERSE EFFECTS

- The cliff, intertidal platforms and sea stack landforms.
- The coastal bush features.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 21

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

ONF 22: Rangihaeata Fossil Forest

GENERAL DESCRIPTION OF AREA

ONF 22: Rangihaeata Fossil Forest corresponds to a small exposure of fossil trees along the coastline to the north west of Rangihaeata Headland in Golden Bay.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

The fossil feature is in a natural condition. Whilst the context of wider coastline is modified (includes rural residential development, pasture, exotic plantings), the naturalness of the feature is rated as **high**. The highly dynamic seascape and beach context adds to the sense of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the intactness and rarity of the fossil forest. The dynamic and unmodified beach and seascape context contribute to these values.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes associated with the feature, despite the broader modified context (including rural residential development, pasture and exotic vegetation).
- b. The **high aesthetic values** of the area as a consequence of: the engaging views of this unusual feature and the appreciation of such values afforded by the public accessibility of the area.
- c. The **high legibility and expressiveness values** due to the exposed nature of the fossil forest features and the appreciation of such values afforded by the public accessibility of the area.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

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



Patons Rock



Rangihaeata H

Rangihaeata

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.
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0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Prominent remnants of forest tree trunks and roots exhumed by coastal erosion, as a result of sea level rise.
- b. Root remains sticking up by as much as 1.5m. Includes the very base of some fossil tree trunks and the original ground level and soil that they grew in.
- c. The forest has recently been dated at 1500 years old, at which time sea level was the same as now or higher. Thus the forest provides strong evidence of slow subsidence of this part of Golden Bay by at least 5 cm per century.
- d. Well-exposed Quaternary fossil forests rare in Tasman and uncommon around New Zealand.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: E - Small Exposure.

Particularly significant **hydrological** attributes include:

- a. Highly dynamic seascape context.

The boundaries of ONF 22: Rangihaeata Fossil Forest corresponds to the extent of the fossil forest only.

KEY CHARACTERISTICS AND QUALITIES OF ONF 22 TO BE PROTECTED FROM ADVERSE EFFECTS

- The fossil forest features.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 22

- Earthworks / sand disturbance.
- Any built development (as a consequence of its location, scale and/or design), including: coastal erosion structures and signage.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Engaging short and mid-range views from the beach of the unusual fossil features sticking out of the beach.

Despite the rural residential and (largely) exotic vegetation broader terrestrial context, the unmodified character of the fossil forest itself and its immediate dynamic seascape and sandy beach context means that the naturalness of ONF 22 is rated as **high**.

The visibility of the fossil forest enables an appreciation of the landscape’s formative processes. Considerable potential to explain how a fossil forest might be preserved and eroding here at high tide level. The ease of public accessibility of the area (via the sandy beach) serves to enhance these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

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

ONF 23: Tākaka Hill and Pikikirunga Range Cave Network

GENERAL DESCRIPTION OF AREA

ONF 23: Tākaka Hill and Pikikirunga Range Cave Network relates to a series of caves that pepper Tākaka Hill and Pikikirunga Range and includes dozens of named caves such as: Harwoods Hole/Starlight Cave, Ngarua Cave, Rawhiti Cave, and the whole network of subterranean drainage in these two large blocks of marble. The feature is located within ONL and straddles ONL 2 Parapara Kahurangi Ranges and ONL 4 Abel Tasman.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of each of these caves (and subterranean drainage systems) means that they qualify collectively as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

All of the caves themselves (excepting Ngarua Cave) are unmodified. Ngarua Cave is unmodified except for a commercial tourist walkway built through it.

High to very high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the rarity and uniqueness of the cave formations.

Perceptual Values

- a. The **high to very high naturalness values** associated with each cave due to its unmodified state (excepting a commercial walkway at Ngarua Cave). In many instances bush cover around cave entrances and/or over the cave serves to enhance the sense of naturalness.
- b. The **high to very high aesthetic and memorability values** of the feature as a consequence of the distinctive visual appearance of the speleothems and views afforded near the cave entry/exit points (Harwoods Hole/Starlight Cave and Ngarua Cave).
- c. The **high legibility and expressiveness values** due to the exposed nature of the cave formations. The ease of public accessibility of some of the caves serves to enhance these values (Ngarua Cave and Rawhiti Cave).

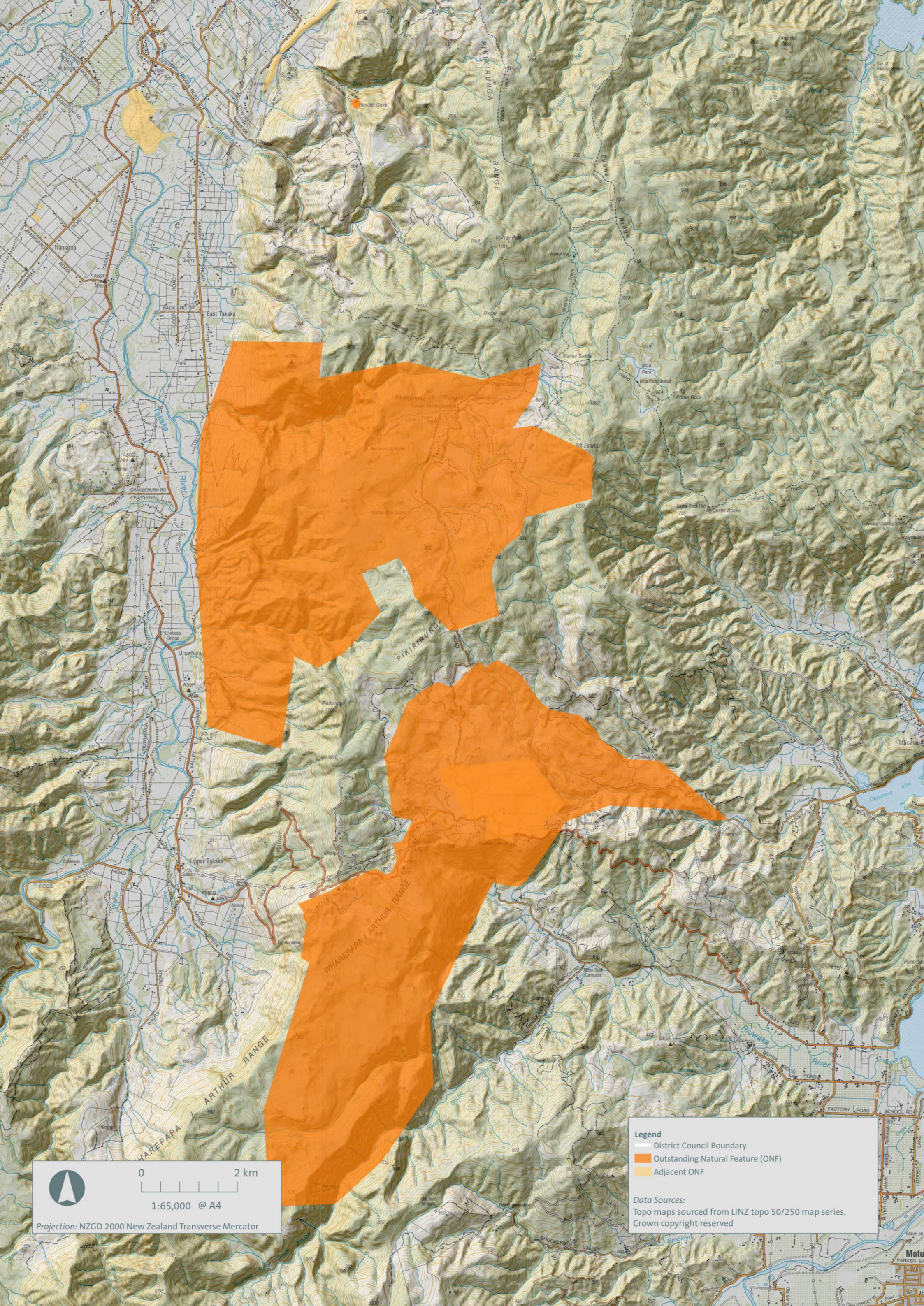
Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **moderate-high to high recreational and scenic values** due to the accessibility and popularity of many of the cave features, especially to the recreational caving community.
- c. The **high to very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish the Tākaka Hill and Pikikirunga Cave Network as an outstanding collective feature that stands apart from much of the balance of the district.

Rawhiti Cave





0 2 km

1:65,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. **Harwoods Hole/Starlight Cave**
- New Zealand’s deepest vertical shaft opening to the surface at 176 m deep on low side, 260 m on high side; spectacular speleothems including best and biggest gour pools in New Zealand.
 - Starlight Cave has some of best rimstone gour (pool capping a mound of flowstone).
 - NZ Geopreservation Inventory Importance rating of National.
 - Large vertical shafts like this one are rare in New Zealand.
 - An excellent example of a vertical shaft dissolved through marble. Fluting on surrounding surface is excellent example of karren.
 - Bush cover over cave.
- b. **Ngarua Cave**
- Abandoned dry cave with ancient speleothems and passage of considerable age.
 - Old cave uplifted high above the water table uncommon in New Zealand.
- c. **North Tākaka Hill Marble Caves and Canaan Block (subterranean drainage system)**
- A large block of marble on the east side of Tākaka Valley with mostly subterranean drainage and all flowing through caves and passages to the west and emerging as springs and resurgences in Tākaka Valley. Numerous dolines lead to shafts and caves. A number of large caves are of high recreational value to the caving community and contain excellent examples of speleothems, and vertical shafts in marble. The named caves of great significance include Ed’s Cellar, Old Cottage and Ironstone.
 - Many large and small caves with deep vertical shafts and speleothems. Subterranean drainage feeds springs and further on into the Te Waikoropupu Springs.
 - Marble and marble cave and subterranean drainage systems are confined to NW Nelson in NZ and this is one of the four major blocks and one of only two to have eroded under forest cover.
 - Today the cave is partly under bush cover.
- d. **Rawhiti Cave**
- A spectacular, massive gaping cave entrance in Arthur Marble, leading to a huge cavern studded with hundreds of slanting or hooked stalactites. The twilight-zone biokarst (“speleothem-like” deposits formed by a mixture of biotic and abiotic processes) on the stalactites grows towards the sunlight, causing the stalactites on the cave ceiling to be angled outwards towards the entrance. Also extraordinary large stalagmite bosses with strong biokarstic features and possibly even unusual old gour dams which may be biokarstic. The cave is a huge collapse structure with a steep scree slope from the entrance down to the back of the main chamber. Only a short distance into the hillside the cave becomes small. The collapse occurred during the 1929 Murchison earthquake. Prior to that event, the cave was a very
- extensive tourist cave. First discovered in 1908. Possibly best example in New Zealand of biokarst stalactites growing outwards from roof of cave entrance. One of largest cave entrances in NZ. Abandoned dry cave is one of oldest in NZ. Dense biokarst like this rare in New Zealand. Bush cover around cave.
- e. **Tākaka Hill Marble Caves (and subterranean drainage system)**

- A large block of marble underlying Tākaka Hill and extending 12 km north to south with mostly subterranean drainage flowing through caves and passages to the east and south and emerging as springs and resurgences in Riwaka and Holyoake Valleys. Includes cave system with hydrological depth of c. 700 m. Deep vertical caves in marble. Numerous shafts, Middle Earth Cave (length 1.3 km, depth -284 m), Greenlink Cave (length 940 m, depth -394 m), Perseverance Cave (length c.3 km, depth -315 m), Riwaka Cave is resurgence cave at head of Riwaka North Branch. It is about 1.5 km long, entered by passing through 2 sumps.
 - Best and most intensely developed marble karst that formed under forest in NZ. Includes extensive subterranean drainage. NZ Geopreservation Inventory Importance rating of National.
 - Marble and marble karst are rare in New Zealand, only occurring in NW Nelson and minor pods elsewhere. One of the deepest cave systems in New Zealand (Greenlink -394 m).
- Landform/Geological Feature Type: F Cave.
- PERCEPTUAL ATTRIBUTES AND VALUES
- Views to the area • Views from the area • Visual prominence / importance of the area in shaping the wider landscape character • Naturalness • Memorability • Legibility and Expressiveness • Transient values • Remoteness / wildness
- Particularly significant **vistas** include:
- a. **Harwoods Hole/Starlight Cave**

- Highly attractive and memorable due to visibility of speleothems.
 - Excellent (publicly accessible) view over Tākaka Valley from clifftop above Hole.

b. **Ngarua Cave**

- Publicly accessible (tourist attraction) speleothems of considerable aesthetic beauty.

c. **North Tākaka Hill Marble Caves and Canaan Block (subterranean drainage system)**

- Cave decorations of high aesthetic value.

d. **Rawhiti Cave**

- Very high aesthetic and memorability values due to the spectacular entrance, mass of angled stalactites.

e. **Tākaka Hill Marble Caves (and subterranean drainage system)**

- High aesthetic values of speleothems in caves.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

Particularly significant other **associative attributes** include:

- a. **Harwoods Hole/Starlight Cave**
 - Very popular walk to the top and viewpoint over valley from above the hole. Popular for recreational caving.
- b. **Ngarua Cave**
 - Popular commercial tourist attraction.
- c. **North Tākaka Hill Marble Caves and Canaan Block (subterranean drainage system)**
 - Popular for recreational caving.
- d. **Rawhiti Cave**
 - Popular recreational destination for locals and visitors alike (free public entry).
 - Site of early tourism (1908). Interior of cave collapsed in the Murchison Earthquake, 1929.
- e. **Tākaka Hill Marble Caves (and subterranean drainage system)**
 - Popular for recreational caving.

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

The boundaries of ONF 23: Tākaka Hill and Pikikirunga Range Cave Network corresponds to the subterranean drainage network beneath the mapped area and also the area within 10 m of all cave entrances.

KEY CHARACTERISTICS AND QUALITIES OF ONF 23 TO BE PROTECTED FROM ADVERSE EFFECTS

- The caves, their speleothems and their entrances.
- The underground drainage network.
- The immediate regenerating bush setting around each cave (where evident).
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 23

- Earthworks near cave entrances, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development associated with each cave and /or in the vicinity of a cave entrance (as a consequence of its location, scale and/or design), including: buildings, infrastructure, signage, lighting, roading, tourism facilities and fencing.
- Exotic vegetation including production forestry planting and harvesting.
- Activities that result in soil being washed into cracks and caves during rain.

Ngarua Cave



ONF 24: Tākaka Hill Marble Karst

GENERAL DESCRIPTION OF AREA

ONF 24: Tākaka Hill Marble Karst relates to an extensive area of low relief karst on either side of State Highway 60 (SH60) at the top of Tākaka Hill. The feature is located within ONL and straddles ONL 2 Parapara Kahurangi Ranges and ONL 4 Abel Tasman.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

The karst features themselves are unmodified. The context within which they are set comprises a mix of regenerating bush cover and pasture. The state highway through the area, quarry, some block removal and scattering of houses and farm buildings, local roads and walking tracks also influences the perception of naturalness.

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the rarity and uniqueness of the marble karst formations in New Zealand.

Perceptual Values

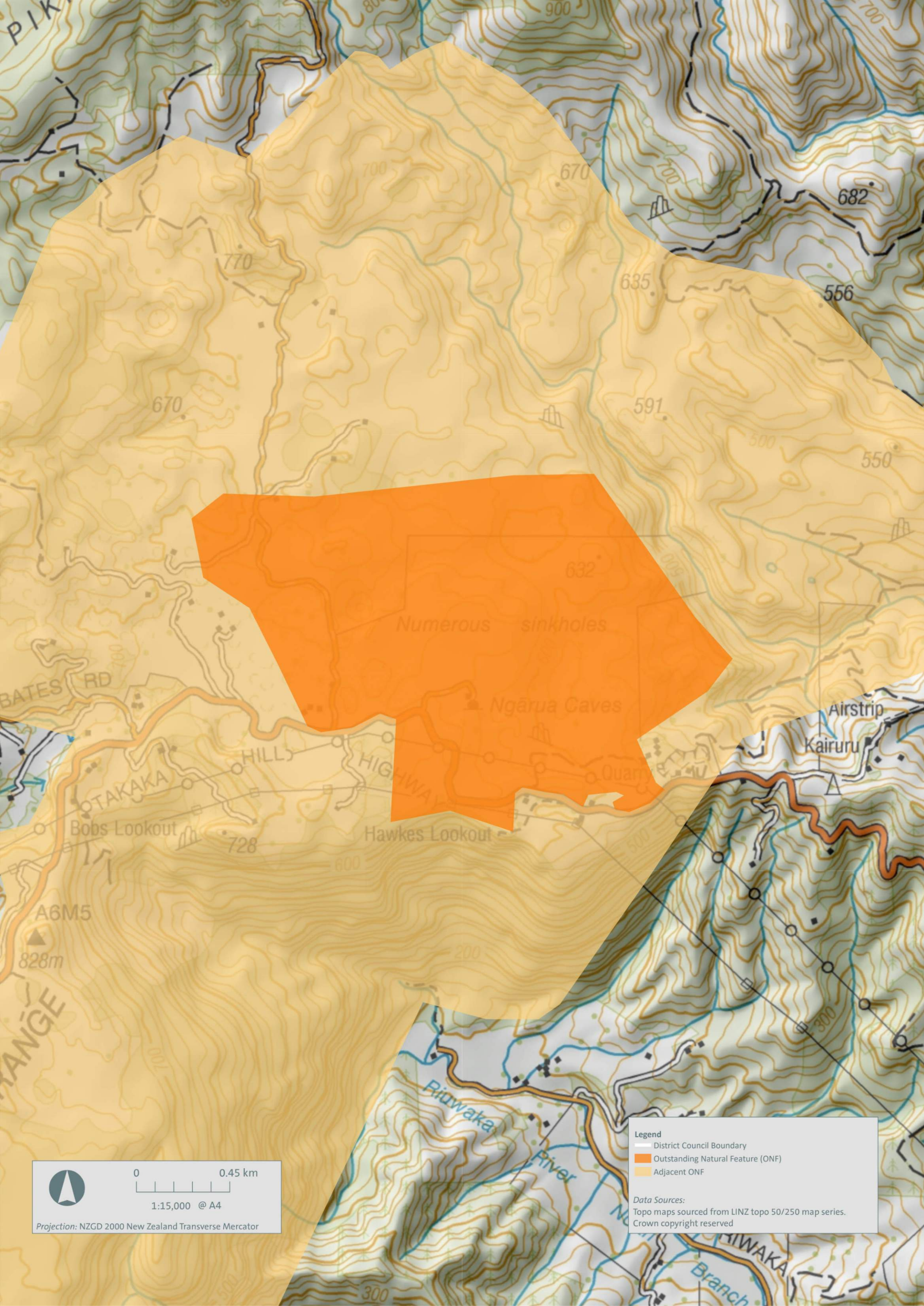
- a. The **moderate-high naturalness values** associated with the karst formations due to their generally unmodified state (acknowledging that their context has been modified by houses, quarrying, tracks, pastoral cover and roading infrastructure). Modification also includes the legal right to expand the Ngarua Lime Quarry beyond the existing visible ‘footprint’.
- b. The **high aesthetic and memorability values** of the feature as a consequence of its distinctive and memorable visual appearance.
- c. The **high legibility and expressiveness values** due to the exposed nature of the karst formations in particular. The public accessibility and /or visibility of the area serves to enhance these values.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high recreational and scenic values** due to the popularity of the tourist walking track accessed from SH60.
- c. The **high to very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.

These various highly rated attributes and values come together to firmly establish the Tākaka Hill Karst as an outstanding feature that stands apart from much of the balance of the district.





Numerous sinkholes

Ngārua Caves

Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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0 0.45 km

1:15,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Uplifted low relief marble karst that formed under forest cover, with superb karren and numerous sinkholes and dry valleys along top of Tākaka Hill range close to the Tākaka Hill Rd and Canaan Rd. Contrasts with Mt Arthur and Mt Owen marble karst that developed in alpine environments.
- b. Road exposures provide accessible examples of typical coarse-grained blue-grey to cream Arthur Marble.
- c. Most accessible and easily appreciated example of surface marble karst in New Zealand.
- d. Best and most intensely developed marble karst that formed under forest in NZ.
- e. Marble and marble karst are rare in New Zealand, only occurring in NW Nelson and minor pods elsewhere.
- f. Numerous sinkholes and caves coincide with the area.

NZ Geopreservation Inventory Importance rating of National.

Landform/Geological Feature Type: B Large Landform.

Subalpine scrub and beech forest in places.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Highly attractive close, mid and long-range views from SH 60, local roads and walking tracks.

The proliferation of distinctive, weather sculpted landforms make the area highly visually appealing and memorable. The somewhat abandoned feeling of the area encouraged by the limited habitation and patches of scrub adds a sense of mystery.

The visibility of the area at the 'gateway' to Golden Bay serves to enhance its landmark quality.

The landforms themselves are generally relatively unmodified; however, quarrying, block removal and pastoral cover together with the presence of the highway running through the centre of the feature, scattered houses and farm buildings, local roads and walking tracks serves to moderate the overall naturalness of the feature such that it rates as **moderate-high**.

The exposed nature of the karst landforms enables an appreciation of the landscape's formative processes. The public visibility of the area (via the highway, local roads and walking tracks) serves to enhance these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

Kairuru Marble from Kairuru Quarry used to build many historic NZ buildings - e.g. Parliament.

Lord of the Rings film location.

A QEII covenant applies to much of the identified ONF south of the highway.

High shared and recognised values associated with the popular walking track through the QEII Covenanted area on the south side of SH60.

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

The boundaries of ONF 24: Tākaka Hill Marble Karst corresponds to the 'footprint' of the best example and most easily viewed karst area on the crest of Tākaka Hill road.

KEY CHARACTERISTICS AND QUALITIES OF ONF 24 TO BE PROTECTED FROM ADVERSE EFFECTS

- The marble karst landform features.
- The sinkholes and caves.
- The indigenous vegetation communities.
- The darkness of the night sky.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 24

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Inappropriate built development (as a consequence of its location, scale and/or design) including: buildings, infrastructure, signage, tracks, seating, parking areas.
- Exotic vegetation, including production forestry.

ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel

GENERAL DESCRIPTION OF AREA

ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel corresponds to the limestone cliffs and pinnacles along the coast road between Pōhara and Ligar Bay. The ONF comprises three discrete sections of coastal cliff to the west and east of the Tarakohe Quarry and includes the bush-clad slopes of Hanson Winter Reserve.

QUALIFIES AS ‘FEATURE’?

The relatively confined physical extent of the Tarakohe Coastal Cliffs and Natural Tunnel means that the area qualifies as a ‘feature’ rather than as a ‘landscape’.

QUALIFIES AS ‘NATURAL’?

Despite the (in places) highly modified context of the coastal cliffs and natural tunnel (which includes a reasonably busy road, exotic weeds, a functioning port and a quarry tucked in behind the coastal cliffs), the largely unmodified nature of the landforms themselves together with their dramatic scale means that they rate as **moderate-high** in terms of naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale, rarity and visibility of the limestone formations set within a native bush and coastal setting.

Perceptual Values

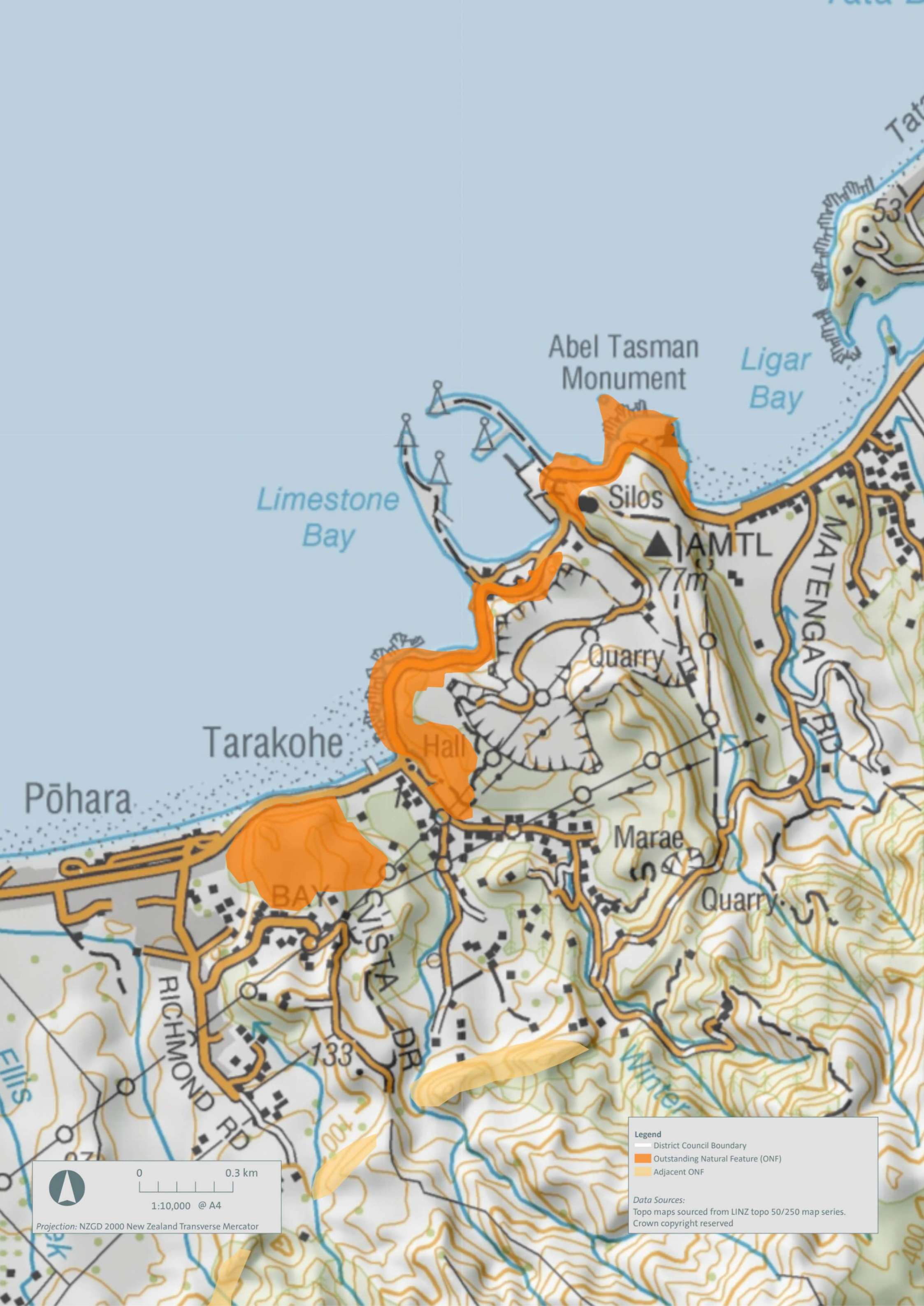
- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the area. This is despite its modified context (including a working port, operating quarry), the road that passes through the ONF, and weeds.
- b. The **high aesthetic, scenic, and memorability values** of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush bush and dynamic seascape context; the visibility of the area from the popular scenic route of Abel Tasman Drive which serves to confer a landmark quality to the area.
- c. The **very high legibility and expressiveness values** due to the exposed nature of the landforms and their high public profile.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high shared and recognised values** associated with the Tarakohe coastal cliffs and natural tunnel.
- c. The **high recreational and scenic values** associated with the area including the use of the pinnacles by the recreational climbing community.

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





0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Impressive cliffs and pinnacles along coast road.
- b. Two have fallen together during the 1929 Murchison Earthquake to form a spectacular natural tunnel through which the road passes, making them possibly the most easily accessible and visible natural limestone tunnel in the country.

Coastal karst uncommon in New Zealand.

NZ Geopreservation Inventory Importance rating of Regional.

Landform/Geological Feature Type: B Small Landform

Particularly significant **ecological** attributes include:

- a. Mature bush context to the cliffs, including northern rātā, punga and nikau.
- b. Little Blue Penguin, spotted shag, white fronted heron and seal habitat.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Dramatic close, mid-range and longer-range views of the highly sculptural limestone cliffs set within a bush and coastal context.
- b. Highly memorable and engaging close and mid-range views of the natural tunnel over the road set within a bush and coastal context.

The scale and sculptural qualities of the limestone formations and tunnel juxtaposed with the lush bush and highly dynamic seascape setting make the area highly visually appealing and memorable. The visibility of the cliffs and tunnel from the popular route of Abel Tasman Drive at a range of distances means that these qualities are elevated such that the area reads as somewhat of a landmark.

The vivid contrast between the more natural bush fringed landforms and the surrounding working port, quarry and the reasonably busy coastal road contributes to this appeal and memorability.

The largely unmodified nature of the landforms themselves together with their dramatic scale means that they rate as **moderate-high** in terms of naturalness. This is despite the markedly modified context of the features, which includes a working port, road corridor (that runs through the ONF), exotic weeds and a working quarry. The relatively visually discreet nature of the quarrying activity in views from the road within the ONF means that it has a relatively limited influence on the character of ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel.

The tunnel formations reinforce the impression of the cliffs forming a gateway between the Tākaka Valley and ‘Abel Tasman’ portion of the district.

The exposed nature of the cliff and natural tunnel landforms enables an appreciation of the landscape’s formative processes. The ease of public accessibility of the area serves to enhance these values.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status of the eastern coastal headland within ONF 25, the popularity of the area as driving route and scenic destination enjoyed by visitors and locals alike, and the findings of the Small Working Group project.

Popular rock climbing location.

The extent of ONF 25: Tarakohe Coastal Cliffs and Natural Tunnel corresponds to the steep bush-clad hill slopes and cliffs on the south side of Abel Tasman Drive extending between Pohara Valley Road and the far western end of Ligar Bay. The ONF extends northwards over Abel Tasman Drive to MHWS (where it adjoins ONL 3 Mohua/Golden Bay).

KEY CHARACTERISTICS AND QUALITIES OF ONF 25 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations, including the coastal cliffs and natural tunnel.
- The bush setting.
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 25

- Earthworks, quarrying and/or mining.
- Indigenous vegetation removals.
- Exotic vegetation.
- Infrastructure on the cliffs and elevated slopes (e.g. cell phone towers, large signage).



ONF 26: Te Puna Waiora o Te Waikoropupū Springs

GENERAL DESCRIPTION OF AREA

ONF 26: Te Puna Waiora o Te Waikoropupū Springs relates to the Te Waikoropupū freshwater springs in the lower Tākaka Valley, approximately 6km west of Tākaka township.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

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

Moderate-high rating for naturalness.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **very high physical values** due to the scale, complexity and uniqueness of the karst springs, natural state and the spectacular clarity of the water.

Perceptual Values

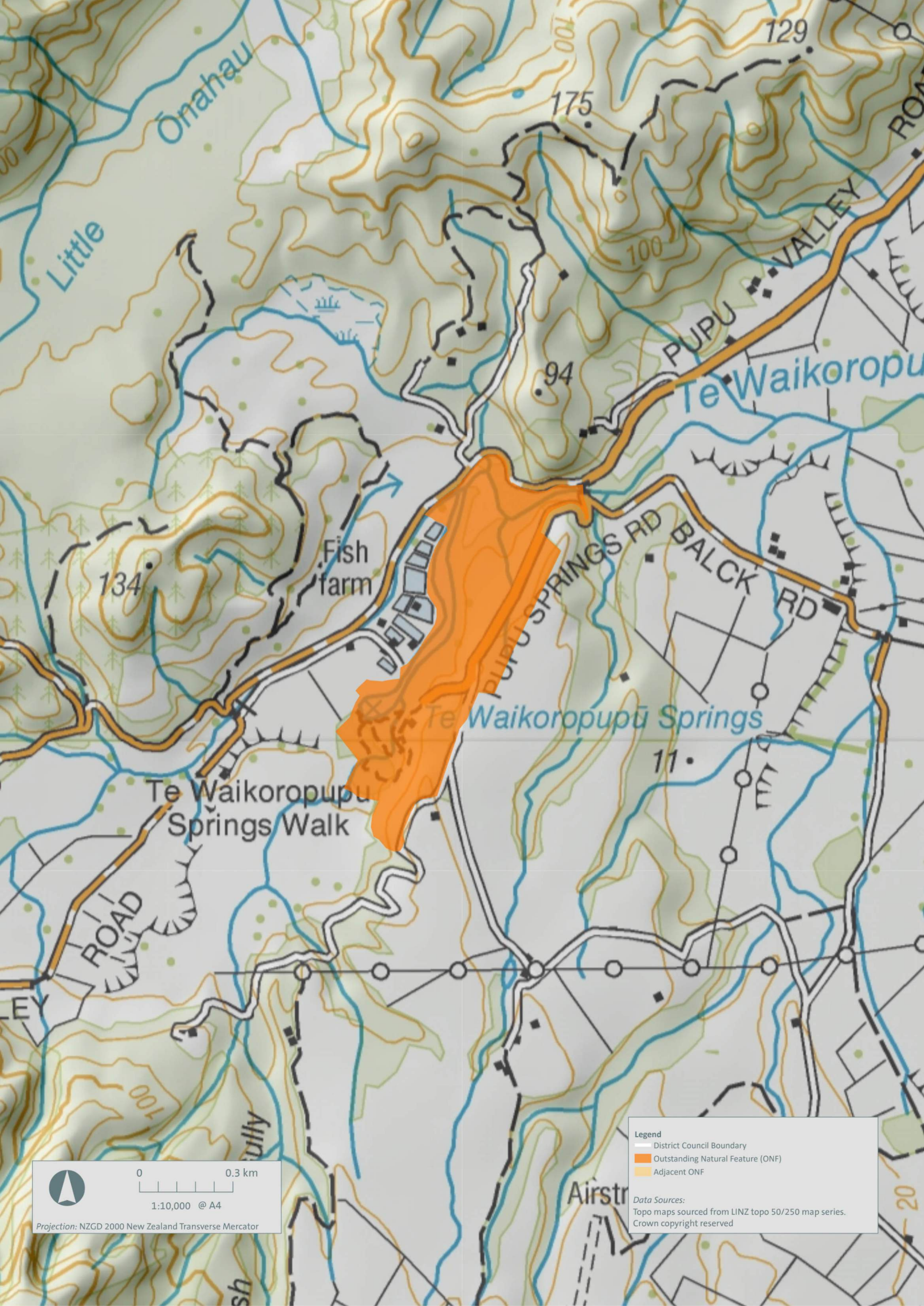
- a. The **moderate-high naturalness values** arising from the dominance of natural landscape features, patterns and processes within the Springs area (including the high naturalness associated with the spring water) itself despite a degree of modification comprising the visitor facilities, including carpark, interpretation signage, toilets, walking track and viewing platforms together with the wider more working rural landscape setting.
- b. The **very high aesthetic and memorability values** of the area as a consequence of: the highly attractive views of the shimmering and iridescent waters of the spring pool and streams set within a reasonably natural bush setting and the high wild and scenic values associated with the spring water.
- c. The **very high legibility and expressiveness values** due to the awareness of subterranean karst landscape formative processes that the springs enable and which are not normally legible.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **very high shared and recognised values** associated with the springs.
- c. The **very high recreational and scenic values** associated with the springs.
- d. The **very high geoscience values** of the feature as a consequence of the regard with which it is held in by the geological community arising from its geoscience values and the accessibility of the area.
- e. **Very high shared and recognised values** as evidenced by the descriptions of the area in tourism publications, the popularity of the area as an inspiration/subject for art and photography, and the findings of the Small Working Group project.

These various highly rated attributes and values come together to firmly establish Te Puna Waiora o Te Waikoropupū Springs as a truly outstanding and spectacular landscape feature that stands apart from much of the balance of the district.





0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

- Legend**
- District Council Boundary
 - Outstanding Natural Feature (ONF)
 - Adjacent ONF

Data Sources:
Topo maps sourced from LINZ topo 50/250 map series.
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PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. A complex spring with several vents. The water arises from the largest karst aquifer in New Zealand in alluvial gravels in the floor of Takaka Valley after sinking out of the Takaka riverbed. The springs are tidal, slightly saline and artesian in character. Yields 14 cubic metres of water per second.
- b. Noted for the exceptional clarity of the water (78 metres). The spring water is amongst the optically clearest ever measured.
- c. System is unusual in its complexity.
- d. The best example of a karst spring in New Zealand and largest karst spring in the Southern Hemisphere.

NZ Geopreservation Inventory Importance rating of International - among world’s most scientifically important springs.

Landform/Geological Feature Type: C Natural System.

A Water Conservation Order applies to Te Puna Waiora o Te Waikoropupū Springs and the Wharepapa Arthur Marble Aquifer.

Particularly significant **ecological** attributes include:

- a. Regenerating bush context to much of the area.
- b. High values in terms of habitat values, biodiversity values, ecosystem services and ecological processes.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Close and mid-range views of the crystal clear, iridescent and bubbling waters of the spring pool set within a bush context.
- b. Close and mid-range views of the shallow, boulder-strewn shimmering streams draining from the pool, all set within a bush context.

A degree of modification is evident at the Te Waikoropupū and includes: the visitor facilities including carpark, interpretation signage, toilets, walking track and viewing platforms. The relatively modest scale and character of these structures, together with their role in enabling an appreciation and understanding of the more natural feature, means that they do not appreciably detract from the sense of naturalness associated with the springs. Vegetation in and around the springs comprises regenerating bush signalling the historic clearance of the area. The limited stature of much of this vegetation and/or the absence of vegetation to some of the spring area ‘boundaries’ enables a keen awareness of the considerably more modified pastoral, rural industry (salmon farming) and production forestry context. This modified context has an influence on the character of Te Waikoropupū Springs such that naturalness is rated at **moderate-high**.

The regenerating bush setting is of importance in limiting the influence of the wider, more working rural landscape context on the character of the springs. Where the bush cover is comprehensive, there is an air of peacefulness and tranquillity.

The quite unique, kaleidoscopic and dynamic appearance of the springs set within bush makes this a highly memorable feature. The striking clarity of the water adds to this impression.

The springs attest to the high value natural subterranean karst systems that are common in the area but that are not generally visible or otherwise apparent.



ASSOCIATIVE ATTRIBUTES AND VALUES

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

For cultural values, see Appendix H.

Touching the water is forbidden to respect cultural values and safeguard water quality.

Highly popular recreational destination. Well-formed and maintained loop track in DoC Reserve with comprehensive interpretation panels explaining the geological and cultural values of the feature, formed lookouts and car parking.

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



The boundaries of ONF 26: Te Puna Waiora o Te Waikoropupū Springs correspond to the extent of the DoC Reserve in the area and contiguous areas of mature bush.

KEY CHARACTERISTICS AND QUALITIES OF ONF 26 TO BE PROTECTED FROM ADVERSE EFFECTS

- The waters of the springs and streams.
- The regenerating bush setting that serves to enclose the springs in many places.
- The highly attractive views of the shimmering and iridescent waters of the spring pool and streams set within a bush setting.
- The low-key and modest built development character (including infrastructure).
- A sense of peacefulness and tranquillity.
- The darkness of the night sky.
- For cultural values, see Appendix H.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 26

- Large-scale earthworks, quarrying and/or mining.
- Indigenous vegetation removals and particularly where they open up views to the surrounding area.
- Large-scale tourism facilities.
- Enabling people to touch the water.
- Inappropriate built development (as a consequence of its location, scale and/or design), including: earthworks, access tracks, buildings, infrastructure, signage, lighting and fencing.
- Exotic vegetation.



ONF 27: The Grove

GENERAL DESCRIPTION OF AREA

ONF 27: The Grove corresponds to an area of relatively intact karst formations and mature bush at the northern end of the much larger ‘hogsback’ karst formation, south east of Clifton. The feature is located at the juncture of the valley floor and the Pikikirunga Range and is flanked by pastureland and bush fragments on its northern and western sides.

QUALIFIES AS ‘FEATURE’?

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

QUALIFIES AS ‘NATURAL’?

The area is in mature bush cover. The generally unmodified character of the landform and vegetation (excepting walking tracks, signage) means that the naturalness of the area is rated as **high**.

QUALIFIES AS ‘OUTSTANDING’?

OVERALL EVALUATION

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

Physical Values

- a. The **high physical values** due to the scale, complexity and diversity of the limestone formations within a native forest setting.

Perceptual Values

- a. The **high naturalness values** arising from the dominance of natural landscape features, patterns and processes within The Grove area. This is despite the walking track signage, and lookout. The enclosed vegetated character of the area plays an important role in minimising the influence of the wider, modified working rural landscape on the perception of naturalness within The Grove.
- b. The **high aesthetic and memorability values** of the area as a consequence of: the highly engaging and appealing views of the limestone formations set within a lush and seemingly prehistoric bush context; the attractive and striking elevated views afforded out over the Tākaka Valley; and the visual impression of the area as a more ‘natural’ landscape feature within the pastoral lowlands of the Tākaka Valley.
- c. The **high legibility and expressiveness values** due to the exposed nature of the landforms.

Associative Values

- a. For **cultural values**, see **Appendix H**.
- b. The **high shared and recognised values** associated with The Grove.
- c. The **high recreational and scenic values** associated with The Grove.

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





Legend

- District Council Boundary
- Outstanding Natural Feature (ONF)
- Adjacent ONF

Data Sources:

Topo maps sourced from LINZ topo 50/250 map series.
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0 0.3 km

1:10,000 @ A4

Projection: NZGD 2000 New Zealand Transverse Mercator

PHYSICAL ATTRIBUTES AND VALUES

Landform • Geology • Vegetation • Ecology • Hydrology

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

- a. Grikes (fissures formed by solution of vertical joint sets).
- b. Clints (blocks isolated by grikes).
- c. Stream sinks developed in Tākaka Limestone.

Excellent example of karst developed in Oligocene Limestone.

Geopreservation Inventory Category C (Regional Significance).

Landform/Geological Feature Type: B Small Landform.

Particularly significant **ecological** attributes include:

- a. Substantial stands of northern rātā with a nikau palm understorey.

PERCEPTUAL ATTRIBUTES AND VALUES

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

Particularly significant **vistas** include:

- a. Close and mid-range views of the numerous fissures, blocks and pillar limestone formations seen within a lush and seemingly prehistoric native forest setting.
- b. Close and mid-range views of the tangle of tentacle-like northern rātā roots that envelop the limestone faces.
- c. Striking elevated and framed views from within the limestone rockface out over the Tākaka Valley, and on a clear day, to Farewell Spit/Onetahua.
- d. Longer range views from the low-lying land to the north and west of the area as distinctive bush enshrouded feature that forms a marked contrast with the pastoral foreground.

The scale and sculptural qualities of the limestone formations and prehistoric forest character make the area highly visually appealing and memorable. The vivid contrast between the enclosed character of the bush covered landforms and the surrounding, more open, working rural landscape contributes to this appeal and memorability.

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

The visually discreet nature of the limestone formations in views from outside the area amplifies their experiential impact when encountered within The Grove.

The exposed nature of the landforms enables an appreciation of the landscape’s formative processes.

Within the Grove, the high degree of enclosure afforded by the bush cover contributes a sense of peacefulness and tranquillity. The tentacle-like roots of the northern rātā trees contribute an eerie atmosphere.

ASSOCIATIVE ATTRIBUTES AND VALUES

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

For **cultural values**, see **Appendix H**.

High shared and recognised values as evidenced by the descriptions of the area in tourism publications, DoC Reserve status, the popularity of the area as a walking route enjoyed by visitors and locals alike, and the findings of the Small Working Group project.

Picnic facilities and carpark nearby support the use of the area for recreational purposes.

The boundaries of ONF 27: The Grove ‘capture’ the extent of the DoC Reserve and extend onto adjoining private farmland where there is contiguous bush cover that reads as part of The Grove bush cover. Sinkholes are also present on some of the private land.

KEY CHARACTERISTICS AND QUALITIES OF ONF 27 TO BE PROTECTED FROM ADVERSE EFFECTS

- The limestone rock formations.
- The bush setting.
- The low-key and modest built development character (including signage and the visitor facilities adjacent The Grove).
- For cultural values, see **Appendix H**.

TYPES OF DEVELOPMENT THAT ARE LIKELY TO BE INAPPROPRIATE WITHIN ONF 27

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

