

# Warkworth Structure Plan

June 2019



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# 1 Summary

Auckland is growing rapidly and to accommodate a portion of the region's growth Warkworth has been identified as a Satellite Town and earmarked to support significant future business and residential development. Around 1,000ha's of land immediately surrounding Warkworth has been zoned Future Urban. Before any urban development of the Future Urban zone can occur, the land must be structure planned.

The Warkworth Structure Plan sets out a pattern of land uses and the supporting infrastructure network for the Future Urban zoned land around Warkworth. The plan has been prepared in the context of the existing town of Warkworth and seeks to weave the new development areas back into the fabric of the existing urban area.

The structure plan set out in this document builds on the opportunities and constraints in and around the Future Urban zone. It also has taken into account feedback from a number of public engagement stages, including community workshops held to generate ideas for how Warkworth's Future Urban zone could be laid out and public feedback on a draft version of the plan. It also responds to the feedback from Hui with the relevant iwi.

Some of the key high-level features of the Warkworth Structure Plan include:

- Ecological and stormwater areas are set aside from any built urban development.
- The new residential areas across the Future Urban zone enable around 7,500 dwellings<sup>1</sup> and offer a range of living types from spacious sections around the fringe to more intensive dwellings such as town houses and apartments around the new small centres and along public transport routes.
- Warkworth's local and rural character is protected through various measures including provisions to protect the bush-clad town centre backdrop by the Mahurangi River and retaining the Morrison's Heritage Orchard as a rural feature of the town.
- New employment areas are identified, comprising land for new industry (e.g. warehousing, manufacturing, wholesalers, repair services) and land for small centres (e.g. convenience retail, local offices, restaurants/cafés). The existing Warkworth town centre by the Mahurangi River will remain as the focal point of the town.

The land uses are supported by infrastructure including:

- Prioritising active transport in Warkworth through a separated walking and cycling network providing connectivity to new and existing centres, employment areas, schools and public transport stations.
- A roading network including a potential southern interchange on Ara Tūhono – Pūhoi to Warkworth (south facing ramps only).
- A public transport network built upon the recently introduced 'New Network for Warkworth' and in the long term has a bus station/interchange in Warkworth's southern Local Centre and a Park and Ride near the potential Ara Tūhono – Pūhoi to Warkworth southern interchange.

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<sup>1</sup> Refer to the yield calculations in **Appendix 3**



- Other infrastructure providers for utilities such as wastewater, water, power supply, telephone, broadband, community facilities, schools, and healthcare have plans underway to service the planned growth of Warkworth.

The development of Warkworth's Future Urban zone will occur over the long-term and is sequenced in stages over the next 20 years as bulk infrastructure capacity allows.

This structure plan will be implemented through a series of plan changes to rezone the Future Urban zone in accordance with land use indications in the final adopted Warkworth Structure Plan.

The features of the Warkworth Structure Plan are shown on the maps in Figures 1-5.

The remainder of this plan is divided into two further sections. Section 2 introduces the context for the Warkworth Structure Plan including the study area and process followed to prepare it. Section 3 sets out the vision and planning principles for the structure plan area and outlines the structure plan itself, describing in detail the elements that are shown on the structure plan maps.

Appendices 1-4 cover the background and explanatory information that led to the structure plan identified in section 3. Together, these sections cover the material required to be considered in the Auckland Unitary Plan's Structure Plan Guidelines.

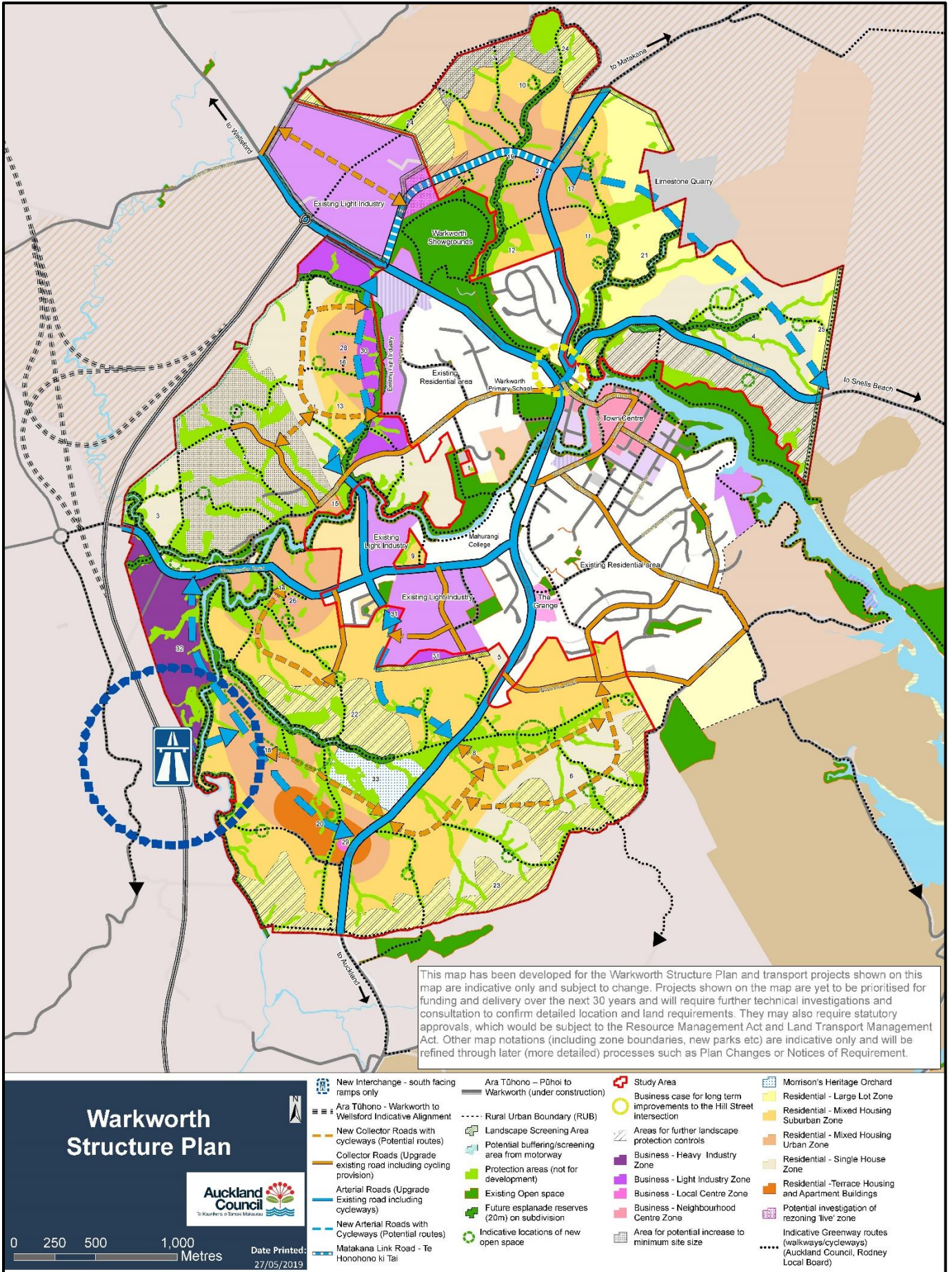


Figure 1: Warkworth Structure Plan – Land use plan



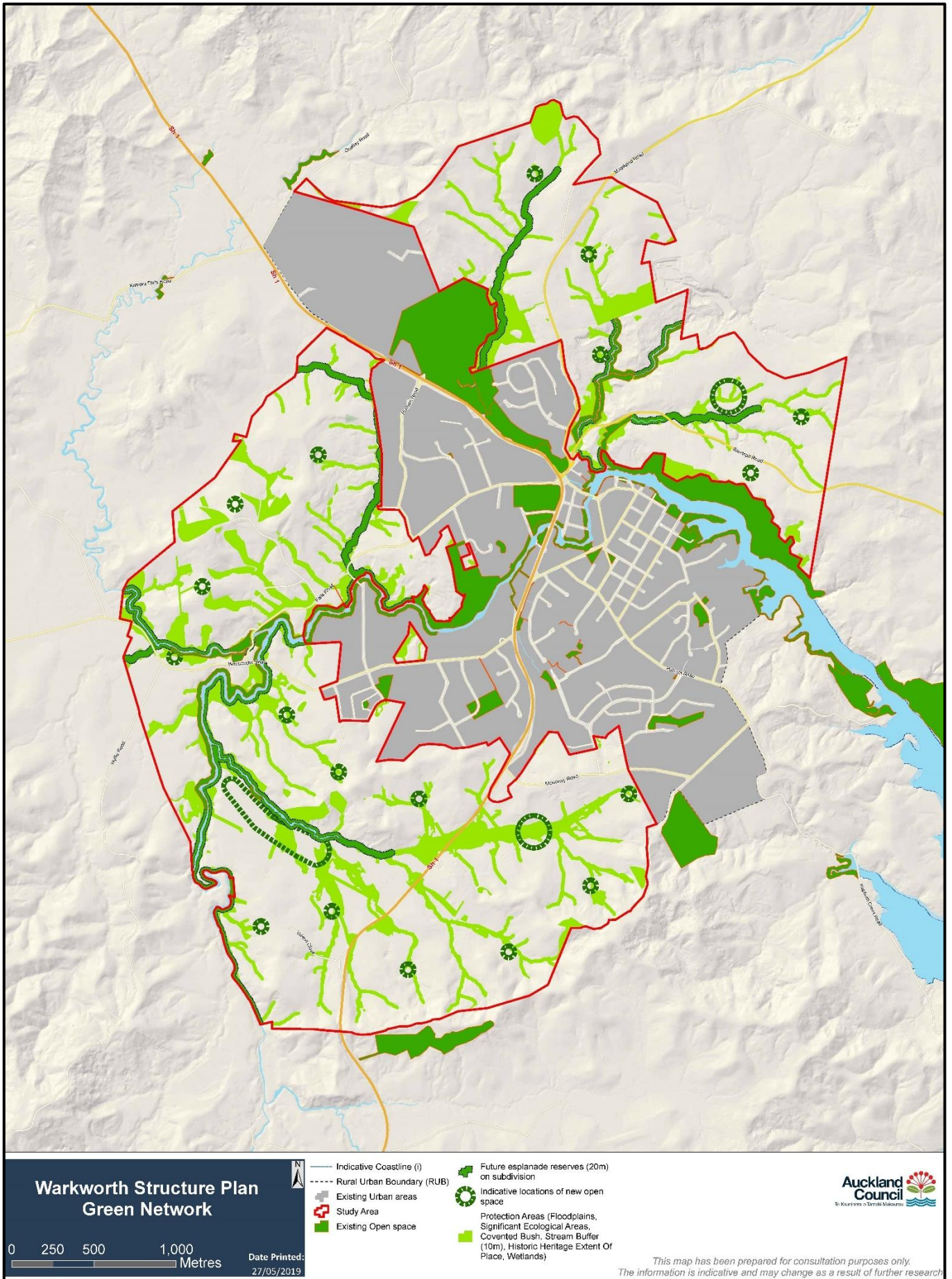


Figure 2: Warkworth Structure Plan – Green Network plan



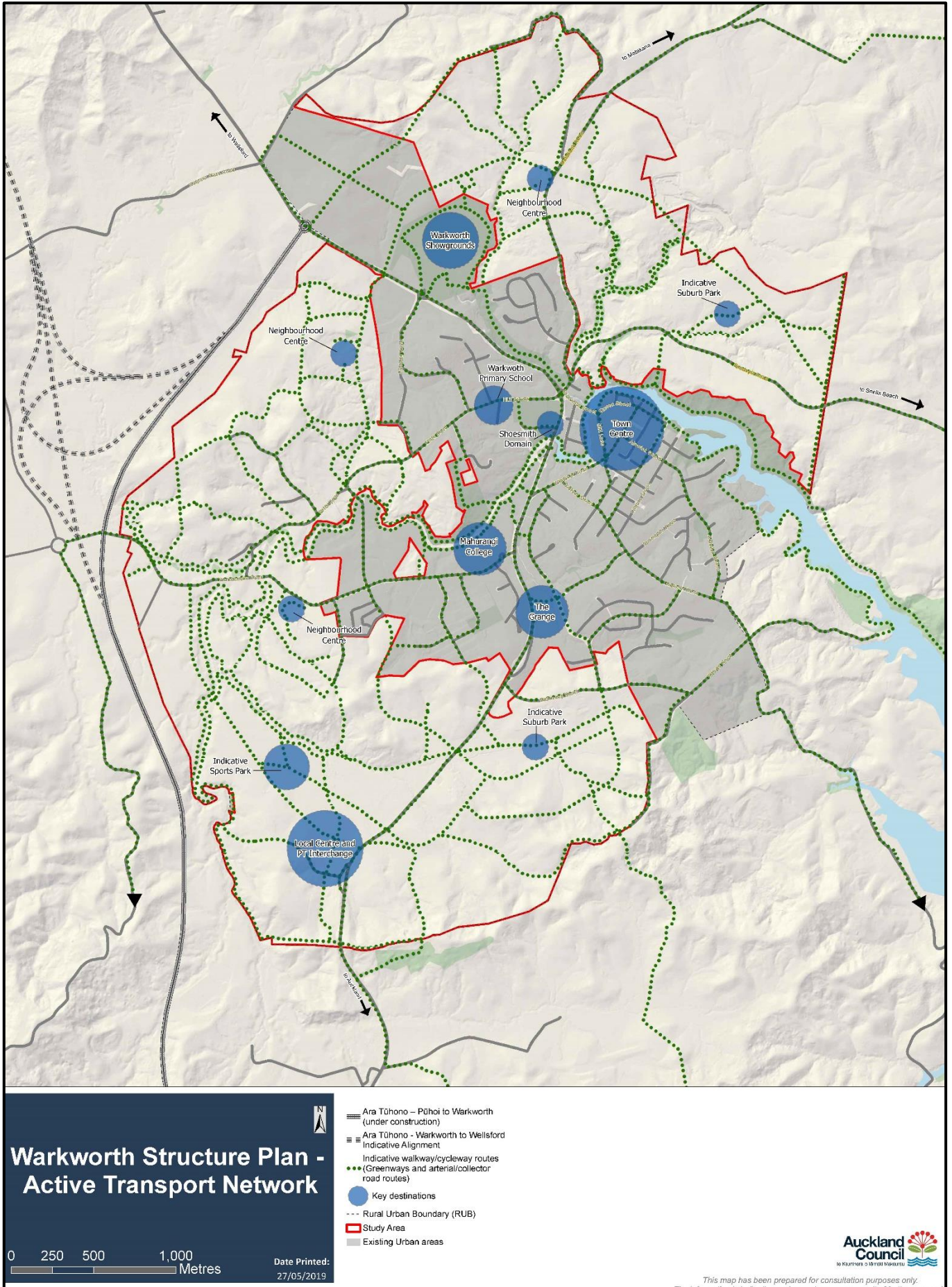


Figure 3: Warkworth Structure Plan – Active transport network plan



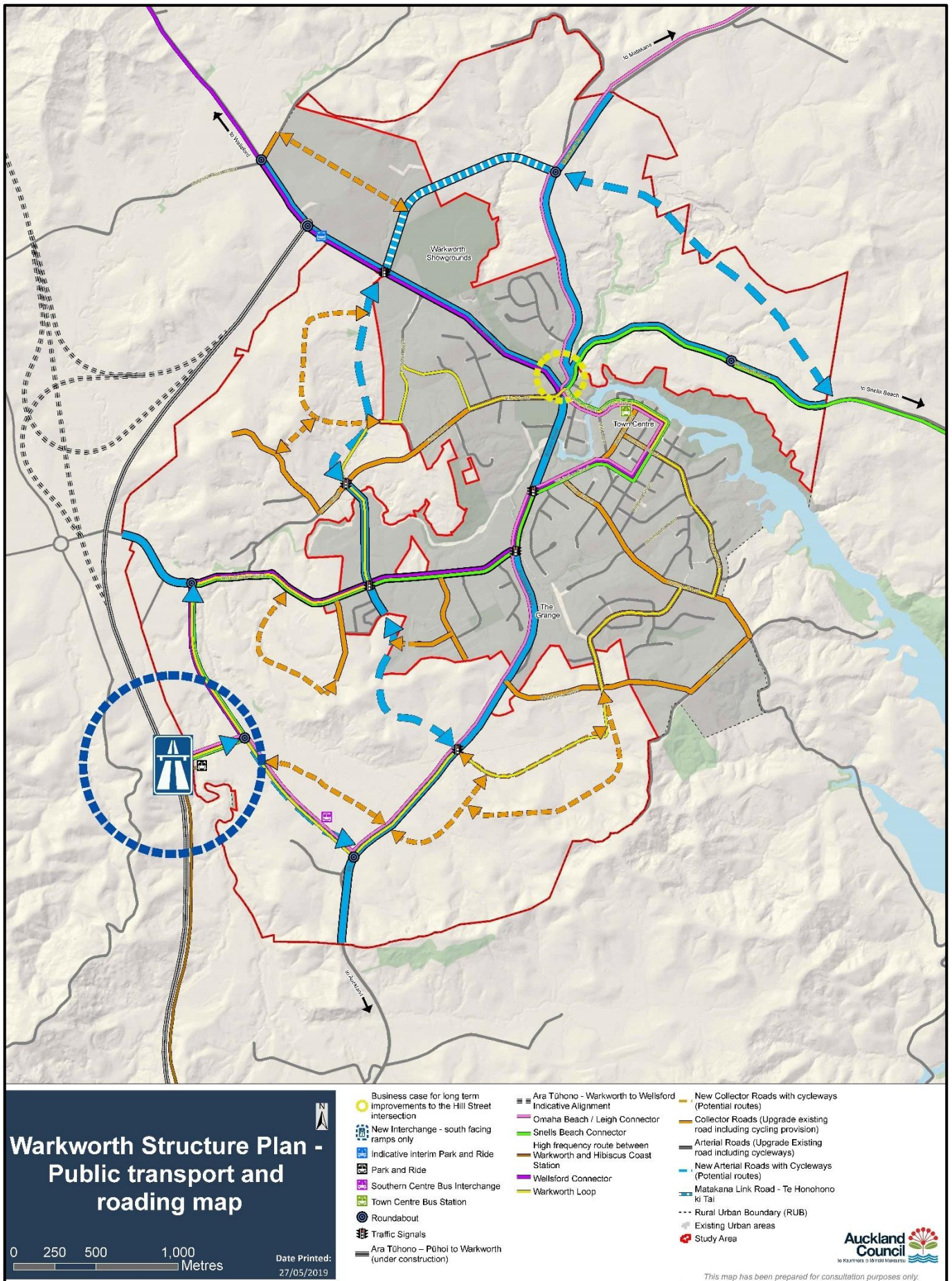


Figure 4: Warkworth Structure Plan – Public transport and roading plan



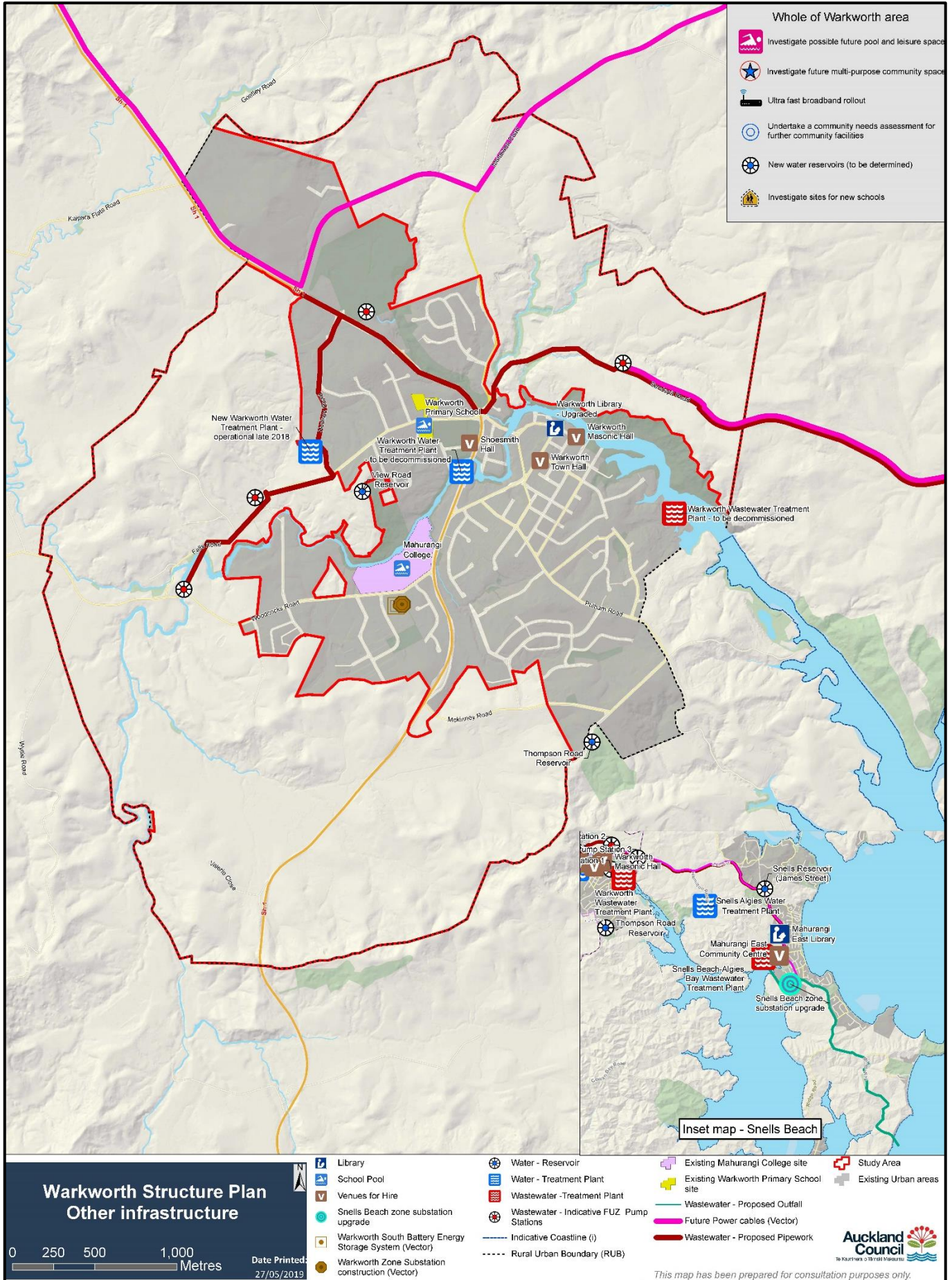


Figure 5: Warkworth Structure Plan – Other infrastructure plan

## 2 Introduction

### 2.1 What is the growth challenge?

Around 1.66 million people currently live in Auckland. Over the next 30 years this number is forecast to grow by another 720,000 people to reach 2.4 million.<sup>2</sup>

The rate and speed of Auckland's population growth puts pressure on our communities, our environment, our housing and our roads. It means increasing demand for space, infrastructure and services. The challenge for Auckland is where people will live and how they will move around.

Auckland will follow a quality compact urban form approach to growth to realise the environmental, social and economic benefits and opportunities this approach brings. That is, Auckland will largely grow 'up' through intensification of identified areas within the existing urban footprint while also growing 'out' through some earmarked greenfield development. The Warkworth Structure Plan fits into the growth picture as part of this greenfield development.

Auckland will look very different in 30 years. Its urban footprint will include significant redevelopment and intensification of parts of the existing urban area as well as newly established communities in the future urban areas. There will also be a small amount of additional growth in rural areas outside of the urban footprint.

Approximately 313,000 new dwellings and 263,000 additional jobs will be needed to accommodate the growing Auckland population over the next 30 years. The Auckland Plan 2050 anticipates that around 32 per cent of growth will occur in future urban areas<sup>3</sup>. This means that within the future urban areas approximately 99,000 dwellings are anticipated and around 1,400 hectares of business land is needed.

Warkworth has been identified as a Satellite Town in the Auckland Plan to act as a rural node. It will service the surrounding rural communities within a large rural catchment, is connected to urban Auckland through State Highway 1, and will support significant business and residential growth.

The Auckland Unitary Plan Operative in Part 2016 (**'Auckland Unitary Plan'**) has zoned around 1,000ha of currently rural land around Warkworth as Future Urban. This land will cater for greenfield growth around the town over the next 30 years. The Auckland Plan anticipates that the Future Urban zoned areas surrounding Warkworth town could accommodate approximately 7,500 additional dwellings, or an additional 20,000 people.

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<sup>2</sup> This is based on Auckland Council's Land Use Scenario i11 which is a numerical representation of the future distribution of Auckland's population and households. It has taken into account Statistics NZ's regional population projections released in March 2017, as well as data from the 2013 Census on average household sizes, and information from Auckland Council's Future Urban Land Supply Strategy.

<sup>3</sup> The balance of development is anticipated in rural areas (6%) and within the existing urban area (62%).



Significant future employment growth is anticipated alongside residential growth. Before any urban development of the Future Urban zone can occur, the Auckland Unitary Plan requires that the land must be structure planned.

## 2.2 What is a structure plan?

A structure plan guides future urban development of an area. It is a non-statutory high-level plan that shows how an area of land can be urbanised taking into account constraints and opportunities. It shows the arrangement of various land uses and infrastructure. It also shows how the area connects to adjacent urban areas and wider infrastructure networks.

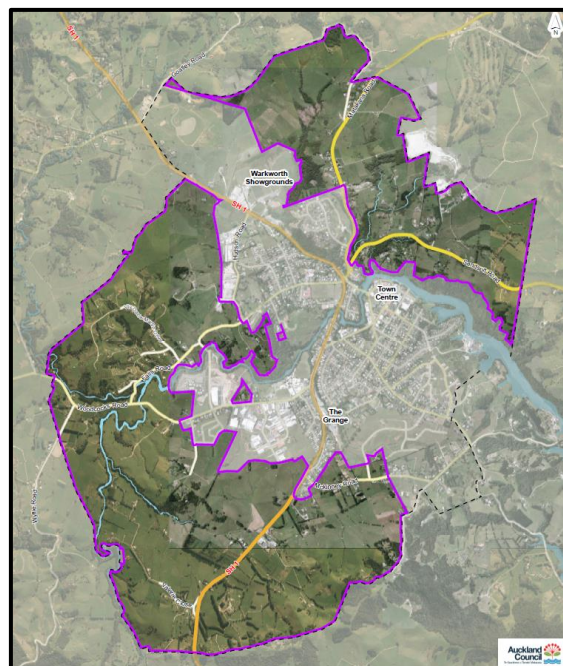
The Warkworth Structure Plan sets out a pattern of land use and a network of transport and other infrastructure for the future urban zoned land. This structure plan will be the foundation to inform future plan changes to rezone the land.

## 2.3 What is the structure plan study area?

The structure plan study area is the land zoned Future Urban under the Auckland Unitary Plan. It comprises around 1,000ha of land and is shown outlined in purple on Figure 6 below.

The outer edge of the study area follows the Rural Urban Boundary ('RUB'). The RUB is a planning tool which provides long term (30 year) certainty to landowners on either side of the boundary about the development potential of their land (i.e. clearly signalling to landowners, developers, and the wider community the areas where growth is expected to occur so people can make investment or lifestyle decisions, giving confidence to farmers outside the RUB to invest in rural production improvements to their land, and also assisting infrastructure providers to plan and invest in large bulk infrastructure projects.

The inner edge of the study area is made up of the existing 'live' urban zones in the Auckland Unitary Plan – a mixture of residential, business and open space zones.



**Figure 6:** Warkworth Structure Plan study area – the Future Urban zone (outlined in purple)



## 2.4 How does the plan relate to the existing urban area of Warkworth?

Warkworth is currently a small rural town of around 5,000 residents<sup>4</sup> located approximately 60km from central Auckland.

Much of Warkworth's existing urban footprint is concentrated around the town centre and the Mahurangi River. Residential uses surround the town centre and there are small pockets of light industrial land in the outskirts of the existing urban footprint. The large Future Urban zone surrounds the existing town of Warkworth to the north, west and south.

While the existing area of Warkworth has an urban built form, the Future Urban zone around the town is currently of a rural nature, being mostly a mix of lifestyle blocks and larger blocks for rural production activities.

While the structure plan project focusses specifically on the Future Urban zone, it has not been prepared in a vacuum. The land uses in the Warkworth Structure Plan have been prepared recognising and acknowledging the existing town of Warkworth. The infrastructure networks required to service the growth have been planned to accommodate not just the Future Urban zone, but also the existing town. The new residents and businesses that settle in the Future Urban zone will be a part of Warkworth. The Future Urban zone builds on Warkworth, expanding the town rather than creating a separate and distinct area. This is particularly the case with the Warkworth town centre which will remain the primary centre for the town even with the growth in the Future Urban zone.

The plan seeks to weave the new urban areas back into the fabric of the existing urban area. Special attention has been paid to the land uses at the interface of existing urban area and the Future Urban zone as outlined in section 3.3.10.9 of this document.

## 2.5 What is the structure plan process?

The structure planning process began in December 2017. In the first phase, a series of technical 'topic reports' were prepared to understand the existing environment within the study area and the opportunities and constraints for development. A summary of the opportunities and constraints identified by these technical reports is provided in **Appendix 4** (section 4.3). A list of all the supporting documents to the Warkworth Structure Plan is included in **Appendix 1**.

During April 2018, the initial phase of public consultation for the project was undertaken. The purpose of this was to:

- promote awareness of the Warkworth Structure Plan project;
- receive comments on the topic reports prepared by specialists within council; and

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<sup>4</sup> Within the Warkworth Census Area Unit, which does not include the future urban zoned land

- gain a local perspective on what is valued in Warkworth and potential opportunities and constraints associated with its growth.

A summary of this consultation is provided in **Appendix 4** (section 4.4.1).

The third phase of the structure plan was running community structure plan workshops in June 2018. The purpose of the workshops was to involve the public in 'hands-on' sessions to generate ideas on how the Warkworth Structure Plan could look in terms of a land use layout and supporting infrastructure. A summary of the community workshops is provided in **Appendix 4** (section 4.4.2).

The council then reported back to the community in August 2018 through two open days to summarise the outcomes of the workshops. This was the fourth phase of the project and a summary of this consultation is provided in **Appendix 4** (section 4.4.3).

The fifth phase of the project was developing the draft plan for consultation. The draft plan was shaped using inputs from the topic reports (opportunities and constraints), consultation feedback (April 2018), the community workshops ideas, and internal workshops. Further detail on how the draft plan was developed is provided in **Appendix 4** (section 4.5).

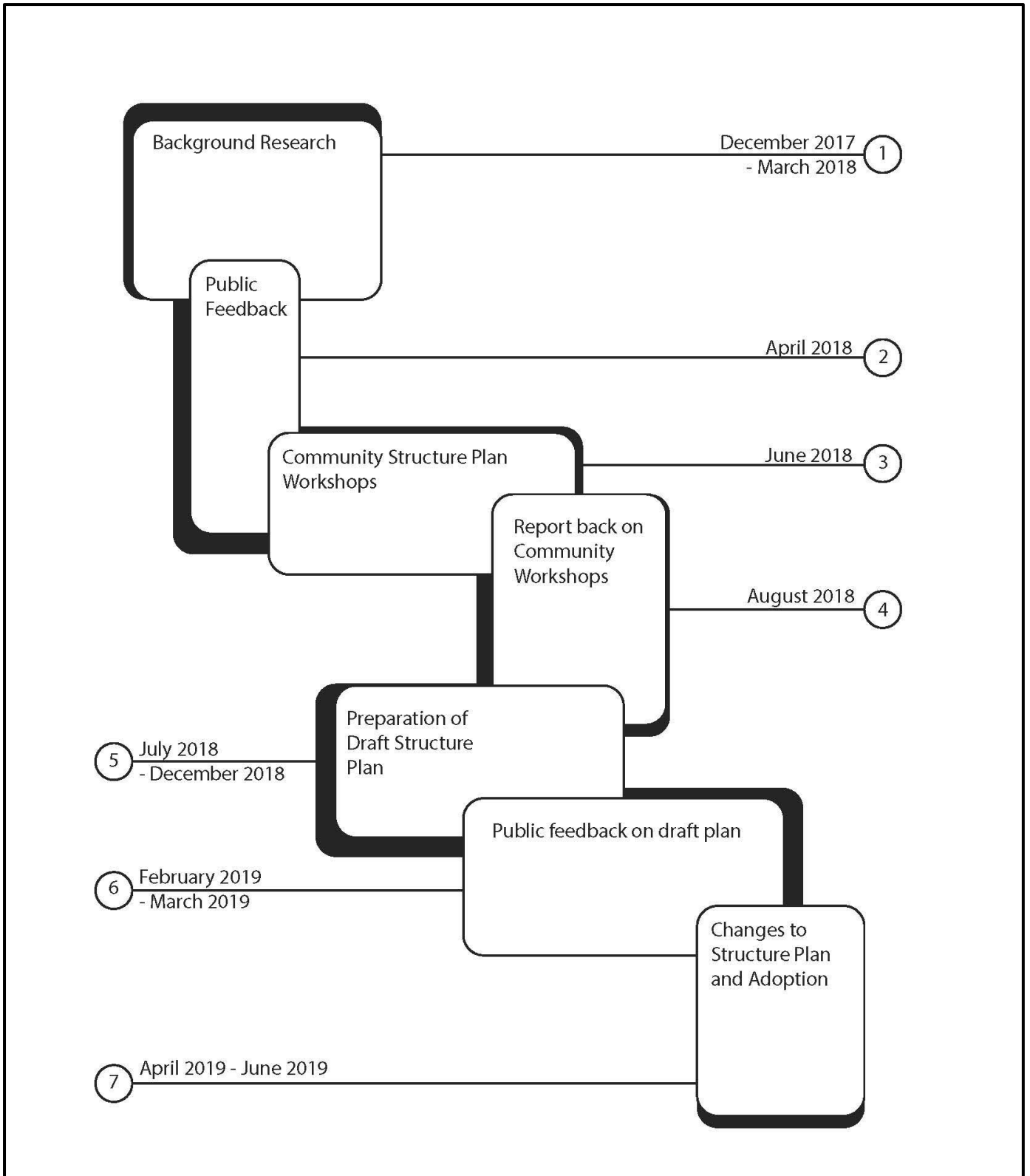
The sixth phase of the project was to get feedback from the community on the draft Warkworth Structure Plan. Further detail on the consultation on the draft plan is provided in **Appendix 4** (section 4.4.4).

The seventh and final phase of the Warkworth Structure Plan project was to review the feedback on the draft plan and make any required amendments to the structure plan. Further detail on this process is covered in **Appendix 4** (section 4.5).

The Warkworth Structure Plan was adopted by the council's Planning Committee on 4 June 2019.

The implementation of the structure plan starts with the preparation of a plan change to the Auckland Unitary Plan to change the current Future Urban zone to the appropriate urban zones. This will be done in stages as guided by the structure plan and the council's Future Urban Land Supply Strategy (2017). The Warkworth North area will be the subject of the first plan change. This work could commence when it is clear that the appropriate funding for infrastructure is confirmed.

The plan changes will be prepared in accordance with the first schedule of the Resource Management Act 1991 ('**RMA**'). During the plan change process more detailed matters will be determined and there will be opportunity for residents and other stakeholders to again have their say. Further information on the potential content of the Warkworth North plan change is provided in Section 3.5.3.1 of this document.



**Figure 7:** Warkworth Structure Plan process diagram

## 3 The Warkworth Structure Plan

### 3.1 Vision

A proposed vision for Warkworth has been developed for the Warkworth Structure Plan project as outlined below:

*Warkworth is a Satellite Town that retains its rural, natural, and cultural character. It is centred around the Mahurangi River and has easy walking and cycling access around the town. There are a variety of high-quality residential neighbourhoods. Warkworth is largely self-sufficient with plenty of employment, education, shopping and recreation opportunities. Transport and other infrastructure are sequenced to support Warkworth's planned growth.*

### 3.2 Planning principles

A number of planning principles have been developed for the Warkworth Structure Plan as outlined below. These planning principles are Warkworth specific and are intended to be considered in addition to (not replacing) existing objectives and policies guiding Warkworth's growth.

A number of information sources were used to develop the principles including public feedback on the structure plan project (April 2018), the Warkworth Community Aspirations document (2017), the Warkworth Spatial Plan consultation (2017), and feedback from iwi.

The planning principles have been used to help guide and assess the development of the Warkworth Structure Plan.

The Warkworth Structure Plan planning principles are grouped under seven headings:

- The Mahurangi River is Warkworth's taonga
- Character and identity
- A place to live and work
- Sustainability and natural heritage
- A well-connected town
- Quality built urban environment
- Infrastructure



The planning principles behind these headings are outlined below.

### **The Mahurangi River is Warkworth's taonga**

- Protect the Mahurangi River from the effects of urbanisation as a matter of paramount importance in the development of the Future Urban zone
- Use the development of the Future Urban zone to improve the health and quality of the Mahurangi River wherever possible
- Treat all the tributaries in the Future Urban zone as being vital to the health of the Mahurangi River

### **Character and identity**

- Celebrate and protect Warkworth's heritage, both Maori and European, and its relationship with mana whenua
- Retain the current town centre as the focal point and 'beating heart' of Warkworth
- Protect the views from the current town centre to the bush clad northern escarpment of the Mahurangi River and the rural views out from the Future Urban zone that contribute to Warkworth's rural character
- Apply lower density residential zones to areas valued for their landscape, character, or heritage significance
- Use the Future Urban zone efficiently to protect against the need for further urban expansion into Warkworth's valued rural hinterland

### **A place to live and work**

- Provide a range of housing options in Warkworth so that it is a place for people to live at all stages of life
- Provide new local employment areas (e.g. small centres, industrial areas) so people can work locally in Warkworth

### **Sustainability and natural heritage**

- Plan to enable development of the Future Urban zone to be sustainable, including having a compact urban form, providing local employment options, enabling extensive active and public transport routes, and minimising discharges to air and water bodies
- Design the Future Urban zone to be able to adapt to the effects of climate change
- Protect and enhance existing bush/natural areas and create ecological corridors linking the Future Urban zone to other ecological areas

### **A well-connected town**

- Use the development of Warkworth's growth areas to help address Warkworth's existing road congestion through integrated land use and transport planning and new infrastructure

- Prioritise convenient, segregated, and safe walking and cycling routes through the Future Urban zone connecting residential areas with key locations (e.g. schools, parks, centres), and the existing town, and to regional walking/cycling routes
- Provide convenient, high quality public transport routes through the Future Urban zone (connecting to the rest of Warkworth, the surrounding rural settlements, and Auckland)

#### **Quality built urban environment**

- Design the Future Urban zone to enable high-quality and integrated urban development that reinforces the town's identity
- Locate higher density residential areas around appropriate amenities
- Provide well located and accessible areas of open space linked by a green network of walking and cycling trails along the streams
- Outside open space areas, use urban trees (e.g. street trees) and vegetation to enhance the amenity of the built environment

#### **Infrastructure**

- Plan for infrastructure (transport, water, etc) to be sequenced to enable new houses and businesses are built in the Future Urban zone
- Provide for social and cultural infrastructure (i.e. libraries, halls, schools, community meeting places) to support the needs of the community as it grows

An assessment of how the planning principles have been given effect through the Warkworth Structure Plan is outlined in section 3.4 of this document.

### **3.3 Overview of plan**

The Warkworth Structure Plan land use plan is shown in Figure 1. The plan proposes a mix of new urban land uses within the Future Urban zone as well as supporting transport infrastructure. Further maps showing more detail on the transport and other infrastructure elements are shown in Figures 2, 3, 4 and 5.

The key high-level features of the Warkworth Structure Plan include the following:

- Important areas for ecology, stormwater, heritage, or cultural values are set aside from any built urban development. This will help to improve water quality for the Mahurangi River, recover ecological linkages, create visual amenity, and enable possible public access for a network of walking/cycling trails.
- New residential areas enable around 7,500 dwellings<sup>5</sup>. The new residential areas do not simply extend Warkworth's predominantly Single House zone within the existing developed area of the town. Rather, new areas for more intensive residential (e.g.

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<sup>5</sup> Refer to the yield calculations in **Appendix 3**

terraced houses, low-rise apartments) are located adjacent to the new small centres and public transport routes. The most significant area of residential density is located in the south. This is due to a combination of features in the south including flat land, the adjacent proposed Local Centre, public transport interchange, an indicative sports park, a possible new school site, a new arterial route, and a potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only). Lower density residential areas are located mostly towards the fringes and where local features or conditions justify it.

- The existing Warkworth town centre by the Mahurangi River will remain as the focal point for retail, office, community and civic space for the town. In light of the existing (and planned) supply of retail areas already in Warkworth, the Future Urban zoned areas around Warkworth require only small centres for the local convenience needs of surrounding residential areas.
- Substantial areas for future employment (industry and small areas for offices, retail etc) are identified. This is to enable Warkworth to have the potential to be self-sufficient for local jobs and reduce the need for residents to commute to Auckland for work.
- Prioritising active transport in Warkworth through a separated walking and cycling network that utilises the arterial road network, collector road network, riparian margins, and other off-road trails to provide connectivity throughout Warkworth. The network provides connectivity to centres, employment areas, schools, parks, and public transport stations. Through this network there is the opportunity to significantly increase walking and cycling mode share in Warkworth with the connection distances between most destinations generally less than 5km (in combination with improving e-bike and e-scooter technologies giving the opportunity to travel greater distances by personal transport modes).
- A roading network including Ara Tūhono – Pūhoi to Warkworth, Matakana Link Road (Te Honohono ki Tai), Western Link Road, Sandspit Link Road, Wider Western Link Road, and a potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only). Indicative collector roads are also shown but there is flexibility to potentially change these routes through further analysis. Due to topographical and watercourse constraints, there is limited opportunity to establish a grid network ideally sought for greenfields development.
- A public transport network built upon the recently introduced 'New Network for Warkworth'. Initially, a main station/bus interchange is proposed in the town centre supplemented by an interim northern station adjacent to SH1 north of Warkworth (with a Park and Ride). In the long term, the preference is to retain a Town Centre station but also have a larger bus station/interchange in Warkworth South in the southern Local Centre and a Park and Ride near the Ara Tūhono – Pūhoi to

Warkworth southern interchange (south facing ramps only). With a proposed southern station, it is not considered necessary to retain the interim northern station.

- Morrison’s Heritage Orchard, located in the southern part of the study area, is retained as a feature of the town. Specific future provisions could be developed around enabling the orcharding to continue with additional complementary activities, managing potential reverse sensitivity issues, and securing public access through walking and cycling paths through the land (linking into the walking/cycling network).
- Two large suburb parks are indicatively identified in the north east and south east to provide for informal recreation needs, in addition to a network of smaller neighbourhood parks. An indicative large sports park is identified in Warkworth south to cater for organised sports (in addition to the existing Warkworth Showgrounds). Future esplanade reserves are shown to indicate the potential future linkages between the open space areas.
- Other infrastructure including wastewater, water, power supply, telephone, broadband, community facilities, schools, and healthcare are being actively investigated or constructed by the infrastructure providers to service the planned growth of Warkworth.
- Warkworth’s local and rural character are protected through the application of lower density residential areas around the edge of the Warkworth ‘basin’ and through anticipated specific provisions to protect the integrity of the bush-clad northern slopes of the Mahurangi River (the town centre backdrop). Warkworth’s size, natural environment and views, rural uses in the surrounding area, separation from Auckland’s urban area, and local and rural activities within the town are able to help to retain the local and rural character of the town.
- A staging plan that sequences the development of Warkworth’s Future Urban zone over the next 20 years. This ensures development occurs when there is bulk infrastructure capacity to cater for the growth. It is important to make it clear that the development of the Future Urban zone around Warkworth will occur over a long period of time (i.e. all the development will not occur in the next 5-10 years).

These key features and others are described in more detail in the following sections.

### 3.3.1 Green Network

#### 3.3.1.1 Protection areas

The Warkworth Structure Plan is built on the foundation of setting aside areas that are important for ecology, stormwater, heritage, and cultural values from any built urban development. These areas have been excluded from the development yield (they are assumed to have no dwellings or businesses on them). A map of the Green Network is shown in Figure 2.



Auckland’s natural environment is our primary infrastructure. The ability for it to function well and be of high quality is important in supporting biodiversity, improving water quality, reducing air pollution and protecting against severe weather and flooding. A healthy natural environment plays an important role in creating quality built environments and in creating communities that are resilient to anticipated impacts of climate change. The notion of protecting Warkworth’s environment (particularly the Mahurangi River) as the town grows was a clear theme from public consultation on the structure plan project in April 2018.

The green areas allow the creation of continuous ‘green corridors’ across the growth area which can be restored with riparian planting. This will create ecological corridors that connect small, fragmented patches of native vegetation within Warkworth and its immediate surrounds. At the larger scale, restoring these corridors provides a key linkage between the Dome Valley Forest in the north, the Mahurangi River, and out into the Mahurangi Harbour and the pest-free islands of the Hauraki Gulf.

The Green Network will help improve the health and quality of the Mahurangi river, which is consistent with the Warkworth Structure Plan planning principles and the messages from the public. The Green Network also creates visual amenity and enables the possibility of providing public access links across the network.

The benefits of healthy rivers and streams and green infrastructure in urban environments include increased resilience to climate change impacts, reduced impacts of stormwater runoff from urban areas (e.g., sediment and contaminants) on streams, and increased quality of the living environment.

Feedback from mana whenua has highlighted that the Green Network areas also have cultural value.

The ‘protection areas’ include the following elements:

- Flood plains
- Streams<sup>6</sup> with a 10m buffer
- Wetlands
- Significant Ecological Areas
- Covenanted bush
- Historic heritage extent of place area

There is around 218ha of land identified as one or another of these ‘protection areas’. As can be seen from the table below, there is a large amount of overlap between these areas (i.e. a flood plain and a stream buffer often cover the same land).

‘Protection area’ element	Percentage of total ‘protection area’ (note many areas overlap)
<b>Flood plains</b>	51%
<b>Streams with a 10m buffer</b>	48%

<sup>6</sup> Those classified as permanent/intermittent/transitional in ‘Watercourse Assessment Report - Warkworth Future Urban Zone’, Prepared for Auckland Council by Morphum Environmental Ltd, June 2018.

<b>Wetlands</b>	3%
<b>Significant Ecological Areas</b>	18%
<b>Covenanted bush</b>	25%
<b>Historic heritage extent of place area</b>	<1%

**Figure 8:** Table of 'protection area' elements

While the term 'protection areas' may convey a certain message, it is important to note the following matters:

- There are differing levels of protection for the different elements. Some have high levels of protection (e.g. covenanted bush areas) while others rely more on the objectives and policies of the Auckland Unitary Plan for protection. The plan change to implement the first stage of the structure plan will need to include specific provisions (not currently in the Auckland Unitary Plan) to ensure that all these areas are set aside from development.
- There are currently limited mechanisms to require the active restoration of these areas (i.e. riparian planting etc). Again, the plan change to implement the first stage of the structure plan will need to include specific provisions to require active restoration measures in these areas.
- These areas are not automatically public open space. Some of this land may remain in private ownership as it is developed. This is not considered to be an issue in terms of ecological and stormwater outcomes, but it would impact on the potential for public access tracks/walkways.

Protection and enhancement of these areas through a future plan change is essential as the protection of these areas is the foundation on which the Warkworth Structure Plan is built.

### **3.3.1.2 Existing open space and future open space**

In addition to the 'protection areas', there are some small areas of existing open space within the study area. These are largely sections of esplanade reserve along the Mahurangi River or along tributaries of the river and they largely overlap with the 'protection areas' outlined above.

Recent stream surveys have also identified indicative locations where there is likelihood for future esplanade reserves to be vested in council under section 230 of the RMA<sup>7</sup>. Under the RMA, a 20m wide esplanade reserve can be vested as public land along the banks of any river on subdivision.

The purpose of esplanade reserves under the RMA is to contribute to the protection of conservation values including maintaining or enhancing water quality, aquatic habitats, protecting natural values, and to enable public access or recreational use.

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<sup>7</sup> 'Warkworth Stream Classification and Esplanade Assessment', Prepared for Auckland Council by Morphum Environmental Ltd, April 2018.

The esplanade reserve system in the structure plan offers the potential for walking and cycling networks to be developed to encourage people out of cars (reducing carbon emissions and benefitting public health).

Again, the future esplanade areas identified overlap considerably with the ‘protection areas’ outlined above.

During the development of the Warkworth Structure Plan, an indicative network of public parks has been developed (see Section 3.3.3). These indicative park locations make up the rest of the Green Network.

### 3.3.2 Residential areas

The Warkworth Structure Plan provides for 7,500 dwellings<sup>8</sup> across a range of housing types as it utilises the full palette of Auckland Unitary Plan residential zones – from expansive sections to smaller apartments. This caters to the full lifecycle and is consistent with the structure plan Planning Principle of providing “a range of housing options in Warkworth so that it is a place for people to live at all stages of life.”

In locating the different residential areas of Warkworth, the general approach has been to provide for higher residential intensity in areas closest to centres, the public transport network, large social facilities, education facilities, and open space. Medium intensity areas have been provided within a moderate walking distance to these amenities.

Lower intensity residential areas are located in places that are not close to centres and public transport, are subject to high environmental constraints or natural and physical constraints, or where there is an existing suburban area with an existing neighbourhood character (recently consented and/or built developments). In the steeper areas around Warkworth, a lower density residential zone is used to minimise the scale of earthworks required (and therefore associated sediment generation).

In light of these principles, the Warkworth Structure Plan shows the residential zonings as explained below.

**NOTE:** The structure plan shows the zone boundaries in a general way. The structure plan zonings are indicative only and will be refined through a later (more detailed) plan change process.

#### 3.3.2.1 Large Lot zone

The Large Lot zone in the Auckland Unitary Plan provides for large lot residential development on the periphery of urban areas. The zone is generally characterised by one to two storey high buildings on spacious lots with large open space areas between dwellings. The zone can be used where there are landscape qualities limiting the suitability of more intensive development. The minimum site size in the zone is 4,000m<sup>2</sup>.

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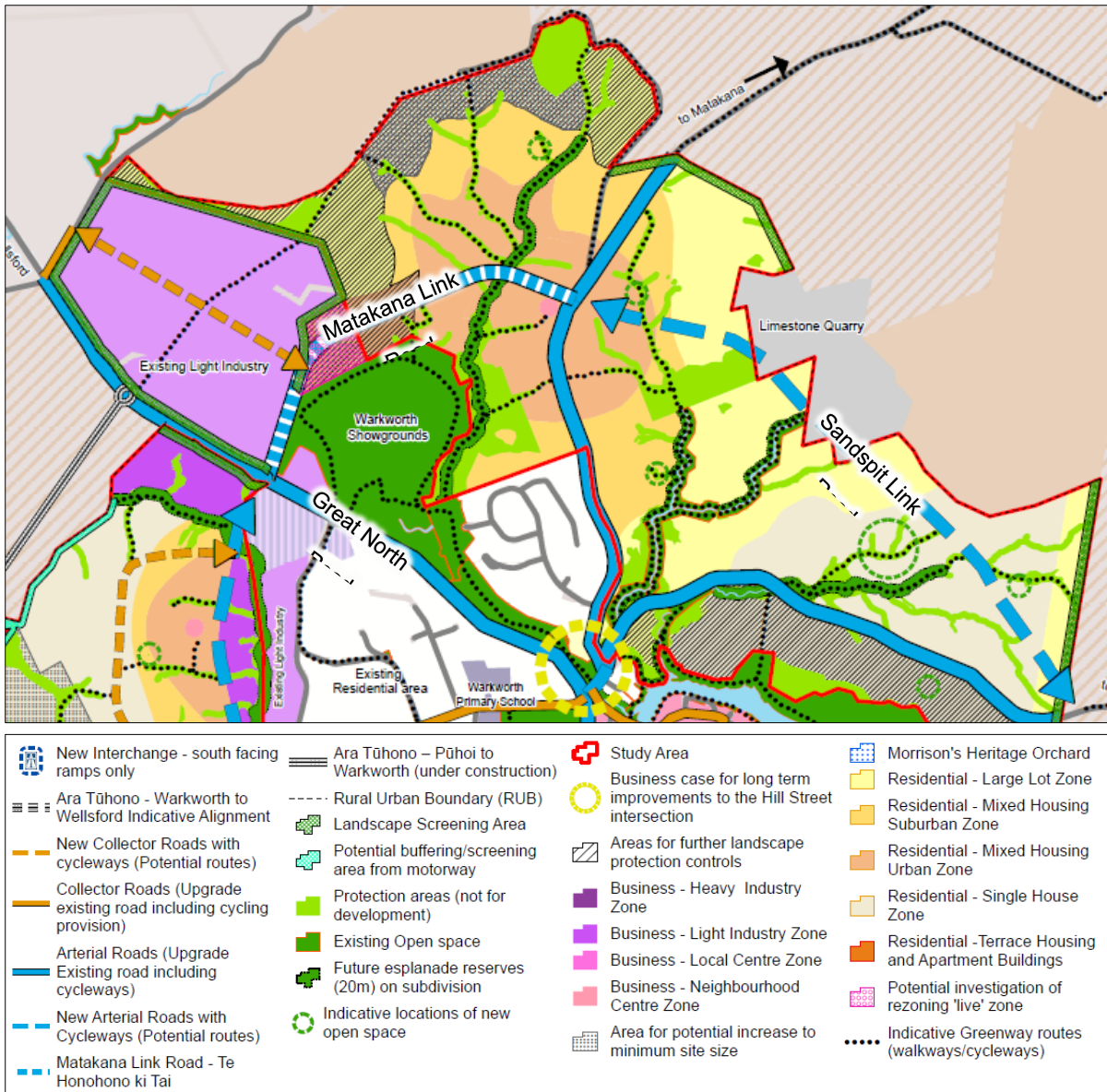
<sup>8</sup> Refer to the yield calculations in **Appendix 3**

The Large Lot zone is used across three separate areas in the study area; the northern and eastern edge (Figure 9), the southern edge (Figure 10), and the knoll in the south (Figure 11).

The Large Lot zoning at the northern edge of Warkworth (west of Matakana Road) rises to a ridgeline on which the RUB is located. To retain the rural and natural character of Warkworth it is important to retain the more natural and spacious elements around the edge of the basin that Warkworth sits within and to retain views from the urban area to areas of landscape value on the edge. This Large Lot zone area is anticipated to contain large sections for residential development with potential additional controls around building design (size, height, colour etc) and a requirement to revegetate a significant amount of the land within each section. Some of this northern edge is zoned Single House, but with further landscape protection controls (see section 3.3.2.2) to ensure a natural/landscaped boundary is retained.

The Large Lot zoning at the northern edge of Warkworth (east of Matakana Road) also adjoins the RUB. However, in this case the RUB does not rise to a ridge but rather largely abuts an operational Limestone Quarry. To reduce any future reverse sensitivity impacts on the quarry, the Large Lot zone is used around this edge, closely tied to the Quarry Buffer Area overlay (which may also need to be extended to run fully around the quarry). The Large Lot zone continues further south along the stream network to retain the natural landform around the steep stream areas (avoiding major earthworks around the stream system and the incised valleys).

There is one other area of Large Lot zoning in the north along the north eastern boundary where the urban area immediately adjoins a large working farm (currently a deer farm). To avoid future reverse sensitivity impacts on the farm a 20-30m landscape screening area is proposed in tandem with the Large Lot zone to separate the urban uses from the productive rural uses and limit the number of residents neighbouring the farmland.



**Figure 9: Large Lot zones in the north of Warkworth**

The Large Lot zoning at the southern edge of Warkworth rises to a prominent ridgeline on which the RUB is located. The valley to the south of the RUB is an open pastoral landscape in which the satellite station is located. To retain the rural and natural character of Warkworth it is important to retain the more natural and spacious elements around the edge of the basin within which Warkworth sits. This Large Lot zone area is anticipated to contain large sections for residential development with potential additional controls around building design (size, height, colour etc) and a requirement to revegetate a significant amount of the land within each section. It is important that any future development remains below the ridge crest when viewed from the south. It is also noted that the Spark New Zealand designation for a land use and building restriction surrounding the Satellite earth station (7501) overlaps some small areas north of the ridgeline (within the study area). The use of larger section sizes in this area will enable the flexibility to avoid buildings being located within the restricted area.



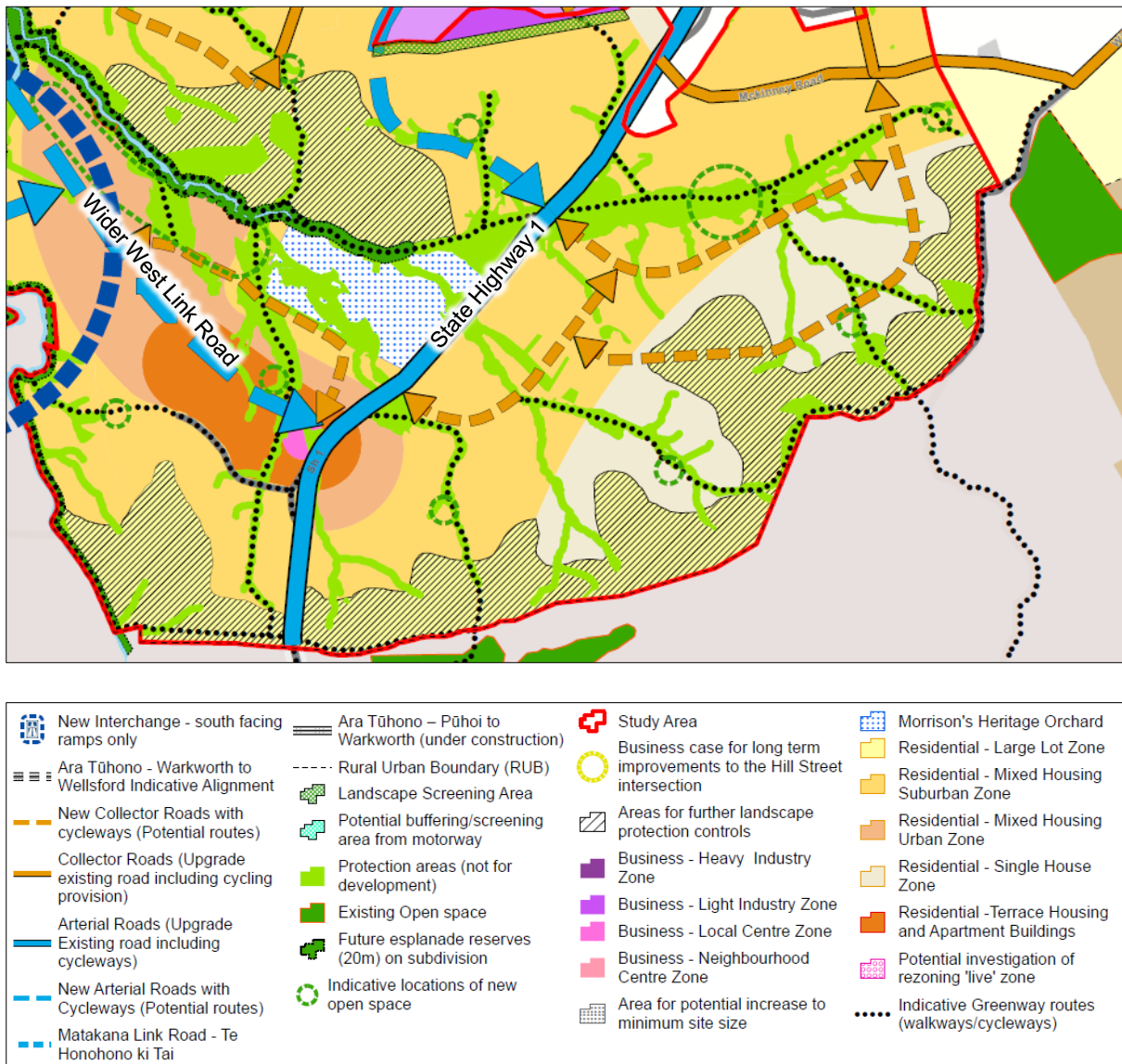


Figure 10: Large Lot zone around Warkworth's southern edge

The use of the Large Lot zone around the edge of Warkworth is consistent with the structure plan Planning Principle to “Apply lower density residential zones to areas valued for their landscape, character, or heritage significance.”

The Large Lot zone also covers the large knoll, partly covered in native bush, within the southern half of the study area. The knoll is a local topographic high point and is a visual barrier separating the flatter southern area from the existing town. Again, this Large Lot zone area is anticipated to contain large sections for residential development with potential additional controls around building design (size, height, colour etc) and a requirement to revegetate a significant amount of the land within each section.

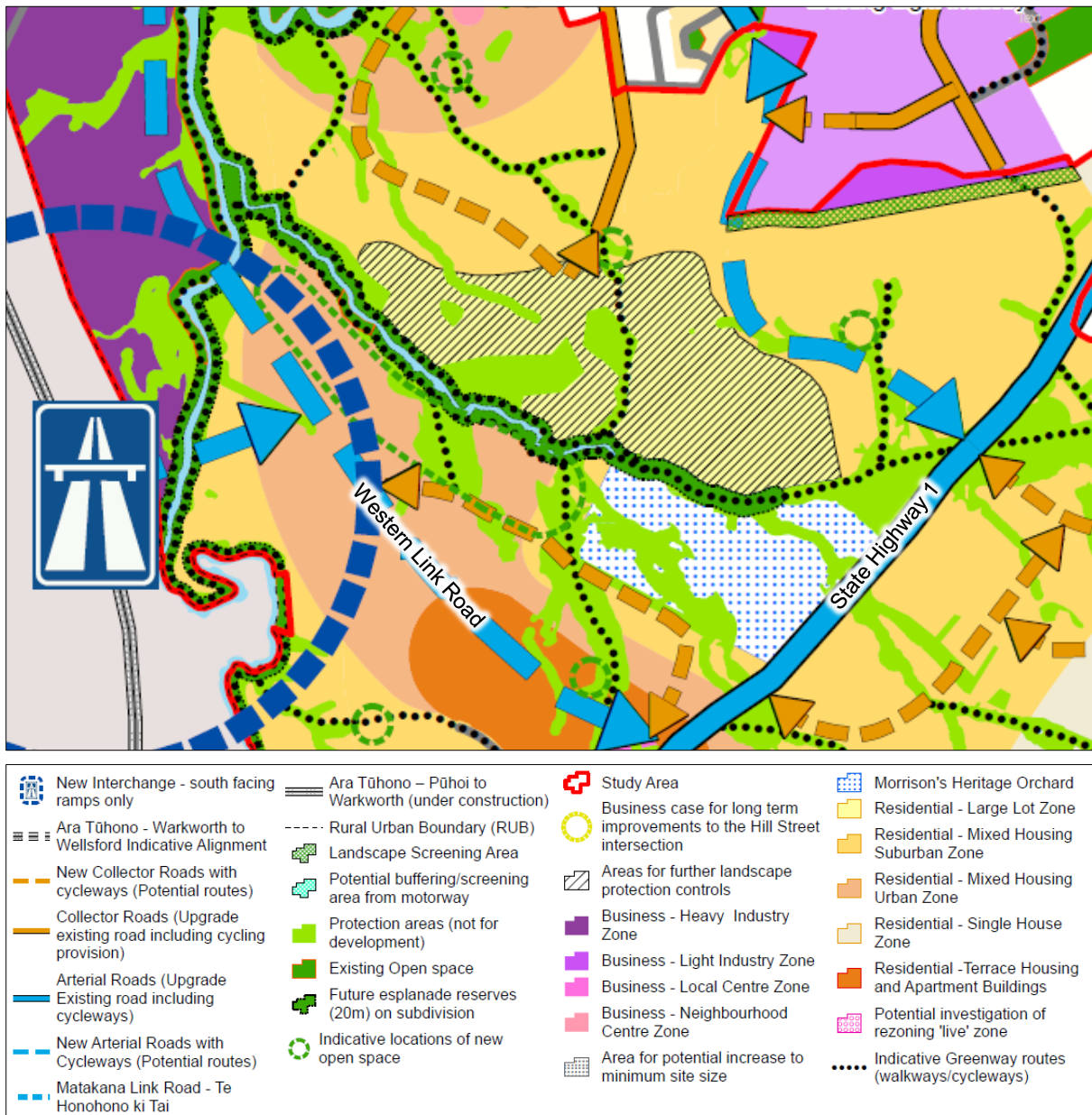


Figure 11: Large Lot zone on the southern knoll

Overall, the Large Lot zone comprises 192ha of the study area and the basic yield calculations show the zone will enable around 200 dwellings. However, due to the lower infrastructure needs of the zone (i.e. less roading) and the flexibility of the Large Lot zone to accommodate protected bush and streams within the sites, the number of lots that may be created within the zone could more likely be around 200-350.

### 3.3.2.2 Single House zone

The Single House zone in the Auckland Unitary Plan is applied in greenfield areas to provide housing choice for future residents. The zone is generally characterised by one to two storey high buildings consistent with a suburban built character. The minimum average site size in the zone is 600m<sup>2</sup>. The Warkworth Structure Plan applies the Single House zone in areas



that are not close to public transport routes or centres and in areas with natural and physical constraints.

The Single House zone is used across five main areas in the study area; south east Warkworth (Figure 12), Viv Davie-Martin Drive area including land to the north east of Viv Davie-Martin Drive (Figure 13), north east Warkworth (Figure 14), the northern edge of Warkworth (Figure 15), and on already consented developments (Figure 16).

In south east Warkworth, the Single House zone is used as it is near the long-term eastern edge of Warkworth and some distance from a centre and planned public transport routes.

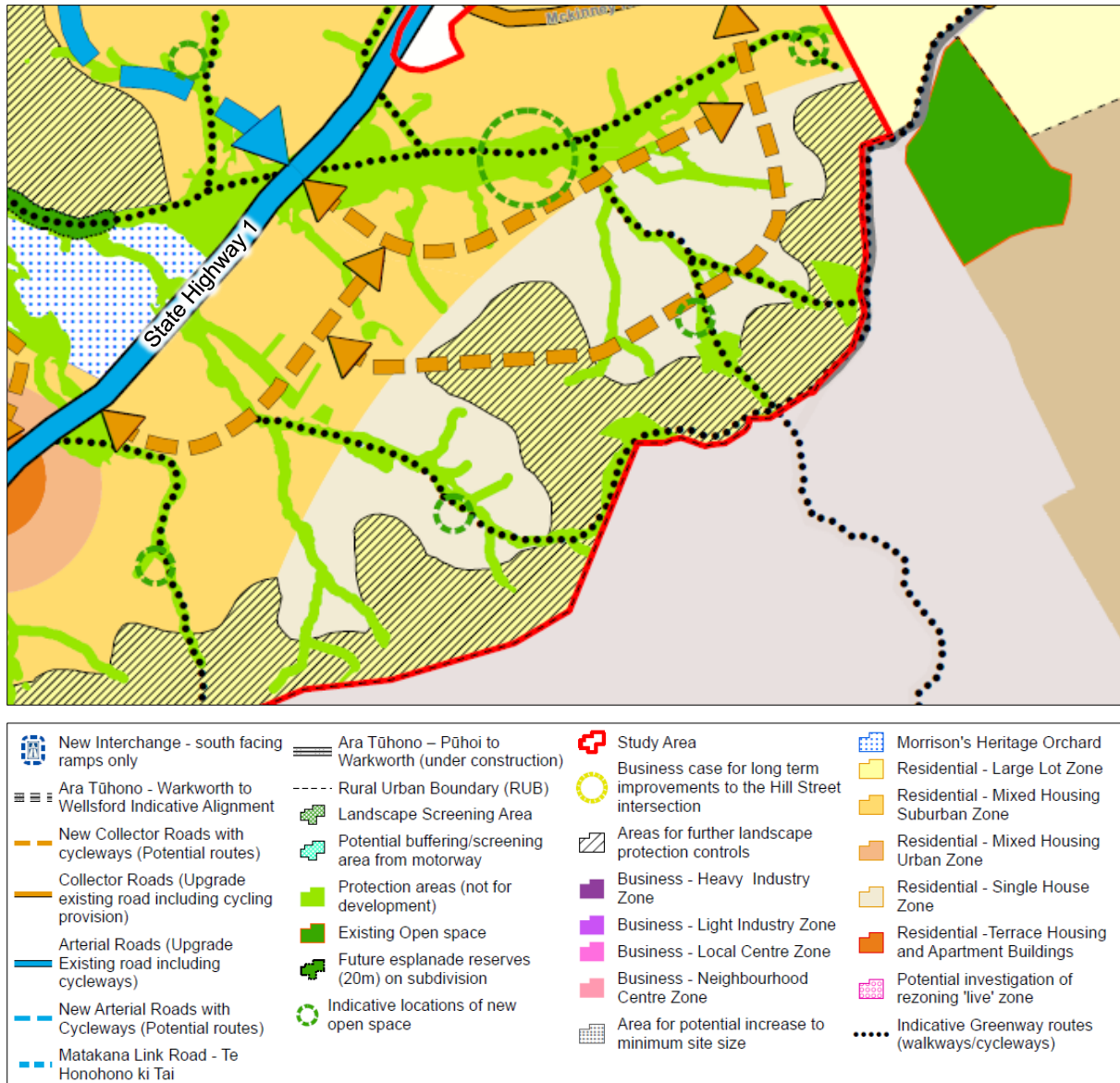


Figure 12: Single House zone in the south east of Warkworth

The Viv Davie-Martin Drive area is currently a rural-residential 'lifestyle' area surrounded by two or three larger blocks. The land is at the long-term western edge of Warkworth. The land

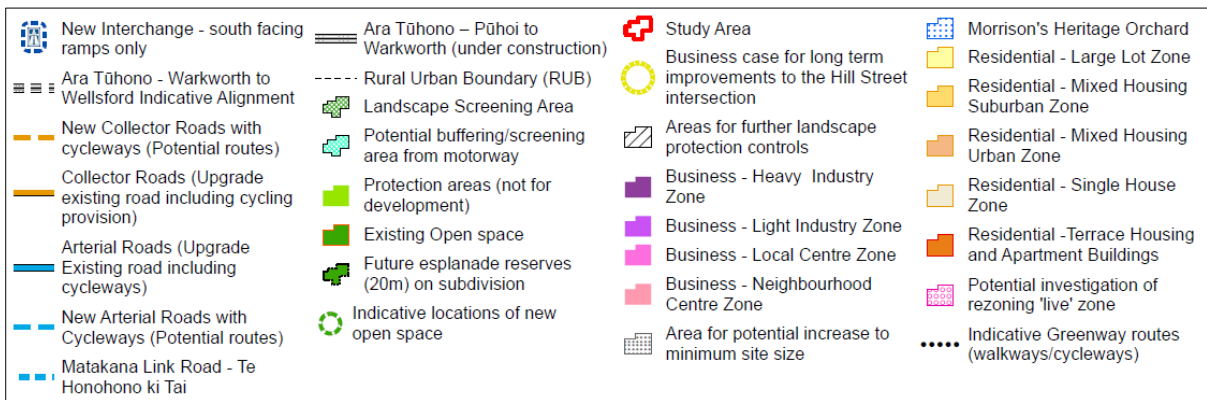
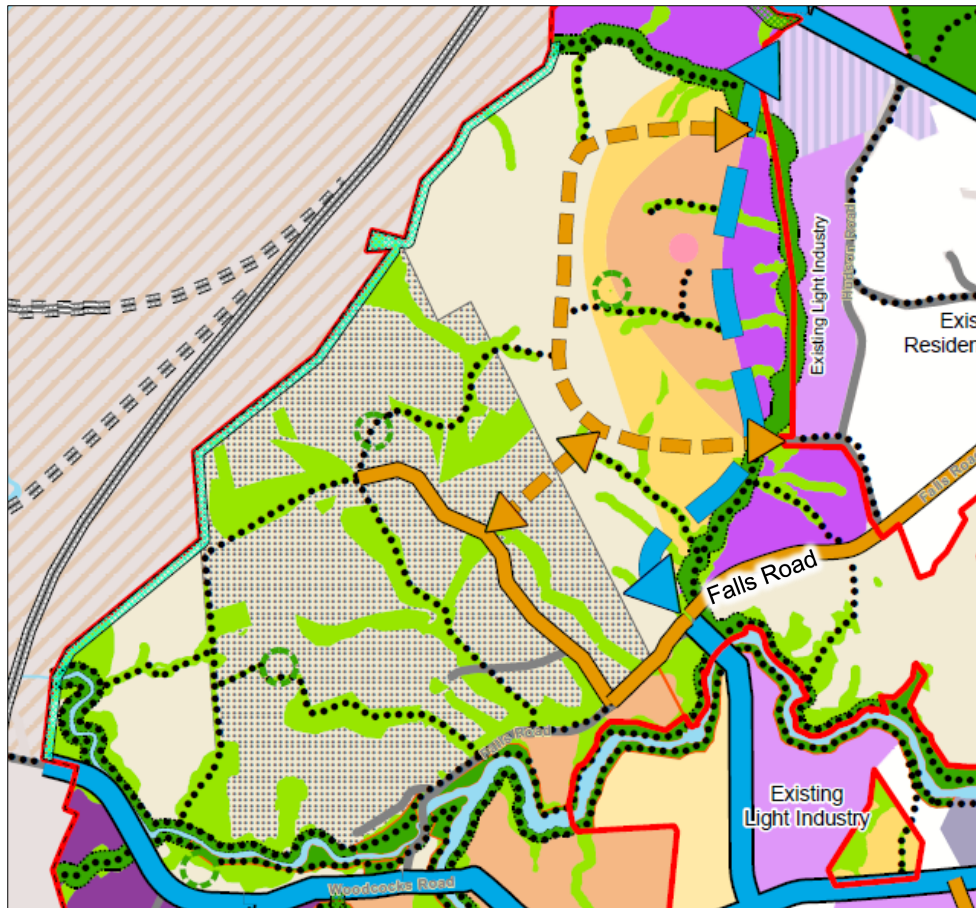
is constrained for higher density development by slopes, geotechnical issues, poor connectivity, highly fragmented land parcels, and protected bush areas.

To reflect the compromised nature of this area to achieve standard urban development and also acknowledge the current spacious residential amenity of the area, the structure plan adds an “Area for potential increase to minimum site size” overlay to the Viv Davie-Martin Drive area. This could increase the minimum lot size from the standard 600m<sup>2</sup> to somewhere between 1,500m<sup>2</sup> – 2,500m<sup>2</sup> (exact size to be determined at the plan change stage).

The Single House land to the north east of Viv Davie-Martin Drive is not suitable for higher density residential development due to its location on the long-term north western edge of Warkworth, its slopes, and geotechnical issues. A potential buffer/screening area is shown along the Ara Tūhono – Pūhoi to Warkworth motorway edge where set-backs, planting, or controls may be required to prevent any reverse sensitivity issues in this area<sup>9</sup>. This will depend on the final constructed motorway alignment and the subdivision layout. If the structure plan study area land is outside both the ‘buffer’ or ‘effects’ area of the motorway then the buffering/screening area may not be required on the Single House zone edge in some places. This is a matter that can be further reviewed at the plan change stage and the development consenting stage.

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<sup>9</sup> Refer to New Zealand Transport Agency, Guide to the management of effects on noise sensitive land use near to the state highway network, 2015.



**Figure 13:** Single House zone around Viv Davie-Martin Drive area of Warkworth

In the north east, the Single House zone is applied as this area is at the north eastern edge of Warkworth and some distance from any centre. Due to the high-level of importance of views from the town centre to the bush clad escarpment across the river, a further control on this land will be likely (e.g. precinct) to prevent new buildings from being visible from the town centre (and thereby undermining the natural, bush covered outlook).

It is noted that a future suburb park is indicated as being located in the north east of Warkworth. There is an opportunity for additional density to be located around this park (e.g. sleeving the park with Mixed Housing Suburban/Urban). However, as the location of the park is not yet known, this potential additional density is not shown on the structure plan map.

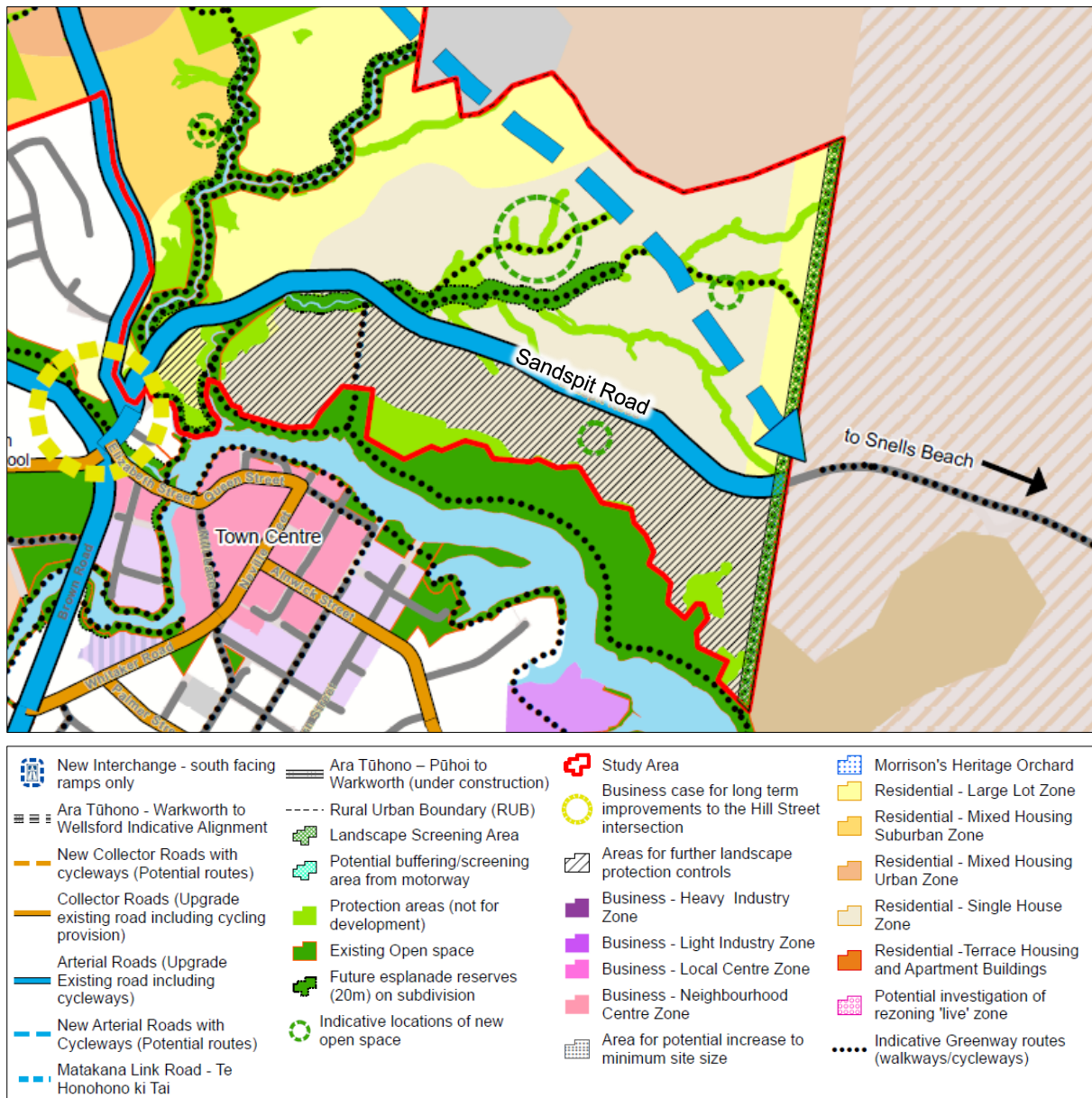
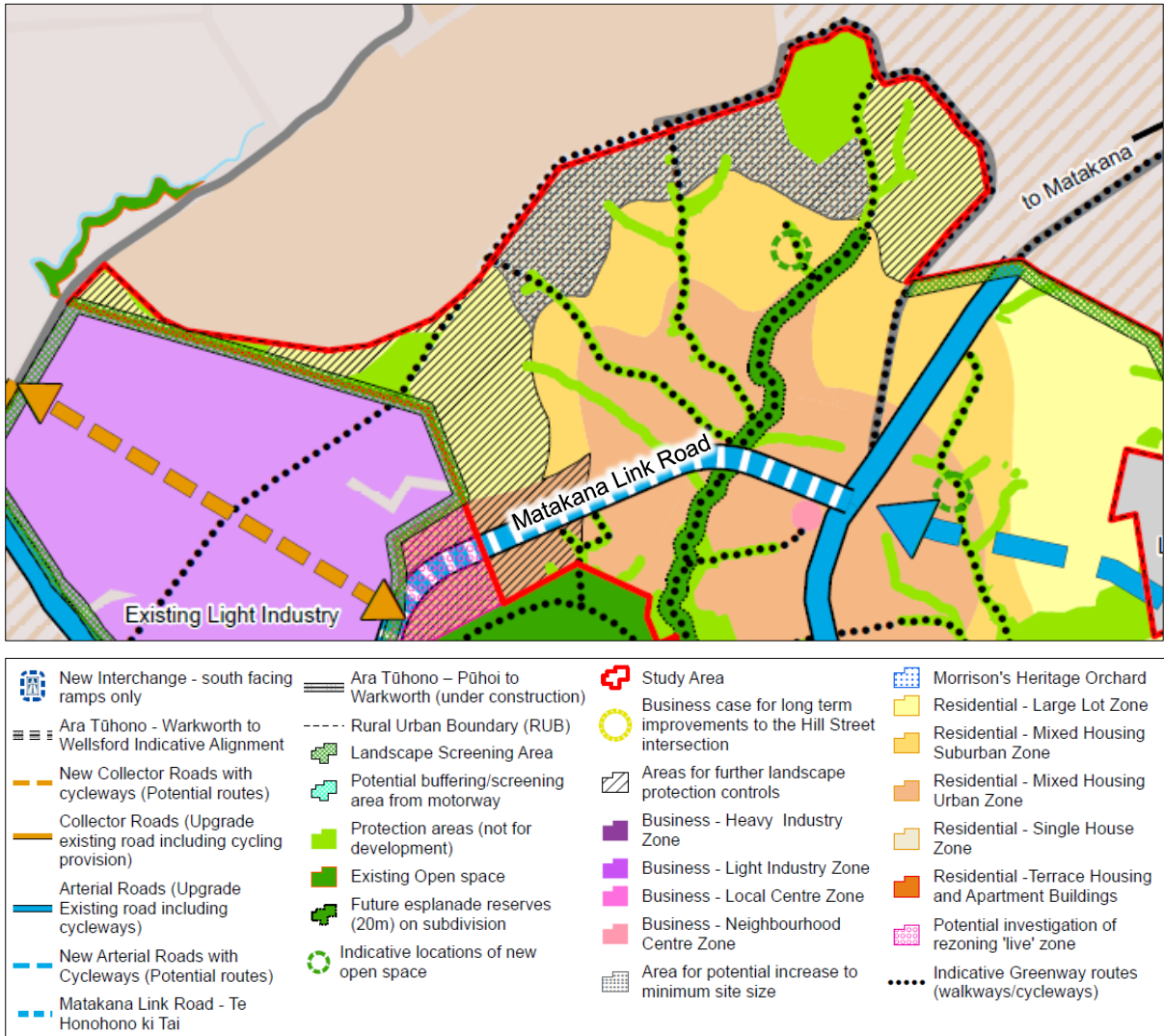


Figure 14: Single House zone in the north east of Warkworth

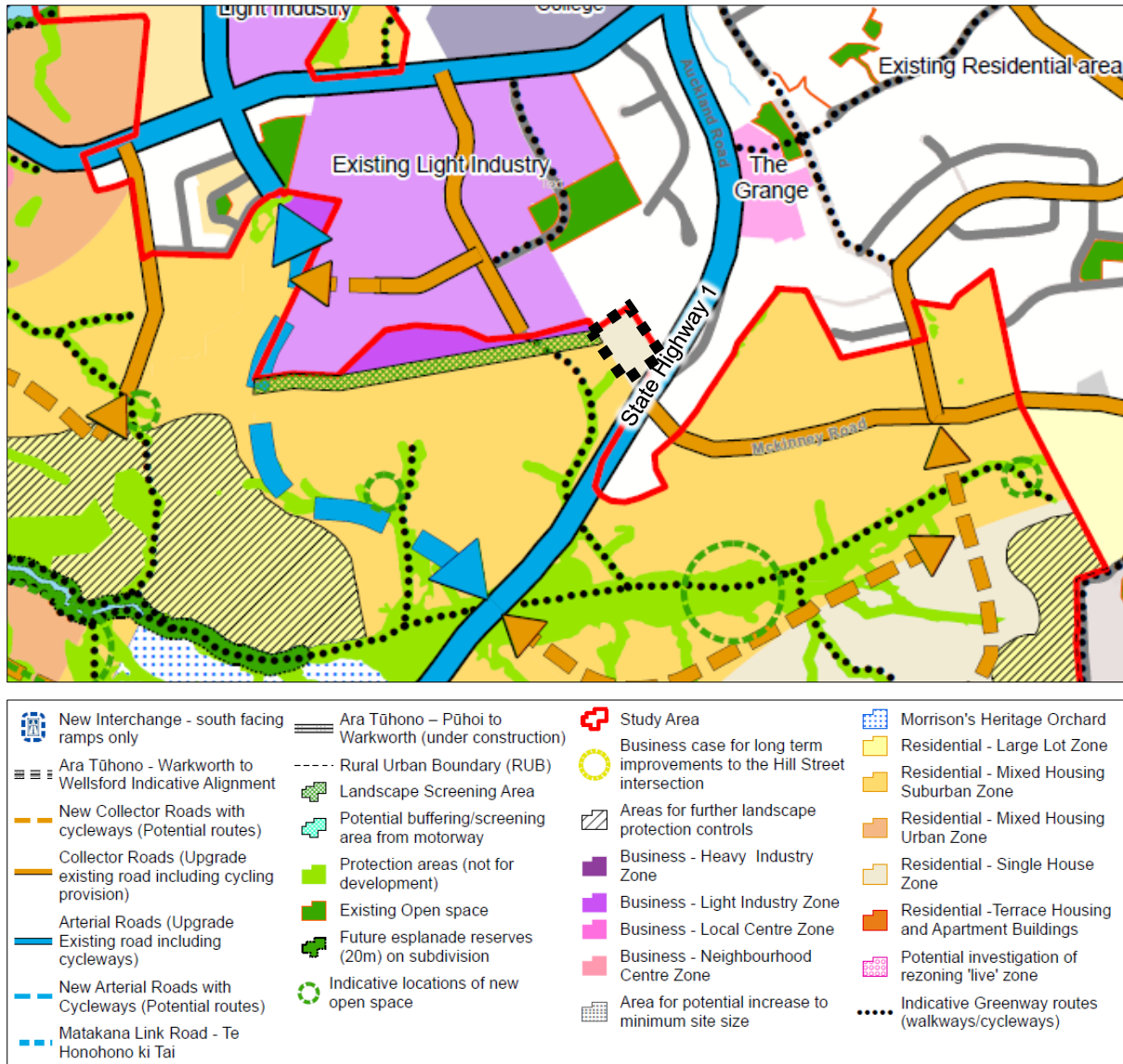
The northern edge of Warkworth rises to a ridgeline on which the RUB is located. To retain the rural and natural character of Warkworth it is important to retain the more natural and spacious elements around the edge of the basin that Warkworth sits within and to retain views from within the urban area to areas of landscape value on the edge. This Single House zone area is anticipated to contain larger sections for residential development (i.e. 1,000m<sup>2</sup>) with potential additional controls around building design (size, height, colour etc) and a requirement to revegetate a significant amount of the land along the urban edge. Note that some of this northern edge is also zoned Large Lot, but with further landscape protection controls (see section 3.3.2.1) to ensure a natural/landscaped boundary is retained.





**Figure 15:** Single House zone in the northern edge of Warkworth

There is one area around Campbell Drive where residential subdivision consents have been granted within the study area. The structure plan applies the Single House zone to this site to be consistent with the granted development.



**Figure 16:** Single House zone on an already consented area on Campbell Drive (outlined in the square black dotted line)

Overall, the Single House zone comprises 296ha of the study area and will enable around 1,700 dwellings.

### 3.3.2.3 Mixed Housing Suburban zone

The Mixed Housing Suburban zone in the Auckland Unitary Plan enables intensive residential development while retaining a suburban built character. Development within the zone will generally be two storey detached and attached housing in a variety of types and sizes to provide housing choice. The Mixed Housing Suburban zone is applied in the Warkworth Structure Plan where it is relatively close to a centre or public transport route and there are no significant natural or physical constraints.

The Mixed Housing Suburban zone applies to the south to the areas in the wider catchment of the existing Grange retail development, the new Local Centre in the south, and the three



new Neighbourhood Centres in the north, north west, and west (as shown in Figure 17). The land that the Mixed Housing Suburban zone is applied to does not have any significant physical constraints to development.

It is noted that a future suburb park is indicated as being located in the south east of Warkworth. There is an opportunity for additional density to be located around this park (e.g. sleeving of the park with Mixed Housing Urban). However, as the location of the park is not yet known this potential additional density is not shown on the structure plan map.

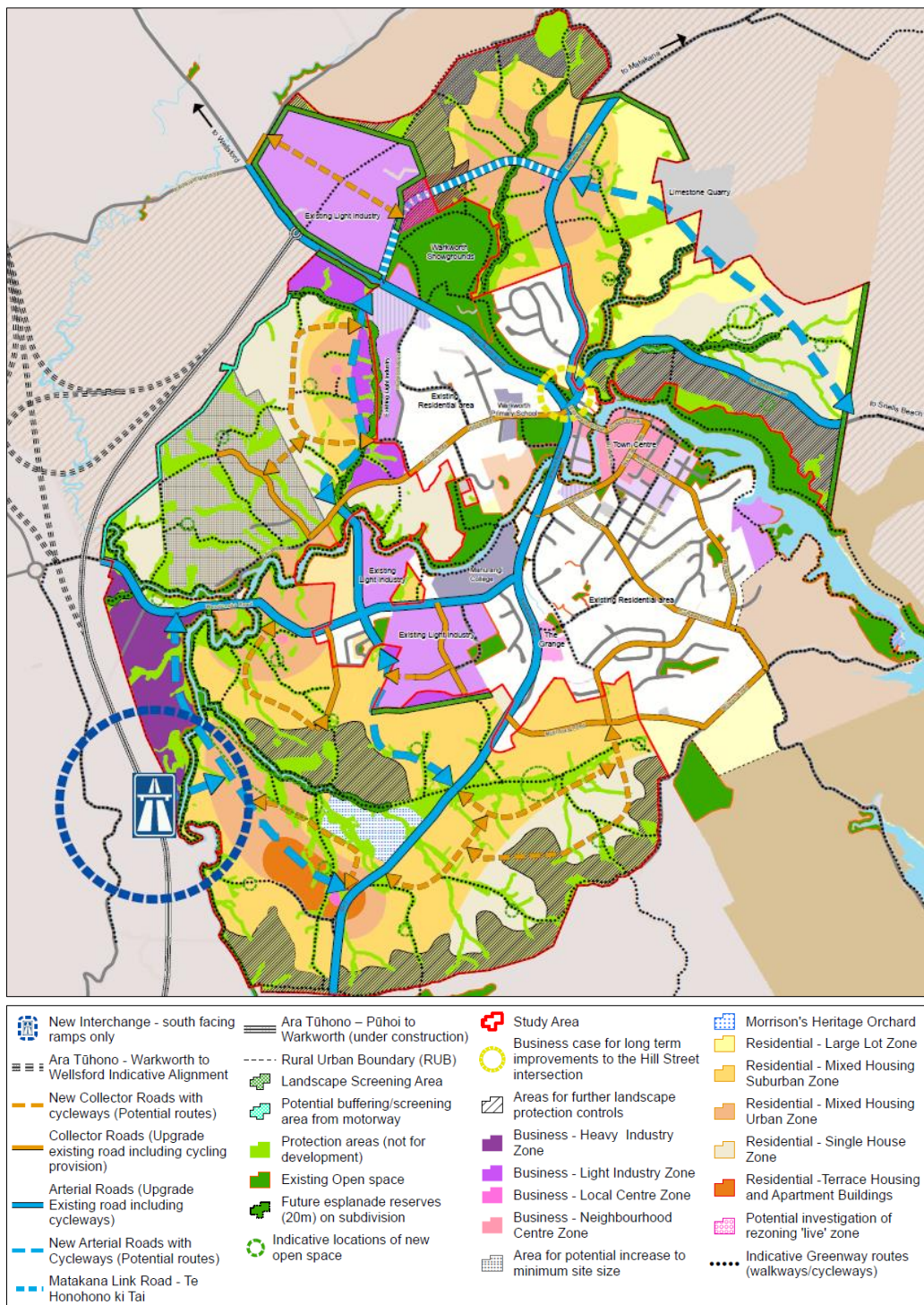


Figure 17: Mixed Housing Suburban zone in Warkworth



Overall, the Mixed Housing Suburban zone comprises 268ha of the study area and will enable around 3,200 dwellings.

### 3.3.2.4 Mixed Housing Urban zone

The Mixed Housing Urban Zone in the Auckland Unitary Plan enables intensive development typically up to three storeys in a variety of sizes and forms, including detached dwellings, terrace housing and low-rise apartments. The zone supports increasing the capacity and choice of housing within neighbourhoods as well as promoting walkable neighbourhoods, fostering a sense of community and increasing the vitality of centres.

The Mixed Housing Urban zone is applied in the Warkworth Structure Plan within close proximity to the new small centres in the north (Figure 18), west (Figure 19), north west (Figure 19), and south (Figure 20) and on planned public transport routes.

The largest area of Mixed Housing Urban zone applies in the south of Warkworth in the vicinity of the new Local Centre and indicative sports park. The land here is largely flat and lends itself to higher density residential development.

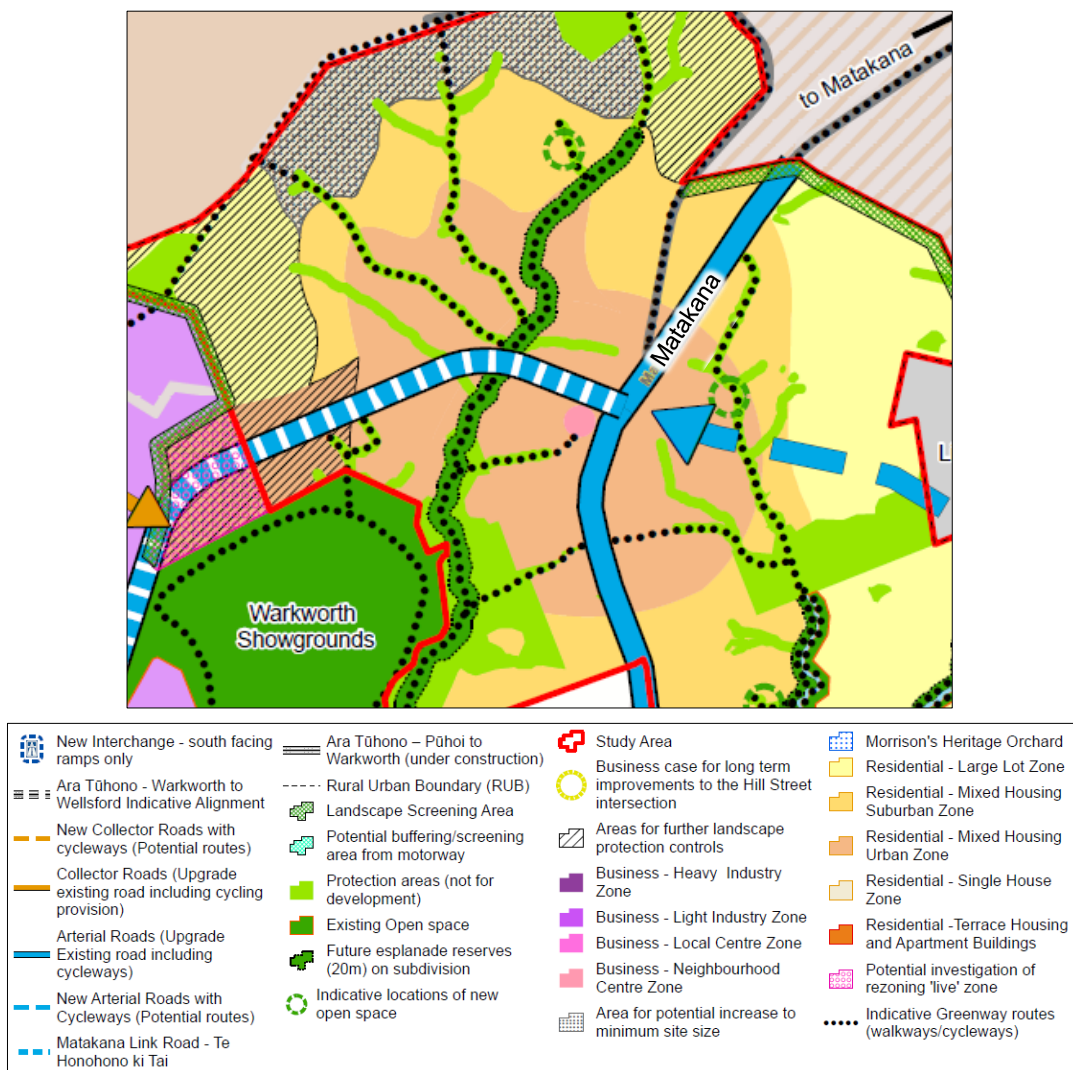


Figure 18: Mixed Housing Urban zone in the north of Warkworth

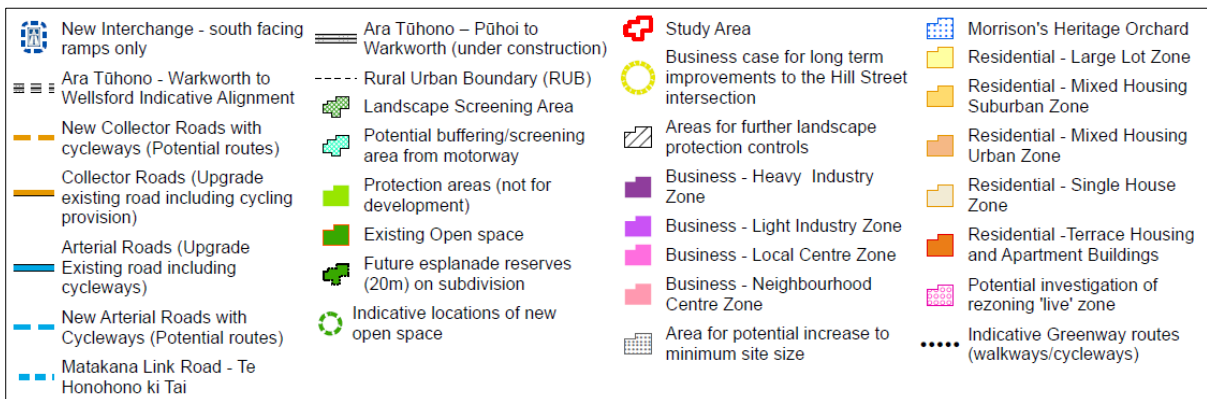
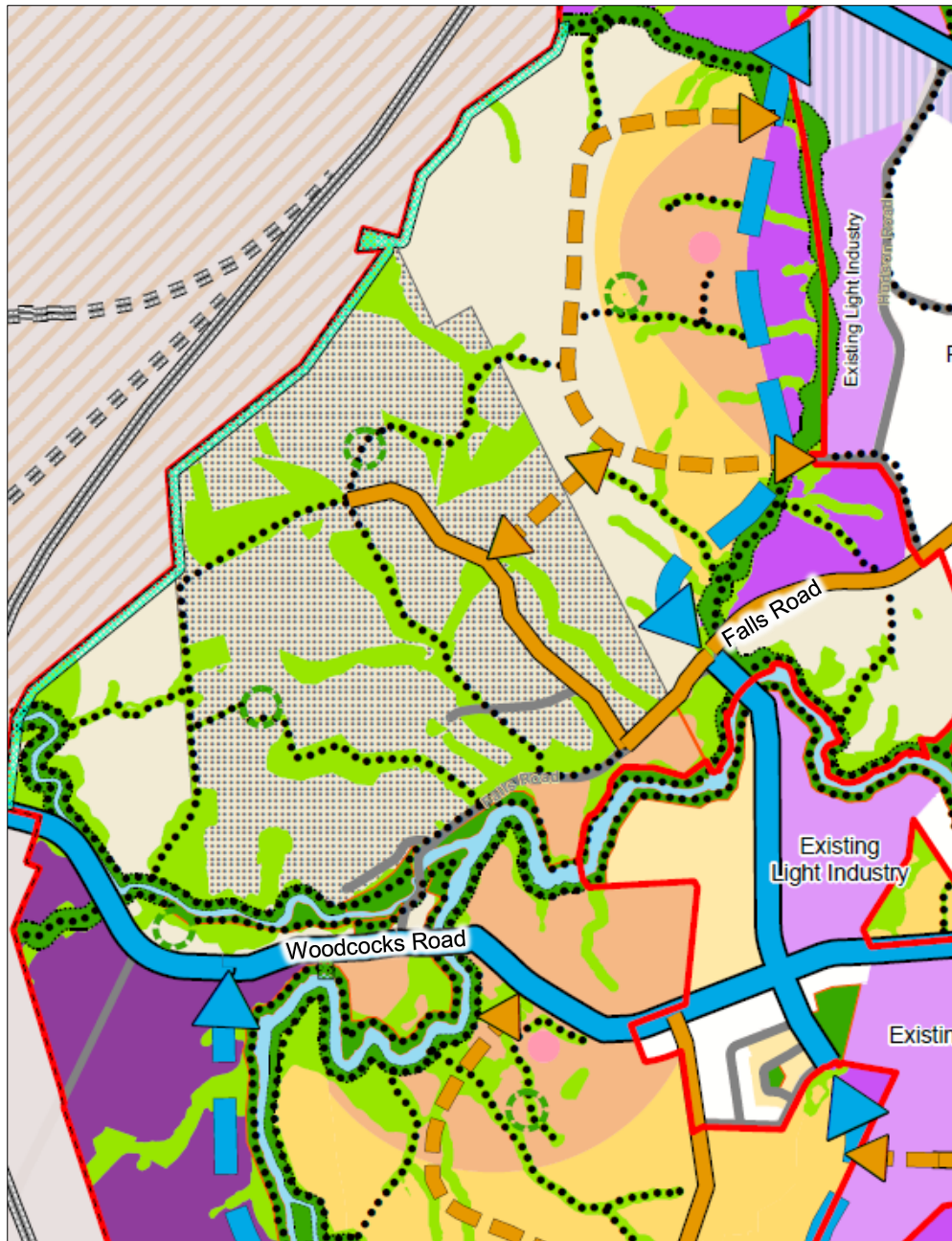
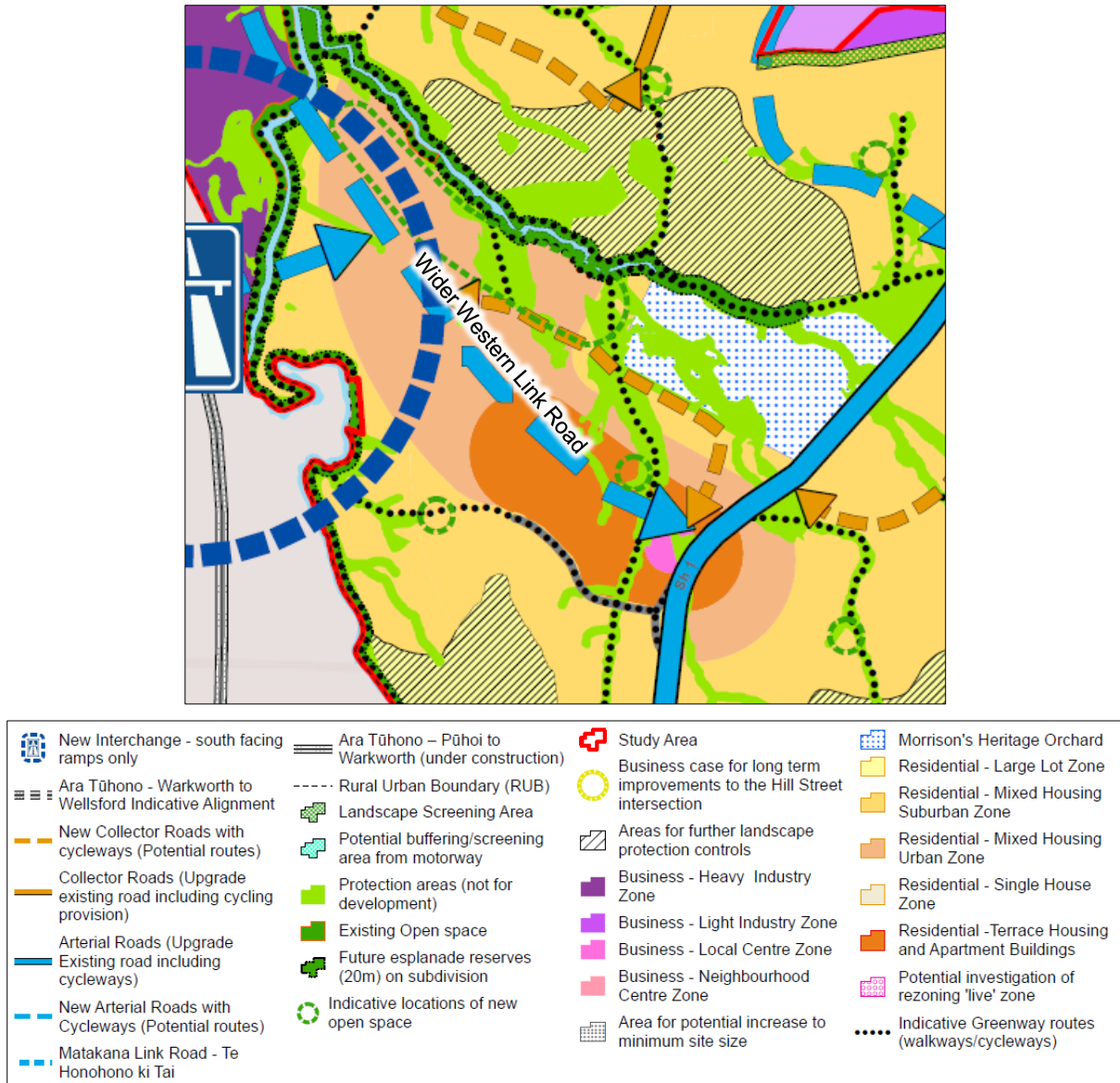


Figure 19: Mixed Housing Urban zone in the west and north west of Warkworth



**Figure 20: Mixed Housing Urban zone in the south of Warkworth**

Overall, the Mixed Housing Urban zone comprises 144ha of the study area and will enable around 1,900 dwellings.

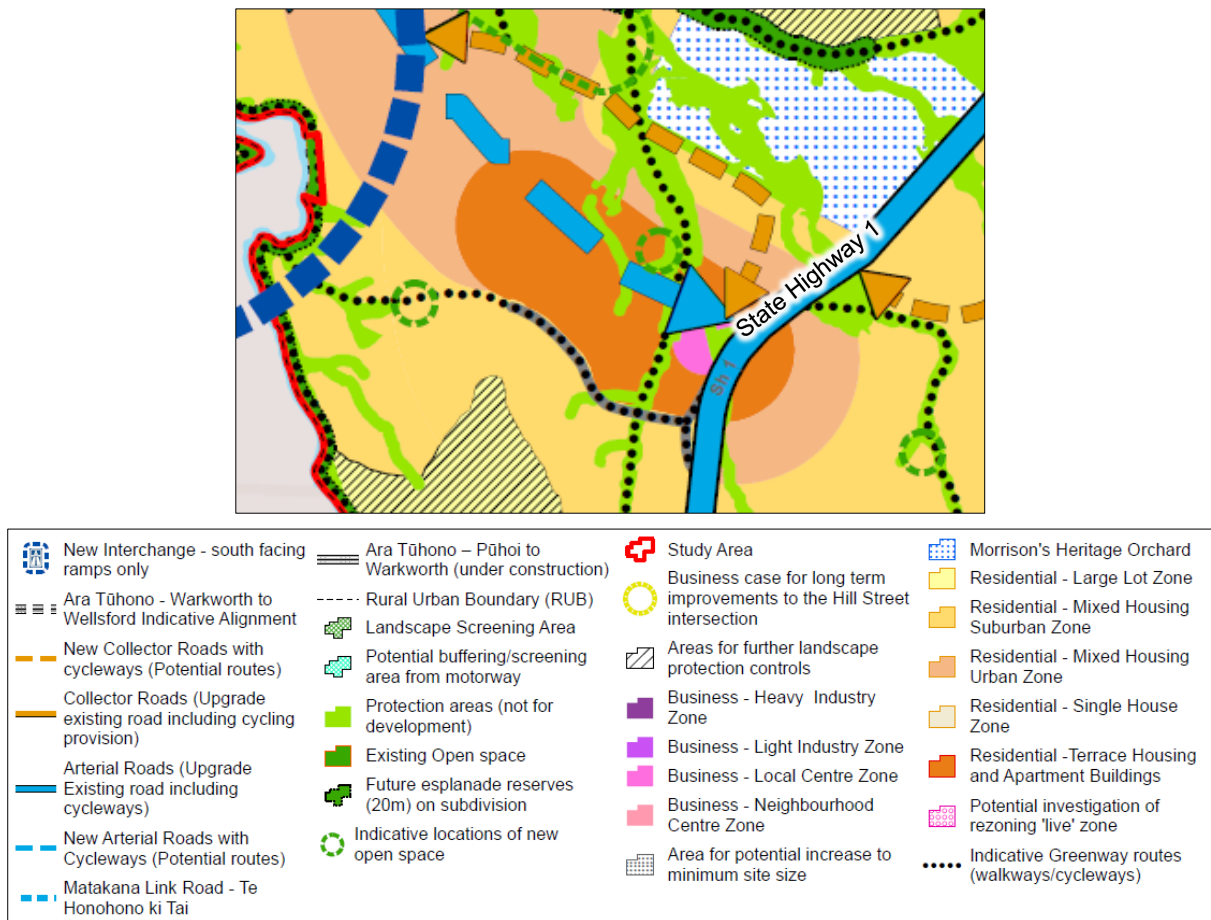
### 3.3.2.5 Terrace Housing and Apartment Buildings zone

The Terrace Housing and Apartment Buildings zone in the Auckland Unitary Plan is a high-intensity zone enabling urban residential living in the form of terrace housing and apartments. The purpose of the zone is to make efficient use of land and infrastructure, increase the capacity of housing and ensure that residents have convenient access to services, employment, education facilities, retail and entertainment opportunities, public open space and public transport. This will promote walkable neighbourhoods and increase the vitality of centres. The zone provides for the greatest density, height and scale of development of all the residential zones.



This zone also provides for a range of non-residential activities so that residents have convenient access to these activities – and services while maintaining the urban residential character of these areas.

The Terrace Housing and Apartment Buildings zone is applied in the Warkworth Structure Plan in the area immediately around the new Local Centre in the south of Warkworth, near a planned public transport interchange (Figure 21). The land here is largely flat as well as some gentle, north-facing slopes. This makes this area suitable for higher density housing.



**Figure 21:** Terrace Housing and Apartment Buildings zone in the south of Warkworth

Overall, the Terrace Housing and Apartment Buildings zone comprises 15ha of the study area and will enable around 400 dwellings.

### 3.3.3 Parks

There are a number of existing esplanade and native bush reserves within the Warkworth Structure Plan area, but currently no parks or open spaces specifically for recreational purposes.

Given the significant population growth expected in the structure plan area, there is a need for the provision of parks and open space to provide adequate informal recreational opportunities and experiences for the anticipated residents.

Through the structure plan process an assessment of the Warkworth Structure Plan study area has been undertaken to develop an indicative parks and open space network. Potentially suitable land for suburb parks, a sports park and neighbourhood parks has been identified considering:

- existing parks and open space
- topography, coastline and waterways
- existing and future road corridors and potential cycling/walking routes
- future esplanade reserves
- potential future housing density and residential population and other land uses in the Warkworth Structure Plan
- the Rodney Greenways Paths and Trails Plan, Pūhoi to Pakiri
- any potential synergies with the possible locations of new schools
- the council's parks and open space policies and planning tools

The outcome of this assessment is an indicative parks and open space network with 18 small neighbourhood parks, two larger suburb parks, one large sports park, and off-road walkways/cycleways connecting these parks.

The neighbourhood parks may be around 0.3 - 0.5ha each and indicative features of these parks could include play space, flat kick-around space for informal games, areas for socialising and respite, landscaping, greenery and specimen trees. Ideally these parks are located by walkways and cycleways, esplanade reserves, riparian corridors or roads and one of these parks would be accessible by most residents within 400m walk.

The neighbourhood park locations are shown indicatively in the Warkworth Structure Plan and on Figure 3. They are spread throughout the structure plan area with higher concentrations in areas of increased residential intensity. It is important to note that the structure plan shows indicative locations of potentially suitable land for neighbourhood parks. The exact location of each neighbourhood park will be determined as detailed subdivision applications are lodged to develop these areas.

The two suburb parks will be around 3ha each and indicative features of these parks include walking circuits or trails, greenery and trees, multiple kick-around spaces, socialising spaces (including picnic and BBQ facilities), larger and more specialised informal recreation attractions (such as large playgrounds, skate parks, hard courts), organised sport facilities, and community event space.

The suburb park locations are shown indicatively in the Warkworth Structure Plan and on Figure 3. One suburb park is indicatively identified in the north east and the other in the south east. Both are on the Green Network with the potential for off-road walking and cycling access.

The sports park may be around 10ha and have many of the same features as the suburb parks, with a focus on organised sport fields and facilities. The sports park location is shown indicatively in the Warkworth Structure Plan on Figure 1. The sports park is indicatively identified on the flat land in the southern part of the study area.

The council will purchase the land for the sports park and two suburb parks prior to the area being developed. However, it is important to note that the Warkworth Structure Plan shows indicative locations of potentially suitable land for a sports park and two suburb parks. No land has yet been purchased or designated for these parks and the indicative locations shown are subject to change with further, more detailed information.

The acquisition of additional land will be required to facilitate the development of connections and linkages. Esplanade reserve and riparian margins present an opportunity to create off-road recreational walkways and cycleways where appropriate. The Warkworth Structure Plan shows the anticipated future esplanade reserves that will be vested to council on subdivision of the land (as it is developed).

### 3.3.4 Centres

The existing Warkworth town centre by the Mahurangi River will remain as the focal point for retail, office, community and civic space for Warkworth, even with the development of the Future Urban zone. There is capacity for the existing town centre to expand significantly in the future. This capacity is largely through the 9ha of Mixed Use zoning around the town centre. This area is predominantly occupied by older housing stock that could be redeveloped into higher density residential and office/retail space. There is also some undeveloped capacity within the area zoned Town Centre.

Retaining the existing town centre as the main focus of Warkworth is consistent with the structure plan Planning Principle to “Retain the current town centre as the focal point and ‘beating heart’ of Warkworth”.

The recently established Grange retail area (SH1) is another significant centre area that will service the existing and planned residential areas in the south east. There are also planned large format retail developments (either consented or zoned) at Woodcocks Road and Hudson Road<sup>10</sup>.

Considering the existing and planned supply, the Future Urban zone areas around Warkworth require only small centres for the local convenience needs of surrounding residential areas.

As there is limited future demand for additional centre land<sup>11</sup>, it is important to distribute this sustainably throughout the growth areas so that all areas have access to a nearby centre and that each centre runs efficiently.

The Warkworth Structure Plan anticipates that the centres hierarchy for Warkworth would eventually include a total of seven centres in Warkworth. At the top of the hierarchy is the

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<sup>10</sup> Stockyard Falls has a resource consent for 15,715m<sup>2</sup> GFA of mostly large format retail. It is noted that if this development does not proceed (by 2021) then the consent will lapse, and the underlying Light Industry zoning will prevail – making it very difficult to establish the centre on this land. If retail space does not materialise at Stockyard Falls, there would need to be provision for the consented amount of space to be made up elsewhere in Warkworth, in order to adequately meet future demand.

General Business land on the corner of Hudson Road/SH1 is owned by Foodstuffs and could potentially accommodate a large supermarket and 1-2 other large format retail stores (around 6,000m<sup>2</sup> GFA).

<sup>11</sup> Refer to Business land demand reports in **Appendix 1**.



Warkworth town centre. This centre provides for a wide range of activities including commercial, leisure, residential, tourist, cultural, community and civic services. It provides a focus for commercial activities and growth. The Warkworth town centre has the largest concentration of retail, professional services, and food and liquor (including two supermarkets) in the town. As noted above, the town centre has the potential through current zonings for significant expansion (both 'out' and 'up').

The next step down in the hierarchy are the Local Centres. They primarily provide for the local convenience needs of surrounding residential areas, including local retail, commercial services, offices, food and beverage, and appropriately scaled supermarkets. Buildings can be up to four storeys high, enabling residential or office use at upper floors. The Grange is a recently built retail development including a petrol station, a number of food outlets, a childcare centre, gym, and offices. While not initially planned as such, due to its emergence and its size the Grange has been zoned a Local Centre in the Auckland Unitary Plan. Another new, likely smaller, Local Centre is shown in the southern growth area.

Finally, the smallest centres in the hierarchy are three new Neighbourhood Centres identified in the structure plan in the north, west, and north west. A Neighbourhood Centre provides residents and passers-by with frequent retail and commercial service needs and will usually consist of activities such as a dairy, chemist, bakery, takeaways, small offices etc.

Outside the centres hierarchy, there is also a large amount of retail in the large format retail areas. While large format retail is generally preferred in centres, it is recognised that this is not always possible, or practical. This is especially so for Warkworth where the 'Warkworth 3' precinct in the Auckland Unitary Plan only enables a very limited amount of large format retail in the Town Centre zone. The Large format retail areas are not envisaged as the locations for civic or community facilities/spaces or where small retail activities or residential activities can establish. This is to prevent unplanned centres from progressively occurring.

Warkworth's large format retail areas will be located on Woodcocks Road and Hudson Road. Both these large format retail areas have yet to be fully constructed. The Woodcocks Road site currently has a large building supplies store, a car yard, and a light industrial warehouse located on it. There is a large vacant area where a resource consent enables further large format retail development of the site. The Hudson Rd site (owned by Foodstuffs) is zoned General Business which anticipates large format retail. A resource consent has been lodged to develop a Pak n Save supermarket and another large format retail store on the site (this consent was still being processed at the time of the structure plan adoption).

The Warkworth centres hierarchy and large format retail locations are outlined and illustrated through Figures 22 and 23 below.

Centre type	Centre name (and location)
<b>Town Centre</b>	Warkworth town centre (by the Mahurangi River)
<b>Local Centres</b>	The Grange (SH1) New southern centre (near Valerie Close)
<b>Neighbourhood Centres</b>	New western centre (Woodcocks Rd) New northern centre (near Matakana Link Rd - Te Honohono ki Tai) New north western centre (near the future Western Link Road route)
<b>Large Format Retail</b>	<i>Stockyard Falls (Woodcocks Rd)</i> <i>Foodstuffs site (Hudson Rd/SH1)</i>

Figure 22: Hierarchy of Warkworth’s centres and large format retail areas

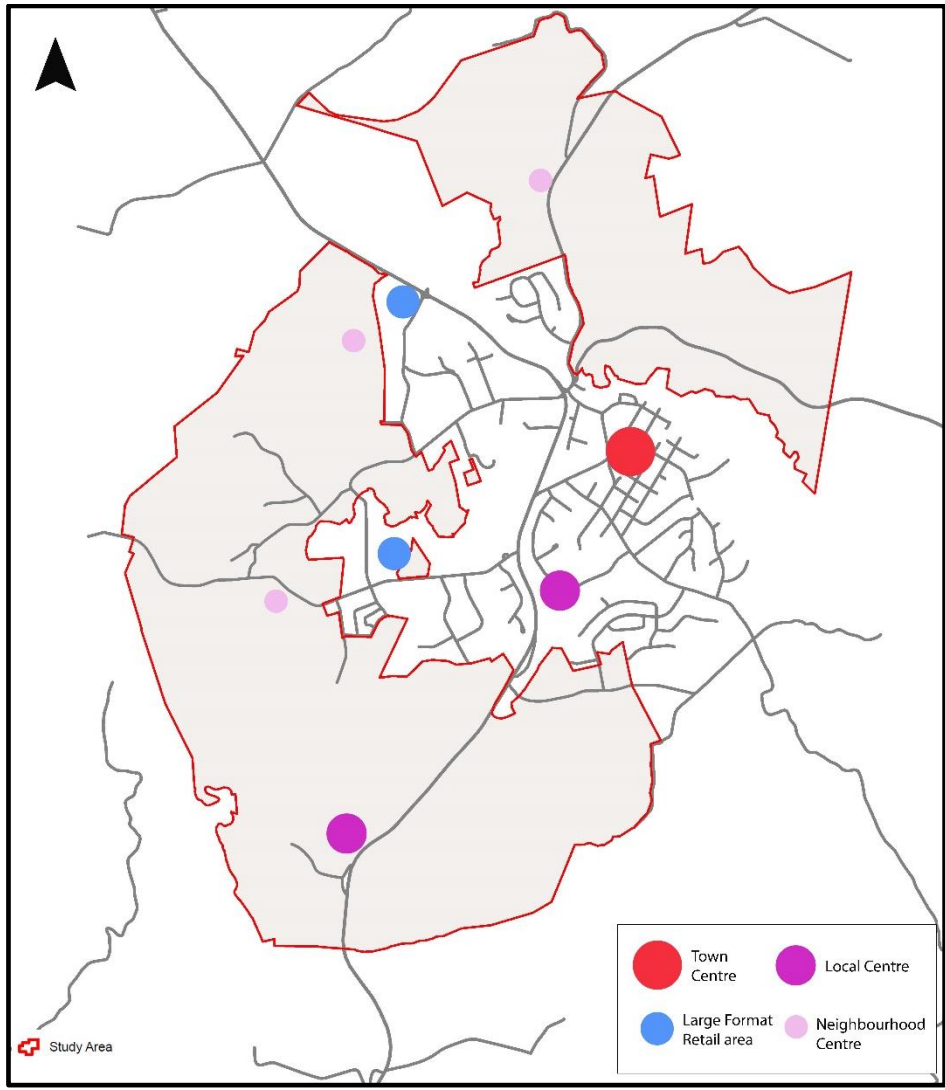


Figure 23: Map of centres hierarchy for Warkworth

In locating the new small centres across the Future Urban zone, attention has been paid to the locations of existing centres to attempt to bring as many dwellings within walking distance of a centre as possible. While the new centres are small, they have been used in the structure plan to leverage some residential density off (rather than simply continue Warkworth’s predominantly Single House zone across the Future Urban zone). Therefore, the centres are located in areas where there is sufficient space and suitable land around the centre to be surrounded by new higher density residential areas.

The new small centres are also all located on/near main transport routes (road, public transport, cycling/walking) to generate ‘energy’ in the centres so that they are viable.

### 3.3.4.1 New northern centre

A new Neighbourhood Centre in the north (Figure 24) is located to leverage off the activity around the intersection of Matakana Road with the future Matakana Link Road (Te Honohono ki Tai) and the Sandspit Link Road. The land around the centre is largely free from significant development constraints for higher density housing.

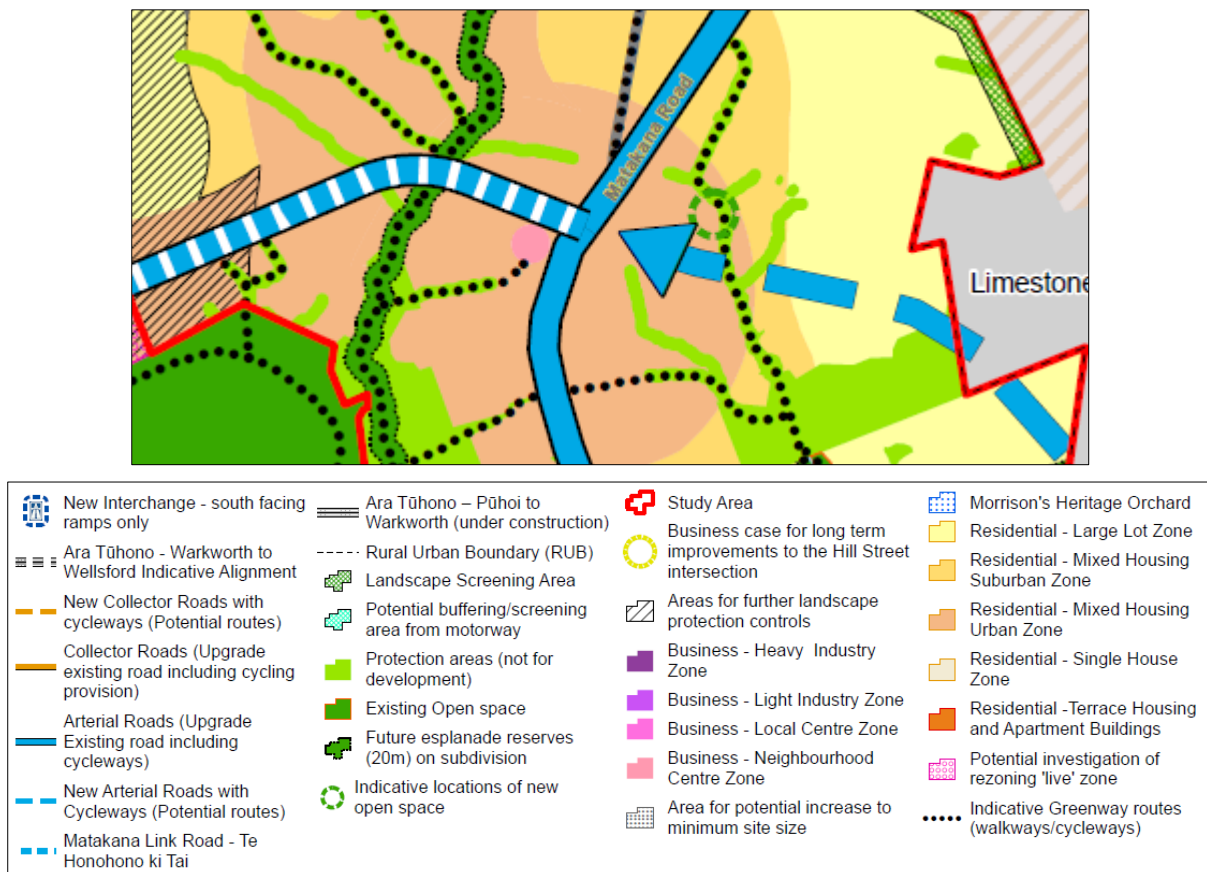


Figure 24: Neighbourhood Centre in the north of Warkworth

### 3.3.4.2 New western centre

The new Neighbourhood Centre in the west (Figure 25) is located on Woodcocks Road (future upgraded arterial). This location is along a future walking and cycling network based on the river and stream corridors.

The immediately adjacent land and the land to the north and south is largely free from significant development constraints for higher density housing. However, it is noted that most land north of the Mahurangi River is not suitable for higher density residential development.

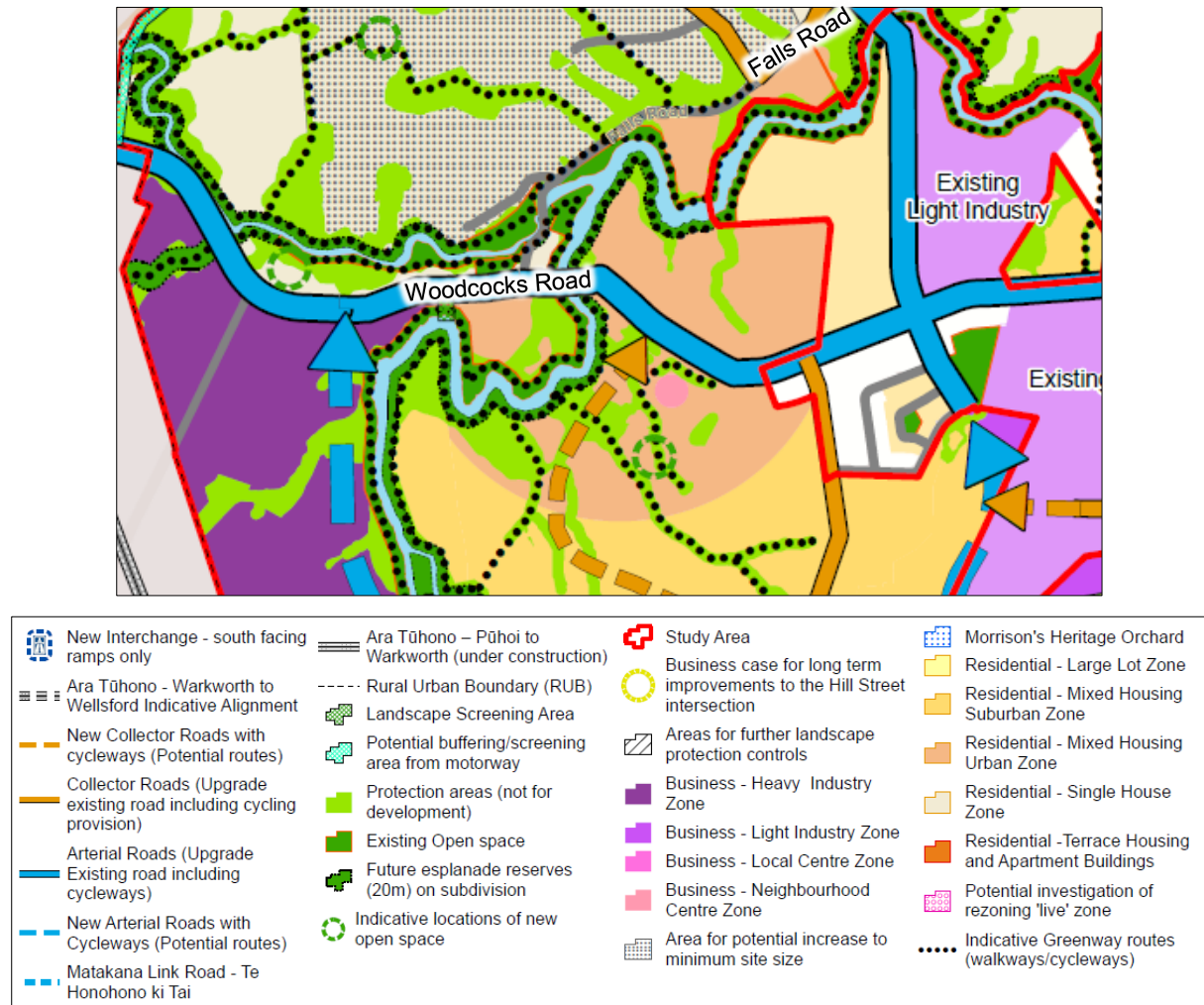


Figure 25: Neighbourhood Centre in the west of Warkworth



### 3.3.4.3 New north western centre

The new Neighbourhood Centre in the north west (Figure 26) is located on the route of the future Western Link Road. This centre would service the needs of a relatively constrained catchment, being the northern part of the residential area to the west, and the industrial zones to the east.

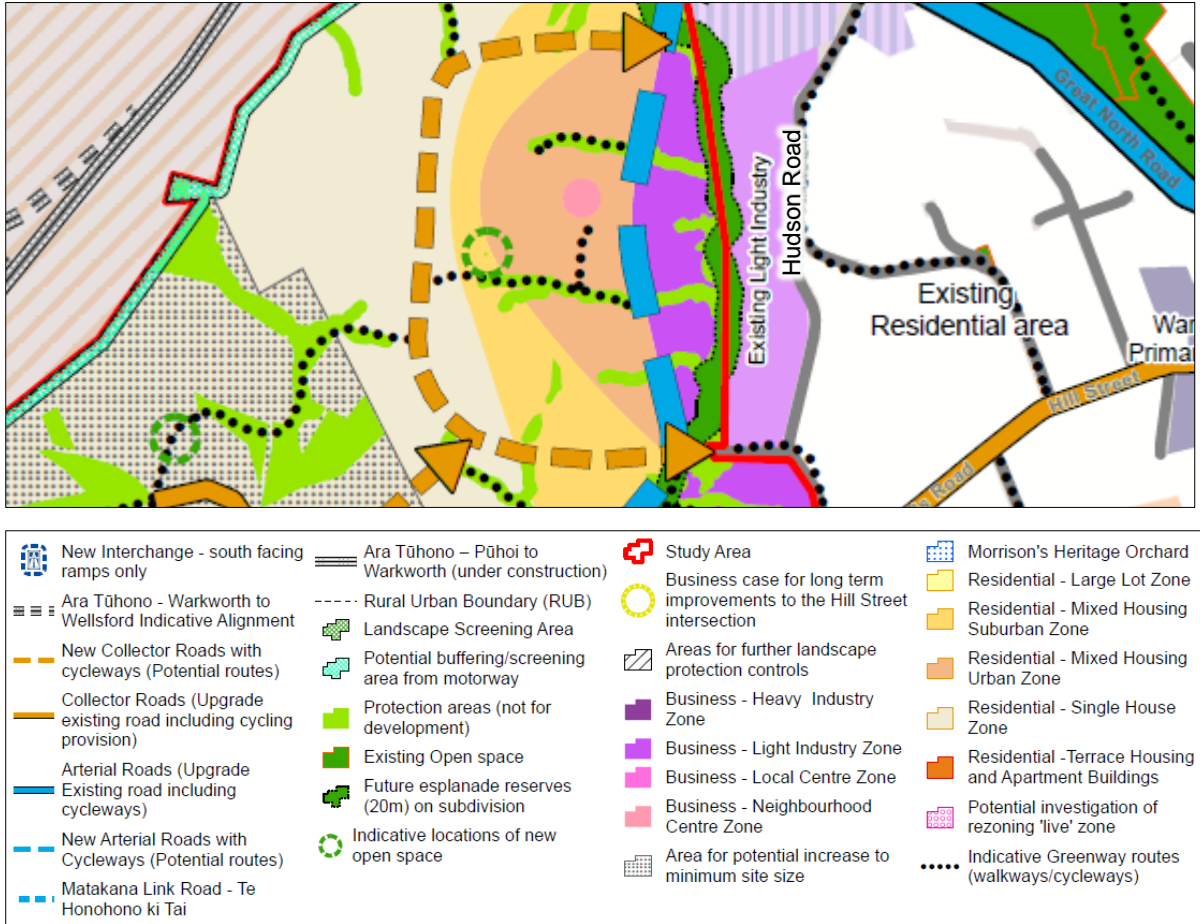


Figure 26: Neighbourhood Centre in the north west of Warkworth

### 3.3.4.4 New southern centre

The new Local Centre in the south (Figure 27) is located around the intersection of the indicative Wider Western Link arterial road with the existing SH1. The land around the centre is largely flat (unlike most of the Future Urban zone in Warkworth) as well as some gentle, north-facing slopes. This makes this area suitable for higher density housing.

The southern centre will incorporate a new southern bus station to allow for pulsed/layover bus arrivals (between local and Auckland services), making it a public transport hub. This centre will be on the main cycling network and in the vicinity of a potential new school.

In light of the above factors and being the furthest away from the town centre, this southern centre is proposed to be a Local Centre.

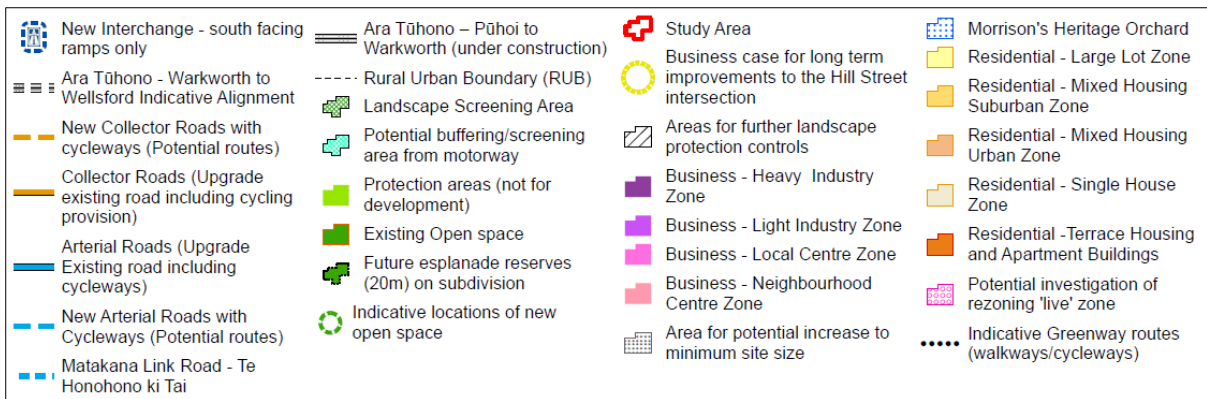
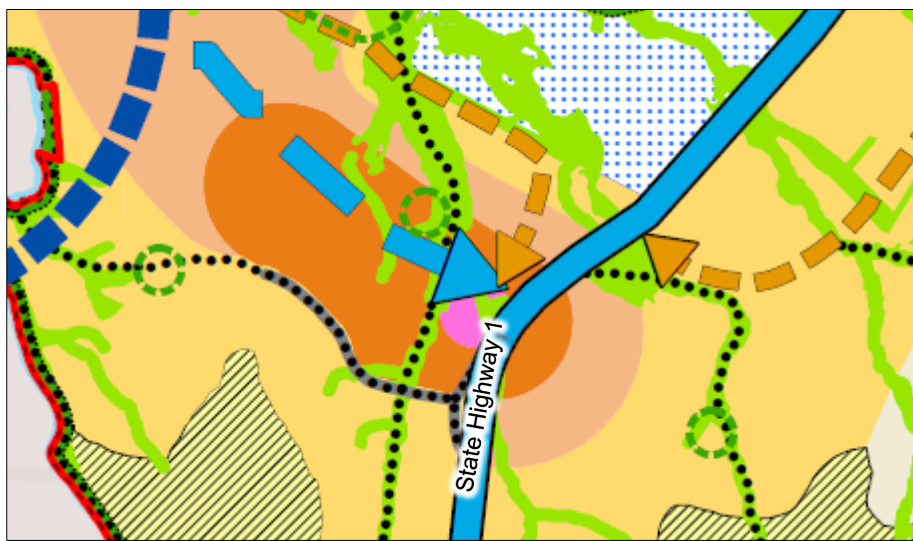


Figure 27: Local Centre in the south of Warkworth

### 3.3.5 Industrial areas

As a Satellite Town Warkworth is anticipated to have significant future employment growth alongside the residential growth. The planning principles for the Warkworth Structure Plan refer to providing new local employment areas so people can work locally in Warkworth. Local employment and areas for new businesses to locate also came through as a main

theme during consultation with the community on the structure plan project (April 2018). This was around the need for Warkworth to be largely self-sustaining for employment and to avoid the need for long commutes to jobs.

The Business Land Topic Report identified that to retain the local employment ratio of more than 1 job to 1 dwelling (as identified in the previous Auckland Plan), further business land is needed in Warkworth including small centres and up to 95ha (gross)<sup>12</sup> of industrial land. The expected dwelling yield from the Future Urban zone is around 7,500 dwellings<sup>13</sup>, while the employment (jobs) growth in the Future Urban zone is around 5,000 jobs<sup>14</sup>.

This is only around 0.66 jobs per dwelling and is below the current employment ratio in Warkworth of around 1.39 jobs per dwelling. However, it is important to note, that these yield figures only relate to the Future Urban zoned part of Warkworth, and do not include the existing developed parts of Warkworth<sup>15</sup>. There is obviously no requirement for everyone living in the Future Urban zoned area to have to also work in the Future Urban zoned area. Many people could live in the Future Urban zoned area and work in the 'live' zoned areas of Warkworth. Some areas in Warkworth within the existing 'live' zoned areas have significant employment growth anticipated such as the town centre and the expansion area around it, and the as yet undeveloped Light Industry zone by the Showgrounds.

Including the existing town area, over the 30 year planning period, Warkworth is anticipated to have a total of around 1,600 dwellings and around 12,600 jobs (a ratio of 1.2 jobs per dwelling). This level of employment is consistent with the Auckland Plan's desire for significant future employment growth and would result in Warkworth continuing to play a very similar role as a sub-regional (northern Rodney) economic and employment hub.

New industrial areas are generally required to be located on relatively flat land, have efficient access to freight routes, and be efficiently served by infrastructure. Their location needs to also consider reverse sensitivity effects by not locating close to sensitive activities (e.g. high density residential, schools)<sup>16</sup> and not enabling sensitive activities to establish adjacent to industrial areas.

To enable Warkworth to have more local employment options, the structure plan identifies three new areas for industrial land. Two of these areas are in fact additions to existing industrial areas rather than completely new industrial areas.

Overall, the additional industrial areas are all located on arterial roads and mostly adjacent to motorway interchanges for good freight transport access, are on the public transport network and the cycleway network for employee access, are on mostly flat land (but also include some areas of sloping land) and have relatively little Green Network areas on them. The additional industrial areas are separated from potentially sensitive uses (e.g. residential) by arterial road corridors or esplanade reserve areas (both sides of the stream).

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<sup>12</sup> 57ha net meaning around 95ha gross (15% removed for 'protection areas' and 30% for roads)

<sup>13</sup> Refer to the yield calculations in **Appendix 3**

<sup>14</sup> Refer to the yield calculations in **Appendix 3**

<sup>15</sup> For example, the Light Industry zoned land near the Showgrounds is 69ha of land zoned Light Industry that has not yet been developed.

<sup>16</sup> RPS B2.5.2 (7) – (10)

These additional industrial areas generally align with the areas mostly identified for industrial land during the community structure plan workshops (refer to the Community workshop Summary Report (August 2018) listed in **Appendix 1**).

### **3.3.5.1 Additional northern industrial land**

In the north, the additional industrial land (Figure 28) occupies the flat land that fronts the existing State Highway 1 ('**SH1**'), opposite existing Light Industry zoned land. The southern boundary of this land adjoins a stream that is anticipated to trigger an esplanade reserve to be vested on subdivision. This esplanade reserve (20m either side of the stream bank) will provide a physical separation between the industrial zone and residential uses.

The structure plan recommends a landscape screening area along land fronting onto SH1 to create a pleasant entrance to the northern end of the town (to avoid a low amenity, industrial appearance). A landscape screening area is also shown on the northern side of SH1 on the existing (but as yet undeveloped) Light Industry zone.

The additional northern industrial land then adjoins the established Light Industry zoned land along Hudson Road. It continues south until it meets Falls Road. Adjoining new industrial land with established industrial areas limits the interface of the new industrial land with potentially sensitive uses and allows industrial activities to co-locate. In the Future Urban zone between Falls Road and Sanderson Rd there are already industrial type activities occurring (a consented and established industrial activity and the Warkworth Water Treatment Plant).

The additional industrial land is separated from other land uses through the proposed Western Link Road. This road corridor could be around 30m wide with the potential for up to 4 lanes of traffic as well as planting, footpaths, and separated cycle lanes. The road will act as a buffer, providing physical separation between the industrial land and the residential land uses on the other side of the road to prevent conflicts between these uses. Careful urban design solutions will be needed to ensure that permeability through this new urban area is maintained for pedestrian and cyclists and that the road frontage is activated and attractive on both sides of the road.

Any refinement/shift in the alignment of the Western Link Road through the detailed investigation for the designation will have flow on effects on the zoning as the road is used as the method to separate the industrial land from the residential land.



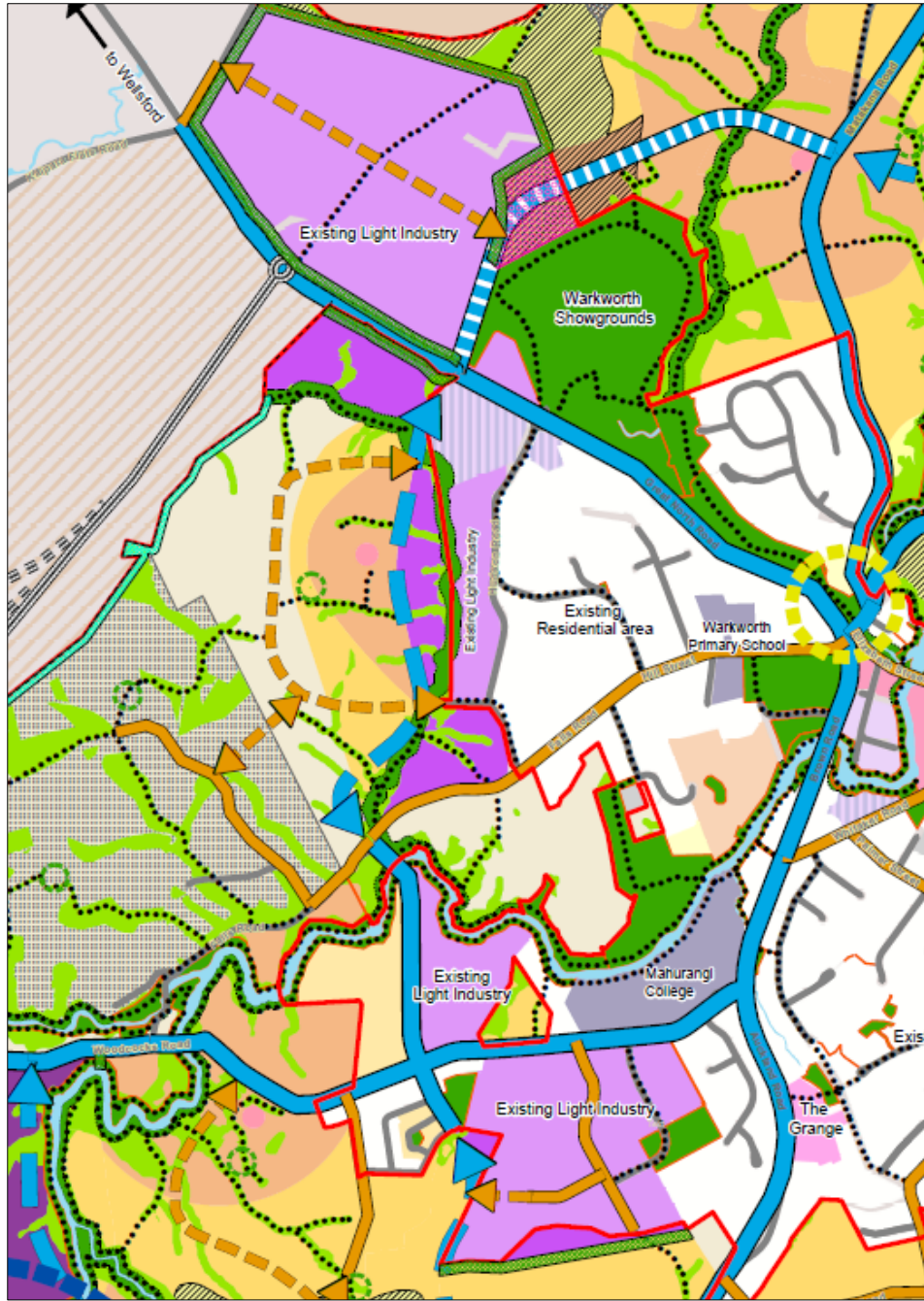
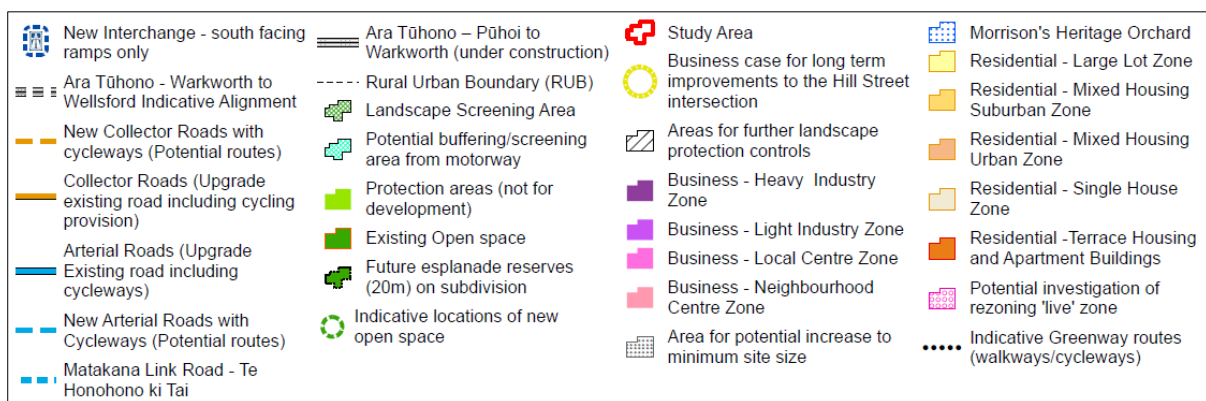



Figure 28: Additional industrial land in the north of Warkworth

**3.3.5.2 Additional southern industrial land**

In the south there is a small extension of the established Morrison Drive/Glenmore Drive light industrial area (Figure 29). The extension is consistent with a recent resource consent for industrial development on the land at the end of Morrison Drive and keeps the industrial land on the northern side of the slopes. There is also a small area added near Evelyn Street. Adjoining new industrial land with established industrial areas limits the interface of the new industrial land with potentially sensitive uses. While this additional industrial land is not flat, the slope is generally consistent with the established Morrison Drive industrial area that it adjoins.

As in the north, arterial roads are used as a buffer to separate the industrial land from other sensitive uses. A landscape screening area is identified along the ridgeline to contain the visual impacts from spilling over into the southern catchment.



**Figure 29:** Additional industrial land in the south of Warkworth

**3.3.5.3 New south-western industrial land**

A new industrial area is shown in the south western edge of the Future Urban zone (Figure 30). The new industrial area is near to the potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only) in the south. This provides the land with

excellent access to the regional/national freight network and avoids the need for industrial traffic heading through residential areas. The indicative Wider Western Link Road traverses through the site and provides a route for heavy traffic.

The new industrial area is bordered to the west by the RUB and the Ara Tūhono – Pūhoi to Warkworth alignment, to the north by Woodcocks Road (future upgraded arterial), and to the east by the right branch of the Mahurangi River. There is already mature native vegetation along much of this stream corridor. In the future this area will have an esplanade reserve on both sides of the river creating a 40m separation between the industrial land and neighbouring uses. The new industrial land is essentially an 'island'.

The industrial land in this location reduces the need for multiple road connections to surrounding areas (as there would be for residential land) and therefore reduces the need for additional stream crossings. If it was used for residential it would likely require more crossings for connectivity/legibility of the neighbourhood to surrounding areas.

The new industrial land is exposed to the motorway alignment due to the flat topography of both the motorway alignment and the industrial land and the short distance between them. Locating industrial land in this area limits the potential for reverse sensitivity issues for the motorway operation as industrial activities are generally not as sensitive to noise, light spill, etc. This section of the motorway adjacent to the proposed industrial land is different to most other areas along the western edge of Warkworth which have greater separation distances, riparian areas, and/or an elevation difference between the motorway and the Future Urban zoned land.

Unlike most land in Warkworth, most of the land within this new industrial area is flat and therefore lends itself to enabling larger building platforms for Heavy Industry<sup>17</sup>. Feedback from industry groups during the structure plan process has indicated that areas for business with large building platforms (i.e. 1ha) are required. In light of this, the Warkworth Structure Plan shows this south-western industrial land zoned Heavy Industry.

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<sup>17</sup> Note that the differences between the Heavy Industry zone and the Light Industry zone are relatively small with a key difference being around subdivision site size.



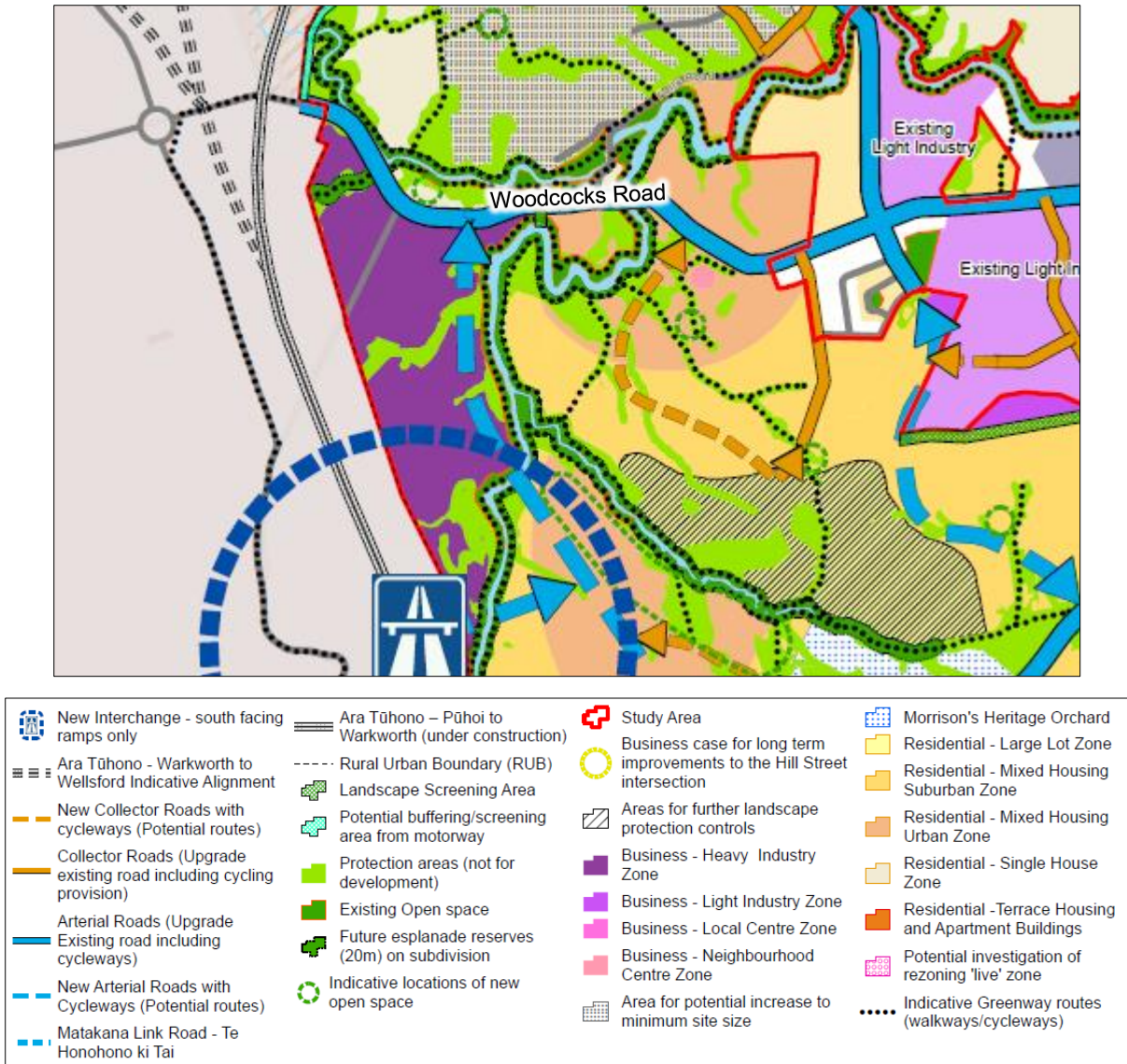


Figure 30: Additional industrial land in the south west of Warkworth

### 3.3.6 Morrison's Heritage Orchard

Public feedback during the Warkworth Structure Plan project has shown that the Warkworth community currently sees itself as a rural town and there was a strong desire to retain the local and rural character as it grows. While this is challenging as the town grows from a population of around 5,000 to around 25,000-30,000 there are a number of methods in the Warkworth Structure Plan to achieve this (see section 3.3.10.8). One of these methods is to enable a working rural activity (fruit orchard) to continue within the town. This will provide a direct connection to Warkworth's rural production and its history. It also provides a significant area of greenery and trees within the urban area. The presence of Morrison's Heritage Orchard within the urban area will strengthen the rural character and local community identity of the expanded town. It could also be a unique attraction bringing in tourists and spin-off business for the rest of Warkworth.

The Morrison's orcharding legacy has heritage value for the Warkworth area. In the early days of European settlement, boat access put the Mahurangi within easy reach of the growing Auckland market for fruit. Edward Morrison pioneered commercial orcharding in the Mahurangi district, developing the Red Bluff Orchards and Nurseries near Hepburn Creek during the 1870s. By 1914 this was the largest orchard and nursery in NZ, covering 57 hectares and containing 250,000 trees. Morrison grew and developed new varieties of plums, pears and apples, offering both fruit and trees for sale. The nursery shipped out 40,000 young apple trees a year.

A tramway ran along Hepburn Creek Road to the packing sheds. It continued along the foreshore to the deep-water wharf built in 1894, which was also used by other orchards nearby. Red Bluff was a regular stop for coastal steamers serving Warkworth. The ships Kotoite and Kapanui had specially-ventilated holds for carrying fruit, and at the height of the fruit season special trips were made to pick up fruit. When the fungal disease fireblight appeared in 1914, the great pear orchard at Red Bluff had to be cut down. When it reappeared, this time in the nursery, all susceptible stock had to be destroyed. By this time dairy farming was providing better returns for landowners, and the enterprise closed in 1919.

Edward's son, John, continued the family tradition of experimental development at the Glen Kowhai orchard property across the river, until that property was sold in 1969. The current Morrison family orchard (Kenilworth orchard) on State Highway 1 was planted in 1935 as a continuation of the Morrison legacy. It specializes in growing a range of early 'heirloom' varieties of plums, apples and other fruit.



**Figure 31:** Royal Gala apples at Morrison's Heritage Orchard

It is important to note that the retention of the Morrison's Heritage Orchard within the future urban area of Warkworth has been requested by the landowners. The Morrisons have expressed a desire to continue orcharding on a portion of their Future Urban zone landholding in Warkworth instead of subdividing the land for some form of urban development.

Obviously, if every Future Urban zone landowner in Warkworth wished to continue rural activities into the long-term future then this would create issues around accommodating anticipated population growth within the town. However, due to the significant economic incentives to convert rural land to urban, in nearly all cases Future Urban zone landowners will urbanise the land to maximise their economic return. The Morrison's Heritage Orchard removes 16ha from urban development out of the 1,000ha of Future Urban zoned land around Warkworth and therefore does not undermine the overall ability to accommodate growth<sup>18</sup>.

The exact nature of the way the orchard would operate in the future is yet to be determined but there are two related issues that are important to consider; its economic viability and the potential for reverse sensitivity with surrounding residential areas.

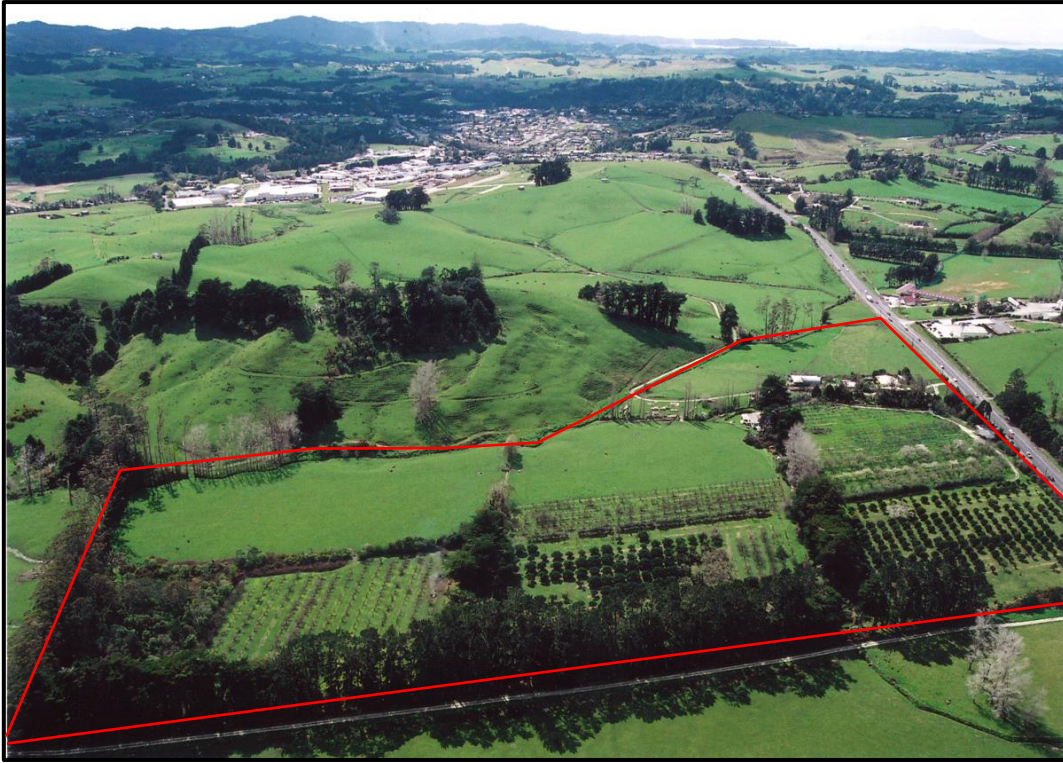
In terms of economic viability, the Morrisons' wish to diversify the orchard operation with activities that complement its core focus on growing heritage varieties of fruit. The expanded offerings could potentially include activities such as a café, children's play area, public rest rooms, orchard museum, animal petting, educational classes/visits, orchard tours, event hosting (e.g. weddings), a farmer's market, and additional parking areas. The existing shop could also be shifted to a more convenient and safe location and the range of products offered in the shop expanded.

In terms of the potential for reverse sensitivity, the possible issues may be around noise, spray drift, vermin, and smells. The current practices used on the orchard already minimise these issues and further methods to avoid reverse sensitivity could form part of the future specific Auckland Unitary Plan provisions for this property. It is also noted that there is potential to internalise most effects due to the hill to the north, significant screening and shelterbelts to the south and west, and the current SH1 corridor to the east. The Morrison's large land holding means that they control the northern boundary and have proposed hedging/shelter belts along this edge.

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<sup>18</sup> Even taking the Morrison's Heritage Orchard land out, the anticipated dwelling yield from the Warkworth Structure Plan is equal to that anticipated in the Auckland Plan (7,500 dwellings).





**Figure 32:** Morrison's Heritage Orchard (with approximate property boundary shown in red)

The Warkworth Structure Plan shows residential uses around the site. However, much of the land to the west and north is zoned Large Lot which minimises the number of potentially impacted neighbours. The rest of the land around the orchard is zoned Mixed Housing Suburban which allows residential density but limits the height to two storeys, which enables the shelterbelt screening to be effective. The structure plan also indicatively shows a sports park near the orchard which again (depending on design) could further mitigate any reverse sensitivity issues. An indicative collector road is also shown along the southern boundary of the orchard, providing some separation distance from adjoining land uses.

To enable the orchard to continue as described above, a likely mechanism is a precinct (site specific rules) in the Auckland Unitary Plan. The precinct could include provisions around enabling the orcharding and complementary activities, managing potential reverse sensitivity issues, and securing public access through walking and cycling paths through the land (linking to the walking/cycling network).

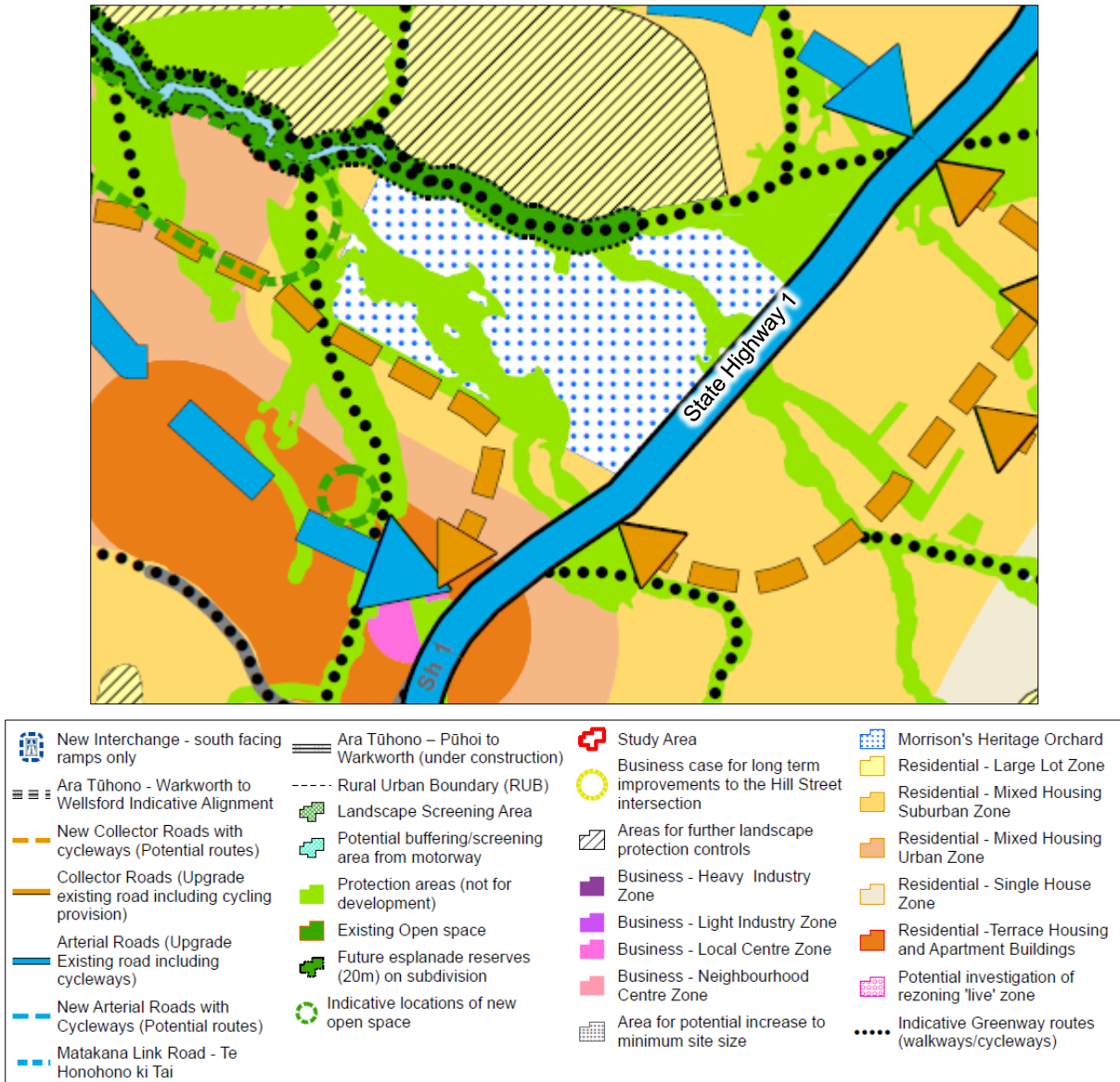


Figure 33: Morrison's Heritage Orchard

### 3.3.7 Transport infrastructure networks

Te Tupu Ngātahi, the Supporting Growth Alliance is currently undertaking an Indicative Business Case for the transport network in Warkworth. In parallel to this, the alliance has prepared the Warkworth Integrated Transport Assessment in support of the Warkworth Structure Plan (see **Appendix 1**).

The purpose of the Integrated Transport Assessment is to identify at a high-level, the following:

- Active mode network;
- Roding network; and
- Public transport network.

### 3.3.7.1 Walking/ Cycling Network

The structure plan seeks to prioritise active transport in Warkworth through a separated walking and cycling network shown on Figures 1 and 3. The proposed walking and cycling network utilises the arterial road network and greenway routes along the Mahurangi River/riparian margins of streams to provide connectivity throughout Warkworth. In addition, a collector road network with separated cycle lanes is proposed to provide further permeability through the study area.

Currently Warkworth has a large number of walking trips. However, cycling trips are very low. In order to increase cycling mode share, significant improvements to the cycle network are proposed.

In order for walking and cycling to be encouraged, walking and cycling routes must be direct, safe and connected to key destinations. Safety is an important consideration in whether people choose to cycle, and therefore on arterial roads and key collector roads, walking and cycling movements are proposed to be separated from higher speed vehicle movements. Where separated facilities cannot be provided, it is recommended to reduce vehicle speeds so that deaths and serious injuries are avoided. Encouraging walking and cycling also requires a connected network of major routes enabling access to major destinations.

The proposed active mode network provides connectivity to centres, employment areas, schools and public transport stations. With an appropriate road network catering for walking and cycling modes, in conjunction with off-road facilities, there is the opportunity to significantly increase walking and cycling mode share. In combination with improving e-bike and e-scooter technologies, there is the opportunity to travel greater distances by personal transport modes other than the private car/truck. It should be noted that in Warkworth the connection distances between residential areas, centres and key attractors, such as employment areas and schools, are generally less than 5km, meaning walking and cycling trips within the urban area are a feasible transport option for many people.

The Network Principles for the primary walking and cycling routes in Warkworth are:

- Connecting people to key destinations (hub and spoke network concept):
  - Between Warkworth's centres;
  - Between centres and public transport stations;
  - Between public transport stations and medium to high density residential areas;
  - Between centres and employment areas;
  - Between medium to high density residential areas and educational facilities.
- Utilising riparian stream corridors to provide connections to key destinations and residential areas.
- Utilising the arterial road network to provide connections to key destinations and residential areas.

All roads within the Warkworth Structure plan area are proposed to have safe walking and cycling facilities. In general:

- All new and existing arterial roads are proposed to have footpaths on both sides of the road and separated cycle facilities;
- All new collector roads identified on the active mode transport network are proposed to have footpaths on both sides of the road and separated cycle facilities. New residential and business development will be encouraged to be 'rear-loaded', where access occurs from rear lanes or consolidated accessways, on these new collector roads to enable separated facilities to be provided with minimal vehicle crossings;
- All existing collector roads identified on the active mode transport network are proposed to have footpaths on both sides of the road. While separated cycle facilities are desirable and can be achieved for localised areas (Hill Street in front of Warkworth Primary School for example), improvement to some other roads may be limited by their existing situation. Where separated cycle facilities are not possible local area traffic management ('**LATM**') can be used to control vehicle speeds (traffic calming with cycle bypasses for example) and/or shared paths;
- All other collector road and local roads not on the active mode network map are anticipated to have traffic volumes less than 2,000 vehicles per day and therefore can operate in a mixed traffic environment. There is strong need however to ensure vehicle speeds are 30 km/hr or less and therefore all new local and collector roads should have some form of LATM included. Existing roads, particularly those around the existing Warkworth town centre and identified on the greenways network, will need to be monitored to assess whether LATM is required; and
- Walking and cycling facilities are proposed to be provided 'off-road' along the Mahurangi River and other riparian margins to avoid the need to encounter vehicle traffic at all. These routes will serve both a commuter and recreational function.

### 3.3.7.2 Rooding network

Based on the potential growth indicated in the Warkworth Structure Plan, the proposed rooding network is shown on Figure 4 and includes:

- Ara Tūhono – Pūhoi to Warkworth
- Matakana Link Road (Te Honohono ki Tai)
- Western Link Road between SH1 (north) and SH1 (south) including Mansel Drive
- Sandspit Link Road
- Wider Western Link Road
- Potential Ara Tūhono – Pūhoi to Warkworth southern interchange (with south facing ramps only).

In addition to these, indicative collector roads are also shown but there is flexibility to potentially change these routes through further analysis.

The proposed road network provides both north-south and east-west arterial roads to carry the majority of traffic movements generated by the proposed land use activities within the structure plan area. Due to topographical and watercourse constraints, there is limited opportunity to establish a grid network ideally sought for greenfields development. As a result, the collector road network typically comprises crescent roads that direct traffic back to



the arterial road network. It is likely that in some locations, local roads will also access directly off arterial roads.

The potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only) enables a large proportion of Warkworth, in particular Warkworth south, to travel to and from the south without utilising the existing SH1 route or the utilisation of the internal Warkworth road network to access the Ara Tūhono – Pūhoi to Warkworth roundabout to the north. As part of connecting to the southern interchange, a new Wider Western Link Road is proposed to connect the southern interchange to both the existing SH1 route and Woodcocks Road. This will allow the southern interchange to be accessed by the wider Warkworth area. The interchange is also proposed to be located nearby to proposed industrial land which will shorten travel distances to strategic routes for heavy vehicles and lessen the amount of heavy vehicle traffic on roads within Warkworth.

The proposed Sandspit Link Road will enable better vehicle accessibility for vehicles travelling between Sandspit, Snells Beach and Algies Bay, and Ara Tūhono – Pūhoi to Warkworth, by avoiding the need to pass through the SH1/ Hill Street intersection. Essentially, these vehicles can bypass the intersection by following a route along the Sandspit Link Road, Matakana Link Road (Te Honohono ki Tai) and SH1 (north of Hudson Road). While the design of the SH1/ Hill Street intersection is yet to be determined, the Sandspit Link Road and Matakana Link Road (Te Honohono ki Tai) provide the opportunity for this intersection to focus on improving accessibility for public transport, and walking and cycling.

As part of the structure plan, Local and Neighbourhood Centres have been located near arterial roads where they can be accessed by private vehicles, public transport, walking, and cycling modes.

### **3.3.7.3 Public transport network**

Based on the potential growth indicated in the Warkworth Structure Plan, the proposed public transport network is shown on Figure 4.

Currently, census data reveals public transport use in Warkworth is very low (although growing with the introduction of AT services). In the short term, it is proposed to build upon the recently introduced 'New Network for Warkworth' with four key routes:

- Snells Beach/ Algies Bay Connector (996)
- Omaha/ Leigh Connector (997)
- Wellsford Connector (998) implemented in 2019 and funded by the Rodney Local Board targeted transport rate
- a higher frequency bus service between Warkworth and Hibiscus Coast Station in Silverdale (995)

Initially, a main station/bus interchange is proposed in the Warkworth town centre supplemented by an interim 'northern station' adjacent to SH1 north of the town. The interim northern station will also provide a Park and Ride facility to enable convenient access to the 995 route.

In the long term, the preference is to retain a town centre station but also have a larger bus station/interchange in the southern Local Centre and a Park and Ride near the potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only). The reasons for favouring a southern station are:

- It simplifies the 995 route (the high frequency route between Warkworth and Hibiscus Coast Station). The Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only) enables buses to efficiently gain access to and from the motorway route.
- Due to land constraints, there is limited space within the Warkworth Town Centre to accommodate pulsed/layover arrivals (there would need to be greater than five bus stops including inter-regional buses). There could be space designed for a bus station/interchange in the greenfields development of the Local Centre in Warkworth south.
- Private land to the north will be further developed and the ability to accommodate an interim station facility without land purchase is limited.
- The existing 996 (Snells/Algies Bay), 997 (Omaha/Leigh), and 998 (Wellsford) routes can be extended south through the new Warkworth South residential catchment to the new southern station. This will enable the new residential catchment to be served by public transport without significant changes to the existing bus network.
- The higher density Terrace Housing and Apartment Buildings zone and the Local Centre zone are proposed to be designed in conjunction with the southern station. This will encourage walk-up public transport to both the 995 route to Auckland and the other local routes also passing through the station.

With a proposed southern station, it is not considered necessary to retain the northern station. The main reasons are that if a northern station with a Park and Ride is retained, there would need to be a bus connection between the northern station and the southern station. As no north-facing ramps are proposed at the Ara Tūhono – Pūhoi to Warkworth southern interchange, this would require the 995 route to follow the Western Link Road and extend the running time of the service. In addition, outside of peak times, there would likely be a significant number of 'empty-running' buses between the northern and southern stations.

### 3.3.8 Other infrastructure

#### 3.3.8.1 Wastewater

The Warkworth wastewater network is a combination of gravity and low pressure systems and has limited capacity for population growth. The Warkworth Wastewater Treatment Plant ('WWTP') is located on the southern bank of the Mahurangi River on Alnwick St, near to the township. The Warkworth WWTP discharges the treated wastewater into the Mahurangi River adjacent to the plant.

The Warkworth WWTP will continue to service the existing township until the end of 2021, at which time the wastewater will be redirected to a new conveyance system for treatment at

an upgraded Snells Beach WWTP, which will discharge the treated wastewater to the Hauraki Gulf, south of Martins Bay. This new conveyance, treatment plant and discharge system has headroom for population growth. The scheme, called the 'North East Wastewater Servicing Scheme', provides a bulk wastewater connection point on Sandspit Road, called Pump Station No.2.

The structure plan area will largely be a new conveyance system functioning separately to the existing township and will connect to Pump Station No.2. Trunk and local network pipelines collecting and conveying wastewater from the structure plan area will be sized to meet the proposed development yield.

More detail on wastewater provision in Warkworth is provided in the Watercare reports listed in **Appendix 1**.

### **3.3.8.2 Water**

Ground water is abstracted by two new bores on Hudson Road and is then treated at a new Water Treatment Plant facility on Sanderson Road. The plant is designed to treat the consented abstraction volume limit, which caters for approximately 16,000 people. The treated water is currently pumped to two reservoirs (View Road and Thompson Road) that service the existing township.

Trunk network pipelines providing water to the structure plan area will be sized to meet the proposed development yield. Additional reservoir storage may be required to enable the water treatment plant to operate at a consistent throughput and to provide security of supply to customers. The location of additional reservoir storage is yet to be determined.

A future water source will need to be found to provide water beyond the current abstraction consent limit. However, Watercare is confident that such a source will be found prior to this population trigger being reached (2028 onwards).

More detail on water provision in Warkworth is provided in the Watercare reports listed in **Appendix 1**.

### **3.3.8.3 Power supply**

Warkworth's power supply comes through from Transpower's Wellsford Grid Exit Point to Warkworth via Vector's substations. No additional Transpower infrastructure is required in order to service Warkworth's planned growth.

Vector own the network lines that deliver power to Warkworth. The network consists of both overhead lines and underground cables. Vector have been involved in the structure plan process and are aware of the Warkworth's anticipated growth. To cater for growth the network is being future-proofed by upgrading assets, technology and information systems.

Currently, power is delivered to Warkworth via overhead 33kV subtransmission lines down SH1 to the Warkworth zone substation in Matakana Road. Another 33kV line continues to the Snells Beach zone substation. From the zone substations, 11kV feeders radiate into the surrounding areas. The network is overhead (solid lines) except for parts of Warkworth that have underground cables.

All new or upgraded network in urban or semi-urban areas will be underground to ensure a high-quality environment for new dwellings (as required by the Auckland Unitary Plan).

The 33kV network and zone substations are approaching their capacity and Vector's Asset Management Plan outlines the development plans to address this. The main projects scheduled over the next few years in the Warkworth vicinity are:

- Network batteries at Snells Beach and Warkworth South (Woodcocks Road) to manage peak load on the network and strengthen the power supply
- New zone substation in Big Omaha
- New cables in Sandspit Road
- Capacity upgrade at Snells Beach zone substation
- New zone substation in Warkworth South
- New/upgraded subtransmission circuits from Wellsford

#### **3.3.8.4 Telephone and broadband**

Chorus will be installing Ultra-Fast Broadband ('UFB') fibre to the existing Warkworth urban area over the next few years. This will deliver the best broadband available to Warkworth. The UFB fibre build will consider the Warkworth Structure Plan's indicative roading network by installing additional duct capacity wherever new or additional ducting is laid.

The Warkworth Structure Plan study area (Future Urban zone) will be fully reticulated with fibre for telephone and UFB as each area is developed.

#### **3.3.8.5 Community facilities**

Existing council community facilities are mainly located within the existing built up Warkworth area. The council's Community Facilities Network Action plan identifies actions and priorities required to address gaps, growth or fit for purpose issues across the community facilities network. The action plan identifies that in the medium-term the following actions are required:

- investigate the feasibility and innovative opportunities to meet the need for a pool and leisure space in the Rodney area
- a needs assessment to assess whether the existing facilities are aligned to community needs in Rodney
- investigate the need for a multi-purpose community space in Warkworth
- Investigate the need for expansion and refurbishment of Warkworth Library.

Subject to the outcomes of the actions identified above, it is anticipated there will be adequate provision of library, arts and culture and community centre space to meet the forecast growth in Warkworth. Provision of additional aquatic space may be required in the medium-term to serve Warkworth (and the surrounding area). There may be options to provide this through partnerships, or other innovative methods.

More detail on community facilities provision in Warkworth is provided in the community facilities reports listed in **Appendix 1**.



### 3.3.8.6 Education

The Ministry of Education is responsible for managing the network of schools within New Zealand. Within the Auckland region, significant population growth is expected to occur as a result of natural increase and migration from overseas and other parts of the country.

Warkworth has been identified as an area of high priority, given the projected resident population growth and high-level of development planned for the area. If the structure plan study area is built out to its full capacity, the development could generate around an additional 1,750 primary age (Year 1 to 6) students and around an additional 2,080 secondary age (Year 7 to 13) students.

This forecast growth will require the expansion of both Warkworth Primary School and Mahurangi College. Over the medium to long term, two further primary schools and additional secondary provision (Junior College) are likely to be required. The establishment of new schools in Warkworth will also require the adjustment of enrolment scheme home zone boundaries to ensure growth can be balanced across the network of schools.

Any new school sites will need to be acquired and designated by the Ministry. School sites will ideally be located near planned centres and other social infrastructure. Key factors of interest when planning for new school facilities are accessibility (walking, cycling, public transport and road), availability and topography of land, distribution of schools, co-ordination of delivery with other agencies and the ability to co-locate social infrastructure.

The Ministry have been working closely with the council's structure plan team and the Supporting Growth Alliance as they look at where to locate these new schools. The Ministry have undertaken an exercise to look for preferred sites within the Future Urban zone. The Ministry are actively pursuing the purchase of sites in the Future Urban zone and until this process is complete the structure plan cannot show on a map where the new schools will be located. However, it is noted that the Warkworth Structure Plan has been prepared with an awareness of the general areas within which the Ministry wishes to locate the new schools.

The delivery of additional education facilities will be planned to align with the sequencing set out in the Future Urban Land Supply Strategy. The Ministry of Education will monitor the speed and uptake of development once land becomes development ready to ensure there is sufficient capacity in the local school network. Delivery timeframes will be adjusted if required. The tentative opening date for a new primary school in Warkworth is 2024 and a Junior College is tentatively scheduled for 2025. Opening of new schools is subject to funding availability, phasing and design and delivery.

Note that the Ministry does not provide Early Childhood Education facilities but rather regulates the facilities that are privately owned, or community based. These parties are expected to continue to supply Early Childhood Education services to cater for Warkworth's growth.

More detail on education facilities provision in Warkworth is provided in the Ministry of Education reports listed in **Appendix 1**.

### 3.3.8.7 Healthcare

Warkworth lies within the Waitemata Health Board ('WDHB') district. The WDHB serves Rodney, North Shore and the Waitakere areas, extending from Te Arai in the north to Devonport in the south and Piha in the west. The WDHB has two major hospitals (one in Waitakere and one in the North Shore) and it also has 30 community health centres throughout its district.

The current provision of healthcare services in Warkworth is through general practitioners, a surgical centre, a community health unit, and a birthing centre. There are two general practitioner services in Warkworth; the Kowhai Surgery and the Warkworth Medical Centre. The Rodney Surgical Centre provides privately funded specialists and surgical services.

There is no 24-hour emergency health facility in Warkworth. Waitakere hospital is approximately 64km and North Shore hospital is approximately 50km. The Westpac and New Zealand Air Ambulance serve this area.

The four District Health Boards<sup>19</sup> in northern New Zealand have developed Northern Regional Long Term Investment Plan ('NRLTIP') to articulate the strategic direction for the Northern Region using a 25 year planning horizon. It identifies the investments necessary to ensure the ongoing delivery of high quality healthcare.

The NRLTIP indicates a potential new acute site will be required in the northern region. However, the precise location is unknown at this stage and it could be located anywhere within the Northland or Waitemata district health board areas.

To enable the provision of primary health care services the Warkworth Structure Plan has provision for the following zones that anticipate small healthcare facilities: Local Centre, Neighbourhood Centre, and Terrace Housing and Apartment Building zones. Larger healthcare facilities and hospitals are anticipated in Light Industry zones.

Aside from health facilities, the environment in which people live can impact on their health and well-being. Air and water pollution have obvious effects on our health, but other things such as the exercise we do, our social connectedness and commuting patterns can also affect our health.

As the structure plan sets out the land use and infrastructure provision for an area, it will have an impact on how close people live to key services, types of recreation options or public transport options available; which will inevitably affect the health of future inhabitants.

Key elements of the Warkworth Structure Plan that could have health and well-being impacts on future inhabitants include:

- The Green Network proposed in the structure plan can promote health and well-being by:
  - encouraging walking and cycling (where there are paths/connected Green Network areas).
  - improving the aesthetics of the urban environment through green planting.

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<sup>19</sup> Northland, Waitemata, Auckland, Counties-Manukau

- mitigating sediment in to Mahurangi River and therefore improving the aesthetics of the Mahurangi River which is a focal point for the community.
- potentially acting as a carbon sink that aids in alleviating the urban dome effect.
- The transport proposals in the structure plan promote health and well-being by:
  - prioritising cycling and walking to key service destinations (e.g. centres, public transport interchanges, parks, employment areas, schools etc).
  - identifying public transport options to Auckland (Hibiscus Coast station) and to surrounding rural settlements, which can reduce car reliance.
- The approach to locating residential zones and key service destinations in the Warkworth Structure Plan promotes health and well-being by:
  - ensuring key services (i.e. Local and Neighbourhood Centres) and parks are accessible to residential neighbourhoods by walking and cycling (close proximity to potential amenities is an important predictor of walking).
- The approach to provision of parks, recreation and green spaces promotes health and well-being by:
  - ensuring passive recreation opportunities are easily accessible in residential areas (preferably along the Green Network), which in turn increases the odds of informal physical activity.
  - locating parks along the Green Network that is potentially accessible by walkways and cycleways is a readily available recreation and transport opportunity.
- Potential contamination and boundary issues are mitigated which promotes health and well-being by:
  - ensuring a buffer (e.g. major road, esplanade reserve) between incompatible uses (e.g. between residential areas and industrial areas).
  - clustering land uses that are have the potential to create issues (e.g. the Heavy Industry zone is located adjacent to the motorway which protects residential areas from potential reserve sensitivity issues).
  - avoiding sensitive activities on land that may potentially contaminated.

### 3.3.9 Managing hazards

#### 3.3.9.1 Stormwater

In terms of flood management the Warkworth Stormwater Management Plan proposes to:

- Use streams and their associated riparian margins to provide storage and conveyance to manage flood waters.
- Avoid locating buildings or infrastructure within the 100 year ARI modified floodplain unless it can be designed to be resilient to flood related damage.

- Ensure all development and changes within the 100 year floodplain do not increase adverse effects or increased flood depths or velocities to other properties upstream or downstream of the site.
- Identify overland flowpaths and ensure that they remain unobstructed and able to safely convey runoff.

Overall it is considered that the land uses identified in the structure plan for the Warkworth Future Urban Area generally respond well to the site specific constraints and opportunities identified in the Stage 1 - Preliminary Stormwater Management Plan dated February 2019. In particular it is notable that the structure plan seeks to avoid development in the floodplains and restore riparian areas.

Stormwater will be managed in the structure plan area using an integrated stormwater management approach involving water sensitive design. This will involve the following components:

- Minimise the generation of stormwater runoff and contaminants with measures such as clustering development, reducing impervious surfaces and using inert building materials.
- Manage runoff and contaminants as close to source as possible with measures such as capture and reuse, green roofs, permeable pavements and terrestrial revegetation.
- Use swales for stormwater conveyance where possible as an alternative to pipes and filter strips where practicable, as pretreatment to downstream treatment devices.
- Utilising downstream treatment devices which mimic natural physical, biological and physical treatment processes.
- Enhance the receiving environment by preserving and restoring riparian vegetation along banks, natural floodplains and wetland margins, including linking areas of riparian vegetation to create continuous green corridors.
- Utilise existing natural systems for stormwater management function including the restoration/enhancement of wetlands.

Methods to improve water quality as well as minimising and mitigating hydrological change are proposed.

Some further, specific consideration of stormwater requirements in relation to particular land uses and locations will be required in order to ensure that an integrated stormwater management approach is achieved throughout the structure plan area. This will occur at the plan change stage or development consenting stage.

More detail on stormwater management in Warkworth is provided in the stormwater reports listed in **Appendix 1**.

### **3.3.9.2 Geotechnical and coastal hazards**

The Warkworth Future Urban Zone is located upstream of the Mahurangi River, approximately 14km from the open coast. The boundaries of the future urban zone are adjacent to the Mean High Water Springs boundary, extending further landward in northerly, southerly and westerly directions. As a result, the extent of tidal influence and coastal



processes on the future urban zone is limited and there are no identified coastal hazard constraints.

Most of the study area is underlain by rocks of the Waitemata Group, with smaller areas of the Northland Allochthon. The result is a complex combination of weak to moderately strong sandstones and mudstones (the Waitemata Group), with large lenses or disrupted slices of significantly weaker and highly sheared mudstones, siltstones, sandstones and limestones of the Northland Allochthon. These rock types are often associated with large landslides.

Although ancient landslides are observed in some slopes, no areas in the study area have been deemed unsuitable for development because of slope instability. Areas where stability is likely to be more challenging have been zoned for lower density development. This development style can be more flexible, with less need for significant earthworks which could compound existing instability.

Sea level rises since the last ice age have 'drowned' the Puhoi and Mahurangi valleys. These valleys are infilled with deep, soft estuarine and alluvial sediments. These sedimentary deposits are often very weak, resulting in the need for more ground preparation (such as pre-loading to reduce settlement) or for deep foundations. They may also include areas locally prone to liquefaction.

These soft areas have been mostly left as open space or zoned for industrial uses which tend to either be light weight structures (so settlement is a relatively minor issue) or very heavy, in which case the structures would be built on piled foundations.

Overall it is considered that the Warkworth Structure Plan is appropriate from a geotechnical and coastal hazards perspective. The hazards identified should be practical to address with engineering controls. Further investigation and assessment will be needed as the land is developed to manage the risk posed by these hazards.

More detail on geotechnical and coastal hazards in Warkworth is provided in the geotechnical and coastal hazard reports listed in **Appendix 1**.

### **3.3.9.3 Potentially contaminated land**

Within the study area there are a number of potentially contaminating activities included on the Ministry for the Environment Hazardous Activities Industries List ('**HAIL**') that are either being undertaken or more likely than not to have been undertaken in this area. Those activities were commonly associated with pastoral farmland and rural-residential use (for example, livestock dips or spray race operations, importation of unverified fill, burying and burning of farm waste), horticultural activities (market gardening, orchards, green houses and viticulture), and commercial operations (such as a motor mechanic workshop and a spare car parts business).

The zonings identified in the Warkworth Structure Plan will be implemented in the Auckland Unitary Plan through future plan changes and the subsequent resource consent applications will trigger the planning requirements under Section 104(1) of the Resource Management Act 1991. These processes will facilitate the assessment and management of contaminated sites within the Future Urban zone (including remediation if required), prior to redevelopment. This approach will progressively reduce the existing potential contaminant

sources within the Future Urban zone that pose a risk of adverse effects on the receiving environment and/or human health.

In addition, the Warkworth Structure Plan provides for buffer zones (esplanade reserves/strips, wide riparian areas, arterial roads) between industrial land and sensitive receptors, which reduces the likelihood of potential contaminant discharges reaching these receptors.

Through these measures it is anticipated that adverse effects on the environment or human health associated with either historical or future contaminated land will be adequately mitigated, and the quality of the environment improved.

More detail on potentially contaminated land in Warkworth is provided in the potentially contaminated land reports listed in **Appendix 1**.

### 3.3.10 Protecting Warkworth's special characteristics

#### 3.3.10.1 Environment

The Warkworth Structure Plan area is a highly modified landscape with predominantly arable livestock/pastoral and rural lifestyle activities surrounding the existing Warkworth urban area. Small patches of native vegetation remain across the landscape and freshwater habitats are of moderate condition. The Warkworth Structure Plan is an opportunity to improve ecological values in the area.

The Warkworth Structure Plan land use map aligns with environmental principles, policy, and strategic outcomes documented in the Environment Topic Report (see **Appendix 1**). The alignment of the Plan with environmental principles and outcomes is largely due to structuring the plan around the Green Network as outlined in section 3.3.1. In realising this, the plan proposes to create a continuous 'green corridor' across the study area that connects terrestrial and freshwater habitats with the Mahurangi River and Mahurangi Harbour.

The corridors will improve coverage of vegetation across the structure plan area and provide habitat for wildlife. This is important for improving the quality of existing terrestrial, freshwater and marine habitats and supporting their long-term resilience to change. The corridors will provide linkages between the Dome Valley Forest in the north, through to the Mahurangi River, and out into the Mahurangi Harbour and pest-free islands of the Hauraki Gulf in the east.

The Plan intends that the Green Network areas are not developed for urban purposes. This will provide some protection to the important existing natural and ecological values which those areas hold. To protect those values over the long-term, ecological corridors need to be established to connect those areas together, as well as to a range of other terrestrial, aquatic and/or marine habitats. Ecological corridors help improve the quality and resilience of habitats by facilitating movement of wildlife and providing opportunities to increase vegetation cover and biological diversity (especially native species). Creating these corridors will require revegetation of the intervening gaps between existing areas of native vegetation.

It is important from an environmental perspective that the Green Network in the structure plan is given suitable protection through some form of statutory method (i.e. covenants, Auckland Unitary Plan rules). If these areas are only followed through with weak provisions, then this would not lead to the environmental outcomes sought.

While there are advantages to the Green Network being publicly owned in the future, this is not necessary to achieve most of the environmental outcomes sought. The Green Network can remain on privately owned land into the future, as long as there are provisions in place to adequately protect them.

The Green Network should also be proactively restored (e.g. planting up floodplain areas and riparian margins with appropriate species) if the environmental outcomes sought are to be achieved.

Along with appropriate restoration (e.g. riparian planting), if given appropriate statutory protection the Green Network will afford protection of existing freshwater ecological values as well as improve the long-term life supporting capacity of the freshwater systems in the area, of which sections are currently degraded and lacking suitable riparian cover. Restoration also supports the delivery of objectives for the *National Policy Statement for Freshwater Management (NPS-FM) 2014*. The active restoration of the Green Network could be achieved through mitigation for urban development or through regulation/incentives.

The approach of connecting varying habitat types across the structure plan area is consistent with the visions and objectives sought in *Auckland Council's Indigenous Biodiversity Strategy (2012)*, *Auckland's Urban Ngahere (Forest) Strategy (2017)*, and the *New Zealand Biodiversity Strategy (2000-2020)*.

More detail on Warkworth's environment is provided in the environmental reports listed in **Appendix 1**.

### **3.3.10.2 Sustainability**

Planning for sustainability outcomes is identified as a core consideration in the development of the Warkworth Structure Plan. It is important to note that although the intention to plan the Future Urban zone to be sustainable has been clearly laid out, to achieve this outcome, this principle needs to be considered and upheld during all subsequent planning and design decisions (i.e. during the plan change and resource consent processes).

The structure plan proposes a mix of land uses including a range of residential zones, four small centre zones and areas zoned for industry. In addition, indicative park locations have been identified and the need for additional school sites acknowledged. This mix of land uses suggests that the proposed zoning will to some extent promote a functioning, self-sustaining community as many of the everyday needs of residents could be met within the future urban area and the existing Warkworth urban area.

The plan proposes to incorporate green infrastructure and has identified green infrastructure opportunities at an early stage. The Green Network (Figure 2) is proposed to be land set aside from urban development and to be restored over time (e.g. revegetated). This is an important component of the structure plan and central to delivering a range of significant sustainability outcomes.

This Green Network provides a significant opportunity to deliver a number of functions in order to achieve multiple benefits. These include opportunities for biodiversity enhancement, creating ecological corridors and protecting and enhancing the urban forest. Integrating active travel routes within the Green Network presents an opportunity to promote low carbon and active transportation modes and enhance connectivity within the structure plan area and to the existing Warkworth urban area. In turn, this provides an opportunity to connect people with nature to improve physical and mental health and wellbeing.

The NIWA report on climate change projections and impacts for the Auckland region projects increased rainfall intensity and a greater risk of flooding. The Green Network outlined in the plan should provide enhanced resilience to flooding and support climate change adaptation. The floodplains within the structure plan area are associated with watercourses and so generally fall within Green Network or future esplanade area, where the 20m buffer should provide additional resilience to flooding.

More detail on sustainability is provided in the sustainability reports listed in **Appendix 1**.

### **3.3.10.3 Heritage and Archaeology**

The retention of Warkworth's heritage was a common theme from consultation on the structure plan project and is reflected in the Planning Principle of "Celebrate and protect Warkworth's heritage, both Maori and European, and its relationship with mana whenua".

There is currently one scheduled historic heritage place in the structure plan study area. Several other places of interest or significance have been identified through research undertaken through the Warkworth Structure Plan project.

The key places of actual or potential historic heritage significance known to exist within the structure plan study area are:

- The site of Combes and Daldy's lime works and related features (ca 1862-1870s). The lime and cement industry contributed significantly to the development of Warkworth. This was the first lime works in the Warkworth area to successfully produce lime from limestone for construction purposes. It potentially contains the earliest surviving evidence of lime burning in the district. This site is included in the Schedule of Historic Heritage in the Auckland Unitary Plan but requires the extent of place to be added to the historic heritage overlay.
- An early (1913) reinforced concrete dam built for Wilson's Portland Cement Company. This dam should be evaluated for potential inclusion in the Schedule of Historic Heritage in the Auckland Unitary Plan.
- WWII US military camp sites. The US WWII camp sites and related places in the vicinity of Warkworth (including the headquarters at *Riverina* and *Little Riverina*) are collectively of historical significance to the district. However, it is very unlikely that individual camp sites would meet the criteria for scheduling or that the scheduling of the substantial areas that were occupied by the camps would provide reasonable use within the context of the proposed structure plan. Alternative mechanisms are proposed for recognising the significance of these places. These include installing markers adjacent to former camp locations and interpreting the history of the camps.



The site of one of the US military camps (Wyllie Road D2 at 346 Woodcocks Road) is contiguous with an Auckland Council reserve along the Mahurangi River. Although this camp is not, in itself, of identified individual significance, it was part of one of the biggest groupings of camps in the district. There is a potential opportunity to interpret the camps that once existed on this and the surrounding land from this vicinity, or the opposite side of the river. This opportunity could potentially be enhanced by the indicative neighbourhood park over the part of this property where the camp was located.

- *Riverina* is a large early 20th century villa which is outside the study area. It has significance in relation to the lime and cement industry in addition to its role during World War II. The property is currently not scheduled. It should be evaluated for potential inclusion in the Schedule of Historic Heritage in the Auckland Unitary Plan.
- The route of a Māori pathway, later used by European settlers and travellers, connecting the head of the Mahurangi River with the Kaipara/west coast is also of some historical /traditional significance. It is unlikely that any tangible evidence of this pathway has survived more recent development within the study area and we have not recommended scheduling of this route. We have proposed alternative mechanisms for recognizing and/or interpreting the past significance of the pathway. A suitable location may be in the vicinity of the Falls Road ford over the Mahurangi River.

The Combes and Daldy lime works site and Wilson's cement company dam appear to be substantially intact and have value as part of a grouping of buildings, structures and sites associated with the historic lime industry in the Warkworth-Mahurangi district. These include a distinctive assemblage of late 19th and early 20th century buildings (including *Riverina* and *Little Riverina*) that incorporated local cement and other products.

Other places of heritage interest or value identified within the study area include:

- The sites of early (1850s-70s) settler dwellings. Five of these have been identified and recorded as archaeological sites. Two of these sites, at 360 Sandspit Road and 190 Matakana Road, have early plantings (mature English oak trees) associated with them. These plantings should be considered for evaluation for potential inclusion in the Auckland Unitary Plan schedule of notable trees.
- One previously recorded possible Māori terrace site with taro surviving as a relic of cultivation. This record has been updated following a site visit. The possible terraces appear to be natural landforms. The taro is still present.
- The Falls Road ford, and Cherry's bridge, which are associated with early transport networks in the area. A standard sign identifying the name Cherry's Bridge and the name of the river (Mahurangi right branch) should be installed to remember the history of this place;
- Dwellings located at 66 McKinney Road, 317 Woodcocks Road, 190 Matakana Road, 25 Francis Place and 76 Matakana Road.

The potential exists for further archaeological sites or other historic heritage places to be identified through additional research or survey. However, it is considered unlikely that any additional places of significant historic heritage value will be present in the study area. Appendix A of the Historic Heritage Topic Report identifies sites within the study area, including those listed above, that have potential for further research. This does not necessarily indicate that they are places of significant heritage value, but rather that they contribute to the history of Warkworth. Consideration should be given to further documenting these places where warranted as part of that history.

There are possible adverse effects (actual or potential) on historic heritage arising from the Warkworth Structure Plan land use plan. The structure plan addresses these by avoiding potential adverse effects on the two identified places of historic heritage significance - the Coombs and Daldy lime works site and the Wilsons Cement Company dam. These places have been identified as 'protection areas'. Part of the lime works site has been identified as future esplanade reserve, while the dam is currently within an esplanade reserve. The balance of the property within which the lime works is located has been zoned Residential – Large Lot, which will assist in avoiding potential adverse effects associated with future development. This also gives effect to the structure plan planning principle to "Apply lower density residential zones to areas valued for their landscape, character or heritage significance".

Trees have been identified on two properties that may meet the criteria for inclusion in the AUP Schedule of notable trees and these are recommended for evaluation as a method of avoiding potential adverse effects arising from future residential development.

More detail on historic heritage in Warkworth is provided in the heritage reports listed in **Appendix 1**.

#### **3.3.10.4 Landscape**

Most of the proposed land use zonings in the Warkworth Structure Plan are closely aligned or consistent with the key recommendations of the Landscape Topic Report (April 2018). The areas of congruence are around protecting streams/river courses and significant vegetation and the matters below:

- Zoning of the elevated ridges, hills and knolls that define the outer edge of the catchment, together with those that (in the south) that are linked to Avicé Miller Reserve, and (in the north) to the Warkworth Showgrounds for larger lot types of development (Large Lot and Single House with an increased minimum site size);
- Zoning of the large knoll, partly covered in native bush, within the southern half of the structure plan area overlooking Morrison's Heritage Orchard and Ransom Vineyard for Large Lot development; and
- Identification of other natural 'focal points' and low points within individual catchments as possible large park locations – where they can be linked to stream corridors and existing vegetation.
- Protection of the Outstanding Natural Landscape and area of High Natural Character associated with the Mahurangi River near Warkworth's town centre, via the identified 'protection areas' described above and the potential use of a precinct to control the heights of buildings (e.g. restricting their height below the ridgeline);

- Concentration of development in general within the lower lying areas of the catchment, while utilising the more elevated landforms around the margins of the Structure Plan for low density zoning to help retain some of the open space, 'green' values that are fundamental to the town's character and identity; and
- Retention of a broad network of rivers, streams, stands of bush and significant landforms through the application of 'protection areas', Future Esplanade zoning and/or the Large Lot zoning so that these features continue permeate the entire catchment and remain a visual hallmark of Warkworth into the future.

The areas of concern are outlined below and an outline of how the structure plan has responded:

- There is a concern that the Large Lot and Single House zones (with increased site size) may not retain sufficient open space to protect the ridges, knolls and stands of bush mostly on the outer margins of the structure plan study area as coherent and sustainable, physical bodies. They may also fail to provide a true sense of true transition into surrounding rural areas, while also becoming relatively inefficient, 'low density suburban' environments. This is also potentially an issue in relation to a large knoll, partly covered in native bush, within the southern half of the structure plan area near Morrison's Heritage Orchard and Ransom Vineyard. This large knoll is a significant local feature.

This matter is addressed in the Warkworth Structure Plan by identifying areas of the Large Lot zone where further landscape protection controls may be necessary (e.g. building design (size, height, colour etc) and a requirement to revegetate a significant amount of the land within each section).

- Warkworth's identity and overall amenity currently benefits from the passage through quite verdant gateways to the town – on SH1 and Sandspit Matakana Roads. The structure plan proposes that the main SH1 'gateway' road entrance is through, or past, industrial areas, which would, inevitably, change public and local perceptions of the town.

The Warkworth Structure Plan addresses this matter by showing landscape screening areas along the edge of the industrial zones in some key locations. These are areas for planting that are large enough to effectively screen industrial development. These would need to be in the order of 20-30m deep to accommodate mature native trees in the long term.

More detail on Warkworth's landscape is provided in the landscape reports listed in **Appendix 1**.

### **3.3.10.5 Urban Design**

Warkworth's future urban land comprises several areas with local distinctiveness. Each area is distinct from the next based on key attributes including contours, existing vegetation, streams and watercourses, proximity to existing development, and views and vistas afforded by the topography and orientation. These areas will help inform future neighbourhood development that supports place-based neighbourhood character and identity.

A Neighbourhood Design Statement has been prepared for the Warkworth Structure Plan. This identifies different future neighbourhoods in the study area. The neighbourhood boundaries are based on common elements/characteristics including natural features, contours and orientation.

The Neighbourhood Design Statement identifies various characteristics of the existing Warkworth settlement and of the Future Urban zoned land around it. To ensure new development is sympathetic to the character of the existing settlement and the landscape context, it is recommended to establish one or more precincts or sub-precincts to address specific matters not already covered in the zone provisions.

More detail on urban design in Warkworth is provided in the urban design reports listed in **Appendix 1**.

### **3.3.10.6 Cultural**

Mana whenua have a special cultural and spiritual relationship with the environment which is a matter of national importance under the Resource Management Act 1991. In the structure planning context, council must consider iwi planning documents, Treaty settlement legislation and address any potential effects of urbanisation of mana whenua values.

The council has sought an ongoing dialogue with mana whenua as part of the development of the Warkworth Structure Plan. Key feedback raised in relation to the development of the Structure Plan has included:

- protecting the environmental integrity of air, land and in particular the rivers as Warkworth urbanises
- seeking proactive environmental monitoring and sedimentation control to restore and protect the Mahurangi River
- providing opportunities to revegetate the area with native vegetation
- protecting wāhi tapu and taonga with new development
- supporting buffer planting next to streams for protection and to encourage biodiversity
- reducing car dependence and supporting the provision of cycling and walking networks

There is a desire for ongoing involvement of mana whenua in the development of Warkworth, past this structure plan process.

Further details on iwi planning documents, Treaty settlement legislation, and the mana whenua consultation process are outlined in other sections of this document.

### **3.3.10.7 Affordability**

Affordable, stable, healthy and appropriate housing is fundamental to individual, family/whānau, community and economic well-being. An adequate supply of housing located near jobs and transport links, is a core requirement for society and the economy to function and provides a good quality of life for everyone.



There is a lack of affordable housing in Auckland. The median house price in Auckland is \$1,001,000 and the median house price in Warkworth is \$811,000.<sup>20</sup>

Auckland's changing demography means there is an urgent need for housing that meets the needs of an increasingly diverse range of people. The future of Auckland includes:

- More ethnic diversity, particularly people of Asian and Pasifika descent
- More lifelong renters, with up to 50 percent of children, and a higher percentage of Māori and Pasifika people living in rental properties
- An aging population
- A growing urban population

The Warkworth population currently includes a high proportion of people of New Zealand European ethnicity, couples without children, and an aging population,<sup>21</sup> which is reflected in the current housing mix. As the population grows and becomes more diverse, housing will need to reflect changes, with viable options for all Aucklanders. Housing that does not meet people's needs may significantly undermine their housing outcomes.

Council has an obligation to meet the needs of mana whenua and maatawaka. Appropriate housing for Māori includes papakāinga and whanau-oriented homes that reflects Te Ao Māori and supports the ability to extend manaakitanga and strengthen whanaunatanga. Many Māori in Auckland are unable to afford homes that meet these aspirations.

There are multiple types of tenures on the housing continuum, which need to be established to ensure affordable housing in the community. These include:

- Social housing: subsidised rental accommodation provided by the government or community housing providers, with support services as needed
- Assisted rental housing: rental housing usually made available below market rent levels and usually part funded by the government through the accommodation supplement
- Assisted ownership: includes schemes which provide household income-related pathways to home ownership such as rent to buy, affordable equity and shared ownership
- Private ownership and private rental: tenures under the free market with affordability determined by market conditions, which can include Kiwibuild.

Funding models that could be considered include shared equity schemes, long-term pre-paid ground leases, assisted loans, co-housing, papakāinga, rent-to-buy, build-to-rent and tax breaks<sup>22</sup>.

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<sup>20</sup> Median value as of 1 November 2018 (OneRoof Property Report published 3 December 2018)

<sup>21</sup> Statistics New Zealand, (2013). Quick stats about Warkworth. Retrieved from: [http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-a-place.aspx?request\\_value=13174&parent\\_id=13171&tabname=&sc\\_device=pdf](http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-a-place.aspx?request_value=13174&parent_id=13171&tabname=&sc_device=pdf)

<sup>22</sup> A snapshot of issues and opportunities to increase affordable housing for Aucklanders was presented to the Planning Committee on 27 November 2018: [http://infocouncil.aucklandcouncil.govt.nz/Open/2018/11/PLA\\_20181127\\_AGN\\_6740\\_AT.PDF](http://infocouncil.aucklandcouncil.govt.nz/Open/2018/11/PLA_20181127_AGN_6740_AT.PDF)

Demand-side factors that can limit housing choices include:

- Employment options and income
- Access to savings and intergenerational equity
- Not being able to access services, support, and bank lending on an equitable basis

There is an immediate need for affordable housing, to rent and purchase, to meet the needs of Aucklanders. The following initiatives have been identified as potential opportunities that can be applied to the Auckland region, to help deliver more affordable housing choices:

- Encourage a range of dwelling types, at different price points to meet the housing needs of different household structures and income groups
- Prioritise the sale of affordable homes to first home buyers and key workers at prices they can afford
- Locate affordable dwellings close to transport hubs and corridors
- Ensure good quality dwellings which exceed environmental minimums and provide a more comfortable home for Aucklanders
- Apply universal design principles to make buildings usable for all, and to allow for ageing in place
- Prioritising houses for local workers through preferential purchasing opportunities

As Warkworth's population grows, a wider range of housing options than the current situation will be needed to ensure appropriate housing for all. If a range of affordable housing options is not provided, the community risks gentrification and negative social outcomes. The Warkworth Structure Plan has addressed some issues relating to affordable housing including:

- Providing the full range of residential zones in the Auckland Unitary Plan (Large Lot, Single House, Mixed Housing Suburban, Mixed Housing Urban, Terrace Housing and Apartment Buildings) as well as the ability for dwellings in the Neighbourhood Centre and Local Centre zones. This enables a mix of housing types, tenures and sizes.
- Providing for significant areas for local employment through the industrial and centre zones in the structure plan area. This is in addition to the significant anticipated job growth within the existing 'live' zoned areas of Warkworth. This will reduce the risk of Warkworth becoming a commuter suburb. Affordable housing is more than the price of a home and can include travel costs. Expensive and limited travel options have the potential to reduce the ability for lower-income residents to live in Warkworth.
- Providing for a range of higher density residential zones near the public transport routes (particularly around the bus station/interchange in the south). Locating a mix of housing types and tenures close to transport hubs that offer public transport will ensure that those who travel for work have easily accessible travel options.

Other matters that could be examined further (including through a future plan change to rezone the land) are:

- Requiring developers to provide a percentage (e.g. around 10 to 20 per cent) of their total development as affordable housing;

- Requiring housing that is suitable for older people to be included in developments;
- Mechanisms such as preferential purchasing to have the ability to retain local workers and residents in the area;
- Establishing relationships with Māori housing providers to increase options and opportunities for Māori; and
- An affordability assessment could be undertaken prior to a plan change to enable a sufficient supply and diverse range of dwelling types and sizes that meet the housing needs of people and communities, including households on low to moderate incomes and people with special housing requirements.

### **3.3.10.8 Local and rural character**

An important theme to emerge from consultation during the Warkworth Structure Plan project was the desire for the town to retain its local and rural character as it grows. The structure plan includes a number of methods to help achieve this.

There are many facets that contribute to Warkworth's local and rural character including its size, natural environment and views, rural uses in the surrounding area, separation from Auckland's urban area, and local and rural activities within the town.

In terms of size, it is worth noting that with the full build-out of the greenfield areas and growth in the existing town area Warkworth is anticipated to reach a population of around 25,000. This is around the population of Pukekohe today<sup>23</sup>. Pukekohe is generally considered to be a rural town so there is the opportunity for Warkworth to still be a 'rural' town, even with the planned growth. Warkworth's urban area is around 5kms or less end to end which enhances local character by being walkable for local trips.

The structure plan proposes to protect and enhance a Green Network area. These areas will provide direct connections with, and views to, the natural environment. The plan also protects some specific key views such as the bush-clad northern slopes of the Mahurangi River that form the natural backdrop to the town centre. Views beyond Warkworth to the bush covered slopes of the Dome and to pastoral farming areas in Warkworth's hinterland will generally not be directly impacted by the structure plan.

The rural uses in the surrounding area are not anticipated to change as a direct result of the Warkworth Structure Plan. The RUB is a planning tool which provides long term (30 year) certainty to landowners on either side of the boundary, indicating to them the development potential of their land. It gives confidence to farmers outside the RUB to invest in rural production improvements on their land as it will not be urbanised in the near future. The rural interface of the structure plan area has been managed to avoid reverse sensitivity issues arising for rural production activities as outlined in section 3.3.10.9 below.

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<sup>23</sup> Pukekohe's population is 24,940 (from the Census Area Units of Bledisloe Park, Buckland, Eden Road-Hill Top, Paerata-Cape Hill, Pukekohe North, Pukekohe West), Statistics New Zealand population estimates as at June 30, 2018.

While there is around 2km of urban expansion proposed to the south of Warkworth, the distance between Warkworth and Hatfields Beach will still be around 15km<sup>24</sup> (and 30km to Albany), giving the town a clear sense of separation from Auckland.

While local activities within the town are obviously dependant on what locals wish to do, the structure plan does show the Morrison's Heritage Orchard as continuing on as a feature for the town. The Warkworth Showgrounds also can provide for rural entertainment into the future (A&P show, rodeo etc).

Local character is also developed around the transport network with walking/cycling creating more linkages with the open space network and stream areas.

### 3.3.10.9 Managing the edges of the Warkworth Structure Plan area

The rural and urban edges of the structure plan study area have the potential for reverse sensitivity effects. The edges also have the potential to be positively linked and integrated with the existing urban area of Warkworth as well as its rural surrounds. The council's Structure Planning Guidelines (Appendix 1 of the Auckland Unitary Plan) state the following issues need to be identified, investigated and addressed through structure planning:

- The location, type and form of the urban edge, its appropriateness to the structure plan area and the surrounding area and how transitions between the area to be urbanised and other areas with different activities, building types and densities or levels of intensity are to be managed (1.4.1(3)).
- Linkages and integration with existing urban-zoned and/or rural-zoned land adjoining the structure plan area through careful edge or boundary treatment (1.4.1(4)).
- Appropriate transitions within and at the edge of the structure plan area between different land use activities, intensities and densities; (1.4.5(d)).

Tools that have been used to mitigate any issues along the boundary of the structure plan study area include lower residential densities, open space buffers, roads, similar activities on both sides of the boundary, physical separation using ridgelines, and landscape screening areas. The potential external and internal boundary issues are identified further below.

The land uses on the *outer edge* of the study area (along the RUB) have the potential to create reverse sensitivity issues if not managed appropriately. The Land Use Topic Report identified a number of land uses on the outer edge of the study area along the RUB with potential reverse sensitivity issues. The preparation of the Warkworth Structure Plan considered these land uses and seeks to manage reverse sensitivity effects as follows:

**Motorway:** The Ara Tūhono – Pūhoi to Warkworth motorway construction is currently underway. The motorway is anticipated to be completed at the end of 2021. Around 4kms of the western and north western boundary of the study area adjoins the motorway designation (#6769). It is noted that along this boundary there are different types of interfaces with the motorway with different separation distances, riparian area buffers, and/or an elevation differences between the motorway and the Future Urban zoned land.

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<sup>24</sup> As the crow flies between Warkworth and Hatfields Beach (the northern most urban area).



In the northern area a potential buffer/screening area has been identified on the plan along the boundary to prevent potential issues (e.g. visual amenity, noise)<sup>25</sup> occurring in the Single House zoned land shown in the Warkworth Structure Plan. This would act in combination with the edge management of the designation area by the requiring authority (outlined in the Urban Landscape and Design Sector Plan - Warkworth).

The area with the most exposure to the future motorway is the area south of Woodcocks Road. There is flat topography (both the motorway alignment and the land) and there is only a short distance between the motorway and the Future Urban zone. The Warkworth Structure Plan shows this area as Heavy Industry. Locating industrial land in this area limits the potential for reverse sensitivity issues for the motorway operation as industrial activities are generally not as sensitive to noise, visual amenity, light spill, air quality issues etc.

In the southern area the potential for reverse sensitivity is not significant due to the separation distance of the motorway and the RUB (around 200m). The urban area in this location is bordered by a branch of the Mahurangi River that will have a future esplanade reserve along it. This creates further separation and the existing mature riparian vegetation means that reverse sensitivity issues are unlikely to occur in this location.

**Rural production land:** The majority of the RUB adjoins land zoned Rural Production or Mixed Rural. There is potential for reverse sensitivity issues between some urban activities and rural land uses. The southern and northern area are unlikely to experience reverse sensitivity issues due to the presence of a strong ridgeline separating out the different land uses into different catchments. The Warkworth Structure Plan also uses the Large Lot zoning in these areas which introduces relatively few new neighbours to the rural zones. The western edge of Warkworth is bordered by the motorway which creates a large separation distance between the Future Urban zone and productive rural zones. The greatest potential for reverse sensitivity between urban land uses and rural farming activities is at the northern end of Matakana Road and the eastern end of Sandspit Road. These areas are zoned Large Lot which only enables a lower density and development. This lower density allows for less dramatic changes in the land uses and introduces fewer new residents along these boundaries. In addition to this, landscape screening areas are shown to create a visual buffer and spatial separation between farming areas and urban activities.

**Satellite Station building restriction:** To the south of Warkworth, the RUB adjoins designation 7501 (Satellite earth station - surrounding land use and building restriction). In some small areas the designation crosses over into the Future Urban zone. There is a significant ridgeline that separates the Future Urban zone from the valley that the satellite station is located in. The Warkworth Structure Plan shows the

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<sup>25</sup> Refer to New Zealand Transport Agency, Guide to the management of effects on noise sensitive land use near to the state highway network, 2015.

Large Lot zone in along this boundary. The large site sizes in this zone enable the flexibility to locate new buildings within a site but outside the building restriction area.

**Countryside Living land:** There are two parts of the study area where the RUB adjoins Countryside Living zoned land. This is around the Clayden Road and Goatley Road area and land north of Sandspit Road. There is unlikely to be any significant boundary issues for the Countryside Living areas or the urban uses as the structure plan shows the urban side of these boundaries zoned as Large Lot and Single House. In the Clayden Road area it is also noted that the RUB largely follows a ridgeline that separates and clearly delineates the land uses into different catchment.

**Limestone quarry:** Adjacent to the north eastern Future Urban zone area is a limestone quarry owned and operated by the Rodney Lime Co Ltd. The structure plan shows the Large Lot zone adjoining the boundary of the quarry. This introduces fewer new urban neighbours for the quarry. It is noted that the Auckland Unitary Plan also includes a Quarry Buffer Area overlay around some (but not all) of the quarry. This overlay means that most activities within the buffer area will require resource consent. An application would need to demonstrate that any reverse sensitivity issues on the quarry can be dealt with appropriately. The extension of the Quarry Buffer Area around the full perimeter of the quarry may be a matter for a future plan change (implementing the structure plan).

The structure plan land uses along the *inner edge* of the study area (along the existing 'live' zoned areas of Warkworth) can be positively linked and integrated with the existing urban area of Warkworth. The Land Use Topic Report identified a number of land uses on the inner edge of the study area and the structure plan's response to them is explained below.

**Industrial:** There are several areas of established and planned light industry in Warkworth along the internal study area boundary. The structure plan proposes to match the land uses with further Light Industry land around the existing Hudson Road and Morrison Drive industrial areas. It is noted that the Hudson Road area also contains an area of General Business that could be developed for industrial uses or large format retail. In the Morrison Drive area an arterial road is also used on the western edge to provide separation between new proposed residential uses. The boundary around the as yet undeveloped Goatley Road industrial area is shown in the structure plan as having a landscape screening area around it. The 'live' zoned Light Industry land near the Warkworth Showgrounds contains an area that the structure plan indicates for a potential rezoning investigation. This is due to the as yet undeveloped and greenfield nature of this property and the impacts on this property from the Matakana Link Road (Te Honohono ki Tai).

**Residential:** A significant portion of the internal study area boundary borders Single House zoned land. The structure plan proposes mostly residential zonings of a similar type (Single House, Mixed Housing Suburban) along this edge to match this use. There is a small area that borders the Large Lot which the structure plan adjoins with the Single House and Mixed Housing Suburban zones. The only example of a higher density residential zoning proposed in the structure plan adjoining an existing residential area is around Woodcocks Road. This is where the existing Mixed

Housing Suburban land (Summerset retirement village) adjoins an area proposed as Mixed Housing Urban.

**Open Space:** Some of the structure plan study area internal boundary is next to Open Space zones. The structure plan has built on the existing open space network to create linkages between the live zoned land and future land use. The plan also seeks to leverage off existing open space to create residential amenity and enable residential density. The structure plan proposes higher density residential land uses around the edge of the Warkworth Showgrounds. To the north along Sandspit Road, a lower residential density (Single House) has been proposed along with further landscape protection controls adjacent to the open space along the Mahurangi River. This is to enhance the visual and ecological importance of the open space along the river (as it forms a natural backdrop to the town centre). Around the existing reserve bordering the Mahurangi River (north of Mahurangi College) the structure plan proposes a Single House residential use.

### 3.4 Assessment of the Warkworth Structure Plan against the vision and planning principles

The planning principles for the Warkworth Structure Plan are listed below along with an explanation on how they have been given effect through the Warkworth Structure Plan.

#### The Mahurangi River is Warkworth's taonga

- *Protect the Mahurangi River from the effects of urbanisation as a matter of paramount importance in the development of the Future Urban zone*

The structure plan includes a Green Network with areas of ecological and stormwater value set aside areas from development. The Green Network will protect existing freshwater ecological values as well as improve the long-term life supporting capacity of the freshwater systems in the area, of which sections are currently degraded and lacking suitable riparian cover.

- *Use the development of the Future Urban zone to improve the health and quality of the Mahurangi River wherever possible*

The structure plan anticipates that the Green Network will be restored through revegetation (e.g. riparian planting) to improve water quality.

- *Treat all the tributaries in the Future Urban zone as being vital to the health of the Mahurangi River*

The Green Network includes a 10m buffer around all streams in the study area, including permanent, intermittent, and transitional.

#### Character and identity

- *Celebrate and protect Warkworth's heritage, both Maori and European, and its relationship with mana whenua*

The plan has been developed in partnership with mana whenua. The plan includes a number of heritage sites to investigate for protection.

- *Retain the current town centre as the focal point and 'beating heart' of Warkworth*

The plan recognises the existing town centre as being the main centre with room for expansion. The plan only enables small local convenience centres in the Future Urban zone. The plan does not enable further retailing or office development outside the centres and therefore the General Business and Mixed Use zone (which are permissive for retail and retail/offices respectively) are not used.

- *Protect the views from the current town centre to the bush clad northern escarpment of the Mahurangi River and the rural views out from the Future Urban zone that contribute to Warkworth's rural character*

The plan zones the area of land on the northern side of the Mahurangi River (opposite the town centre) as Single House to avoid the potential landscape effects from higher density residential development. In addition, the land is identified as an area where further specific plan provisions will be needed to cover issues such as building height, colour etc to ensure that no buildings impact on this natural backdrop.

In terms of rural views, the Large Lot zone is mostly used around the periphery of the urban area to create a more natural appearance and enhance the views out to the rural area.

- *Apply lower density residential zones to areas valued for their landscape, character, or heritage significance*

The Large Lot zone has been used in areas of landscape character (northern and southern edges and southern knoll) and on the former Coombs and Daldy lime works site.

- *Use the Future Urban zone efficiently to protect against the need for further urban expansion into Warkworth's valued rural hinterland*

The structure plan proposes higher residential density zones than are presently used in Warkworth. Lower density areas have still been used where certain principles are met, but higher density residential areas have been applied to ensure the efficient use of the Future Urban zoned land. Even with relatively large areas identified for lower densities, the dwelling yield of the structure plan is still consistent with the anticipated yield in the Auckland Plan and the Future Urban Land Supply Strategy.

### **A place to live and work**

- *Provide a range of housing options in Warkworth so that it is a place for people to live at all stages of life*

The Warkworth Structure Plan provides for a range of housing types as it utilises the full palette of Auckland Unitary Plan residential zones – from expansive sections to smaller apartments.

- *Provide new local employment areas (e.g. small centres, industrial areas) so people can work locally in Warkworth*

The structure plan provides areas for additional industrial land (65ha gross) and four new small centres. The jobs to dwelling ratio for the fully built out town (Future Urban zone and existing 'live' zones) will be around 1.2 to 1. This is slightly lower than the existing ratio of 1.39 to 1 but it is still acceptable from an employment self-sufficiency perspective.

### **Sustainability and natural heritage**

- *Plan to enable development of the Future Urban zone to be sustainable, including having a compact urban form, providing local employment options, enabling extensive active and public transport routes, and minimising discharges to air and water bodies*

The structure plan aims to be sustainable with the use of higher density residential zones, areas set aside for local employment opportunities, a convenient public transport system, and an extensive walking and cycling network to connect key destinations in the town.

- *Design the Future Urban zone to be able to adapt to the effects of climate change*

The structure plan has taken into account any coastal hazards from climate change.

- *Protect and enhance existing bush/natural areas and create ecological corridors linking the Future Urban zone to other ecological areas*

The structure plan includes a Green Network with ecological areas for protection and restoration, creating corridors throughout the study area.

### **A well-connected town**

- *Use the development of Warkworth's growth areas to help address Warkworth's existing road congestion through integrated land use and transport planning and new infrastructure*

The structure plan includes a comprehensive roading network including Ara Tūhono – Pūhoi to Warkworth, Matakana Link Road (Te Honohono ki Tai), Western Link Road between SH1 (north) and SH1 (south) including Mansel Drive, Sandspit Link Road, Wider Western Link Road, and a potential Ara Tūhono – Pūhoi to Warkworth southern interchange (with south facing ramps only). The Hill Street intersection is noted as requiring improvements in accordance with the business case

- *Prioritise convenient, segregated, and safe walking and cycling routes through the Future Urban zone connecting residential areas with key locations (e.g. schools, parks, centres), and the existing town, and to regional walking/cycling routes*

The structure plan includes an active transport network (Figure 3) that provides connectivity to centres, employment areas, schools and public transport stations. With an appropriate road network catering for walking and cycling modes, in conjunction with off-road facilities, there is the opportunity to significantly increase the mode share of walking and cycling.

- *Provide convenient, high quality public transport routes through the Future Urban zone (connecting to the rest of Warkworth, the surrounding rural settlements, and Auckland)*



The structure plan includes a public transport network built upon the recently introduced 'New Network for Warkworth'. This connects Warkworth to the Hibiscus Coast station (and the wider Auckland network) as well as direct connections to the surrounding settlements of Snells Beach, Matakana/Omaha, and Wellsford. Initially, a main station/bus interchange is proposed in the town centre supplemented by an interim northern station adjacent to SH1 north of Warkworth (with a Park and Ride). In the long term, the preference is to retain a town centre station but also have a larger bus station/interchange in Warkworth South in the southern Local Centre and a Park and Ride near the Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only). With a proposed southern station, it is not considered necessary to retain the interim northern station.

### **Quality built urban environment**

- *Design the Future Urban zone to enable high-quality and integrated urban development that reinforces the town's identity*

The structure plan has been integrated with the existing urban area of Warkworth with careful analysis of the interface between the Future Urban zone and the existing town. Further detailed provisions will be explored at the plan change stage to ensure development is of a high quality and reinforces the town's identity.

- *Locate higher density residential areas around appropriate amenities*

The higher density zones (Terrace Housing and Apartments Buildings, Mixed Housing Urban, and Mixed Housing Suburban) are shown in the structure plan as being close to centres, parks, and/or on public transport routes.

- *Provide well located and accessible areas of open space linked by a green network of walking and cycling trails along the streams*

The structure plan shows indicative locations for new parks (neighbourhood, suburb, sports) that are linked by the Green Network to enable potential active transport connections between the parks.

- *Outside open space areas, use urban trees (e.g. street trees) and vegetation to enhance the amenity of the built environment*

The structure plan supports the greening of the new urban area through requiring revegetation of the Green Network land in private ownership and various landscape screening buffer areas which are generally to be 20-30m deep to enable mature vegetation to establish. The structure plan would also support generous native street tree planting but the detail of this will come through in further, more detailed work such as the plan change and development consenting stages.

### **Infrastructure**

- *Plan for infrastructure (transport, water, etc) to be sequenced to enable new houses and businesses to be built in the Future Urban zone*

Plans for transport, water, wastewater, and other infrastructure are advanced to enable the development of the structure plan area in accordance with the Future Urban Land Supply Strategy.

- *Provide for social and cultural infrastructure (i.e. libraries, halls, schools, community meeting places) to support the needs of the community as it grows*

Social and cultural infrastructure providers have been involved in the development of the structure plan and have planning processes underway to provide the level of infrastructure required in the plan.

### 3.5 Implementation of the structure plan

The future land uses identified in the Warkworth Structure Plan will be implemented through plan changes to the Auckland Unitary Plan. These plan changes occur as the land is 'development ready'. That is, it has appropriate infrastructure in place to support residences and businesses. As such, plan changes to the Auckland Unitary Plan will be staged to align with the Future Urban Land Supply Strategy.

Supporting infrastructure identified in the Warkworth Structure Plan will be implemented through the inclusion of the relevant projects in the forward budgets and plans of the various agencies.

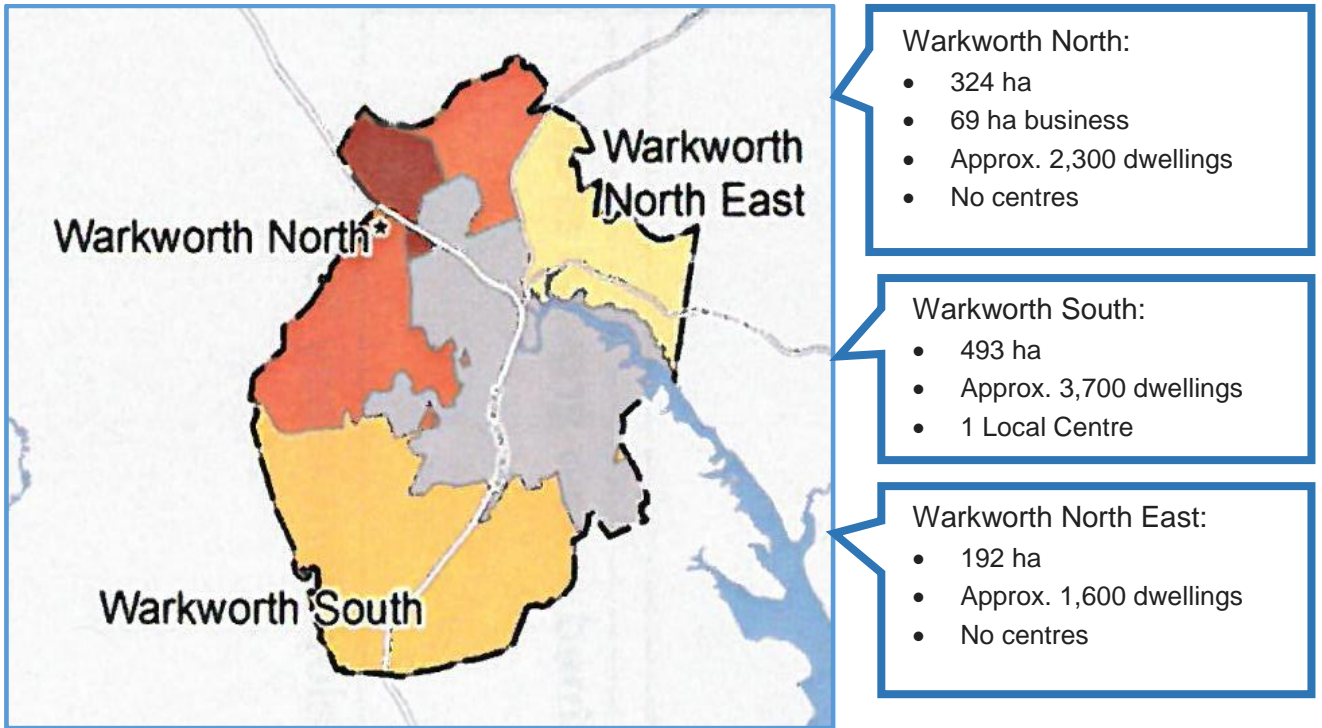
#### 3.5.1 Staging

The Auckland Council Future Urban Land Supply Strategy sequences development readiness of the future urban areas across Auckland. This sequencing ensures the provision of bulk infrastructure (such as water, transport and wastewater) is in place so that homes and business can be built.

The Future Urban Land Supply Strategy has sequenced the development of Warkworth as follows:

- Warkworth North ('live' zoned Light Industry and General Business land) (2017)
- Warkworth North (from 2022)
- Warkworth South (2028-2032)
- Warkworth North East (2033-2037)

Figure 34 below (from the Future Urban Land Supply Strategy) summarises the anticipated capacity of the future urban zones in Warkworth:



**Figure 34:** Future Urban Land Supply Strategy (2017)

As outlined in Figure 35 below, the overall yields in the Warkworth Structure Plan are consistent with the dwelling numbers anticipated in the high-level Future Urban Land Supply Strategy.

Development ready date	Future Urban Land Supply Strategy (2017)	Warkworth Structure Plan (2019)
<b>2017</b>	69ha business	69ha business ('live' zoned)
<b>From 2022</b>	Approx. 2,300 dwellings	25ha industrial land Approx. 2,200 dwellings
<b>2028-2032</b>	Approx. 3,700 dwellings 1 Local Centre	Approx. 4,100 dwellings 1 Local Centre 40ha industrial land
<b>2033-2037</b>	Approx. 1,600 dwellings	Approx. 1,200 dwellings

**Figure 35:** Anticipated yield comparison between the Future Urban Land Supply Strategy and the Warkworth Structure Plan

During the structure plan process, the staging of development was reviewed. In particular, consideration was given to whether some areas might be brought forward. However, the Warkworth Structure Plan does not propose to change the sequencing identified in the

Future Urban Land Supply Strategy. No areas are identified to be brought forward due to the significant infrastructure funding issues combined with the wider Auckland compact city focus on redevelopment of brownfield areas and the higher priority greenfield areas in Auckland that would take any additional greenfield infrastructure funding before Warkworth.

### 3.5.2 Infrastructure funding

The critical council infrastructure that provides essential bulk services which enable land development include:

- Parks and Open Spaces
- Transport networks
- Stormwater networks
- Water and Waste water networks
- Community assets

The infrastructure projects needed to increase capacity require substantial public and private investment and have long lead times for planning and construction. It is critical that this investment is coordinated and aligned with growth, in order to get the best outcome for the ratepayer.

The council funds and delivers public growth infrastructure projects primarily through the collection of development contributions, Watercare's infrastructure growth charges, and rates. Additional funding options are being investigated and may include targeted rates or special purpose vehicle private financing

Council infrastructure providers have identified those critical projects to enable land and housing development to support the Warkworth Structure Plan. This includes an estimate of the development timeframe in which the asset is expected to be delivered. Not all projects have funding allocated. Cost estimates to deliver this infrastructure are currently (i.e. 2019) between \$950m and \$1.4b. It is also important to acknowledge that although these projects will facilitate the provision of new housing in Warkworth, these projects also provide a dual purpose in meeting the growing needs of the existing community.

Council endeavors to ensure efficient coordination between public and private infrastructure providers. Apart from council, other utilities and service providers will deliver other key infrastructure such as power, fibre, and schools. State Highways are delivered by the New Zealand Transport Agency ('NZTA').

### 3.5.3 Potential matters for future plan changes

The Warkworth Structure Plan forms the foundation for a plan change to the Auckland Unitary Plan<sup>26</sup>. Various Plan changes will rezone the land currently zoned as Future Urban in accordance with land use indications in the Warkworth Structure Plan. The zonings

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<sup>26</sup> Although it is important to note that specific matters in the structure plan could be amended with further specific information

anticipated to be used in plan changes to rezone the Future Urban zone to 'live' urban zonings include:

- Residential – Large Lot
- Residential – Single House
- Residential – Mixed Housing Suburban
- Residential – Mixed Housing Urban
- Residential – Terrace Housing and Apartment Buildings
- Business – Light Industry
- Business – Heavy Industry
- Business – Local Centre
- Business – Neighbourhood Centre
- Open Space – Conservation Zone/ Informal Recreation Zone/Sports and Active Recreation Zone/Civic Spaces Zone/Community Zone

In addition to zones, the Auckland Unitary Plan has other spatial tools such as overlays, Auckland-wide and precinct provisions that control different resource management matters. It is anticipated that additional overlay matters that may (subject to further investigation) be part of future plan changes are:

- Additions to the Notable Trees Schedule
  - 360 Sandspit Road (mature English oak tree)
  - 190 Matakana Road (mature English oak tree)
  - other sites to be determined on further detailed assessment of study area
- Subdivision Variation Control – increasing the minimum site size of the Single House zoning in the Viv Davie-Martin Drive area and around the Clayden Drive area
- Quarry Buffer Area – extension around the full perimeter of the limestone quarry
- Heritage – the extent of place to be added to the historic heritage overlay for the site of Combes and Daldy's lime works
- Heritage – the dam for Wilson's Portland Cement Company to be evaluated for potential inclusion in the Schedule of Historic Heritage
- Heritage – *Riverina* (outside study area) to be evaluated for potential inclusion in the Schedule of Historic Heritage

Precincts provide detailed place-based provisions that allow for local differences. Precincts vary the zone, overlay and Auckland-wide rules that underlie them. It is anticipated that the following matters may (subject to further investigation) form part of the precinct provisions over the structure plan area as part of future plan changes:

- Indicative transport network layout
- Protection areas (requiring protection and active revegetation)
- Potential buffer/screening area from motorway in the northern area
- Landscape screening area, setbacks and other controls around industrial edges
- Landscape protection controls in most areas of the Large Lot zones (e.g. possible controls on building location, size, height, colour and requiring revegetation of land within each section in the Large Lot zone)



- Landscape protection controls in some areas of the Single House zone and Mixed Housing Urban zone in the north (e.g. possible controls on building location, height, colour, and requiring buffer planting around the urban edge)
- Controls to protect the visual amenity of the backdrop to the Warkworth Town Centre (e.g. possible 'no build' areas, vegetated buffer areas, setbacks)
- Morrison's Heritage Orchard to address future activities that complement the orchard use and manages potential reverse sensitivity issues.
- "Rear loading" on collector roads to minimise interruption to separated cycle facilities
- Housing affordability
- Design of subdivision to retain mature trees/shelter belts as features
- Preserving local views and vistas
- Managing the interface between industrial and residential areas
- Managing the interface of industrial sites with residential development on the Western Link Road to facilitate good urban design outcomes
- Managing interface between active recreation parks and residential areas
- Fencing standards in the lower density residential zones to maintain front open boundaries
- Stormwater management
- Non-spatial options to manage erosion and sediment (e.g. modelling to assess levels of erosion and sediment generation would assist in balancing cut and fill volumes)
- The possibility for roads, streets and pathways be used to increase canopy and vegetation cover to improve environmental and health and wellbeing outcomes
- Further mapping of wetlands for the areas not included in this assessment to date
- Additional sediment controls for development in the vicinity of streams

Together the zones, Auckland-wide, overlay and precincts form different layers of Auckland Unitary Plan provisions to meet the vision, land use proposals and principles set out in the Warkworth Structure Plan.

### **3.5.3.1 Warkworth North Plan Change**

As outlined in the Future Urban Land Supply Strategy, the Warkworth North areas is sequenced to be 'development ready' from 2022. 'Development ready' includes having a live urban zoning. This indicates that the first council initiated plan change should be for Warkworth North.

This plan change will include the rezoning of the land in general accordance with the land uses shown in the Warkworth Structure Plan. That will involve the following zones:

- Residential – Large Lot
- Residential – Single House
- Residential – Mixed Housing Suburban
- Residential – Mixed Housing Urban
- Business – Light Industry
- Business – Neighbourhood Centre
- Open Space - Conservation Zone/ Informal Recreation Zone/Sports and Active Recreation Zone

An overlay matter that is likely to form part of a plan change for Warkworth North is the Subdivision Variation Control to increase the minimum site size in specific areas of the Single House zone.

A new precinct for the Warkworth North area will also likely form part of the plan change. It will need to cover many of the possible precinct matters listed in section 3.5.3 above.

The infrastructure requirements to service the Warkworth North Structure Plan area are outlined in the various infrastructure reports listed in **Appendix 1**. A council initiated plan change could commence for Warkworth North when it is clear that the appropriate funding for infrastructure is confirmed.

### 3.6 Monitoring and Review

To ensure the efficacy of the Warkworth Structure Plan a monitoring and review framework will need to be developed. The monitoring and review framework will ensure that the vision in the Warkworth Structure Plan is being achieved. The vision in the Warkworth Structure Plan is being achieved when:

- the Warkworth area is being developed in accordance with the land uses and sequencing indicated in the structure plan
- the planning principles identified in the Warkworth Structure Plan are being met

A suite of indicators with clear links to structure plan outcomes will need to be developed as well as a roadmap for data gathering to test those indicators will be developed. There is a significant amount of data gathering for the monitoring of other policies and plans across council, that the structure plan will be able to use. Of particular relevance to the Warkworth Structure Plan includes:

- the Future Urban Land Supply Strategy (2017)
- the Auckland Plan (2018)
- the Auckland Unitary Plan (2016)
- Environmental Monitoring

Information from other council departments such as resource consents and environmental monitoring will also help build a picture of the implementation of the Warkworth Structure Plan.

### 3.7 Possible further work outside scope of the structure plan

During the Warkworth Structure Plan project a number of issues were raised that did not sit within the scope of the project but may warrant further investigation through other processes. To be able to efficiently work through the structure plan process, the structure plan project was focused on developing a land use and supporting infrastructure plan for the 1,000ha of Future Urban zoned land around the edge of Warkworth. The issues listed below are to

acknowledge their existence only. They could be looked at further through separate processes outside of the structure plan project.

- Further investigation into a number of historic heritage places have been identified just outside the boundaries of the study area (i.e. in the existing town centre area). Some of these appear to be of sufficient significance to potentially meet the threshold for inclusion in the schedule of historic heritage in the Auckland Unitary Plan.
- Further documenting heritage sites within the study area that may not warrant scheduled but have the potential for further research (where warranted due to their contribution to the history of Warkworth).
- Possible review of Warkworth's western RUB along the Ara Tūhono – Pūhoi to Warkworth motorway route should any land surplus to NZTA's requirements be identified. This is particularly for the western edge of Warkworth where there is a narrow band of Rural Production land wedged between the motorway and the Heavy Industry zone. There may be the potential for this to become additional industrial land.
- Investigate the potential rezoning of small areas of undeveloped 'live' zoned on the edge of the study area (i.e. the area north of the Showgrounds as indicated on the structure plan map).
- A review of the 'live' zoned land in Warkworth to address matters such as residential density and the potential further expansion for employment areas around the town centre.
- A Warkworth Centre Plan for the existing town centre area to focus on some key ideas and actions to improve the town centre.
- A parking study in town centre area to identify parking issues and possible solutions.

## Glossary

**Development ready:** Land that has had a structure plan prepared, is zoned for urban uses in the Auckland Unitary Plan, and has bulk infrastructure available.

**Future Urban Land Supply Strategy:** The council's programme to sequence future urban land over 30 years to assist with the ongoing supply of greenfield land for development. The strategy is a long-term and proactive approach to delivering land that is 'ready to go' in these future urban areas. It will help provide greater clarity and certainty to landowners, iwi, developers, infrastructure providers and council about when future urban land will have bulk infrastructure in place and be ready for urban development.

**Future Urban zone:** A zone that is applied to greenfield land that has been identified as suitable for urbanisation. The Future Urban Zone is a transitional zone. Land may be used for a range of general rural activities but cannot be used for urban activities until the site is rezoned for urban purposes.

**'Live' zones:** Zones in the Auckland Unitary Plan that can be developed (according to the zone objectives and policies) without delay. This is in contrast to the Future Urban zone.

**'New Network' for Warkworth:** Auckland Transport's new simpler, more frequent and better connected public transport network for the Auckland region. New Warkworth routes include local routes from Snells Beach, Matakana and Wellsford and a connection to the Hibiscus Coast from Warkworth.

**Protection areas:** Areas that the structure plan identifies are important for ecology, stormwater, heritage, and cultural reasons and therefore are set aside from development (and excluded from the development yield). The protection areas make up a large part of the Green Network (along with existing and future open space). The protection areas include flood plains, streams (10m buffer), wetlands, Significant Ecological Areas, covenanted bush, and historic heritage extent of place area.

**Satellite Town:** A rural town which has the potential to function semi-independently from the main urban area, providing a full range of services and employment opportunities to the wider rural area. The Auckland Plan applies this classification to the towns of Pukekohe and Warkworth.

**Supporting Growth Alliance (Te Tupu Ngātahi):** The Government and Auckland Council's strategic transport planning programme set up to investigate and deliver the transport networks Auckland needs over the next 30 years to accommodate future urban growth.

## List of acronyms

**Auckland Unitary Plan:** Auckland Unitary Plan Operative in Part 2016

**HAIL:** Hazardous Activities Industries List

**LATM:** Local area traffic management

**NES:** National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

**NRLTIP:** Northern Regional Long Term Investment Plan

**NPS-UDC:** National Policy Statement on Urban Development Capacity

**NZTA:** New Zealand Transport Agency

**RMA:** Resource Management Act 1991

**RPS:** Auckland Unitary Plan's Regional Policy Statement

**RUB:** Rural Urban Boundary

**SH1:** State Highway 1

**UFB:** Ultra-Fast Broadband

**WDHB:** Waitemata District Health Board

**WWTP:** Warkworth Wastewater Treatment Plant



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## **Appendix 1 – Supporting documents**

List of supporting technical reports to the Warkworth Structure Plan.

Report Title	Author	Date
<b>Draft Warkworth Structure Plan</b>		
<b>Draft Warkworth Structure Plan (February 2019)</b>	Ryan Bradley, Plans and Places Department	February 2019
<b>Background Topic Reports</b>		
<b>Business land demand topic report</b>	Austin Fox, Plans and Places, Auckland Council. Authored based on Market Economics Warkworth Business Land Assessment	June 2018
<b>Community facilities topic report</b>	Liz Ennor, Policy Analyst, Community Policy, Auckland Council.	June 2018
<b>Education topic report</b>	Rosie Stoney (Senior Analyst – Planning) and Janet Schofield (Planning Manager Schooling Networks), Ministry of Education	February 2018
<b>Environment topic report</b>	Jacinda Woolly (Biodiversity); Sietse Bouma and Sarah Le Claire (Natural Environment Strategy); and Melissa Foley (RIMU), Auckland Council.	June 2018
<b>Geotechnical and coastal hazards topic report</b>	Ross Roberts (Geotechnical & Geological Practice Lead) and Natasha Carpenter (Coastal Management Practice Lead), Engineering and Technical Services, Auckland Council.	October 2018
<b>Historic Heritage topic report</b>	Robert Brassey (Principal Specialist Cultural Heritage) and Megan Walker (Specialist Historic Heritage), Plans and Places, Auckland Council.	June 2018
<b>Land contamination topic report</b>	Marija Jukic, Senior Specialist, Resource Consents, Auckland Council.	March 2018
<b>Land use topic report</b>	Ryan Bradley and Jasmin Kaur, Plans and Places, Auckland Council.	Updated June 2018
<b>Landscape topic report</b>	Brown NZ Ltd	April 2018
<b>Parks and open spaces topic report</b>	Roma Leota, Policy Analyst, Parks and Recreation Policy, Auckland Council.	March 2018
<b>Stormwater topic report</b>	Tonkin and Taylor	March 2018
<b>Sustainability topic report</b>	Matthew Blaikie, Senior Sustainability and Resilience Advisor, Auckland Plan	June 2018

	Strategy and Research, Auckland Council.	
<b>Transport topic report</b>	Auckland Transport, New Zealand Transport Agency	March 2018
<b>Urban design topic report</b>	Sarah Coady, Principle Urban Designer, Auckland Design Office, Auckland Council.	February 2018
<b>Water and wastewater topic report</b>	Andre Stuart and Lindsay Wilson, Watercare Services Ltd	February 2018
<b>Background information report</b>	Compiled by Austin Fox, Plans and Places, Auckland Council.	March 2018
<b>Consultation Summary Reports</b>		
<b>Warkworth Structure Plan-Engagement Summary report (June 2018)</b>	Ryan Bradley and Jasmin Kaur, Plans and Places, Auckland Council.	June 2018
<b>Warkworth Structure Plan-Community Workshops Summary Report (August 2018)</b>	Ryan Bradley and Jasmin Kaur, Plans and Places, Auckland Council.	August 2018
<b>Warkworth Structure Plan-Community engagement 'Report back' (October 2018)</b>	Ryan Bradley, Plans and Places, Auckland Council.	October 2018
<b>Warkworth Structure Plan – Mana Whenua engagement</b>	Jasmin Kaur, Plans and Places, Auckland Council.	April 2019
<b>Warkworth Structure Plan – Engagement summary on draft plan (May 2019)</b>	Ryan Bradley and Jasmin Kaur, Plans and Places, Auckland Council.	May 2019
<b>Warkworth Structure Plan - Response to feedback on draft plan (May 2019)</b>	Ryan Bradley, Plans and Places, Auckland Council.	May 2019
<b>Assessment Reports on the Warkworth Structure Plan</b>		
<b>Business land assessment</b>	Derek Foy, Rebecca Foy, Market Economics Consulting	October 2018
<b>Community facilities assessment</b>	Liz Ennor Policy Analyst, Community Policy, Auckland Council.	September 2018
<b>Education facilities assessment</b>	Rosie Stoney (Senior Analyst – Planning) and Janet Schofield (Planning Manager)	November 2018



	Schooling Networks), Ministry of Education	
<b>Funding Plan</b>	Alan Hanley (Infrastructure Funding Agreements Specialist), Auckland Council.	December 2018
<b>Geotechnical and coastal hazards assessment</b>	Ross Roberts (Geotechnical & Geological Practice Lead), Engineering and Technical Services Department, Auckland Council.	November 2018
<b>Historic heritage assessment</b>	Robert Brassey (Principal Specialist Cultural Heritage) and Megan Walker (Specialist Historic Heritage), Plans and Places, Auckland Council.	November 2018
<b>Integrated transport assessment</b>	Supporting Growth Alliance	December 2018
<b>Land contamination and remediation assessment</b>	Marija Jukic, Senior Specialist, Resource Consents, Auckland Council.	October 2018
<b>Landscape assessment</b>	Brown NZ Ltd	November 2018
<b>Natural Environmental assessment</b>	Adam Morris (Natural Environment Strategy) and Jacinda Woolly (Biodiversity), Auckland Council.	November 2018
<b>Neighbourhood design statement</b>	Lisa Mein, Boffa Miskell	November 2018
<b>Parks and open space assessment</b>	Roma Leota, Policy Analyst, Parks and Recreation Policy, Auckland Council.	November 2018
<b>Stormwater assessment</b>	Tonkin and Taylor and Hill Young Cooper Ltd.	February 2018
<b>Stormwater Management Plan (Warkworth)</b>	Tonkin and Taylor	November 2018
<b>Sustainability assessment</b>	Matthew Blaikie (Senior Sustainability & Resilience Advisor), Auckland Plan Strategy and Research, Auckland Council.	November 2018
<b>Water and wastewater servicing plan</b>	Andre Stuart & Lindsay Wilson, Watercare Services Limited	November 2018

## **Appendix 2 – Addressing Structure Plan Guidelines**

Appendix 1 of the Auckland Unitary Plan contains a set of Structure Plan Guidelines. The table below identifies the matters in the guidelines and where each of these matters are addressed in this report.

<b>Auckland Unitary Plan Operative in Part Appendix 1 Structure Plan Guidelines 1.3 External documents to be taken into account</b>		<b>Structure Plan Section Reference</b>
When preparing structure plans, the external documents in the following list are to be considered where appropriate		
(1)	Auckland Plan, including the directions of the Auckland Plan to be considered as an integrated whole, Auckland's High-Level Development Strategy (refer to section D of the Auckland Plan), and any sub-regional analyses prepared by Auckland Council.	Appendix 4 (4.1.1)
(2)	National policy statements and national environmental standards including but not limited to the New Zealand Coastal Policy Statement, the National Policy Statement for Freshwater Management and the National Environmental Standards for Electricity Transmission Activities.	Appendix 4 (4.1.3)
(3)	This Plan, in particular the regional policy statement	Appendix 4 (4.1.6)
(4)	Auckland Council's 10-year budget (the Long-Term Plan) and implementation programmes.	Appendix 4 (4.1.7)
(5)	Local board plans and area plans.	Appendix 4 (4.1.8)
(6)	Existing integrated catchment management plans and associated network discharge consents.	Appendix 4 (4.3.8), 3.3.9
(7)	Strategies, plans, codes of practice or programmes of economic, environmental, social and cultural infrastructure providers, with particular regard to the Regional Land Transport Plan, Auckland Transport's Integrated Transport Programme and Watercare's Asset Management Plan.	Appendix 4 (4.1.9)
(8)	Iwi planning documents.	Appendix 4 (4.1.5)
(9)	Treaty settlement legislation	Appendix 4 (4.1.4)
(10)	Auckland Council's Parks and Open Space Strategy Action Plan.	3.3.3, Appendix 4 (4.3.4, 4.5.3)
(11)	Auckland Council's Auckland Design Manual.	Appendix 4 (4.1.10.3), 3.3.10.5
(12)	Auckland Council's Code of Practice for Land Development and Subdivision.	Appendix 4 (4.1.10.4)

<b>Auckland Unitary Plan Operative in Part Appendix 1 Structure Plan Guidelines 1.4 Matters to identify, investigate and address</b>		<b>Structure Plan Section Reference</b>
A structure plan is to identify, investigate and address the matters set out below.		
<b>1.4.1 Urban growth</b>		
(1)	The future supply and projected demand for residential and business land in the structure plan areas to achieve an appropriate capacity to meet the sub-regional growth projections in the Auckland Plan adopted under the Local Government (Auckland Council) Act 2009.	2.1, Appendix 4 (4.1.1, 4.1.2, 4.1.3.4), 3.3.2, 3.3.4, 3.3.5
(2)	The phases and timing for the staged release of greenfield land or the staged conversion of land within the existing urban area to a	3.5.1

	more intensive activity for urban development or for comprehensive redevelopment, in coordination with infrastructure.	
(3)	The location, type and form of the urban edge, its appropriateness to the structure plan area and the surrounding area and how transitions between the area to be urbanised and other areas with different activities, building types and densities or levels of intensity are to be managed.	2.4, 3.3.10.9
(4)	Linkages and integration with existing urban-zoned and/or rural-zoned land adjoining the structure plan area through careful edge or boundary treatment.	3.3.10.9
(5)	Opportunities to improve access to landlocked parcels, including Māori land.	3.3.7
<b>1.4.2 Natural resources</b>		
(1)	The protection, maintenance and enhancement of natural resources, particularly those that have been scheduled in the Unitary Plan in relation to mana whenua, natural resources, and the coastal environment.	Appendix 4 (4.3.6, 4.3.7)
(2)	Demonstrate how proposed subdivision, use, and development will protect, maintain and enhance the values of the resources identified in 1.4.2(1) above.	3.3.10.1, 3.3.10.2
(3)	The integration of green networks (such as freshwater and coastal water systems, and ecological corridors) with open space and pedestrian and cycle networks, showing how they reflect the underlying natural character values and provide opportunities for environmental restoration and biodiversity.	3.3.1, 3.3.3, 3.3.7.1
(4)	Measures to manage natural hazards and contamination.	3.3.9, Appendix 4 (4.3.9, 4.3.10)
(5)	The location of mineral resources and how access to regionally significant extractable deposits is to be managed.	3.3.10.9
<b>1.4.3 Natural and built heritage</b>		
(1)	The existence of natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, mana whenua, natural resources, coastal environment, historic heritage and special character.	3.3.10, 3.3.1, Appendix 4 (4.3.6, 4.3.12)
<b>1.4.4 Use and activity</b>		
(1)	Contribution to a compact urban form and the efficient use of land in conjunction with existing urban areas to give effect to the regional policy statement.	3.2, 3.3, Appendix 4 (4.5.5)
(2)	The adoption of standard Unitary Plan methods and provisions where possible to ensure a consistent approach across the region by all of the following:	3.3.2, 3.3.3, 3.3.4, 3.3.5
(a)	seeking to avoid the introduction of additional zones;	3.3.2, 3.3.3, 3.3.4, 3.3.5
(b)	recognising the values of natural heritage, mana whenua, natural resources, coastal, historic heritage and special character through identification of sites or places to be scheduled and the use of existing overlays in the Plan; and	3.3.10, 3.5.3
(c)	recognising specific place-based provisions through the use of precincts.	3.5.3

(3)	Establishment of new centres and the expansion of existing centres in ways that complement the hierarchy and network of existing centres. Centres should be located and designed to maximise access by walking, cycling and public transport.	3.3.4, Appendix 4 (4.5.2)
(4)	A mix of residential intensities sufficient to support the vitality of centres and communities and to provide housing and transport choice.	3.3, 3.3.2, Appendix 4 (4.5.5)
(5)	A mix and distribution of land uses within the structure plan area to provide opportunities for business activities and employment, community facilities and open space close to where people live.	3.3, 3.3.4, 3.3.5, Appendix 4 (4.3.13, 4.5.1, 4.5.2)
(6)	The location and protection of infrastructure and management of reverse sensitivity effects on infrastructure from subdivision, use and development.	3.3.7, 3.3.8, Appendix 4 (4.5.4)
(7)	The location and protection of use and development and management of reverse sensitivity effects on use and development.	3.3.2, 3.3.5, 3.3.10.9, Appendix 4 (4.3.15)
<b>1.4.5 Urban development</b>		
(1)	A desirable urban form at the neighbourhood scale including all of the following:	3.3.10.5, 3.3.10.9
(a)	a layout providing pedestrian connectivity with a network of streets and block sizes which allow for a choice of routes particularly near centres and public transport facilities;	Appendix 4 (4.3.2, 4.5), 3.3.7, 3.3.10.5
(b)	provision of a diversity of site sizes within blocks to enhance housing choice, accommodate local small-scale community facilities and where appropriate enable a range of business activity and mixed use;	3.3.10.7, Appendix 4 (4.5)
(c)	provision of open spaces which are highly visible from streets and of a scale and quality to meet identified community needs	3.3.3, Appendix 4 (4.5.3)
(d)	appropriate transitions within and at the edge of the structure plan area between different land use activities, intensities and densities	3.3.2, 3.3.5, 3.3.10.9, Appendix 4 (4.5)
(e)	the application of an integrated storm water management approach within developments to reduce impacts on the environment while enhancing urban amenity.	3.3.9.1, Appendix 4 (4.3.8)
<b>1.4.6 Transport networks</b>		
(1)	Integration of land use and development within the local and strategic transport networks	3.3.7, Appendix 4 (4.5.4)
(2)	Layout of the transport network and facilities in a manner that is safe, attractive, efficient, and resilient to hazards, well connected to local facilities and integrated with land uses, the surrounding area and the wider transport network	3.3.7, Appendix 4 (4.5.4)
(3)	Support for transport and accessibility that is multi-modal and interconnected with an appropriate number and location of access points.	3.3.7, Appendix 4 (4.5.4)
(4)	Transport effects on land uses and the management of these effects.	3.3.7, Appendix 4 (4.5, 4.5.4)
<b>1.4.7 Infrastructure</b>		
(1)	The location and protection of existing and planned infrastructure, including network infrastructure corridors.	3.3.8, Appendix 4 (4.3.1, 4.3.3, 4.3.5, 4.3.8, 4.1.6)



(2)	The location, scale and capacity of existing and new infrastructure to serve the structure plan area.	3.3.8, Appendix 4 (4.3.1, 4.3.3, 4.3.5, 4.3.8, 4.1.6)
(3)	The location, scale and function of stormwater management facilities based on the principles of an integrated stormwater management approach, including the retention of natural water systems and the primary use of onsite flow and quality controls (and related impervious area limits) to manage stormwater runoff from proposed sites and roads.	3.3.9.1, Appendix 4 (4.3.8)
(4)	The location, scale, function and provision of community facilities, including educational, health, welfare and cultural facilities and open space to cater for the needs of communities in the structure plan area and neighbouring areas.	3.3.3, 3.3.8.5, 3.3.8.6, 3.3.8.7, Appendix 4 (4.3.3, 4.3.4, 4.3.5)
<b>1.4.8 Feedback from stakeholders</b>		
(1)	Feedback from landowners, infrastructure providers, council controlled organisations and communities gained through consultation during the structure planning process.	Appendix 4 (4.4)

<b>Auckland Unitary Plan Operative in Part Appendix 1 Structure Plan Guidelines</b>		<b>Structure Plan Section Reference</b>
<b>1.5 Specialist documents to support the structure plan and plan changes process</b>		
The scale and detail of the investigation and reporting required needs to be at a level appropriate to the scale of the area subject to the structure planning process and the complexity of the issues identified by the process. Reports may be required on the matters listed below to support the structure planning and plan change process.		
<b>(1)</b>	<b>Land use:</b>	
(a)	evaluation of the identified role of and principal objectives for the structure plan area in terms of land uses and amenity values;	3.1, 3.2, 3.3, 3.4, Appendix 4 (4.5)
(b)	assessment against any relevant sub-regional spatial plan; and	Appendix 4 (4.1.1, 4.1.2, 4.5)
(c)	analysis of anticipated land use supply and demand informing the spatial allocation of areas for different activities, intensities and densities.	3.3, Appendix 4 (4.5)
<b>(2)</b>	<b>Infrastructure:</b>	
(a)	integrated catchment management plan - stormwater management plan, including network plans, updates to catchment or zone management plans and variations to existing or new network discharge consents, where relevant;	3.3.9.1, Appendix 4 (4.3.8)
(b)	integrated transport assessment;	3.3.7, Appendix 4 (4.3.2)
(c)	water and wastewater servicing plan; and	3.3.9.1, Appendix 4 (4.3.8)
(d)	other infrastructure plans.	3.3.7, 3.3.8, Appendix 4 (4.3.8)
<b>(3)</b>	<b>Impact on natural and cultural values:</b>	
(a)	landscape assessment	Appendix 4 (4.3.12), 3.3.10.4

(b)	assessment of effects on the cultural well-being of people and communities who have relationships with the area, including where appropriate mapping of local history and whakapapa;	Appendix 4 (4.1.5, 4.1.4, 4.1.6, 4.4.5)
(c)	archaeological, historic heritage and special character assessment;	Appendix 4 (4.3.11), 3.3.10.3
(d)	natural heritage assessment; and	Appendix 4 (4.3.11, 4.3.12), 3.3.10.
(f)	freshwater and ecological assessment.	Appendix 4 (4.3.7, 4.3.6), 3.3.10
<b>(4)</b>	<b>Environmental Risk</b>	
(a)	geotechnical assessment	3.3.9.2
(b)	land contamination and mediation assessment; and	3.3.9.3
(c)	health impact assessment	3.3.8.7
<b>(5)</b>	<b>Implementation</b>	3.5
(a)	staging plan	3.5.1
(b)	Funding plan	3.5.2
(c)	Affordability assessment	3.3.10.7
(d)	Neighbourhood design statement	3.3.10.5, Appendix 4 (4.3.14)
(e)	Other documents depending on the characteristics of the land and water resources of the area	Appendix 1

## **Appendix 3 – Yield calculations**



Area label	Area (m <sup>2</sup> )	Area (ha)	Area not for development (ha)	% of Area not for development	Net Area after areas not for development removed (m <sup>2</sup> )	Area for roads (m <sup>2</sup> ) (30%)	Area for other Uses** (m <sup>2</sup> ) (15%) <b>Except Industrial land</b>	Total Roads/Other area (m <sup>2</sup> )	Net developable area (m <sup>2</sup> )	% Net developable (of gross)	Zoning (full name)	Zoning	Residential? (True/False for job yield calculation)	THAB - dwellings	Mixed Housing Urban - dwellings	Mixed Housing Suburban - dwellings	Single House - dwellings	Large Lot - dwellings	Neighbourhood Centre - dwellings	Local Centre - dwellings	TOTAL dwellings	Future Urban Land Supply Strategy sequence	Dwellings From 2022	Dwellings 2028-32	Dwellings 2033-37	Local Centre - jobs	Neighbourhood Centre - jobs	Light Industry - jobs	Heavy Industry - jobs	Residential - jobs	TOTAL Jobs	Jobs From 2022	Jobs 2028-32	Jobs 2033-37
1	540,386	54.0	8.1	15%	459,587	137,876	68,938	206,814	252,773	47%	Residential - Single House Zone	SH	TRUE	-	-	-	421	-	-	-	421	2022	421	-	-	-	-	-	211	211	211	-	-	
2	793,460	79.3	24.7	31%	546,805	164,042	82,021	246,062	300,743	38%	Residential - Single House Zone***	SH	TRUE	-	-	-	200	-	-	-	200	2022	200	-	-	-	-	100	100	100	-	-		
3	237,730	23.8	13.0	55%	107,637	32,291	16,146	48,437	59,200	25%	Residential - Single House Zone	SH	TRUE	-	-	-	99	-	-	-	99	2022	99	-	-	-	-	49	49	49	-	-		
4	651,762	65.2	16.1	19%	690,460	207,144	103,572	310,716	379,764	45%	Residential - Single House Zone	SH	TRUE	-	-	-	633	-	-	-	633	2033	-	-	633	-	-	316	316	-	-	316		
5	11,625	1.2	0.0	0%	11,625	3,487	1,744	5,231	6,394	55%	Residential - Single House Zone	SH	TRUE	-	-	-	11	-	-	-	11	2028	-	11	-	-	-	5	5	-	-	5		
6	401,144	40.1	7.2	18%	329,317	99,795	49,398	148,193	181,124	42%	Residential - Single House Zone	SH	TRUE	-	-	-	302	-	-	-	302	2028	-	-	302	-	-	151	151	-	-	151		
7	120,268	12.0	0.6	5%	119,938	34,181	17,091	51,272	62,666	52%	Residential - Single House Zone***	SH	TRUE	-	-	-	63	-	-	-	63	2022	63	-	-	-	31	31	-	-	31			
8	2,024,894	202.5	48.7	24%	1,938,256	451,477	230,738	682,215	846,041	42%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	2,417	-	-	-	2,417	2028	-	-	-	-	-	1,209	1,209	-	-	1,209		
9	26,151	2.6	1.0	38%	16,104	4,831	2,416	7,247	8,857	34%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	25	-	-	-	25	2022	25	-	-	-	-	13	13	-	-	13		
10	215,623	21.6	3.2	15%	183,263	54,979	27,490	82,469	100,795	47%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	288	-	-	-	288	2022	288	-	-	-	144	144	144	-	-			
11	193,889	19.4	4.1	21%	152,601	45,780	22,890	68,670	83,931	43%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	240	-	-	-	240	2033	-	-	240	-	-	120	120	-	-	120		
12	89,848	9.0	5.0	56%	39,585	11,875	5,938	17,813	21,771	24%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	62	-	-	-	62	2022	62	-	-	-	31	31	31	-	-			
13	130,196	13.0	2.1	16%	109,230	32,769	16,384	49,153	60,076	46%	Residential - Mixed Housing Suburban Zone	MHS	TRUE	-	-	-	172	-	-	-	172	2022	172	-	-	-	86	86	86	-	-			
14	334,718	33.5	14.3	43%	191,466	57,440	28,720	86,160	105,306	37%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	351	-	-	-	351	2028	-	-	351	-	-	176	176	-	-	176		
15	55,260	5.5	3.2	58%	23,411	7,023	3,512	10,535	12,876	20%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	43	-	-	-	43	2022	43	-	-	-	21	21	21	-	-			
16	117,576	11.8	1.3	11%	104,952	31,486	15,743	47,228	57,723	40%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	192	-	-	-	192	2022	192	-	-	-	96	96	96	-	-			
17	134,485	13.4	2.3	17%	111,521	33,456	16,728	50,185	61,337	46%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	204	-	-	-	204	2033	-	-	204	-	-	102	102	-	-	102		
18	375,936	37.6	6.8	18%	307,725	92,317	46,159	138,476	169,249	45%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	564	-	-	-	564	2028	-	-	564	-	-	282	282	-	-	282		
19	418,527	41.9	11.3	27%	306,009	91,803	45,901	137,704	168,905	40%	Residential - Mixed Housing Urban Zone	MHU	TRUE	-	-	-	561	-	-	-	561	2022	561	-	-	-	281	281	281	-	-			
20	152,244	15.2	2.9	19%	133,465	37,040	18,520	55,560	67,077	45%	Residential - Terrace Housing and Apartment	THAB	TRUE	377	-	-	-	-	-	-	-	377	2028	-	-	377	-	-	189	189	-	-	189	
21	669,722	66.9	19.1	29%	477,475	143,243	71,621	214,864	262,811	39%	Residential - Large Lot Zone	LL	TRUE	-	-	-	66	-	-	-	66	2033	-	-	66	-	-	33	33	-	-	33		
22	281,723	28.2	6.1	22%	220,778	66,233	33,117	99,350	121,428	42%	Residential - Large Lot Zone	LL	TRUE	-	-	-	30	-	-	-	30	2028	-	-	30	-	-	15	15	-	-	15		
23	654,878	65.5	6.5	10%	589,878	176,964	88,482	265,445	324,433	50%	Residential - Large Lot Zone	LL	TRUE	-	-	-	81	-	-	-	81	2028	-	-	81	-	-	41	41	-	-	41		
24	235,583	23.6	6.6	28%	169,722	50,917	25,458	76,375	93,347	40%	Residential - Large Lot Zone	LL	TRUE	-	-	-	23	-	-	-	23	2022	23	-	-	-	12	12	12	-	-			
25	80,489	8.0	1.0	13%	70,250	21,075	10,537	31,612	38,637	48%	Residential - Large Lot Zone	LL	TRUE	-	-	-	10	-	-	-	10	2033	-	-	10	-	-	5	5	-	-	5		
26	3,000	0.3	0.0	0%	2,997	899	449	1,348	1,648	55%	Business - Neighbourhood Centre Zone	NHC	FALSE	-	-	-	-	-	-	5	5	2028	-	-	5	-	-	10	10	-	-	10		
27	3,000	0.3	0.0	0%	3,000	900	450	1,350	1,650	55%	Business - Neighbourhood Centre Zone	NHC	FALSE	-	-	-	-	-	-	5	5	2022	5	-	-	-	10	10	-	-	10			
28	3,000	0.3	0.0	0%	3,000	900	450	1,350	1,650	55%	Business - Neighbourhood Centre Zone	NHC	FALSE	-	-	-	-	-	-	5	5	2022	5	-	-	-	10	10	-	-	10			
29	10,387	1.0	0.4	42%	6,057	1,817	909	2,726	3,332	32%	Business - Local Centre Zone	LC	FALSE	-	-	-	-	-	-	11	11	2028	-	-	-	19	19	-	-	19				
30	245,378	24.5	7.9	30%	172,616	51,785	-	51,785	120,831	49%	Business - Light Industry Zone	LIZ	FALSE	-	-	-	-	-	-	-	-	2022	-	-	-	-	447	447	447	-	-			
31	28,576	2.9	0.1	2%	27,987	8,396	-	8,396	19,591	60%	Business - Light Industry Zone	LIZ	FALSE	-	-	-	-	-	-	-	-	2028	-	-	-	-	72	72	72	-	-			
32	974,330	97.4	10.9	27%	932,813	81,774	-	81,774	190,805	57%	Business - Heavy Industry Zone	HIZ	FALSE	-	-	-	-	-	-	-	-	2028	-	-	-	-	706	706	706	-	-			
33	183,335	18.3	7.0	43%	133,258	-	-	-	93,258	57%	Monsoon's Orchard	ORCH	FALSE	-	-	-	-	-	-	-	-	2028	-	-	-	-	-	-	-	-	-			
<b>TOTAL</b>	<b>9,977,914</b>	<b>998</b>	<b>240</b>	<b>24%</b>	<b>7,576,575</b>	<b>2,244,995</b>	<b>1,051,520</b>	<b>3,296,516</b>	<b>4,280,060</b>	<b>43%</b>				<b>377</b>	<b>1,916</b>	<b>3,204</b>	<b>1,729</b>	<b>210</b>	<b>16</b>	<b>11</b>	<b>7,464</b>		<b>2,161</b>	<b>4,139</b>	<b>1,153</b>	<b>19</b>	<b>29</b>	<b>520</b>	<b>706</b>	<b>3,718</b>	<b>4,992</b>	<b>1,541</b>	<b>2,855</b>	<b>576</b>

Formula inputs	
Site sizes (m <sup>2</sup> )	
THAB	180
MHU	300
MHS	350
SH	600
LL	4,000
NHC	300
LC	300
Jobs (per ha):	
NHC	58
LC	58
LIZ	37
HIZ	37
RES	0.5 per dwelling

TOTAL AREAS	Gross Area	%	Dwellings	%	Jobs	%
THAB	15	2%	377	5%	-	-
MHU	144	14%	1,816	26%	-	-
MHS	268	27%	3,204	43%	-	-
SH	236	24%	1,729	23%	-	-
LL	192	19%	210	3%	3,718	74%
LIZ	27	3%	-	-	520	10%
NHC	37	4%	-	-	706	14%
LC	1	0%	16	0%	29	7%
ORCH	16	2%	-	-	0	0%
<b>TOTAL</b>	<b>998</b>	<b>100%</b>	<b>7,464</b>	<b>100%</b>	<b>4,992</b>	<b>100%</b>

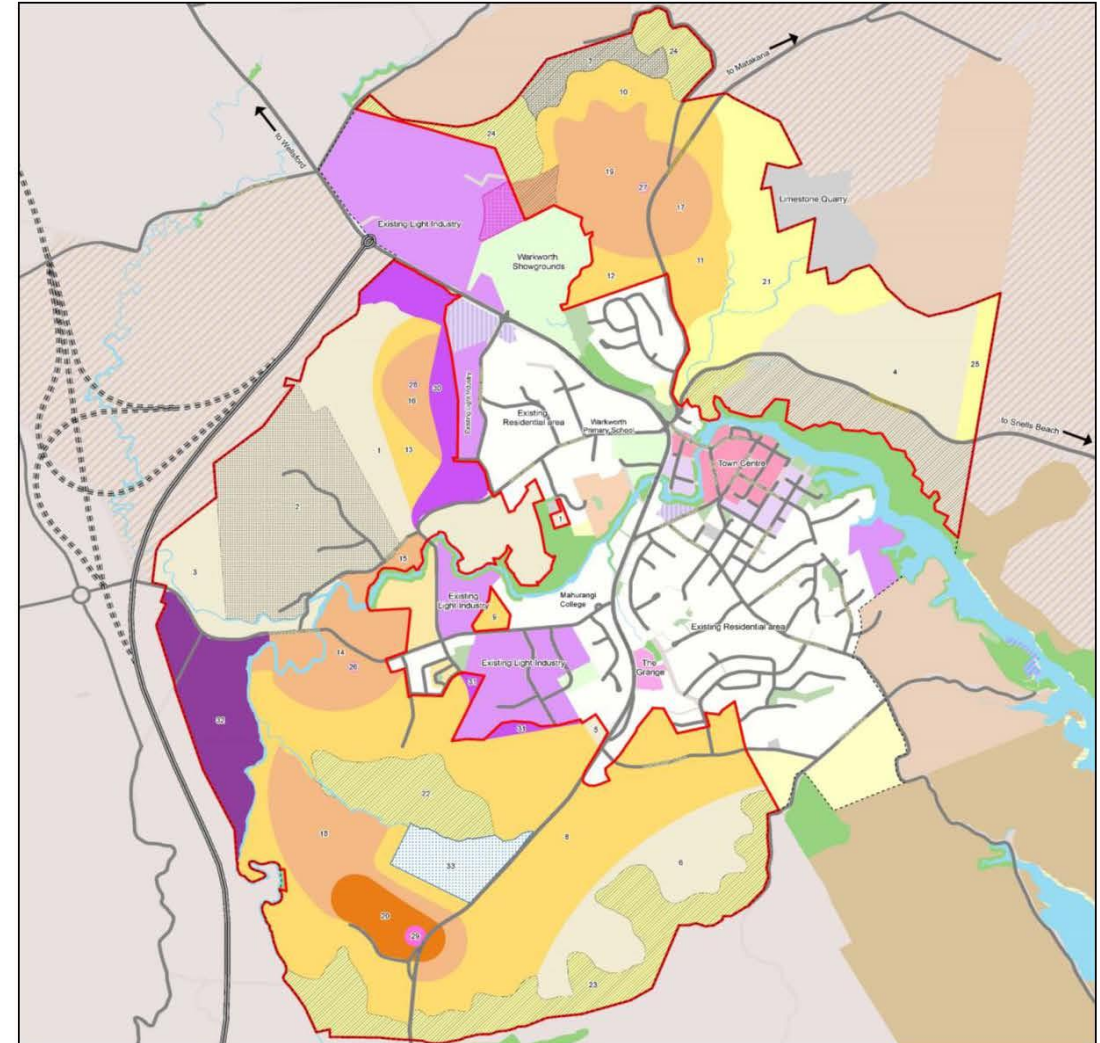
\*Areas not for development include:  
 Flood plains  
 Streams\* (10m buffer)  
 Wetlands  
 Significant Ecological Areas mapped in Auckland Unitary Plan  
 Covenanted bush  
 Historic heritage - extent of place  
 Existing open space  
 Future esplanade reserves  
 Existing roads

\*Streams = permanent, intermittent, and transitional

\*\*Other uses include:  
 Parks  
 Schools  
 Community facilities  
 etc.

\*\*\*The larger site size overlay is over a part of this area (1,500m<sup>2</sup> has been used as a proxy)

\*\*\*\*The larger site size overlay is over this area (1,000m<sup>2</sup> has been used as a proxy)



## **Appendix 4 – Developing the Warkworth Structure Plan**



## 4 Developing the Warkworth Structure Plan

### 4.1 Strategic Context

This section sets out the relevant statutory and non-statutory plans and strategies that should be considered in the development of structure plans, in accordance with the Structure Plan Guidelines in Appendix 1 of the Auckland Unitary Plan. The key outcomes sought by each document, where relevant to the structure plan, are summarised in this section.

#### 4.1.1 The Auckland Plan 2050 (2018)

The Auckland Plan sets the long-term strategic direction for Auckland and integrates social, economic, environmental and cultural objectives.

A key component of the Auckland Plan is the high-level Development Strategy for accommodating future growth until 2050. Around 62 per cent of development over the next 30 years is anticipated to be within the existing urban area. The remaining development is anticipated to occur in future urban areas (32 per cent) and in rural areas (6 per cent). The future urban areas will be urbanised in a managed, staged approach to ensure integration between land use planning and delivery of bulk infrastructure.

The Auckland Plan aims to provide sufficient capacity for up to 313,000 dwellings and 263,000 extra jobs over the next 30 years. Warkworth is identified in the plan as a Satellite Town and a rural node. The Auckland Plan expects Warkworth to grow over the next 30 years by approximately another 7,500 additional dwellings or an additional 20,000 residents. The Auckland Plan acknowledges this expected growth will require investment in supporting infrastructure including transport, water and wastewater upgrades. Significant future employment growth is anticipated alongside residential growth.

The plan signals that the structure plan will identify the mix and location of housing, employment, retail, commercial and community facilities and review/potentially refine the timing of the development of the future urban zone.

The Warkworth Structure Plan is consistent with the Auckland Plan as it follows through on the identified need to structure plan the Future Urban zoned area around the town. The structure plan is also consistent with the anticipated dwelling yields noted in the Auckland Plan and the direction to cater for significant employment growth. The structure plan has also reviewed the timing of the development of Warkworth's Future Urban zone.

#### 4.1.2 Future Urban Land Supply Strategy (2017)

The overarching purpose of the Future Urban Land Supply Strategy is to identify the sequencing of future urban land for development over a 30-year timeframe. This is to assist with the provision of an ongoing supply of greenfield land for development integrated with associated infrastructure. It is

a live document with a process to review and monitor the strategy to respond to changing population growth demands, market conditions and infrastructure delivery.

Infrastructure funding priorities across the region are informed by the strategy which feeds directly into future council long-term plans, annual plans, the Auckland Unitary Plan and other strategic documents. The major infrastructure components in areas of greenfield growth include transport facilities, water, wastewater, stormwater and community facilities (such as libraries and parks).

Warkworth's Future Urban zone is identified in the Future Urban Land Supply Strategy as being split into three stages that are 'development ready'<sup>27</sup> between 2022 and 2037. Warkworth North will be development ready from 2022, Warkworth South between 2028-2032 and Warkworth North East between 2033-2037.

The reasoning for Warkworth North being sequenced from 2022 is due to key elements of infrastructure projects being delivered around this date. A new wastewater treatment plant at Snells Beach, along with an associated new pipeline from Warkworth and upgraded outfall, is required to service development in Warkworth North. This work is consented and is expected to be implemented by 2022. The Ara Tūhono - Pūhoi to Warkworth project is expected to be completed in late 2021, and associated upgrades to the local roading network (e.g. Matakana Link Road (Te Honohono ki Tai)) align with the sequencing of Warkworth North.

The later sequencing of Warkworth South provides for the efficient staging of wastewater infrastructure. Warkworth North East is sequenced later to enable connections to the town centre to be adequately addressed.

The Warkworth Structure Plan is consistent with the Future Urban Land Supply Strategy in terms of the anticipated yields from the Future Urban zone and the 'development ready' sequencing of the Warkworth North, South, and North East areas.

### 4.1.3 National policy statements and national environmental standards

National policy statements are instruments which set objectives and policies for matters of national significance to achieve the sustainable management purpose of the Resource Management Act 1991. National environmental standards are regulations that prescribe standards for environmental and human health protection matters. The government sets standards where appropriate to ensure a consistent standard for an activity or resource use.

#### 4.1.3.1 New Zealand Coastal Policy Statement (2010)

The New Zealand Coastal Policy Statement sets out the policies for sustainably managing the coastal environment. It is a relevant consideration as Warkworth is adjacent to the coastal waters of the Mahurangi Harbour and the study area drains into the Mahurangi Harbour. The New Zealand Coastal Policy Statement sets the direction for balancing the unique challenges associated with managing uses within the coastal environment, including effects on natural

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<sup>27</sup> 'Development ready' means that the land has had a structure plan prepared, is zoned for urban uses in the Auckland Unitary Plan, and bulk infrastructure is available.

character and landscapes, the dynamic nature of the coast, competing uses, coastal hazard risks, effects on coastal biodiversity and declining water quality.

The policies recognise and provide for appropriate use and development in the coastal environment while seeking to protect natural values and enhance water quality. There is a need to adopt a precautionary approach to the use and management of coastal resources in areas potentially vulnerable to effects from climate change. The New Zealand Coastal Policy Statement promotes public access to areas in and near the coast.

In order to achieve the objectives of the New Zealand Coastal Policy Statement, the structure plan proposes a water-sensitive design approach to stormwater management. This will help to address potential water quality issues. Maintaining and enhancing public access to, and along, the coast is also a key part to the structure plan as shown by a future esplanade reserve being shown along the one small part of the study area that adjoins the coastal area.

#### **4.1.3.2 National Policy Statement for Freshwater Management (2014)**

The National Policy Statement for Freshwater Management provides direction for the council on the management of freshwater. The council must give effect to the statement through the provisions of the Auckland Unitary Plan; notably through the Regional Policy Statement and the Auckland-wide provisions.

As part of this structure planning process, a detailed assessment of the watercourses within the Warkworth Future Urban has been undertaken. Overall, over 25km of watercourses were assessed to identify the watercourse classifications (permanent, intermittent, transitional, ephemeral, wetlands), provide baseline information on the existing condition of waterways (ecological health, infrastructure condition, flooding), and to identify parts of the watercourse network that would meet the requirements to have future esplanade reserves vested. The proposed approach to managing freshwater is outlined in the Stormwater Management Plan listed in **Appendix 1** of the main Warkworth Structure Plan document.

#### **4.1.3.3 National Policy Statement on Electricity Transmission (2008)**

The council gives effect to the National Policy Statement on Electricity Transmission through the National Grid Corridor overlay provisions in the Auckland Unitary Plan. The National Policy Statement on Electricity Transmission is not relevant to the Warkworth Structure Plan because high-voltage electricity transmission lines, as part of the National Grid Corridor, are not located near the structure plan area.

#### **4.1.3.4 National Policy Statement on Urban Development Capacity (2016)**

The National Policy Statement on Urban Development Capacity ('**NPS-UDC**') is relevant to the Warkworth Structure Plan process. The NPS-UDC directs local authorities to provide sufficient development capacity in their resource management plans, supported by infrastructure, to meet demand for housing and business space. Development capacity refers to the amount of development allowed by zoning and regulations in plans that is supported by infrastructure. This development can be 'outwards' (on greenfield sites) and/or 'upwards' (by intensifying existing urban environments).

The NPS-UDC requires that high growth councils (of which Auckland is one) must produce a future development strategy that demonstrates there will be sufficient, feasible development capacity in the medium and long terms and that the minimum targets will be met.

The Auckland Plan 2050 Development Strategy serves as Auckland's Future Development Strategy. It identifies the location, timing and sequencing of future development capacity and anticipates that the Future Urban zone around Warkworth will be split into three stages that are 'development ready' between 2022 and 2037.

The Warkworth Structure Plan is consistent with the Development Strategy and is a step towards meeting the NPS-UDC.

#### **4.1.3.5 National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (2011)**

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 ('NES') provides a national environmental standard for activities on pieces of land where soil may be contaminated in such a way as to pose a risk to human health. Any sites where activities on the HAIL list have occurred must be identified. This NES provides a nationally consistent set of controls and soil contaminant standards to ensure land affected by contaminants in soil is appropriately identified and assessed before it is subdivided or developed.

A high-level investigation of contaminated land within the Warkworth Structure Plan study area has been undertaken as part of the structure plan process and a summary is provided in section 3.3.9.3 of the main Warkworth Structure Plan document.

#### **4.1.4 Treaty settlement legislation**

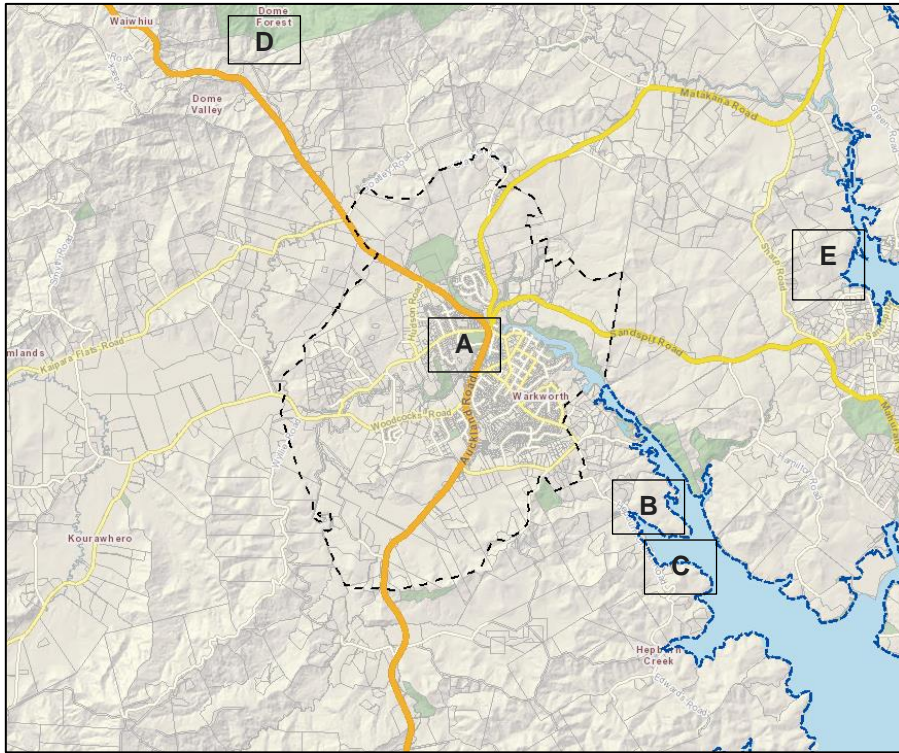
Treaty settlements acknowledge the cumulative effects of breaches of the Treaty of Waitangi and its principles on the economic, social, physical, cultural and spiritual wellbeing of mana whenua. Treaty settlement legislation enacts the deed of settlement between the Crown and Iwi that contain relationship, cultural and commercial redress relevant to Iwi. Statutory acknowledgements and deeds of recognition are part of cultural redress relevant to the Iwi settlement bodies.

Structure planning must take into account Treaty settlements particularly where there are statutory acknowledgements, cultural or commercial redress. Statutory acknowledgements recognise an association between an iwi and an area. This together with council's enacting legislation prioritises iwi participation in resource management processes.

Five mana whenua have been involved in the development of the Structure Plan. In addition to this direct involvement, the relevant Treaty settlement legislation and deeds of settlement includes:

- Te Kawerau ā Maki Claims Settlement Act (2015)
- Ngāti Whatua o Kaipara Settlement Act (2013)
- Ngāti Manuhiri Claims Settlement Act (2012)
- Ngaati Whanaunga Deed of Settlement (2017)
- Tāmaki Makaurau Collective Redress Deed (2012)
- Marutūahu Collective Redress Deed (2018)

Figure 36 below summarises Treaty settlements in the immediate vicinity of the Warkworth Structure Plan boundaries.



**Figure 36:** Treaty settlement type and mana whenua<sup>28</sup> and approximate locations

(Note: this is not an exhaustive list of Treaty settlements in the area, but a visual snapshot of settlements in the immediate vicinity of Warkworth)

Ref	Settlement type	Location name	Settlement party
A	Commercial redress	Warkworth District Court land	Ngāti Manuhiri
B	Coastal Statutory Acknowledgement Area	Mahurangi River	Ngāti Manuhiri
C	Coastal Statutory Acknowledgement Area	Mahurangi River	Te Kawerau a Maki
D	Statutory Acknowledgement	Tohitohi o Reipae (the Dome)	Ngāti Manuhiri
E	Statutory Acknowledgement	Matakana River	Ngāti Manuhiri

**Figure 37:** Table of treaty settlement types

#### 4.1.5 Iwi planning documents

Iwi management plans that are lodged by the iwi authority and relevant to the region/district/ rohe, must be taken into account in structure planning. Iwi management plans may express

<sup>28</sup> Office of Treaty Settlements, Ministry of Justice, <https://www.govt.nz/organisations/office-of-treaty-settlements> - Deed of Settlements



environmental, cultural, economic, spiritual aspirations and values, areas of cultural significance and outline how the iwi/hapu expects to be involved in resource management practices.

There are many forms of iwi management plans and each plan depends on the preferences and priorities of the iwi/ hapu. Not all mana whenua involved in this Structure Plan have an iwi management plan prepared at this stage.

Accordingly, the following iwi planning documents were considered in the development of the Warkworth Structure Plan:

- Ngāti Whatua o Kaipara Environmental Protection and Management Plan (2013)
- Te Kawerau ā Maki (1995)
- Ngāti Wai Environmental Policy (2007)
- Ngāti Whātua o Ōrākei (2018)

In addition to these, the cultural values assessments and feedback from Hui were used in the development of the Warkworth Structure Plan. Refer to the Mana Whenua Engagement report listed in **Appendix 1** of the main Warkworth Structure Plan document.

#### 4.1.6 Auckland Unitary Plan Operative in Part (2016)

The Auckland Unitary Plan provides the regulatory framework for managing Auckland’s natural and physical resources while enabling growth and development and protecting matters of national importance. It is the principal statutory planning document for land use in Auckland.

The Regional Policy Statement within the Auckland Unitary Plan sets out the overall strategic framework and is intended to give effect to the Auckland Plan. It includes objectives, policies and methods to achieve a quality compact urban form through the implementation of a RUB to define the extent of urban growth over the next 30 years.

In addition to the objectives and policies for urban growth, the Regional Policy Statement also sets the framework for enabling economic growth, protecting historic and natural heritage, addressing issues of significance to mana whenua, sustainably managing our natural resources and coastal environment, and responding to climate change.

The Warkworth Structure Plan study area is almost exclusively zoned Future Urban, with some small areas zoned Open Space – Conservation (esplanade reserves), and Strategic Transport Corridor (SH1). The Future Urban Zone is applied to greenfield land that has been identified as suitable for urbanisation. The Future Urban Zone is a transitional zone. Land may be used for a range of general rural activities but cannot be used for urban activities until the site is rezoned for urban purposes through a plan change process. This rezoning can occur following a structure planning process as informed by Appendix 1 of the Auckland Unitary Plan.

The following Auckland Unitary Plan overlays apply to the study area:

- Significant Ecological Areas -Terrestrial Overlay
- Natural Stream Management Areas Overlay
- High-Use Stream Management Areas Overlay
- High-Use Aquifer Management Areas Overlay

- High Natural Character Overlay
- Outstanding Natural Landscapes Overlay
- Quarry Buffer Area Overlay

The following controls apply to the study area:

- Rural Urban Boundary ('**RUB**')
- Coastal Inundation Control – 1 per cent AEP Plus 1m control
- Stormwater Management Area Control
- Macroinvertebrate Community Index

The following designations apply to the study area:

- (#9374) 86 Hudson Road: Watercare Services Limited water supply purposes
- (#1471) Mansel Drive: Auckland Transport roading purposes (Mansel Drive to Falls Road)
- (#9341) 20 View Road: Watercare Services Limited water supply (reservoir and associated structures)
- (#406) 36 View Road: Auckland Council local park
- (#6769) New Zealand Transport Agency Puhoi to Warkworth Roads of National Significance
- (#9101) First Gas Limited Taupaki to Topuni Gas Pipeline
- (#6763) New Zealand Transport Agency State Highway 1- Puhoi to Topuni
- (#7501) Satellite Station Road: Spark New Zealand Satellite earth station surrounding land use building restrictions

Maps and further details on the zonings, overlays, controls, and designations in the Auckland Unitary Plan can be found in the Land Use Topic Report (see **Appendix 1** of the main Warkworth Structure Plan document).

Appendix 1 of the Auckland Unitary Plan sets out the guidelines for developing structure plans. It covers when structure plans should be used, documents to be considered, matters to identify, investigate and address, and specialist documents required to support the structure plan. These guidelines ensure to that all the effects of development are addressed in advance of development occurring. A summary of how the matters in Appendix 1 of the Auckland Unitary Plan have been addressed in the Warkworth Structure Plan is provided in **Appendix 2** of the main Warkworth Structure Plan document.

#### 4.1.7 Auckland Council Long-term Plan 2018-2028 (2018)

The council's Long-term Plan 2018-2028 was adopted in June 2018 with three key issues identified:

- Population growth and its implications
- Sharing prosperity with all Aucklanders
- Reducing environmental degradation

The plan acknowledges Warkworth is anticipated for future development. The following projects have been facilitated with funding from the Long-term Plan that will have a direct impact on the development of Warkworth:

- contributing \$150,000 to the design of the future multisport building at Warkworth Showgrounds
- beginning work on an Open Space Omnibus Plan to address the needs and future uses of Rodney's reserves and open space
- funding Rodney's conservation volunteers in public spaces, including community planting programmes, plant and animal pest control, and providing materials and green waste disposal
- progressing the design of priority greenways links that have completed feasibility assessments.
- funding the investigation and detailed design of town centre improvements in Warkworth and Helensville, followed by Wellsford and Kumeu-Huapai.
- continued funding of the healthy harbours fund, to provide landowners and community groups with financial assistance to protect and restore the riparian margins of our waterways

Funding for new projects identified through the structure plan process as necessary to support urban growth at Warkworth will be considered in the next rounds of the Annual Plan (2020-21), Long-term Plan (2021-2031), and other mechanisms.

#### **4.1.8 Rodney Local Board Plan (2017)**

Warkworth is located within the Rodney Local Board area. The Rodney Local Board Plan sets out priorities and guides the local board's activities for the 2017-2020 period. The aspirations of the plan are that:

- We can get around easily and safely
- Communities are influential and empowered
- Parks and sports facilities that everyone can enjoy
- Our harbours, waterways and environment are cared for, protected and healthy
- Arts and culture are vibrant and strong

Specific key initiatives of the Rodney Local Board Plan relevant to Warkworth include:

- Advocate to Auckland Transport to prioritise the establishment of key public transport links and mode share in Rodney including new north-south and east-west connections.
- Support the establishment of park-and-ride facilities in Rodney, including advocating to Auckland Transport to expand existing facilities in neighbouring local board areas
- Investigate a targeted rate to pay for additional projects such as road sealing, public transport options (e.g. shuttles, buses, trains, light rail, ferries) and park-and-ride facilities and progress those projects (pending the results of the investigation and further consultation).

- Advocate to Auckland Transport and to the NZ Transport Agency for higher prioritisation of Rodney transport projects, such as fixes to Hill Street in Warkworth and improvements on SH16.
- Work on realising Rodney's greenways plans, including working with our key stakeholders to complete our plans, identify priority areas, and design and build the greenways.
- Advocate for all new developments to include high-quality footpaths, walkways, bridleways and cycleways options.
- Investigate the options for multisport facilities in Kumeū-Huapai, Warkworth and Wellsford. Support and advocate for their funding and construction.
- Support and advocate for the construction of a swimming pool or aquatic facility in Warkworth and identify swimming pool needs in other parts of Rodney.
- Promote riparian planting workshops and education and environmental planting networks within our communities.
- Promote and support efforts to improve the water quality in our harbours and waterways such as by working with community, landowners, farmers and iwi to implement riparian fencing and planting.

Based on the support received from the local board plan submissions, the Rodney Local Board introduced a targeted rate in 2018 to accelerate transport investment in the local board area. The specific targeted transport rate projects to Warkworth are a new bus service from Wellsford to Warkworth and a Park & Ride at Warkworth.

The Warkworth Structure Plan is consistent with the Rodney Local Board Plan as the structure plan has a transport network (notably walking/cycling and public transport) that integrates with the initiatives in the local board plan, it promotes improved water quality through setting aside areas around streams for protection and replanting, and it identifies the potential for future community facilities consistent with those in the local board plan.

The structure plan process has also enabled the Warkworth community to be influential and empowered through various consultation stages of the project, most notably the community workshops that were 'hands-on' sessions to generate ideas on how the Warkworth Structure Plan could look. The collaborative workshops were an opportunity for community members to come up with a land use plan for Warkworth's expansion area.

#### **4.1.9 Infrastructure strategies, plans, and initiatives**

##### **4.1.9.1 Supporting Growth Programme**

The Supporting Growth Programme is the Government and Auckland Council's strategic transport planning programme set up to investigate and deliver the transport networks Auckland needs over the next 30 years to accommodate future urban growth. Transport has an important role to play in enabling urban development and helping ensure Warkworth continues to be an enjoyable place to live, work and play.

Te Tupu Ngātahi (the Supporting Growth Alliance) are determining the preferred high-level strategic transport network required to urbanise the Warkworth Future Urban zone according to the sequencing set out in the Future Urban Land Supply Strategy. A set of required transport projects

will be determined and then further detailed work will identify the specific routes to be route protected (i.e. designated).

Auckland Transport and the New Zealand Transport Agency are already progressing several priority projects as separate workstreams. These include:

- Matakana link road (Te Honohono ki Tai)
- Hill Street intersection interim and long-term improvements

Related projects being delivered outside the Supporting Growth Programme include:

- Ara-Tūhono – Pūhoi to Warkworth
- Rodney Local Board transport improvements – funded through targeted transport rates
- Frequent bus services as part of Auckland Transport’s New Network for Warkworth
- Route protection for the future Ara-Tūhono – Warkworth to Wellsford stage

Options for new or improved transport connections to enable the development of Warkworth’s Future Urban zone that are being investigated by the Supporting Growth Alliance include, but are not limited to:

- Future Matakana Road extension to Sandspit Road
- Western Link Road (previously referred to as the Western Collector)
- Wider Western Link Road
- Frequent bus services to Auckland, potential Park and ride facilities and local services
- Walking and cycling network
- A potential southern interchange with south facing ramps only on Ara-Tūhono – Pūhoi to Warkworth

The Supporting Growth Alliance were engaged by Auckland Transport to prepare the Integrated Transport Assessment to support the Warkworth Structure Plan. The Integrated Transport Assessment presents the high-level draft strategic transport network<sup>29</sup> and develops additional assumptions on likely corresponding future local network-level roading, public transport and walking and cycling facilities. This is further outlined in section 3.3.7 of the main Warkworth Structure Plan document.

#### **4.1.9.2 Regional Land Transport Plan 2018-2028 (2018)**

The Regional Land Transport Plan sets out the funding programme for Auckland’s transport services and activities over a 10-year period. Planned transport activities for the next three years are provided in detail while proposed activities for the following seven years are outlined. The Regional Land Transport Plan is jointly delivered by Auckland Transport, NZTA and KiwiRail, and forms part of the National Land Transport Programme.

The key directions of the Regional Land Transport Plan include:

- To better connect people, places, goods and services
- Increase genuine travel choices for a healthy, vibrant and equitable Auckland
- Maximise safety and environmental protection.

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<sup>29</sup> To be endorsed by the Auckland Transport and NZTA boards



The key priority areas for the Regional Land Transport Plan, as relevant to the Warkworth Structure Plan, include:

- Road safety- the development of a new road safety strategy with the target of zero road deaths.
- Public transport to be a single connected service network across all modes (rail, light rail, ferry etc.).
- Walking and cycling programmes, as delivered by Auckland Transport and NZTA. This includes regional footpaths and Urban cycle ways programme.
- Corridor improvements, including the Puhoi to Warkworth motorway and Matakana Link Road (Te Honohono ki Tai). This also includes the seal extension programme in rural areas.

#### **4.1.9.3 Regional Public Transport Plan 2018-2028 (2019)**

The future public transport network is identified in the Regional Public Transport Plan ('RPTP') which identifies services over the next 10 years.

The RPTP has four focus areas: delivering a step-change in the Rapid Transit Network; improving customer access to public transport; improving Māori responsiveness; and Harnessing emerging technologies.

There are four bus routes are described in the service lists of the RPTP. These are:

- Route 995 – Warkworth to Hibiscus Coast (which will be via the new Puhoi to Warkworth State Highway alignment once complete)
- Route 996 Warkworth to Algies Bay via Snells Beach
- Route 997- Warkworth to Omaha via Matakana and Point Wells
- Route 998 – Wellsford to Warkworth

The plan states the patronage expectation is low and identifies the service categories as local (996, 997, 998) and connector (995).

The Warkworth Structure Plan is consistent with the RPTP as the public transport network in the structure plan builds on the public transport network in the RPTP.

#### **4.1.9.4 Watercare Asset Management Plan 2016-2036 (2016)**

Watercare's Asset Management Plan shows how it will operate, maintain and renew existing water and wastewater assets, and provide new assets to meet future demand as Auckland grows.

The location, size and timing of new development directly influence the infrastructure required to service that development. The council has worked closely with Watercare throughout the structure planning process to ensure that water and wastewater infrastructure provision is aligned with the timing of development in Warkworth.

The Asset Management Plan identifies significant work programmes to meet growing demands. The projects that will directly impact the structure plan area are:

- a proposed new North East Sub-regional wastewater facility and conveyance to service the Warkworth and Snells/Algies communities.
- a new groundwater source to replace the current Mahurangi River source which is constrained by minimum flow requirements, particularly during summer. Further water

source augmentation will be required within the next 30 years to meet the long-term population growth projections

Further detail on the water and wastewater strategy for the Warkworth Structure Plan is provide in section 3.3.8.1 and 3.3.8.2 of the main Warkworth Structure Plan document.

#### **4.1.10 Other Auckland Council plans and strategies**

##### **4.1.10.1 Low Carbon Auckland (2014)**

Low Carbon Auckland sets out a 30-year pathway and a 10-year plan of action to transform to a greener, more prosperous, liveable, low carbon city. A city that is powered by efficient, affordable, clean energy and using resources sustainably.

The plan focuses on five key areas of transformation:

1. the way we travel
2. the way we generate energy
3. our built environment and green infrastructure
4. zero waste
5. forestry, agriculture and natural carbon assets.

It is noted that the council is currently developing Auckland's Climate Action Plan and this will supersede Low Carbon Auckland once adopted.

The Warkworth Structure Plan is consistent with Low Carbon Auckland, particularly in the provision for active transport modes, public transport, and the identification and protection of a Green Network throughout the study area.

##### **4.1.10.2 Auckland Urban Ngahere (Forest) Strategy (2018)**

Auckland's urban forest is defined as the network of all trees, other vegetation and green roofs – both native and naturalised – in existing and future urban areas. It includes trees and shrubs in road corridors, parks and open spaces, green assets used for stormwater management, community gardens, green walls and roofs, and trees and plants in the gardens of private properties.

Auckland Council's Urban Forest Strategy is a comprehensive regulatory and non-regulatory approach to enhancing our urban forest and green infrastructure by increasing the tree canopy cover around the city.

A key target of the strategy is to increase canopy cover across Auckland's urban area up to 30 per cent, with no local board areas less than 15 per cent.

The Warkworth Structure Plan is consistent with the Auckland Urban Ngahere (Forest) Strategy as it shows a significant area for a Green Network for protection and rehabilitation (where required). The Green Network will over time will create corridors of native habitat connecting fragments of native vegetation.

#### **4.1.10.3 Auckland Design Manual**

The Auckland Design Manual (an online tool) is a non-statutory best practice guide for designing Auckland's neighbourhoods, buildings and spaces. It is a valuable tool for identifying appropriate typologies that can be utilised within Warkworth. The Neighbourhood Design Statement, discussed further in Section 3.3.10.5 of the main Warkworth Structure Plan document, refers to the Auckland Design Manual. The plan change process that follows the structure plan will consider any more detailed and specific provisions required to implement a quality built environment in Warkworth.

#### **4.1.10.4 Code of Practice for Land Development and Subdivision**

The Code of Practice for Land Development and Subdivision, or any subsequent updates of that document, will be a relevant consideration at the time of subdivision and development.

## **4.2 Local Context**

### **4.2.1 Study area description**

Warkworth is located approximately 60km from central Auckland and lies within the Rodney Local Board area. The Statistics New Zealand 2018 population estimate for Warkworth<sup>30</sup> was around 5,300 residents. The town has a higher percentage of the population aged 65 years and over compared to the Auckland average.

Much of Warkworth's existing urban footprint is concentrated around its town centre and the Mahurangi River. Residential uses surround the town centre and there are small areas of light industrial land in the outskirts of the existing urban footprint.

Warkworth sits at the edge of the Mahurangi River and lies within a large topographic bowl that is framed to the north and south by hill country and a mixture of both native and exotic production forests. The outer edges of this 'basin' culminate in the peaks of The Dome, Conical Peak and Mt Tamahunga to the north and Moirs Hill to the south.

The structure plan study area is the land zoned Future Urban under the Auckland Unitary Plan. It comprises around 1,000ha of land and is shown outlined in purple on Figure 5. The outer edge of the study area follows the RUB and some key activities around the edge include a limestone quarry, motorway (under construction), the satellite station, and rural production activities.

The landform within the study area is undulating with only a small area of predominately flat land (in the south). The land cover in the study area is predominately pastoral grassland with some patches of remnant bush (dominated by totara and kahikatea) in the upland areas and following major streams that feed into the Mahurangi River. Some discrete areas of orchards/vineyards are also present. Existing land uses in study area are predominately of a rural lifestyle nature. There are some larger blocks of rural production activities and a handful of smaller properties that contain industrial activities.

There is a wide range of land titles sizes across the Future Urban zone and buildings are generally sparsely distributed across the area. The areas that have the smaller titles and the higher density

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<sup>30</sup> Within the Warkworth Census Area Unit, which does not include the future urban zoned land

of building coverage are around Viv-Davie Martin Drive, the western end of Sandspit Road, and the southern end of Clayden Road.

The vast majority of the study area is privately owned with only small areas of publicly owned land for parks, esplanade reserves, and Watercare assets.

#### 4.2.2 Warkworth's context in northern Auckland

Warkworth is the largest rural town in the northern part the Auckland Council's jurisdiction. Surrounding smaller towns and settlements such as Snells Beach, Matakana, Omaha, Wellsford and Kaipara Flats all rely on Warkworth as their major centre for various needs including employment, shopping, education, and recreation. There is also a large rural population served by Warkworth.

Warkworth's anticipated growth means that it will remain as the largest settlement in the rural north. Warkworth has around 1,000ha of Future Urban zoned land which dwarfs the growth areas planned for other northern settlements in Auckland<sup>31</sup>.

Looking further north, across the Auckland Council boundary into the Kaipara and Whangarei districts, Warkworth is currently the largest population node and employment hub between Auckland<sup>32</sup> and Whangarei. Even with the growth predicted in some parts of the Kaipara District (e.g. Mangawhai), Warkworth is anticipated to remain the largest settlement between Auckland and Whangarei.

#### 4.2.3 Motorway development

Warkworth is currently split by the existing SH1 route through the urban area. There are planned and proposed motorway projects that will significantly influence the future of the town.

The Ara Tūhono – Pūhoi to Warkworth motorway project will extend the four-lane Northern Motorway (SH1) 18.5km from the Johnstone's Hill tunnels to just north of Warkworth. The motorway is currently under construction and is expected to be completed and open in late 2021.

The new motorway's terminus just north of Warkworth (near the Showgrounds) will result in the northern part of Warkworth becoming the main vehicle entrance point to the town rather than the current entrance from the south (using the existing SH1).

The Ara Tūhono – Pūhoi to Warkworth motorway will generally improve transport times and reliability to and from Auckland for the northern Auckland area. However, as the project terminates at Warkworth itself, the town is expected to gain the most from this project. Other northern towns such as Wellsford will gain some transport improvements but the overall time savings from the new motorway are reasonably small for a Wellsford-Auckland trip and a commute would still traverse the winding Dome Valley section of State Highway 1.

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<sup>31</sup> Wellsford, with around 100ha of Future Urban zoned land, has the second largest Future Urban zoned area of the northern settlements in Auckland.

<sup>32</sup> The northern urban edge of Silverdale/Orewa

It is anticipated that the new motorway will take on the state highway function and the existing SH1 route through Warkworth's urban area will be transferred to Auckland Transport to operate as an arterial road. This offers the potential for the road to function differently to what it does now in terms of speed limits, amenity, and active transport provision.

NZTA is completing the work necessary to designate Ara Tūhono – Warkworth to Wellsford. The indicative alignment for the Ara Tūhono – Warkworth to Wellsford project is publicly available and documentation to support the designation and consents are programmed to be lodged by NZTA in 2019.

The indicative alignment of Ara Tūhono – Warkworth to Wellsford (Figure 38) shows a system interchange just north of Auckland, incorporating a section of the Ara Tūhono – Pūhoi to Warkworth project. This form of interchange is to cater for high volumes of traffic with free flowing ramps to keep traffic moving. The interchange is shown indicatively on the Warkworth Structure Plan map. There is currently no confirmed timing for the construction of this project.



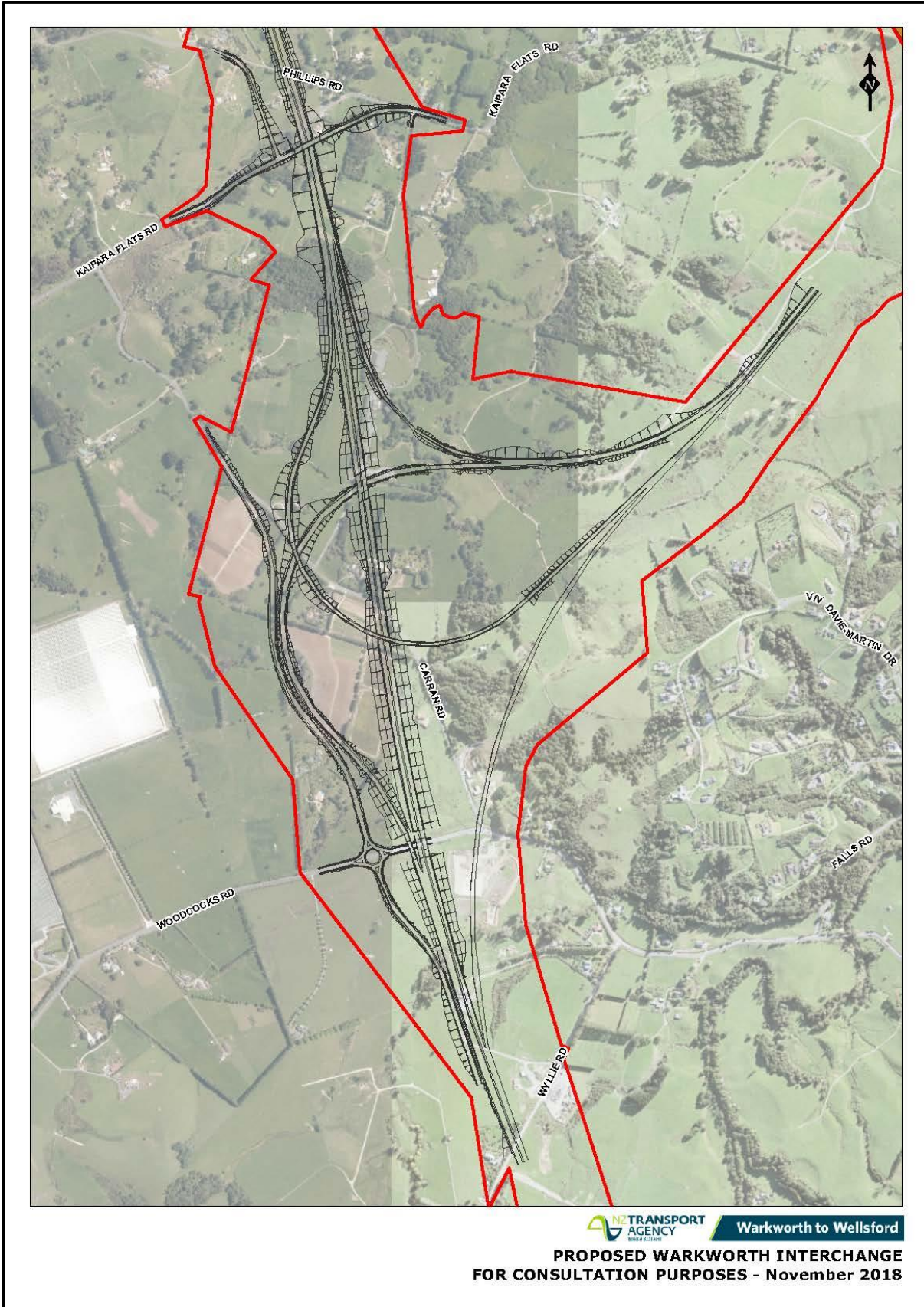


Figure 38: Indicative Ara Tūhono – Warkworth to Wellsford alignment around Warkworth

## 4.3 Background research

A number of background technical reports were prepared at the start of the process to inform the Warkworth Structure Plan project. These reports examined the existing environment, statutory considerations, and outlined opportunities and constraints in the Warkworth structure plan area. These reports are summarised below and a list of all the background topic reports can be found in **Appendix 1** of the main Warkworth Structure Plan document.

### 4.3.1 Water and wastewater

There are existing local network assets in place to provide both water and wastewater services to the existing urban area in Warkworth. Currently, there are no constructed assets in the Future Urban zoned land, but a series of projects are underway to provide bulk water and wastewater services to this land.

#### 4.3.1.1 Water

Water service to Warkworth is provided from the new Sanderson Road Water Treatment Plant, using water abstracted from bores. The treated water is pumped to two main reservoirs. This will provide water for the medium term growth of Warkworth.

#### 4.3.1.2 Wastewater

The current Warkworth wastewater network is a combination of gravity and low pressure systems and has limited capacity for population growth. The Warkworth Wastewater Treatment Plant at Alnwick Street, Warkworth is nearing capacity and will be expanded to cater for short term growth in the existing 'live' zoned catchment.

A discharge consent was granted for the servicing the combined Warkworth, Snells Beach and Algies Bay communities in April 2017. The discharge consent provides sufficient capacity in flow terms to provide for a population of around 30,000 in Warkworth, Snells Beach and Algies Bay. The associated new scheme will be constructed and operational by 2022, which includes a transfer pipeline between Warkworth and Snells Beach, a new Snells Beach WWTP, plus a new outfall. The current Warkworth Wastewater Treatment Plant will be decommissioned when the new scheme is operational.

### 4.3.2 Transport

The existing SH1 corridor provides a dual role in connecting Auckland and Northland for through traffic while also providing local access to the Warkworth town centre and settlements to the east, including Snells Beach, Algies Bay and Matakana (Eastern Beaches). At peak times, this corridor is heavily congested, with significant delays occurring regularly at the Hill Street intersection.

The Hill Street intersection is a critical pinch point in the Warkworth road network, providing the only access across the Mahurangi River to settlements to the east (Snells Beach, Algies Bay, Matakana etc.). It also provides direct access to the Warkworth town centre and Warkworth Primary School. Congestion levels at the Hill Street intersection are particularly high during holiday and weekend peaks, where existing capacity issues are exacerbated by holiday traffic heading to

and from the eastern beaches and further north on this nationally significant corridor. There are also very few east/west connections across SH1, restricting intra-network movement.

No regular public transport service is currently provided for trips within Warkworth itself. The 'New Network' for public transport in Warkworth began in September 2018 and introduced a new service between Warkworth and Hibiscus Coast Station (route 995), and new local services between Warkworth and Algies Bay/Snells Beach (route 996), between Warkworth and Point Wells, Omaha, Matakana (route 997), and between Wellsford and Warkworth (route 998).

Warkworth acts as a service town for the surrounding rural area, where significant distances and isolated locations mean that car travel is often the only option for access to essential services.

The Auckland Plan identifies Warkworth as having an important role as a Satellite Town – highlighted for its potential to function semi-independently from the main metropolitan area, and to provide a full range of services and employment opportunities to the surrounding rural areas. Local employment opportunities in Warkworth are a key factor to ensuring an efficient and sustainable transport network in the future.

### 4.3.3 Education

The Ministry of Education is responsible for managing the network of schools within New Zealand. Within the Auckland region, significant population growth is expected to occur as a result of natural increase and migration from overseas and other parts of the country. The Ministry is developing an Auckland Education Growth Plan to identify how growth in Auckland's school age population can be managed over the next 30 years.

Warkworth has been identified as an area of high priority, given the projected resident population growth and high-level of development planned for the area. The projected population growth indicates increasing demand for services and infrastructure, including primary and secondary education. Growth in the school age population of Warkworth is very dependent on the uptake and speed of development once land becomes available.

A number of network management options can be investigated to respond to forecast growth in Warkworth, including:

- Increasing capacity of existing schools to accommodate future growth demand
- Reviewing enrolment zone boundaries
- Adding new schools to the network
- Reviewing schooling structure alongside the above options

New schools would require land acquisition and designation, development planning and review of enrolment scheme home zones.

Based on the high-level anticipated levels of growth identified in the Auckland Plan, two further primary schools are likely to be required. Forecast growth also requires additional secondary provision in the wider catchment. New primary schools typically require between 2 to 4 hectares of land. Around 6-10ha of land is generally required for new secondary schools.



Opportunities exist around sharing of education and community facilities and aligning the delivery of additional schooling capacity and facilities with key infrastructure delivery timeframes.

#### 4.3.4 Open space

There are a number of existing esplanade and native bush reserves within the Warkworth Structure Plan area, but no parks or open spaces specifically for recreational purposes. Given the significant population growth expected in the structure plan area, there is a need for the provision of parks and open space to provide adequate informal recreational opportunities and experiences for the anticipated residents.

Through the structure plan process an assessment of the Warkworth Structure Plan study area will be undertaken to develop a parks and open space network. The council will then need to acquire land to create a network of open space such as large suburb/sports parks, a network of neighbourhood parks, and off-road walkways/cycleways connecting the parks.

The acquisition of additional land will be required to facilitate the development of connections and linkages. Esplanade reserve and riparian margins present an opportunity to create off-road recreational walkways and cycleways.

#### 4.3.5 Community facilities

Existing council community facilities are mainly located within the existing 'live' zoned Warkworth area such as the Warkworth Town Hall, Masonic Hall, Warkworth Library and two venues for hire in Shoesmith Domain. There are also nearby facilities in Snells Beach such as the Mahurangi East Library and Mahurangi Community Centre. In addition, there are community leases on council owned land such as the Warkworth Showgrounds.

The Community Facilities Network Plan guides Auckland Council investment in the provision of community facilities. The plan focuses on having the right facility in the right place at the right time.

The Community Facilities Network Action plan is a companion document to the network plan. It identifies actions and priorities required to address gaps, growth or fit for purpose issues across the community facilities network. The action plan identifies five actions that impact on the Warkworth area. One of these (the upgrade of Warkworth Town Hall) is identified as a priority and has been completed. The remaining four are not identified as priorities.

In the medium-term the following actions (identified in the Community Facilities Network Action plan) are required:

- investigate the feasibility and innovative opportunities to meet the need for a pool and leisure space in the Rodney area
- a needs assessment to assess whether the existing facilities are aligned to community needs in Rodney
- investigate the need for a multi-purpose community space in Warkworth
- investigate the need for expansion and refurbishment of Warkworth Library

Where these actions identify an unmet need, further work will be required. This could include changes to the way services are provided, innovative ways of providing new services, or the provision of new facilities.

Subject to the outcomes of the actions identified above, it is anticipated there will be adequate provision of library, arts and culture and community centre space to meet the forecast growth in Warkworth. There is currently adequate aquatic and leisure provision in the wider region given the current and forecast population but drive times to access facilities are at the upper limit of the guidelines. Provision of additional aquatic space may be required in the medium-term to serve Warkworth (and the surrounding area). There may be options to provide this through partnerships, or other innovative methods.

#### 4.3.6 Environment

The Warkworth Structure Plan area is a highly modified landscape with predominantly arable livestock/pastoral and rural lifestyle activities surrounding the existing Warkworth urban area. Small patches of native vegetation remain across the landscape and freshwater habitats are of moderate condition.

Formulation of the structure plan provides an opportunity to improve ecological values, set objectives for ecological enhancement, guide the placement of reserves and align community recreation corridors with ecological areas.

Ecological constraints for development include:

- proximity of developable area in relation to watercourses
- proximity and scale of development in relation to floodplains
- avoidance of watercourse loss (i.e. no permanent loss with reclamation or culverting)
- avoidance of native vegetation loss (especially Significant Ecological Areas)

Key ecological opportunities include:

- retaining and enhancing remaining native vegetation to improve wildlife habitat
- retaining and buffering natural watercourses to improve water quality and increase numbers and diversity of instream biota
- retaining natural topography as far as possible to ensure watercourses can maintain natural form and function
- aligning reserves and recreational connections with existing natural watercourse corridors to provide user integration with nature and wider buffering for wildlife movement
- reintroducing riverine wetlands to natural floodplains
- restoring modified watercourses to reinstate a meandering form and habitat diversity

In the context of the wider landscape, the Warkworth Structure Plan area could provide a key linkage between the Dome Valley forest in the north, through to the Mahurangi River, and out into the Mahurangi Harbour and pest free islands of the Hauraki Gulf in the east. This means that restoration of ecological values in the Warkworth Structure Plan area will help bridge this current gap and as such could yield ecological benefits of a larger scale and across a larger area of the Auckland region.



### 4.3.7 Sustainability

When considering sustainability opportunities and constraints in the context of structure planning it is necessary to focus on issues that are relevant and can be influenced by decision making at this early stage and high level.

The structure plan presents a significant opportunity to influence sustainability outcomes and support a low carbon development model for the area. The scale and predominantly undeveloped nature of the Warkworth structure plan area provides opportunities to plan for broader sustainability outcomes from the outset.

The opportunities related to sustainability include:

- The Warkworth structure plan area is of a sufficient scale to create a new urban area with a mix of land uses that promote a functioning, self-sustaining community (reducing the need to travel longer distances).
- Promoting areas of mixed use within the structure plan area can deliver a range of benefits including reducing the distance that residents need to travel within the structure plan area, supporting a walking and cycling friendly environment and helping to establish a vibrant community with a sense of place.
- Planning for transit-oriented development through assigning higher density residential and mixed-use zones within convenient walking distances of public transport stations and stops can increase the accessibility and appeal of public transport to a greater number of people.
- Enabling a quality compact urban form allows for a more efficient use of land and reduces urban sprawl. Using land in the future urban zone efficiently can reduce the need for further urbanisation of rural land in the region.
- Establishing a transport network that promotes low carbon and active transportation modes within the structure plan area and to and from the area. This can support a wide range of positive environmental and social outcomes.
- Using Auckland specific climate change projections to inform the development of the Structure Plan presents an opportunity to arrange land uses and infrastructure in a way that is resilient to the projected impacts of climate change and therefore exposed to a reduced level of climate related risk.
- Defining land uses during the development of the structure plan presents an opportunity to consider the integration of green infrastructure in a way that supports climate change adaptation.
- Integrating urban forest planning in the development of the structure plan to deliver an increase in urban forest canopy cover with a wide range of benefits.

The constraints or risks related to sustainability include:

- Potential for the urbanisation of the structure plan area to generate a large increase in private vehicle trips and traffic congestion. This could increase transport related greenhouse gas emissions and result in negative social and economic outcomes including lost productivity.
- There may be resistance and challenges from the development sector towards delivering higher density residential developments based on market conditions and perceptions of

market demand for higher density housing. This may be reinforced by traditional values associated with housing and residential subdivision in the local area, illustrated by the very few examples of higher density residential developments in Warkworth.

- There may be resistance and challenges from the development sector towards zoning a mix of land uses due to a preference for residential zoning.

#### 4.3.8 Stormwater

The study area is located within the lower Mahurangi River Catchment which is approximately 5,892ha in area and drains to the Mahurangi Harbour within the Hauraki Gulf. The Warkworth Structure Plan study area comprises approximately 17% of the wider Mahurangi Catchment. Within the study area the topography is generally characterised as rolling to moderately sloping with elevations ranging from approximately 100m RL at its northern, western and southern extents to sea level around the existing urban area alongside the Mahurangi River.

Streams within the study area are all part of the Mahurangi River system. These streams vary from natural streams with good quality indigenous riparian vegetation to farm drains. The north and south branches of the Mahurangi River join at the intersection of Falls Road and Woodcocks Road and the river then travels west to east, bisecting the study area.

The removal of riparian vegetation, livestock access to waterways and pollution from agricultural runoff have all influenced water quality, as well as reduced habitat diversity and biodiversity. However, as the catchment currently has a low extent of impervious surfaces, a low degree of channel modification, and comparatively low pollution from stormwater and wastewater discharge, the water quality overall for the catchment is rated as “good” in Auckland Council’s 2016 freshwater report card.

The study area is underlain by the Mahurangi Waitematā aquifer. The aquifer is designated as a High-Use Aquifer Management Area in the Auckland Unitary Plan with an annual water availability of 1,605,500m<sup>3</sup>. In general, high use aquifers are sensitive to increasing imperviousness which can result in a reduction in infiltration and aquifer recharge. Minimising reductions in infiltration as a result of development is an important consideration for the continuing viability of aquifer resources. Further work needs to be undertaken to determine the sensitivity of the Mahurangi Waitematā aquifer to changes in catchment imperviousness.

Auckland Council’s Mahurangi Catchment model has been used to determine the extent of the 100 year floodplain. In the Warkworth study area the 100 year floodplain will act as a constraint for development as generally buildings and infrastructure should not be located within the floodplain. However, the floodplain as a development constraint may overlap with the requirement for protecting permanent and intermittent streams as well as protecting areas of existing riparian vegetation which is prominent along the Mahurangi River.

Identifying and integrating stormwater constraints and opportunities and infrastructure needs for the intended land use is an integral part of the structure plan process. The following stormwater constraints and opportunities for the study area have been identified:

##### Managing flood risk

###### *Constraints*

- Upstream development may increase the flood risk to existing buildings in Warkworth. If this is found to be the case, then catchment scale attenuation devices may be required to avoid increasing flooding to habitable floors.
- Any new development should occur outside of the 100 year floodplain.
- Allow for conveyance of overland flow.

#### *Opportunities*

- Protection of 100 year floodplain also provides an opportunity to enhance riparian corridors. This provides enhanced stormwater management functions, contributes to the ecological values of stream corridors and provides public amenity. Green corridors should be considered to manage the flood hazard, protect ecological values, provide amenity and for walking and cycling tracks.

### Hydrological mitigation

#### *Constraints*

- The presence of low permeability ultic clays in the structure plan area may preclude the use of infiltration devices in some areas.
- The viability of water reuse as a stormwater management tool is contingent on land use activity and will need to be assessed on a site by site basis.

#### *Opportunities*

- The structure plan area is a greenfield site which provides an opportunity to incorporate integrated stormwater management to maintain pre-development hydrology.
- Providing opportunity for on-site infiltration to improve aquifer recharge and stream baseflows.
- Providing opportunities for water reuse especially for housing and for industrial/commercial activities (depending on water demand).

### Opportunities to enhance freshwater systems

#### *Constraints*

- Permanent and intermittent streams will need to be protected.
- Riparian buffer area around streams needs to be included. In some areas existing riparian vegetation has been classified as a terrestrial Significant Ecological Area and must be protected.

#### *Opportunities*

- Water quality in the water bodies within the structure plan area is currently relatively good for an urban catchment. Use of integrated stormwater management is an opportunity to maintain or enhance water quality.
- Design stormwater management that provides for a high level of water quality to protect the high ecological values and good water quality present in the area.
- Use riparian margins as part of water conveyance and to provide connections to other freshwater systems and other habitat types.

- The change in land use from rural land to urban is an opportunity to reduce sedimentation loading in freshwater systems and in the harbour

#### 4.3.9 Contaminated land

Within the study area there are a number of potentially contaminating activities included on the Ministry for the Environment HAIL list that are either being undertaken or are more likely than not to have been undertaken in this area.

The majority of the study area has historically been and continues to be utilised for pastoral farmland and rural-residential purposes. Although these land uses are generally considered to be low risk with regards to contamination, localised occurrences may exist, resulting from a number of potential sources, including:

Livestock dips or spray race operations in pastoral farmland areas;

- On-site wastewater disposal systems;
- Asbestos;
- Lead-based paints;
- Burial and burning of farm waste;
- Importation of unverified fill;
- Fuel storage.

A number of properties within the study area are known or are suspected to have been utilised for horticultural purposes, including market gardening, orchards, green houses and viticulture. Persistent bulk storage and use of pesticides (HAIL Category A10) are commonly associated with such horticultural activities.

Other potentially contaminating HAIL activities identified within the study area included:

- A golf driving range. This may have persistent bulk storage and use of chemicals such as pesticides (HAIL Category A10) are the primary HAIL activities.
- A motor mechanic workshop. Depending on the age and condition of the workshop infrastructure, including floors and drainage pits, waste disposal practices, and depth of groundwater beneath the site, the level of contamination could range from negligible to significant.
- A spare car parts business. As with the motor mechanics workshop, the level of contamination will depend on the age and condition of the workshop infrastructure, including floors and drainage pits waste disposal practices, and depth of groundwater beneath the site.
- A search of the council's consent database revealed that a property had held a consent to discharge wastewater including wash down from stock holding pens, from an abattoir operation. The consent expired in 2004. Given the length of time since the assumed cessation of operations, no biological or nutrient issues are anticipated to be of concern. However, any chemicals used by the abattoir for cleaning and disinfecting purposes may potentially have impacted the site soils.
- Two properties appear to be utilised as laydown/ storage areas, one for a freight company and the second for a drilling company. Whether the properties can be assessed as potential

or actual HAIL sites will depend in part on the type of freight or drilling equipment/chemicals being stored, and whether vehicle/drill equipment maintenance works are carried out on these properties.

An evaluation of the constraints, opportunities and information gaps with respect to contaminated land was carried out, and determined that further assessments within the study area, particularly land proposed for high sensitivity end use, such as residential, children's play areas, child care centres, schools and rest homes would be required at the resource consent stage. This would include:

- A comprehensive Preliminary Site Investigation to confirm the actual or potential location and nature of HAIL activities.
- Should the Preliminary Site Investigation identify that HAIL activities are more likely than not to have occurred on a property within the study area, then a Detailed Site Investigation will be required.
- On the basis of the results of the Detailed Site Investigation, the requirement for remedial works and/or resource consents would be assessed.

In general, contamination within rural-residential, pastoral farmland properties, if present, is likely to occur as discrete, low volume hotspots (although it is recognised concentrations may be high). Contamination associated with the horticultural and recreational land uses identified are likely to be dispersed at lower levels across the properties. Overall it is considered that issues arising from contaminated land are unlikely to present significant constraints to land development in the study area.

#### **4.3.10 Geotechnical and coastal hazards**

From a geotechnical perspective, the study area is underlain by a mixture of geology types that include some of the more challenging conditions encountered within the Auckland Region. Of particular concern are landslide prone rock types, including Northland Allochthon ('Onerahi Chaos') and large scale block slides within the Pakiri Formation. However, there is some evidence that despite the poor geological conditions in parts of the area, the conditions may be less onerous than other similar areas such as Wellsford. Therefore, the problems encountered are likely to be within the ability of local engineering firms to resolve, with suitably rigorous investigation and design.

With respect to coastal hazards, the proposed Warkworth Future Urban Zone is 14km inland from the open coast and extends landward in a northerly, westerly and southerly direction from the upper limit of Mean High Water Springs. The site is outside of the activity controls identified in the Auckland Unitary Plan for coastal erosion, coastal inundation and the future effects of sea-level rise. As a result, there are no identified coastal hazard constraints identified.

#### **4.3.11 Heritage and archaeology**

A significant number of places of heritage interest or significance exist within the study area, including several that are unrecorded. Only one of these, the Combes and Daldy lime works, is currently scheduled in the Auckland Unitary Plan schedule of historic heritage. The Wilson's



Portland Cement Company dam also appears to be of sufficient significance and integrity to be considered for evaluation to determine if it meets the criteria for inclusion in the schedule.

Further unscheduled significant heritage places were identified just outside the study area and these may also be affected by urban or other development in the longer term. Some unscheduled archaeological sites are present in the study area. Other presently unidentified sites are likely to exist in certain locations that have not yet been surveyed or researched in detail. Sites that pre-date 1900, whether recorded or not, are protected under the provisions of the Heritage New Zealand Pouhere Taonga Act and may not be modified or destroyed without an archaeological authority.

The Accidental Discovery Protocol provides a process for managing the unanticipated discovery of sensitive materials including archaeological sites. Compliance with the archaeological provisions of the Heritage New Zealand Pouhere Taonga Act (2014) and the Auckland Unitary Plan will be triggered.

The historic settlement pattern in this area is scattered and is not considered to meet the requirements of Special Character.

Overall, there are few constraints associated with historic heritage in relation to the development of the study area. It will be difficult to avoid the loss of some heritage places including several World War II camp sites. Where this occurs, there are a number of mitigation measures that should be considered.

#### 4.3.12 Landscape

Warkworth sits at the edge of the Mahurangi River, a northern reach of the Mahurangi Harbour, and lies within a large topographic bowl that is framed to the north and south by the hill country and a mixture of both native and exotic production forests. The outer edges of this 'basin' culminate in the peaks of The Dome, Conical Peak and Mt Tamahunga to the north, while Moirs Hill is the main hill feature to the south, separating Warkworth from a complex valley system around Puhoi. Inland, the channelised valley of the Kaipara Flats extends towards the small peak of Clements Hill, then the much more layered and elevated sequence of hills and ridges that denote the Kaipara Hills and – further west Mt Auckland/Atuanui.

In the closer vicinity of Warkworth's existing settlement, a mixture of more localised stream valleys and basins are intermixed with a rolling matrix of ridges and hills north, south and west of the Mahurangi River and current town centre. Patches of remnant bush dot these upland areas, while tracts of residual bush – often dominated by totara and kahikatea, but also kauri within the Falls catchment – follow the line of the major streams that feed into the Left and Right Branches of the upper Mahurangi River and their various tributaries. These culminate in several major stands of coastal forest/bush:

- spread along the main escarpment of the Mahurangi River facing the current township's commercial core and the sequence of waterfalls, rapids and sedimentary pavement that denote its transition into the smaller rivers described above;
- a sequence of mature totara and kahikatea at the centre of a broad catch basin near the Warkworth Showgrounds extending northward below Matakana Road;

- a sequence of totara dominated forest following the stream corridors immediately east of that same road;
- a complex mixture of kahikatea, kauri and totara either side of the Falls and its small weir, north of Woodcocks Road – to the west of the current township; and
- a corridor of totara and kahikatea following the Right Branch of the Mahurangi River from Woodcocks Road towards Perry Road and SH1 to the south.

These stands of native vegetation, together with others on more elevated ridges and hill slopes, contribute very markedly to Warkworth's endemic signature. They provide linear points or areas of focus within the individual catchments arrayed around the current township, have considerable aesthetic appeal in their own right and offer a feeling of linkage with the main body of the Mahurangi River and Harbour. They also lend each catchment feelings of naturalness and maturity that would otherwise be difficult to realise amid the open paddocks of grass and – near the showgrounds – sports fields.

At the centre of both this network and Warkworth's current urban area, the combination of mature forest overlooking the upper Mahurangi River, combined with its well defined, even intimate, river corridor, 'rapids' and falls, creates a landscape that is central to the township's enduring 'village' character and identity. It reinforces the town's feeling of being at the heart of a confined basin, while the development of a timber esplanade, grassed recreation areas and children's playground – all directly opposite the river escarpment and forest – creates an attractive interplay between the river's natural and cultural halves. The mooring of an old scow and other historic vessels next to the walkway reinforces this engagement, which is fundamental to Warkworth's appeal for locals and visitors alike.

Consequently, a town that once largely turned its back on the Mahurangi River is increasingly realising the benefits of integration with this key landscape feature and asset. The river and escarpment are identified as an Outstanding Natural Landscape in the Auckland Unitary Plan and will remain absolutely critical to the aesthetic appeal and ambience of Warkworth into the foreseeable future.

Elsewhere, much of the study area currently remains dominated by pasture, rural-residential blocks and – south of the township – the Ransom Vineyard. Around Thompson Road, this rural open space transitions into large tracts of bush just outside the study area that focus on Avice Miller Reserve (near Satellite Station Road) and Parry Kauri Park – near the junction of Thompson Road with Wilson Road. Large blocks of bush extend eastwards from this edge of the structure plan area towards the Mahurangi Harbour, although relatively few locations offer views towards the main body of the harbour. It is effectively isolated from nearly all of the study area. These stands of native forest provide the focus for a large Outstanding Natural Landscape that wraps around the western side of the Mahurangi Harbour and travels along the ridge north of Satellite Station Road.

On the opposite side of Warkworth, around Viv Davie Martin Drive, significant rural-residential development is already spread across the rolling to steep slopes that frame the Falls catchment, while smaller pockets of both rural-residential development and more conventional residential lots already straddle both sides of Matakana Road as it leaves the current township, heading northwards. A small pocket of more historic, suburban housing is also located within the apex of Matakana Road and Clayden Road, but most of the remaining land within the catchments north to north-east of the current town centre still remain dominated by pastoral activities, notwithstanding

the presence of the Warkworth Golf Club and course (off Matakana Road) and the Rodney Coop Lime Quarry (both just outside the study area).

These areas are interspersed with the tracts of native bush following stream corridors already described. In addition, at the southern SH1 entryway/gateway to Warkworth between Valerie Close and Toovey Road, as well as around Sandspit Road, the study area landscape is also notable for a complex matrix of lanes, accessways, properties and fields framed by Chinese poplars together with other poplar and willow species.

These regimented stands of trees help to define, and attractively enclose, both main road corridors. They also help to screen houses, sheds and other structural elements within individual properties, and lend the landscape around the township a sense of remaining bucolic, rural and mature, even in quite close proximity to the current, rapidly changing town margins. As a result, they contribute appreciably to both the landscape character and amenity values of the wider study area and town.

The topographic margins of the study catchment are also defined by a number of other landscape features, including:

- The ridge that Wilson Road and Thompson Road run along;
- The prominent ridge that Viv Davie Martin Drive climbs up near the Falls;
- A knoll directly north of the Warkworth Showgrounds, merging with a significant ridgeline that extends towards Clayden Road and Matakana Road;
- Part of the Mahurangi River escarpment; and some smaller tributaries off the Right Branch of the Mahurangi River near Perry Road and lower Wyllie Road.

The Landscape Topic Report develops a broad strategy around what landscapes should be protected and conserved or retained as far as possible.

#### **4.3.13 Business land needs**

Warkworth and the surrounding areas are projected to experience significant growth over the next three decades, and that growth will require significant new provision of retail and services space and business land to accommodate employment and meet the future needs of the community.

Applying the higher end estimates, there will be demand for an additional 68ha (net) of business land in Warkworth out to 2047. That 68ha includes 3ha Town Centre, 1-2ha for new Neighbourhood Centres, up to 57ha of Light/Heavy Industry, 4ha of General Business, and 3ha of Mixed Use.

The demand for Town Centre, General Business and Mixed Use land can be supplied through development of currently vacant existing zones and/or intensification of existing zones (e.g. the Mixed Use land surrounding the town centre).

In the Future Urban zone only a few small new Neighbourhood Centres are likely to be needed for local convenience needs.

Up to 95ha (gross) of industrial land would be needed in the Future Urban zone under the highest demand scenario. Under the lowest demand scenario, no further industrial land would be needed

and the existing vacant industrial areas would be sufficient to cater for the growth. It would be prudent to plan to accommodate for the higher end of the demand scenario given the difficulties with finding more industrial land once other activities are in place.

#### 4.3.14 Urban design

Urban design is the process of planning and designing development holistically, from the macro scale (such as this structure planning process) through to the micro level (site specific and building design). For the purposes of this structure planning process, only macro urban design is involved. However, this macro planning must always be done with the micro level in mind – considering the impacts the decisions made at the higher level will have when developments are built on the ground and attempting to identify issues and pre-empt problems from arising.

#### 4.3.15 Land use planning

The Land Use Topic Report looked at a number of different issues within the study area without overlapping too far into specific areas covered by other topic reports. The issues covered are outlined below with a summary of the findings.

- **Land cover:** The land cover in the study area is predominately grassland with some smaller areas of native vegetation. Some discrete areas of orchards/vineyards are also present. The types of land cover in the study area do not raise any significant concerns in terms of significantly limiting future urban land use options.
- **Existing land uses:** The existing land uses in the study area are predominately of a rural lifestyle nature. There are some larger blocks of rural production activities and a handful of smaller properties that contain industrial activities. The types of existing land uses are unlikely to significantly limit future urban land use options within the study area.
- **Existing land titles and buildings:** There is a wide range of land titles sizes in the study area; from sites under 1ha to sites over 50ha. There is a concentration of smaller sites of approximately 1ha around Viv-Davie Martin Drive, the western end of Sandspit Road, the southern end of Clayden Road, and around McKinney Road. The size of land titles in the Future Urban zone can impact on the types of future land uses that can occur. Larger titles give more flexibility for a range of land uses to be developed (e.g. residential, industrial, centres, large parks).

The areas mentioned above where there has been significant fragmentation of land titles (through subdivision) will be more difficult to develop for a range of uses. This is because smaller titles are generally more expensive per square metre and the high value of the land can make some types of typically lower value land uses more difficult (i.e. industrial, parks). Areas with smaller titles will also have a number of different land owners, each with their own aspirations (or lack of) and timing for future urban development. Coordination amongst

a number of smaller landholdings can be difficult and can impact on the type of future land uses and the potential infrastructure networks.

Existing buildings are generally sparsely distributed across the study area except for a few areas that have a higher density of building coverage. These are largely in the areas with smaller land titles. The concentration of buildings in these areas has the potential to hinder the types of future urban land uses that can occur and potential future infrastructure networks. This is linked to the value of the building. Buildings with high values can be difficult to shift or remove and therefore can hinder the range of future land uses that can occur and can potentially obstruct infrastructure networks. There are many sites in the study area with lower value (under \$250k) buildings on them. These titles will be flexible for a range of future land uses and infrastructure networks. There are only a few sites in the study area with building values over \$1m.

- **Unimplemented consents:** The existing land use planning environment includes unimplemented resource consents. That is, land use developments that have gained a resource consent but have not yet been built. These developments are not apparent when visiting a property or viewing recent aerial photos. However, the developments can occur now without further council planning consents required. For the purposes of the Warkworth Structure Plan project it is assumed that any unimplemented consent in the Future Urban zone will be implemented (before the consent lapses). Therefore, the Future Urban zoned land covered by the granted consent should be shown in the structure plan as a land use to match the type of consented development. The roading network and other infrastructure should follow and join into the consented development plans.
- **Covenants:** There are a number of land titles in the Future Urban zone that are subject to covenants. The covenants that protect areas of indigenous vegetation are largely around the Viv Davie-Martin Drive area and some stream corridors. These covenants will limit future urban activities on the covenanted indigenous vegetation areas. The structure plan will need to largely design land uses and infrastructure around the covenanted areas, leaving the vegetation intact.
- **Publicly owned land:** There is minimal publicly owned land in the study area. The small areas of publicly owned land are for parks, esplanade reserves, motorway purposes, and Watercare assets. Land within the study area that is already publicly owned has the potential to be more easily be used for public works (e.g. pump stations, open space network) and the council can have more certainty around the land use outcomes on council owned land.
- **Auckland Unitary Plan overlays and controls:** A number of district plan overlays and controls apply to the study area. These are outlined in section 4.1.6 of this appendix and are covered in more detail in other topic reports relevant to the overlay or control.



- **Designations:** Several designations impact on the study area, the most pertinent being the gas pipeline (9101), the Ara Tūhono – Pūhoi to Warkworth motorway (6769), and the Satellite Station building restriction area (7501).
- **Boundary issues:** The land uses on the outer edge of the study area (along the RUB) have the potential to create reverse sensitivity issues with lawful neighbouring land uses. The key boundaries of the study area that will require the most management are those that directly adjoin the Ara Tūhono – Pūhoi to Warkworth motorway corridor, land zoned for productive rural purposes, and the Limestone quarry. The land uses on the inner edge of the study area (along the 'live' zoned urban area of Warkworth) also have the potential for reverse sensitivity issues. The key boundaries requiring the most management are those adjoining the existing industrial zones.

## 4.4 Consultation

Consultation on the future of Warkworth has been an ongoing process in the development of the Warkworth Structure Plan. The structure plan process was preceded by consultation on higher level strategic planning matters including Warkworth's status as a Satellite Town (via the Auckland Plan 2012 and 2018), the location of the RUB (via the Auckland Unitary Plan process 2013-2016), the sequencing of greenfield growth areas in the Future Urban Land Supply Strategy in 2015 and 2017, and more recently with (in collaboration with NZTA and Auckland Transport) the Supporting Growth Programme (2018 and ongoing).

The engagement strategy for the Warkworth Structure Plan project focused on engagement with mana whenua, landowners, residents and businesses in the area, community groups, and the general public.

The requirement for consultation as part of the structure planning process is to collect feedback from landowners, stakeholders, infrastructure providers and communities<sup>33</sup> to inform the content of the structure plan. Engagement for the Warkworth Structure Plan project sought to move beyond these consultation requirements and involve stakeholders and the community in generating ideas for the structure plan. The objectives of the structure plan engagement were to:

- inform landowners within the structure plan area, and the public and other relevant stakeholders about the project;
- invite interested parties (i.e. landowners, stakeholders and the public) to participate in the structure planning process;
- better understand the land use opportunities and constraints to create a robust structure plan for the Warkworth area;
- consider stakeholders and community's views in relation to the development of the Warkworth area; and

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<sup>33</sup> Section 1.4.8 of Appendix 1 of the Auckland Unitary Plan

- satisfy formal statutory requirements for consultation and engagement.

Engagement on the structure plan project used the International Association for Public Participation framework, in that it sought to:

- **inform:** to keep stakeholders and the public informed at key stages of the structure plan process
- **consult:** to obtain feedback to be used for the Warkworth Structure Plan
- **involve:** to work with interested parties in the development of the Warkworth Structure Plan through community workshops

The Warkworth Structure Plan project has included four main stages of public engagement:

- Stage 1 – April 2018 (Initial engagement)
- Stage 2 – June 2018 (Community workshops)
- Stage 3 – August 2018 (Reporting back on community workshops)
- Stage 4 – February/March 2019 (Feedback on draft structure plan)

These stages are outlined in further detail below.

#### 4.4.1 Stage 1 – April 2018 (Initial engagement)

In April 2018 the council undertook the first of four planned stages of public consultation for the Warkworth Structure Plan project. The purpose of this initial stage was to:

- promote awareness of the Warkworth Structure Plan project;
- receive comments on the background information papers ('topic reports') prepared by specialists within council; and
- gain a local perspective on what is valued in Warkworth as it grows, and any potential opportunities and constraints associated with its growth.

Just prior to (and during) this period the project team sought to build awareness of the consultation process to encourage feedback. These awareness building initiatives included:

- letters to owners and occupiers of properties within the Future Urban zone in Warkworth;
- articles in local and regional papers including Mahurangi Matters, Rodney Times and Our Auckland;
- a Project newsletter entitled "*Warkworth Structure Plan project news*" (April 2018 issue) sent to households in the Warkworth area and wider surrounds;
- emails to identified stakeholders;
- posts on the Rodney Local Board Facebook page;
- creating a hashtag #FutureWarkworth to follow any discussion on this project on social media;
- attendance and presentations at various community group meetings;
- posters at businesses and community facilities in Warkworth town centre; and
- information on the council website.

The main method through which feedback was received was the online feedback forms on the council website. However, in an effort to promote other channels to receive feedback, the project team held other events, as detailed below.

- Project stands events and ‘drop-in’ sessions
- Exercises with students at Warkworth Primary School and Mahurangi College

In total 223 pieces of feedback were received during the April consultation stage with a fairly even split between respondents from Warkworth and those in the surrounding area. Key themes that emerged from public consultation are outlined below:

- The most common feedback theme was around **transport**. This included comments around congestion on the roading network (e.g. Hill Street intersection) and the need for new road network connections. There were also comments around the need for improved public transport to Auckland, the surrounding area, and within Warkworth itself. Improved cycleways/walkway connections were sought and there were comments on the lack of parking in the town centre.
- The second most common theme was around **general infrastructure provision**. The issues raised were about the need for infrastructure to come before development including infrastructure for transport, water/wastewater, education, health, community facilities, and open space.
- The **character and identity** of Warkworth was another key theme raised in feedback. This included comments around retaining the small rural ‘village’ character of Warkworth and the sense of community that currently exists. Retaining the existing town centre as a focal point was also important, as was the desire that Warkworth not become like a suburb of Auckland.
- **Environmental considerations** received a high degree of feedback. Comments were mostly around protecting the sensitive Mahurangi River and identifying and protecting environmental areas before development occurs.
- The other main theme was around **business and employment**. The issues raised were around the benefits of additional services that will be available as Warkworth grows (e.g. retail, recreation) and the importance of businesses being able to locate in Warkworth and provide local jobs.

Further information on the Initial Engagement stage of consultation can be found in **Appendix 1** of the main Warkworth Structure Plan document.

#### 4.4.2 Stage 2 – June 2018 (Community workshops)

During June 2018, the second stage of public consultation for the project was undertaken over two separate (but identical) sessions at the Warkworth Town Hall. The purpose of this consultation stage was to involve the public in ‘hands-on’ sessions to generate ideas on how the Warkworth Structure Plan could look in terms of a land use layout and supporting infrastructure.

The workshops were run by an independent facilitator and council planners and specialists were in attendance to assist the public. The purpose of the workshops was to provide the community with the opportunity to generate and contribute informed ideas alongside the council team for the future

of Warkworth. The process ensured that workshop participants were aware of all specialist information before ideas were generated.

The project team sought to build awareness of the community workshops through various channels including a project newsletter ("*Warkworth Structure Plan project news*" – June 2018 issue) sent to households in the Warkworth area and wider surrounds, emails to stakeholders, social media posts, community group meetings, advertisements/media articles, posters and the council website.

Approximately 50 public participants were recorded at the first weekday evening workshop, forming into eight groups for the design session. The second workshop was held on a Saturday morning and approximately 40 public participants formed into six groups for the design session.

The workshop outputs included a series of annotated and/or colour coded plans showing future land uses and supporting infrastructure for the Future Urban zoned area.

Further information on the community workshops stage of consultation can be found in **Appendix 1** of the main Warkworth Structure Plan document.

#### 4.4.3 Stage 3 – August 2018 (Reporting back on community workshops)

The third stage of public consultation for the project was to report back on the ideas generated at the community workshops. This consultation stage was held in conjunction with the Supporting Growth Alliance who were exploring and planning the transport networks needed to support Warkworth's future urban growth over the next 30 years.

After the community workshops in June, the council reviewed and summarised all the ideas generated over the two workshops. The workshop outputs included a series of 15 different land use plans for Warkworth. While each plan was unique, common themes emerged including increasing roading connections, having future industrial uses in a few similar locations, and clustering schools/parks/higher density housing around centres.

The outputs have been interpreted through analysis of the maps, and by reviewing the spoken summary of the maps by each group at the end of each workshop. There were several common themes throughout the workshops, including the desired location of elements included in the exercise brief, and requests for elements not listed. The outcomes of the two community workshops held in June 2018 expressed the following general themes:

- Increasing connections in the roading network.
- An interchange connecting to the Ara Tūhono – Pūhoi to Warkworth motorway at the southern part of the study area.
- Park and ride areas.
- Clustering industrial uses in two or three locations close to major arterials.
- A desire to keep the Warkworth Town Centre as the primary centre, with additional services required to be spread over several Neighbourhood Centres.
- Various land uses were commonly clustered alongside the Neighbourhood Centres, including schools, parks, and medium and high density housing.
- Lower density housing was commonly placed on the periphery, and in environmentally sensitive areas.

- There were different ideas for the location of schools, although most were clustered with other uses such as parks, centres or the Warkworth Showgrounds, and distributed to enable accessibility with future growth.
- Locating a hospital and/or other medical facilities in Warkworth.
- Cycling and pedestrian links to encompass recreation, increase accessibility for all abilities and enable a variety of modes of transport.
- Cycling and pedestrian pathways connected to waterways and green spaces.
- Urban growth should respond in a responsible way, with an environmental focus.

A summary of the outputs from the community workshops was displayed using overlay maps and these were presented to the public on two information days in August 2018. These sessions showcased a summary of the main outputs of the community workshops. The sessions were also used as an opportunity to show a set of seven draft planning principles to guide the Warkworth Structure Plan (that were developed using existing community consultation resources, iwi consultation, and considering the feedback on the structure plan project to date). These planning principles were available on the day for informal comments.

The Supporting Growth Alliance were in attendance at both information days to outline some of the emerging preferred transport options for Warkworth. Other teams working on Warkworth transport projects such as the Ara Tūhono – Puhoi to Warkworth motorway, the Hill Street intersection, and the Matakana Link Road were also in attendance.

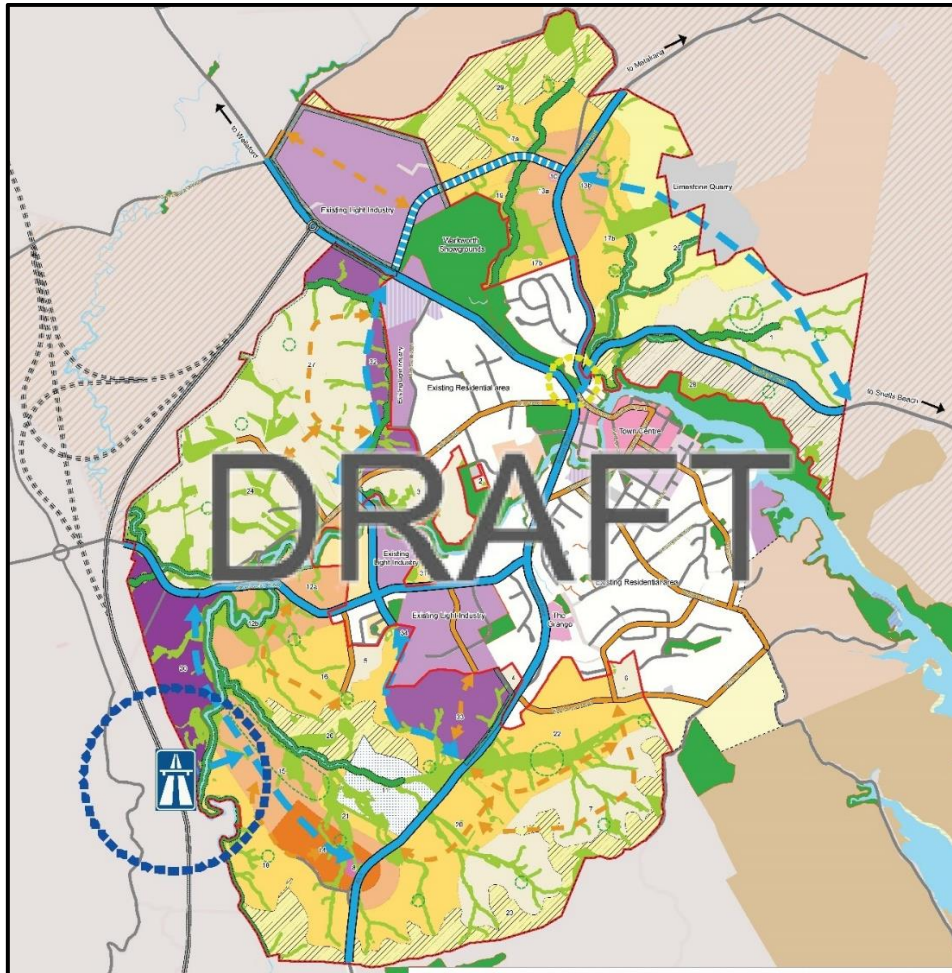
The information days were advertised by the Supporting Growth Alliance. Approximately 60 people attended the weekend session and 80 people attended the weeknight session.

Further information on the Reporting Back stage of consultation can be found in **Appendix 1** of the main Warkworth Structure Plan document.

#### **4.4.4 Stage 4 – February/March 2019 (Feedback on draft structure plan)**

The final stage of consultation for the Warkworth Structure Plan project was to receive feedback on the draft plan. Feedback on the draft plan was open from 25 February to 25 March 2019. The purpose of this final consultation stage was to test the draft layout of land uses and supporting infrastructure and any other matters (e.g. staging) set out in the draft plan. The draft version of the structure plan is shown in Figure 39 below.





**Figure 39:** Draft Warkworth Structure Plan (February 2019)

The project team sought to build awareness of the consultation process through letters to Future Urban zone land owners, a Project newsletter entitled “*Warkworth Structure Plan project news*” (February 2019 issue), local paper advertisements and articles, an email to identified stakeholders, posts on the Rodney Local Board Facebook page, attendance at various community group meetings, posters at local businesses and community facilities, and information on the council website.

The consultation on the plan included two ‘drop in days’ at the Warkworth Town Hall, two event stand sessions and sausage sizzles outside the Warkworth New World supermarket, and a number of community group meetings.

A total of 219 pieces of feedback on the draft plan were received. Overall, there was an even level of support and opposition on the draft Warkworth Structure Plan. The general comments on the plan were mainly around transport, the scope of the plan, open space provision, new facilities sought, business land, and generally ensuring infrastructure is provided before growth is enabled.

There was strong feedback on some specific elements of the plan including opposition to the industrial land. There was a desire that it be reduced and be more clustered. There were also concerns about the interface between industry and residential areas and/or streams. There was

support for the indicative parks shown in the draft plan and two-thirds support for the retention of the Morrison's Orchard.

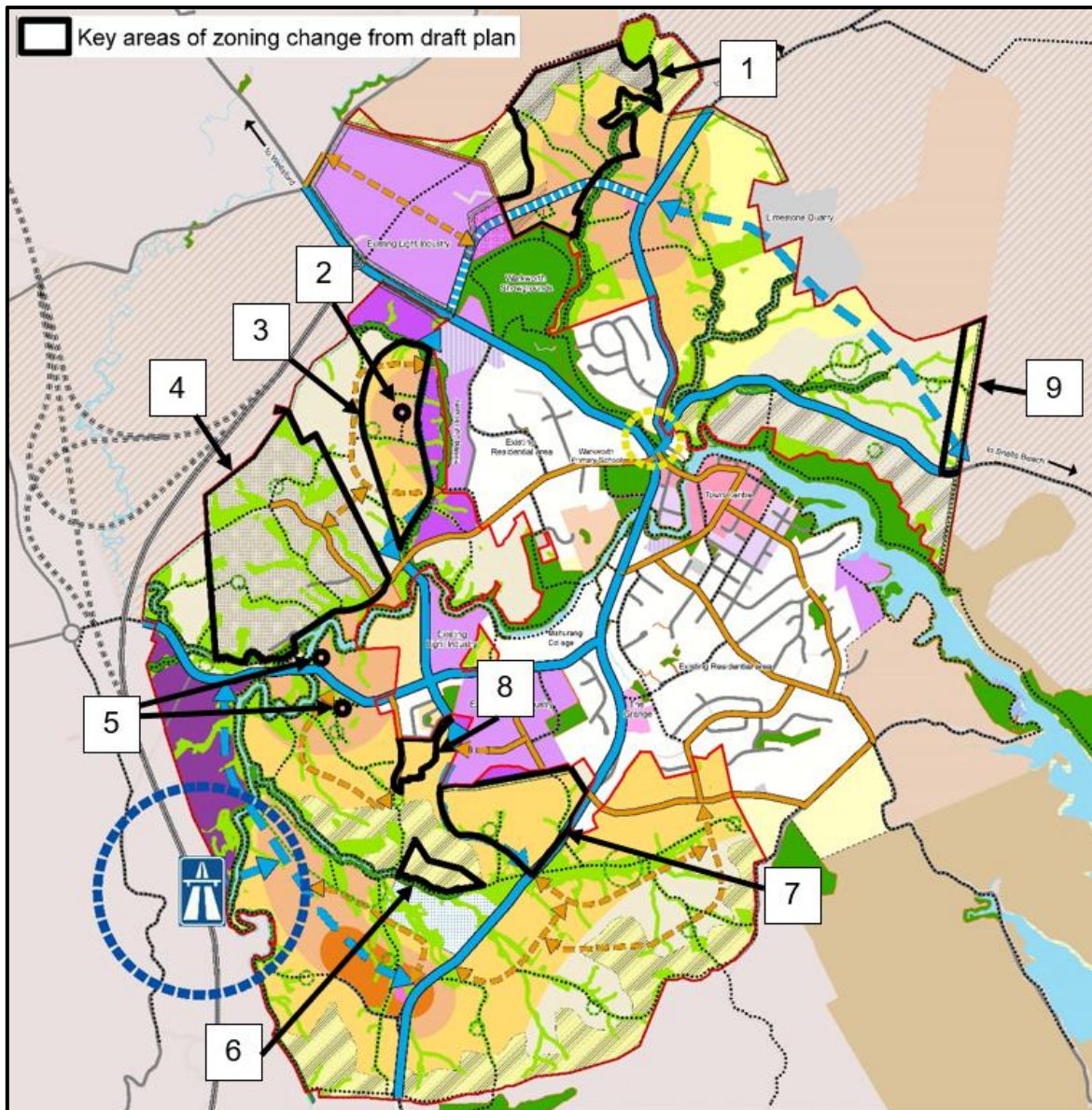
There were 83 site specific requests covering zonings, overlays/controls and staging. Of these, 34 supported the indicative zonings, mainly around the proposed Single House zoning for the Viv Davie-Martin Drive area and Warkworth North East. A total of 49 requests opposed the indicative zonings shown in the draft structure plan and requested changes. The most common areas where changes were requested were the Viv Davie-Martin Drive area (to lower density zones) and 89ha of the 90ha of industrial land (to residential, mixed use or general business).

There were 31 requests on site or area specific matters around the Green Network and these mostly commented that the mapping was incorrect. There were 22 requests seeking to add, remove, amend or support various overlays/controls shown in the plan.

There were 25 requests that related to site or area specific staging matters. The majority of these were supporting the Viv Davie-Martin Drive area being sequenced for development in 2022 as shown in the draft structure plan. There were also requests seeking that the Warkworth North East area be brought forward to the first stage (2022).

Based on the feedback, a number of changes have been made to the structure plan. Generally, rezoning requests were accepted where a compelling case was made to show that the rezoning was suitable in light of any site specific issues while also being consistent with the zoning principles in the plan and the overall land use layout sought for the of the wider town. Other rezonings were not supported because they did not demonstrate adherence to the above matters.

The key areas where zone changes have occurred between the draft structure plan and the final structure plan are explained below and identified on the map in Figure 40.



**Figure 40:** Key areas of change between the draft and final structure plans

**Area 1:** Various changes including a change from Large Lot to Single House (with an overlay to increase the minimum site size from 600m<sup>2</sup> to around 1,000m<sup>2</sup>, landscape controls and planting) around the northern edge of Warkworth and increased residential density enabled around the Warkworth Showgrounds.

**Area 2:** A new small Neighbourhood Centre enabled in the northwest to service the needs of a relatively constrained catchment, being the northern part of the residential area to the west, and the industrial zones to the east.

**Area 3:** Increased residential density enabled around the new small centre.

**Area 4:** Retention of the Single House zone but the addition of an overlay to increase the minimum site size from 600m<sup>2</sup> to somewhere around 1,500m<sup>2</sup> – 2,500m<sup>2</sup> (to be determined at the plan



change stage). This is to reflect the compromised nature of this area to achieve standard urban development and also acknowledges the current spacious residential amenity of the area.

**Area 5:** Shifting the western Neighbourhood Centre further south to the other side of Woodcocks Road, in light of the additional centre in the north west.

**Area 6:** Changing from Orchard to Large Lot as this steep land is not required for the orchard operation and it is part of the knoll feature in the south of Warkworth that has the Large Lot zone and landscape overlay on it.

**Area 7:** Change from Light Industry to Mixed Housing Suburban reflecting the general opposition to the amount of industrial land proposed in the draft plan, the visual impacts of industrial development in this area, the topography of the land making feasible industrial development difficult, the ability to use the ridgeline to demarcate an industrial/residential boundary, and the still high overall future local employment anticipated for Warkworth. The land adjoins other Mixed Housing Suburban zoned land.

**Area 8:** Change from Single House to Mixed Housing Suburban to be consistent with a granted resource consent that allows for a type of development (lot sizes) more in keeping with the Mixed Housing Suburban zone.

**Area 9:** Change from Single House to Large Lot to reduce the number of urban neighbours along this rural/urban interface to mitigate the possibility of reverse sensitivity issues arising. A landscape screening area along this boundary is also indicated on the structure plan.

Note that the final structure plan has shown the zone boundaries in a more general way than in the draft plan. This is because the structure plan zonings are high level and indicative only and are likely to be refined through a later (more detailed) plan change process.

There was also feedback requesting changes to the staging of the development areas in the draft Warkworth Structure Plan. This was mostly seeking that areas sequenced for later on (2028 onwards) be brought forward to be part of the first stage in 2022.

The final Warkworth Structure Plan does not propose to change the sequencing to bring forward any areas as requested through feedback. This is due to the significant infrastructure funding issues combined with the compact city focus on redevelopment of brownfield areas and the higher priority greenfield areas that would take any additional greenfield infrastructure funding before Warkworth. The staging in the Warkworth Structure Plan remains the same as that identified in the Future Urban Land Supply Strategy.

Further information on the Feedback on the draft structure plan stage of consultation can be found in **Appendix 1** of the main Warkworth Structure Plan document including a report outlining the main issues and themes from feedback and why the final structure plan incorporates some changes from feedback and why other requested changes have not been incorporated.

#### 4.4.5 Mana Whenua

Mana whenua have a special cultural and spiritual relationship with the environment, which is a matter of national importance under the Resource Management Act 1991 and the Local Government (Auckland Council) Act 2010.

Appendix 1 of the Auckland Unitary Plan sets out guidelines for structure plan development. It stipulates that in the preparation of structure plans, council must:

- consider iwi planning documents
- consider Treaty settlement legislation
- investigate and address potential effects of urbanisation on mana whenua values.

Clause 4A of Schedule 1 of the Resource Management Act 1991 also sets out pre-notification requirements for iwi authorities, which requires the draft proposal to be considered by iwi authorities prior to public notification.

For the Warkworth Structure Plan, the project team sought an ongoing dialogue with mana whenua to meet the needs and aspirations of iwi authorities and strengthen the structure plan.

Warkworth sits within the area of interest of approximately 13 mana whenua groups. These mana whenua groups include:

- |                             |                        |
|-----------------------------|------------------------|
| • Ngāti Wai                 | • Te Kawerau a Maki    |
| • Ngāti Manuhiri            | • Te Akitai Waiohua    |
| • Te Rūnanga o Ngāti Whātua | • Ngāti Te Ata Waiohua |
| • Te Uri o Hau              | • Ngāti Paoa           |
| • Ngāti Whātua o Kaipara    | • Ngāti Maru           |
| • Ngāti Whātua Ōrākei       | • Ngaati Whanaunga     |
| • Ngāi Tai Ki Tāmaki        |                        |

In July 2017, the structure planning programme was introduced by the Plans and Places senior leadership team at a meeting with the Mana whenua Kaitiaki Forum of mana whenua governance to socialise the structure planning programme and seek guidance on engagement. In January/February 2018, letters were sent to 13 mana whenua groups to further introduce Warkworth Structure Plan process and to gauge interest in participating.

Of these, five mana whenua groups indicated that they would like to be involved in the Warkworth Structure Plan project. These mana whenua groups include:

- Ngāti Manuhiri
- Te Kawerau ā Maki
- Ngaati Whanaunga
- Te Rūnanga o Ngāti Whatua
- Ngāti Whatua o Kaipara



Mana whenua engagement and discussions have been ongoing throughout the structure plan project. Four mana whenua engagement Hui have been undertaken as part of the project. The first mana whenua Hui was held in April 2018 in Warkworth.

The purpose of this initial Hui was to introduce the project, establish an ongoing relationship with mana whenua, and understand how they wanted to be involved in the project. Following the first Hui, mana whenua were invited to provide a cultural assessment of the area prior to drafting of the plan. Two cultural values assessments were received from Ngāti Manuhiri and Ngāti Whatua o Kaipara.

A second Hui was held in July 2018 to discuss responses to the two cultural values assessments, Treaty Settlement information, and to undertake a planning exercise akin to the community workshops (see section 4.4.2 of this appendix). The iwi represented at the Hui preferred not to undertake the mapping exercise but rather outline key principles that they wanted the structure plan to consider.

A third Hui was held in September 2018 where the council presented some of the key ideas being developed for the preliminary draft structure plan and demonstrated how the principles outlined at the July Hui had influenced this early version of the plan. There was general support for the direction of the draft structure plan at the Hui, particularly for the Green Network concept.

A fourth Hui was held in March 2019 to discuss the notified draft Warkworth Structure Plan. There was general support for the land uses and infrastructure in the draft Warkworth Structure Plan at the Hui. There was some feedback on various issues including seeking more reference to cultural values in the structure plan document and some concerns around industrial land interfaces.

Further information on mana whenua engagement is provided in the Mana Whenua Engagement Summary (see **Appendix 1** of the main Warkworth Structure Plan document).

## 4.5 Drafting and refining the plan

The Warkworth Structure Plan was developed using a sequential approach to land use planning. In the first instance the land uses required to enable Warkworth to be a thriving and self-sustaining community as it grows over the period of the structure plan were identified. This was based on the high-level expectations of the Auckland Plan for Warkworth's Future Urban zone to accommodate around 7,500 new dwellings along with significant employment.

The land uses were grouped based on the amount and type of land required for each use. Some land uses, such as industrial, generally require larger sites, on land with mainly flat to slightly sloping topography. Other land uses, such as low density residential, do not have such requirements and can physically be developed on a wider range of land types and topographies. In addition, some land uses have considerable implications for the location of other uses (e.g. transport infrastructure has implications for the location of industry while the location of centres has implications for the location of higher density residential areas).

The main land uses that have particular topographical constraints or other significant land use implications were categorised into four groups:

- Industrial land
- Centres

- Parks
- Transport infrastructure

The identification of these land uses allowed for the future of the study area to be considered with a holistic and evidence based approach, leading to a structure plan land use layout that takes into account the area's existing land forms and constraints. This also ensured that the planned growth of the town does not undermine the functioning of Warkworth as a service town for the wider eastern Rodney region (e.g. retaining the role and function of the existing Warkworth town centre).

This grouping of land uses enabled initial options for the main 'building blocks' of the Future Urban zone of Warkworth to be considered. These building blocks for the major 'anchor' land uses were then able to be used as a basis for considering the locations for the residential elements of the study area.

The locations for residential land use types (i.e. high, medium, and low density) were considered for the areas surrounding, and in between, the 'anchor' land uses outlined above. The various Auckland Unitary Plan residential zonings were applied in line with provisions of the Regional Policy Statement while allowing for area specific adjustments where required.

This overall approach for the creation of the Warkworth Structure Plan has resulted in a plan that enables the town to grow in a sustainable manner conducive to long term economic, social, and environmental success. This approach was also able to mitigate the effects of issues associated with reverse sensitivity from major land uses (such as industrial) by considering the location of such negative externality generators at an early stage of the land use scenario process.

The draft version of the Warkworth Structure Plan land use pattern was developed over a number of internal workshops. These workshops were held to understand the views of the topic specialists and to discuss and debate the different land use options. Once a preliminary draft land use pattern was determined, specialist Assessment Reports were commissioned to assess the plan. The findings of these reports led to further changes to the plan through an iterative process.

Following feedback on the draft structure plan, further internal workshops with specialists were held to review the feedback and assess what changes to the structure plan were needed. The specialist Assessment reports were updated in light of the changes to the plan.

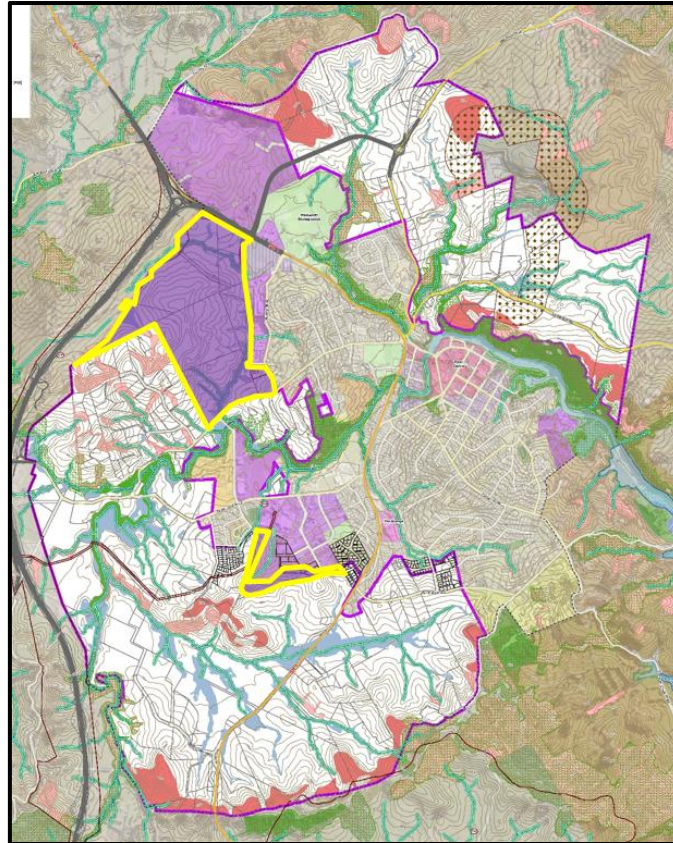
#### **4.5.1 Industrial land options**

The most inflexible of required land uses, in terms of the type and topography of the land needed for successful implementation, is industrial. The Auckland Plan signals that Warkworth is to accommodate significant future employment growth alongside residential growth. Independent economic analysis indicates that up to 95ha (gross) of industrial land might be needed in Warkworth under the highest demand scenario. The draft structure plan sought to supply towards the high end of this indicated future demand. Such a level would support the town's growth and retain its function as a Satellite Town with a sphere of influence for services and employment that reaches well into rural Rodney.

A number of options were considered for the location(s) of industrial land within Warkworth's Future Urban zone. The range of options considered for the location of the industrial land use were determined through a number of inputs including the public feedback received during earlier states

of the structure plan project, the constraints and opportunities of the study area ('topic reports'), and the economic analysis of the amount of land required. The location for industrial land in the Future Urban zone was narrowed down into three high-level options. Each option supplied around the same amount of industrial land (around 90-95ha) but differed in the areas it was proposed.

Industrial land Option 1 (Figure 41) proposed the majority of new industrial land between Hudson Road and the currently under construction motorway to the west of Warkworth. A small extension to the existing industrial area around Morrison Drive south to a ridgeline was also proposed.

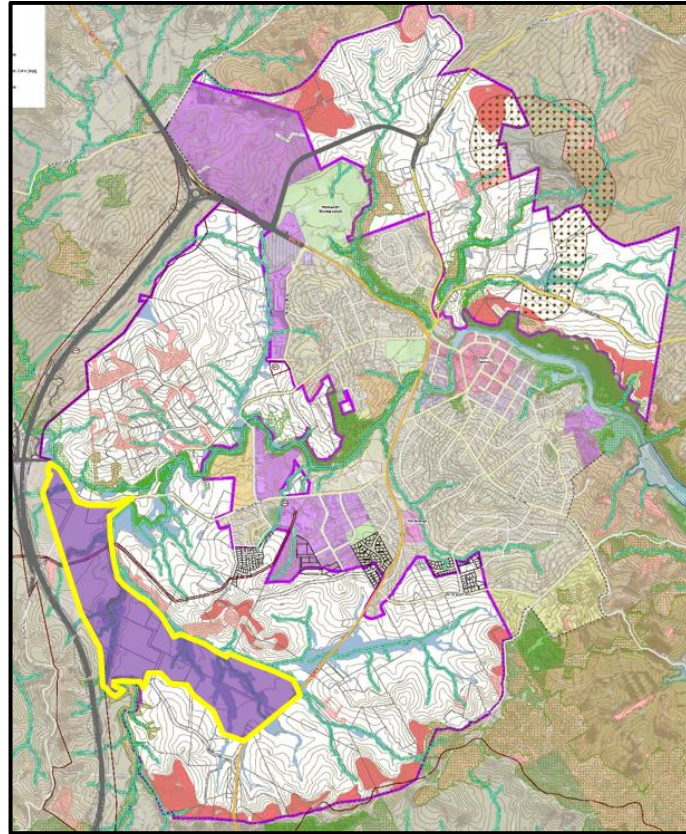


**Figure 41:** Industrial land location – Option 1 (Industrial land shown in purple and proposed new areas outlined in yellow)

This option locates most of the new industrial land close to existing areas of industrial zoned land and the potential Ara Tūhono – Pūhoi to Warkworth northern terminus (roundabout). However, this option was ultimately discounted as the bulk of the land has steep topography and significant geological constraints unsuitable for large floorplate industrial buildings.

Industrial land Option 2 (Figure 42) was for all of the industrial land required for Warkworth's growth to be accommodated on the western periphery of the Future Urban zone south of Woodcocks Road.

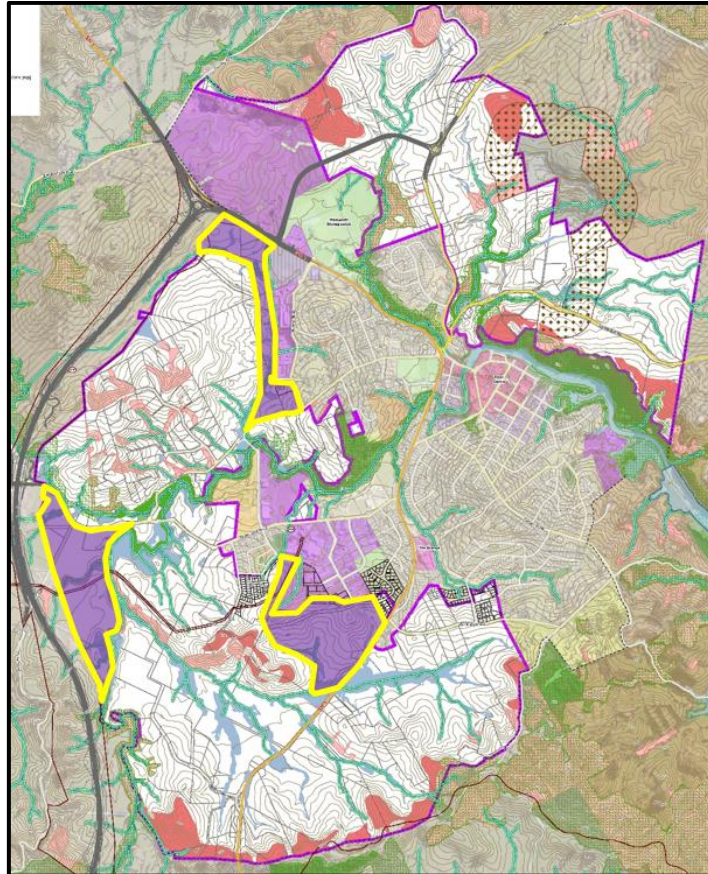




**Figure 42:** Industrial land location – Option 2 (Industrial land shown in purple and proposed new areas outlined in yellow)

This option includes flat topography suitable for industrial uses and is close to a potential southern interchange with Ara Tūhono – Pūhoi to Warkworth (south facing ramps only). However, this option was ultimately discounted as it was considered the opportunity costs of using the majority of the flat land in Warkworth’s Future Urban zone for industrial uses was too high. There is little flat land across the structure plan study area and therefore this flat southern land is a desirable location for a number of different land uses (e.g. sports fields, schools, high density residential, centres) as well as industry. This flatter land has the potential to be used for a collection of non-industrial activities to create a node around a new centre, high-quality intensive residential areas, and community uses such as a large sports park and a possible school. It was considered that such a node was critical to the success of Warkworth in the future and that the requirements for industrial land had the potential to be met elsewhere. Therefore, Option 2 was not pursued.

Industrial land Option 3 (Figure 43) split the required industrial land into three generally equally sized areas, two of which adjoin existing industrial land. These three areas were made up of an area fronting SH1 in the north with a sleeve of industrial land along the western side of Hudson Road, an area south of Woodcocks Road between the Ara Tūhono – Pūhoi to Warkworth motorway and the southern Mahurangi River tributary, and an area immediately south of the existing Morrison Drive industrial area.



**Figure 43:** Industrial land location – Option 3 (Industrial land shown in purple and proposed new areas outlined in yellow)

Option 3 was preferred in the draft structure plan a number of reasons. Firstly, this option largely builds on the existing industrial areas in Warkworth (Hudson Road and Morrison Drive) and therefore contains the industrial land to discrete areas of Warkworth and avoids creating more areas with an industrial-residential interface.

While the land is not all flat, there are significant areas of flat land provided in this option, particularly in the north and west. The land in the west provides for an area of flat land that supports larger floorplate industrial buildings at the western edge of the town, next to the new motorway. This location also benefits from the potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only) and provides a more compatible interface with the motorway in this location. This land is able to be separated from the surrounding residential area through an arterial road (Woodcocks Road) and a stream with esplanade reserves on either side (40m separation). The Heavy Industry zone is favoured in this location to enable larger scale activities to locate here<sup>34</sup>.

The Hudson Road area extension of industrial land would be provided in close proximity to the new motorway access to the north of Warkworth, allowing for easy industrial traffic links, that will be

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<sup>34</sup> Note that the differences between the Heavy Industry zone and the Light Industry zone are relatively small with a key difference being around subdivision site size.



further improved with the completion of a proposed arterial road (Western Link Road) along the western edge of this proposed industrial area. The Western Link Road and a future esplanade reserve enable the additional industrial areas to be adequately separated from surrounding residential uses.

The extension of the Morrison Drive industrial area to the south would support this existing industrial area and will also benefit from good transport links via a proposed arterial road along the area's western and southern boundaries, along with the existing State Highway 1 along its eastern boundary. The arterial road boundaries of this area enable a buffer so the additional industrial areas can be adequately separated from surrounding residential uses. It is acknowledged that this area does create some potential landscape and interface impacts that will need careful management.

Following feedback on the draft structure plan, the majority of the extension of the Morrison Drive industrial area to the south was changed from industry to residential. This reflected the general opposition to the amount of industrial land proposed in the draft plan, the visual impacts of industrial development in this area, the topography of the land making feasible industrial development difficult, the ability to use the ridgeline to demarcate an industrial/residential boundary, and the still high overall future local employment anticipated for Warkworth.

#### **4.5.2 Small centre options**

Centres play a vital role in the creation of functioning communities at a local level. They are the main locations for retail, office, community and civic activities. The locations for centres is of paramount importance in ensuring that Warkworth's growth occurs in a structured manner, in which future residents are able to easily access goods, services and employment available at centres within their own neighbourhoods.

There are a number of different types of centres as defined by the Auckland Unitary Plan; City Centre, Metropolitan Centre, Town Centre, Local Centre, and Neighbourhood Centre. Independent economic analysis has been undertaken to determine the amount and type of centres required for the anticipated growth in the study area.

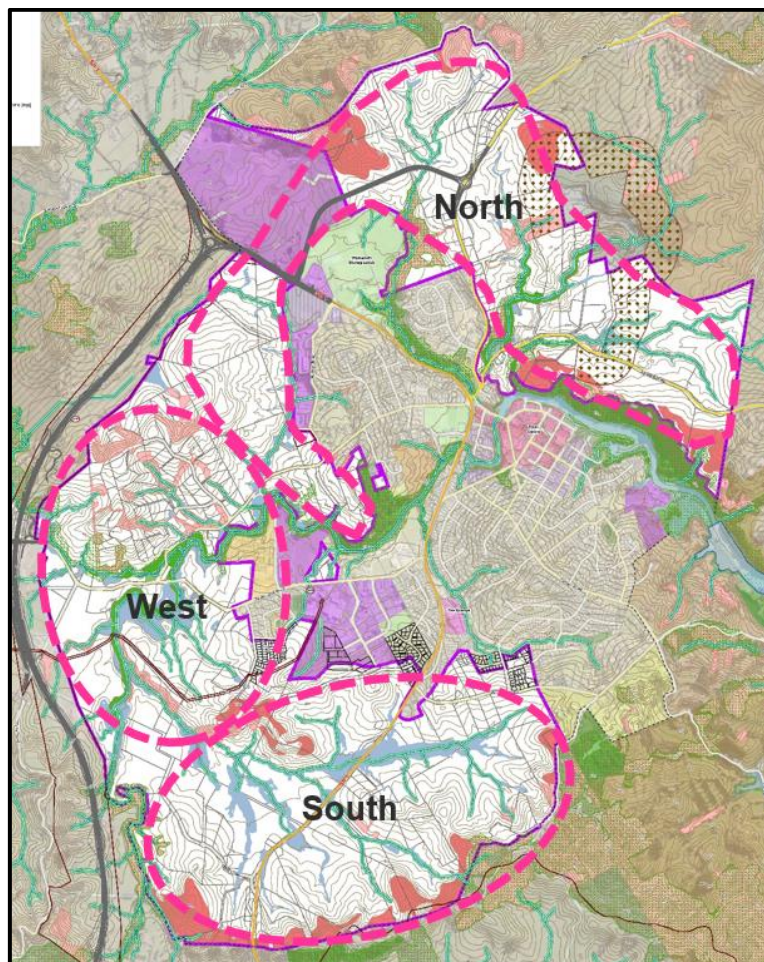
The growth at Warkworth is not of a size to support a City Center or Metropolitan Centre which are substantial in size and of city wide and regional importance. There is an existing Town Centre at Warkworth and the amount of growth proposed through the structure plan is not of a scale to warrant a second Town Centre. Indeed, should another large centre be proposed in Warkworth's Future Urban zone it could undermine the vitality and viability of Warkworth's existing Town Centre and could lead to the loss of its role as the main centre for the wider rural and coastal communities that it currently serves. The structure plan seeks to avoid the undermining of the existing Warkworth Town Centre area.

The economic analysis has found that the growth of Warkworth is anticipated to be of a scale to support around three new small-scale centres in the Future Urban zone. These centres are needed to provide local goods and services only. Larger destination and comparison provision will be within Warkworth's existing Town Centre, the Grange, and in the future Large Format Retail developments proposed at Stockyard Falls and near the SH1/Hudson Road intersection.

A key matter in locating new small centres is around the spread of existing and new centres across the whole of Warkworth. To maximise the utility of the new small centres it would not be appropriate to cluster them together or locate them close to Warkworth's existing centres. Such a clustering of centres would reduce the overall extent of centre catchments across the town and could lead to some areas of Warkworth being a distance from any centre provision. This would lead to an unsustainable outcome, with the need for greater travel.

An even distribution of new small centres within the Future Urban zone would better provide for the community's social and economic needs by providing more balanced access to the goods, services, and jobs of the small centres.

In light of this, the layout of Warkworth's existing centres and the area of the Future Urban zone logically leads to an even spread of centres; one centre somewhere in the northern area, one to the west of the current town, and one to the south (Figure 44). While Warkworth south is the largest area of Future Urban zoned land around Warkworth, some of it is within the catchment of the Grange so still only requires one new small centre.

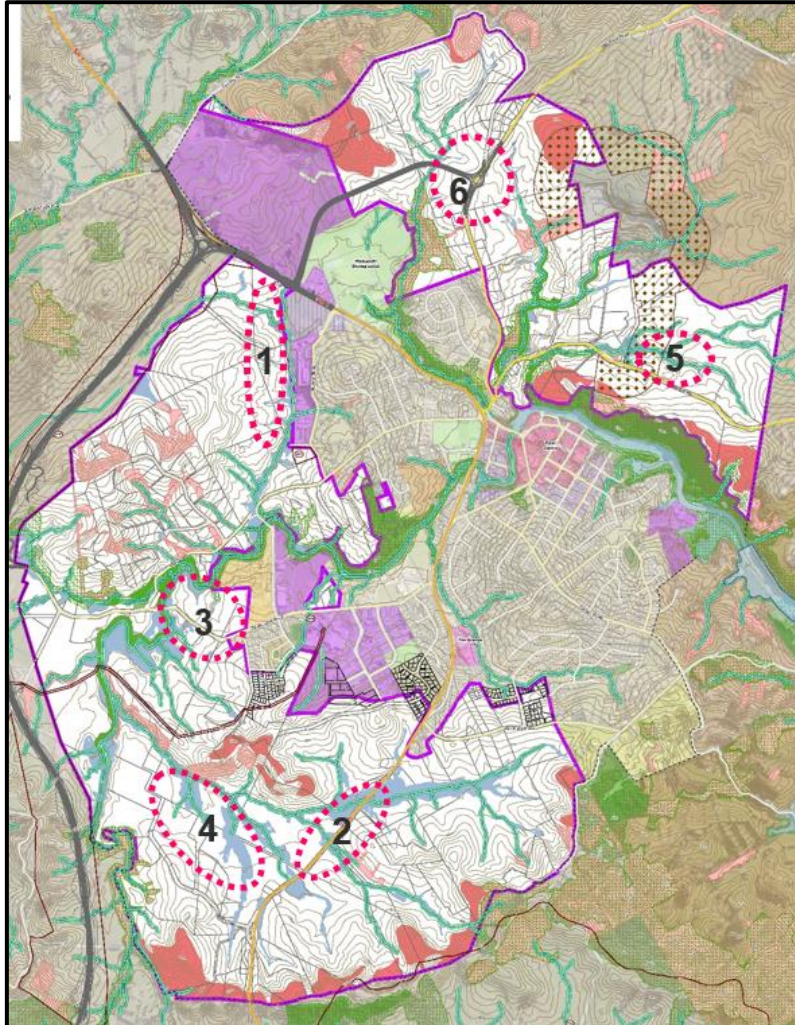


**Figure 44:** Areas for new small centres to enable an even spread of centres

Six specific locations were considered for the three new small centres as shown on Figure 45 below. These options were developed considering the public feedback received during earlier states of the structure plan project, the constraints and opportunities of the study area (topic reports), potential areas for new schools, potential open space locations, and the economic



analysis of the level of provision required. A further factor was the ability of the new small centre locations to be surrounded by higher density residential development. While the new centres are relatively small, they create the opportunity for higher density residential development to occur directly around them.



**Figure 45:** Options for new small centre locations within the Future Urban zone

In the north there were three options considered (Options 1, 5, and 6). Option 1 is on the arterial road network (the existing SH1 and the Western Link Road) and a centre in the southern portion of the Option 1 area is proposed by a private developer via a private plan change. However, this option was not favoured as it did not have a wide residential catchment (due to the neighbouring industrial land). Option 5 is near a potential large park and walking/cycling network, but this option was discounted as it only services a small and relatively remote catchment. Option 6 was preferred due to its more central location to the northern growth area (and therefore wider catchment), its location on the main transport network (including a public transport route), the absence of significant constraints, and the ability for the land around it to be used for higher density residential development.

In the west a number of areas of land were examined but only one viable option (Option 3) was proposed. This was because land to the north of Option 3 has significant constraints through topography, protected bush areas, and would be unable to accommodate higher density residential around any possible centre. Land to the west of option 3, whilst flat, would result in a centre on the very edge of the new urban area and would be too remote to have an efficient residential catchment. Land to the south of Option 3 has flooding constraints.

Option 3 was the best area for a new small centre in the west due to its proximity to the Mahurangi River and associated open space that could create a high-quality small community hub. Option 3 benefits from the activity generated by Woodcocks Road, aiding in the viability of this location. This option would also enable synergies with proposed recreational walking and cycling routes along the river corridor, with the centre being adjacent to it. This would also provide the opportunity for linked trips. Option 3 is also close to an existing area of higher density housing (retirement village) on Woodcocks Road.

In the south two options were considered (Options 2 and 4). While Option 2 is on a main road and centrally located in the southern catchment, this option was not favoured as it is relatively close to the existing Grange centre and therefore would not create a spread of centres across Warkworth, potentially leaving other areas under-served. The ability of the Option 2 land to leverage off the centre for potential residential growth was not as significant as Option 4.

Option 4 was preferred as this land is further away from the existing Warkworth centres while still having a good catchment for the southern area. The flat land in option 4 has the potential create a node around a collection of land uses such as the centre, open space, a possible school, and higher density residential. The Option 4 land also has access to arterial routes, a potential southern interchange with Ara Tūhono – Pūhoi to Warkworth, a public transport interchange, and the walking and cycling network. This potential cluster of land uses and the synergies between them could enable a high-quality node in the south. Along with the generally larger catchment of the south (compared to the other areas) a Local Centre typology is preferred in this location<sup>35</sup>.

Upon further refinement, a location at the intersection of the existing SH1 and the proposed Wider Western Link Road (just outside Area 4) is preferred. This is to ensure the centre benefits from the 'energy' the junction of these transport routes gives to a centre and to bring areas to the east within the centre's catchment.

Due to the proposed locations of the small centres in the south and in the north at the confluence of two arterial routes, particular attention will need to be given to the urban design approach for the areas. The centres should integrate with the surrounding higher density residential uses, whilst creating a sense of place with a high-quality public realm that is not dominated by vehicular movements but is people and place orientated.

Following feedback on the draft structure plan, an additional small Neighbourhood Centre was added in the north west (in the Option 1 area on Figure 45). This enables accessibility to a centre in the north west area and does not impact on the primacy of the Warkworth town centre. This is subject to this centre being very small (i.e. less than 1,500m<sup>2</sup> GFA) to service the needs of a

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<sup>35</sup> This is consistent with the relevant matters set out in B2.5.2(4) of the RPS for the location of new Local Centres.

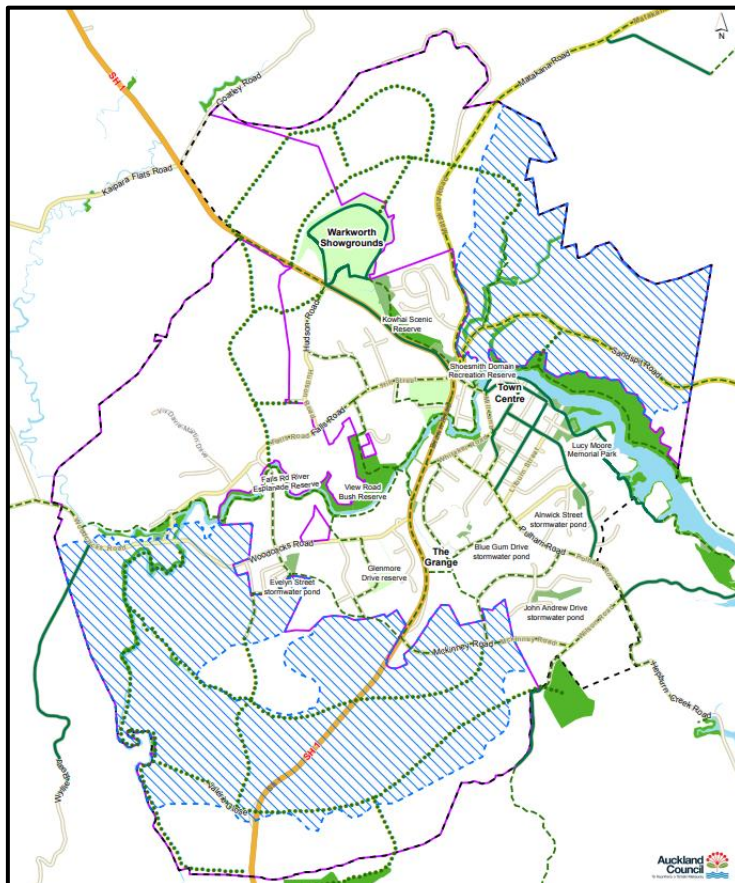
relatively constrained catchment, being the northern part of the residential area to the west, and the industrial zones to the east.

In light of this additional centre in the north west, the western centre was shifted further south to the other side of Woodcocks Road (to the bottom of the Option 3 area). This limits the benefits of an interface with the Mahurangi River for this centre, but the shift more evenly spreads the centres and their catchment areas around Warkworth.

### 4.5.3 Large park options

The locations of large parks within the study area is important as a large park can be a focus for higher density residential development.

Two large areas of potentially suitable land for the large sports park and suburb parks were initially identified within the Warkworth Future Urban zone<sup>36</sup>. These two large areas (Figure 46) contained land to the east of Matakana Road in the north east and the lower-lying land to the south of Woodcocks Road in the southern growth area. These areas were primarily based on the distance from the town’s existing parks and open space network, topography, and waterways.



**Figure 46:** Potentially suitable land for large parks (hatched blue)

<sup>36</sup> Options for the neighbourhood parks were not developed as they were not considered of strategic importance. This is due to their small size and flexibility of possible locations.



During the development of the draft structure plan the possible locations of the large parks were refined further. A number of other criteria were considered such as the council’s park and open space policies and planning tools, existing and potential future road corridors, future esplanade reserves, areas of potential housing density, the possible areas for new schools, and other existing planning documents (such as the Rodney Greenways Plan).

This allowed a refinement of the sports and suburb park locations to be shown indicatively on the Warkworth Structure Plan. The two suburb parks are shown indicatively in Warkworth north east and Warkworth south east. The sports park is indicatively shown in the south.

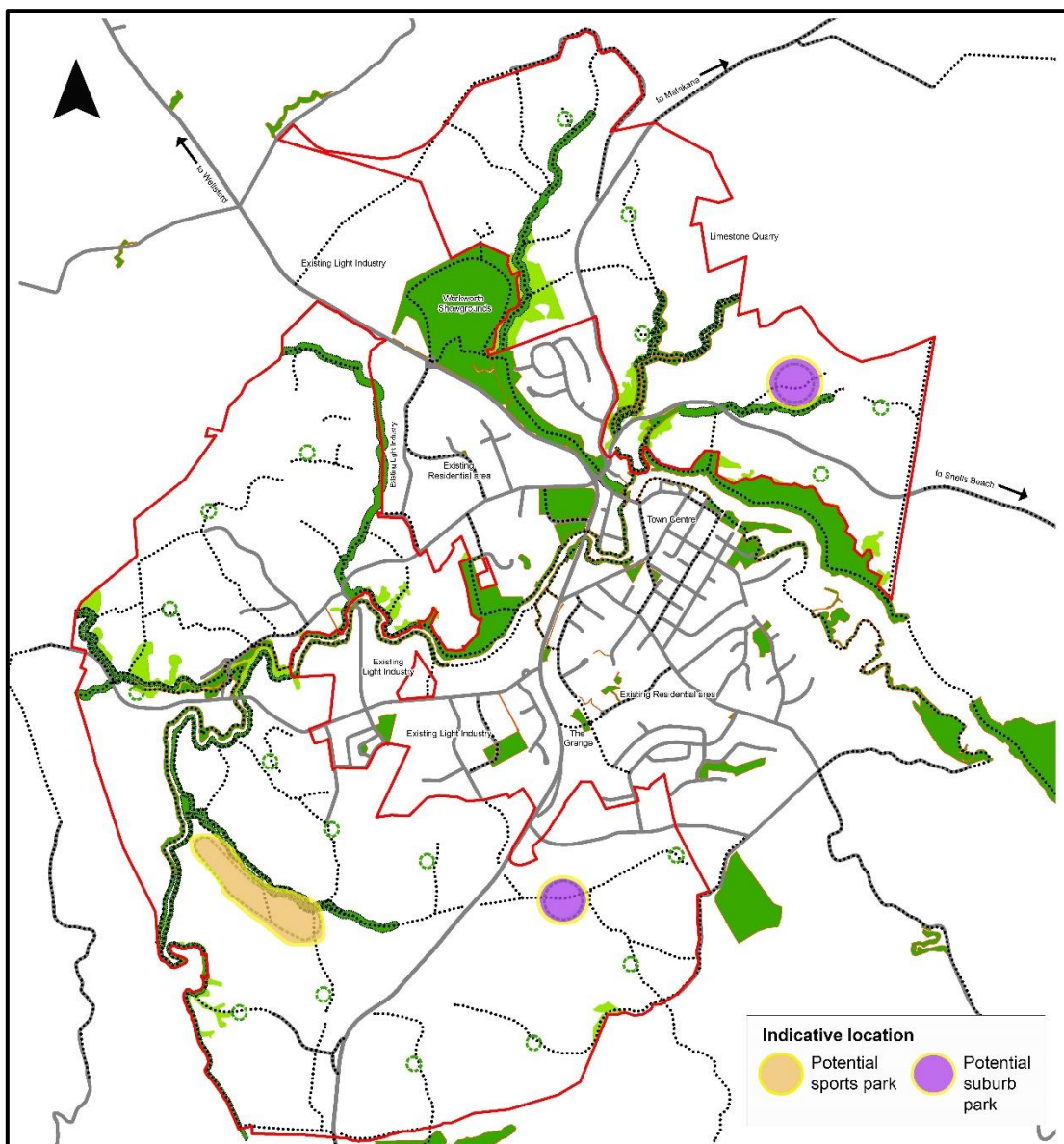


Figure 47: Indicative locations of the potential sports park and suburb parks

The indicative suburb park locations in the north east and south east were selected mainly due to their distance from existing parks and suitable topography. In the north east, the indicative park's location adjacent to a potential future esplanade reserve link was another important factor. As outlined in earlier sections, increased residential density is anticipated around the edge of suburb parks. The structure plan map does not currently show this as the park locations are indicative only and could vary with development.

The indicative sports park location in the south was selected mainly due to its flat land, synergies with the potential for higher density housing, a centre, and a possible school site in the south, and being in the southern catchment area (neatly balancing with the existing sports field provision at the Warkworth Showgrounds in the north).

It is noted that the locations shown are indicative only and the exact locations of the sports park and suburb parks will be dependent on further detailed site selection investigations by the council's parks team to test the physical site, environmental surroundings, topography, and check for any other restrictions.

#### 4.5.4 Transport infrastructure options

The main transport routes for Warkworth's growth area are being developed by the Supporting Growth Alliance. The purpose of the Supporting Growth Programme for Warkworth is to identify and protect the recommended transport networks to support the towns greenfield growth over the next 30 years.

The Alliance is undertaking the detailed investigations needed for business cases to confirm the preferred transport networks for Warkworth. Once confirmed, the Alliance will then carry out the route protection process to protect the land for these networks over the next four years.

An Indicative Business Case is being prepared by the Alliance which will identify key elements of the transport network in the Warkworth growth area. It will recognise that the implementation of this network will need to be appropriately staged to anticipate and support growth and facilitate mode shift particularly towards greater use of public transport, walking, and cycling.

The Warkworth Structure Plan project team have worked closely with the Supporting Growth Alliance in developing a transport network to enable the Warkworth Future Urban zone to develop. The preliminary outcome of this work is a draft high-level strategic transport network with the following characteristics:

- Prioritising active transport in Warkworth through a separated walking and cycling network that utilises the arterial road network, collector road network, riparian margins, and other off-road trails to provide connectivity throughout Warkworth. The network will provide safe and convenient connectivity to centres, employment areas, schools and public transport stations.
- A roading network including Ara Tūhono – Pūhoi to Warkworth, Matakana Link Road (Te Honohono ki Tai), Western Link Road, Sandspit Link Road, Wider Western Link Road, and a potential Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only).

- A public transport network built upon the recently introduced ‘New Network for Warkworth’. In the long term, in addition to the Town Centre station a larger bus station/interchange is proposed in Warkworth South, with a Park and Ride near the Ara Tūhono – Pūhoi to Warkworth southern interchange (south facing ramps only).

Further detail on the draft high-level strategic transport network and the process to develop it can be found in the Integrated Transport Assessment (see **Appendix 1** of the main Warkworth Structure Plan document).

#### 4.5.5 Residential densities

Once some indicative locations for Warkworth’s main ‘building blocks’ were determined (additional industrial land, new centres, new large parks, and the draft high-level strategic transport network) the location and type of residential uses were considered. The structure plan generally follows residential density location principles derived from the Auckland Unitary Plan’s Regional Policy Statement (‘**RPS**’) on urban growth and form when considering where to locate different residential zones. However, site specific opportunities and constraints were also considered in determining the residential densities.

The RPS seeks that a range of residential zones are provided that enable different housing types and intensities<sup>37</sup>. In Warkworth, the structure plan applies the full palette of the Auckland Unitary Plan’s urban residential zones to support a range of housing typologies and housing choice. The structure plan uses the high density Terraced Housing and Apartment Buildings and Mixed Housing Urban zones, the more suburban Mixed Housing Suburban and Single House zones, and also the low density Large Lot zone. The full range of zones uses the Future Urban zone efficiently while recognising various constraints and local character.

The RPS seeks that higher residential density is located in areas immediately around centres, the public transport network, large social facilities, education facilities, tertiary education facilities, healthcare facilities, and open space<sup>38</sup>.

In light of this, the highest residential density zone, the Terrace Housing and Apartment Buildings zone, is located immediately adjacent to the Local Centre in the south. This is the largest of the new centres and is in a location surrounded by relatively flat land with manageable constraints. There are a cluster of proposed or potential uses in this area such as a public transport interchange, sports park, possible school site, and potential motorway access that mean that this southern area could become a node. The purpose of the Terraced Housing and Apartment Building zone is to make efficient use of land and infrastructure, increase the capacity of housing and ensure that residents have convenient access to services, employment, education facilities, retail and entertainment opportunities, public open space and public transport. This zone is designed to promote walkable neighbourhoods and increase the vitality of centres. This is the only area of proposed Terrace Housing and Apartment Buildings zoning in the study area as no other areas are anticipated to have the same mix of land uses to enable such high residential densities.

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<sup>37</sup> B2.4.2. Policies (1)

<sup>38</sup> B2.4.2. Policies (2)

Following on from this, the Mixed Housing Urban zone surrounds the Terrace Housing and Apartment Buildings zone in the south. It also provides the high density living adjacent to the three smaller Neighbourhood Centres in the north, west, and north west. This zone still provides for reasonably high intensity residential development, but in a more traditional form. As this zone is still of a high-density it will also support the viability of the proposed small centres. The extent of this Mixed Housing Urban zoning is dependent on topography, other natural constraints, public transport routes, and the reasonable walking catchment of the centres.

The RPS seeks that medium residential intensities are located in areas within a moderate walking distance to centres, public transport, social facilities, and open space<sup>39</sup>. This zoning is the most widely used residential zone in urban parts of the Auckland region. This zone enables a suburban built character, providing for a variety of types and sizes of attached and detached housing ensuring housing choice. The structure plan proposes this zone to generally cover areas adjacent to the higher density areas described above (within moderate walking distance of amenities), except where there are constraints that require a lower density zone.

The RPS states that lower residential density is suitable when the land is not close to a centre or public transport, is subject to high environmental constraints or natural/physical constraints, or where there is an existing suburban area with an existing neighbourhood character<sup>40</sup>. The Single House zone is the main zone used for areas meeting these criteria. The Large Lot zone is also used but only where specific additional factors are present including landscape quality and/or physical limitations (e.g. topography, natural hazards).

There are three main areas with various factors meaning they are zoned Single House in the Warkworth Structure Plan. Firstly, the area in the south eastern portion of the study area, south of McKinney Road, is proposed as Single House as it is some distance from any proposed or existing centre or public transport routes. It is therefore not suitable for higher density residential living. This zoning will also act as a transition between the Large Lot zone to its south, and the Mixed Housing Suburban zoning to the north and west.

The second area where the Single House zone is proposed is around Viv Davie-Martin Drive, in north west Warkworth. The Single House zone is proposed as there are geotechnical constraints that preclude high density residential development. This area is also not close to a centre or any long-term public transport routes. The zoning also takes into account the steep topography of this area, which means the walking catchment to a centre or public transport is further restricted. The Viv Davie-Martin Drive area is also somewhat compromised for higher density development due to its fragmented land parcels, multiple different owners, covenanted bush areas, geotechnical issues, and limited road access.

The third area of proposed Single House zoning is to the north east of Warkworth, around Sandspit Road. This area is relatively remote from the centres and there are some topographical and ecological constraints. It is also relevant that part of this area (south of Sandspit Road) has been identified as having a high landscape value which is worthy of protection. As a result, higher density development would generally not be appropriate in this location.

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<sup>39</sup> B2.4.2. Policies (3)

<sup>40</sup> B2.4.2. Policies (4) and (5)

The Large Lot zone is proposed around the northern and southern boundaries due to the landscape qualities of these areas at the edge of the town. In addition, a further small area of Large Lot zoning is proposed over the large knoll adjacent to Morrison's Heritage Orchard. This is again to protect the character of this landscape feature in Warkworth. This knoll will act as a landscape backdrop to the southern Local Centre and its associated higher density development and community facilities. The Large Lot zone, with its large section sizes, is the most appropriate way to mitigate the effects from urbanisation of the wider area on this identified landscape feature and the setting for Warkworth's major new urban node.

The Large Lot zone is also proposed around the north eastern edge of Warkworth largely based on the neighbouring quarry and the Quarry Buffer Area overlay on this land. The Large Lot zoning continues down a stream corridor towards the Hill Street intersection. Here, the zone surrounds two significant stream gullies and areas of native vegetation. The Large Lot zoning here acknowledges the physical limitations of the area, including its topography and the likely environmental effects from earthworks to develop the land at a higher density.

Following feedback on the draft structure plan, additional residential density was added in Warkworth north (around the Warkworth Showgrounds) and Warkworth north west (around the new small Neighbourhood Centre). A portion of Large Lot zone around Clayden Road in the north was changed to Single House, but with additional controls for a larger minimum site size (around 1,000m<sup>2</sup>) and revegetation requirements along the urban edge. An area of Single House along the eastern edge was changed to Large Lot to reduce the number of urban neighbours along this rural/urban interface to mitigate the possibility of reverse sensitivity issues arising. A landscape screening area along this boundary is also indicated on the structure plan.



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