RMM

Maitahi Village Landscape Design Document Part 1 - Context and Site Analysis CCKV Maitai Dev Co LP



Contents

Introduction	04 -06
Context Analysis	07-15
Site Analysis	16-21
NRMP Schedule X Plans	22-27

This drawing set is conceptual and is for Resource Consent purposes only. Changes and refinements will likely occur through the detail design process. The design intent will remain and the detailed design will be approved by Nelson City Council.

Date: 5 February 2025

Project Number: 19180

Status: For Resource Consent

Disclaimer

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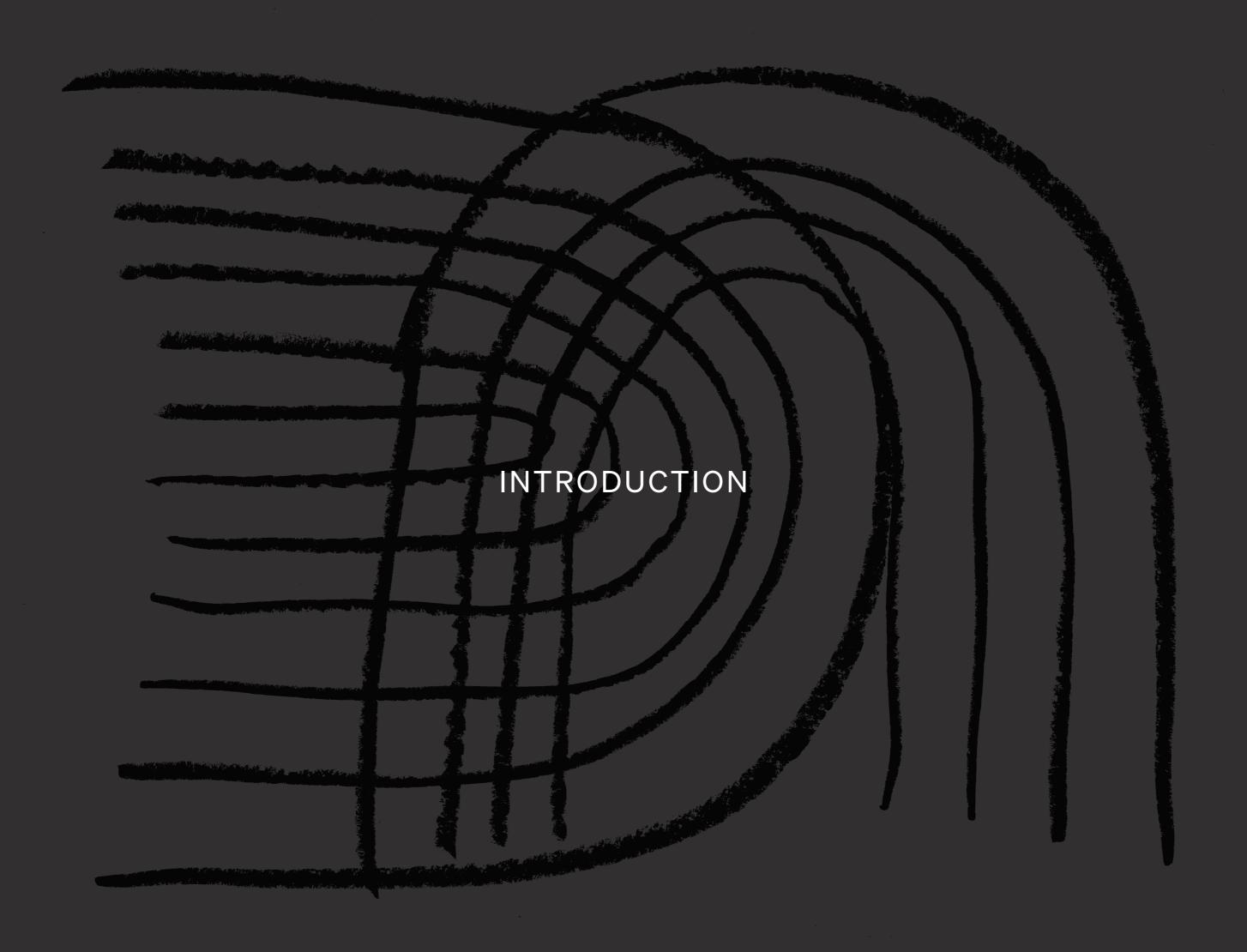
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Introduction

Purpose

The Maitahi Village (Project) is a fully integrated and comprehensive subdivision and development that will provide for a range of housing needs, within an enhanced cultural, ecological, landscape and recreational setting in close proximity to Nelson City.

This project has been planned and seeks to achieve the objectives and outcomes that were carefully planned within Schedule X of the Nelson Resource Management Plan (NRMP), in accordance with the Maitahi Bayview Structure Plan. These bespoke provisions were part of Plan Change 28, recommended for approval by an Independent Hearing Panel, adopted by Council in September 2022, and then approved by the Environment Court in November 2024.

The Project includes the following components:

- The proposed subdivision involves the creation of 182 residential allotments, one allotment for commercial use, along with roads to vest, reserve to vest, and also allotments to vest for utility / infrastructure purposes. The balance land (zoned rural) containing Kaka Hill will remain in one large title at the end of the subdivision and development process.
- Two of the allotments to be created are to be sold to Arvida for the development of a retirement village containing 192 residential units, a care facility containing 36 beds, and the full range of communal facilities such as a Residents Clubhouse and Pavillion.
- 3. Development of the commercial site for the cultural base for Ngati Koata (Te Whare o Koata), containing offices, meeting rooms, function and event spaces, and a commercial kitchen.

There are a total of 11 subdivision stages (stages 1-11), with one additional stage (Stage 0) proposed as a part of undertaking an initial boundary adjustment between the applicant's title (NL11A/1012) and that adjoining title owned by Bayview Nelson Limited (RT 1039028). The planned ecological, cultural and recreational outcomes will be developed progressively at each stage. A comprehensive description of these fully integrated components of the development are provided in the Application and supporting technical reports and plans.

This document has been prepared in support of the resource consent application by CCKV Maitai Dev Co LP (the "applicant" or "CCKV") for the Maitahi Village and has a design site of stages 1-10 of the subdivision.

Rough Milne Mitchell Landscape Architects (RMM) has been engaged by the applicant to develop a green space design for Maitahi Village, The outcome of this process is a design for the public spaces of Maitahi Village.

This document sets out the analysis and design process which has informed the landscape masterplan. The overarching goal of this process was to consider the many potential development options for the site and to ensure these align with the aspirations of the applicant and Nelson City Council (NCC).

The following contextual and site analysis looks at the various 'layers' of the Nelson region and the site including its cultural history, natural ecology, landscape patterns, and landscape character - both at regional and site-specific scales. This part of the design process was an important step to ensure that the zone plan and structure plan respond to the natural and built environment and reflect the local character and its sense of place.

This document was prepared as part of collaboration with Morphum, Davis Ogilvie, Tonkin and Taylor, Robertson Environmental, Landmark Lile Limited, Ngāti Koata Trust and Waka Group. This landscape design documentation must be read in conjunction with the reports prepared by the various disciplines contributing to this project.







Scope

The landscape design report includes two parts, with the first focusing on site analysis and the second focusing on site design.

This report forms the **first part** of the landscape package, and includes the following:

- Context analysis
- · Site analysis
- · Oppportunities and constraints
- Schedule X (NRMP)

The Design Report forms the **second part** of the landscape package, and includes the following:

- · Design foundation
- A vision and cultural response
- An illustrative landscape masterplan
- Illustrative landscape detail plans for proposed parks, reserves and streets
- Indicative cross-sections for the linear park and road typologies
- Sample planting/materials palettes
- Exemplar imagery

Overall Response

Overall, the landscape design response provides the following:

- Integration and connectivity through an open space network of green corridors and reserves to provide a well-connected neighbourhood, both ecologically and for those living there.
- Diversity of landscape types to create a unique sense of place.
- Legibility and Identity through the creation of cultural landmarks and focal points that will provide legibility and unique character to the development.
- Ecological Responsiveness retain and enhance existing waterways, landform and any significant vegetation.

The landscape response seeks to provide the village with a strong sense of place; to create a neighbourhood where residents feel connected to their surroundings. The proposed linear park presents a strong organisational landscape form providing the key visual and physical connection through the whole development.

The linear park along the path of Kākā Stream is the green spine of the development. Areas of native planting will follow the curvature of the realigned stream and in places this will spill out into wider areas of open space. Exotic and fruit tree planting will complement the native planting in places. A shared path will provide a link along the true left bank of the stream for the majority of the linear reserve, with several connections to the street network. Small streamside interventions including stepping rocks and timber landings will provide opportunities for informal play and engagement with nature.

The linear park will incorporate stormwater management through a series of vegetated stormwater wetlands, swales and overland flow paths. The park will also provide flat areas suitable for picnics and gatherings, places for rest and enjoying views, and multiple opportunities for informal play and exercise throughout.

The street network is comprised of several street types/hierarchies. The different types are guided by the arrangement of the roads and the landscape response imbues each street type with a different character to provide variation and interest for those moving within and through the development. A palette of native trees and low planting endemic to the region have been selected for the streets, which will provide ecological benefits to the development as a whole.



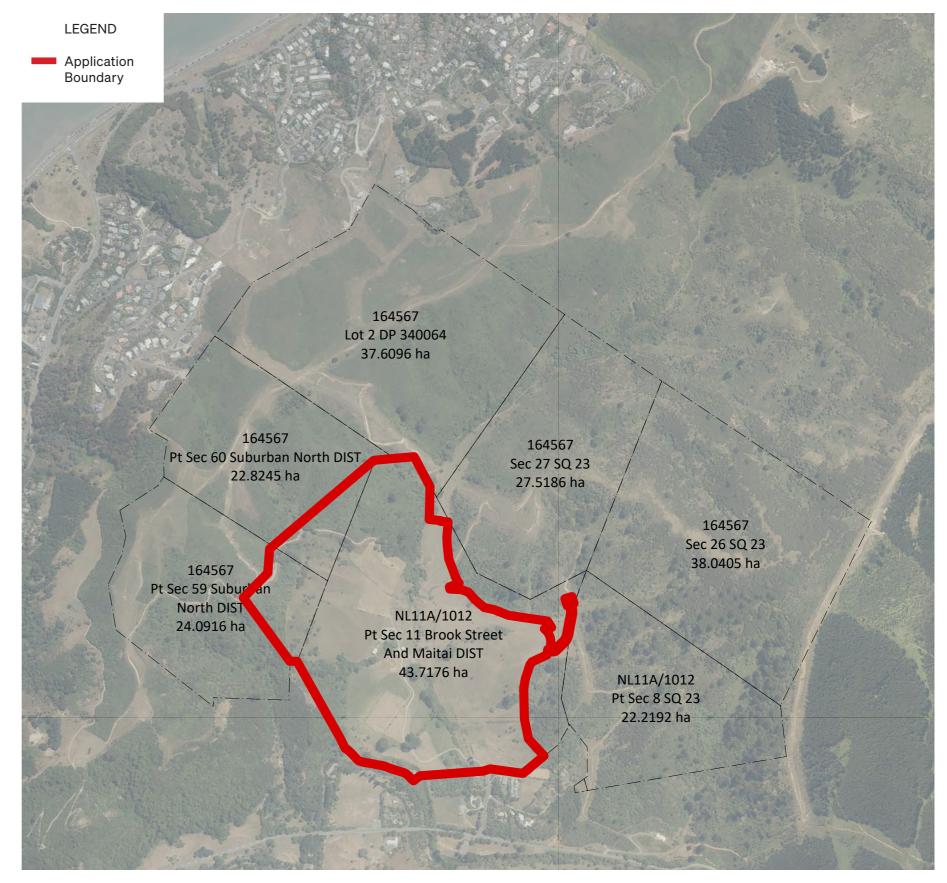




The Site

The Site –The site is 50.34ha in area comprised of 2 allotments. It includes:

- 164567 Pt Sec 59 Suburban North DIST 24.0916ha
- 164567 Pt Sec 60 Suburban North DIST 22.8245ha
- NL11A/1012 Pt Sec11 Brook Street and Maitai DIST 43.7176ha



The site which is comprised of 2 allotments, located within the Kākā Valley.

06



Regional Context

The site is located within the Mahitahi /Maitai catchment at the interface of the coastal environment and the largely forested ranges which surround Whakatū/ Nelson.

The design acknowledges the sites' significance in location, with it being in an area of shared importance to multiple iwi due to the Mahitahi / Maitai awa and the surrounding landscapes use for mahinga kai, trading, travel, and meeting.

NCC APPENDIX 14 - RELEVANT CLAUSES

context analysis

AP14.2.1.ii natural features, history, people living nearby, routes, connections to site

AP14.2.1.iii - g - rivers, streams, water courses

h - existing major landscape features - landform, vegetation, cultural





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Significant Landscape Features

NCC APPENDIX 14 - RELEVANT CLAUSES

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AP14.2.1.ii natural features, history, people living nearby, routes, connections to site.

AP14.2.1.iii - h - existing major landscape features - landform, vegetation, cultural

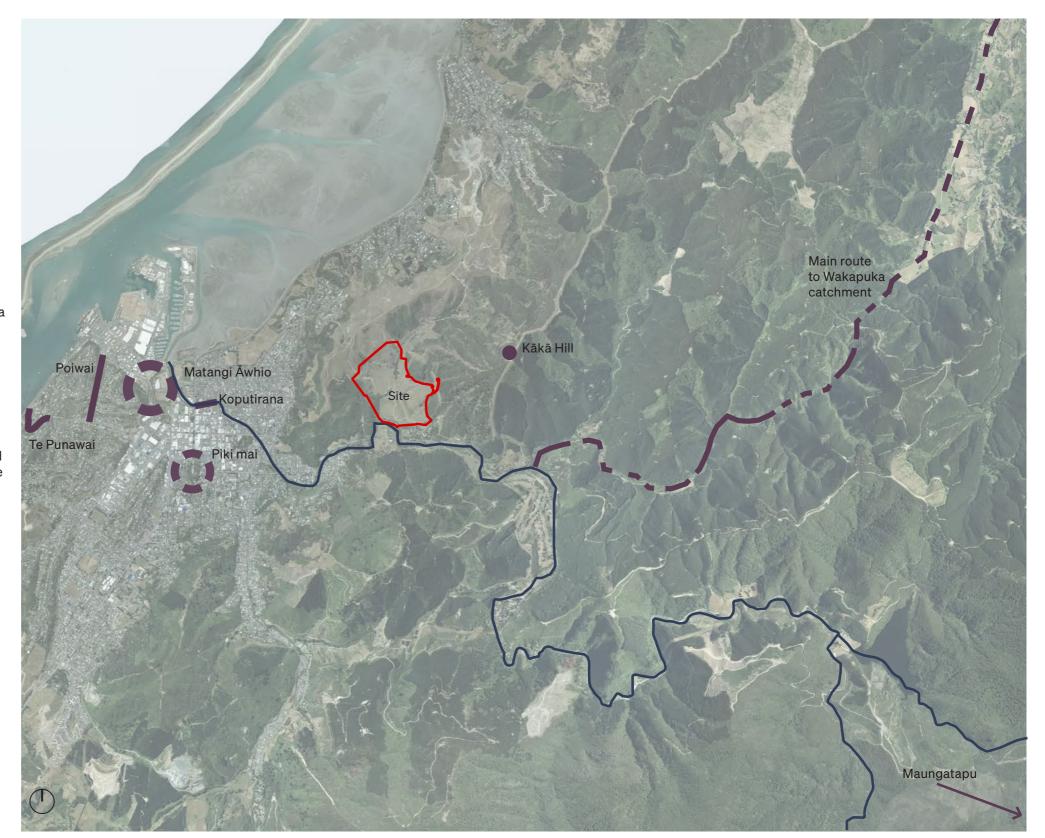
The following is information summarised from the iwi management plans (IMP) of Mana Whenua iwi in Te Tau Ihu.

These IMP highlight the cultural and spiritual importance of the Mahitahi/ Maitai Awa.

Mahitahi refers to either the abundance of inanga in the river, or to the people working as one, and is thought to refer to the Pakohe (Argillite) found in the catchment.

The kainga sites all enabled access to the rich and bountiful resources of the river, from the estuary, through the wetlands and eel ponds, and including the surrounding low land forests of the valley. Iwi relate a long history of having whanau travel for many miles to reap the benefits of this abundant source of food, flax, and building materials.

"Harakeke or flax has always been a crucially important freshwater taonga and ngā mahinga harakeke of the riparian areas and wetlands provided ngā tūpuna with the raw materials for weaving and making containers, baskets, nets, rafts and fishing lines. Two main industries traditionally associated with the Mahitahi River and Whakatū area – pakohe and fishing – utilised large quantities of flax. The rivers and interconnecting river valleys, and the inland lakes, were essential routes for ngā tūpuna to maintain these trading relationships and whakapapa connections. The riverbanks and lakes have many well-known tauranga waka or landings, camp sites and settlements, forming a vast network of trails and harvesting places across the landscape that were the foundation for trade and for maintaining political and family links" 1



¹ Te Mana o te Wai - Te Tauihu Case Study Volume 1, Page 17

Significant landscape features in in the surrounding region

Significance of Awa and Repo

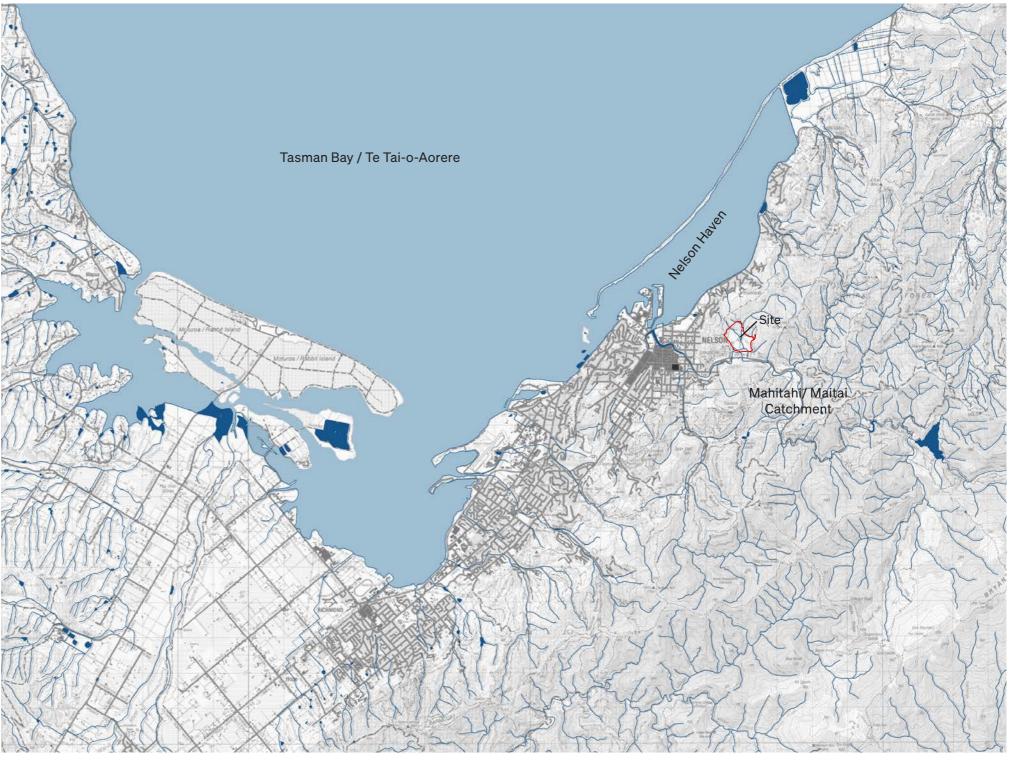
NCC APPENDIX 14 - RELEVANT CLAUSES

context analysis

AP14.2.1.ii natural features, history, people living nearby, routes, connections to site.

AP14.2.1.iii - g - rivers, streams, water courses

Within this wider landscape water plays a significant role in providing travel routes, mahinga kai, trade opportunities, learning, teaching, meeting people, and gathering resources. All these activities were supported by the various streams, wetlands, lakes, bays and estuaries in the region. Awa and Repo form an integral part of the response to the physical and cultural inheritance of the site and its wider region.





Significant awa and repo in the region

Surrounding Environment

Wider Context

Nelson is a coastal town with residential development being primarily situated between Nelson Haven and the wider Tasman Bay to the northwest and the inland hills that form the foothills of the Bryant Range to the south-east.

Along the coastline, residential development extends from Atawhai to the north-east through Nelson Town Centre, through to but not including Richmond (being within the Tasman District) to the southwest.

Residential development within Nelson has expanded inland to the south and west. Of relevance is the residential development within Nelson South, Nelson East and the Brook. These areas consist of residential development that extends along the relatively flat valley floors and along the lower and mid slopes of the surroundings hills. These areas provide for residential living within relatively close proximity of Nelson Town Centre.

The eastern part of Nelson, within the vicinity of the site, has resulted in residential development at the entrance into Maitai Valley. This residential land use, however, does not extend very far into the valley, and consists of residential properties along Hanby Park, south of the Maitai River and a handful of rural lifestyle properties along Ralphine Way.

Beyond this small amount of residential activity, Maitai Valley gives way to a significant number of recreational activities. These recreation activities include the Maitai Cricket Ground, Waahi Taakaro Reserve, Dennes Hole, a number of swimming holes along the Maitai River, Sharlands Creek Mountain Bike Club, Waahi Taakaro Golf Course, the Matai Valley Motor Camp, Two Arrows Archery Club, the Maitai Caves Walkway as well as a number of walking trails on the hills to the south, the Maitai Dam and the Dun Mountain Bike Trail.

The recreational activities located along the length of the Maitai Valley are afforded a high degree of amenity due to the relatively undeveloped nature of the surrounding vegetated hillsides. As such, the recreational activities and the landscape they are situated within is highly valued by the community.

In summary, residential development within Nelson has expanded outwards from the town centre along the coast and along the valley floors and slopes of the surrounding hills. The majority of the points of interest, activities and community facilities listed above are within close proximity of the site. As such, the site is well located to assist in providing for the needs of a growing community, as indicated in the Future Development Strategy so long as it is appropriately located and designed to be sympathetic to the landscape's values.



NCC APPENDIX 14 - RELEVANT CLAUSES

context analysis

AP14.2.1.ii natural features, history, people living nearby, routes, connections to site

AP14.2.1.iii - c. - adjoining activities / land uses,

e - location of commercial, recreational and services



Regional Context Plan

The site is within close proximity to Nelson's Town Centre. The majority of the site is within Kākā Valley, which is located at the western end and forms part of the wider Maitai Valley.

Botanical Hill and Malvern Hills form part of the broader Atawhai Hill Range that extends in a general north-east to south-west direction along Nelson Haven. Kākā Hill is significantly taller than the two hills noted above, and remains visually prominent despite being located behind them. As such, it also forms part of the landform that forms the immediate backdrop to Nelson, Nelson Town Centre and Nelson Haven.

Kākā Valley is enclosed by Botanical, Malvern, Kākā and Sharland Hills, with Botanical and Malvern Hills separating the valley from Nelson Haven to the east.

Key points of interest and activities within Nelson and its surrounds, that are within an approximately 3km radius of the site include the following and are illustrated on the local context map:

- Nelson Town Centre
- Port of Nelson
- Numerous recreational facilities including Trafalgar Park, Trafalgar Centre, Rutherford Park, Queen's Gardens, and Miyazu Gardens
- Eleven schools / education facilities within a 3km radius of the site
- Four supermarkets including New World Nelson, Countdown Nelson, Countdown Trafalgar Park and Fresh Choice Nelson, all of which are within a 3km radius of the site
- Several churches within a 3km radius of the site
- Numerous other retail and recreational locations that provide amenity and activities within close proximity of the site

Local Context

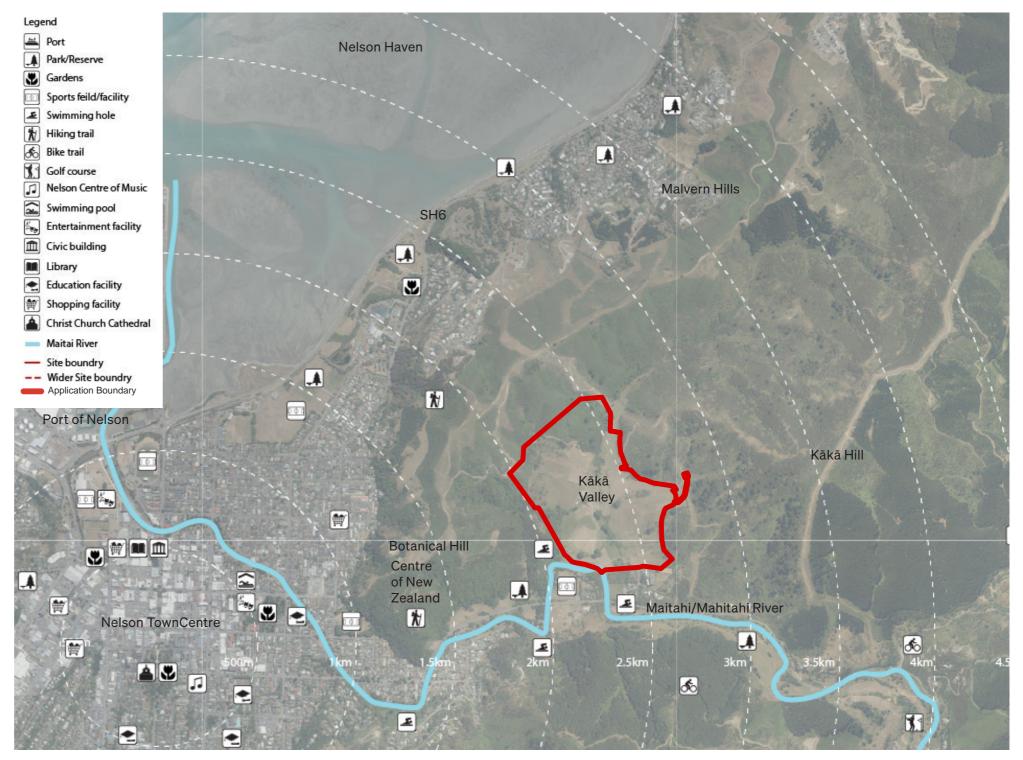
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Local Context Map



Scale 1:15000@A3

Development Context

Building on the previous pages, this page shows the site in the wider context of Nelson, the nearby public green spaces, road network and nearby streams and rivers

NCC APPENDIX 14 - RELEVANT CLAUSES

context analysis

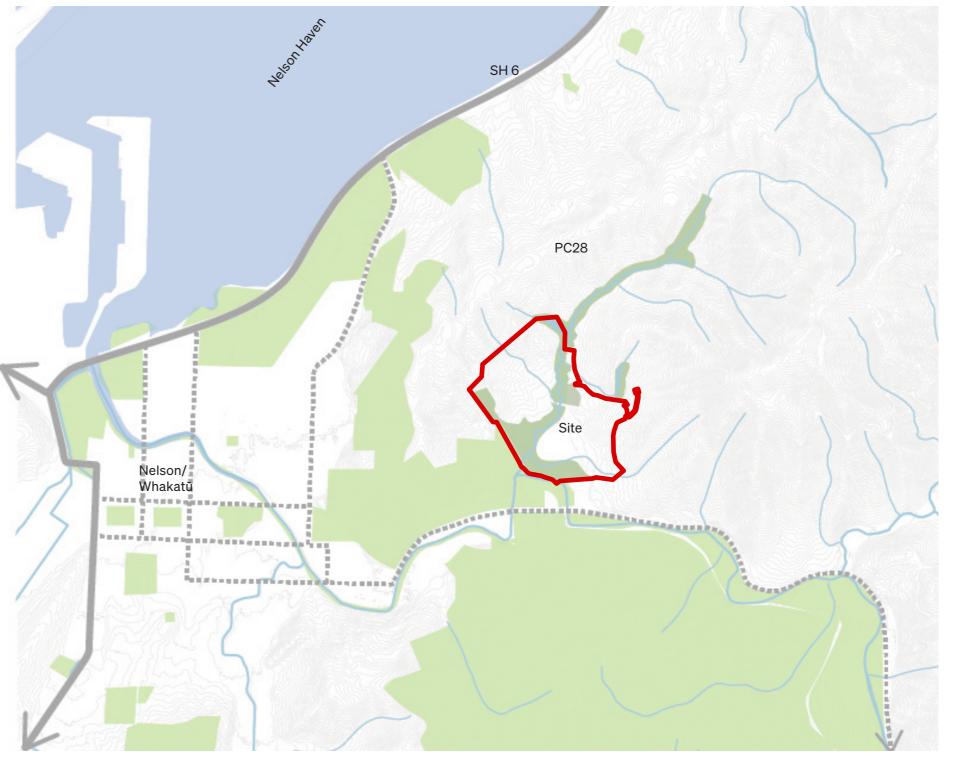
AP14.2.1.ii natural features, history, people living nearby, routes, connections to site

AP14.2.1.iii - a - surrounding road and cycle networks,

e - location of commercial, recreational and services,

13

- f existing biodiversity corridors,
- g rivers, streams, water courses



Existing green, grey, and blue network

Application Boundary

Surrounding Public Reserves/ biodiversity

| | | Main Local Roads

Rivers/ Streams



Regional Climate

Nelson City and Tasman District are generally the first areas to be influenced by weather systems moving over the South Island from the north. The region is well sheltered from weather systems arriving from the south².

The Nelson / Tasman Region is situated in the latitudes of prevailing westerly winds. Sea breezes develop along coastal parts of Nelson and Tasman throughout the year, most common in summer and least common in winter. Mean wind speeds are highest at exposed coastal locations such as Farewell Spit and are lowest at inland and sheltered locations - refer to Figure 2. Wind speeds are typically highest around mid-spring (October) to mid-summer (January)³.

February and March are usually the driest months of the year whereas the wettest months of the year are in winter and spring² - refer to Figure 2.

Rainfall is affected by topography and exposure to the main rain-bearing airflows from the west. Rain is highest in the Tasman mountains which have both high elevation and western exposure. Nelson and the Waimea Plains are the driest areas of the region.

The region has experienced numerous extreme weather events, with significant damage and disruption caused by heavy rain and flooding. According to NIWA, the most recent severe flooding event occurred in April 2013, which resulted in torrential rain across the region, particularly in Richmond and Stoke. Landslides caused a number of road closures and an estimated 90 homes were flooded².

Temperatures are mild compared with the rest of the country, due to the region's close proximity to the sea. The region typically observes afternoon temperatures of 20°C and 23°C in summer and temperatures of -1°C and 5°C overnight in winter. Daily minimum temperatures in winter become lower as distance from the coast and elevation increases³.

Frosts are quite common in the cooler months, however they occur less frequently than in most other South Island locations². According to NIWA, frost free land in Spring and Autumn is expected to triple by 2090³.

Nelson and Tasman are frequently one of the top four sunniest locations in New Zealand. Nelson City itself receives an average of 2,400 sunshine

hours annually, among the highest recorded in New Zealand. Dry spells of more than two weeks are quite common, particularly in eastern and inland locations³ and on average occur every 4 months in Nelson³.

Drought severity is projected to increase in most areas, apart from the West Coast. Fire severity and fire season duration is also likely to rise significantly with climate change as a result of increased temperatures, wind speed and lower rainfall and humidity³. Warming temperatures have also seen an increase in invasive wasps near Nelson when spring conditions are warm and dry⁴.

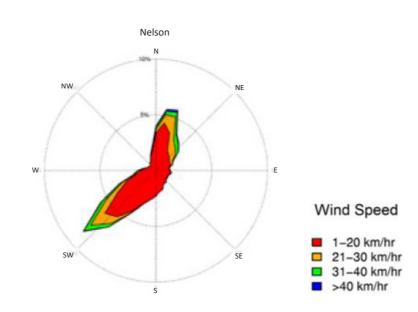


Figure 1: (from NIWA) Mean annual wind frequencies (%) of surface wind directions from hourly observations²

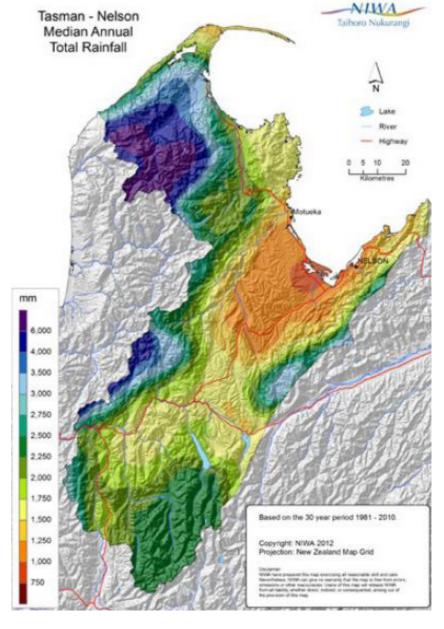


Figure 2: (from NIWA) Nelson and Tasman median annual total rainfall. 1981-2010²



 $^{^2\,\}text{Macara},$ G.R. 2016. The climate and weather of Nelson and Tasman. NIWA Science and Technology Series 71, 40 pp.

³ Regional Projections: Zone 4, NIWA, niwa.co.nz/node/113201.

⁴Lester, P., Haywood, J., Archer, M., & Shortall, C. (2017). The long-term population dynamics of common wasps in their native and invaded range. Journal of Animal Ecology, 86(2), 337–347. https://doi.org/10.1111/1365-2656.12622

Connectivity and Infrastructure

NCC APPENDIX 14 - RELEVANT CLAUSES

context analysis

AP14.2.1.ii natural features, history, people living nearby, routes, connections to site

AP14.2.1.ii - a. surrounding road, cycle and pedestrian networks

The site can be accessed from the end of Ralphine Way off Maitai Valley Road. Maitai Valley Road is popular with recreationalists as it provides access to the Maitai Cricket Grounds, Waahi Ta Akaroa Reserve, Maitai River, Waahi Taakaro Golf Course, the Maitai Dam and the Dun Mountain Bike Trail.

There is an existing farm track along the Malvern Hills ridgeline and several other farm tracks providing internal connections within the site. The farm track along the ridgeline was previously used by the public as a walking track from Botanical Hill to Atawhai, however this is now closed to the public. Botanical Hill offers numerous tracks for walking and biking, including the Centre of New Zealand walkway. The Sir Stanley Whitehead trail wraps around the western Botanical Hill and connects the centre of New Zealand walkway to Sir Stanley Whitehead Park.

The site is also adjacent to the Maitai esplanade which weaves its way alongside Maitai Valley Road and the river. The esplanade is a high amenity and high recreational asset for walkers and cyclists, providing artwork, restoration planting, swimming holes and picnic spots along the way.

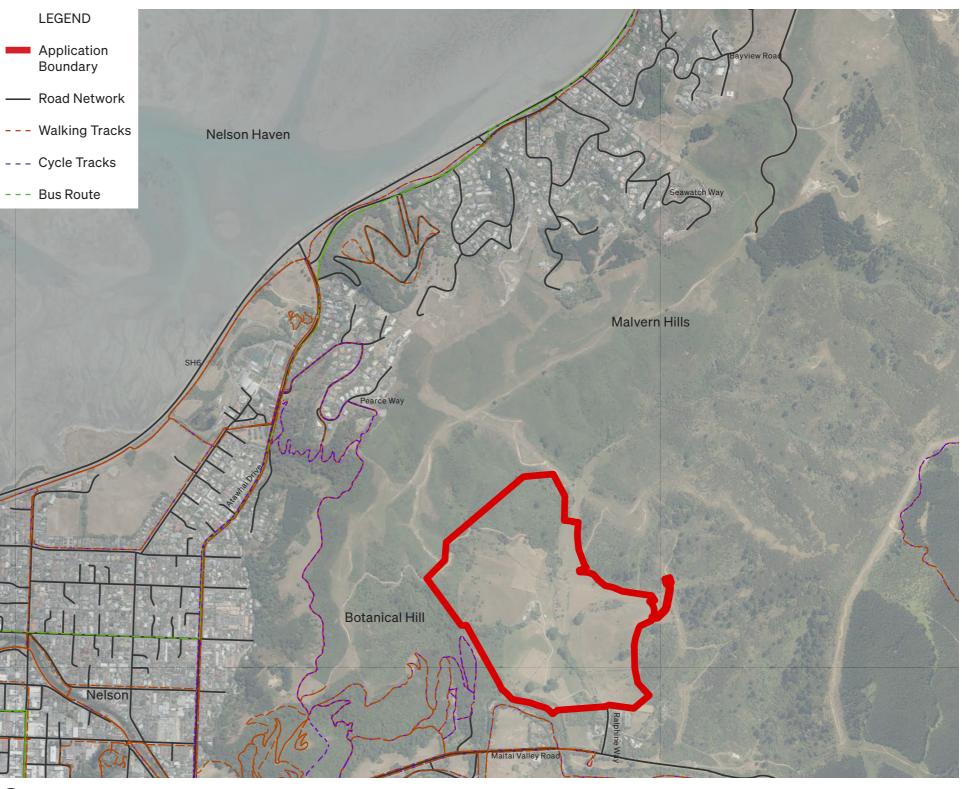
Our Design Response

There is an opportunity to create a road connection from Ralphine Way towards Malvern Hill, for future connection to Bayview.

There is also an opportunity for creating a well - connected network of walkways, cycleways and bike paths through the site which link into the wider recreational network of walking and cycling trails.



Southern end of the Sir Stanley Whitehead Walkway



Connectivity and infrastructure Map



Site Photographs





Photo 1: View from Malvern Hills ridgeline, looking south-east towards Kākā Valley



Photo 2: View looking north-east towards Kākā Hill



Photo 3: Photo from Kākā Valley, looking north-east towards Kākā Hill

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Site Photographs



Photo 4: View looking south-west towards Kākā Valley



Photo 5: View from Kākā Valley looking north towards Malvern Hills ridgeline



Photo 6: View from Kākā Valley, looking east towards Kākā Hill



Photo 7: View from Botanical Hill looking east towards Kākā Hill

The below information is summarised from the Archaeological Assessment: Bayview and Maitahi Blocks, by Amanda Young.

The Maitai Valley was a well-used route for both Māori and early European settlers and was a particularly important route to access the pakohe (argillite) and serpentine resources of the Nelson Mineral Belt. The Maitai Valley was also a rich food and resource gathering area for Māori, particularly for inanga (whitebait), harakeke (flax) and tuna (eels). There would have been small cultivations and kainga or camps along the riverbanks⁵.

Seven Iwi have statutory acknowledgement areas over Maitahi/Maitai and its tributaries – Ngati Koata, Ngati Kuia, Ngati Rarua, Ngati Tamaki Te Tau Ihu, Ngati Toa Rangatira, Rangitane o Wairau and Te Atiawa o Te Waka-a-Maui⁵.

There is no documented evidence of pa, kainga or camps in the area except for the Ngati Kuia pa MS58 which is outside the site on the opposite side of the Maitai River. It is possible that the site could contain physical evidence of Māori occupation, such as cultivations on the river flats. However, Māori soil is unlikely to be recognisable due to farming and draining, the nature of the existing soil and the changing nature of the Maitai River⁵.

⁵ Young, A. (2020). Historical and Archaeological Assessment for CCKV Maitai Dev Co LP and

⁶ Examples of Pakohe Adzes (Drawn Adzes on the Right from Challis 1978). www.theprow.org.

Bayview Nelson Limited. 17 December 2020

nz/assets/files/Pakohe-Johnstone.pdf.

Kākā Hill may once have been a lookout point for raiding war parties as one of the main high points in the lower Maitai Valley. The Malvern Hills ridgeline may have also been used as a lookout or for occupation. No archaeological evidence was found as part of the archaeological assessment along the ridgeline, which has been heavily modified by machinery and scrub clearance. Evidence of surface features such terraces or pits is unlikely to have survived these disturbances⁵.

The site was also part of the Richardson Maitai Run for much of its post-1842 history. The shearing shed, yards and associated structures were identified as having archaeological, architectural, historical, technological, rarity and community value relating to the Maitai Run.

For a full historical and archaeological assessment for CCKV Maitai Dev Co LP please refer to RM / AY Jointly Prepared Addendum Report dated 11 May 2022.

Examples of pakohe adzes - tools carved by Māori ⁶

NCC APPENDIX 14 - RELEVANT CLAUSES

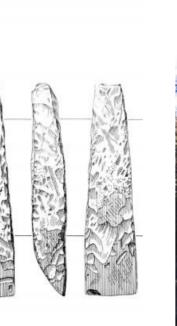
site analysis

AP14.2. 1.iv - character and features, opportunities and constraints

AP14.2.1.v

h - ex buildings/structures

i - natural cultural or archeological features



Historic shearing shed

Culture and History

⁵ cm

Vegetation and Landcover

Before the arrival of people, the original vegetation would have been mostly podocarps and broad-leafed trees of the Lowland Hill Country with more coastal adapted species on the seaward facing slopes. The areas adjacent to the Maitai River would have been a mixture of swamp/wetland species with trees and shrubs that could survive inundation⁷.

The Maitai Valley would have seen widespread communities of harakeke with stands of kahikatea and raupo in swampy areas, and podocarp forests of rimu, kahikatea, tōtara, matai and miro would have extended from near the river mouth upstream⁸. The fertile flats of central Nelson City would have been covered in forests of titoki, māpou, tawa, tōtara, māhoe and kawakawa.

The site is presently undeveloped and much of the site is recently cleared of scrub and returned to pasture, apart from the upper slopes of Kākā Hill, and the steeper slopes of Botanical Hill and Malvern Hill.

The upper reaches of Kākā Hill are a site of ecological significance, as outlined in the Nelson Resource Management Plan (NRMP). The upper side-slope and spur shoulder area is dominated by kānuka as a mature forest, and a moderate amount of low native scrub cover. Below this are interwoven areas of kānuka-broadleaved forest. The spur crest and ridgeline contains swards of unidentified exotic grassland/shrublands and scatterings of a rare matagouri. This area is of significance due to the area of kānuka being impressive for its size and its potential to develop into an extensive area of native forest. It is significant also due to forming a larger tract of native forest which is an important corridor for native birds and wildlife.⁹

Additionally, there are areas of regenerating native bush, scrub and notable vegetation remnants, including two stands of kānuka along the Malvern Hills and a kahikatea on the Kākā Valley hillside. Refer to adjacent photos and the Opportunities Map for information on their locations.

Also, according to the Tonkin + Taylor Opportunities and Constraints Assessment, vegetation cover of the site includes areas of remnant native vegetation, native scrub, gorse, pasture and amenity trees. Much of the scrubland on the hillsides consists of kānuka, gorse, barberry, hawthorn, māhoe with the wetland habitat of the Maitahi Valley and Maitai tributaries mostly dominated by rautahi, purei, buttercup and exotic rushes¹⁰.



Crack willow and gorse-barberry scrub

Our Design Response

There are opportunities to enhance the indigenous vegetation communities and biodiversity of Kākā Valley and Malvern Hills through protection and restoration of native plant communities. Our design responses include:

- · Avoid development in areas of high ecological value.
- Use eco-sourced native plants for revegetation, street planting, etc.
- Mitigation planting to offset any loss of indigenous plant species.
- · Provide wetland habitation.
- Reduction of pest plants such as gorse, hawthorn, barberry, crack willow, broom, thistle, bindweed, sycamore.
- Increase the ecological quality of vegetation across the site.
- · Encourage sites for whenua planting.
- Partner with council groups such as Nelson Nature to protect and enhance the native plant communities and riparian habitats within the development.

NCC APPENDIX 14 - RELEVANT CLAUSES

site analysis

AP14.2. 1.iv - character and features, opportunities and constraints

AP14.2.1.v - d existing vegetation and biodiversity corridors,

- e(i) landscape assets to preserve,
- e(ii) landscape features to reuse or enhance



Remnant stand of kānuka to be retained on Malvern Hills

¹⁰ Nelson City Council, Michael North. Ecological Significance Assessment Report. 5 June 2009.



Remnant vegetation on site

 $^{^7}$ Young, A. (2020). Historical and Archaeological Assessment for CCKV Maitai Dev Co LP and Bayview Nelson Limited. 17 December 2020

⁸ http://www.nelson.govt.nz/ assets/Environment/Downloads/living-heritage-nelson-native-plants. Pdf

⁹ Tonkin + Taylor Opportunities and Constraints Assessment

Ecosystems and Fauna

NCC APPENDIX 14 - RELEVANT CLAUSES

site analysis

AP14.2. 1.iv - character and features, opportunities and constraints

AP14.2.1.v - d existing vegetation and biodiversity corridors,

- e(i) landscape assets to preserve,
- e(ii) landscape features to reuse or enhance

Lowland Flats Ecosystem

This historical ecosystem consisted of Podocarp species such as kahikatea, tōtara and mataī; which stood as emergent trees over a canopy of black beech, silver beech, and broadleaf species including pukatea, tawa, tītoki, pōkākā, kaikomako, pigeonwood and mahoe. Species such as tree fuchsia, nīkau, raurekau and seven finger were also comon in damp shady areas. On floodplains and deltas species such as lowland ribbonwood, kōwhai and narrow leaved lacebark were more prevalent. While within the riparian zone more prevalent species were kōwhai, southern rātā, and tānekaha.

Lowland Hill Country Ecosystem

This ecosystem is historically located on hill slopes sheltered from coastal influences by altitude, aspect, and physical barriers. Mataī and black beech was common on lower slopes, while red beech maintained dominance on upper slopes with good soil. Broadleaf species including tawa, tree fuchsia, pigeonwood and mahoe filled gullies and hard beech covered ridges.

Please refer to Robertson Environmental Ecological report, which forms part of this resource consent application, for further information regarding fauna.

Our Design Response

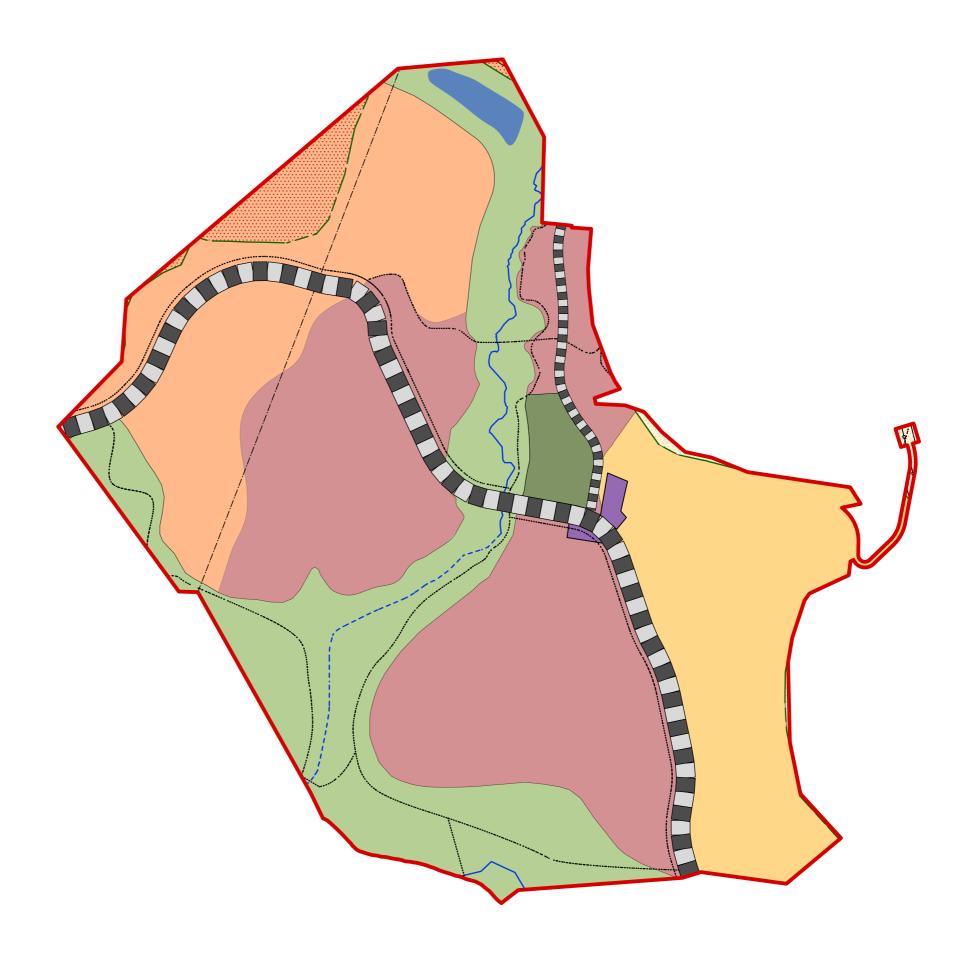
- · Avoid development in areas of high ecological value.
- · Mitigate and offset the loss of indigenous habitat.
- Earthworks and construction works will need to be planned and undertaken to avoid and minimise the impact on indigenous fauna.
- Increase the quality of the habitat on the property for indigenous fauna.
- Ensure ongoing pest management, indigenous regeneration.
- Reduction of pest plants.
- Provide adequate habitat for native fish species. Continue to exclude non-native predatory fish from the catchment.
- Create natural swales and marshy floodplains as habitat for native fauna.





Schedule X (NRMP) Structure Plan Application Site

Legend	
	Residential Zone
	Residential Zone Higher Density Area
	Residential Zone Lower Density Area
	Residential Zone Lower Density Backdrop Area
	Open Space Recreation Zone
	Suburban Commercial Zone
	Rural Zone
	Higher Density Small Holdings Area
	Neighbourhood Reserve
	Indicative Road
<u>f</u> ~	Indicative Walkway/ Cycleway Link
0	Indicative Lookout Locations
	Wetland
~	Existing Stream
1	Proposed Stream
$\overline{\hspace{1cm}}$	Site Boundary
\wedge	Internal Cadastral Boundaries
\sim	Secondary Roads
<u></u>	Network Tasman Limited Corridor - No Earthworks
	Residential Green Overlay
	Revegetation Overlay In Rural Zone
	Application Boundary

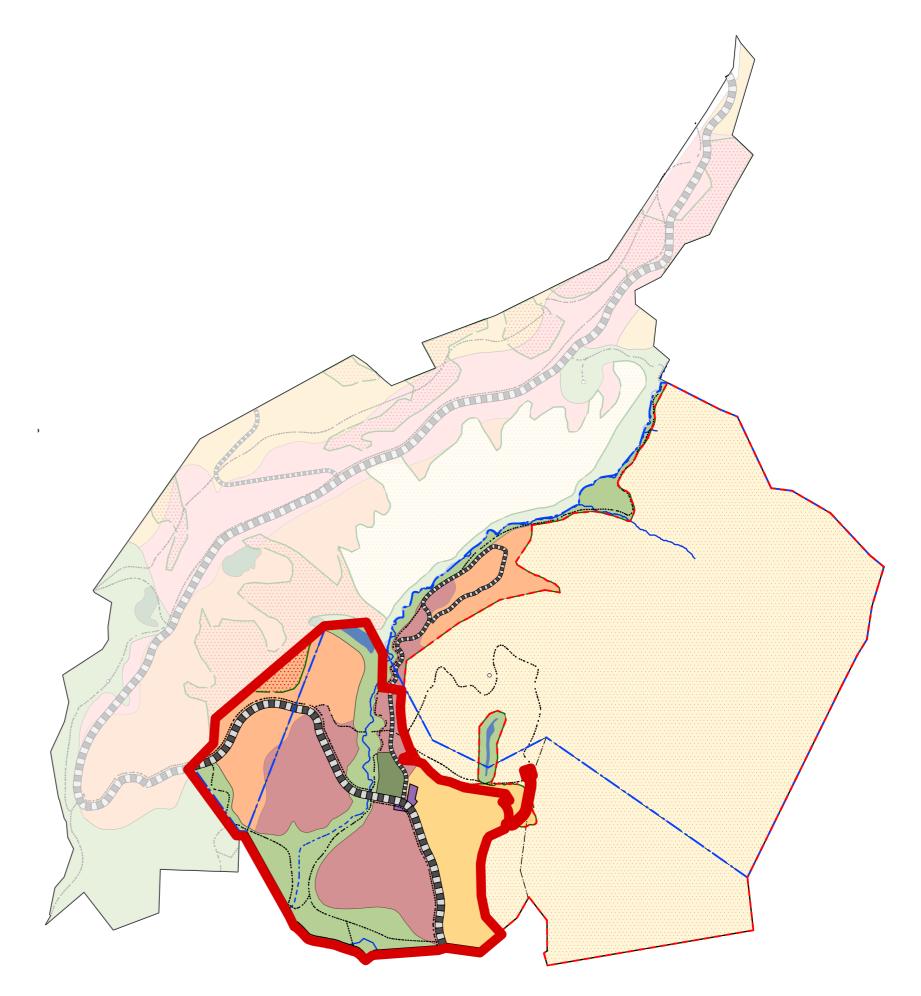




Schedule X (NRMP) Structure Plan

	Residential Zone	Application Boundary
		Application Boulidary
	Residential Zone	
	Higher Density Area	
	Residential Zone Lower Density Area	
	Residential Zone Lower Density Backdrop Area	
	Open Space Recreation Zone	
	Suburban Commercial Zone	
	Rural Zone	
	Higher Density	
	Small Holdings Area	
	Neighbourhood Reserve	
	Indicative Road	
<u> </u>	Indicative Walkway/ Cycleway Link	
O	Indicative Lookout Locations	
	Wetland	
<u> </u>	Existing Stream	
^_/	Proposed Stream	
\vee	Site Boundary	
\	Internal Cadastral Boundaries	
\sim	Secondary Roads	
\checkmark	Network Tasman Limited Corridor - No Earthworks	
	Residential Green Overlay	
	Revegetation Overlay In Rural Zone	
	Kānuka Vegetation and Kahikatea Tree to be Protected	
^/	Bayview to CCKV Settled 19/01/22	
	CCKV to Koata Aggreement	

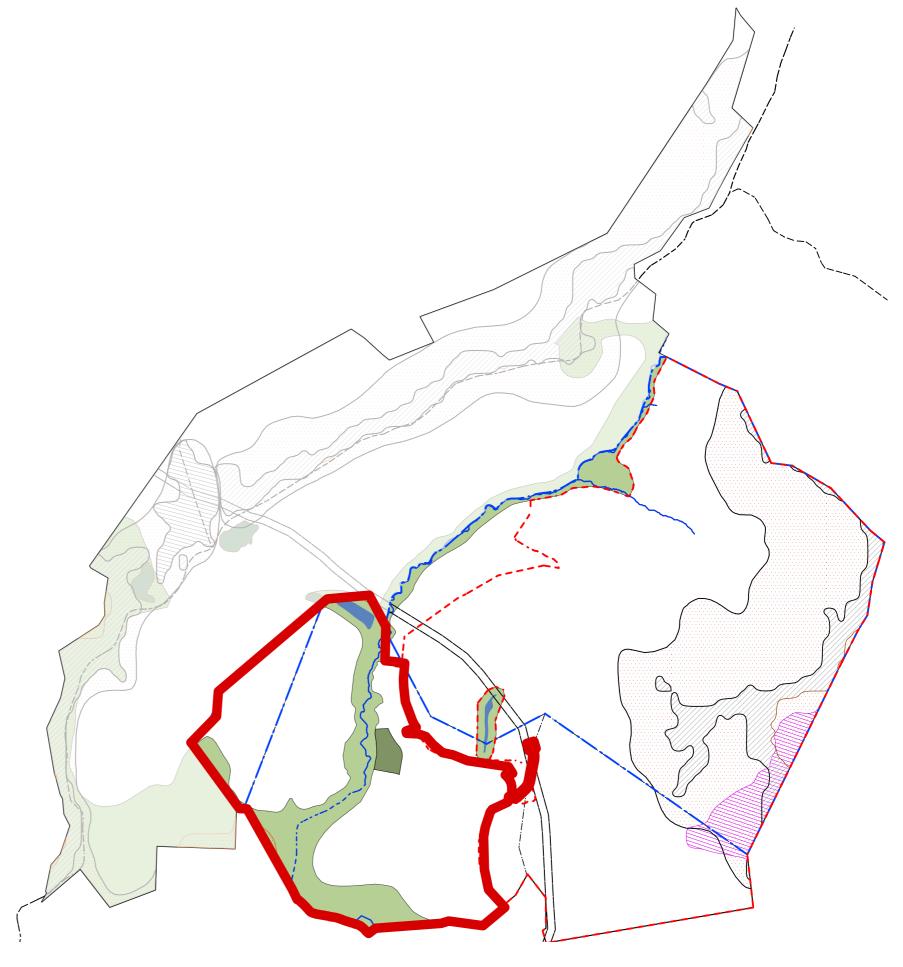




Schedule X (NRMP) Structure Plan Landscape Overlays

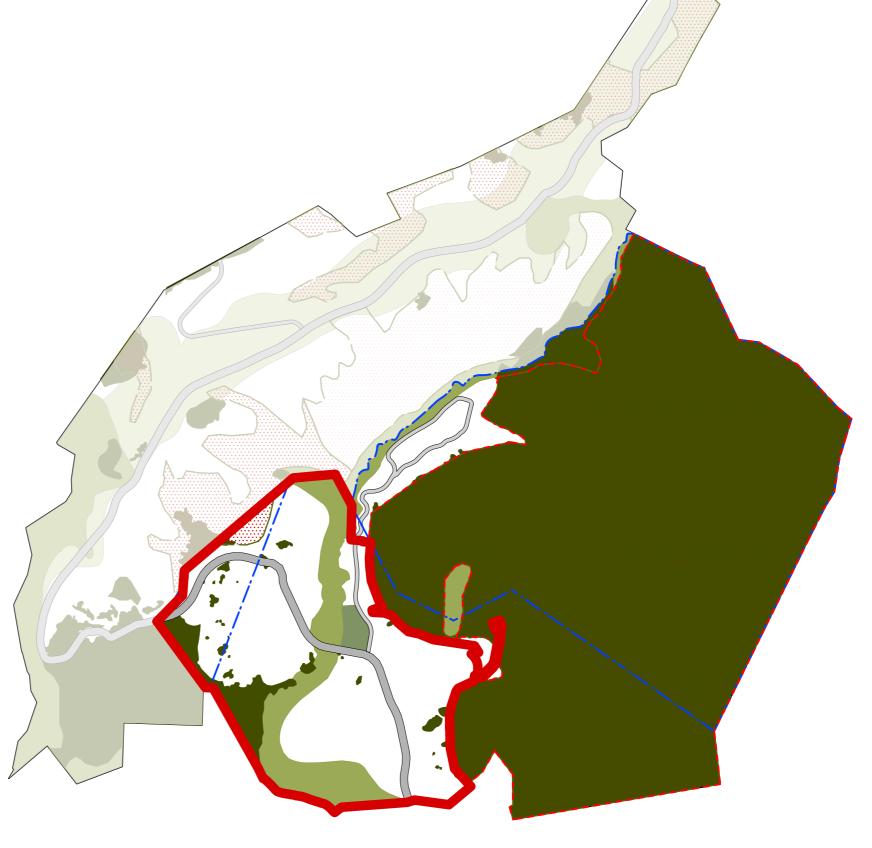
Legend	
	Open Space Recreation Zone
	Neighbourhood Reserve
	Skyline Area
	Walters Bluff Skyline Area
	Significant Natural Area (SNA)
	Backdrop Area
	Kānuka Vegetation and Kahikatea Tree to be Protected
	Wetland
$\overline{\hspace{1cm}}$	Site Boundary
^	Internal Cadastral Boundaries
~	Network Tasman Limited Corridor - No Earthworks
/	Malvern Hills and Botanical Hill Ridgeline
~	Existing Stream
101	Proposed Stream
^/	Bayview to CCKV Settled 19/01/22
^~	CCKV to Koata Aggreement 04/07/22
_	Application Boundary





Schedule X (NRMP) Structure Plan Vegetation Overlay Plan

Legend	
	Areas of Existing Vegetation
	Note: Existing vegegtaion as shown has been surveyed in the field and mapped using the latest drone survey information. Note, vegetation only surveyed in proposed residential zones.
	Open Space Recreation Zone (Contains existing vegetation and will also have areas of revegetation)
	Residential Green Overlay
	Revegetation Overlay In Rural Zone
	Backdrop and Skyline Area to have minimum 20% vegetation cover
	Neighbourhood Reserve
	Schedule X Area
\	Site Boundary
/ /	Bayview to CCKV Settled 19/01/22
.^~	CCKV to Koata Aggreement 04/07/22
	Application Boundary



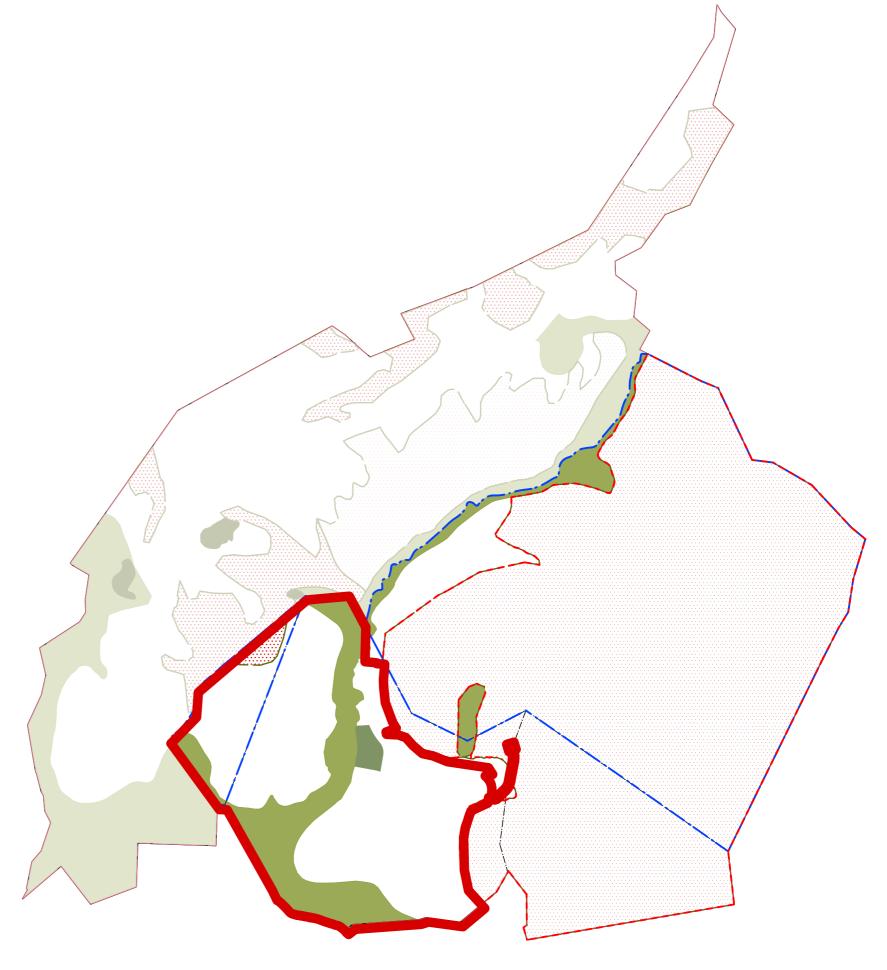


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Scale 1:10000@A3

Schedule X (NRMP) Structure Plan Green Structure

Legend	
	Open Space Recreation Zone (Contains existing vegetation and will also have areas of revegetation)
	Residential Green Overlay and Revegetation Overlay In Rural Zone
	Residential Green Overlay
	Revegetation Overlay In Rural Zone
	Neighbourhood Reserve
	Development Area
/	Site Boundary
~	Internal Cadastral Boundaries
/ /	Bayview to CCKV Settled 19/01/22
.^~	CCKV to Koata Aggreement 04/07/22
	Application Boundary







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