

## Part 3 | The Spatial Plan\_Maungatūroto

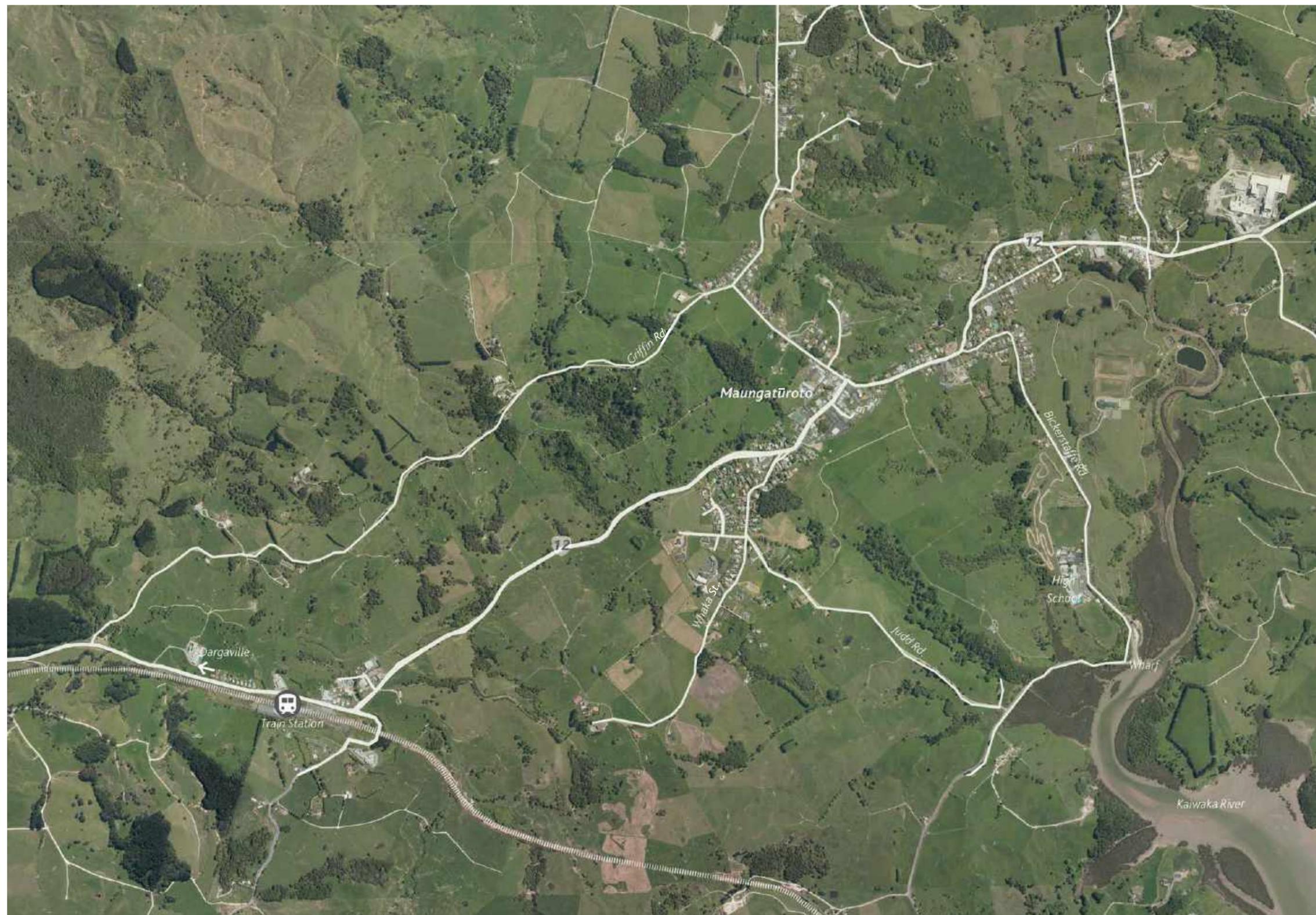
### 3.0 | Site Location & Context

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

On the 4th of September 1863, the first European settlers of Maungatūroto arrived in Auckland and then travelled north via boat to Mangawhai. From there, bullock carts brought them as far as Kaiwaka, where they again travelled via boat to Maungatūroto along the Kaiwaka River.

Today Maungatūroto is a growing town with a strong sense of community with the slogan “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 the State Highway 1 turn-off at the foot of the Brynderwyn hills. There is a train station on the North Auckland Trunk 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 the primary school (off Gorge Road), high school and the country club (both situated on Bickerstaff Road). The Country Club was formerly a golf course that now houses meeting facilities, sportsfields, a theatre and a 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

The first Europeans arrived in Maungatūroto in 1863. In terms of the European colonisation of the area, Maungatūroto was initially settled by the Albertlanders, who arrived in Auckland in 1863. From Auckland, settlers travelled via boat to Mangawhai. They then travelled overland on bullock carts as far as Kaiwaka, where they then resumed boat travel along the Kaiwaka River, arriving at the 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's position as an important service town and centre for the Otamatea County going into the future (Ryburn, p167).

## 3.2 | 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 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

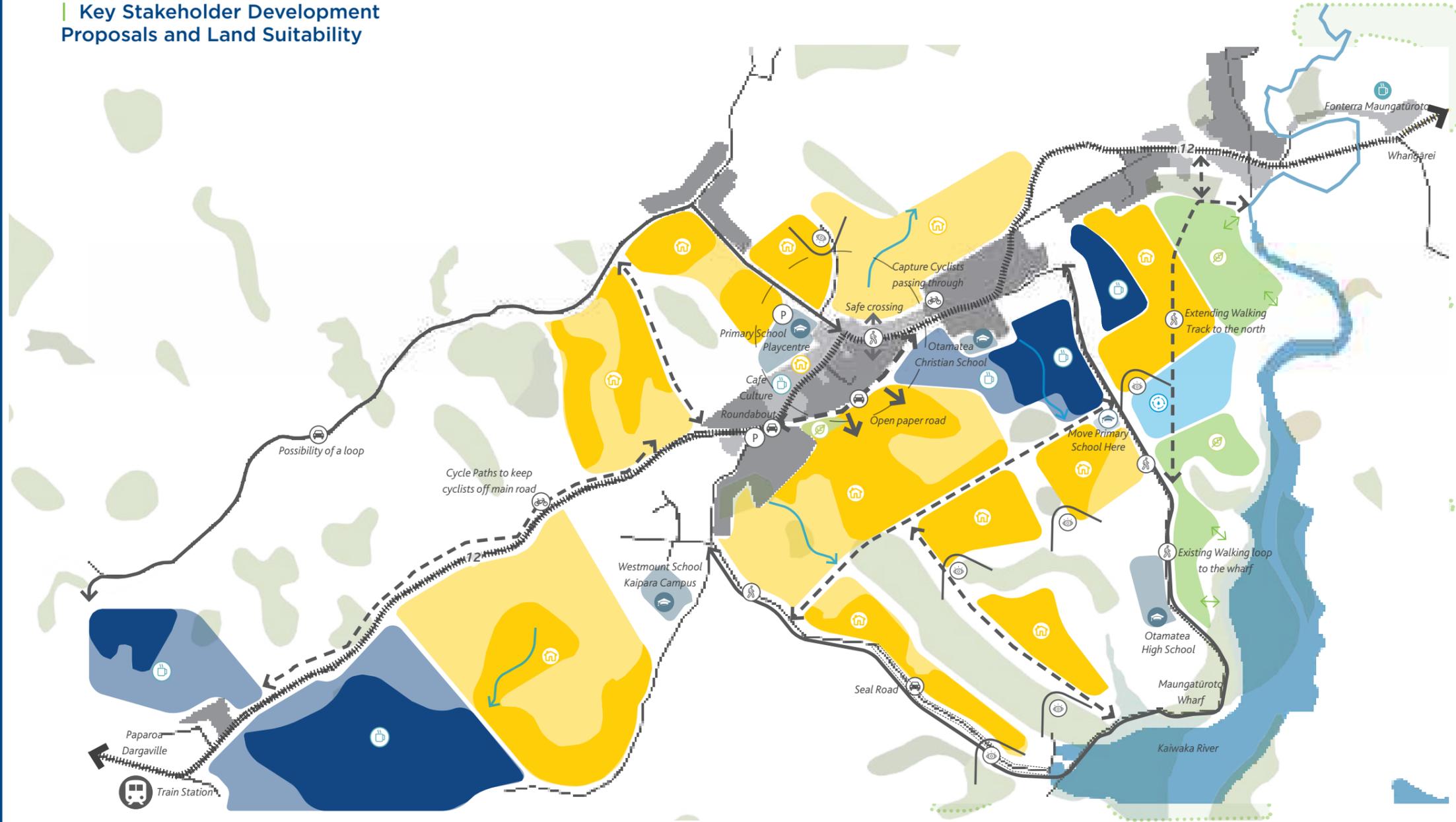


### 3.3 | Engagement - Early Insights

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

#### Key Stakeholder Development Proposals and Land Suitability



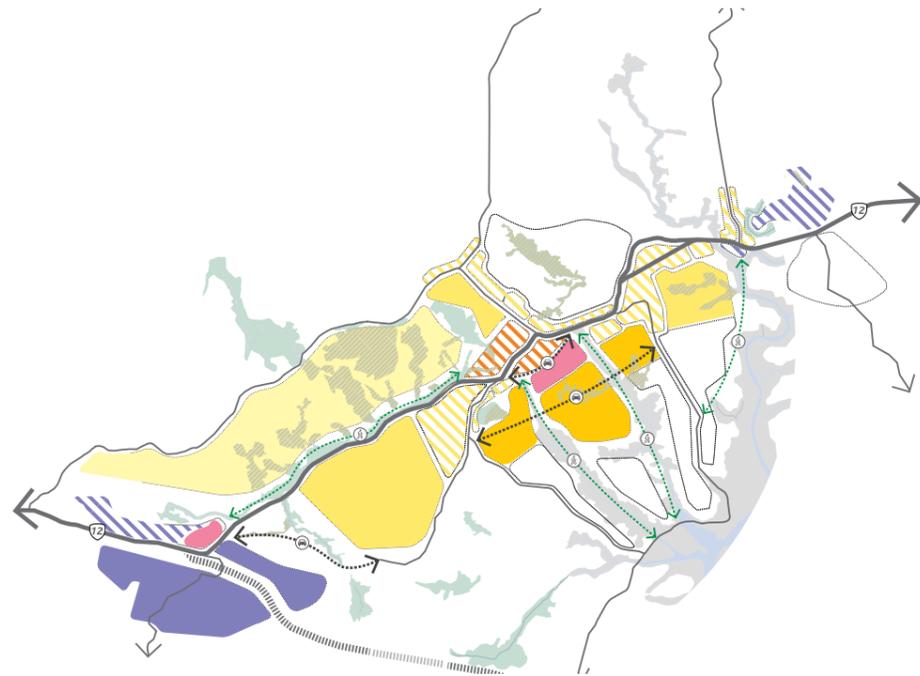
- Area where community proposed residential development that coincides with land MORE suitable for development
- Area where community proposed industrial development that coincides with land MORE suitable for development
- Area where community proposed industrial development that coincides with land LESS suitable for development
- Area where community proposed residential development that coincides with land LESS suitable for development
- Recreation area (playground, open space, picnic area) where community proposed
- ⋯ Green + hydrological network (ecological function)
- Landcover
- Highway (mainroad connection to the wider area)
- View
- Existing residential area
- Existing commercial area / industry area
- Train connection proposed by community
- Car connection proposed by community
- Cycle connection proposed by community
- Walking connection proposed by community (safe crossing)
- Central parking proposed by community
- Overland flow paths
- Wastewater

### 3.3 | Engagement

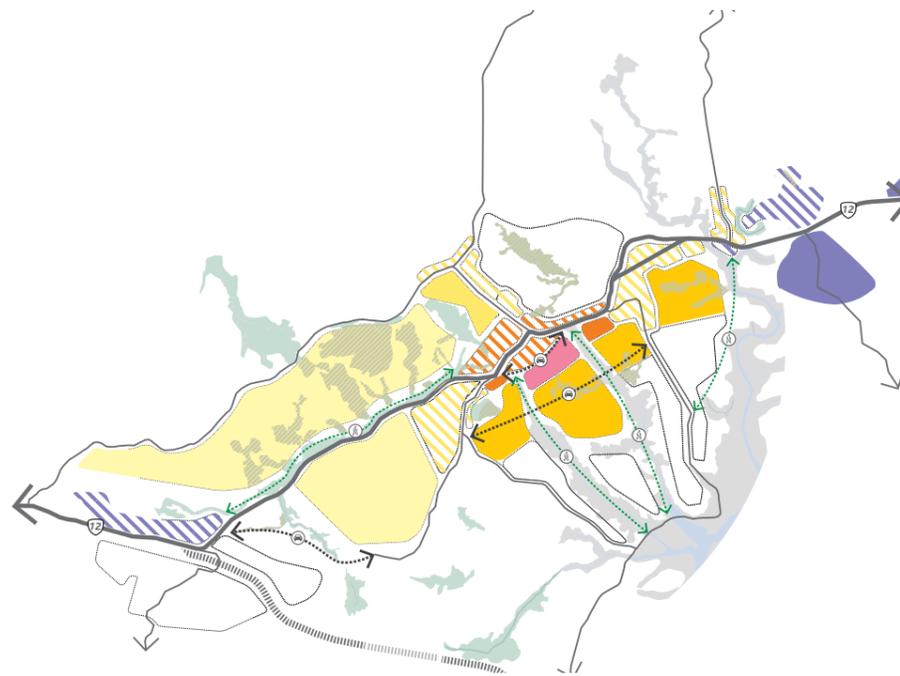
#### - Options Assessment

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.

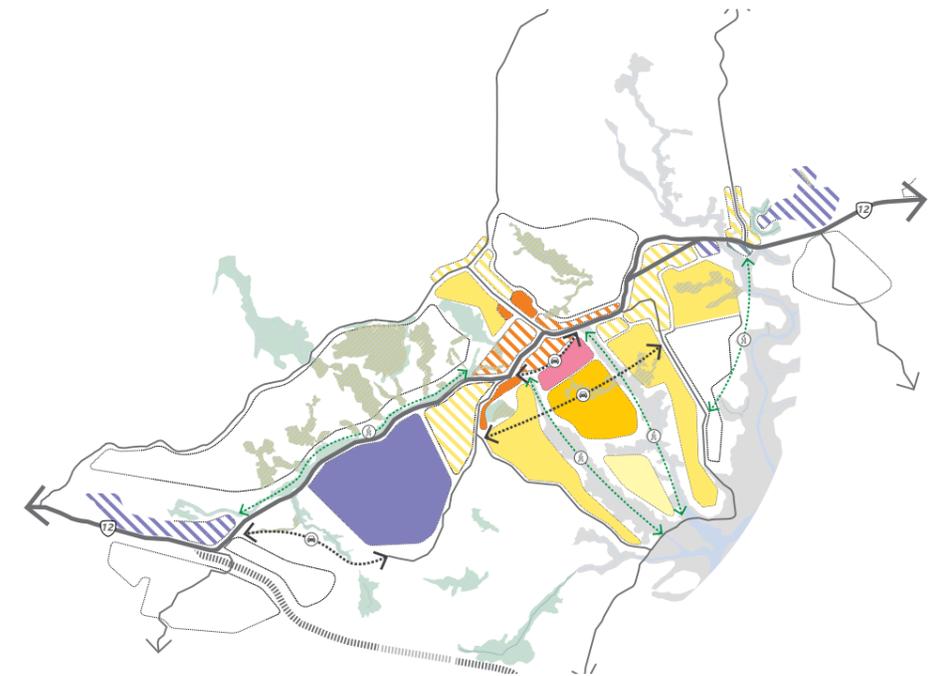
#### Option 1 | Intensify the Town Centre



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



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



#### Legend

➔ 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.

- 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.

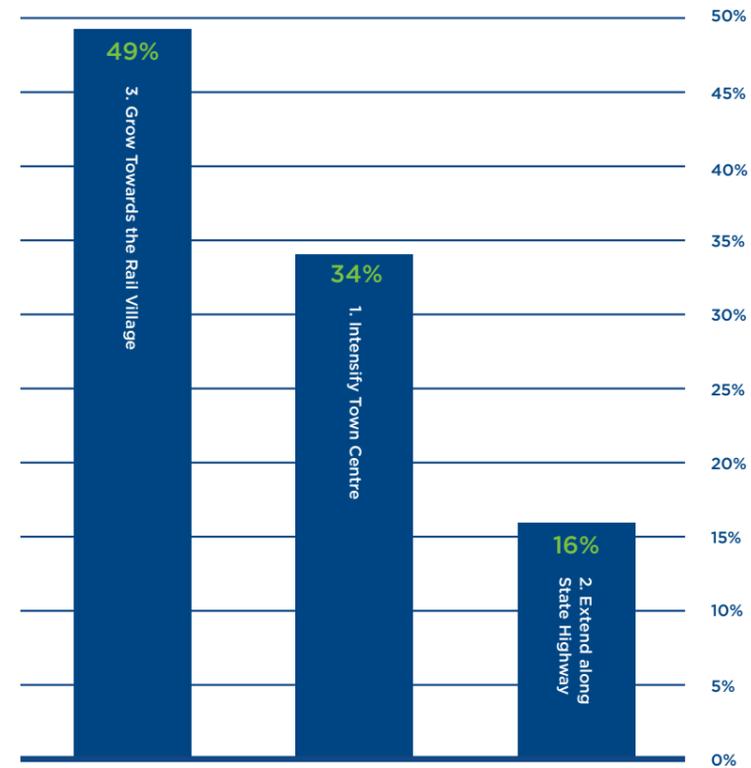
- The main theme is to create a distinctive business hub around the rail village to support new businesses in the town, and to allocate spaces close to the town centre for new residential living areas
- Option 3 is similar to Option 2 but accentuates and expands the Rail Village as the industrial hub 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 types 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 disadvantage for the town. Participants did feel that the link would encourage the expansion of the town centre and open opportunities for the development of land that runs down to the river estuary.

Maungatūroto Preferred Option



**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 the 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

# Part 3 | Maungatūroto\_Key Moves

## Legend

### Live | Work | Learn

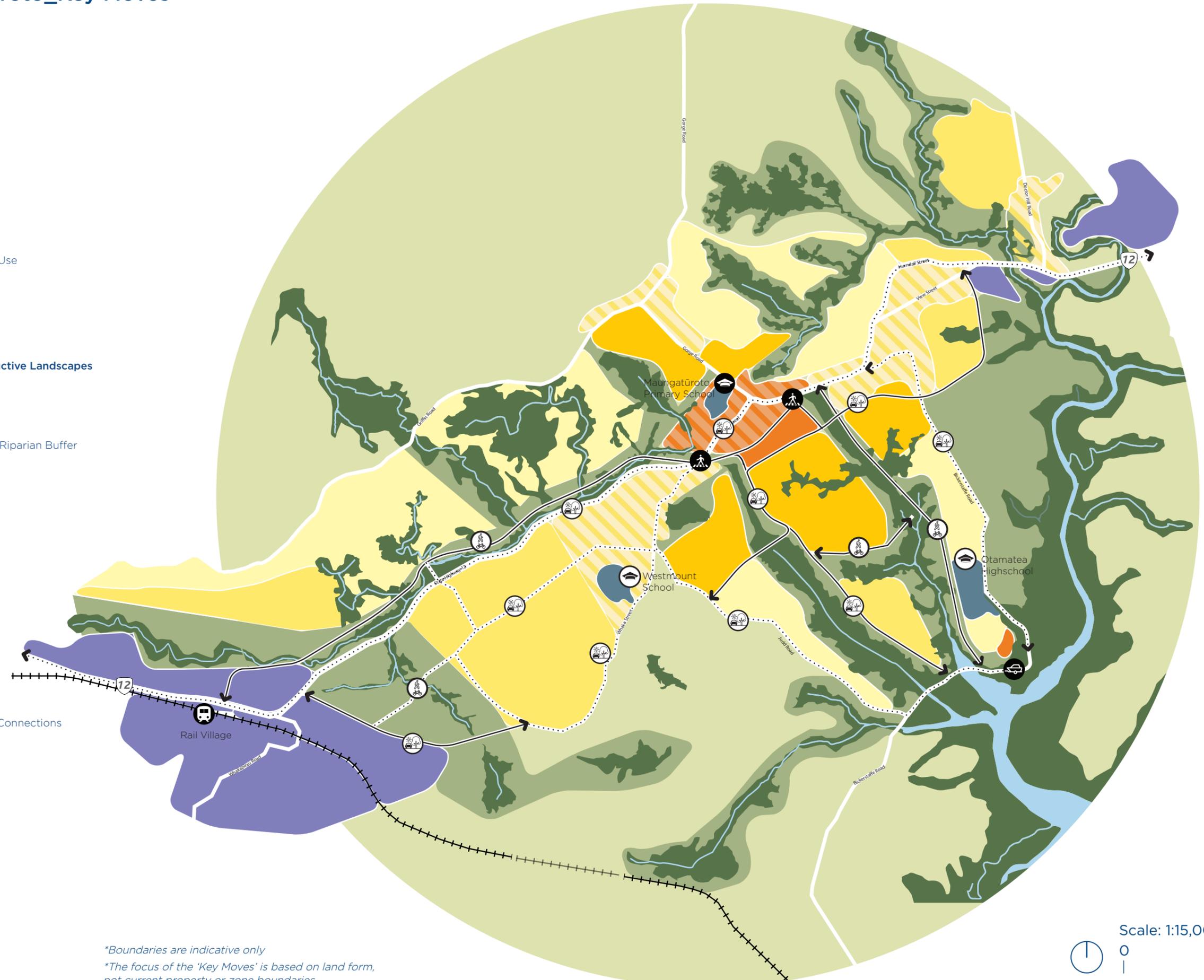
- School / Special Land Use
- Existing Residential Intensified
- New Low Density Housing
- New Medium Density Housing
- New High Density Housing
- Intensified Commercial | Mixed Use
- New Commercial | Mixed Use
- Intensified Industrial
- New Industrial

### 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 High School
- 🎓 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



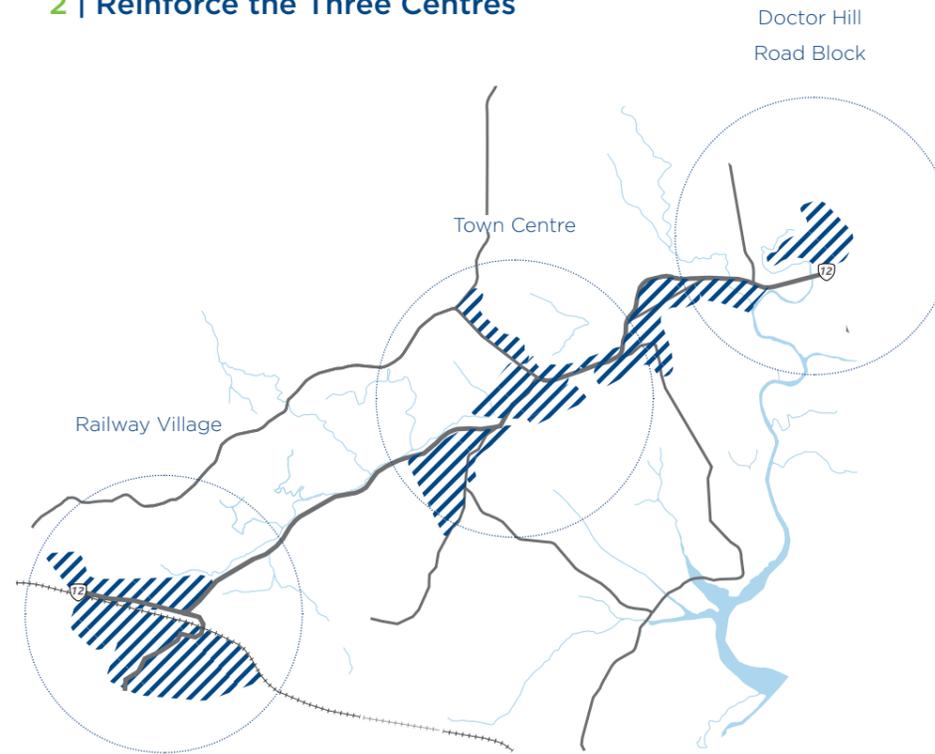
- Rural Land | Productive Land
- Open Space | Public Access
- Proposed Ecological Network | Riparian Buffer
- Waterways

- 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 accessible park that could be used for mountain biking, walking trails and predator proof fencing to reintroduce wildlife.
- Work with existing landowners 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

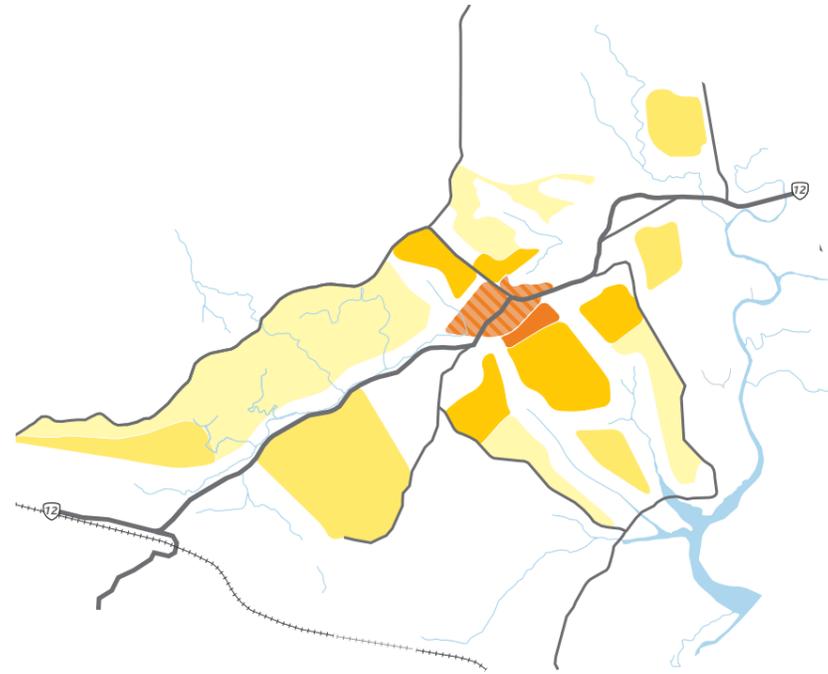


- New Local Street Connections
- Improved Existing Streets

- 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

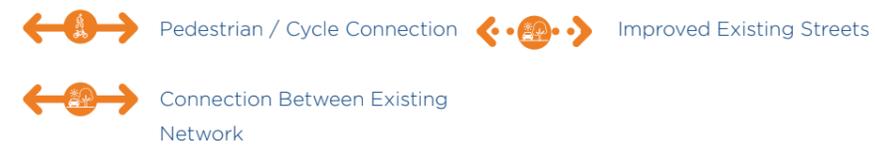
### 3.4 | Key Moves\_Town Wide

#### 4 | Residential Development



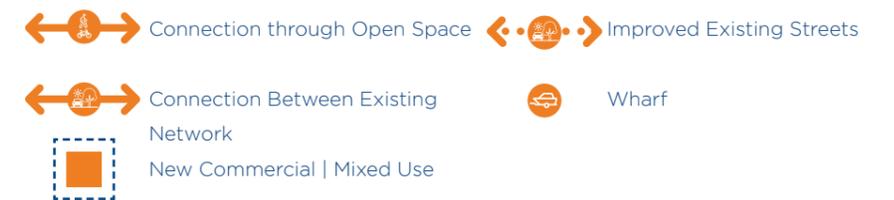
- Locate housing in areas most suitable for residential development with regard to land stability, access to existing infrastructure, avoiding floodplains and productive soils and with regard to underlying ecological networks
- Intensify existing housing in Maungatūroto through a combination of infill 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 65m<sup>2</sup>)
- 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 State Highway 12, providing an alternative and improved access route to the railway village and the Whakapirau coastal settlement

#### 6 | Connections to Estuary



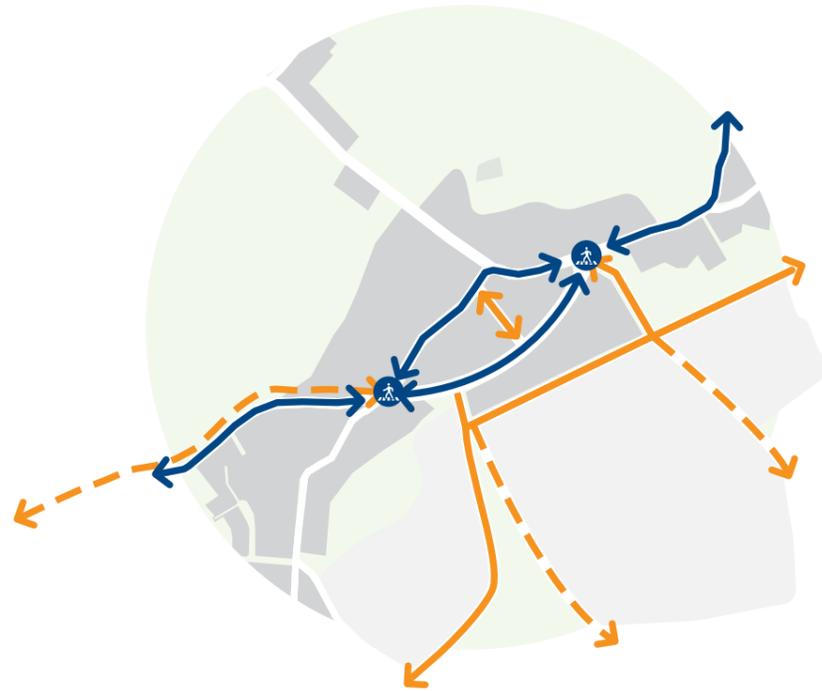
- Create north-south shared pedestrian cycle paths to connect the town centre to the estuary, the country club and recreation areas
- Create a public open space next to the wharf and along the estuary to provide opportunities for people to gather, sit, relax and play.
- Allocate a small area near the 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 envision 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 a 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 accommodated 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 laneway 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 the 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 new open spaces and the 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 as outlined on the table "Land-Use & Yield Estimate"

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.

\*\* 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 percent road reserve requirement (80 percent developable). Commercial yields have not yet been calculated at this point.

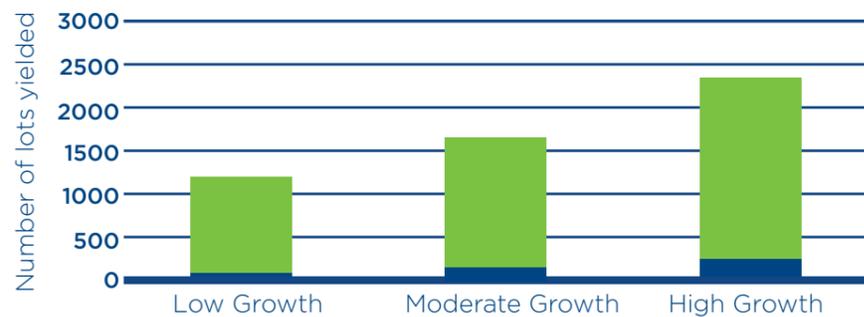
Calculations take into consideration existing lots, and assume 100 percent subdivision uptake i.e. subdivision potential is maximised

Land Use	Yield Estimate
<b>Enabling new industrial land (gross lot areas created based on minimum lot sizes ranging between 1000-3500m<sup>2</sup>) on existing rural zoned land:</b>	<ul style="list-style-type: none"> <li>Maungatūroto Railway Village = 76ha (creating approximately 173-608 lots)</li> <li>Fonterra Block = 11ha (creating approximately 25-88 lots)</li> </ul>
<b>Enabling new commercial land on existing rural zoned land:</b>	<ul style="list-style-type: none"> <li>Maungatūroto East Block = 6ha</li> <li>Maungatūroto Town Centre = 6ha</li> </ul>
<b>Enabling new low-density housing (gross lot areas created based on minimum lot sizes of 750-1250m<sup>2</sup>) on existing rural zoned land:</b>	<ul style="list-style-type: none"> <li>Maungatūroto South Valley = 26ha (creating approximately 166-277 lots)</li> <li>Maungatūroto North Valley = 27ha (creating approximately 172-288 lots)</li> <li>Griffin Road Block = 78ha (creating approximately 499-832 lots)</li> </ul>
<b>Enabling new medium density (gross lot areas created based on minimum lot sizes of 500-1000m<sup>2</sup>) housing on existing rural zoned land:</b>	<ul style="list-style-type: none"> <li>Griffin Road Block = 21ha (creating approximately 168-336 lots)</li> <li>Whaka Street Outer Block = 49ha (creating approximately 392-784 lots)</li> <li>Doctor Hill Road Block = 26ha (creating approximately 208-416 lots)</li> <li>Maungatūroto South Valley = 8ha (creating approximately 64-128 lots)</li> <li>Maungatūroto East = 8ha (creating approximately 64-128 lots)</li> </ul>
<b>Enabling new high density (gross lot areas created based on minimum lot sizes of 300-600m<sup>2</sup>) housing on existing rural zoned land:</b>	<ul style="list-style-type: none"> <li>Gorge Road Block = 9ha (creating approximately 120-240 lots)</li> <li>Maungatūroto South Block = 39ha (creating approximately 520-1040 lots)</li> </ul>
<b>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 400-1000m<sup>2</sup> assuming 100% uptake rate) provisions so that mixed-density housing options are enabled for infill and brownfield housing redevelopment</b>	<ul style="list-style-type: none"> <li>Whaka Street Inner Block = 23ha (creating approximately 199-462 lots)</li> <li>Maungatūroto East = 17ha (creating approximately 138-299 lots)</li> <li>Gorge Road Block = 6ha (creating approximately 37-94 lots)</li> <li>Maungatūroto North Valley = 4ha (creating approximately 25-63 lots)</li> <li>Doctor Hill Road Block = 7ha (creating approximately 37-81 lots)</li> </ul>
<b>Reviewing zoning provisions for existing commercial zoned land to allow for intensified mixed density opportunities (residential, retail and office use)</b>	<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	3500m <sup>2</sup>	2000m <sup>2</sup>	1000m <sup>2</sup>
Residential Intensified minimum lot area	1000m <sup>2</sup>	700m <sup>2</sup>	400m <sup>2</sup>
Industrial Intensified minimum lot area	4000m <sup>2</sup>	2500m <sup>2</sup>	1500m <sup>2</sup>
Greenfield developable land	80%	80%	80%
Brownfield developable land	100%	100%	100%
Subdivision uptake rate (brownfield sites only)	30%	50%	70%

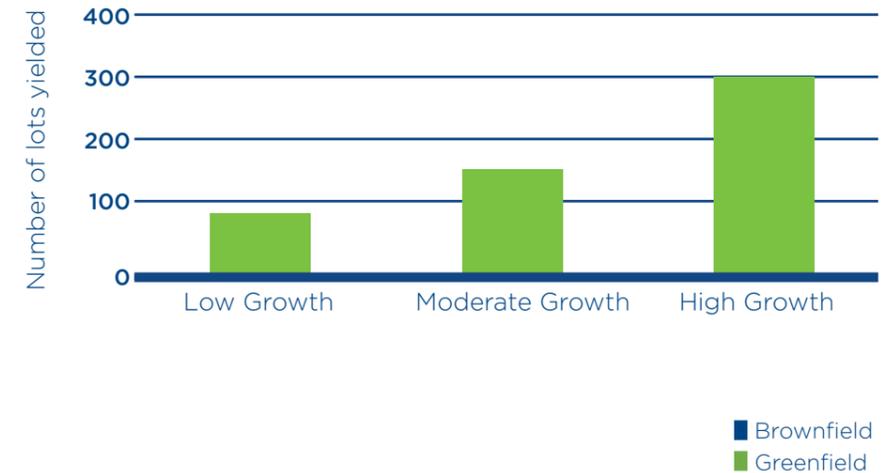
#### Maungatūroto - Residential Yield



Based on an assumed density limit provision varying in take-up between 'low', 'moderate', and 'high growth' markets, the overall potential (plan-enabled) new residential lot yield relies on greenfield development of newly zoned land. At a 'moderate growth' scenario, the new areas of residential zoned land could result in some 3,260 new lots - or dwelling units.

For new commercial opportunities, at a 'moderate growth' scenario some 348 new commercial sites could be enabled within the town's urban boundaries. This is principally driven by new commercial land at the 'Rail Village' industrial business park neighbourhood.

#### Maungatūroto - Business Land Yield



Further work is required through neighbourhood-specific structure plans or town-wide strategic development framework plan to better inform infrastructure requirement and land development density provisions.

## 3.7 | Neighbourhoods

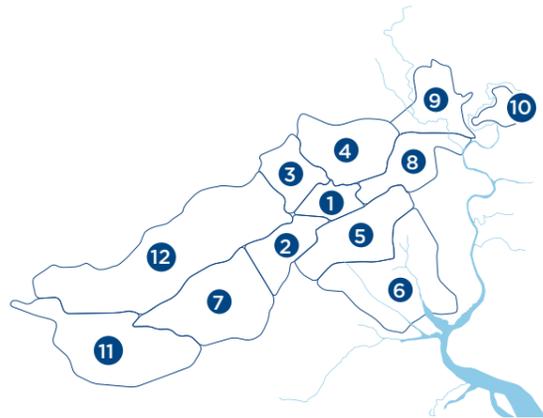
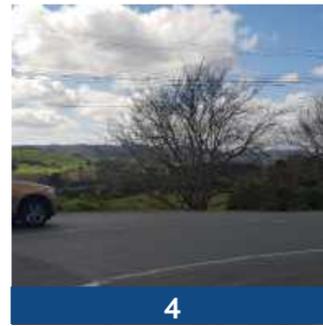
A study of Maungatūroto's existing neighbourhoods and adjacent rural areas was undertaken to fully understand which areas would be most suitable and feasible for expansion and growth. This involved a number of site visits, assessments and discussions surrounding landform and potential land use, connection 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, Papanoa, Pahi, and Matakoho. This is where additional civic services from the regional and district councils could be located as the town grows, providing an 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.

The Hurndall St mainstreet existing streetscape, heritage building, and human-scale centre commercial buildings connect with the surrounding rural area characterised by the Brynderwyns to the north 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 planning regulations which facilitate mixed-use development to establish. 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 (demolish and new build) residential development. Future growth in this neighbourhood 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. 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 the rezoning, or the initial staging of land release in Maungatūroto.

### | Outcomes

New 'High Density Housing' providing for mixed-density of 300-450m<sup>2</sup> 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 allow 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.

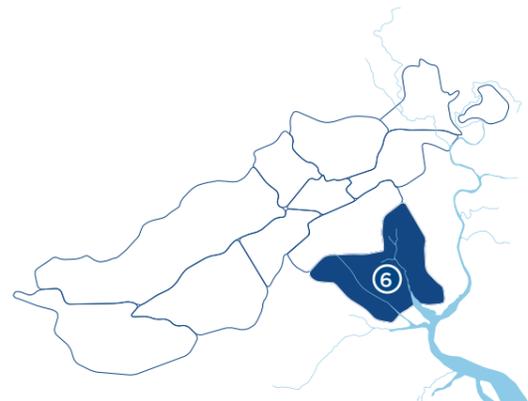
### | Infrastructure

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 is 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 allow 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 landscape views out towards the Kaipara Harbour inlet can be retained from the Maungatūroto village centre and the 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

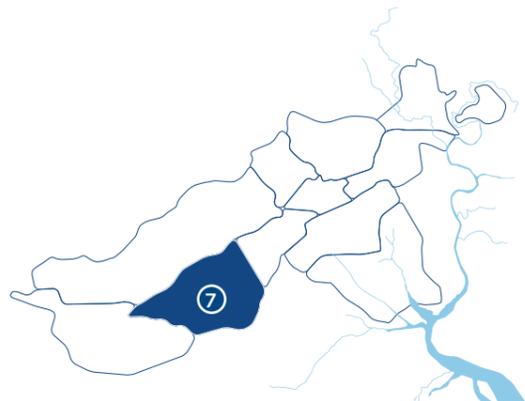
Reticulated sewage and drinking water supply is necessary to establish good urban form and density in this neighbourhood. Wastewater reticulation already exists within the Town Centre block and along Bickerstaffe Road, and the future development of the adjoining Maungatūroto South neighbourhood should 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 is 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 allow 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 dwelling yields. Consequently, there is a greater burden on rates-rise required to manage future infrastructure maintenance and replacement costs.

#### | Outcomes

Overall, a new 'Medium-Density Housing' environment is recommended for the Whaka Street 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 in general, and 750-1,000m<sup>2</sup> can be considered 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 is crucial to achieve minimum levels of development yield in this neighbourhood so that new infrastructure can be affordable in the long-run.

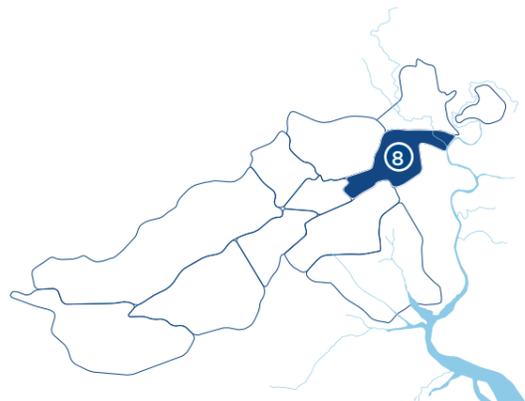
The existing 3-waters networks (wastewater and water supply) in the existing urban area are performing as per the current level of service in terms of what is required to service existing households, with some capacity for additional growth available in the wider network. However, in order to keep continuity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

renewals expenditure is needed ahead of enabling new connections to allow 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.

Transport connections through and out of this neighbourhood represent more than just local roads for the residential development within this neighbourhood alone. Connections to the State Highway and, if possible, to Callan Place play a pivotal role for an accessible and easy to navigate through neighbourhood.

Further, the Whaka Street extension through to the Rail Village provides a safe and enjoyable route connecting the new Rail Village with the town centre. This route acts as an alternative to the existing SH12 corridor for local commuter traffic, cyclists and pedestrians.

## 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 buildings' 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.

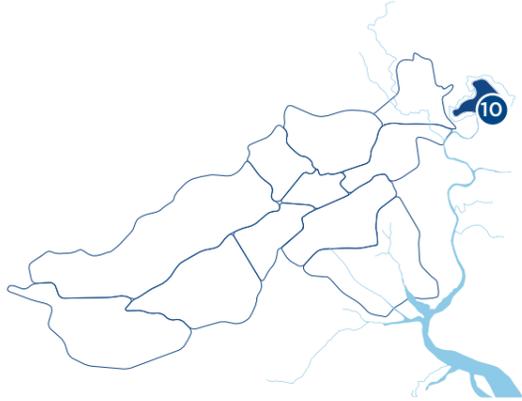
The Tōtara Park conservation area would make an excellent natural park for walking and mountain bike trails, providing Maungatūroto with another park and recreational resource.

### | 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

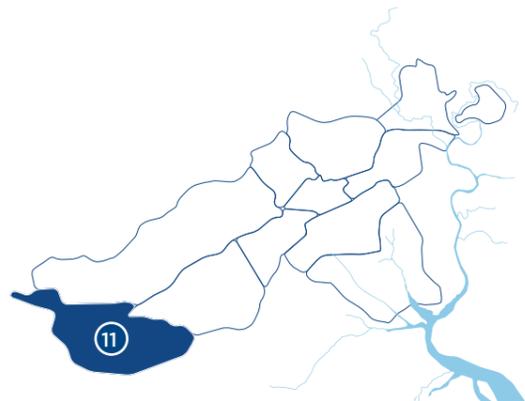


### 10 | Fonterra Block

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 Whangārei (or to Marsden Point) is perhaps one of the most exciting economic development opportunities in Maungatūroto. This neighbourhood enables most of the new industrial lots. 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 seeking 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.

With investments in the rail network between Auckland and Whangarei, and the possible investment in Northport, the Rail Village industrial business park plays an important anchor-business hub role for the Kaipara District as a whole.

## 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 - 4,000m<sup>2</sup> 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 on 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 (RMA) analysis for a 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 the new mainstreet (along existing paper road) to ensure 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, which is environmentally and economically viable as an alternative to the existing situation.
- Investigate funding models and development agreements to cushion the initial cost impact of development of the water supply project.
- Extensive replacement of existing assets that are past their useful service life. These are a risk to service continuity and will be planned for 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. These are a risk to service continuity and will be planned for in the next LTP, 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.

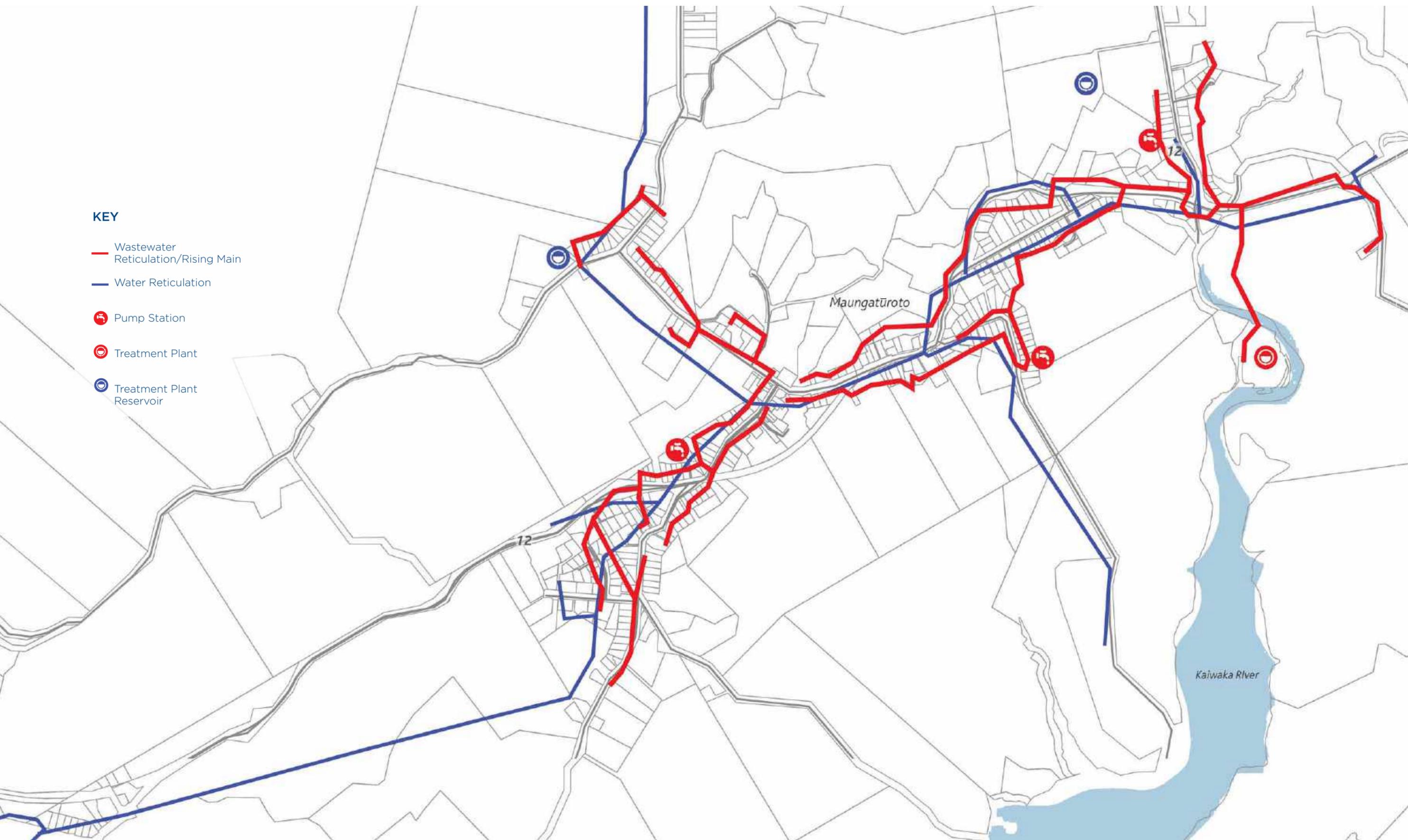
### 3.9 | Implementation Plan - Existing Infrastructure

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#### KEY

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



## Part 4 | The Spatial Plan\_Kaiwaka