

## Part 3 | The Spatial Plan\_Maungatūroto



## 3.0 | Site Location & Context

Maungatūroto means Maunga: mountain; tū: to stand; roto: lake.

On the 4th September 1863 the first European settlers of Maungatūroto arrived in Auckland and then came north via boat to Mangawhai. Bullock carts brought them as far as Kaiwaka and then again by boat to Maungatūroto.

Today Maungatūroto is a growing town with a strong sense of community with the logo “the heart of the Kaipara”. Maungatūroto illustrates forward thinking and future planning. This is evident in community projects such as the Country Club, the War Memorial Hall and the retirement village. Many groups work together in the town like the Country Club Trust and the various service groups like the Lions & Salvation Army. One of the other main groups is the Maungatūroto Residents Association. The Association runs many projects like the local free magazine, the Christmas parade, the recently built children’s playground and is currently working with the Council on a main street public toilet upgrade. There are four schools and an early childcare centre, numerous shops and all the essential services such as an ambulance station, fire brigade and a medical centre.

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## 3.0 | Site Location & Context

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Maungatūroto is situated on a ridgeline, traversed by State Highway 12 with views to the tidal Otamatea River arm of the Kaipara Harbour River. It is approximately 15 kilometres from State Highway 1 turn off at the foot of the Brynderwyn hills. It has a train station on the North Auckland Truck Railway line on the western end of the town. This area is one of two industrial zoned areas which support the main employers in the town. The other area is on the eastern end with a large Fonterra milk processing factory. The main social infrastructure is at the primary school (off Gorge Road), high school and the country club (both situated on Bickerstaff Road). The country club is an ex gold course that now houses meeting facilities, sportsfields, theatre and bowling club. The wastewater treatment plant and oxidation pond are also located near the country club land adjacent to the river.

The population in Maungatūroto in 2018 was 1269, an increase of 15.27 percent since 2013.



## 3.1 | Local & Historical Context

On the 4th September 1863 the first European settlers of Maungatūroto arrived in Auckland and then came north via boat to Mangawhai. Bullock carts brought them as far as Kaiwaka and then again by boat to Maungatūroto (Maungatūroto Information Pack).

Maungatūroto was initially settled by the Albertlanders. From Auckland, they travelled to Mangawhai. They then travelled overland via bullock cart as far as Kaiwaka, where they then resumed boat travel, where they arrived at the landing near the Doctor Hill/Hurndall intersection.

In the early 1870s, a block of land was purchased at Maungatūroto by Isaac McLeod, where all of its kauri was cut out within the following two to three years (Ryburn, p40). Maungatūroto quickly became a prominent farming town, being described as having very high quality land, resting on a limestone bottom. By 1881, there was significant farm activity, predominantly cattle, with a few sheep. It was one of the more prosperous towns, providing beef, wool, cheese and butter for the Wairoa settlements (Ryburn, p53).

Within the next few years, steamer services were regularly providing access between Maungatūroto and the rest of Kaipara, such as the SS Kina and SS Aotea (Ryburn, p53; p173). In 1888, a wharf was built at Point Curtis to serve Kaiwaka and Maungatūroto. Wool harvested in Maungatūroto would be shipped out for export (Ryburn p78). Logs would be floated from Maungatūroto to Point Curtis (Ryburn, p112).

By the turn of the 20th century, Maungatūroto became established as an important centre in Otamatea with the opening of its dairy factory, and the opening of land for settlers (Ryburn, p156). By 1902, dairy companies had been established in Maungatūroto (Ryburn, p153), such as the Maungatūroto Co-operative Dairy Company (Ryburn, p65). Butter would be shipped to Helensville until 1913, when it was then railed to Kaiwaka (Ryburn, p156).

Population centres which were focused around towns thrived once the timber and gum trades had declined in Kaipara. Maungatūroto was one such town – its population increased from 194 to 402 from 1911 to 1926 (Ryburn, p162). Nevertheless, minor milling works briefly took place, when a small mill was built in 1912, cutting kauri, kahikatea and matai for local use for four years (Ryburn, p198).

The establishment of the District High School in 1939, helped to ensure Maungatūroto as an important service town and centre for the Otamatea County, going into the future (Ryburn, p167).



### 3.3 | The Future of Maungatūroto

#### Aspirations shared by Maungatūroto residents

- A town that is a good place to live, work and play for multiple generations
- A service town supporting surrounding communities
- Keep Maungatūroto’s unique identity and character
- Increase population
- Improve and enhance connection to railway and waterways
- Increase opportunities for safe and connected walking and cycling

This diagram represents the feedback of aspiration themes received from the various community engagements and surveys which were carried out at the beginning of the Spatial Plan development process.

#### | Summary of Feedback



## 3.2 | The Future of Maungatūroto

### Vision:

*"In 2050, Maungatūroto will continue to be a vibrant community with a strong business and manufacturing hub, excellent walking and cycling connections to new residential areas and a busy main street that has diverse attractions for locals and visitors alike."*

### The spatial plan for Maungatūroto

- Development and enhancement of the three nodes along State Highway 12 located on the rail line, the main street and commercial centre to the east, with new residential areas within walking and cycling distance
- Development of a new town square, civic and park spaces, retail and business areas in and around the blocks created by the new main street as a place for community to safely commute, shop and play
- Creation of walking and cycling routes that take advantage of Maungatūroto's natural beauty and connect the town centre to the residential areas, the estuary and to the rail line along State Highway 12
- Expansion of additional industrial land around the existing rail to provide space for further investment and enable ease of access to rail and road for freight-oriented businesses
- Creation of a new east-west street connection, south of the new main street, to enable new mixed-use development to occur close to the town centre and provide local access to schools, businesses and residential areas without the need to travel on the State Highway
- Identification, establishment and protection of a green and blue networks as part of new developments, to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Effective working relationships with existing landowners to instigate riparian planting alongside rivers/streams in rural areas to help create shared access in and around Maungatūroto



Description: Candid Picture of Maungatūroto Engagement



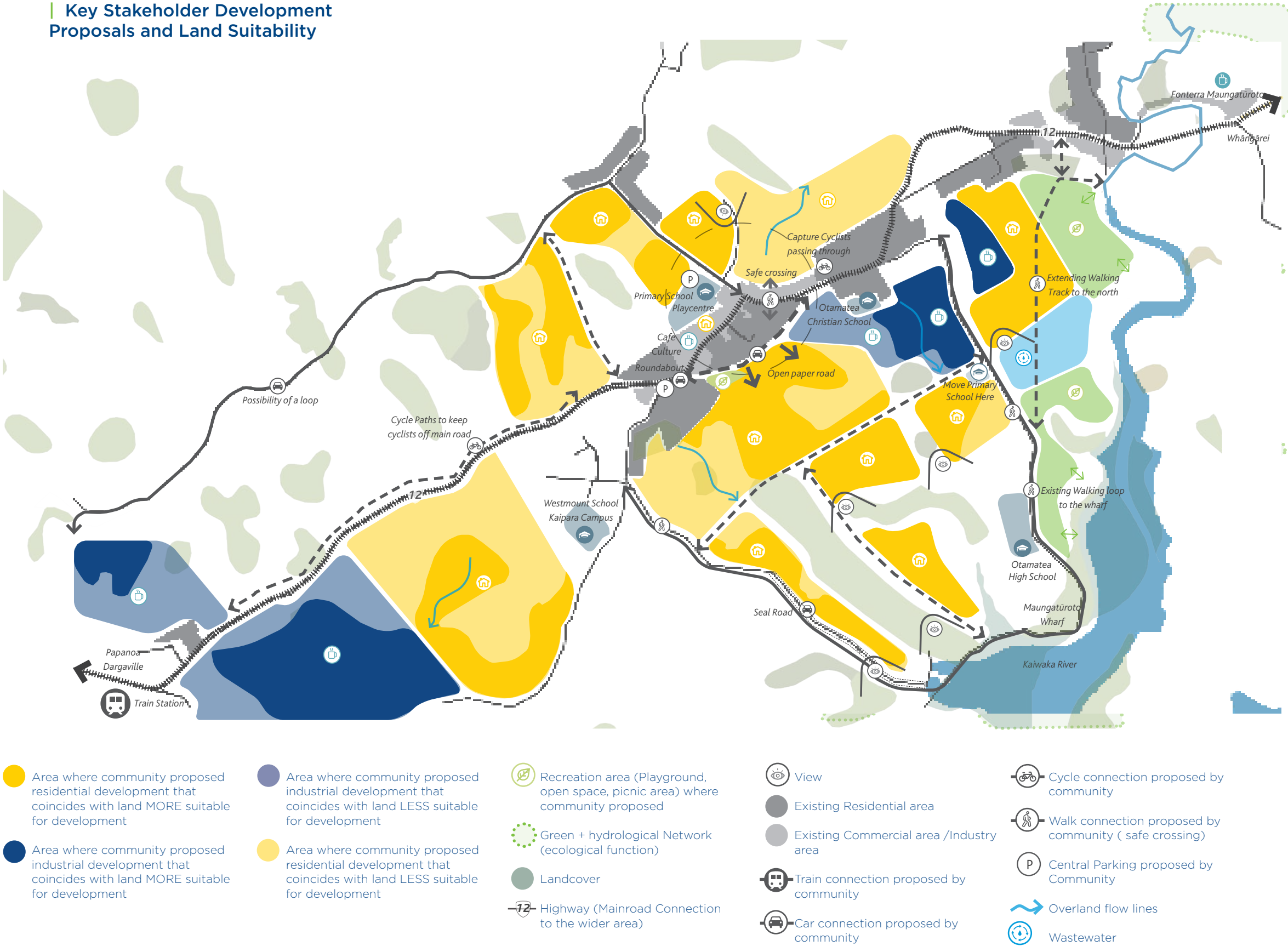
### 3.3 | Engagement

#### - Early Insights

Community representatives were keen to see more retail shops, businesses close to the main street, tourism accommodation providers and appropriate residential zoning for new subdivisions in the land close to the existing urban boundary. There was interest in the possibility for post High School education facilities being located within the town to cater for the strong manufacturing and agricultural sectors. Local people would like to see improved connectivity for the various activities in and around the town. Other similar comments were to have a connected township, condensed subdivision and a bypass main street. People were also concerned that as the town grows, it should not lose its rural values and 'heart of the Kaipara' feel.

This diagram displays ideas, received during key stakeholder engagement, about where potential development opportunities are in Maungatūroto.

#### Key Stakeholder Development Proposals and Land Suitability

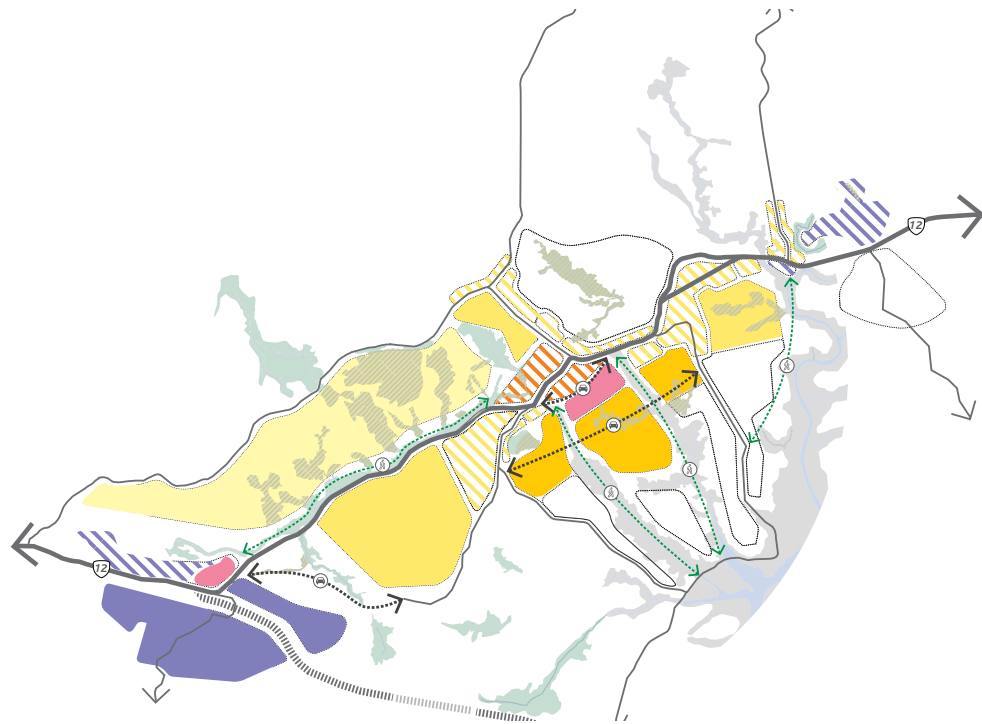


### 3.3 | Engagement

#### - Options Assessment

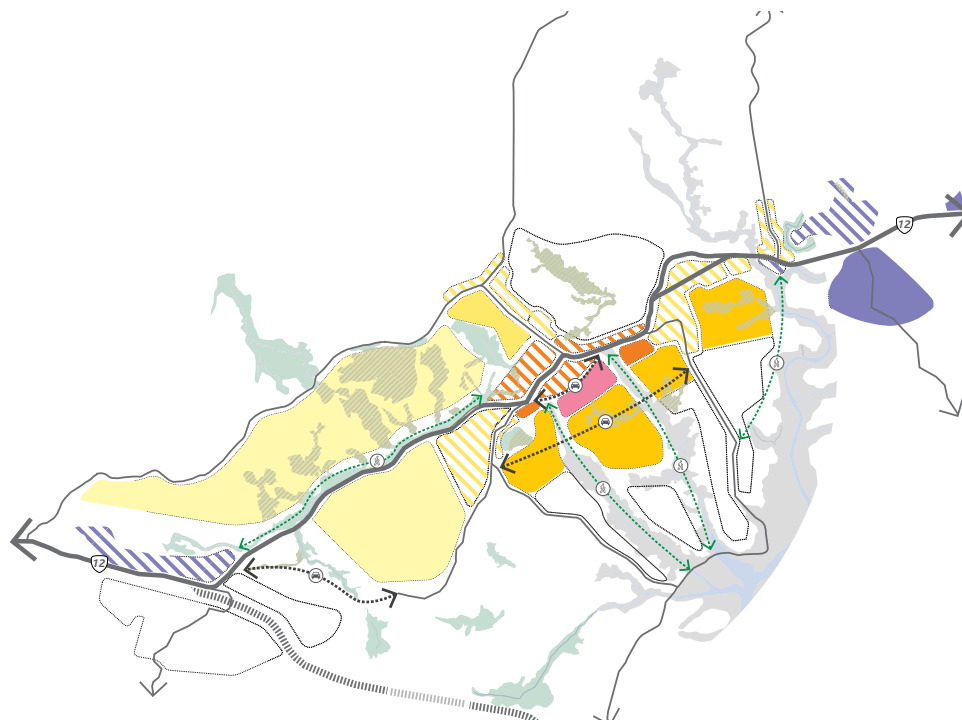
The options development phase was a critical part of the spatial planning process. This is where all the findings from the initial background research work including the targeted and community engagement sessions held in August 2019, were collated and converted into a shortlist of options for testing and evaluation. Three options were presented to the community to ascertain their thoughts and opinions.

#### Option 1 | Intensify the Town Centre



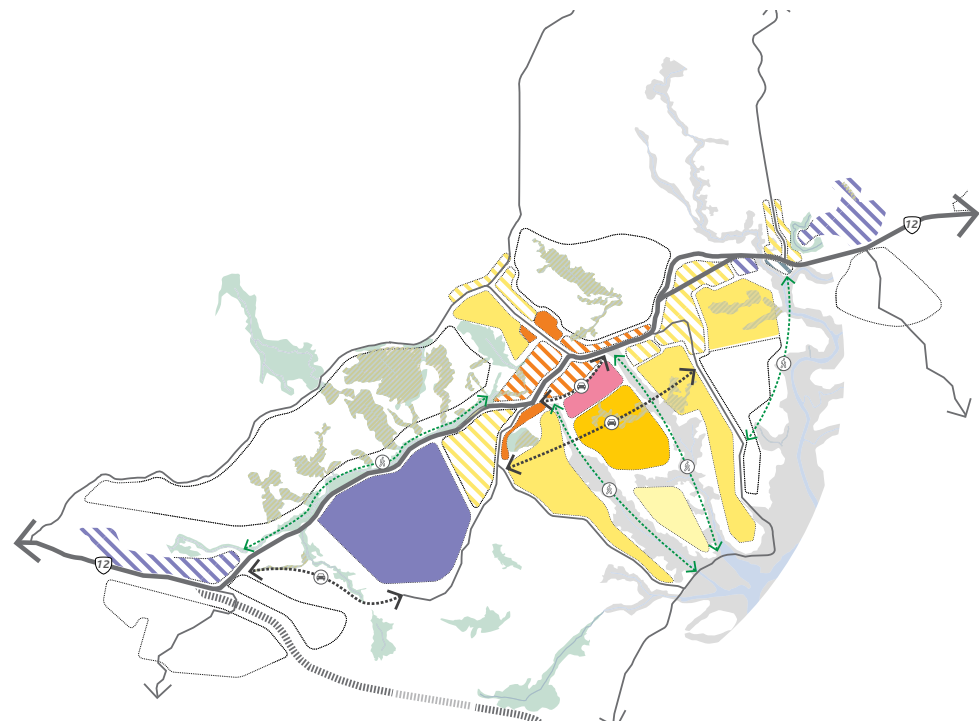
- Road Network
  - 🚂 Train Connection
  - 🚲 Cycle Connection
  - 🏭 Proposed Industrial
  - 🏢 Proposed Commercial
  - 🏡 Proposed Low Density Residential
  - 🏠 Proposed High Density Residential
  - 🌊 Waterways
  - ➡ Future Road Connections
  - 🚊 Rail Network
  - 🚗 Road Connection
  - 👤 Māori Site
  - 🔶 Intensified Commercial
  - 🏡 Intensified Residential
  - 🏡 Proposed Medium Density Residential
  - 🏠 Mixed Use Development
  - 🌿 Ecological Improvements + Passive Recreation
  - ➡ Future Walking and Cycle Connections
  - ✈️ Airport
  - 🚶 Walking Connection
  - 🏭 Intensified Industrial
- The main theme is to consolidate future development within easy walking distance to the main street.
  - A town centre expansion is enabled along the alignment of an existing paper road around the southern perimeter of the existing town centre.
  - An industrial extension located west of the town is enabled via Whaka Street
  - This option also retains the low lying land as green fingers which sustain both native bush and provide walking and cycling links to the river.

#### Option 2 | Extend Along the State Highway



- Road Network
  - 🚂 Train Connection
  - 🚲 Cycle Connection
  - 🏭 Proposed Industrial
  - 🏢 Proposed Commercial
  - 🏡 Proposed Low Density Residential
  - 🏠 Proposed High Density Residential
  - 🌊 Waterways
  - ➡ Future Road Connections
  - 🚊 Rail Network
  - 🚗 Road Connection
  - 👤 Māori Site
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  - 🏡 Proposed Medium Density Residential
  - 🏠 Mixed Use Development
  - 🌿 Ecological Improvements + Passive Recreation
  - ➡ Future Walking and Cycle Connections
  - ✈️ Airport
  - 🚶 Walking Connection
  - 🏭 Intensified Industrial
- The main theme is to grow around the three commercial nodes that exist in Maungatūroto recognising the historic development pattern that has occurred, with multiple business and retail areas stretching along the State Highway
  - This option seeks to support these three nodes with residential development within easy walking distance.
  - An industrial zone is proposed in the eastern end of the town to enable ease of access for freight-oriented businesses to State Highway 12.

#### Option 3 | Grow Towards the Rail Village



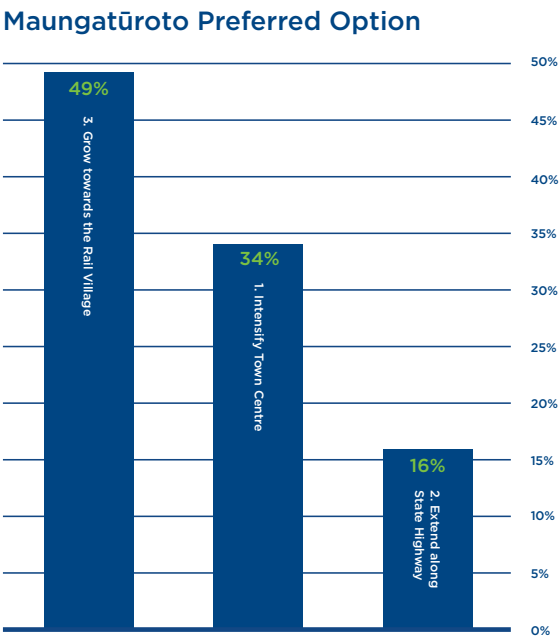
- Road Network
  - 🚂 Train Connection
  - 🚲 Cycle Connection
  - 🏭 Proposed Industrial
  - 🏢 Proposed Commercial
  - 🏡 Proposed Low Density Residential
  - 🏠 Proposed High Density Residential
  - 🌊 Waterways
  - ➡ Future Road Connections
  - 🚊 Rail Network
  - 🚗 Road Connection
  - 👤 Māori Site
  - 🔶 Intensified Commercial
  - 🏡 Intensified Residential
  - 🏡 Proposed Medium Density Residential
  - 🏠 Mixed Use Development
  - 🌿 Ecological Improvements + Passive Recreation
  - ➡ Future Walking and Cycle Connections
  - ✈️ Airport
  - 🚶 Walking Connection
  - 🏭 Intensified Industrial
- The main theme is to create a distinctive business hub around the rail village to support new businesses in the town, and to allocate spaces close to the town centre for new residential living areas
  - Option 3 is similar to Option 2 but accentuates and expands the Rail Village as the industrial hub for Maungatūroto.
  - Town centre mixed use residential / business is encouraged towards the west with much of the residential houses enabled to be repurposed or redeveloped for retail business purposes



3.3 | Community Feedback

The public consultation on the shortlist of options was carried out between 8-29 November 2019. There was an open day held on 19 November 2019 at the Maungatūroto Centennial Hall. The well attended event was an opportunity for many interested parties to question the project team on the options and discuss their development ideas and plans. There were subsequent site visits carried out on interested residents’ properties to discuss development proposals.

The feedback from the online survey was that nearly half (49%) preferred Option 3 of “Growing Towards the Rail Village”. Participants liked this option as it supported the historic rail village with similar type of industrial business activities envisioned and improved infrastructure (there is currently no reticulated wastewater line for this area). This option also keeps the future residential development to a compact and walkable area. The paper road feedback was split with participants thinking that a state highway bypass could be either a benefit or disbenefit for the town. Participants did feel that the link would encourage expansion of the town centre and open opportunities for the development of land that runs down to the river estuary.



**The spatial plan for Maungatūroto envisions the:**

- Development and enhancement of the three nodes along State Highway 12 located on the rail line, the main street and commercial centre to the east, with new residential areas within walking and cycling distance
- Development of a new town square, civic and park spaces, retail and business areas in and around the blocks created by the new main street as a place for community to safely commune, shop and play
- Creation of walking and cycling routes that take advantage of Maungatūroto's natural beauty and connect the town centre to the residential areas, the estuary and to the rail line along State Highway 12
- Expansion of additional industrial land around the existing rail to provide space for further investment and enable ease of access to rail and road for freight-oriented businesses
- Creation of a new east-west street connection, south of the new main street, to enable new mixed use development to occur close to the town centre and provide local access to schools, businesses and residential areas without the need to travel on the State Highway
- Identification, establishment and protection of a green and blue networks as part of new developments, to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Effective working relationships with existing land owners to instigate riparian planting alongside rivers/streams in rural areas to help create shared access in and around Maungatūroto



### 3.4 | Key Moves\_Town Wide\_Overview

**Legend**

**Live | Work | Learn**

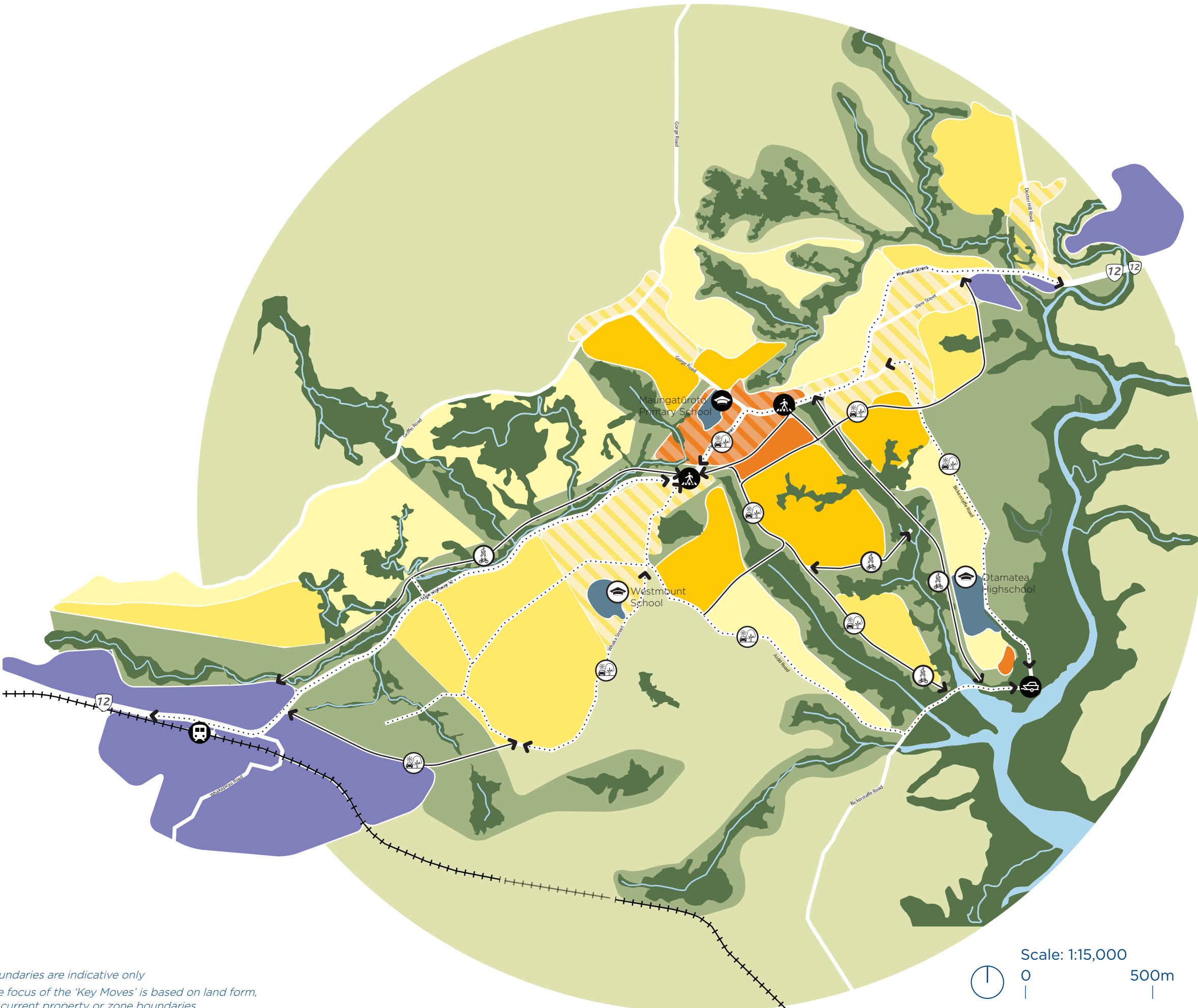
- Existing Residential | No Action
- School / Special Land Use
- Existing Residential Intensified
- New Low Density Housing
- New Medium Density Housing
- New High Density Housing
- Intensified Commercial | Mixed Use
- Intensified Industrial
- New Industrial

**Environment | Public Space | Productive Landscapes**

- Rural Land | Productive Land
- Open Space | Public Access
- Proposed Ecological Network | Riparian Buffer
- Waterways

**Movement | Connectivity**

- Proposed Road Connections
- Upgrade Existing Streets
- Maungatūroto Primary School
- Otamatea Highschool
- Westmount School
- Wharf
- Cycle | Walk Connections
- Possible Future Cycle | Walk Connections
- Airport
- Train Station
- Rail Line
- Upgrade Intersection

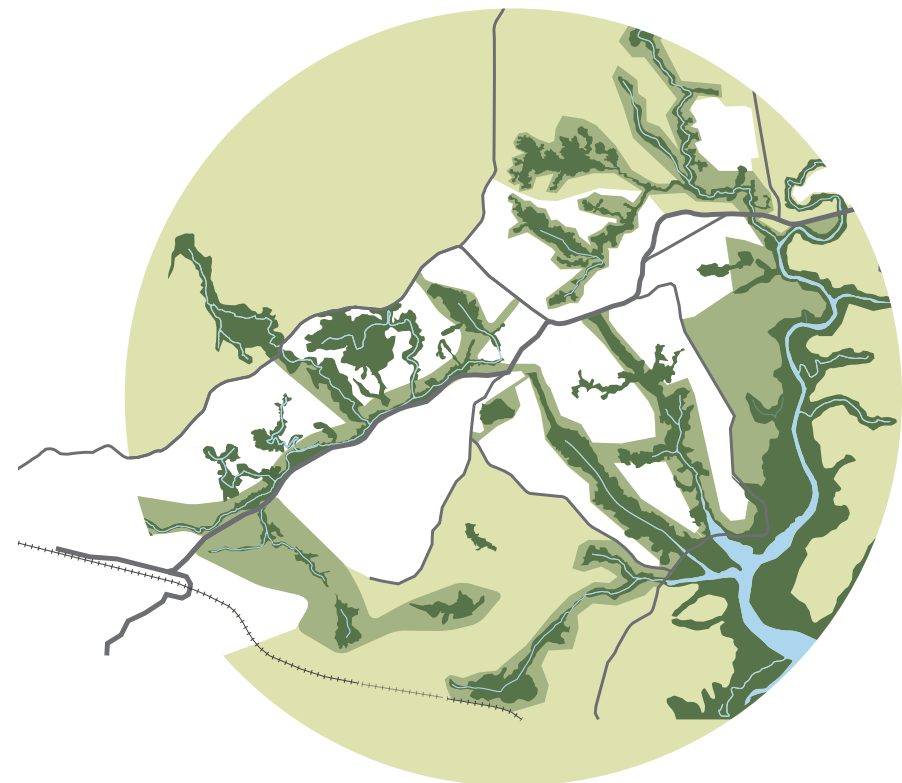


*\*Boundaries are indicative only*

*\*The focus of the 'Key Moves' is based on land form, not current property or zone boundaries*

### 3.4 | Key Moves\_Town Wide

#### 1 | Green, Blue and Brown Network



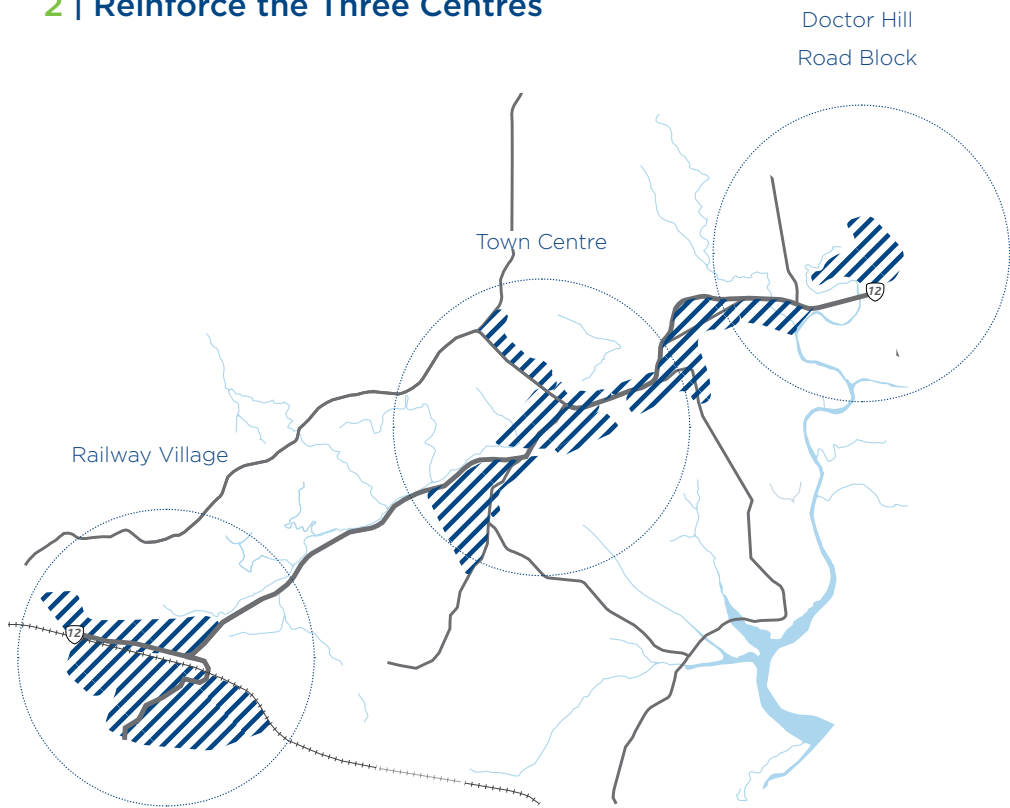
- Rural Land | Productive Land
- Open Space | Public Access
- Proposed Ecological Network | Riparian Buffer
- Waterways

- Identify, establish, and protect green and blue networks as part of new developments to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Using the green and blue network as a base, create a multi-use public open space network to improve and preserve the character and amenity of Maungatūroto
- Encourage the landowners of Totara Park (through subdivision) to create a publicly accessed park that could be used for mountain biking, walking trails and predator proof fencing to reintroduce wildlife.
- Work with existing land owners to instigate riparian planting alongside rivers/streams in rural and new and intensified residential areas
- Maintain and enhance existing native vegetation areas to provide habitat corridors that link ecological areas and create biodiversity corridors

Key Move 1. aligns with Mana Whenua values and the following Te Aranga Design Principles:

- Taiao (Natural Environment)
- Mauri Tū (Environmental Health)

#### 2 | Reinforce the Three Centres



- Areas for development within Centres

- Focus development and intensification around the three core development centres of Maungatūroto
- Reinforce each location by utilising existing infrastructure, maximising transport options and by identifying and enhancing the core role of each centre
- Develop the core role of the rail village as an industrial business hub with a focus on rail transportation
- Develop the Doctor Hill Road Block centre as a hub of light industrial/commercial businesses with good access to State Highway 1
- Reinforce the core of the existing town centre by expanding commercial, retail and civic development beyond the edge of State Highway 12

#### 3 | New + Improved Local Streets



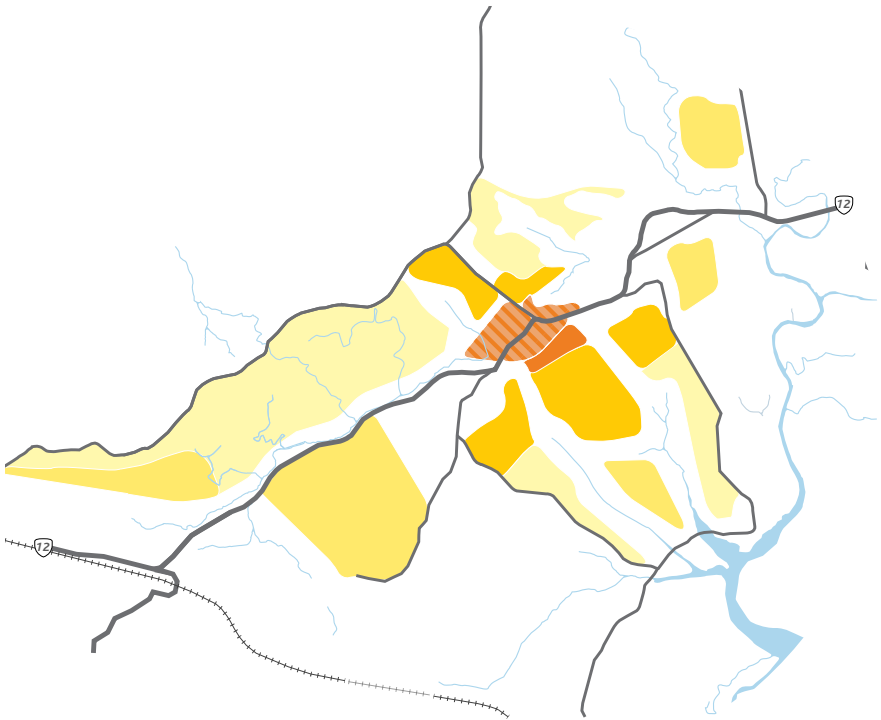
- New Local Street Connections
- Improved Existing Streets

- Green SH12 by transforming it into a tree lined boulevard to slow traffic, improve amenity and local identity, organise parking and improve environmental performance of the road
- Develop a new east-west street network to the south of SH12, connecting the town centre with new residential and open space areas
- Design a street network to link into existing roads and contours to maximise connectivity and minimise earthworks
- Investigate opportunities to integrate water sensitive design devices such as rain gardens into streetscape environments
- Ensure new and upgraded existing streets are slow speed environments with footpaths and street trees. Cyclists should be accommodated on separate lanes or the street environment should be safe enough that cyclists can share the street with motorised vehicles



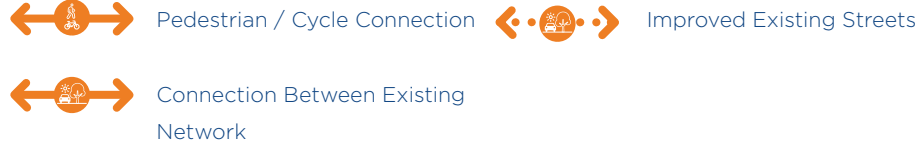
### 3.4 | Key Moves\_Town Wide

#### 4 | Residential Development



- Locate housing in areas most suitable for residential development with regard to land stability, access to existing infrastructure, avoiding floodplains and productive soils and with regard to underlying ecological networks
- Intensify existing housing in Maungatūroto through a combination of infill development and planning allowances for minor dwellings ( A minor dwelling is a secondary unit to the principal dwelling built on an existing title of land to a maximum gross floor area of 65m2)
- Locate new high and medium density housing close to existing town centre to create a walkable heart
- Locate mixed use development in the town centre to encourage people to live and work centrally
- Encourage a variety of housing styles to accommodate a variety of living needs and changing lifestyles and living arrangements
- Expand low density housing zones around Maungatūroto's periphery, providing new housing and lifestyle opportunities close to the countryside

#### 5 | Connection to Rail



- Create a shared pedestrian and cycle path linking the existing town centre to the railway village along the northern side of SH12
- Improve and extend Whaka Street to SH12 providing an alternative and improved access route to the railway village and the Whakapirau coastal settlement

#### 6 | Connections to Estuary



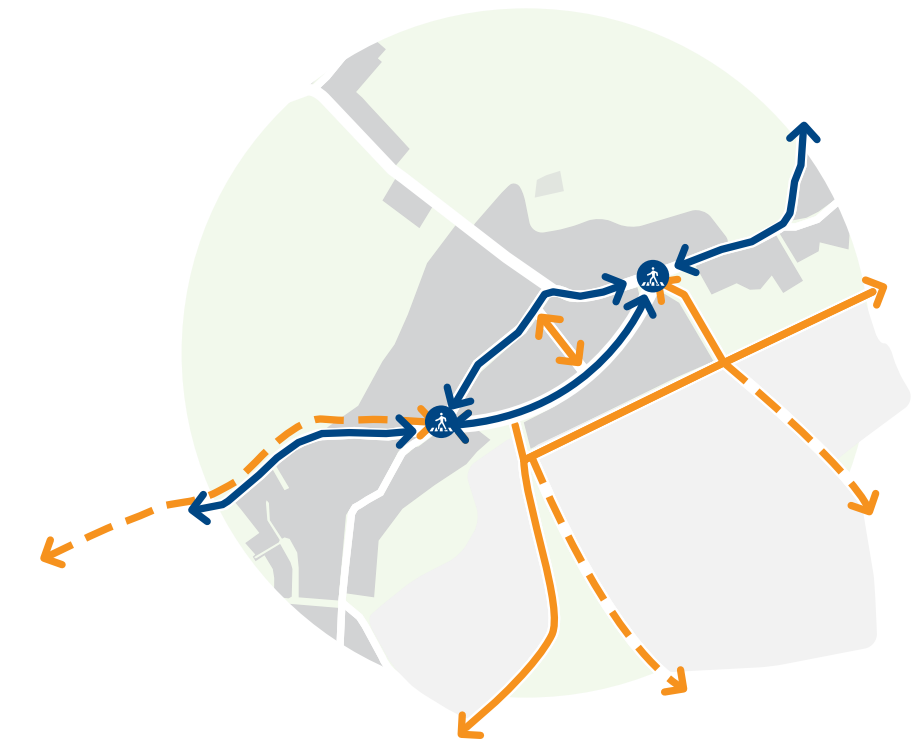
- Create north-south shared pedestrian cycle paths to connect the town centre to the estuary, the country club and recreation areas
- Create a public open space next to the wharf and along the estuary to provide opportunities for people to gather, sit, relax and play.
- Allocate a small area near the estuary and wharf for potential mixed use / commercial development in the future e.g. cafe / restaurant
- Establish a kayak launch point for exploring the waterways around the town and linking in with other villages and settlements

### 3.5 | Key Moves\_Town Centre

The key moves proposed for Maungatūroto’s town centre envisions the:

- Transformation of the existing paper road on the southern side of SH12 into a new street with a new retail/commercial/civic centre that is linked to the existing main street (SH12) by lanes and pedestrian connections.
- Expansion of the town centre to provide space to develop a new town square, streetscape upgrades and new public amenities such as an enlarged library / community hub where different agencies could be based.
- Creating new streets, walking and cycle paths that support residential and recreational growth, promote a reduction in vehicle use for local trips and create an community oriented environment that embraces and utilises the unique landscapes of Maungatūroto for all to enjoy.
- Highlight the parking arrangements for the town centre and where overflow parking will be accomodated in peak periods.

#### 1 | New Main Street



- ↔ Main Street + State Highway
- ↔ Walk | Cycle Connections
- ↔ Vehicle Connections
- 🚶 Upgrade Intersection

- Develop the existing paper road, south of the SH12 main street, into a second central street, providing an opportunity to expand and develop a more pedestrian oriented heart in Maungatūroto
- Create new lane way connecting the new street with SH12
- Within the new street network provide high quality open spaces and street amenities for relaxing, socialising and community activities
- Develop a new east-west street network to the south of SH12, connecting the town centre with new residential and open space areas
- Develop a pedestrian and cycle network from town centre to residential areas, parks, transport hubs, schools and the estuary
- Investigate opportunities to integrate water sensitive design devices such as rain gardens into streetscape environments

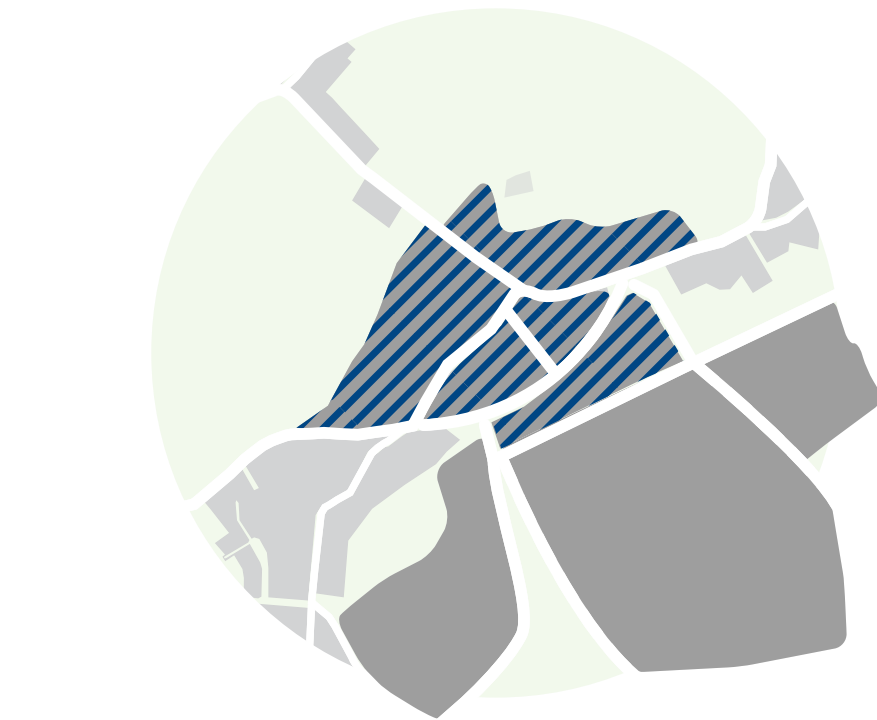
#### 2 | New Town Centre Blocks



- New Town Centre Blocks & Development Opportunities
- Enhanced Existing Frontages
- Active Frontages

- Create a pattern of small blocks to help create a walkable and permeable street network
- Define the new town centre block with a public town square, designed and landscaped to create a comfortable outdoor space that balances community activities with shade and shelter from the wind
- Experiment and test different arrangements and uses, including markets, through a series of temporary demonstrations and interim designs
- Investigate approaching the Brethren Community to acquire centrally located church land for town centre redevelopment and lane
- Ensure new development responds sensitively to Maungatūroto's built heritage

#### 3 | Living in Town



- Housing
- ▨ Mixed Use

- Activate the town centre by clustering high and medium density development close to the centre
- Locate higher density living near to new open spaces and shared path network
- Locate mixed use development in the town centre to encourage people to live and work centrally
- Support the creative enterprises by establishing a sculpture and art trail, re-investing in the Centennial Hall to host theatre and movie events.

### 3.6 | Future Assessed Yields

The preferred option developed from evaluation of the public consultation feedback, includes proposed land use changes in the following areas;

\*\* note that yields are provided under the following assumptions: brownfield sites (intensified areas) use gross calculations (100 percent developable), while greenfield sites use a net calculation based on a 20 per cent road reserve requirement (80 percent developable). Commercial yields have not yet been calculated at this point.

The preferred option has 6 key moves in the wider township and 3 key moves for the town centre to integrate new development and harness this to improve the offerings for existing and new residents.

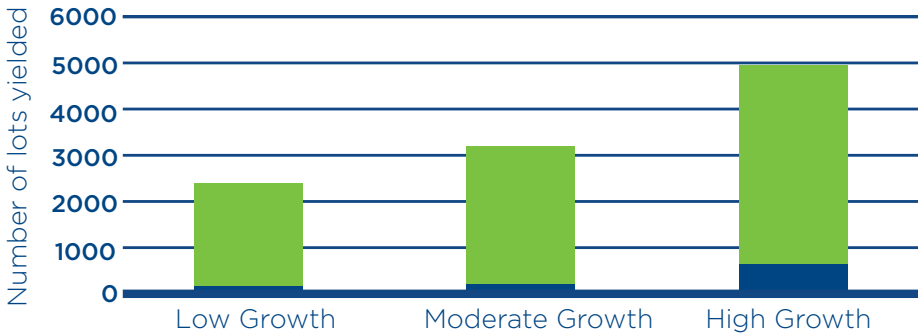
Land Use	Yield Estimate
Enabling new industrial land (gross lot areas created based on minimum lot sizes ranging between 1000-2000sqm) on existing rural zoned land:	<ul style="list-style-type: none"><li>Maungatūroto Railway Village = 76ha (creating approximately 380-760 lots)</li><li>Fonterra Block = 11ha (creating approximately 55-110 lots)</li></ul>
Enabling new commercial land on existing rural zoned land:	<ul style="list-style-type: none"><li>Maungatūroto East Block = 6ha</li><li>Maungatūroto Town Centre = 6ha</li></ul>
Enabling new low-density housing (gross lot areas created based on minimum lot sizes of 750sqm) on existing rural zoned land:	<ul style="list-style-type: none"><li>Maungatūroto South Valley = 26ha (creating approximately 346 lots)</li><li>Maungatūroto North Valley = 27ha (creating approximately 359 lots)</li><li>Griffin Road block = 78ha (creating approximately 1040 lots)</li></ul>
Enabling new medium density (gross lot areas created based on minimum lot sizes of 500sqm) housing on existing rural zoned land:	<ul style="list-style-type: none"><li>Griffin Road Block = 21ha (creating approximately 420 lots)</li><li>Whaka Street Outer Block = 49ha (creating approximately 980 lots)</li><li>Doctor Hill Road Block = 26ha (creating approximately 520 lots)</li><li>Maungatūroto South Valley = 8ha (creating approximately 160 lots)</li><li>Maungatūroto East = 8ha (creating approximately 160 lots)</li></ul>
Enabling new high density (gross lot areas created based on minimum lot sizes of 300sqm) housing on existing rural zoned land:	<ul style="list-style-type: none"><li>Gorge Road Block = 9ha (creating approximately 300 lots)</li><li>Maungatūroto South Block = 39ha (creating approximately 1299 lots)</li></ul>
Reviewing zoning provisions for existing residential zoned land to allow for medium to high density development (gross lot areas created based on minimum lot sizes of 350sqm) provisions so that mixed-density housing options are enabled for infill and brownfield housing redevelopment	<ul style="list-style-type: none"><li>Whaka Street Inner Block = 23ha (creating approximately 656 lots)</li><li>Maungatūroto East = 17ha (creating approximately 485 lots)</li><li>Gorge Road Block = 6ha (creating approximately 171 lots)</li><li>Maungatūroto North Valley = 4ha (creating approximately 114 lots)</li><li>Doctor Hill Road Block = 7ha (creating approximately 200 lots)</li></ul>
Reviewing zoning provisions for existing commercial zoned land to allow for intensified mixed density opportunities (residential, retail and office use)	<ul style="list-style-type: none"><li>Maungatūroto Town Centre = 11ha</li></ul>



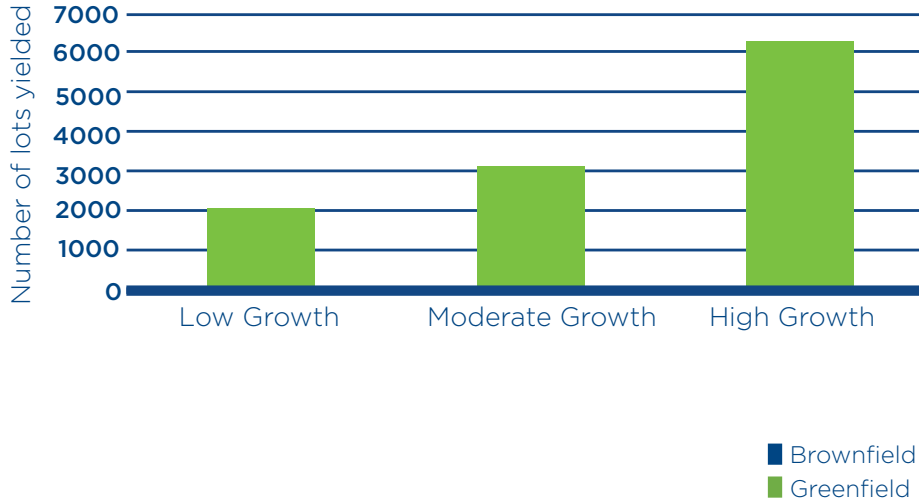
3.6 | Future Assessed Yields

TABLE OF VARIABLES	LOW GROWTH	MODERATE GROWTH	HIGH GROWTH
Low Density Residential minimum lot area	1250m <sup>2</sup>	1000m <sup>2</sup>	750m <sup>2</sup>
Medium Density Residential minimum lot area	1000m <sup>2</sup>	750m <sup>2</sup>	500m <sup>2</sup>
High Density Residential minimum lot area	600m <sup>2</sup>	450m <sup>2</sup>	300m <sup>2</sup>
Industrial minimum lot area	3000m <sup>2</sup>	2000m <sup>2</sup>	1000m <sup>2</sup>
Residential Intensified minimum lot area	1000m <sup>2</sup>	800m <sup>2</sup>	400m <sup>2</sup>
Industrial Intensified minimum lot area	3500m <sup>2</sup>	2500m <sup>2</sup>	1500m <sup>2</sup>
Greenfield developable land	70%	70%	70%
Brownfield developable land	100%	100%	100%
Subdivision uptake rate (brownfield sites only)	30%	50%	70%

Maungatūroto - Residential Yield



Maungatūroto - Business Land Yield





## 3.7 | Neighbourhoods

A study of Maungatūroto's existing neighbourhoods and adjacent rural areas was undertaken to fully understand which areas would be most suitable and feasible for expansion and growth. This involved a number of site visits, assessments and discussions surrounding landform and potential land use, connection to existing and future transport routes, proximity and access to the town centre and community facilities and infrastructure requirements to accommodate growth. A set of new and existing neighbourhoods were identified where new growth could be successfully facilitated through a series of key moves including the provision of adequate infrastructure to enable new residential and commercial development in Maungatūroto.

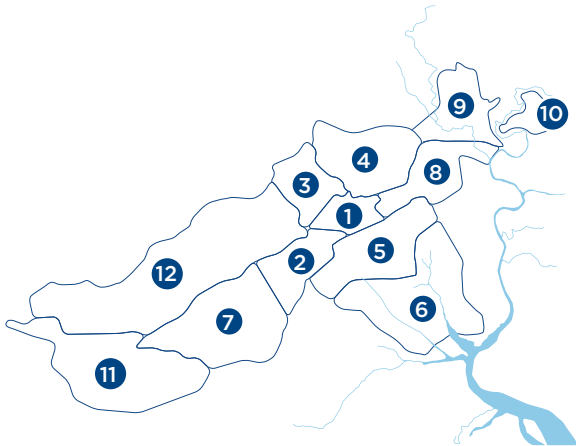
1. Maungatūroto Town Centre
2. Whaka Street Inner Block
3. Gorge Road Block
4. Maungatūroto North Valley
5. Maungatūroto South
6. Maungatūroto South Valley
7. Whaka Street Outer Block
8. Maungatūroto East
9. Doctor Hill Road Block
10. Fonterra Block
11. Maungatūroto Railway Village
12. Griffin Road Block





3.7 | Neighbourhoods  
- Character Study

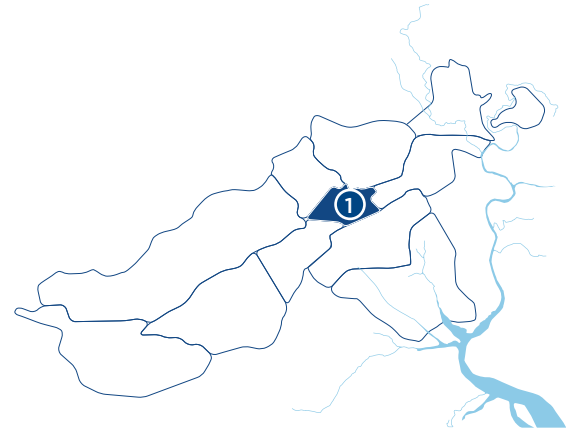
- 1. Maungatūroto Town Centre
- 2. Whaka Street Inner Block
- 3. Gorge Road Block
- 4. Maungatūroto North Valley
- 5. Maungatūroto South
- 6. Maungatūroto South Valley
- 7. Whaka Street Outer Block
- 8. Maungatūroto East
- 9. Doctor Hill Road Block
- 10.Fonterra Block
- 11. Maungatūroto Railway Village
- 12. Griffin Road Block





## 3.7 | Neighbourhoods

### - Growth & Infrastructure



#### 1 | Maungatūroto Town Centre

The Maungatūroto Town Centre is the 'local services' hub for the central rural and coastal settlements of the Kaipara District, including Whakapirau, Paparoa, Pahi, and Matakōhe. This is where additional civic services from the regional and district councils could be located as the town grows, providing improved library, other services such as medical centres, banks and education facilities, and perhaps a cinema.

The Maungatūroto town centre is an 18 hours a day / 6 days per week kind of civic hub. The town centre is where urban spaces are created for people to meet, conduct business, or congregate at the central square during the lunch break or on the weekends.

The Hurndall Street mainstreet is shared with the SH12 transit corridor. While the existing road layout through the village centre is widely perceived as unsafe due to sightlines and traffic speed, this existing design also presents an opportunity to pursue public realm mainstreet

improvements. Consultation with the community has resulted in considerable support for public realm upgrades where the second 'mainstreet' is created around the southern edge of the existing town centre, resulting in a dual-main street town centre in Maungatūroto.

Along the Hurndall Street main street, its streetscape the heritage buildings and the centre's connection with the surrounding rural areas and the Kaipara Harbour to the south. Large landholdings in the town centre, once rezoned and unlocked for redevelopment, present clear opportunities for anchor tenant activities and new fine-grain and commercial offices to establish in the town centre. Much of these landholdings enjoy stunning views out to the Kaipara Harbour estuary and surrounding rural and coastal landscapes.

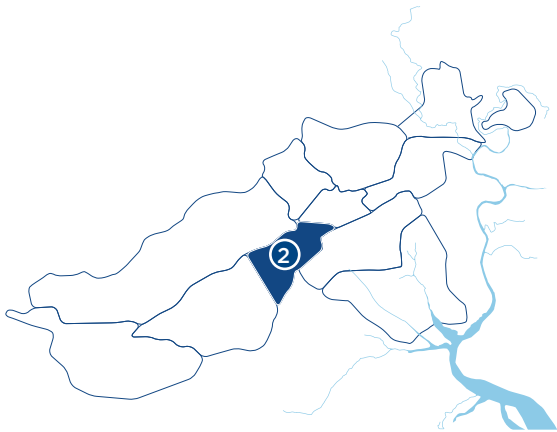
#### | Outcomes

Mixed-use residential and commercial activities within the 'Intensified Commercial / Mixed Use' land as well as new housing opportunities through the 'Existing Residential Intensified' areas. Future growth in the town centre can be enabled through mixed-use development enabling planning regulations. This would be on the basis of redeveloping individual sites OR by way of comprehensive redevelopment through the amalgamation of multiple sites.

#### | Infrastructure

Reticulated sewage and drinking water supply, as well as adequate stormwater attenuation methods is necessary to establish good urban form and density in the town centre, providing resilient infrastructure to provide stability for businesses wanting to establish in Maungatūroto. The existing 3-waters networks (wastewater and water supply) in this area are performing as per the current level of service in terms of what is required to service existing household and businesses, with some capacity for additional growth available. However, in order to keep continuity of service in Maungatūroto, substantial network renewals expenditure needs to be undertaken as pipes are reaching replacement time. This will be addressed in the Long Term Plan and Asset Management Plan budgets.

3.7 | Neighbourhoods  
- Growth & Infrastructure



2 | Whaka Street Inner Block

An established residential neighbourhood, this part of Maungatūroto is well connected to the town centre, motorway corridor, primary school, existing 4Square supermarket, and other village centre-based facilities. Its elevated location positions it high on top of the ridgeline providing it with views towards the village centre as well as south towards Bickerstaffe Road and the Kaipara Harbour inlet.

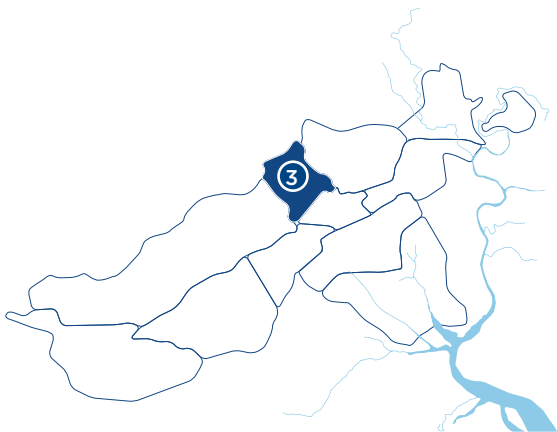
| Outcomes

‘Existing Residential Intensified’ housing opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development. Future growth in this neighborhood can be enabled through individual site infill development. The option of comprehensive redevelopment through the amalgamation of multiple sites is less likely to occur in this neighbourhood.

| Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. The existing 3-waters networks (wastewater and water supply) in this area are performing as per the current level of service in terms of what is required to service existing household and businesses, with some capacity for additional growth available. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed. The further investment and upgrades for 3-waters servicing can be investigated further through the council's infrastructure asset management strategy for Maungatūroto.

3.7 | Neighbourhoods  
- Growth & Infrastructure



3 | Gorge Road Block

Located just to the north of the Maungatūroto village centre, this area of new residential land is well connected to the existing village centre being within 5-minutes walking distance of the village mainstreet shops. Its geographical extent is well defined by the village centre to the south, steep slopes and vegetated hillside to the west (falling away to the south from Griffin Road), and the existing residential development along Gorge and Griffin Roads. The Gorge Road Block is ready for development and should be considered for release in the first tranche of rezoning, or the initial staging of land release in Maungatūroto.

| Outcomes

New ‘High Density Housing’ providing for mixed-density of 300-450m2 site sizes, with one or more dwellings per site. Buildings can be stand-alone, terraced, or a mix of townhouses and apartments leading to efficient use of land for residential purposes within the 5-minutes walking distance radius from the town centre.

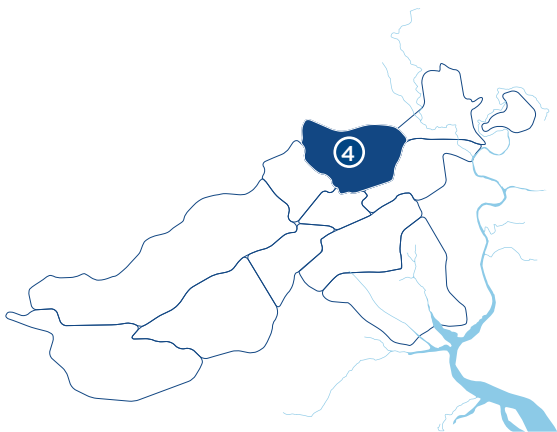
| Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists along Gorge Road, with existing residential development relying predominantly on self-servicing via storage in water tanks on-site. The existing 3-waters networks (wastewater and water supply) in this area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed. Stormwater mitigation options to be explored further through a development framework plan integrated with the adjoining village centre and neighbourhood, as the land slopes down towards the village and the Maungatūroto North Valley neighbourhood.



### 3.7 | Neighbourhoods

#### - Growth & Infrastructure



#### 4 | Maungatūroto North Valley

Immediately to the north of the Maungatūroto Town Centre, the Maungatūroto North Valley neighbourhood extends over currently undulating rural land sloping down from the village centre towards the Doctor Hill Block - where the historic Maungatūroto Tavern is located. New housing is sensitively developed in this neighbourhood, while protecting existing vegetated gully systems.

#### | Outcomes

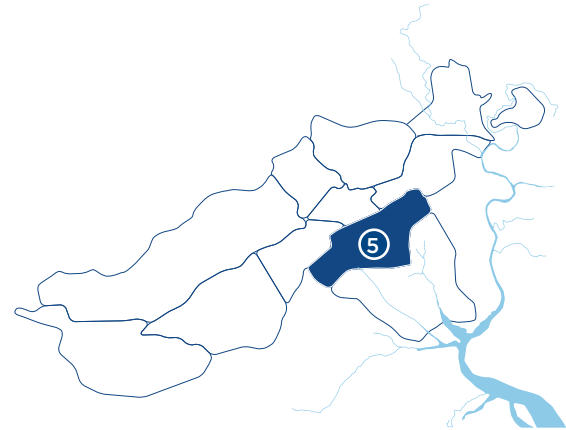
Containing a mix of new 'Medium' and 'Low Density Housing' opportunities, this neighbourhood requires careful consideration for its development so that rural landscape views from the Maungatūroto village out towards the Brynderwyns can be retained. In general, residential development in this neighbourhood is enabled through a mixed-density framework ranging in 450-750m<sup>2</sup> site sizes in the new Medium Density Housing area, and 750-1,000m<sup>2</sup> in the new 'Low Density Housing' area. In both areas, one or two dwellings (or primary and secondary dwellings) are encouraged per site. Buildings will likely generally be stand-alone given the topography of the land.

#### | Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists along Gorge Road, with existing residential development relying predominantly on self-servicing via water tanks on-site. The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed ahead of enabling new connections to enable greenfields development in the Maungatūroto North Valley neighbourhood. Stormwater mitigation options will need to be explored further through a development framework plan integrated with the adjoining village centre and neighbourhood, as the land slopes down from the village north into the Maungatūroto North Valley neighbourhood.

## 3.7 | Neighbourhoods

### - Growth & Infrastructure



#### 5 | Maungatūroto South

Immediately to the south of the Maungatūroto Town Centre, the Maungatūroto South neighbourhood extends over gently sloping rural land which falls away towards Bickerstaffe Road and the Kaipara Harbour inlet. This neighbourhood, along with the Maungatūroto South Valley and Whaka Road neighbourhoods, present overall the primary development blocks to support sustainable growth in Maungatūroto. New housing opportunities can be provided on relatively easily developable land with clear desire-lines linking the new residential neighbourhoods into the town centre's heart. Great care should be afforded to the design of this neighbourhood, with high expectations on built form design, neighbourhood amenity and subdivision quality standards. If done right, this neighbourhood can play a pivotal role to unleash Maungatūroto's potential as one of Kaipara's main urban centres.

#### | Outcomes

Enabling predominantly 'High Density Housing' opportunities, this neighbourhood requires careful consideration for its development so that rural and rural-coastal landscapes views out towards the Kaipara Harbour inlet can be retained from the Maungatūroto village centre. In general, residential development in this neighbourhood is enabled through a high-density framework ranging in 300-450m<sup>2</sup> site sizes in the new 'High Density Housing' area. In general, one or two dwellings (or primary and secondary dwellings) are encouraged per site. Buildings will likely generally be stand-alone on steeper parts of the area due to the topography of the land, but the opportunity exists for terraced housing development over most of the land.

#### | Infrastructure

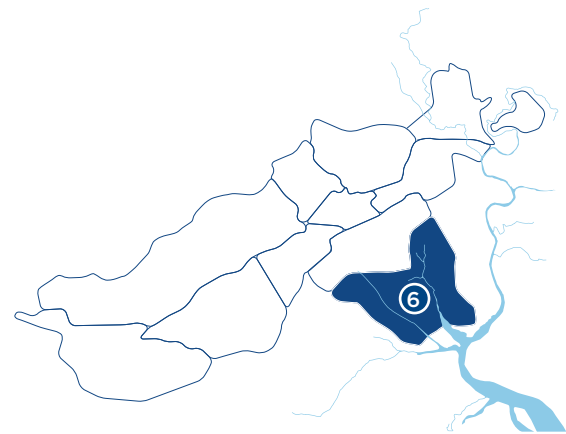
Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists within the Town Centre block and along Bickerstaffe Road. New residential development should be serviced by reticulated water supply, as reliance on self-servicing via water tanks on-site poses a risk for urban growth in the district in particular during extended periods of drought. It's crucial to achieve minimum levels of development yield in this neighbourhood so that new infrastructure can be affordable in the long-run.

The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed ahead of enabling new connections

to enable greenfields development in the Maungatūroto South and South Valley neighbourhoods. Stormwater mitigation options will need to be explored further through a development framework plan integrated with the adjoining village centre and neighbourhoods.

## 3.7 | Neighbourhoods

### - Growth & Infrastructure



#### 6 | Maungatūroto South Valley

Held mostly in single-ownership, the Maungatūroto South Valley neighbourhood is key to the sustainable growth and consolidation of a community identity in Maungatūroto. This neighbourhood needs to be sensitively developed, achieving an overall high growth scenario development yield while protecting existing vegetated gully systems and views to the estuary. A publicly accessible walking and cycling track network is essential as part of the development of this neighbourhood, whereby the village centre is connected with the Maungatūroto wharf at the edge of the estuary along Bickerstaffe Road.

A north-south and east-west axis streets framework needs to be better defined through a neighbourhood-specific structure plan. The future transport network integrates new development with the adjoining Maungatūroto South neighbourhood, the Otamatea High School, and both Bickerstaffe and Judd Roads.

#### | Outcomes

Containing a mix of new 'Medium' and 'Low Density Housing' areas, this neighbourhood requires careful consideration for its development so that rural and rural-coastal landscapes views out towards the Kaipara Harbour inlet can be retained from the Maungatūroto village centre and new high density housing area immediately to the north of the Maungatūroto South Valley neighbourhood. In general, residential development in this neighbourhood is enabled through a mixed-density framework ranging in 450-750m<sup>2</sup> site sizes in the new Medium Density Housing area, and 750-1,000m<sup>2</sup> in the new 'Low Density Housing' area. In both areas, one or two dwellings (or primary and secondary dwellings) are encouraged per site. Buildings will likely generally be stand-alone in the steeper parts of the site, given the sloping and undulating topography of the land.

#### | Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists within the Town Centre block and along Bickerstaffe Road, and the future development of the adjoining Maungatūroto South neighbourhood should make the extension of services possible. New residential development should be serviced by reticulated water supply, as reliance on self-servicing via water tanks on-site poses a risk for urban growth in the district in particular during extended periods of drought. It's crucial to achieve minimum levels of development yield in this neighbourhood so that new infrastructure can be affordable in the long-run.

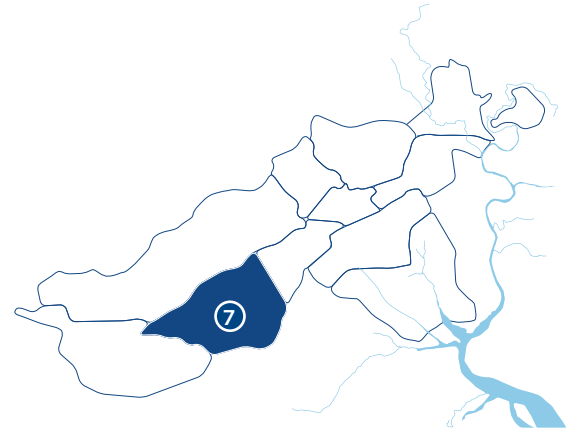
The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network.

However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed ahead of enabling new connections to enable greenfields development in the Maungatūroto South and South Valley neighbourhoods. Stormwater mitigation options will need to be explored further through a development framework plan integrated with the adjoining village centre and southern neighbourhoods.



## 3.7 | Neighbourhoods

### - Growth & Infrastructure



#### 7 | Whaka Street Outer Block

Running along the SH12 corridor between the existing residential area / village centre and the Maungatūroto Rail Village neighbourhood, the Whaka Street Outer Block consists of rolling rural land with well-defined shallow gully systems. These gully systems, in principle, lend themselves well to stormwater attenuation reserves which can both provide a high amenity open space network as well as opportunity for low-impact design stormwater attenuation options. Achieving the right level of density (dwelling growth yield) in this neighbourhood is important to sustain long-term affordable and adequate infrastructure. The greatest risk here is that development density is 'undercooked' resulting in low dwellings yields and the consequential greater burden on rates-rise required to manage future infrastructure maintenance and replacement costs.

#### | Outcomes

Overall, new 'medium density housing' environment is recommended for the Whaka Road Outer Block. However, it is also possible to encourage a mix of new 'Medium' and 'Low Density Housing' opportunities within this neighbourhood, whereby residential development is enabled through a mixed-density framework ranging in 450-750m<sup>2</sup> site sizes in closer proximity to the existing residential area and throughout most of the neighbourhood, and 750-1,000m<sup>2</sup> can be created on the steeper slopes within the neighbourhood. In general, one or two dwellings (or primary and secondary dwellings) are encouraged per site. Buildings will likely generally be stand-alone given the topography of the land.

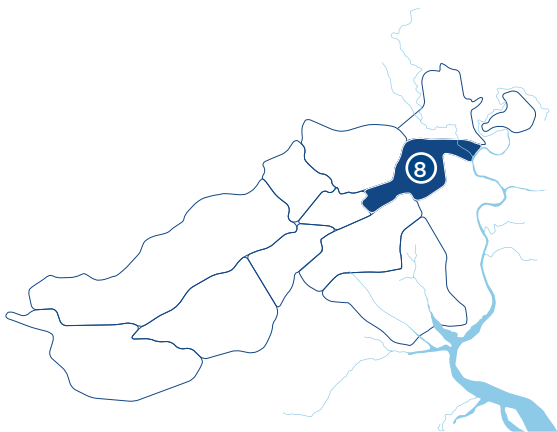
#### | Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists within the Town Centre block and along Whaka Street and the relatively recent subdivision of Calla Place. New residential development should be serviced by reticulated water supply, as reliance on self-servicing via water tanks on-site poses a risk for urban growth in the district in particular during extended periods of drought. It's crucial to achieve minimum levels of development yield in this neighbourhood so that new infrastructure can be affordable in the long-run.

The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network

renewals expenditure is needed ahead of enabling new connections to enable greenfields development in the Maungatūroto Whaka Street Outer Block neighbourhood. Stormwater mitigation options will need to be explored further through a development framework plan integrated with the adjoining existing residential neighbourhood and managing adverse effects on the State Highway infrastructure.

3.7 | Neighbourhoods  
- Growth & Infrastructure



8 | Maungatūroto East

Situated at the eastern gateway entrance to Maungatūroto, the Maungatūroto East neighbourhood extends from the intersection with Doctor Hill Road and the Fonterra factory, along the SH12 alignment at its northern boundary and west towards the Maungatūroto Country Club (sports fields and clubrooms) reaching Bickerstaffe Road. It comprises existing light industrial land-uses and residential properties along the SH12 corridor, as well as rural productive (pastoral) land to the south towards the country club and the wastewater treatment plant.

| Outcomes

Containing a mix of existing ‘Residential Intensified’, new ‘Medium’ and ‘High Density Housing’ areas, and existing industrial uses in suitably zoned land, this neighbourhood requires careful consideration for its development so that Maungatūroto’s rural village character is protected - given the neighbourhood’s gateway role and location. In general, residential development in this neighbourhood is enabled through a mixed-density framework ranging in 450-750m<sup>2</sup> site sizes in the new ‘Medium Density Housing’ area, and 300-450m<sup>2</sup> in the new ‘High Density Housing’ area with access from Bickerstaffe Road. The ‘High Density Housing’ area in particular provides the opportunity for high-density terraced housing opportunities mixed with stand-alone or duplex dwellings.

The existing commercial activities are retained, with potential road corridor improvements to slow traffic down and provide a gateway entrance to Maungatūroto.

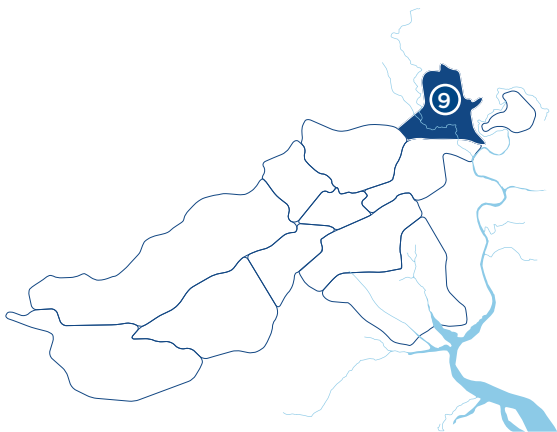
| Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation can be extended along Bickerstaffe Road, and the future development of the adjoining Maungatūroto South neighbourhood should enable the better integration of services through this neighbourhood. New residential development should be serviced by reticulated water supply, as reliance on self-servicing via water tanks on-site poses a risk for urban growth in the district in particular during extended periods of drought. The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed ahead of enabling new connections in greenfield areas. The development of the Maungatūroto East

neighbourhood will enable future growth in both Doctor Hill Road Block and North Valley.

### 3.7 | Neighbourhoods

#### - Growth & Infrastructure



#### 9 | Doctor Hill Road Block

With the Fonterra dairy factory down the hill and east of the Doctor Hill Road Block, one of the key issues here is managing reverse-sensitivity noise effects resulting from noise generated at the factory and new residents feeling aggrieved by the noise coming from the factory. New residential development must therefore manage this issue by providing for adequate design, location and orientation of dwellings including adequate acoustic proofing of new building's eastern facades generally orientated towards the Fonterra factory. The land rises steeply from the intersection of Doctor Hill Road and SH12, being predominantly rural pastoral land-use beyond the existing residential area.

#### | Outcomes

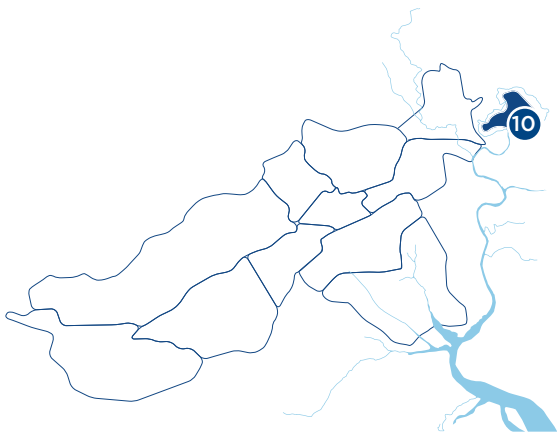
The existing residential sites can be intensified further through infill development, noting the need to manage adverse reverse-sensitivity noise issues due to conflict between residential use and the factory. New 'medium density housing' opportunities are enabled within this neighbourhood, whereby residential development is enabled through a mixed-density framework ranging in 450-750m<sup>2</sup> site sizes in closer proximity to the existing residential area, with the larger lots being created on the steeper slopes. In general, one or two dwellings (or primary and secondary dwellings) are encouraged per site. Buildings will likely generally be stand-alone given the topography of the land.

#### | Infrastructure

Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. New residential development should be serviced by reticulated water supply, as reliance on self-servicing via water tanks on-site poses a risk for urban growth in the district in particular during extended periods of drought. The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity of service in Maungatūroto, network renewals expenditure is needed ahead of enabling new connections in greenfield areas. The development of the Maungatūroto Doctor Hill Road Block neighbourhood is dependent on infrastructure becoming available through the Maungatūroto East neighbourhood, which will also better enable future growth in the North Valley neighbourhood.



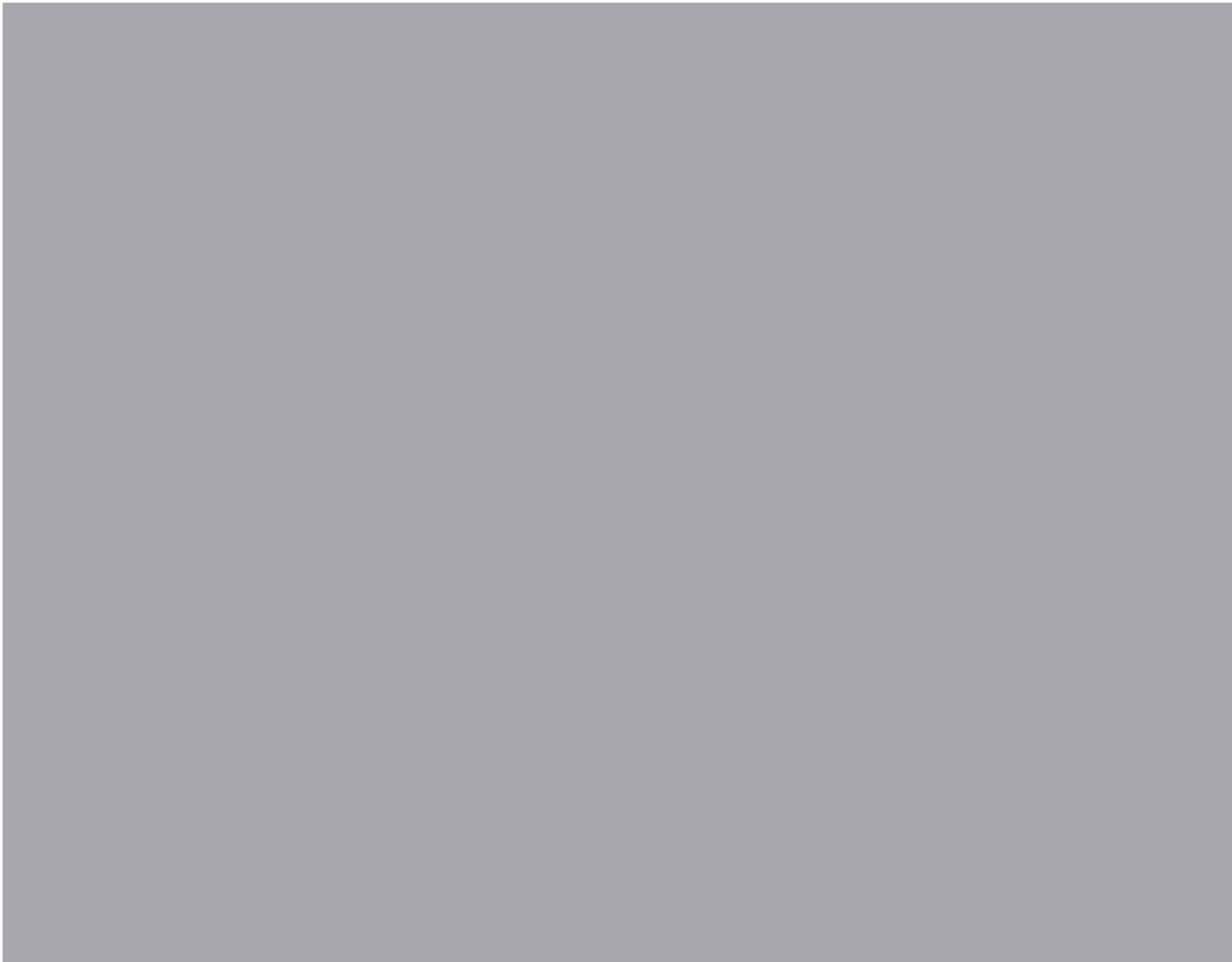
3.7 | Neighbourhoods  
- Growth & Infrastructure



10 | Fonterra Block

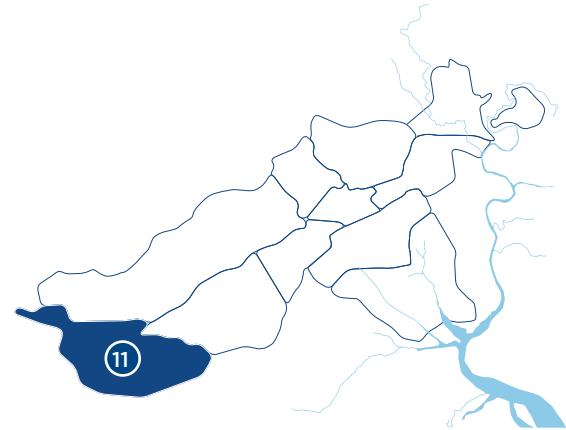
The Fonterra Block contains the Fonterra Dairy Factory, and that’s the single use proposed to be retained on this site going forward unless the factory moves out of the area. This neighbourhood is on low-lying flood-prone land. Therefore, any use must be ‘flood-tolerant’ activity and built in accordance with these constraints.

The reverse-sensitivity issues noted in the context of the Doctor Hill Road Block should be given regard to - whereby the existing use rights held by the factory are retained given the important employment role the factory plays in this town and for the wider district.



## 3.7 | Neighbourhoods

### - Growth & Infrastructure



#### 11 | Maungatūroto Railway Village

Capitalizing on investment in the railway infrastructure between Auckland and Whāngārei (or to Marsden Point) is perhaps one of the most exciting economic development opportunities in Maungatūroto. This neighbourhood enables most of the estimated 300-600 new industrial lots at a moderate to high growth scenarios. The existing rail station offers an existing builtform envelope which is sympathetic to industrial / light industrial uses and there is ample land available for industrial and business park activities to establish.

At the centre of the neighbourhood is the intersection of SH12 and Whakapirau Road, which leads out to the coastal settlement of Whakapirau where good boating and recreational infrastructure is available - along with some limited amount of residential growth.

#### | Outcomes

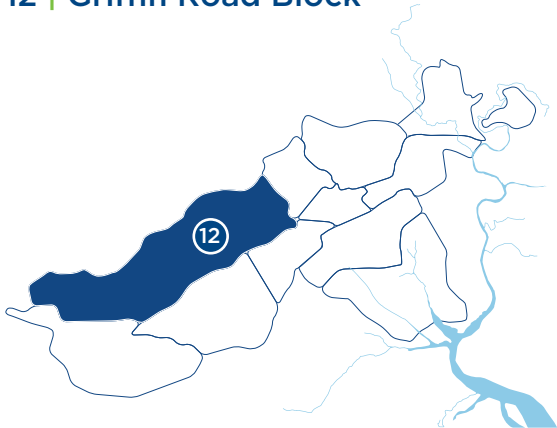
Rail infrastructure is protected and further invested in, with new industrial uses established within the Railway Village area. Freight handling activities and in the long-term passenger or domestic tourism are possible uses that can be attracted to Maungatūroto through this investment in rail. Existing businesses can continue to thrive, benefitting from additional business land being made available whereby further economic activities may be forthcoming through the establishment of compatible businesses.

#### | Infrastructure

Adequate infrastructure for the Railway Village development will need to be further determined through a neighbourhood-specific structure plan. The provision of reticulated sewage and potable water is expected to sustain new industries to relocate to the new business park area. Transport infrastructure solutions will be key to the successful rollout of the village, so that SH12 traffic safety is improved overall.

3.7 | Neighbourhoods  
- Growth & Infrastructure

12 | Griffin Road Block



12 | Griffin Road Block

The Griffin Road Block has well-defined boundaries being to the north the high and steep ridgeline along which Griffin Road runs, and to the south the SH12 corridor and the stream that runs along it. The land is steep, undulating and difficult to develop for relatively dense peri-urban residential purposes. However, a large-lot (3,000 - 4,000m2 site size) mixed in with ‘countryside living’ rural lifestyle blocks options (2-4 hectares in size) can be an appropriate option.

| Outcomes

Existing vegetation and steep rolling topography defines the way in which the land is developed for low-intensity residential purposes; whereby vegetation is protected and land disturbance (the recontouring of land through earthworks) is minimised through appropriate subdivision and builtform design.

| Infrastructure

By consisting mostly of large-lot residential type buildings and/or rural lifestyle blocks, self-servicing is likely the preferred option to manage development within the Griffin Road block. Stormwater attenuation must be considered in a whole of catchment basis ensuring that upstream and downstream effects are avoided - or adequately managed to achieve stormwater neutrality on site.

## 3.8 | Implementation Plan

### | Planning

The land use statutory planning required for implementing this spatial plan includes identifying the key areas for structure plan analysis (the next stage of planning before a plan change). This would form the necessary technical reports to accompany the section 32 analysis for plan change. At this stage it is proposed that areas where Maungatūroto has limited land supply would be prioritised for this structure plan. The remaining land use changes are intended to be picked up in future reviews of the District Plan.

In addition to the Maungatūroto Key Moves identified in this document, the following infrastructure investigations will need to take place

### | Transportation

Develop a Network Operating Framework to help better manage and plan the use of the transport network and explicitly link transport to the adjacent land uses. Develop an indicative design for paper road to ensure that the correct alignment based on today's highway standards Investigate Whaka Street – Hurndall Street intersection upgrade alongside paper road access to protect and safeguard land Investigate SH12 to Whaka Street connection as per preferred design to protect and safeguard land and or connection to Whakapirau Road via old paper road off Whaka Street Determine if there is a safety upgrade required for Whakapirau Road – SH12 if there is change and expansion of the industrial zoning Create a Walking and Cycling Plan to break down the severance issues and safeguard routes for future neighbourhoods and access to ecological and recreational corridors

### | Water Supply

- Investigate the possibility of a combined Maungatūroto and Kaiwaka water source, storage, treatment and reticulation is environmentally and economically viable as an alternative to the existing situation.
- Investigate funding models and development agreements to cushion the impact of the initial cost impact of development of the water supply project.
- Extensive replacement of existing assets that are past their useful service life are a risk to service continuity and will be planned in the next Long Term Plan, noting investment for renewals / replacement of the wider network will likely extend beyond the LTP 10-year timeframe. Therefore, the Maungatūroto network investment will have to be addressed in greater detail through the Kaipara District Infrastructure Strategy.
- Invest in the creation of an infrastructure model to help identify, plan and budget (cost) for the upgrade requirements to the existing network

### | Wastewater

- Investigate planning for staged upgrades of the Maungatūroto wastewater treatment plant and pump stations to ensure that there is adequate capacity able to cater for development proposals over the short to long term.
- Invest in the creation of an infrastructure model to help identify, plan and budget (cost) for the upgrade requirements to the existing network
- Manage future demand requirements for future subdivisions to mitigate pressure on the existing wastewater treatment plant
- Similarly to the Water Supply network, extensive replacement of existing assets that are past their useful service life are a risk to infrastructure service continuity and will be planned in the next Long Term Plan, noting investment for renewals / replacement of the wider network will likely extend beyond the LTP 10-year timeframe. Therefore, the Maungatūroto network renewals investment will have to be addressed in greater detail through the Kaipara District Infrastructure Strategy.
- Similarly to the Water Supply network, invest in the creation of an infrastructure model to help identify, plan and budget (cost) for the upgrade requirements to the existing wastewater network



3.8 | Implementation Plan

| Stormwater

- Investigate stormwater catchment analysis to understand the upstream effects of any future development proposals.

| Community Facilities

- Investigate the possibility of a partnership with the Otamatea High School for public access to the swimming pool and recreation centre to optimise education assets and assist with recovery of operational costs.

3.9 | Implementation Plan  
- Existing Infrastructure

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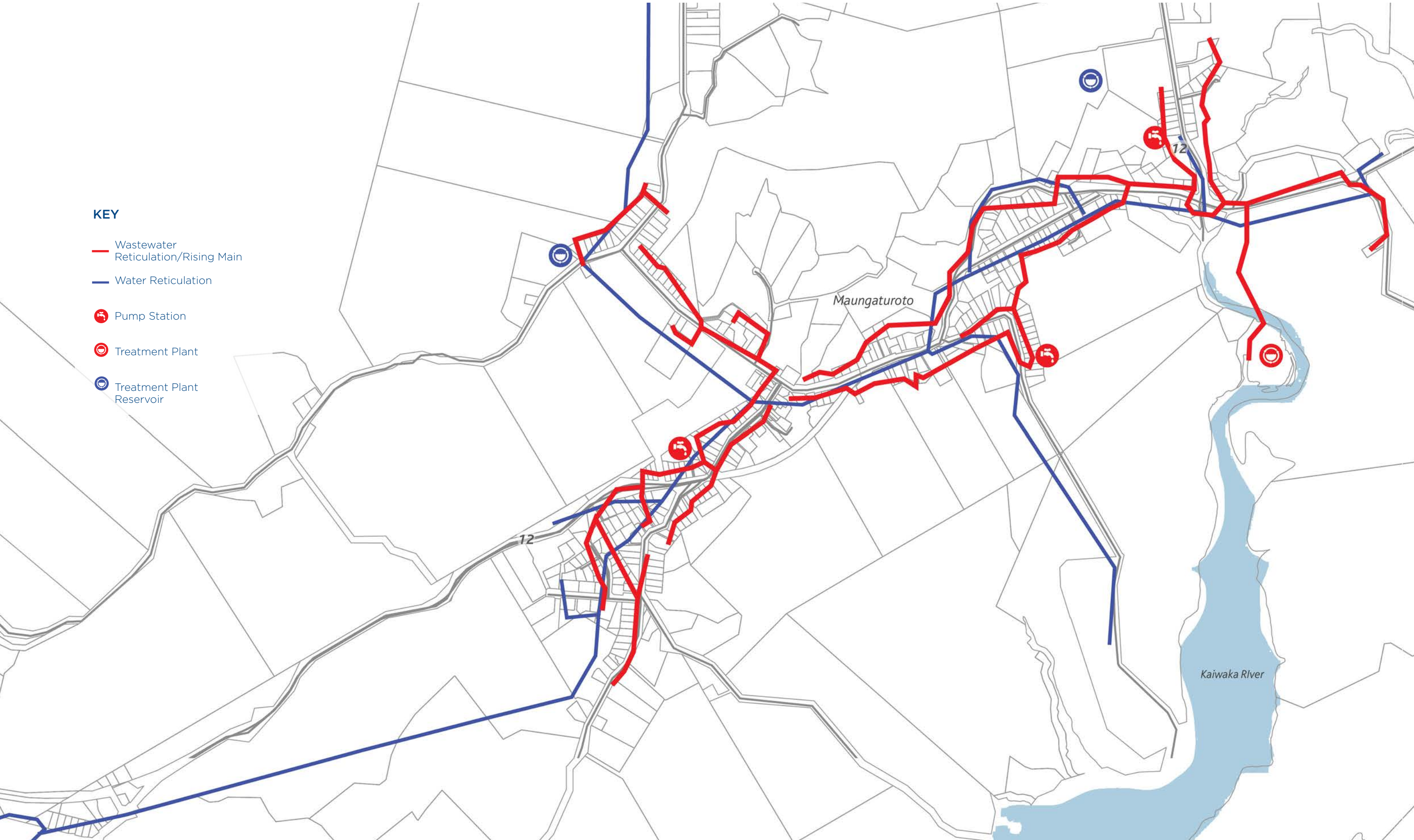
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1000M

KEY

- Wastewater Reticulation/Rising Main
- Water Reticulation
- Pump Station
- Treatment Plant
- Treatment Plant Reservoir



## Part 4 | The Spatial Plan\_Kaiwaka



## 4.0 | Site Location & Context

Kaiwaka is located roughly halfway between Auckland and Whāngārei. Its location allows it to support the surrounding rural sector, while offering industrial support for the nearby town of Mangawhai. As of 2018, Kaiwaka had a population of 714, an increase of 19.86 percent since 2013.

Te Uri o Hau is a hapū of Ngāti Whatua, who were the original settlers of Kaiwaka and its surrounding areas. Te Punga is the local marae, located on the Oneriri Peninsula (Kaiwaka Township Improvement Plan 2016, p4).

Kaiwaka is often used as a rest stop, as it is situated along SH1. Rather than having one distinct centre, shops are located continuously along SH1. Kaiwaka-Mangawhai Road has historically been the main site of retail and commercial development. Key community facilities include the school, sports complex and memorial hall. Kaiwaka has become known as “the little town of lights”, due to its night time light displays, as well as the artistic community. The Kaiwaka River and Mountain Creek run through the town. Notable views include the Pukekaroro Scenic Reserve and Baldrock Mountain. The Kaiwaka section of SH1 carries roughly 10,000 vehicles per day, accounting for 12 percent of vehicle movement. This is a critical connection between Auckland and Whāngārei for freight, and the Northland economy in general (Kaiwaka Township Improvement Plan 2016, p5).





## 4.1 | Local & Historical Context

Kaiwaka, as a personal name, translates to ‘a star, possibly Kaus Astralis, which appears in late winter and heralds the beginning of the lunar month of Kohitātea (January) or Hakihea (December).’ As a noun, Kaiwaka means ‘threatening clouds (on the horizon)’.

Prior to the arrival of European immigrants, there had been ongoing conflict between Ngāti Whātua and Ngāpuhi, culminating in the battle at Te Ika a Ranginui (Kaiwaka) in 1825. Ngāpuhi was triumphant, though the battle led to the dispersal of much of the local Māori in Kaipara (Ryburn, p8).

Kaiwaka underwent significant changes in 1859 with the arrival of European immigrants. Over the next few decades, Kaiwaka became a trading and commercial point

(Kaiwaka Township Improvement Plan 2016, p4). Steamer services were provided from the 1880s to the rest of Kaipara, such as the Minnie Casey (Ryburn, p75), and the Ethel (Ryburn, p79).

By 1896, most of the kauri timber and gum resources had been depleted in Kaiwaka. This led to an uptake in dairy farming. The Hakaru Dairy Company was established in 1902 to serve Kaiwaka farmers (Ryburn, p65). Maize, oats and potatoes were cultivated (Ryburn, p52).

By 1911, Kaiwaka’s population had reached 211 (Ryburn, p162). Rail was then established shortly after in 1913 (Ryburn, p184). Kaiwaka did not have roading until the 1930s, when gravel roads were formed, and rail fell out of favour for motor vehicles (Kaiwaka Township Improvement Plan 2016, p4).

In the 1940s, the Lands and Survey Department acquired and developed on large blocks of unproductive land, which were then given to returning soldiers in the 1950s (Ryburn, p168).

Nowadays, Kaiwaka is a rural township, known as “the little town of lights” (Kaiwaka Township Improvement Plan 2016, p5).



Source: <https://www.nz museums.co.nz/collections/3023/objects/947836/kaiwaka-school>

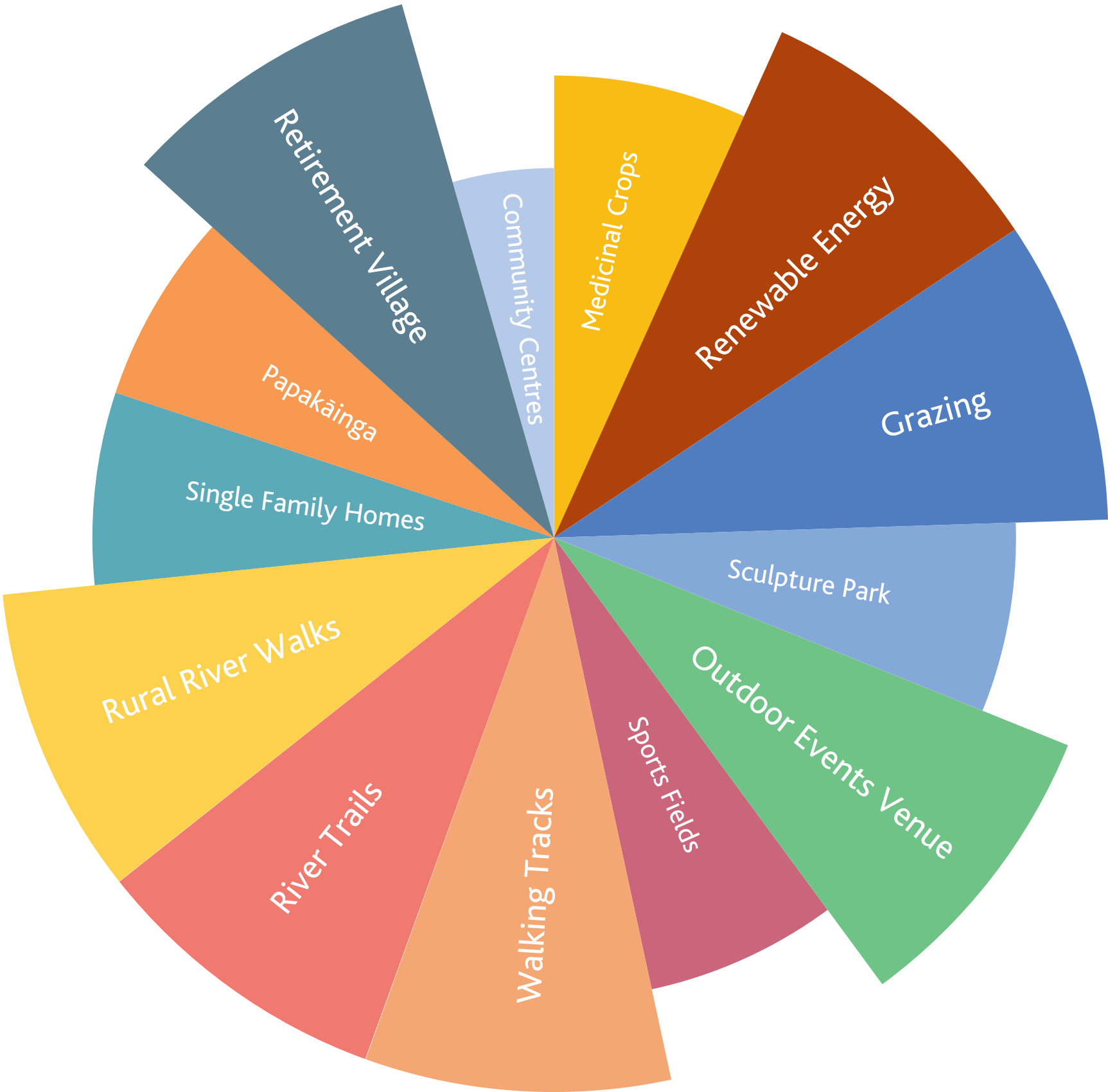
## 4.2 | The Future of Kaiwaka

### Aspirations shared by Kaiwaka residents

- Making Kaiwaka a creative destination - “The little town of delights”
- Recognised as the key entry point and gateway to Kaipara and Northland
- Developing an active, connected walkable community
- Develop a river park, playground and town square
- Increase opportunities for commercial, industry and manufacturing

This diagram represents the feedback of aspiration themes received from the various community engagements and surveys which were carried out at the beginning of the Spatial Plan development process.

### Summary of Feedback



## 4.2 | The Future of Kaiwaka

### Vision:

*"In 2050, Kaiwaka is a unique gateway where the community and visitors admire the well-designed business and civic centre, explore its funky delights and connect with the Kaipara Harbour and nearby coastal beaches"*

### The spatial plan for Kaiwaka envisions the:

- Expansion of the existing shops and creation of a new town centre off SH1 and beside Kaipara River
- Reduce speed of vehicles through Kaiwaka and significantly improve the environment for pedestrians and cyclists
- Create a new open space and public access network
- Identify, establish, and protect green and blue networks as part of new developments to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Develop business and residential area around new town centre, schools and sports ground
- Create new road behind existing commercial buildings west of SH1, creating a new intersection at Kaiwaka/Mangawhai and Oneriri Road
- Integrate two new signalised crossings on SH1
- Develop new industrial area north of Kaiwaka on SH1
- Create greenfield reserve as a buffer between new industrial area and new town centre
- Develop walking and cycling network around new town centre and through existing and new residential areas
- Introduction of effective working relationships with existing landowners to instigate riparian planting alongside rivers/streams in rural areas to help create shared access in and around Maungatūroto



## 4.3 | Engagement

### - Early Insights

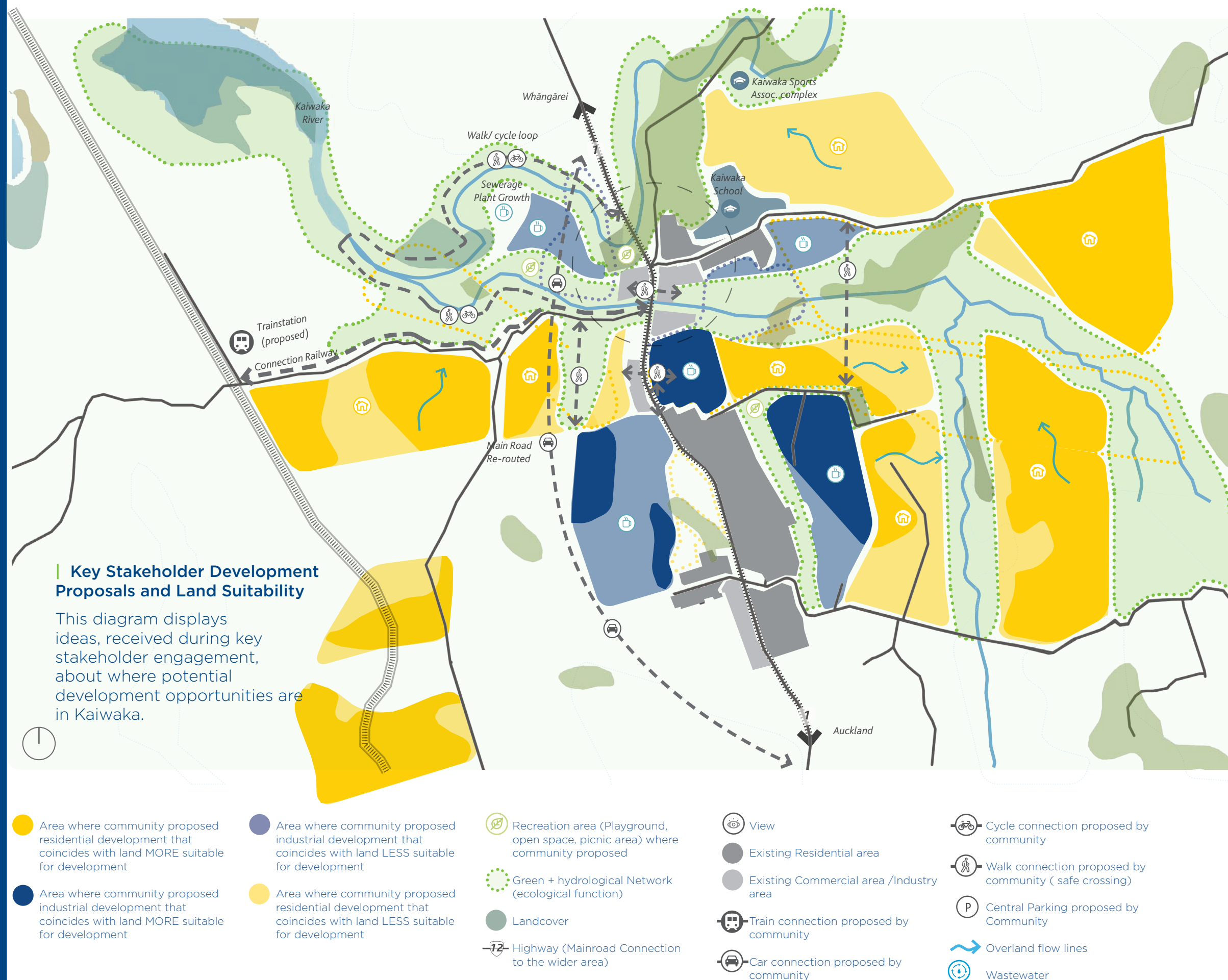
The state highway currently dissects the town - prioritises movement over place function. The place function of the state highway as a street could be recognised with a large speed reduction and environmental interventions.

The existing residential area is centred around the eastern side of the State Highway in a cul de sac subdivision. There is low lying land that restricts a natural extension to this area. There are opportunities to provide connections to the existing roading network and bridge through to Kaiwaka Mangawhai Road. Other options for residential development are in the western side of Kaiwaka between Oneriri Road and Haste Lane, in the northern outskirts, and in the satellite high amenity settlement off Mountain Road.

Kaiwaka's industrial business activity is scattered in two areas, limited zoned land within the existing town. The existing walking and cycling network is constrained by a busy state highway and limited footpath network.

There is a great opportunity to create a riverside walking and cycling route adjacent to the Kaiwaka River. Future reserves that are created for stormwater purposes can also form part of a greenways network and a buffer between land use activities and provide pedestrian and cycling connections.

A scheme to deliver water supply to the new growth areas and eventually service the existing town needs to be aligned with the spatial planning.

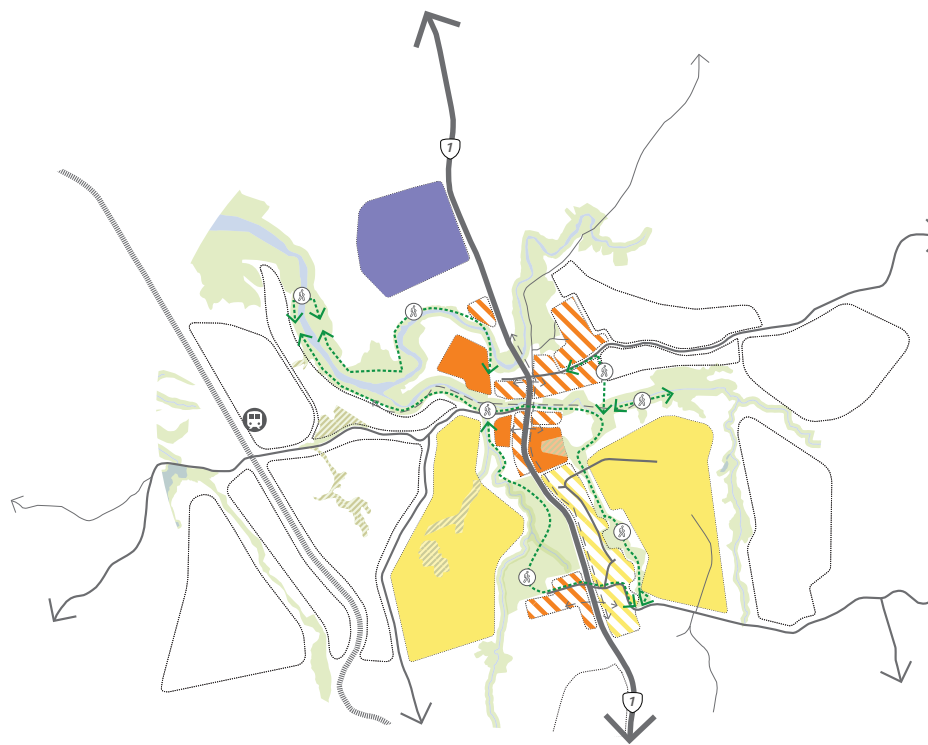


## 4.3 | Engagement

### - Options Assessment

The options development phase was a critical part of the spatial planning process. This is where all the findings from the initial background research work including the targeted and community engagement sessions held in August 2019, were collated and converted into a shortlist of options for testing and evaluation. Three options were presented to the community to ascertain their thoughts and opinions.

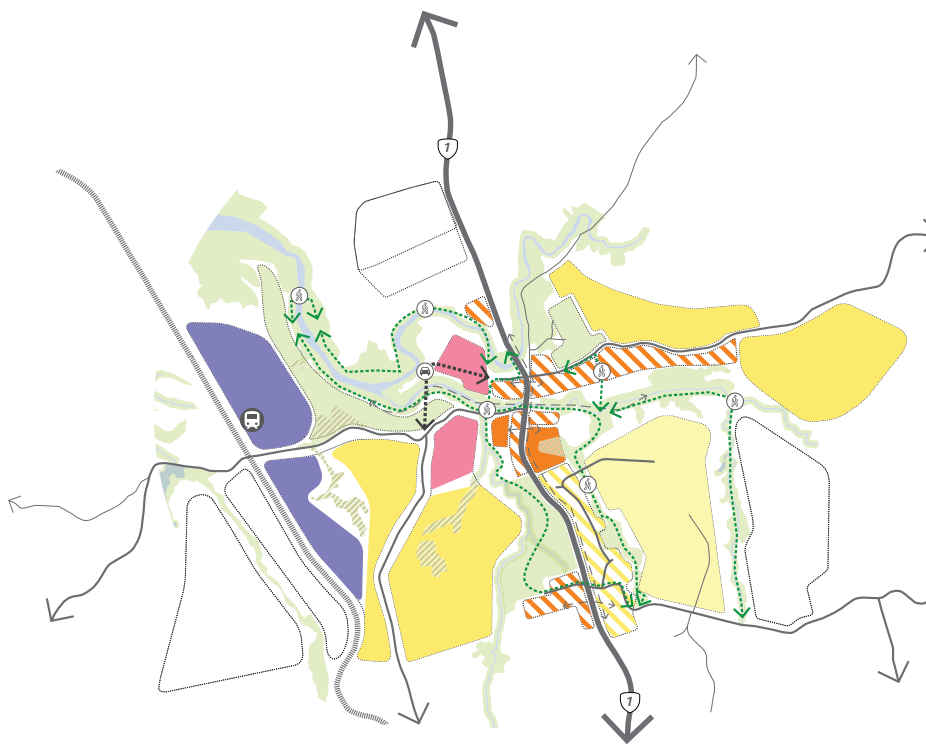
#### Option 1 | Compact Development Close to Highway



- Road Network
- 🚂 Train Connection
- 🚴 Cycle Connection
- 🏠 Proposed Industrial
- 🚗 Proposed Commercial
- 🌿 Proposed Low Density Residential
- 🏡 Proposed High Density Residential
- 💧 Waterways
- 🚶 Future Road Connections
- 🚶 Future Walking and Cycle Connections

- The main theme is to grow the business and residential areas adjacent to the existing similar zones in close walking distance to the main street
- A new industrial hub would be created on the northern side of the town with an environmental buffer area created next to the Kaiwaka River enabling opportunities for walking and cycling track connections.
- This option enables a secondary spine road to traverse through the western residential block, mixed use town centre extension and come out at the industrial land to the north of Kaiwaka.

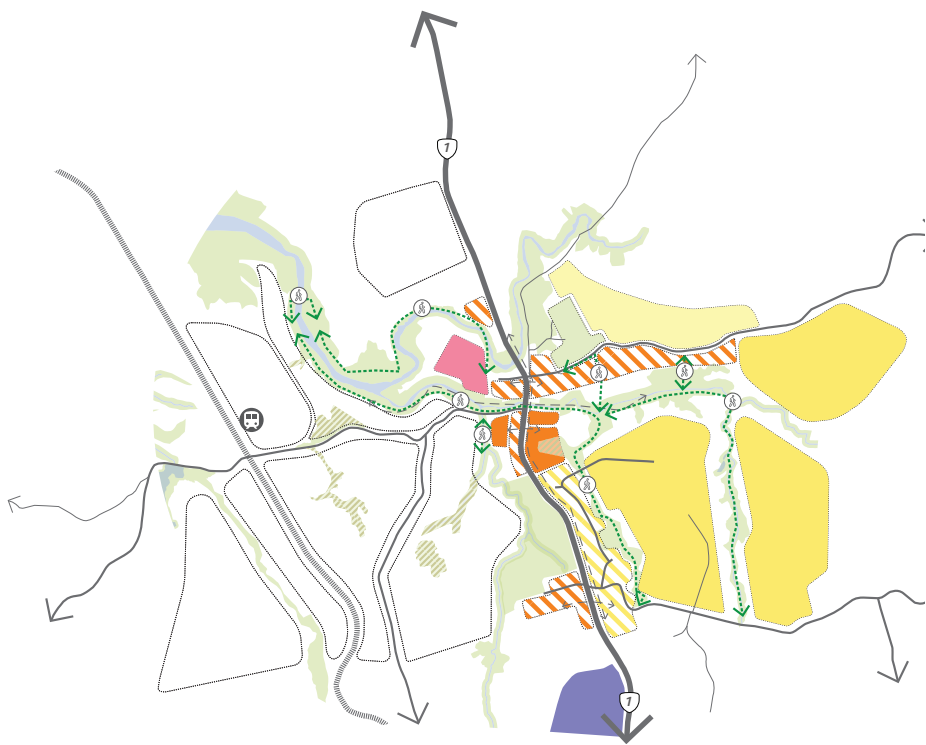
#### Option 2 | Extend East - West (Coast to Harbour)



- Road Network
- 🚂 Train Connection
- 🚴 Cycle Connection
- 🏠 Proposed Industrial
- 🚗 Proposed Commercial
- 🌿 Proposed Low Density Residential
- 🏡 Proposed High Density Residential
- 💧 Waterways
- 🚶 Future Road Connections
- 🚶 Future Walking and Cycle Connections

- The main theme is to create a centre of activity east-west to enable a new residential and business growth area towards the rail line
- Enabling a large residential block to the west of the existing town centre with land given over to conservation, stream and a town park to provide a buffer space between the State Highway and improved high amenity residential areas
- Make industrial land available around the railway line, to line up well with the current government's proposals to promote more freight on the Auckland-Northland Trunk line. The enlarged town centre would straddle Oneriri Road and the east side of the State Highway.

#### Option 3 | Infill the Valley



- The main theme concentrates the future growth of Kaiwaka in the eastern side to support the main street commercial activities, with an industrial business zone away from this residential expansion on the southern entrance to the town
- The business and civic activity is centred around the area adjacent to Kaiwaka River on both sides of State Highway.
- A new large industrial hub is created close to the south entrance (Auckland direction), which gives greater depth and footprint to light and heavy industrial businesses.

4.3 | Community Feedback

The public consultation on the shortlist of options was carried out between 8-29 November 2019. There was an open day held on 20 November 2019 at the Kaiwaka Sports Complex. There was clear consensus that Option 2 ‘Extend East - West’ was the preferred option with 52% of online responses. Participants liked the idea of creating more retail and civic activity in a central location, taking advantage of the river amenity and linking in with nearby existing and new housing. The mixed-use type zones were also well received, albeit some concerns about the market viability. People were keener to see residential housing in the East but acknowledged that the West side was close to the existing town and had an attractive Northern aspect. There was a series of comments about designing safe and accessible intersections with consideration for walking and cycling. Other transport suggestions included;

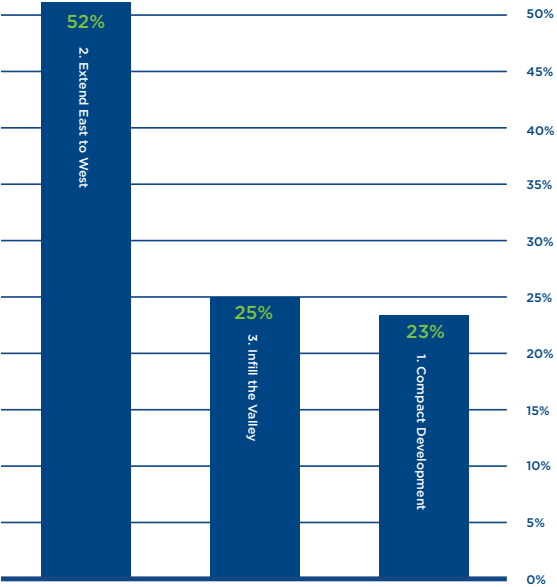
- access into an expanded town centre off an extended Oneriri Road
- traffic lights at the SH1 and Kaiwaka - Mangawhai Road intersection to both allow safe passage and to slow State Highway traffic
- aligning Haste Lane and Settlement Road to create a four-way intersection that could be signalised in the future when there is sufficient development.

The industrial zone adjacent to the railway line access from Oneriri Road was not viewed favourably by many respondents due to the reserve sensitivity effects with any future housing and the existing access road to the State Highway - being narrow and windy, meaning improvements to the road network would be necessary. The land affected by the suggested business park is predominantly good quality fertile soils, being ‘the best part of the farm’. With that in mind the landowner for the majority of this land was also not that keen to lose the most productive part of his farm.

On the balance of industrial business options, the Northern area proposed in Option 1 was the most favourable. This area was viewed favourably as it keeps development close to the existing town (as opposed to the creeping along the State Highway trend that is occurring at present). It is also big enough to justify the transport and infrastructure requirements that may have to be designed to enable safe and future proofed industrial activities. There were concerns from some respondents that more heavy vehicles would come through the town to access this industrial area. However, with large State Highway landscape set-back, coastal esplanade strip and good design of the roading and associated lots, this could become a more attractive business park than nearby neighbours.

The other option that could be considered in the future, if freight or passenger services access to the North Auckland rail line were forthcoming, is repurposing some of the land that is currently being used for forestry activities at Tapuni, 2 kilometres South of Kaiwaka. This idea was suggested at the open day and has some merit, with the State Highway and rail intersecting close to each other and the land not being of a highly productive nature. The site is on a bend in the road so would require considerable investment to create a safe intersection. It could also create a mini hub outside of Kaiwaka that may encourage ribbon development along the State Highway to this area.

Kaiwaka Preferred Option





**The spatial plan for Kaiwaka envisions the:**

- Expansion of the existing shops and creation of a new town centre off SH1 and beside Kaiwaka River
- Reduce speed of vehicles through Kaiwaka and significantly improve the environment for pedestrians and cyclists
- Create a new open space and public access network
- Identify, establish, and protect green and blue networks as part of new developments to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Develop business and residential area around new town centre, schools and sports ground
- Create new road behind existing commercial buildings west of SH1, creating a new intersection at Kaiwaka/Mangawhai and Oneriri Road
- Integrate two new signalised crossings on SH1
- Develop new industrial area north of Kaiwaka on SH1
- Create greenfield reserve as a buffer between new industrial area and new town centre
- Develop walking and cycling network around new town centre and through existing and new residential areas
- Upgrade Kaiwaka's underground walkways to improve access and safety
- Introduction of effective working relationships with existing land owners to instigate riparian planting alongside rivers/streams in rural areas to help create shared access in and around Kaiwaka

# 4.4 | Key Moves\_Town Wide\_Overview

## Legend

### Live | Work | Learn

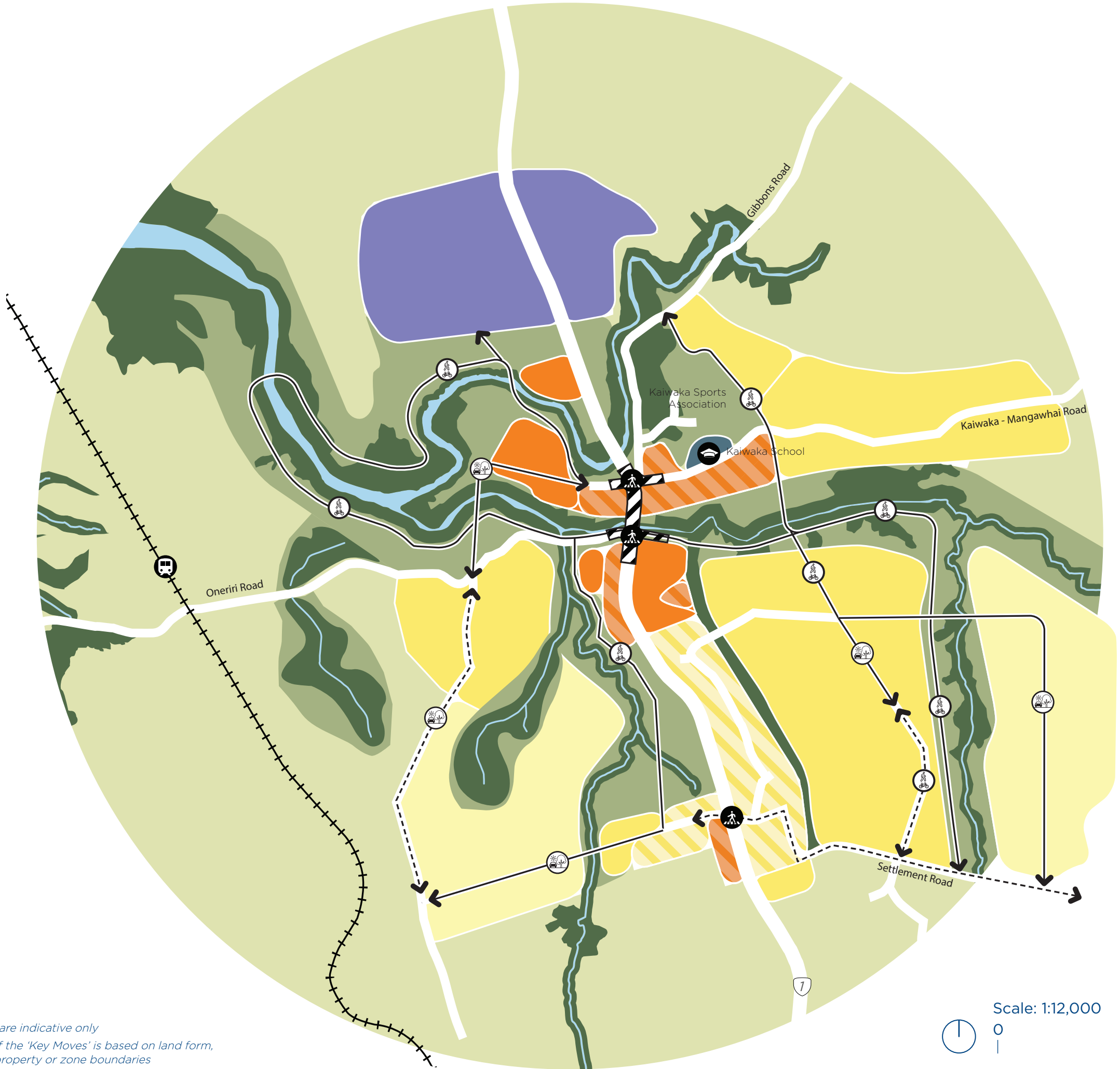
- School / Special Land Use
- Existing Residential Intensified
- New Low Density Housing
- New Medium Density Housing
- New High Density Housing
- Intensified Commercial | Mixed Use
- Intensified Industrial
- New Industrial

### Environment | Public Space | Productive Landscapes

- Rural Land | Productive Land
- Open Space | Public Access
- Proposed Ecological Network | Riparian Buffer
- Waterways

### Movement | Connectivity

- Proposed Road Connections
- Upgrade Existing Streets
- Kaiwaka School
- Wharf
- Cycle | Walk Connections
- Possible Future Cycle | Walk Connections (Further Investigation Required)
- Train Station
- Rail Line
- Upgrade Intersection

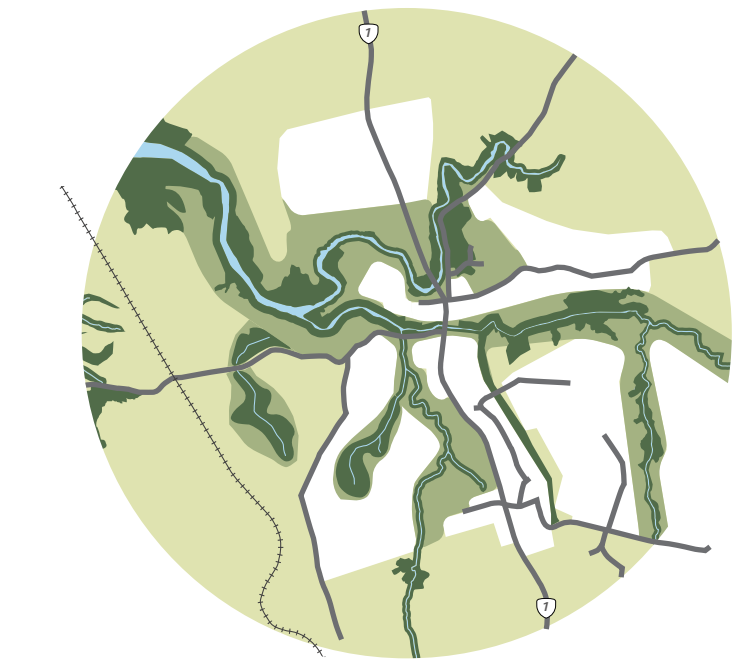


\*Boundaries are indicative only

\*The focus of the 'Key Moves' is based on land form, not current property or zone boundaries

# 4.4 | Key Moves\_Town Wide

## 1 | Green, Blue, Brown Networks



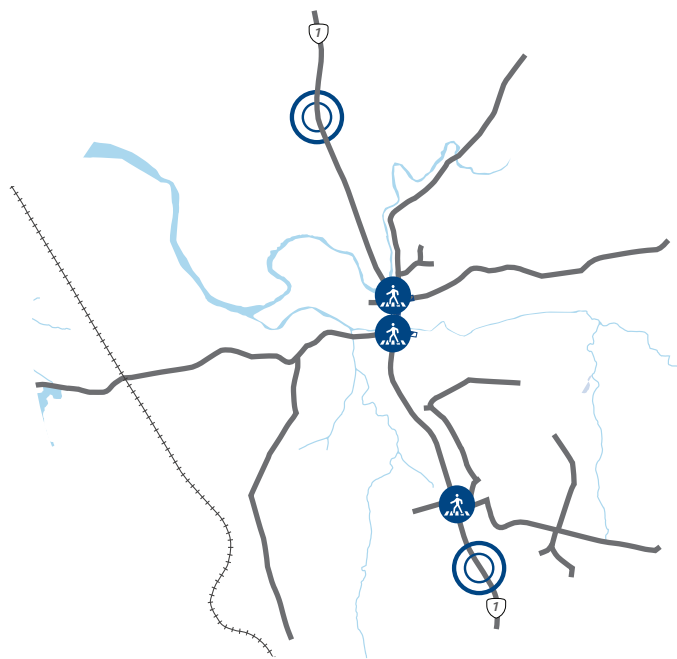
- Rural Land | Productive Land
- Proposed Ecological Network | Riparian Buffer
- Open Space | Public Access
- Waterways

- Maintain and enhance riparian corridors to improve the ecology of the river and provide a new public amenity for the town
- Surround the new town centre with public open space to buffer it from the proposed industrial hub to the north, wastewater ponds and rail to the west
- Identify, establish, and protect green and blue networks as part of any new development to protect waterways, create ecological connections and stabilise steep and erodible slopes
- Using the green and blue network as a base, create a multi-use public open space network to improve and preserve the character and amenity of Kaiwaka
- Work with existing land owners to instigate riparian planting alongside rivers/streams in rural and new and intensified residential areas

Key Move 1. aligns with Mana Whenua values and the following Te Aranga Principles:

- Taiao (Natural Environment)
- Whakapapa (Names & Naming)

## 2 | Develop the intersections + Gateways



- Intersection Upgrade
- Gateway

- Introduce controlled intersections along SH1 to slow traffic through Kaiwaka village
- Create new gateways either side of Kaiwaka on SH1 to frame entrances, reflect Kaiwaka's sense of place and provide advance warning of intersections and a slower speed environment

## 3 | Develop Town Centre along



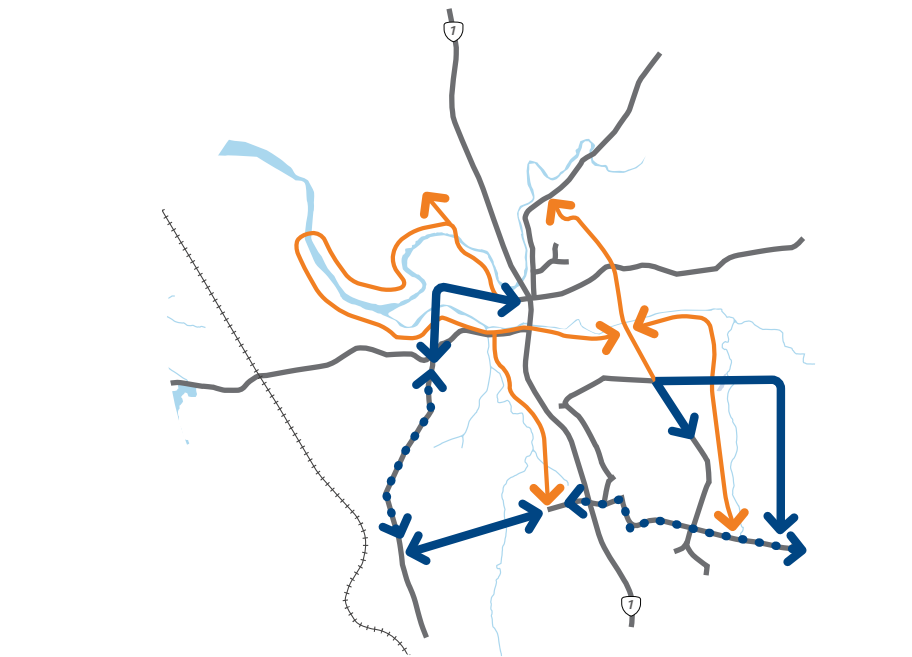
- Areas to be Developed
- 500m Diameter Access

- Build on new intersection at Kaiwaka-Mangawhai Road and SH1 to enhance existing centre and create a new commercial centre away from SH1
- Re-orient buildings towards the Kaiwaka River
- Create a street network within Kaiwaka that are safe and accessible for people of all ages and abilities
- Create a pattern of small blocks to help create a walkable and permeable street network
- Define the new town centre block with a public town square, designed and landscaped to create a comfortable outdoor space that balances community activities with shade and shelter from the wind



4.4 | Key Moves\_Town Wide

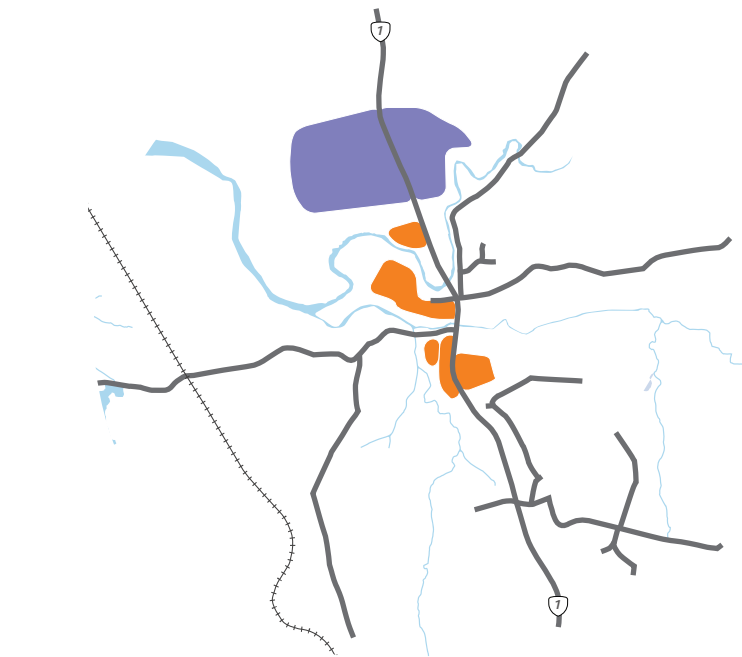
4 | Key Connections



- Walking + Cycling Connection    Improved Existing Streets
- New Connection Between Existing Network

- Develop shared walking and cycling paths throughout Kaiwaka using existing green and blue networks
- Construct new road linking Oneriri and Pukenui Road to intersect with SH1 and Kaiwaka-Mangawhai Road and create an alternative north - south connection off the State Highway
- Investigate opportunities to integrate water sensitive design devices such as rain gardens into the streetscape environments
- Upgrade existing pedestrian underpasses to improve safety and accessibility

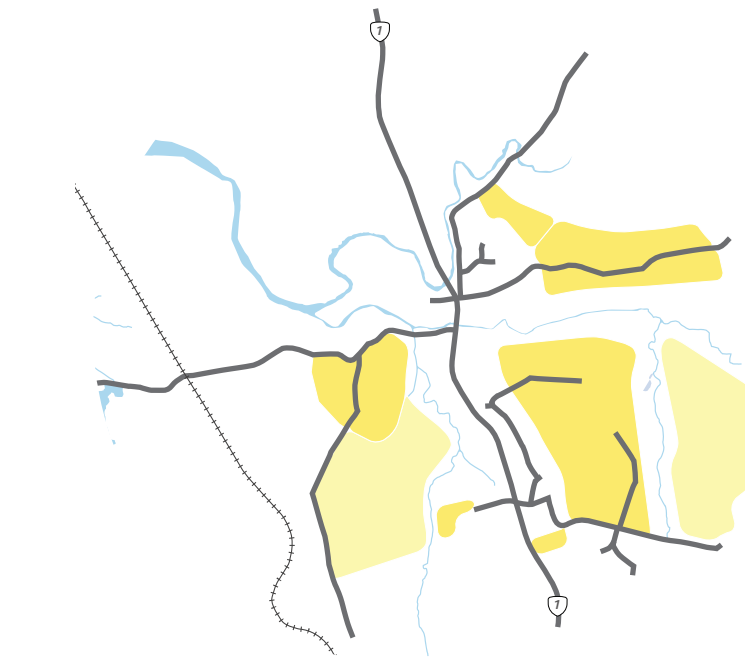
5 | Industrial Development



- Industrial Development
- New Commercial

- Develop industry on suitable land on SH1 immediately north of Kaiwaka to utilise existing transport routes
- Ensure access to new industrial hub can be made safely off SH1
- Provide cycle and pedestrian accessibility to new industrial and commercial hubs
- Integrate water sensitive design devices such as rain gardens to improve water quality into street environments and industrial activities
- Reinforce the core of the existing town centre by expanding commercial, retail and civic development

6 | Residential Development



- Low Density Residential
- Medium Density Residential

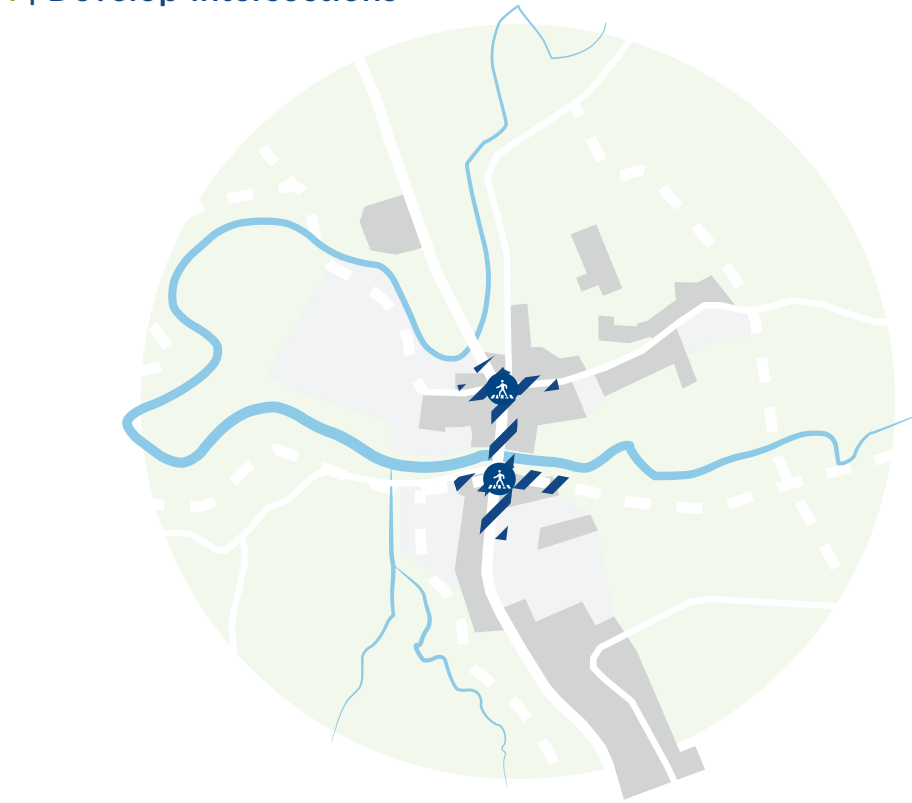
- Cluster new medium density residential areas around Kaiwaka's new centre
- Expand low density residential development on the east and west sides of SH1 between greenway corridors and walking and cycling paths
- Develop an interconnected green street network through new residential development to create neighbourhoods that are safe and accessible to people of all ages and abilities

# 4.5 | Key Moves\_Town Centre

The key moves proposed for Kaiwaka's town centre envision to:

- Develop pedestrian infrastructure across State Highway 1 to slow traffic and encourage walkability within Kaiwaka
- Connect east and west Kaiwaka for pedestrians and cyclists, as a catalyst for community growth and public space development
- Concentrate business development perpendicular to the State Highway alongside the river, supporting more walkability and reduce reliance on the State Highway for local movement
- Support and enhance ecological networks to offset and support new development along the estuary
- Connect new town centre blocks to periphery housing and open spaces using proposed ecological corridors as guides

## 1 | Develop Intersections

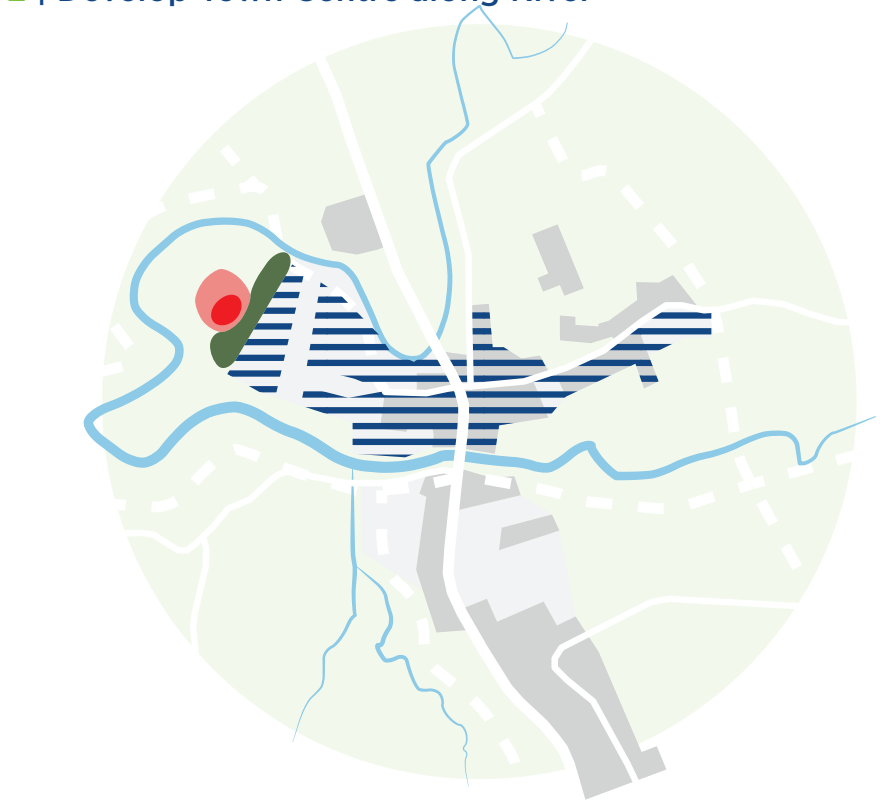


- Existing Built Environment
- Pedestrian Crossings
- Pedestrian Friendly intersections

Intersections at Kaiwaka - Mangawhai Road and State Highway 1 + Oneriri Road and State Highway 1 to be upgraded in a way coordinated to:

- Slow traffic moving through the town centre
- Create safer pedestrian access points across SH1
- Connect newly developed pedestrian networks on the east and west of the township.

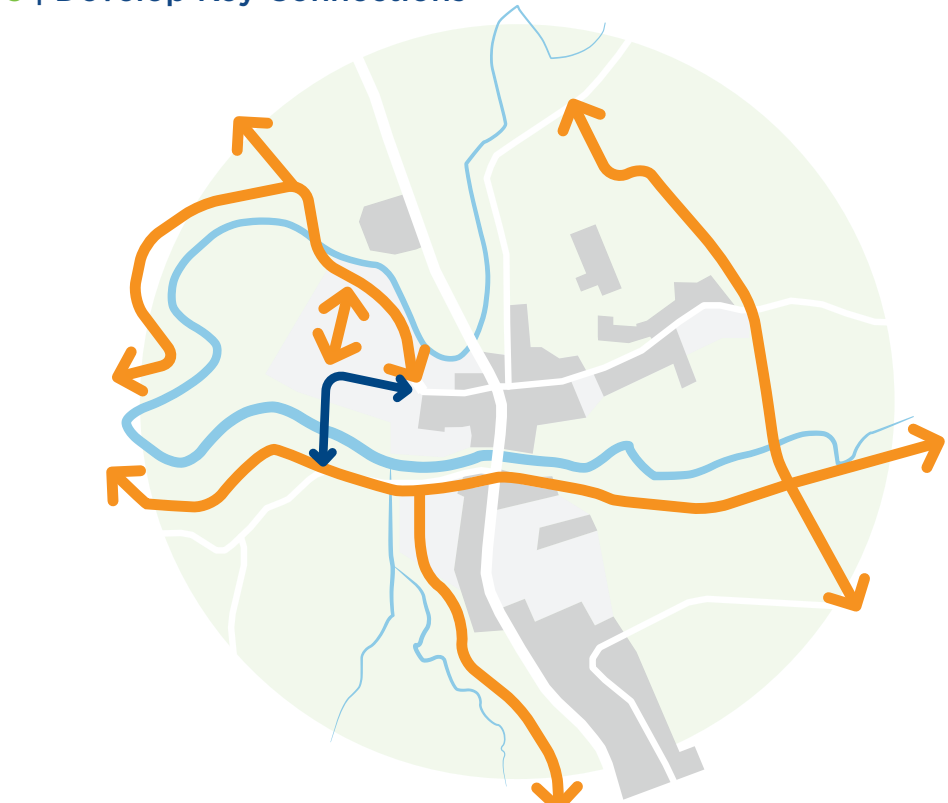
## 2 | Develop Town Centre along River



- Existing Built Environment
- Town Centre Intensification
- Riparian Buffer
- Sewerage Treatment Pon
- Space to be Repurposed for Business

- Rezoning of land blocks to the east and west of State Highway 1 allowing businesses to develop out from the main trunk line rather than along it.
- Rezoning for commercial/mixed use in a concentrated area to guide future development in a less diffuse manner than current zoning allows.
- Ecological buffer planting and open spaces to give a new vibrancy to Kaiwaka town centre
- Buffer sewerage treatment plant from western development with riparian planting

## 3 | Develop Key Connections



- New Vehicle Connection
- New Pedestrian / Cycle Connection

- New pedestrian/cycle connections between Industry/commercial/mixed use and housing running along ecological corridors to reduce reliance on vehicle travel within Kaiwaka.
- Increase safety and improve opportunities for pedestrian/cyclist movement around the town.
- Create a new road between Oneriri Road and west town centre to give local traffic another route option, provide access to the new town centre and reduce local traffics reliance on SH1 for movement.

## 4.6 | Future Assessed Yields

The preferred option developed from evaluation of the public consultation takes option 2 and adds in the industrial zone for option 1 and further residential activity from option 3. The land use changes proposed include;

\*\* note that yields are provided under the following assumptions: brownfield sites (intensified areas) use gross calculations (100 percent developable), while greenfield sites use a net calculation based on a 20 per cent road reserve requirement (80 percent developable). Commercial yields have not yet been calculated at this point.

The preferred option has 6 key moves in the wider township and 3 key moves for the town centre to integrate new development and harness this to improve the offerings for existing and new residents.

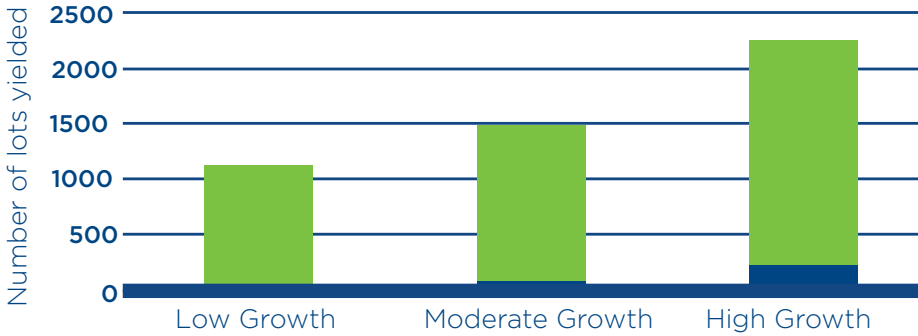
Land Use	Yield Estimate
Enabling new industrial land (gross lot areas created based on minimum lot sizes ranging between 1000-2000sqm) on existing rural zoned land:	<ul style="list-style-type: none"><li>Kaiwaka North = 38ha (creating approximately 190-380 lots)</li></ul>
Enabling new commercial land on existing rural zoned land:	<ul style="list-style-type: none"><li>Kaiwaka Town Centre = 10.5ha</li></ul>
Enabling new low density (gross lot areas created based on minimum lot sizes of 750sqm) housing on existing rural zoned land:	<ul style="list-style-type: none"><li>Kaiwaka Southern Valley A = 41ha (creating approximately 546 lots)</li><li>Kaiwaka Southern Valley B = 33ha (creating approximately 440 lots)</li><li>Kaiwaka West Valley = 37ha (creating approximately 493 lots)</li></ul>
Enabling new medium density (gross lot areas created based on minimum lot sizes of 500sqm) housing on existing rural zoned land:	<ul style="list-style-type: none"><li>Sports Field Surrounds Block = 27ha (creating approximately 540 lots)</li><li>Kaiwaka West Valley = 18ha (creating approximately 360 lots)</li></ul>
Reviewing zoning provisions for existing commercial zoned land to allow for intensified mixed density opportunities (residential, retail and office use)	<ul style="list-style-type: none"><li>Kaiwaka South Block = 8.5ha</li><li>Kaiwaka Town Centre = 11ha</li><li>Kaiwaka North = 2ha</li></ul>
Reviewing zoning provisions for existing residential zoned land to allow for medium to high density development (gross lot areas created based on minimum lot sizes of 350sqm) provisions so that mixed-density housing options are enabled for infill and brownfield housing redevelopment	<ul style="list-style-type: none"><li>Kaiwaka Town Centre = 17ha (creating approximately 485 lots)</li></ul>



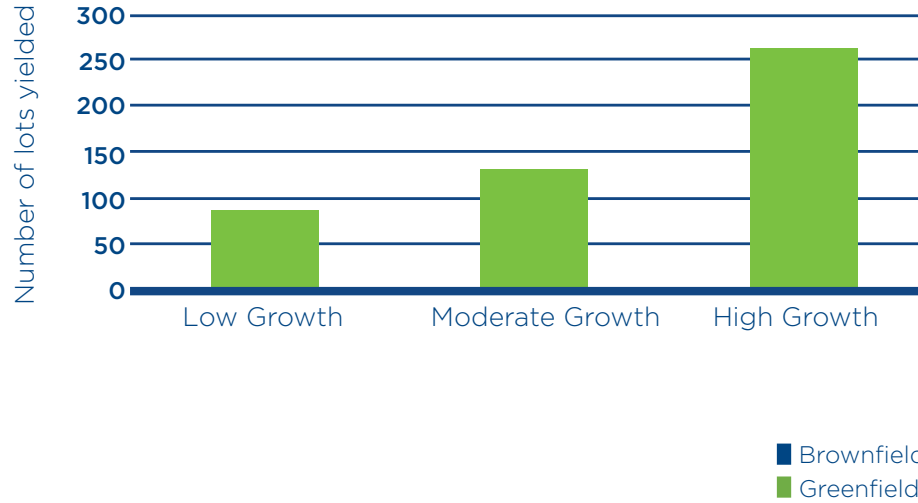
4.6 | Future Assessed Yields

TABLE OF VARIABLES	LOW GROWTH	MODERATE GROWTH	HIGH GROWTH
Low Density Residential minimum lot area	1250m <sup>2</sup>	1000m <sup>2</sup>	750m <sup>2</sup>
Medium Density Residential minimum lot area	1000m <sup>2</sup>	750m <sup>2</sup>	500m <sup>2</sup>
High Density Residential minimum lot area	600m <sup>2</sup>	450m <sup>2</sup>	300m <sup>2</sup>
Industrial minimum lot area	3000m <sup>2</sup>	2000m <sup>2</sup>	1000m <sup>2</sup>
Residential Intensified minimum lot area	1000m <sup>2</sup>	800m <sup>2</sup>	400m <sup>2</sup>
Industrial Intensified minimum lot area	3500m <sup>2</sup>	2500m <sup>2</sup>	1500m <sup>2</sup>
Greenfield developable land	70%	70%	70%
Brownfield developable land	100%	100%	100%
Subdivision uptake rate (brownfield sites only)	30%	50%	70%

Kaiwaka - Residential Yield



Kaiwaka - Business Land Yield





## 4.7 | Neighbourhoods

A study of Kaiwaka's existing neighbourhoods and adjacent rural areas was undertaken to fully understand which areas would be most suitable and feasible for expansion and growth. This involved a number of site visits, assessments and discussions surrounding landform (including productive soils consideration) and potential land use, connection to existing and future transport routes, proximity and access to the town centre and community facilities and infrastructure requirements to accommodate growth. A set of new and existing neighbourhoods were identified where new growth could be successfully facilitated through a series of key moves including the provision of adequate infrastructure to enable both residential and commercial growth in Kaiwaka.

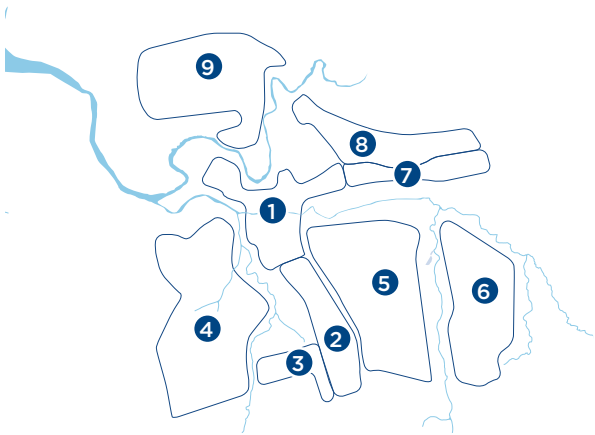
1. Kaiwaka Town Centre
2. Kaiwaka Southern Gateway
3. Kaiwaka West Ridge
4. Kaiwaka West Valley
5. Kaiwaka East Valley A
6. Kaiwaka East Valley B
7. Estuary Living Block
8. Gibbons Road Block
9. Kaiwaka North





4.7 | Neighbourhoods  
- Character Study

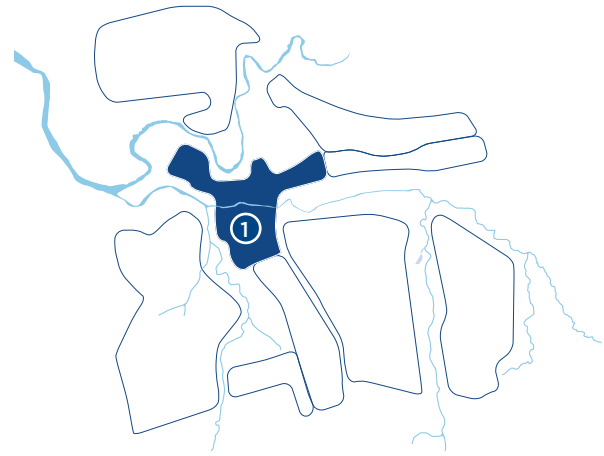
- 1. Kaiwaka Town Centre
- 2. Kaiwaka Southern Gateway
- 3. Kaiwaka West Ridge
- 4. Kaiwaka West Valley
- 5. Kaiwaka East Valley A
- 6. Kaiwaka East Valley B
- 7. Estuary Living Block
- 8. Gibbons Road Block
- 9. Kaiwaka North





## 4.7 | Neighbourhoods

### - Growth & Infrastructure



#### 1 | Kaiwaka Town Centre

Intersection upgrades and key safety / placemaking challenges. The existing SH1 corridor, shaping the town's north-south axis, is by far the highest priority for the community when we talk about the Kaiwaka Town Centre and its future transformation. The preferred option captures the aspirational framework of 'Coast to Harbour' at a local level, which builds on the district's distinct 'Coast to Coast' axis (east - west). Here is where 'local services' are provided for the surrounding rural and coastal communities, co-existing with Mangawhai and the attractive recreational playground on the east coast.

The Kaiwaka town centre is a popular rest break stop-over spot for travellers between the Bay of Islands / Far North and Auckland. The town centre is also where urban spaces are created for people to meet, conduct business, or congregate at the central square during the lunch break or on the weekends. The western expansion of the town centre captures the riverfront.

The primary focus for the Kaiwaka town centre revolves around -

- Extending along the east-west axis extending on the Kaiwaka-Mangawhai Road alignment enabling the commercial expansion west of the SH1 corridor
- Public realm improvements as mainstreet along the SH1 corridor, reducing traffic speed and improving the overall amenity of the town centre
- Safety improvements between the northern gateway into Kaiwaka and Oneriri Road intersection with SH1 - improving both walking and cycling conditions.

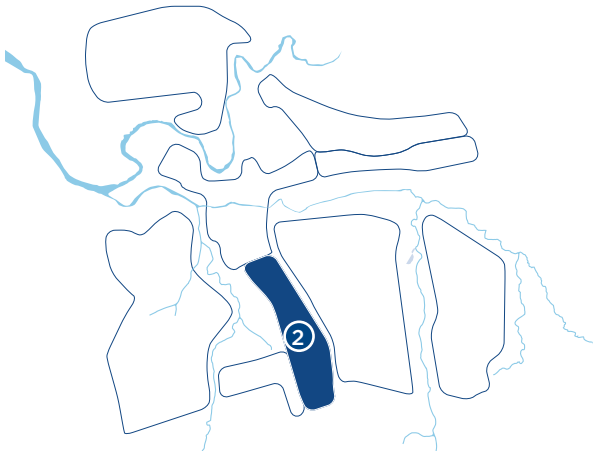
#### | Outcomes

Mixed-use residential and commercial activities within the 'Intensified Commercial / Mixed Use' land as well as new housing opportunities through the 'Existing Residential Intensified' areas. Future growth in the town centre can be enabled through mixed-use development enabling planning regulations. This would be on the basis of redeveloping individual sites OR by way of comprehensive redevelopment through the amalgamation of multiple sites.

#### | Infrastructure

Reticulated sewage and drinking water supply, as well as adequate stormwater attenuation methods is necessary to establish good urban form and density in the town centre, providing resilient infrastructure to provide stability for businesses wanting to establish in Kaiwaka. Water supply (in particular in terms of establishing a resilient water source) and renewal of existing wastewater infrastructure are key constraints in Kaiwaka. These need to be provided for through the Long-Term Plan and Infrastructure Strategy council workstreams.

4.7 | Neighbourhoods  
- Growth & Infrastructure



2 | Kaiwaka Southern Gateway

One of Kaiwaka’s established existing residential neighbourhoods, this part of Kaiwaka changes in amenity substantially as one moves away from the SH1 corridor. The neighbourhood is otherwise well connected to the town centre on foot, or via the SH1 motorway corridor. Existing dwellings are mostly stand-alone single dwellings with a garage or carport and relatively large private gardens.

| Outcomes

‘Existing Residential Intensified’ housing opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development. Future growth in this neighborhood is expected to have a low uptake initially, but this can significantly change once improvements to the SH1 corridor are implemented (or alternatively the new SH1 bypass alignment is constructed; long-term).

| Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. Wastewater reticulation exists currently throughout the existing residential area. Water supply (in particular in terms of establishing a resilient water source) and renewal of existing wastewater infrastructure are key constraints in Kaiwaka. These need to be provided for through the Long-Term Plan and Infrastructure Strategy council workstreams. The further investment and upgrades for 3-waters servicing can be investigated further through the council’s infrastructure asset management strategy for Kaiwaka.

4.7 | Neighbourhoods  
- Growth & Infrastructure



3 | Kaiwaka West Ridge

The Kaiwaka West Ridge consists of the relatively contained existing residential area and local shops, providing access to between the main north-south axis (SH12 corridor) and new development to the west in the Kaiwaka West Valley neighbourhood. The shops’ current owners have expressed the desire to extinguish the commercial activities and revert the use to residential. This change of use may be implemented through the future district plan promulgation.

| Outcomes

Existing ‘Residential Intensified’ zoning to remain allowing for further growth through infill development. A mix of housing typology is expected, with the density ranging between 450-750m2.

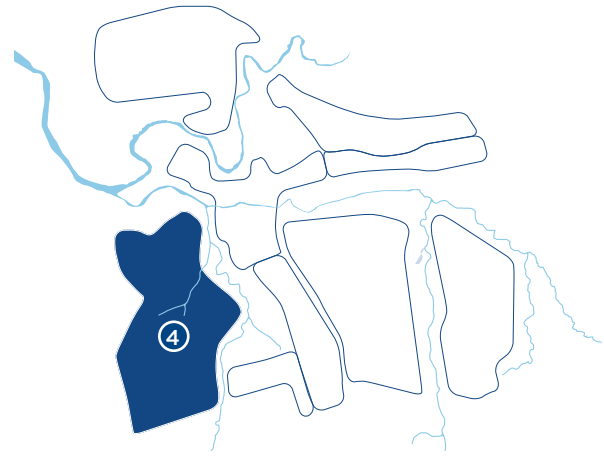
| Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. Water supply (in particular in terms of establishing a resilient water source) and renewal of existing wastewater infrastructure are key constraints in Kaiwaka. These need to be provided for through the Long-Term Plan and Infrastructure Strategy council workstreams. The further investment and upgrades for 3-waters servicing can be investigated further through the council’s infrastructure asset management strategy for Kaiwaka



## 4.7 | Neighbourhoods

### - Growth & Infrastructure



#### 4 | Kaiwaka West Valley

The land consists mostly of rolling rural productive land (pastoral farming) held primarily in one common ownership. It contains pockets of existing mature vegetation which can form a high amenity greenspace network for passive recreation, and new infrastructure for walking and cycling. Of note is the presence of high quality productive soils further west of this neighbourhood, which sets a clear boundary for western growth in Kaiwaka. Releasing land for development in this neighbourhood is also constrained by access to the Kaiwaka town centre and main north-south axis due to safety issues at the Oneriri Road and SH12 intersection.

#### | Outcomes

'Medium Density Housing' opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development are promoted for the western neighbourhood - Southern Valley A neighbourhood. Future growth in this neighborhood can be enabled through individual site infill development or comprehensive redevelopment making best of the existing land ownership pattern consisting of relatively large sites. A mix of housing typology is expected, with the density being towards the higher end of the 450-750m<sup>2</sup> range.

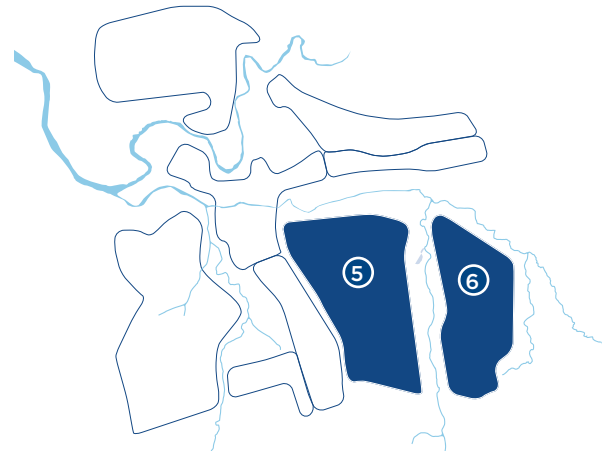
The Kaiwaka Southern Valley B neighbourhood consists overall of new 'Low Density Housing' land, whereby the expected density mix will be between 750-1,000m<sup>2</sup> lot size with most lots containing a primary and secondary dwelling.

#### | Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. The further investment and upgrades for 3-waters servicing can be investigated further through the council's infrastructure asset management strategy for Kaiwaka, preceded by a neighbourhood-specific structure plan addressing both the Kaiwaka West Valley and Kaiwaka West Ridge neighbourhoods in an integrated manner. Transport is also a critical factor for the success of this neighbourhood, in particular in relation to the intersection of Oneriri Road and SH1 safety issues. Further investigations should also be pursued to enable the bridge connection over the Kaiwaka River to the new western block in the town centre expansion aspirations as identified in 4.6 - Key Moves\_Town Centre (key move 3 - Develop Key Connections).

## 4.7 | Neighbourhoods

### - Growth & Infrastructure



#### 5 + 6 | Kaiwaka East Valley A + Kaiwaka East Valley B

These two neighbourhoods are located east of the SH1 corridor and overall occupy the valley between Settlement Road along the southern boundary and the estuary running along the southern side of the Kaiwaka-Mangawhai Road to the north. These neighbourhoods are currently largely in peri-urban residential or rural lifestyle blocks within the Kaiwaka East Valley A neighbourhood, and mainly rural productive use further away from Kaiwaka's mainstreet urban area to the east within the Kaiwaka East Valley B neighbourhood.

#### | Outcomes

'Medium Density Housing' opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development are promoted for the Kaiwaka East Valley A neighbourhood. Future growth in this neighborhood can be enabled through individual site infill development or comprehensive redevelopment making best of the existing land ownership pattern consisting of relatively large sites. A mix of housing typology is expected, with the density being towards the higher end of the 450-750m<sup>2</sup> range.

The Kaiwaka East Valley B neighbourhood consists overall of new 'Low Density Housing' land, whereby the expected density mix will be between 750-1,000m<sup>2</sup> lot size with most lots containing a primary and secondary dwelling.

#### | Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. The further investment and upgrades for 4-waters servicing can be investigated further through the council's infrastructure asset management strategy for Kaiwaka, preceded by a neighbourhood-specific structure plan addressing both neighbourhoods in an integrated manner.

From a transport perspective, it is important to note the desire for pedestrian friendly (walking and cycling) connection with the Kaiwaka-Mangawhai Road area to the north as well as between both Valley A and Valley B neighbourhoods.

## 4.7 | Neighbourhoods

### - Growth & Infrastructure



#### 7 | Estuary Living Block

This neighbourhood is located along Kaiwaka-Mangawhai Road and adjacent to the existing town centre and main street shops. As an established, existing residential neighbourhood, additional development can occur relatively easily given the existing wastewater infrastructure reticulation. The neighbourhood is otherwise well connected to the town centre on foot or by vehicle. Existing dwellings are mostly stand-alone single dwellings and enjoy relatively large private gardens.

#### | Outcomes

‘Existing Residential Intensified’ housing opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development. Future growth in this neighborhood is expected to have a low uptake initially, but this can significantly change once improvements to the SH1 corridor are implemented and in light of the anticipated growth at Mangawhai making the eastern side of Kaiwaka a perceivably more attractive area for living at the present time.

#### | Infrastructure

Full reticulated services, 4-waters, is necessary to establish good urban form and the desired density in this neighbourhood. Wastewater reticulation exists currently throughout the existing residential area. The further investment and upgrades for 3-waters servicing can be investigated further through the council's infrastructure asset management strategy for Kaiwaka.



4.7 | Neighbourhoods  
- Growth & Infrastructure



8 | Gibbons Road Block

Located north of the Estuary Living Block, the Gibbons Road Block runs along the Kaiwaka-Mangawhai Road and abuts the Kaiwaka School, Sports Complex, and the existing town centre mainstreet shops. As an established residential neighbourhood, additional development can occur relatively easily given the existing wastewater infrastructure reticulation. The neighbourhood is otherwise well connected to the town centre on foot or by vehicle. Existing dwellings are mostly stand-alone single dwellings and enjoy relatively large private gardens.

| Outcomes

‘Existing Residential Intensified’ housing opportunities suitable for infill or brownfields redevelopment (demolish and new build) residential development. Future growth in this neighborhood is expected to have a moderate to high uptake in light of the anticipated growth at Mangawhai making the eastern side of Kaiwaka a perceivably more attractive area for living at the present time. Its easy safe access to the school is also considered a significant positive factor.

| Infrastructure

Full reticulated services, 3-waters, is necessary to establish good urban form and the desired density in this neighbourhood. Wastewater reticulation exists currently throughout the existing residential area. The further investment and upgrades for 3-waters servicing can be investigated further through the council’s infrastructure asset management strategy for Kaiwaka.

4.7 | Neighbourhoods  
- Growth & Infrastructure



9 | Kaiwaka North

Located at the northern perimeter of Kaiwaka, this area of new commercial industrial (business park) land is well connected to the existing urban area of Kaiwaka and the SH1 corridor. Views out to the west towards the Kaiwaka River can be enjoyed from this neighbourhood.

| Outcomes

New commercial land providing the vast majority of the estimated yields of approximately 150 - 250 new sites where businesses can establish. It can be expected that the industrial land is taken up by large-footprint businesses, which can benefit from lower land prices and easy access to the SH1 corridor.

| Infrastructure

Reticulated sewage and potable water supply is necessary to support commercial land development. Stormwater mitigation options to be explored further through a development framework plan integrated with the adjoining town centre block. Water supply (in particular in terms of establishing a resilient water source) and renewal of existing wastewater infrastructure are key constraints in Kaiwaka. These need to be provided for through the Long-Term Plan and Infrastructure Strategy council workstreams, in particular if land for commercial use is to be released in Kaiwaka. Businesses relocating or seeking to establish in Kaiwaka will require stability in terms of infrastructure to service their facilities.

## 4.8 | Implementation Plan

### | Planning

The land use statutory planning required for implementing this spatial plan includes identifying the key areas for structure plan analysis (the next stage of planning before a plan change). This would form the necessary technical reports to accompany the section 32 analysis for plan change. At this stage it is proposed that areas where Kaiwaka has limited land supply would be prioritised for this structure plan. The remaining land use changes are intended to be picked up in future reviews of the District Plan.

In addition to the Kaiwaka Key Moves identified in this document the following infrastructure investigations will need to take place.

### | Transportation

- Future SH1 route protection as part of the wider Whāngārei to Auckland corridor planning
- Converting existing SH1 to a more 'liveable street' and tourist route function (akin to SH16)
- Upgrade Kaiwaka Mangawhai Road intersection to allow for a new town centre precinct at the back of Kaiwaka Clothing Ltd buildings
- Staged intersection upgrades of Oneriri Road and Settlement Road to accommodate staged residential developments
- Designating Kaiwaka Train Station land to safeguard a future tourist station
- Create a Walking and Cycling Plan to break down the severance issues and safeguard routes for future neighbourhoods and access to ecological and recreational corridors. Funding for this and small scale trials could be found from the new NZTA Pilot Project fund.
- Proposed Industrial zoned intersection land allocation

### | Water Supply

- Investigate the possibility of a combined Maungatūroto and Kaiwaka water source, storage, treatment and reticulation is environmental and economical viable as an alternative to the existing situation
- Network renewals - replace existing assets that are past their useful service life. If left untouched, this ageing infrastructure is a risk to the council's ability to maintain service continuity. Funding and timeframes for future work will be planned in the next Long Term Plan, noting investment for renewals / replacement of the wider network will likely extend beyond the LTP 10-year timeframe. Therefore, the Kaiwaka network investment will have to be addressed in greater detail through the Kaipara District Infrastructure Strategy
- Investigate funding models and development agreements to cushion the impact of the initial cost impact of development of the water supply project, especially on existing Kaiwaka residents who have invested in rainwater tanks systems.

### | Wastewater

- Investigate planning for staged upgrades of the Kaiwaka wastewater treatment plant and pump stations to ensure that there is adequate capacity able to cater for development proposals over the short to long term.



## 4.8 | Implementation Plan

### | Stormwater

- Investigate stormwater catchment analysis to understand the upstream effects of any future development proposals.
- Together with any neighbourhood environmental group, seek to restore Kaiwaka River / Stream, quality with native planting scheme and sediment removal programme.
- Network renewals - replace existing assets that are past their useful service life. If left untouched, this ageing infrastructure is a risk to the council's ability to maintain service continuity. Funding and timeframes for future work will be planned in the next Long Term Plan, noting investment for renewals / replacement of the wider network will likely extend beyond the LTP 10-year timeframe. Therefore, the Kaiwaka network investment will have to be addressed in greater detail through the Kaipara District Infrastructure Strategy.

### | Community Facilities

- Investigate the possibility of establishing a fit for purpose library, medical centre and community and health hub for different agencies and community meeting point in the expanded town centre precinct.
- Include a young people's adventure playground as a magnet for local residents and visitors in a new park adjacent to McLean Park with connections to it and the wider esplanade walking and cycle trail.

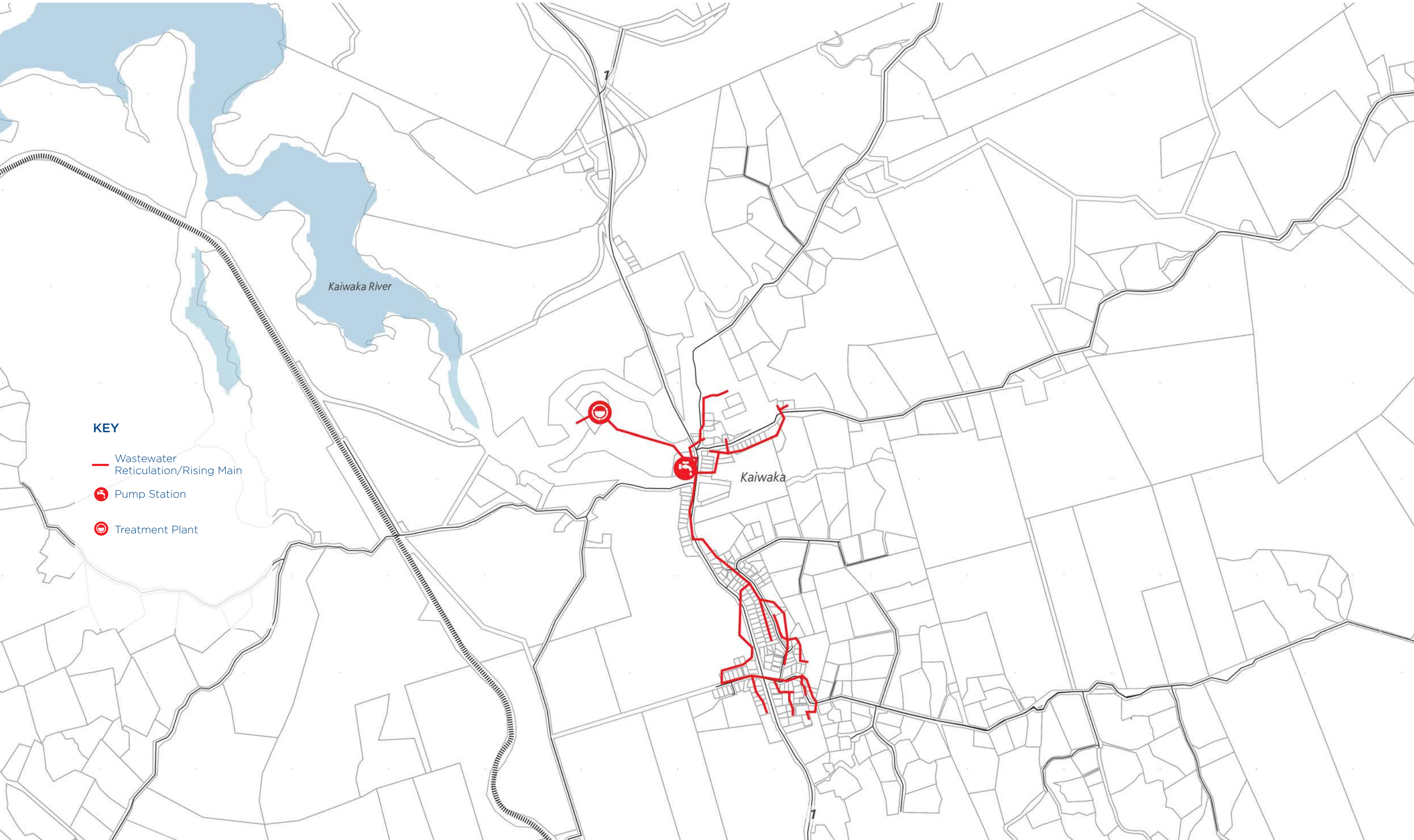
4.9 | Implementation Plan  
- Existing Infrastructure

SCALE 1:15000

0



1500M



KEY

- Wastewater Reticulation/Rising Main
- Pump Station
- Treatment Plant

## Part 5 | Implementation Strategy



# LAND-USE ZONES DENSITIES SERVICING RESIDENTIAL BUILDING TYPOLOGIES

## RURAL



Rural areas are where people work, live and recreate and where a variety of activities and services are enabled to support these functions. The rural zone enables activities based on use of the land resource and recognize them as a primary function of rural areas.

Rural zone covers a variety of rural land uses such as:

**RURAL PRODUCTION ZONE:**

Provide for the use and development of land for rural production activities and rural industries and services, while maintaining rural character and amenity values

**MIXED RURAL ZONE:**

Provides for rural production on smaller rural sites and non-residential activities of a scale compatible with smaller site sizes. Such areas often have a history of horticulture, viticulture, intensive farming and equine-related activities.

**RURAL COASTAL ZONE:**

Primarily to retain and enhance the rural character and amenity values, local coastal character and biodiversity values of rural production activities, and local non-residential activities. Zone also provides opportunities to access the coastal marine area and support marine-related activities.

**RURAL CONSERVATION ZONE:**

Comprises biophysically distinctive rural areas with important values requiring maintenance and protection. Predominantly, in private ownership and are used for a variety of purposes such as residential, low-impact recreational activities, conservation and open space.

On-site servicing

Yes - preferred method<sup>2</sup>

De-centralised wastewater treatment & disposal

Yes - possible preferred method<sup>2</sup>

STEP detention tank and reticulated servicing

No - this zone is not reticulated for wastewater.<sup>2</sup>

Untreated site detention tank

No - this zone is not reticulated for wastewater.<sup>2</sup>

Full service

No - this zone is not reticulated for wastewater.<sup>2</sup>

LAND-USE ZONES DENSITIES SERVICING  
RESIDENTIAL BUILDING TYPOLOGIES

COUNTRY SIDE LIVING (LOT SIZE M² (MIN) 10,000-20,000)



Country side living predominantly integrates a variety of rural lifestyle developments, characterized as low-density rural lifestyle dwellings on rural land as an alternative to the suburban living areas. Additionally, the zone is anticipated to provide residential areas with ample open space, landscaping and minimal adverse environmental effects experienced by residents. Allotment sizes in the zone are to be diverse which may be utilized for rural and/or residential activities.

On-site servicing

Yes - preferred method<sup>2</sup>

De-centralised wastewater  
treatment & disposal

Yes - possible preferred  
method<sup>2</sup>

STEP detention tank and  
reticulated servicing

No - this zone is not  
reticulated for wastewater.<sup>2</sup>

Untreated site detention  
tank

No - this zone is  
not reticulated for  
wastewater.<sup>2</sup>

Full service

No - this zone is  
not reticulated for  
wastewater.<sup>2</sup>

LARGE LOT RESIDENTIAL 1 (LOT SIZE M² (MIN) 2,000)



Provides for large lot residential development typically on the periphery of urban areas. Essentially, the zone provides low-density living opportunities and serves as a buffer between higher density residential areas and rural areas that are located outside of urban areas. Typical housing typologies include single family home on large sections. Large lot development is managed to address one (but not limited to) of the following factors: Maintains the area's landscape qualities; or the land is not suited to conventional residential subdivision because of the absence of reticulated services or there is limited accessibility to reticulated services; or possible physical limitations to more intensive development including topography, servicing ground conditions, instability or natural hazards where more intensive development may cause or exacerbate adverse effects on the environment.

Yes - preferred method<sup>2</sup>

No - lot size too large to  
justify cost.<sup>2</sup>

No - lot size too large to  
justify cost.

No - lot size too large to  
justify cost.

No - number of  
properties too low  
to off-set cost of  
servicing<sup>2</sup>

LAND-USE ZONES DENSITIES SERVICING  
RESIDENTIAL BUILDING TYPOLOGIES

LARGE LOT RESIDENTIAL 2 (LOT SIZE M² (MIN) 3,000)



Provides larger lot residential development with an aim to allow growth through low density residential development with a more rural feel. Typical housing typologies include single family home on larger sections.

Larger lot residential development is managed to address one (but not limited to) of the following factors: Maintains the area's landscape qualities; or the land is not suited to conventional residential subdivision because of the absence of reticulated services or there is limited accessibility to reticulated services; or possible physical limitations to more intensive development including topography, servicing ground conditions, instability or natural hazards where more intensive development may cause or exacerbate adverse effects on the environment.

EXISTING RESIDENTIAL (LOT SIZE M² (MIN) ) 400-800)  
INTENSIFIED



The zone enables residential intensification within existing residential zones which have been identified adequate to accommodate higher density development. Fundamentally, the zone provides for suburban built character and encourages site redevelopment, primarily for single family houses and duplex housing. These are expected to be on larger sites to allow sufficient room for good urban design.

On-site servicing

Yes - preferred method<sup>2</sup>

De-centralised wastewater  
treatment & disposal

No - lot size too large to justify cost.

STEP detention tank and  
reticulated servicing

No - lot size too large to justify cost

Untreated site detention  
tank

No - lot size too large to justify cost.

Full service

No - number of properties too low to off-set cost of servicing

No - wont get yield and lot size too small

No - this zone is expected to be serviced.

Yes - possible preferred option if infrastructure capacity is constrained.

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Yes - preferred option<sup>4</sup>



LAND-USE ZONES DENSITIES SERVICING  
RESIDENTIAL BUILDING TYPOLOGIES

LOW DENSITY RESIDENTIAL (LOT SIZE M² (MIN) 750-1000)



Purpose of low-density housing is to provide residential development while maintaining and enhancing the amenity values of established residential neighbourhoods. Fundamentally, allowing traditional suburban densities and housing forms. Dwellings will typically be detached and set on sections between 750-1000 square meters in area. Limit growth due to significant constraints (infrastructure, natural or built heritage, environmental constraints). Whereas, less control required over site layout and design as suburban character and amenity will be achieved from large area available for each dwelling.

On-site servicing

No - wont get yield and lot size too small

De-centralised wastewater treatment & disposal

No - this zone is expected to be serviced.

STEP detention tank and reticulated servicing

Yes - possible preferred option if infrastructure capacity is constrained.

Untreated site detention tank

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Full service

Yes - preferred option<sup>4</sup>

MEDIUM DENSITY RESIDENTIAL LOT SIZE M² (MIN) 500)



A zone which removes restrictions on density to enable housing supply and choice. Predominantly, the zone will play a key role in minimising urban sprawl and increasing housing supply. The zone will support limited non-residential activities to enhance residential amenity whilst not impacting on the primary role of the zone to provide housing supply. Much of the anticipated residential development in the zone is to be characterised by diverse housing options: semi-detached housing and standalone housing on smaller scales.

No - wont get yield and lot size too small

No - this zone is expected to be serviced.

Yes - possible preferred option if infrastructure capacity is constrained.

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Yes - preferred option<sup>4</sup>

# LAND-USE ZONES DENSITIES SERVICING RESIDENTIAL BUILDING TYPOLOGIES

## MIXED DENSITY (LOT SIZE M² (MIN) 350 - 700) (MEDIUM-HIGH)



The purpose of a mixed density zone is to remove restriction on density and provide for a medium to high density residential development to enable housing supply and choice. Predominantly a suburban-built character located between medium and high-density areas, supplying a wider range of housing typologies and are set on sections ranging between 350-700 square meters in area. Housing typologies include duplex housing and town housing.

### On-site servicing

No - wont get yield and lot size too small

### De-centralised wastewater treatment & disposal

No - this zone is expected to be serviced.

### STEP detention tank and reticulated servicing

Yes - possible preferred option if infrastructure capacity is constrained.

### Untreated site detention tank

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

### Full service

Yes - preferred option<sup>4</sup>

## HIGH DENSITY RESIDENTIAL (LOT SIZE M² (MIN) 300)



Zone which enables high intensity by enabling more intensive use of land. Typically, high-density zones act as transitional areas within proximity to town centers with accessible public transport, cycle and walk ways. Primarily, the anticipated housing typologies which are town houses, terrace housing and retirement villages to be set on 300 square meters in area. Such development will ensure greater diversity of housing supply, support the function of town centers and divert from the use of private transport.

No - wont get yield and lot size too small

No - this zone is expected to be serviced.

Yes - possible preferred option if infrastructure capacity is constrained.

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Yes - preferred option<sup>4</sup>

LAND-USE ZONES DENSITIES SERVICING  
RESIDENTIAL BUILDING TYPOLOGIES

MIXED-USE TOWN CENTRE (LOT SIZE M² (MIN) 300)



A primary focus for community life, retail, entertainment, business and services provided for locals and visitors. Provides a wide range of activities such as residential, leisure, commercial, tourist, cultural, community and civic centres. Height opportunities within the centre will facilitate increased intensification, including office and residential at upper floors. Provisions typically enable buildings between three and seven storeys with key retail streets being a focus for pedestrian activity within the centre.

On-site servicing

No - wont get yield and lot size too small

De-centralised wastewater treatment & disposal

No - this zone is expected to be serviced.

STEP detention tank and reticulated servicing

Yes - possible preferred option if infrastructure capacity is constrained.

Untreated site detention tank

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Full service

Yes - preferred option<sup>4</sup>

COMMERCIAL



The purpose of commercial intensified zones is to predominantly increase commercial development in varied built forms and levels of intensity. In conjunction with rural production and industrial activity, commercial activity will provide an economic foundation for the area, increasing employment and wealth.

No - wont get yield and lot size too small

No - this zone is expected to be serviced.

Yes - possible preferred option if infrastructure capacity is constrained.

Yes - possible preferred option if infrastructure capacity is constrained<sup>2</sup>

Yes - preferred option<sup>4</sup>



# LAND-USE ZONES DENSITIES SERVICING RESIDENTIAL BUILDING TYPOLOGIES

## INDUSTRIAL (LOT SIZE M² (MIN) 1,000-2,000)



Industrial zone provides either heavy or light industry activity, with anticipated level of amenity lower than the centre zones. Light industry activities include production, manufacturing, logistics, storage, transport and distribution activities. Whereas heavy industry activities may produce objectionable odour, dust and noise emissions. Primary attribute of a heavy industrial zone is that it contains sites large enough to accommodate large-scale industrial activities. The zone is typically located within proximity of key freight routes.

**On-site servicing**

Yes - preferred method<sup>1</sup>

**De-centralised wastewater treatment & disposal**

Yes - possible preferred method<sup>2</sup>

**STEP detention tank and reticulated servicing**

No - this zone is not reticulated for wastewater.<sup>2</sup>

**Untreated site detention tank**

No - this zone is not reticulated for wastewater.<sup>2</sup>

**Full service**

No - this zone is not reticulated for wastewater.<sup>2</sup>

# LAND-USE ZONES DENSITIES SERVICING - SUMMARY TABLE

RESIDENTIAL BUILDING TYPOLOGIES	ON-SITE SERVICING	DE-CENTRALISED WASTEWATER TREATMENT & DISPOSAL	STEP DETENTION TANK AND RETICULATED SERVICING	UNTREATED SITE DETENTION TANK	FULL SERVICE
<b>Rural</b>	Yes - preferred method <sup>1</sup>	Yes - possible preferred method <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>
<b>Country Side Living</b>	Yes - preferred method <sup>1</sup>	Yes - possible preferred method <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>
<b>Large Lot Residential 1</b>	Yes - preferred method <sup>1</sup>	No - lot size too large to justify cost.	No - lot size too large to justify cost.	No - lot size too large to justify cost.	No - number of properties too low to off-set cost of servicing
<b>Large Lot Residential 2</b>	Yes - preferred method <sup>1</sup>	No - lot size too large to justify cost.	No - lot size too large to justify cost	No - lot size too large to justify cost.	No - number of properties too low to off-set cost of servicing
<b>Existing Residential Intensified</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Low Density Residential</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Medium Density Residential</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Mixed Density (Medium-High)</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>High Density Residential</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Mixed-Use Town Centre</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Commercial</b>	No - wont get yield and lot size too small	No - this zone is expected to be serviced.	Yes - possible preferred option if infrastructure capacity is constrained.	Yes - possible preferred option if infrastructure capacity is constrained <sup>2</sup>	Yes - preferred option <sup>4</sup>
<b>Industrial</b>	Yes - preferred method <sup>1</sup>	Yes - possible preferred method <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>	No - this zone is not reticulated for wastewater. <sup>2</sup>