5.4 Residential Yield

The proposed masterplan identifies a logical land use pattern which supports efficiency, appropriate balance of land use distribution and diversity of residential opportunities. The key land use and yield metrics identified by the indicative masterplan are outlined in the chart below.

The proposed masterplan will provide approximately 1433 residential lots and 173 apartment units with 78% of the site area being zoned residential. The location and extent of THAB zones respond to the natural topography and the walkable catchment relative to the local centre and public transport hub. Mixed Housing Urban zones are predominantly provided across the gentle valley floor and the lower slopes in the east. Single House zoned land with spatial control is provided across the eastern escarpment and the local ridgeline in the northeast to minimise the impacts on the immediate and wider landscape. Large lot areas are located in the vicinity of the northern escarpment to help enhance a portion of Warkworth's rural character which is largely retained within the Morrison Heritage Orchard. To the east, the southwestern corner of Waimanawa Hills site will provide for large lot development to respond to the limited access from SH1 and provide further protection to Avice Miller Scenic Reserve and Outstanding Natural Landscape to the south.

1		Waimanawa Valley (Land West of SH1)			Waimanawa Hills (Land East of SH1)			Entire Plan Change Site			
Zoning		Land Area (Hectare)	Percentage of Total Site Area	Residential Yield	Land Area (Hectare)	Percentage of Total Site Area	Residential Yield	Land Area (Hectare)	Percentage of Total Site Area	Residential Yield	Indicative Open Space Provisions (Hectare)
Residential	Terrace housing and Apartment Buildings	19.627	11.90%	367 lots + 105 Apartments	5.778	3.50%	183 lots	25.405	15.40%	550 lots + 105 Apartments	1.230
	Mixed Housing Urban	38.393	23.27%	352 lots	35.847	21.73%	455 lots	74.240	45.00%	807 lots	15.093
	Single House	0.000	0.00%	-	14.476	22.10%	41 lots	14.476	8.77%	41 lots	0
	Large Lot	7.924	4.80%	11 lots	6.015	9.18%	12 lots	13.939	8.45%	23 lots	0
	Sub-total	65.944	39.97%	730 lots + 105 Apartments	62.116	37.65%	691 lots	128.060	77.62%	1421 lots + 105 Apartments	16.323
Business	Local Centre	3.388	2.05%	68 Apartments	0.000	0.00%	-	3.388	2.05%	68 Apartments	0
	Sub-total	3.388	2.05%	68 Apartments	0.000	0.00%	-	3.388	2.05%	68 Apartments	0
Open Space	Open Space - Conservation	5.718	3.47%	-	3.378	2.05%	-	9.096	5.51%	-	9.096
Open space	Sub-total	5.718	3.47%	-	3.378	2.05%	-	9.096	5.51%	-	9.096
Rural	Rural-Mixed Rural	21.962	13.31%	12 lots	0.000	0.00%	-	21.962	13.31%	12 lots	0
RUIAI	Sub-total	21.962	13.31%	12 lots	0.000	0.00%	-	21.962	13.31%	12 lots	0
	Others (Existing road/streams/ watercourses/possible landtake)	2.481	1.50%	-	0.000	0.00%	-	2.481	1.50%	-	0
	Total	99.49	60.31%	742 lots + 173 Apartments	65.49	39.70%	691 lots	164.98	100.00%	1433 lots + 173 Apartments	25.42

Figure 18 - Warkworth South Land Use Metrics & Yield Chart

5.5 Open Space Provisions



Figure 19 - Indicative Location & Extent of Key Open Spaces

Open spaces are generously provided within the Plan Change area and primarily include the following:

- A large suburb park functions as a key open space providing a range of recreational activities for the entire community
- A series of smaller open spaces including neighbourhood and pocket parks are provided along the stream corridors
- Existing bush reserves and covenanted areas will be retained •
- All protected streams will be enhanced by various provisions of riparian yard

The indicative open spaces identified in the proposed masterplan align with the Green Network Plan of Warkworth Structure Plan (WSP) for the following reasons:

- The large open space shown in the WSP is enabled by the proposed suburb park with a proximate location
- 20m Riparian yards are provided in alignment with the 'future esplanade reserve(20m) on subdivision' identified in the WSP
- The proposed masterplan indicates more open spaces on both western and eastern sites than that is proposed by the WSP.

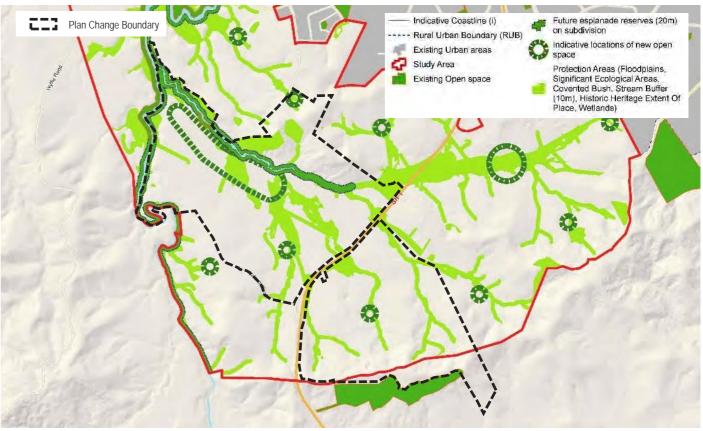


Figure 20 - Warkworth Structure Plan - Green Network Plan

5.6 Street Network



The street network will provide a legible pattern for all users within the Plan Change area, including

- Create the Wider Western Link Road in the most direct and efficient way that links SH1 with the southwestern growth area and the Southern Interchange
- The proposed intersection of SH1 and WWLR will enable key vehicular, pedestrian and cyclist access to both Waimanawa Valley and Waimanawa Hills
- The proposed green avenue and the road between WWLR and Valerie Close through the new local centre will provide good north-south connectivity from/onto the arterial routes within the Waimanawa Valley and these streets will be constructed to collector road standards
- The proposed collector road within Waimanawa Hills enables key access from SH1 and provides a linkage • to the future developments north of the site
- A safe crossing point for pedestrians and cyclists between the western and eastern sites is proposed at the • intersection of SH1 & WWLR
- The arrangement of load roads considers the natural topography and supports functional connectivity • and efficient land-use
- Separate cycle lanes will be provided along WWLR, green avenue and new collector road
- Pedestrian paths are essentially provided within the street network
- Off-road recreational pedestrian and cycling links are broadly provided throughout the site with good ٠ connectivity to reserves, parks and open spaces associated with the stream corridors
- Park edge roads are provided in practical locations where the adjoining stream edges are not subject to • Bat Flight Corridor/ sections of multiple small ownerships and result in improved public amenity than those open spaces(riparian yards) suitably integrated into subdivision
- Roading connections constructed to local road standards through the developments across northern and ٠ eastern escarpment areas are limited so as to achieve roading efficiency and practical gradients and avoid creating high retaining walls on either side of the road

Figure 21 - Indicative Street Network

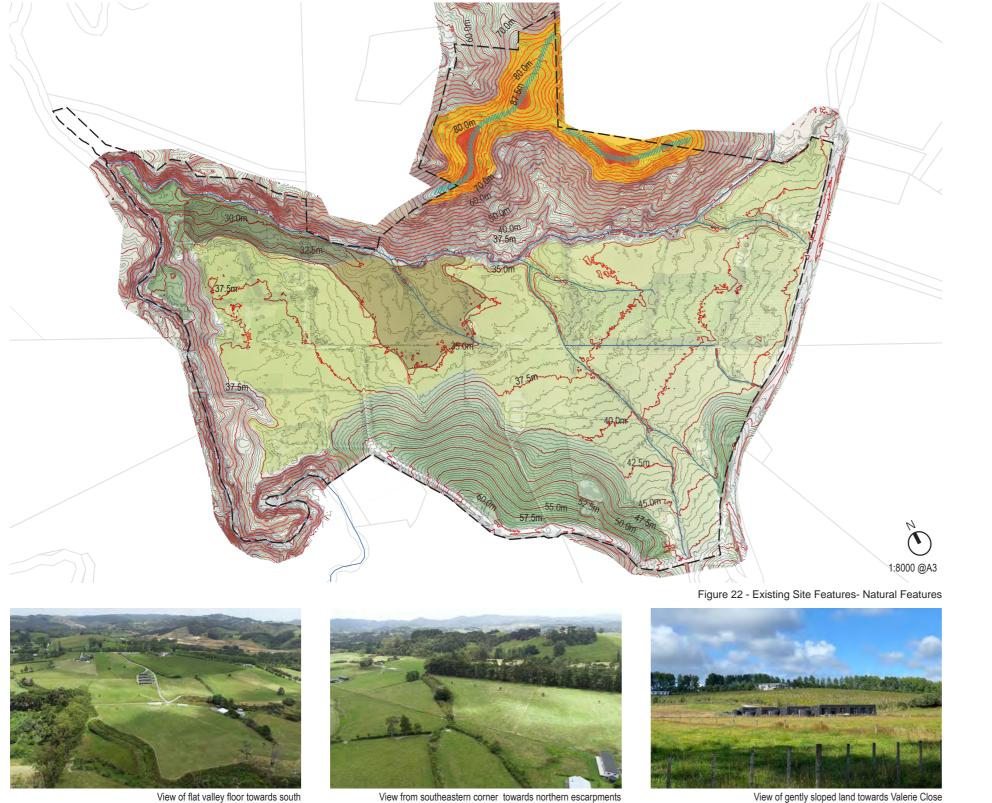
6. WAIMANAWA VALLEY MASTERPLAN

RET



6.1 Existing Site Features

Topography and Landform



View of flat valley floor towards south

View from southeastern corner towards northern escarpments

The site is topographically characterised by a gently-contoured valley in the south and a primary ridgeline with several spurs extending along the northernmost portion of the site. The ridge in the north runs in a southwest-northeast direction and ascends to a high point of 87.5m near the northeast corner. Extended off the ridge to the east, is a spur running toward the SH1 which defines the eastern part of the northern boundary. The ridgeline together with the associated spurs visually contains the site from the north.

Within the valley floor, the site generally falls towards the north and west from Valerie Close and SH1. Extending centrally from Valerie Close is a gentle slope with 20m fall (approx.) that forms an elevated feature along the southern boundary.

Mahurangi River.



The land adjacent to the western boundary has a more undulated contour as it intermixes with riparian margins of

Easy-Contour Area (slope between 1 in 20 to 1 in 9.5)

Natural Features



Mahurangi River

Kanuka Forest

Riparian Planting

Constructed Wetland

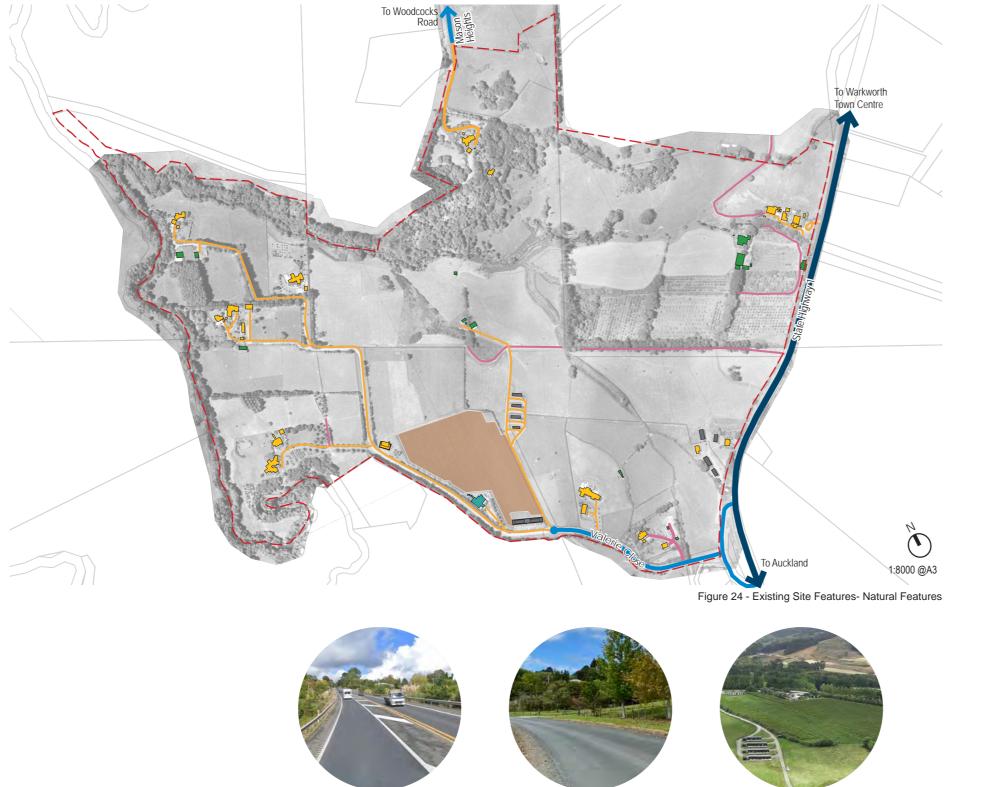
The right arm of the Mahurangi River runs in a north-south direction along the site's western boundary. A primary tributary of this river extends across the site in the middle following a west-east direction which provides a physical separation between the stream valley and the northern hill feature. Within the eastern portion of the site, a number of minor tributaries collect the complex drainage patterns falling from the south and the east as well as those further beyond the site on the other side of Valerie Close and SH1. These minor tributaries cut through the stream valley in a incised manner. A short watercourse exists in the central area of the site where it drains a pocket of constructed wetland.

The southwestern corner of the site features a corridor of indigenous vegetation consisting predominantly of mature native trees including kānuka (Kunzea ericoides) and põhutukawa (Metrosideros excelsa). Along the north-western and northern boundaries of the site following the streams, the riparian margin is dominated by kānuka forest which extends uphill to cover 3.3ha(approx.) of land. A smaller stand of mature vegetation sits 150m east of the extensive kānuka forest and features a mixture of native podocarp and broadleaved trees, some of which are in poor health condition. A small patch of natural wetland exists at the base of a gully between the ridges and is dominated by mercer grass.





Built Environment



State Highway 1

Valerie Close

Existing Vineyard

The site's built environment is characterised by rural residential and pastoral grazing activities. Residential dwellings are dispersed along the existing SH1, Valerie Close and streams corridors to the west. Complemented by a series of concrete/gravel lanes, Valerie Close provides primary access to the properties in the southern part of the site. The previous Ransom Winery buildings sits on a relatively high point west to the end of Valerie Close.

A number of temporary workers accommodation sheds are located adjacent to SH1 and the former Ransom Winery building.

Mason Heights.

the Auckland region.

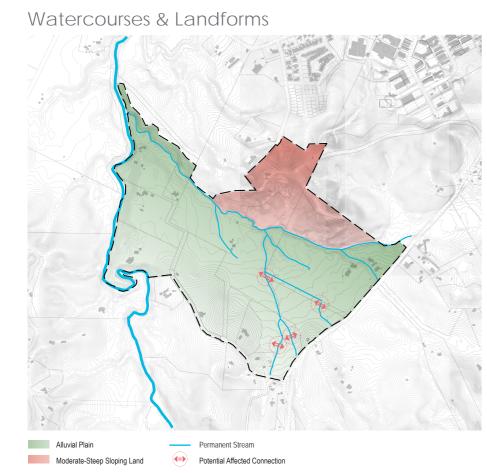
WAIMANAWA VALLEY MASTERPLAN | Existing Site Features

Access to the Morrison's Heritage Orchard is via SH1. The properties in the northern portion of the site are accessed off

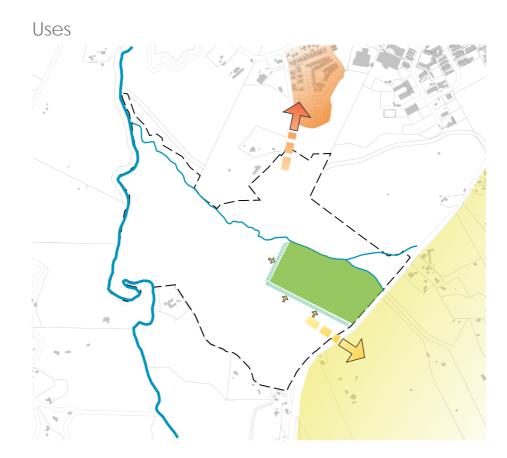
Overall, the site's built environment has an unremarkable pattern featuring scattered residential dwellings, farm buildings and temporary structures connected by loose roading network, which is a reflection of the typical hinterland of rural settlements within



6.2 Site Constraints & Opportunities



- The site lies to the south of a main tributary of the Mahurangi River and is • largely flat with gentle slopes towards Valerie Close which makes this area well suited for medium to high density development.
- A number of minor tributaries that run through the alluvial plain in the ٠ southeastern part of the site may require additional engineering in terms of providing continuous road connections.
- The steeply-contoured bush clad in the northern part of the site is less ٠ suitable for intensive urban subdivision and provides a visual break to the developments in the south.



- The northern area of the site's proximity to the most recent subdivision development on Mason Heights suggests a logical connection to the existing urban fabric in Warkworth.
- The site's strategic location and direct access from motorway indicate its strong ability to provide local services, various urban uses and open spaces to a wide catchment in Warkworth South
- Morrison's Heritage Orchard and its potential complementary activities enables the opportunity to act as a key destination in Warkworth South whilst continuing to contribute to the local rural character.
- The right arm of the Mahurangi River and its tributaries offer opportunity for natural amenity and highly-connected open spaces which form an integral part of the ecological system in Warkworth South
- The existing Kānuka forest along the north-western boundary of the site ٠ presents a natural landscape feature on the hill slopes which contributes to the broader landscape in Warkworth

WAIMANAWA VALLEY MASTERPLAN | Site Constraints & Opportunities

Open Spaces & Ecology

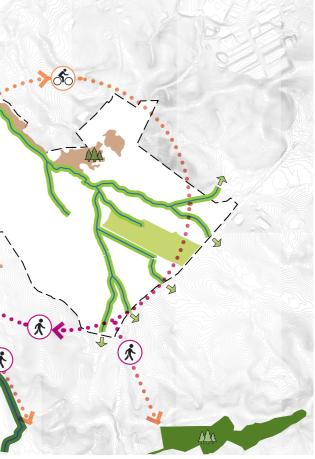
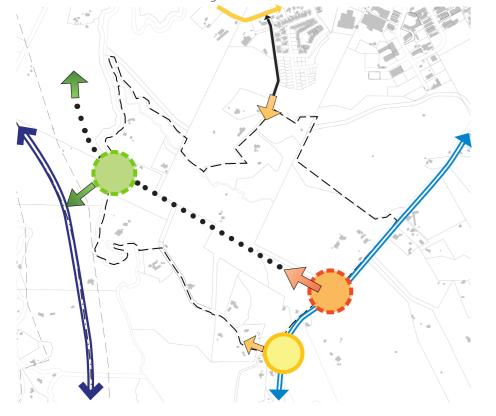
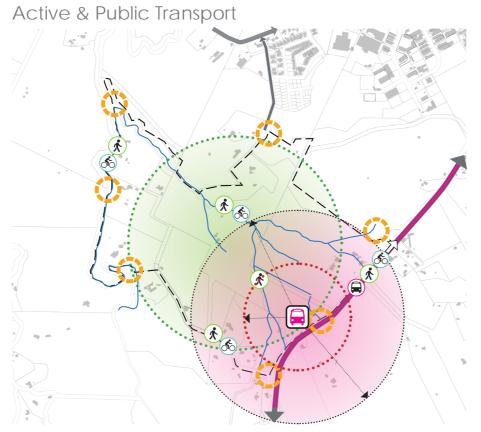
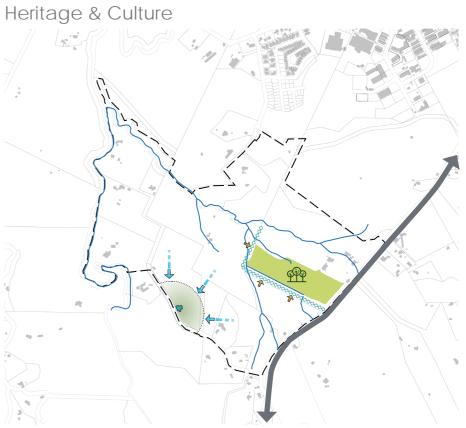


Figure 25 - Constraints & Opportunities Diagrams A

Access & Connectivity







- The site is in close proximity to the existing SH1along its eastern boundary •
- With future connections from its western boundary, the site has ٠ convenient access to the new motorway and the proposed Wider Western Link Road
- Currently, Valerie Close and Mason Heights provide direct access to the ٠ site from SH1 and Woodcocks road respectively which offers easy access to the Warkworth town centre and the employment area in the vicinity of Woodcocks Road
- The proposed Wider Western Link Road that traverses through the site is ٠ an urban arterial road with limited access points from both sides of this route

- The proposed public transport interchange within the site supports a walkable neighbourhood and caters for an extensive walking and cycling network.
- The riparian margins of the permanent streams offer opportunity for offroad pedestrian and cyclist routes.
- developments.
- site.
- site features.

WAIMANAWA VALLEY MASTERPLAN | Site Constraints & Opportunities

Figure 26 - Constraints & Opportunities Diagrams B

• The site contains no archaeological site of significance or other historic heritage sites that may raise constraints to the proposed urban

• Morrison's Heritage Orchard will continue acting as a destination with rural characters that reinforces the historic and cultural values within the

The existing Ransom Winery building sits on an elevated location that overlooks the flat alluvial plain and the northern slopes. There is an opportunity to create enhanced visual and physical connections to these

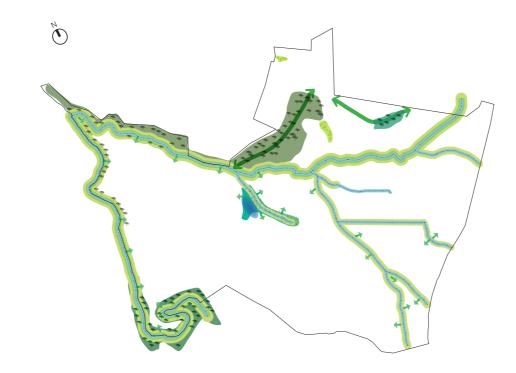
6.3 Key Moves

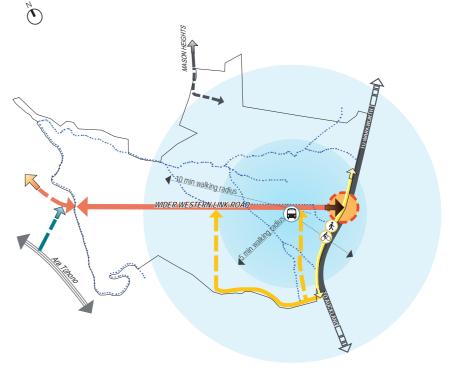
On the basis of the high-level principles, a series of specific and site-responsive moves are developed to help establish a welcoming residential community with good connections and quality amenity spaces.

The key moves are:

- Maintain and enhance the existing streams, forests and wetlands
- Connect to the larger arterial network
- Fit a sympathetic urban form onto the site
- Provide generous open spaces and infrastructure as the focus for the development
- Provide a local centre as a key destination for wider area in Warkworth South
- Maintain and enhance the landscape, historical and cultural values
- Provide for a dynamic mix of activities, densities • and housing options







- Maintain all permanent streams and natural wetland
- Protect and enhance bush reserves along the ridges to the north
- Protect and restore the existing indigenous riparian vegetation within the south-western corner of the site
- Leverage the existing constructed wetland to integrate with stormwater management facilities
- · Set development back from the natural interfaces of

- Interchange
- road adjacent to SH1
- Provide the pedestrian and cycle linkage along SH1
- Close
- Provide a key crossing for pedestrian and cyclist between the western and eastern sites at the intersection of SH1 & WWLR

WAIMANAWA VALLEY MASTERPLAN | Key Moves

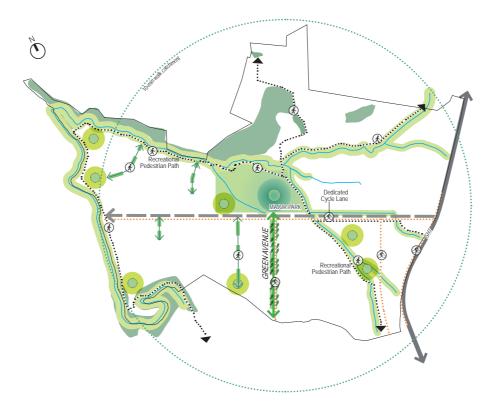
- Create the Wider Western Link Road in a most direct way which links SH1 with the south-western growth area and the Southern
- Locate the public transport interchange on the Wider Western Link
 - Provide key north-south connections between WWLR and Valerie

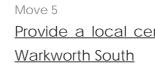
Move 3 Fit a sympathetic urban form onto the site

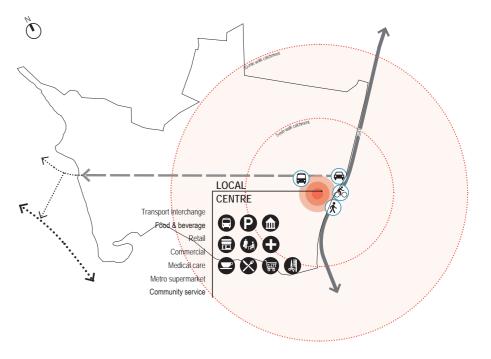


- Create street and subdivision patterns in a compact manner that fit comfortably with the existing contours
- Locate a mixed-use local centre along the Wider Western Link Road with good access to SH1 and the proposed Ara Tūhono
- Encourage greater housing density within the 5-min walk catchment • of the proposed local centre and major park









- Provide a generously-sized community park at a strategic location
- Create a linear series of parks alongside valley floor, the river and forest
- Link all reserves, parks and wetlands with recreational paths
- Provide pedestrian and cycle links across the entire site
- Integrate stormwater management areas with open spaces to provide for additional on-site amenity

WAIMANAWA VALLEY MASTERPLAN | Key Moves

Provide a local centre as a key destination for wider area in

• Provide for a local centre with presence and which supports a range of activities to meet the needs of local and broader community

• Integrate public transport interchange with the local centre

• Provide easy access to the local centre from the immediate neighbourhood, Warkworth Town Centre, wider Warkworth area and the planned transport corridor via various transport modes

Move 6 Maintain and enhance the landscape, historical and cultural values

Move 7 Provide for a dynamic mix of activities, densities and housing options



- Retain the Morrison's Heritage Orchard as a rural feature for • Warkworth and enable additional complementary activities
- Orientate localised street views towards the remnant bush along the northern slopes

- Provide for the greatest residential density in close proximity to both local centre and transport interchange
- Create a dynamic mix of urban residential developments on the gently terraced slopes
- Provide reduced density of residential developments towards key stream corridors on the periphery
- Locate the low density large lot development over the local knoll feature in the north

WAIMANAWA VALLEY MASTERPLAN | Key Moves



WAIMANAWA VALLEY MASTERPLAN | Indicative Layout

The masterplan on the left demonstrates an indicative layout of the future development of the Waimanawa site. The illustrative plan sets out the urban design framework for the site which is intended to guide the subsequent subdivision development. The key urban design considerations that the masterplan highlights are:

- Locate an appropriately-sized local centre at the intersection of the existing SH1 and the proposed Wider Western Link Road
- Enable increased residential density around the local centre, the proposed public ٠ interchange and adjacent to the major park
- Enhance the Mahurangi River and its tributaries with a series of linear open spaces as a core • structural element of the development
- Create a large park centrally-positioned within the site providing for sports fields and ٠ informal recreational activities
- Establish a clear visual corridor from Valerie Close to the central park to maintain the views ٠ towards the landscape on the northern slopes
- Provide a legible and efficient roading network with a clear hierarchy of arterial roads, ٠ secondary links, local accessway and private lanes
- Enable continuous walking and cycling links both within the road reserves and "off-road" ٠ alongside the riparian margins and through mid-blocks
- Propose lower density residential development with large section sizes over the knoll and ٠ elevated hills within the northern portion of the site
- Protect the existing pūriri and kānuka forests and ensure weed management and additional • infill vegetation



Example of residential development



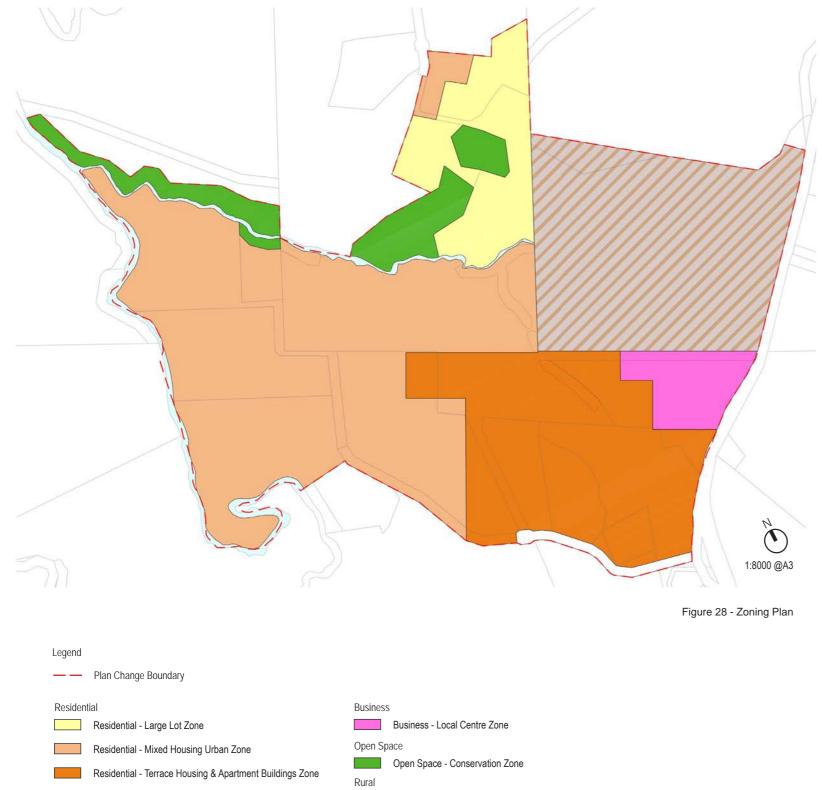
Example of mixed use local centre



Example of riparian margin

WAIMANAWA VALLEY MASTERPLAN | Indicative Layout

6.5 Land Uses



Rural-Mixed Rural Zone

Building on the site's opportunities and constraints and the key design considerations, the configuration of the land use aims to optimise opportunities for high quality urban residential, create extensive open spaces, aid maintenance of landscape features and ecological values.

The proposed land uses respond to the land use plan set out in the Warkworth Structure Plan which provides for predominantly residential uses, a local centre and a series of open spaces associated with natural streams and local landscape features.

The Local Centre zone is located immediately adjoining the SH1 and the Wider Western Link Road to ensure that the new centre serves a wider catchment area within Warkworth South.

key open spaces.

Radiating from the local centre and the high density residential area, Mixed Housing Urban Zone extends across the low lying lands on the valley floor. To the west, the residential density of MHU transits down to address the stream edge of the right arm of Mahurangi River. This transition of residential density supports a compact urban form around the growth node in Warkworth South whilst enabling a mix of medium-density residential uses with high amenities.

The area in close proximity to the local centre provides for the greatest residential density- Terrace Housing and Apartment Zone. This high density residential area aims to efficiently utilise the land that has convenient access to local services, retail, public transport and

Land Use Metrics & Yield

The proposed masterplan identifies a logic land use pattern which supports efficiency, appropriate balance of land use distribution and diversity of residential opportunities.

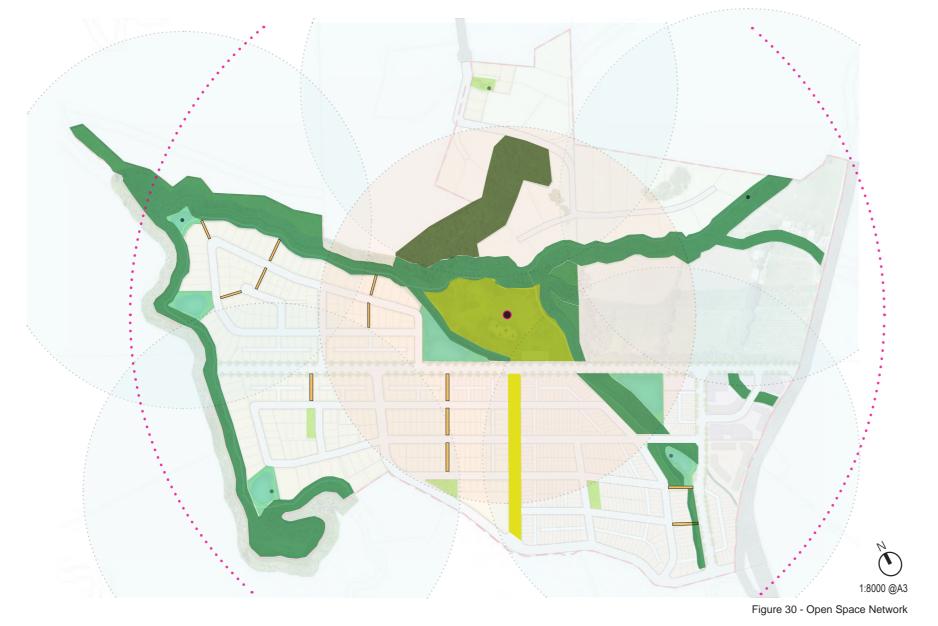
The key land use and yield metrics identified by the indicative masterplan are outlined in the chart on the right. As such the land use pattern:

- Contributes to the residential needs and supports a compact urban form
- The appropriate mix of residential zones enables the ability to provide for a wide range of housing choices
- Supports a functional local centre to provide for convenience needs for the residential areas of the site and the wider community within the southern growth area in Warkworth
- Allows the retention of significant ecological areas, remnant bush and more localised landscape features to be integral part of the development
- Ensure high amenity open spaces are generously provided ٠ throughout the development

	Land Area	Percentage of	Desidential Viold	Indicative Open Space		
	(Hectare) Total Site Area		Residential Yield	Provisions (Hectare)		
	Torrace bouring and Apartment Puildings	19.627	19.73%	367 lots +	1.230	
	Terrace housing and Apartment Buildings		19.73%	105 Apartments	1.230	
Residential	Mixed Housing Urban	38.393	38.59%	352 lots	9.781	
Residential	Large Lot	7.924	7.96%	11 lots	0	
	Sub-total	65.944	66.28%	730 lots +	11.011	
	Sub-101ai			105 Apartments		
Business	Local Centre	3.388	3.41%	68 Apartments	0	
Dusiriess	Sub-total	3.388	3.41%	68 Apartments	0	
	Open Space - Conservation	5.718	5.75%		5.718	
Open Space	Sub-total	5.718	5.75%		5.718	
Rural	Rural-Mixed Rural	21.962	22.07%	12 lots		
Ruiai	Sub-total	21.962	22.07%			
	Others (Existing road/streams/ watercourses/	2 401	2.40%			
	possible landtake)	2.481	2.49%			
	Tetal	99.49	100.00%	742 lots +	16.73	
	Total		100.00%	173 Apartments		

Figure 29 - Land Use Metrics and Yields

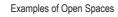
6.6 Open Space Strategy



The proposed masterplan is based on providing for a variety of generous open spaces across the site to create an integrated network of parks and green links. The open space strategies aim to :

- amenity public spaces
- landscape on the northern hills
- residential areas
- and parks
- cyclists to all open spaces
- development
- Heritage Orchard











• Enhance the existing ecological corridors along the upper reaches of Mahurangi River and its primary tributaries through generally 20m wide riparian margins

• Create a significant suburb park that provides a variety of high

• Create a central green avenue to connect Valerie Close with the major park and strengthen the key visual connections to the

• Provide for a series of pocket parks within the urban grain of the

• Create linear green spaces that connects to the riparian corridors

• Offer continuous, interlinked and safe routes for pedestrians and

• Integrate stormwater management facilities with public open spaces to enhance the ecological and amenity values of the

• Protect and enhance the existing forest areas and Morrison's

6.7 Street Network

Examples of streets



Boulevard



Local Road





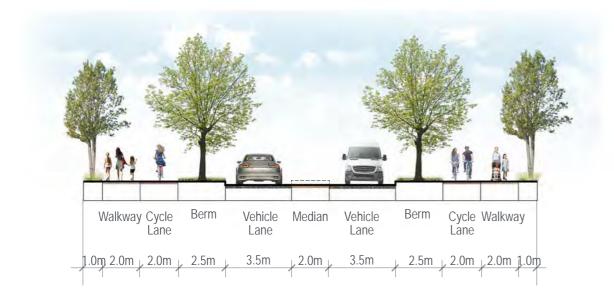
Proposed Public Transport Interchange

WAIMANAWA VALLEY MASTERPLAN | Street Network

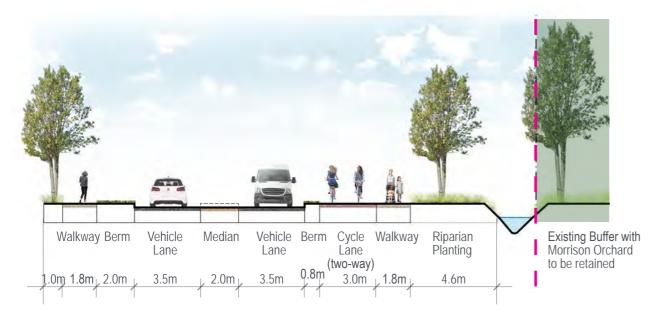


Indicative Road Cross-sections

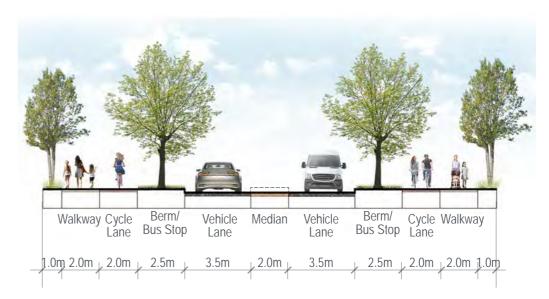
State Highway 1 (24m-2 Lanes)



Wider Western Link Road (24m) -Morrison Orchard Section

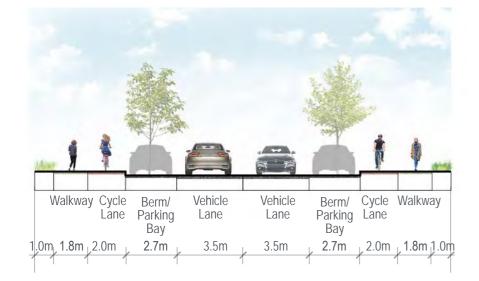


Wider Western Link Road (24m) -Western Section

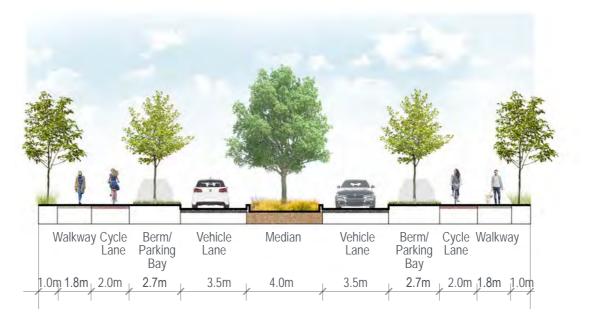


Indicative Road Cross-sections

Collector Road (22m)

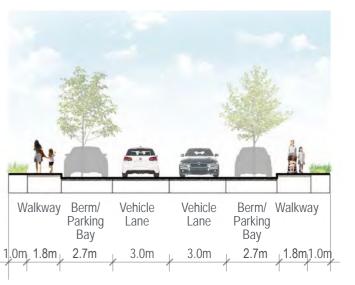


Green Avenue (26m)





Typical Local Road (17m)



6.8 Walking & Cycling Network

Legend



The Waimanawa masterplan places a strong emphasis on creating a walkable community.

Footpaths and on-road cycle routes are integrated within the road reserves to provide primary pedestrian and cycle access across the site. The routes are legible and offers direct connections to the local centre, public transport interchange and open spaces.

A pedestrian and cyclist crossing will be provided at the intersection of SH1 and WWLR to connect the western and eastern sites.

The open spaces within the masterplan area are interlinked and well connected with the proposed local centre and residential community through both on-road walking and cycling routes and off-road recreational paths.

A serious of shared pedestrian and cycle paths are generously provided alongside Mahurangi River and its tributaries. The boulevard provides direct pedestrian and cycle linkages between the proposed WWLR and Valerie Close as well as visual connections towards the central park and bush reserves on the northern slopes.



Shared Path

Recreational Pedestrian Path



WIIG-DIC

Mid-block Green Link

On-road Cycle Path

6.9 Landscape Approach



Planting Strategy

The natural valley setting of the Waimanawa site in south Warkworth, includes an existing necklace of wetland/riparian planting and well established native forest along the corridor of the central stream (a tributary of the upper reaches of the Mahurangi River).

The central intention of the landscape design for the site is to retain all established indigenous species, within both the riparian/wetland and forest areas and to extend these into the planned new wetlands, streams, reserve areas and streets.

The dominant tree species of the existing forest remnant and riparian vegetation are kanuka, pūriri, totara, rimu, kahikatea, kauri, pōhutukawa and many vines and epiphytes.

and vineyards.

commences.

Expansion of the forest and wetlands into the new plantings in the reserves, wetland areas and streets will integrate the development with the existing landscape..

The proposed new stormwater ponds provide not only an opportunity to integrate with the existing riparian and wetland plantings, but to soften the transition to the residential community dwellings.

The planned reserve areas at the base of the valley feature extensive wetlands and provide additional opportunity to celebrate the past use of the land of food source, by integrating community gardens and fruit trees.

pathway.



	7 unionity i lanting
а	Riparian Planting
b	Suburb Park
С	Pocket Park
d	Stormwater Pond
e	Feature Planting
\sim	

f Green Link Bat Flight Corridor

Recent landuse has been a mixture of pastoral farming, orchards,

Little care has been provided to the existing riparian and forest plantings. Pest plants existing within these areas, will require eradication and management prior to any infill or succession planting

Open space of the planned reserve areas will allow for active use by the community, for play, sports, recreation and an active travel