

Pukekohe-Paerata Structure Plan

August 2019



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1 Summary

The council's strategic direction for growth in Auckland includes transforming the Future Urban Zone surrounding Pukekohe-Paerata into a place where people want to live, work and play. The Auckland Plan 2050 identifies Pukekohe as a satellite town that serves a wide rural catchment. As a satellite town Pukekohe is anticipated to have significant future growth in employment as well as residential growth.

The Pukekohe-Paerata Structure Plan 2019 shows the arrangement of various land uses (residential, business and open space) and infrastructure. It also shows how these areas connect to adjacent urban and rural areas and to wider infrastructure networks. Important cultural values and natural features are also addressed.

This structure plan has been prepared under the relevant provisions of the Local Government Act 2002, including those relating to consultation, and in accordance with the structure plan guidelines as set out in Appendix 1 of the Auckland Unitary Plan Operative in Part (Auckland Unitary Plan).

By itself, the Pukekohe-Paerata Structure Plan 2019 has no statutory weight. The Pukekohe-Paerata Structure Plan 2019 will form the basis of future Auckland Council-initiated plan change/s under the Resource Management Act 1991. The plan change process will enable the delivery of additional housing and employment opportunities by rezoning the existing Future Urban Zone land to 'live' zones. These plan changes will give effect to and implement the outcomes of the adopted Pukekohe-Paerata Structure Plan 2019.

Work on the development of a structure plan for Pukekohe-Paerata started in 2017, and the structure plan was adopted by the council on 6 August 2019. Identification of opportunities, constraints, planning issues and concepts was informed throughout this period by:

- background research
- supporting technical documents (some of which have been updated during the process)
- consultations, including ongoing consultation with mana whenua and three periods of public consultation in 2017, 2018 and 2019.

The following vision has been developed:

New growth areas will enhance Pukekohe as a focal point and place to further support the surrounding rural economy. These areas will offer a range of housing choice and employment opportunities for people at all stages of life. It will be well connected to the wider Auckland and Waikato regions, while

protecting and enhancing the natural, physical and cultural values that contribute to Pukekohe's unique character and identity.

To implement this vision, the Pukekohe-Paerata Structure Plan aspires to provide the following planning outcomes.

- A place for people.
- Our shared stories.
- A healthy, flourishing and sustainable community.
- Valuing our natural environment.
- Rural Pukekohe.
- Servicing our future community.

The structure plan seeks to balance detailed analysis and clear guidance with the need to ensure flexibility for further work. This allows future plan changes to further refine specific details without needing to re-visit outcomes addressed by the structure plan.

The Pukekohe-Paerata Structure Plan 2019 identifies a number of matters for further investigation that may form part of future plan changes, in particular relating to:

- land use
- interfaces and linkages
- mana whenua cultural values
- landscape and environment
- open space
- transport
- heritage
- managing hazards.

The Pukekohe-Paerata Structure Plan 2019 will provide for 30 years of urban growth. The area will grow over time in stages. The structure plan staging follows the staging suggested in the council's Future Urban Land Supply Strategy 2017, which states that:

- Stage One will be the Paerata Future Urban zoned land which is scheduled to be development ready in the first half of Decade One (2018 to 2022)
- Stage Two will be the Pukekohe Future Urban zoned land which is scheduled to be development ready in the second half of Decade One (2023 to 2027).

This staging may change due to infrastructure funding, timing and provision. A funding plan for bulk infrastructure will need to be finalised as more information becomes available, prior to any decision on plan change timings.

The content of the Pukekohe-Paerata Structure Plan 2019 has been addressed in accordance with the structure plan guidelines in Appendix 1 of the Auckland Unitary Plan.

Basic 'at a glance' indicative statistics for the structure plan area are summarised in Table 1 below. These are based on the zones proposed in this structure plan. All figures are approximate and may change.

Table 1: Indicative statistics for Pukekohe-Paerata structure plan area

Indicative statistics for Pukekohe-Paerata structure plan area				
	Net developable land area* (ha)	Potential additional houses/dwellings	Potential additional population	Potential additional jobs
Residential	433	12,517	33,796	2597
Local Centre	1	5	13	53
Light Industry	95	0	0	2368
Totals	529	12,522	33,809	5018

*Net developable land area is the amount left over after allowance is made for land required for roads, parks, floodplains and streams that are not built over. This leaves about 42 per cent of the 1262ha of structure plan area land available land for building.

Four key maps form an important part of the structure plan. They are:

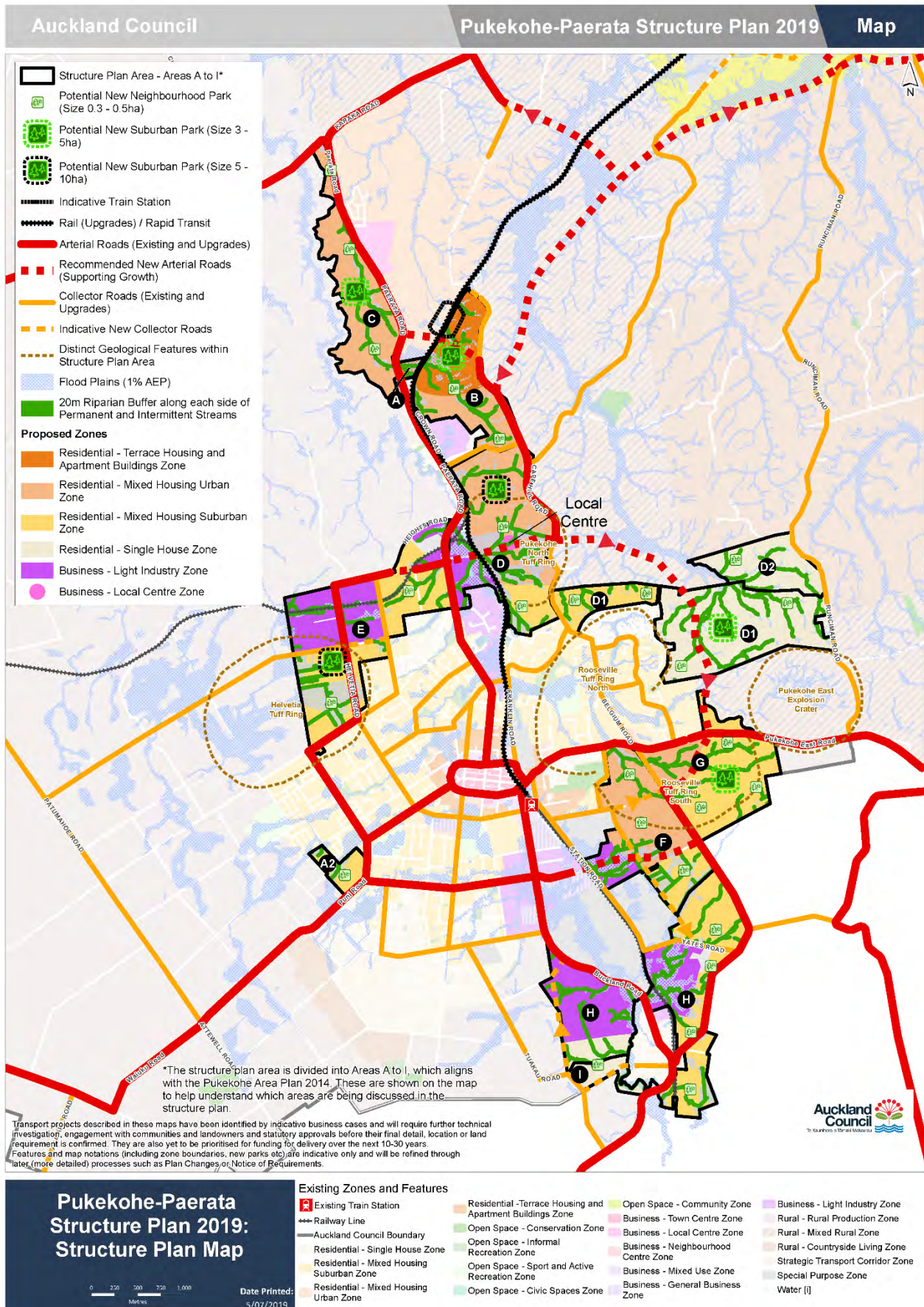
- Map 1: Pukekohe-Paerata Structure Plan 2019: Structure Plan Map
- Map 4: Pukekohe-Paerata Structure Plan 2019: Environment Map
- Map 5: Pukekohe-Paerata Structure Plan 2019: Transport Map
- Map 6: Pukekohe-Paerata Structure Plan 2019: Water, Electricity and Gas Infrastructure Map.

Map 1 below shows the proposed zones. It also shows the location of key components for the indicative transport network and key landscape and environmental features. Note: Map 1 is the same as Map 3 shown in section 3.3 of this structure plan.

The Pukekohe Area Plan 2014 identified a number of areas (Areas A to I) around Pukekohe-Paerata. The structure plan continues to use these area references as seen in the mapping produced for the engagement and consultation phases over the past two years. Areas A to I are shown on the following maps and are described in detail in section 4.4.

Map 10 in section 4.4 shows the location of Areas A to I.

Map 1: Pukekohe-Paerata Structure Plan 2019: Structure Plan Map



1.1 Update since 2019 consultation

Following consultation in April 2019, we have reviewed feedback, received updated information about stormwater and have engaged with mana whenua.

Minimal content changes have been made between the Draft Pukekohe-Paerata Structure Plan 2019 and the finalised Pukekohe-Paerata Structure Plan 2019.

One rezoning suggestion has been made for 10 Butcher Road, a 2.3ha site in Area E. Business – Light Industry zoning is now proposed, rather than Residential – Mixed Housing Suburban zoning.

Minor mapping changes have been made, consisting of:

- title and disclaimer updates
- removal of mapping associated with indicative collective roads in the live zoned Franklin 2 Precinct in Paerata
- infrastructure map updates to add gas infrastructure and correct a wastewater notation.

Key issues raised in 2019 consultation were:

- **Development timing and staging**

Feedback stressed the importance of co-ordinating growth timing with infrastructure timing and provision.

- **Transport issues**

Further work is required in relation to transport issues. The future transport projects shown on the structure plan maps have been identified by indicative business cases prepared by Te Tupu Ngātahi (the Supporting Growth Alliance) and will require technical investigation and landowner engagement before they can be confirmed. Te Tupu Ngātahi will undertake this work. They are also yet to be prioritised for funding for delivery over the next 10 to 30 years.

- **Zoning**

Location-specific feedback was received in support of, and in opposition to, proposed residential and business land zoning. Rezoning of areas beyond the structure plan area was also sought.

Apart from the suggested rezoning of 10 Butcher Road in Area E, no other proposed zoning changes have been suggested between the 2019 draft and final structure plans, as the proposed zoning shown in the structure plan is considered to be in high level agreement with its vision. Number 10 Butcher Road is proposed to be Light Industry zone rather than residential because the site will be severed from the residential land to its south by an indicative new arterial road, which is proposed to connect the western part of Area E to Paerata Road. The new road will leave the triangular site with frontage to two arterial roads (Paerata Road and the new road), and its third edge borders the railway. Business – Light

Industry land is proposed across Paerata Road from the site. Most of the land across the railway is a cemetery.

- **Productive soils**

More than a dozen items of feedback expressed concern about how to balance the growth of the urban area with the protection of nationally important fertile soils

It is important to note that the protection of productive soils from urbanisation in Pukekohe-Paerata was addressed during the Auckland Unitary Plan hearing process. The Rural Urban Boundary location was finalised following evidence and appeals which included consideration of the location of productive soils.

Following Unitary Plan hearings, the Auckland Unitary Plan Independent Hearings Panel recommended the removal of approximately 170ha of land on Pukekohe Hill from within the Rural Urban Boundary and its rezoning from Future Urban zone to Rural – Rural Production zone because the land contained elite and prime soils. It also recommended that rural zoned land to the east of Pukekohe between Grace James Drive and Runciman Road containing less productive soils be included within the Rural Urban Boundary and rezoned to Future Urban zone. The extent of this eastern area was confirmed through appeals to the Unitary Plan and an area of approximately 230ha was rezoned to Future Urban zone (Area D1 (east) and Area D2).

The intention of the structure planning process is to consider appropriate live zoning of the Future Urban zone, not relitigate its location.

- **Riparian buffer**

Support or opposition for the suggested 20m riparian buffer for permanent and intermittent streams was expressed in a dozen items of feedback.

Council's Healthy Waters department has undertaken additional analysis on the issue of stream bank erosion since the preparation of the 2019 stormwater management plan. The 18 July 2019 version of the stormwater management plan reflects stream bank erosion risks to, and caused by, development. It states that 20m either side of all streams may be needed for earthworks to stabilise the stream and manage the flood plain. Further assessment will be carried out to refine this approach around intermittent streams at the plan change stage.

Given the importance of future proofing communities for climate change and enhancing ecosystems, the Pukekohe-Paerata Structure Plan takes a precautionary approach and continues to seek a 20m riparian buffer for permanent and intermittent streams.

Other key issues raised in the 2019 consultation were:

- flooding, stormwater and runoff
- urban/rural interfaces and zone interface provisions

- support for retention of tuff rings, including suggestions to avoid development in their vicinity or to include them in parks
- the importance of connectivity.

2 Introduction

2.1 What is the growth challenge?

The Auckland Plan 2050 (Auckland Plan) signals that Auckland's population could grow by another 720,000 people to reach 2.4 million people over the next 30 years. This growth is an opportunity for Auckland as a catalyst for cultural and economic success. But it can also put pressure on our communities, our environment, our housing and our roads. Part of our challenge is how we grow successfully without losing the things we value.

The Auckland Plan signals that around 32 per cent of growth will be accommodated in future urban areas. This means that approximately 99,000 dwellings and around 1400ha of business land is needed in future urban areas.

The Auckland Plan identifies Pukekohe as a “satellite town” with the potential to accommodate up to 14,000 additional dwellings.

The Auckland Unitary Plan has zoned 1262ha (gross) of land as Future Urban Zone around Pukekohe-Paerata. This is a transitional zone (refer to Map 2 below). The development of the Future Urban zoned land in Pukekohe-Paerata is part of the solution to the growth challenge. The Future Urban Zone must be rezoned through a plan change before any urban development can occur. Council is undertaking a structure plan process first in order to ensure that all the effects of development are addressed in advance of development occurring.

2.2 What is structure planning?

Structure plans are an important method for establishing the pattern of land use and the transport and services network within a defined area. They enable a detailed examination of the opportunities and constraints relating to the land – including its suitability for various activities, infrastructure provision, geotechnical issues and natural hazards.

Structure planning enables the council to identify, investigate and address the potential effects of urbanisation and development on an area's natural and physical resources. A structure plan is an appropriate foundation for the plan change process required to rezone land.

Structure plans by themselves have no statutory weight. A structure plan can propose future zones, but no rezoning actually occurs until plan changes are made under the provisions of the Resource Management Act 1991.

The Auckland Unitary Plan contains an appendix (Appendix 1) of “Structure Plan Guidelines” which are required to be followed in preparation of a structure plan. This sets out:

- structure planning in the context of the plan change process
- external documents to be taken into account
- matters that the structure plan must identify, investigate and address
- specialist documents to support the structure plan as part of the plan change process.

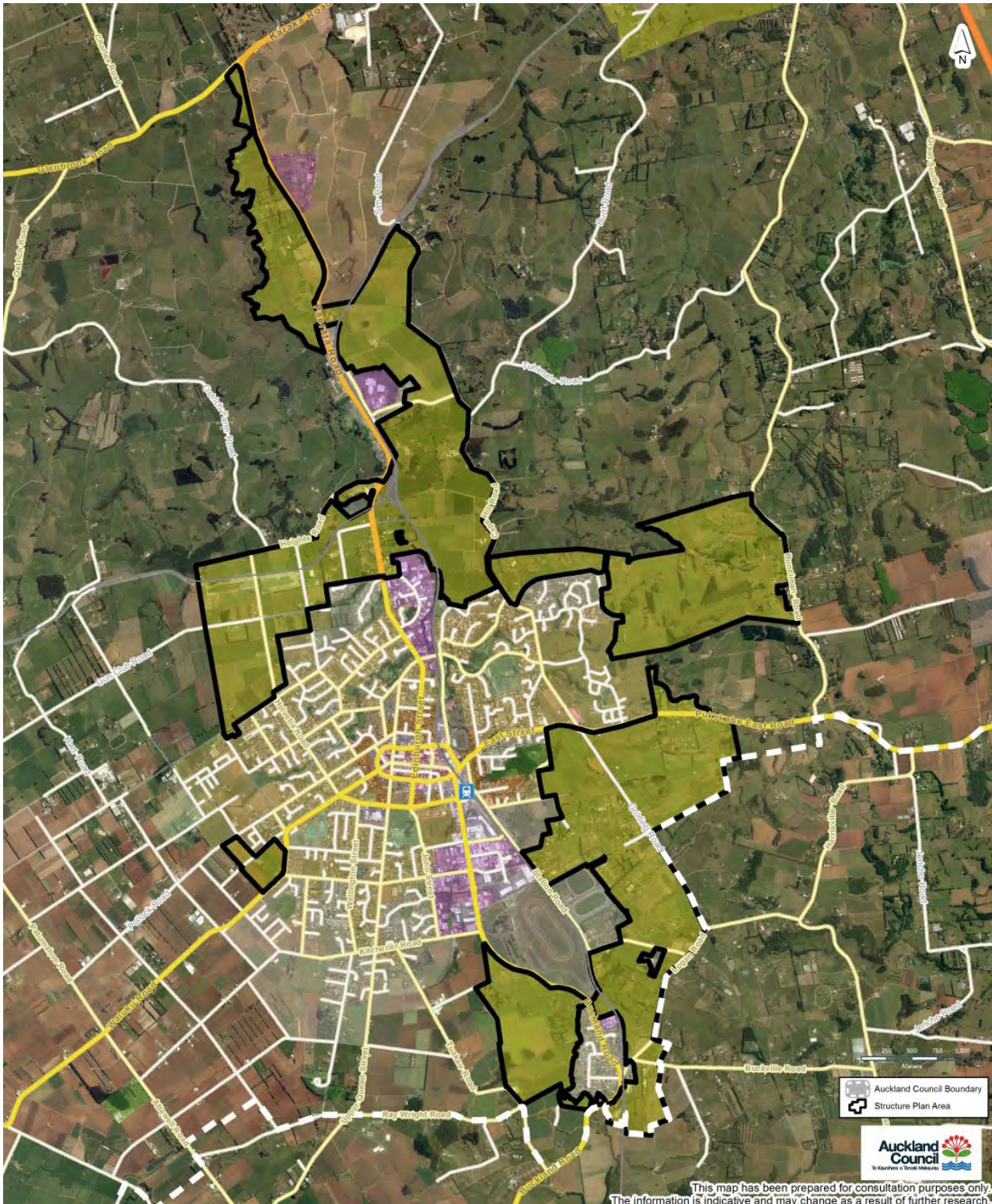
An assessment of the content of the Pukekohe-Paerata Structure Plan 2019 against Appendix 1 of the Auckland Unitary Plan is attached as Appendix 01 to this structure plan.

2.3 What is the structure plan study area?

Pukekohe is located approximately 50km south of central Auckland, south of the Manukau Harbour and north of the Waikato River. The name ‘Pukekohe’ means ‘hill of the kohekohe’.

Map 2 below shows the land area of approximately 1300ha to which the Pukekohe-Paerata structure plan process applies.

Map 2: Location of Pukekohe-Paerata structure plan area



2.4 How does the plan relate to the existing land uses and other features in and around Pukekohe?

2.4.1 Existing urban areas

The Pukekohe-Paerata Structure Plan 2019 recognises the importance of the relationship between the proposed land uses and the existing urban areas of Pukekohe, Paerata and Buckland.

Transport links, community facilities and business land provision are considered across the entire area. The structure plan will enable the transformation of the future urban land in a way that reinforces Pukekohe town centre as the heart of Pukekohe-Paerata.

2.4.2 Existing rural areas

The Future Urban zoned areas also border rural land with Auckland Unitary Plan zonings of Rural – Rural Production, Rural – Mixed Rural and Rural – Countryside Living, and land with Waikato District rural zonings. The Pukekohe area makes a significant contribution to the supply of food for Auckland and New Zealand.¹ A number of factors contribute to Pukekohe’s versatile rural productivity. These include high class soils, the frost-free climate, topography, access to labour, markets and key transport links. Surrounding rural activities and the rural economy will remain very important to Pukekohe-Paerata. Activities such as horticulture and equine industries are envisaged to continue to operate in rural zones, and business land will provide opportunities for rural-related businesses to operate.

2.5 What is the structure plan process?

The main phases of the Pukekohe-Paerata structure plan process include:

- analysis of opportunities and constraints in 2017
- first phase of consultation on “Pukekohe / Paerata Potential New Land Use Scenario 1 Preliminary Draft” in September to October 2017
- analysis of feedback and land use options and selection of an updated option
- second phase of consultation on the “Pukekohe-Paerata Draft Land Use Plan” in September to October 2018
- analysis of feedback and updated technical information and preparation of the “Draft Pukekohe-Paerata Structure Plan 2019”
- final phase of consultation on the “Draft Pukekohe-Paerata Structure Plan 2019” in April 2019
- analysis of feedback and any new information
- adoption of a final structure plan by Auckland Council in 2019
- the adopted structure plan will become the basis for council-initiated plan changes to give effect to the Pukekohe-Paerata Structure Plan.

¹ See Horticulture New Zealand (2017), “New Zealand domestic vegetable production: the growing story” (2017)

Figure 1: Pukekohe-Paerata structure plan process



3 The Pukekohe-Paerata Structure Plan 2019

3.1 Vision

The following vision has been developed for the Pukekohe-Paerata Structure Plan 2019.

New growth areas will enhance Pukekohe as a focal point and place to further support the surrounding rural economy. These areas will offer a range of housing choice and employment opportunities for people at all stages of life. It will be well connected to the wider Auckland and Waikato regions, while protecting and enhancing the natural, physical and cultural values that contribute to Pukekohe's unique character and identity.

3.2 Key outcomes

To implement the vision, the Pukekohe-Paerata Structure Plan 2019 aspires to provide the planning outcomes below. They are based on public feedback, previous technical studies and plans.

3.2.1 A place for people

- (a) Ensure a high-quality urban environment that people want to live and work in.
- (b) Encourage the use of Te Aranga Māori Design Principles in the planning and development of Pukekohe-Paerata.
- (c) Provide a range of housing choices to support a growing and diverse community, with increased residential densities close to public transport and amenities.
- (d) Provide an integrated and accessible network of high-quality open space and recreational facilities.
- (e) Promote sustainable and low-carbon development.
- (f) Encourage development which minimises the risk of natural hazards and effects of climate change.
- (g) Provide for local employment opportunities.

3.2.2 Our shared stories

- (a) Protect and enhance Pukekohe's heritage including built heritage, natural heritage, archaeological sites, and Māori cultural heritage and landscapes.
- (b) Recognise and celebrate Pukekohe's history and diverse stories.
- (c) Acknowledge that new development should respect and enhance local character, identity and heritage.

3.2.3 A healthy, flourishing and sustainable community

- (a) Promote safer journeys, together with positive health, recreation and social benefits.
- (b) Provide for accessible social infrastructure that supports education opportunities and community well-being.
- (c) Encourage local business and job development that stimulates economic prosperity.
- (d) Ensure infrastructure is developed and operated in a way that is sustainable, efficient and considers economic, social, cultural and spiritual effects.
- (e) Recognise the importance of Auckland and Waikato's cross-boundary relationship.

3.2.4 Valuing our natural environment

- (a) Recognise the fundamental relationship between Māori cultural values and the natural environment.
- (b) Manage the natural environment in a way that respects and is guided by Māori tikanga.
- (c) Enhance freshwater quality throughout the area.
- (d) Improve the overall biodiversity of the area and ensure ecosystems are functioning and healthy.
- (e) Protect outstanding geological features, such as tuff rings and the Pukekohe East explosion crater from inappropriate development.
- (f) Protect and enhance the stream network including the Whangapouri and Oira creeks and Tutaenui Stream.
- (g) Promote a water-sensitive design approach to manage stormwater and protect the existing stream network.

3.2.5 Rural Pukekohe

- (a) Recognise the regional importance of the rural economy such as equine and horticultural industries.
- (b) Recognise Pukekohe's contribution to the food supply for Auckland and New Zealand.
- (c) Enable rural industries to continue to support businesses and provide a diverse range of jobs, goods and services.

3.2.6 Servicing our future community

- (a) Deliver a transport network with strong local and regional connections that responds to anticipated growth and maximises connectivity for both commuters and freight.
- (b) Provide frequent and attractive public transport options, supported by greater density along key routes.
- (c) Infrastructure delivery and land development are coordinated with funding and provide networks that are cost effective.

3.3 Overview of the Pukekohe-Paerata Structure Plan 2019

The Pukekohe-Paerata Structure Plan 2019 builds on previous work done for the Future Urban zone such as the Pukekohe Area Plan 2014, council's Future Urban Land Supply Strategy (which looks at the sequencing of development across Auckland), and the Transport for Future Urban Growth Programme² (which looked at transport infrastructure).

The Pukekohe-Paerata Structure Plan 2019 also responds to structure plan engagement feedback received in 2017, 2018 and April 2019, feedback from mana whenua and further technical analysis received.

Overall the development of the Pukekohe-Paerata structure plan area over 30 years is estimated to provide about 12,517 houses/dwellings and 5018 jobs with a population of about 33,809³. As a comparison, this approximately doubles the population of the existing population of Pukekohe.

These estimates are based on current development feasibility and exclude areas that may not be developable because of constraints (such as flooding, topography and landscape features). Social and economic circumstances could change significantly in the future 30 years and the actual number of houses and jobs that arise over time could be significantly different.

The Pukekohe Area Plan 2014 identified a number of growth areas (Areas A to I) around Pukekohe-Paerata. These growth areas are used as a base for this structure plan. See section 4.4 for further discussion of Areas A to I.

3.3.1 Residential land use in the Pukekohe-Paerata Structure Plan 2019

The Auckland Unitary Plan enables intensification in existing Pukekohe residential areas, with the greatest intensity around the Pukekohe town centre. The Pukekohe-Paerata Structure Plan 2019 enables a mix of residential intensities to support the vitality of centres and communities and to provide housing and transport choice.

² A collaboration between Auckland Council, the NZ Transport Agency and Auckland Transport. This programme has since been superseded by Te Tupu Ngātahi's Supporting Growth Programme.

³ These figures do not include anticipated growth in existing Pukekohe residential areas

Housing can come in low density, medium density and higher density forms. Appendix 02 of this structure plan provides an overview of the scale of development envisioned in the Auckland Unitary Plan's residential zones. With this in mind, the Pukekohe-Paerata Structure Plan 2019 proposes additional residential zoning based on the following principles (refer also to section 4.4).

- Highest residential densities (Residential – Terrace Housing and Apartment Buildings Zone) are located near the proposed railway station and local centre at Paerata (Area A and part Area B).
- Medium high and medium residential densities (Residential – Mixed Housing Urban and Mixed Housing Suburban zones) are located in the majority of the structure plan growth areas.
 - Mixed Housing Urban zoning is provided for most of the Paerata area (part Area B, Area C and part Area D). An area of Mixed Housing Urban is also provided east of the Pukekohe Showgrounds, which is the closest part of the structure plan area to the Pukekohe town centre (part Areas F and G).
 - Mixed Housing Suburban zoning is provided in the north west (part Area E), north (part Area D and the western part of Area D1), to the west (Area A2) and to the east and south (part Areas F, G and H).
- Lowest residential densities (Residential – Single House Zone) are located at the more remote and steep eastern edge of the structure plan area (eastern part of Area D1 and Area D2) and to the west of Buckland (Part Area H and Area I). In particular the Single House Zone has been applied to Areas D1 and D2 as they include landform, landscape, vegetation and riparian corridor features that warrant protection and enhancement. They are also situated south of the Runciman precinct which recognises similar features within the precinct area.

These principles provide for housing choice and also assist affordability. Higher density housing can be more cost effective to develop and locating this closer to public transport can reduce transport costs to individuals.

Statistics NZ estimates Pukekohe's current population to be approximately 32,000 people.⁴ The most recent yield summaries undertaken for the Pukekohe-Paerata Structure Plan 2019 anticipate that proposed residential zones in the Pukekohe structure plan area will add capacity for around 12,500 new dwellings.

This represents a population increase of 33,750 (assuming 2.7 people per dwelling, which is the average New Zealand household size) – meaning a potential total population of 65,883 across the wider Pukekohe-Paerata area (including the existing urban area and the structure plan area), approximately doubling the current population.

⁴ Statistics New Zealand: "Urban area population projections, by age and sex, 2013(base)-2043 update" using as a base the estimated residential population at 30 June 2013:
http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7563&_ga=2.203981401.814291821.1532578965-1334680112.1526963527#

Residential areas also provide employment opportunities such as home occupations. Subsequently the residential zoning proposed in the Pukekohe-Paerata Structure Plan 2019 could also provide for around 2600 additional jobs.

Council has prepared a neighbourhood design statement (NDS) for the combined Drury-Opāheke and Pukekohe-Paerata structure plan areas to ensure future development will create good neighbourhoods. This is summarised in section 4.2.13. Some of the matters identified in the Neighbourhood Design Statement relate to design considerations during future plan changes and actual development.

See Map 3 below for the location of the proposed residential zones.

3.3.2 Business Land Use in the Pukekohe-Paerata Structure Plan 2019

Light Industrial Land Use

As a satellite town Pukekohe is anticipated to have significant future growth in employment as well as residential growth. A key part of the Pukekohe-Paerata Structure Plan 2019 is to identify a sufficient amount of land for employment opportunities.

Feedback received during the preparation of the structure plan also identified that providing sufficient local employment opportunities and reducing the need to commute to work outside the area was very important.

Business land demand analysis was prepared for the structure plan. This estimates that approximately 80 to 100ha (net developable)⁵ of new industrial land is needed in Pukekohe-Paerata to meet future demand for employment. This assessment takes into account the capacity in existing zoned industrial areas. In addition to this 80 to 100ha, additional land will be needed for new roads, esplanade reserves, flood affected areas and any other constraints in industrial areas.

The structure plan proposes approximately 95ha (net developable) of land to be zoned Light Industry to meet the demand discussed above. This could enable around 2370 new jobs within the new industrial areas in the structure plan area. Providing for business activities in the structure plan area can reduce the need for community and freight movement northwards, which affects congestion across Auckland as a whole.

The Light Industry Zone provides for a range of business activities that are less likely to fit within town centres. Some activities that support rural industries are also provided for in this zone. While this zone anticipates a lower level of amenity than the other business zones (except the Heavy Industry Zone), it does not anticipate activities that will generate objectionable odour, dust or noise.

The structure plan proposes new areas of Light Industry Zone in the north (part Area D), north west (part Area E) and to the east and south (part Areas F and H). The location of these can be seen on Map 3.

⁵ Net developable land area is the amount left over after an allowance is made for land required for roads, esplanade reserves, parks (only for residential areas), floodplains and streams that are not built over.

These locations have been chosen based on a range of factors including:

- good access to the existing and proposed road network, especially freight routes and routes that will limit the need for traffic to travel through the Pukekohe town centre
- relatively flat land to reduce the need for future earthworks and to enable larger floor areas and outdoor storage areas often needed by industrial activities
- proximity to existing areas zoned Light Industry, e.g. Adams Drive. Adjoining new industrial areas to established industrial areas limits potential reverse sensitivity issues and allows the opportunity for the co-location of similar activities and businesses
- proximity to existing “less sensitive” activities to limit potential reverse sensitivity issues, such as the Rural Production Zone and Special Purpose – Major Recreation Facility Zone (e.g. the Pukekohe Park Raceway, Auckland Trotting Club and A and P Showgrounds)
- reflection of existing land uses that are more suited to the Light Industry Zone, e.g. vegetable processing and packing sheds in Heights Road, and rural machinery sales and maintenance in Heights Road.

Where possible, the new proposed industrial areas have been separated from existing or proposed residential areas by existing or proposed roads or the Main Trunk Railway Line.

Some of the proposed new Light Industry zoned areas contain flood plains and streams with proposed riparian margins. To ensure the structure plan outcomes relating to “valuing our natural environment” and creating “a place for people” are met, additional development controls may be required within these areas. These matters should be addressed through any future plan changes.

Local Centre land use

The existing Pukekohe town centre will remain the primary commercial centre and focal point for Pukekohe. Because of this, and the live zoned future local centre at Paerata Rise, no new additional large centres are required to service the structure plan area.

To service the future population anticipated throughout the structure plan area, the business land demand analysis estimates an additional two centres (approximately 2 to 2.5ha each) will be needed, potentially in north-western and south-eastern Pukekohe.

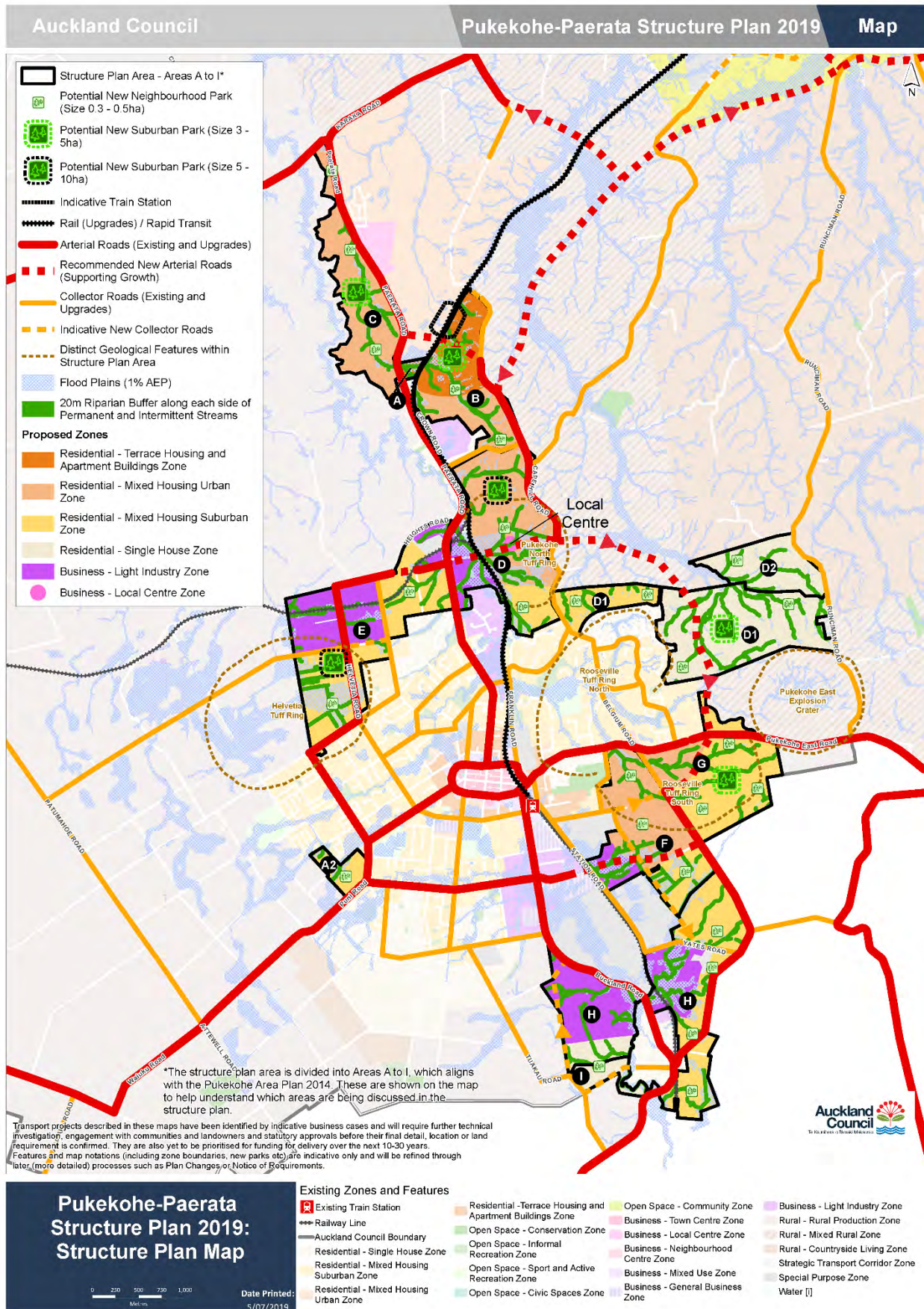
The structure plan proposes a new Local Centre Zone (approximately 2ha gross) in Area D. This is located in Area D (rather than Area E in north-western Pukekohe) because it anticipates a much higher residential capacity through the surrounding proposed Residential – Mixed Housing Urban Zone. The proposed local centre is also located near a recommended new arterial road and the indicative walking and cycling network to ensure increased accessibility. A local centre this size could provide about 53 new jobs in the area. The location of this proposed Local Centre Zone can be seen on Map 3.

Currently there is a smaller live zoned Neighbourhood Centre on the corner of Belgium and Pukekohe East roads. This is just outside the structure plan area and is not yet developed as a neighbourhood centre. Depending on the development of this smaller neighbourhood centre and the anticipated increase in proposed residential zoning in south-eastern Pukekohe, an additional local centre may also be needed somewhere in Areas F, G or H (east). The location of a local centre in south-eastern Pukekohe should be addressed during any future plan changes when other zoning is refined. The need for and location of any new neighbourhood centres throughout the structure plan area should also be addressed at the time of any future plan changes.

Local centres mainly provide for local retail, commercial services, offices, food and beverage and appropriately scaled supermarkets. Neighbourhood centres generally provide residents and passers-by with frequent retail and commercial service needs and will usually include activities such as a dairy, chemist, takeaways and small offices.

More information on business land can be found in section 4.2.1.

Map 3: Pukekohe-Paerata Structure Plan 2019: Structure Plan Map



Note: Map 3 is the same map as Map 1 (shown in section 1)

3.3.3 Landscape and environmental values

The Pukekohe-Paerata area has a distinctive landscape of ridgelines, tuff rings and stream gullies. It also has areas of native bush, some of which are protected through a Significant Ecological Area overlay in the Auckland Unitary Plan.

The structure plan seeks to protect and enhance the ecological and landscape features. This includes differing levels of protection and enhancement. Some values may have high levels of protection (e.g. as Significant Ecological Areas) and others will rely on the provisions of the Auckland Unitary Plan.

Urbanisation can accelerate stream bank erosion which in turn contributes significantly to the sedimentation of our estuaries unless carefully managed. Existing mitigation methods include the use of stream bank planting, detention of stormwater flows and stormwater retention (reducing volume through ground infiltration or rain-water reuse). Current work has shown that hydrology mitigation and riparian planting alone are not enough to prevent stream bank erosion.

The Pahurehure Inlet (where most of the structure plan area drains to) is degraded and is at significant risk of major environmental effects due to continued sedimentation. Additional controls are needed to minimise sedimentation and protect our marine and freshwater environments.

One of the key ways to do this is through a 20m riparian buffer on each side of all permanent and intermittent streams to provide opportunities for stream protection and ecological linkages. The buffer will enable flood water conveyance and management approaches including stream works and riparian planting. This will contribute to the structure plan principles of enhancing freshwater quality, improving biodiversity and protecting the stream network. These areas are not automatically open space and may remain in private ownership depending on the level of protection required.

Specific sites with riparian buffers can potentially provide open space values and future-proof future walking and cycling routes. These will be assessed at a site by site level at the time of development.

Another key principle is to protect outstanding geological features, such as tuff rings and the Pukekohe East explosion crater, from inappropriate development. These features are part of a wider volcanic landscape which is an important part of Pukekohe's character and natural heritage. Opportunities exist for future development to incorporate these volcanic features to create a distinct sense of place unique to Pukekohe-Paerata.

These areas would not automatically be public open space. Ownership and access, levels of protection and methods to implement protection and enhancement would need to be considered in more depth at the plan change stage.

More information on landscape and environmental values can be found in sections 4.2.7 and 4.2.9. Information about Māori cultural values and relationship with the environment can be found in section 3.3.5. Information about flooding can be found in section 3.3.9.

The plan change process will identify the specific planning provisions to achieve the structure plan's response. More information on potential matters for future plan changes can be found in section 3.4.3.

See Map 4 below for the indicative location of many of these landscape and environmental values.

3.3.4 Open space and recreation

Public open space is an important component of urban environments and contributes to the quality of life of future residents. Investment in open space should reflect the way we expect Auckland to grow over the next 30 years. In greenfield areas, new open space will be needed to meet the recreational and social needs of new residents. Expanding the open space network in existing urban areas is constrained by land supply and budget. The investment strategy in the urban area is to prioritise improving the existing network

Developer contributions normally fund the acquisition of public open space in new growth areas. Any identified existing gaps in open space provision would normally not be funded from this budget. Under the Auckland Council Open Space Provision Policy, the provision of neighbourhood parks and suburb parks is required for residential zones only.

The Pukekohe-Paerata Structure Plan 2019 shows a potential open space network to meet the future community's diverse needs. See Map 3. This includes:

- 26 neighbourhood parks, four medium sized suburb parks and two large suburb parks amounting to between 29.9ha and 53.2ha total of open space
 - Neighbourhood parks are smaller parks between 0.3 to 0.5ha. They have been located within walking distance of residential areas to ensure everyone lives close to a park. More parks are located in areas with denser residential land uses to accommodate the higher populations expected. Indicative locations of potential neighbourhood parks are shown on the plan. Neighbourhood parks are located within a 400m walk in high and medium density residential areas, and within a 600m walk in all other residential areas.
 - Suburban parks and sports parks are larger but less numerous (3 to 5ha). Some of these may provide for new sports fields and could be as large as 10ha. These parks will serve a wider population and have been located near good transport connections. Indicative locations of potential suburban parks and sports parks are shown on the plan. Suburban parks are located within a 1000m walk in high and medium density residential areas, and within a 1500m walk in all other residential areas.
- other open spaces may include areas such as esplanades (alongside streams), wetlands, civic spaces, conservation lands and walking and cycling tracks.

A successful open space network responds to the local context. Variation in the provision of open space will occur across Auckland. Consideration of context specific factors is

critical when applying the policy in order to create high quality open space networks that respond to community needs.

There are a range of topographical and geological features in the broader Pukekohe-Paerata area, many of which are outside of the structure plan area and are therefore out of scope. The focus of the proposed open space network is within the structure plan area.

However, there may be ways to respond to these topographical and geological features in a positive way and incorporate them as part of a revised open space network plan, such as:

- where practical and feasible, orienting proposed new open spaces to acknowledge these geological features
- where practical and feasible and once they are identified, to co-locate open spaces to adjoin esplanade reserves, waterways, wetlands, bush areas and stormwater detention system assets
- integrating proposed open spaces that have Wildlink features (a green corridor linking habitats, bird flight paths, roosting locations, biodiversity) is also an important function that may help connect the wider open space network. This may include connecting Roosevill Park and other sensitive environment areas
- establishing or extending the urban forest network.

More information on proposed open space can be found in section 4.2.5.

See Map 4 below for the indicative location of these parks and open spaces. It also shows potential local paths identified in the Pukekohe-Paerata Paths Plan 2018.

3.3.5 Mana whenua

Māori cultural values are inextricably connected with the environment. Their cultural and traditional relationships with their ancestral lands, water, sites, waahi tapu and other taonga are a matter of national importance under the Resource Management Act 1991.⁶ The council acknowledges that there are multiple mana whenua customary interests across the Pukekohe-Paerata structure plan area. Throughout the structure planning process the council has sought ongoing engagement with mana whenua to discuss their concerns and aspirations for the future development and urbanisation of the structure plan area.⁷

Four iwi with mana whenua customary interests over the structure plan area have actively been engaged with the council. They are Ngāi Tai Ki Tāmaki, Ngāti Tamaoho, Ngāti Te Ata and Te Ākitai Waiohua. Huakina Development Trust has also been involved with this engagement.

⁶ Resource Management Act 1991, Part 2, Section 6(e).

⁷ For more detail on the mana whenua engagement process and key matters raised refer to section 4.3.5 of this structure plan.

A key outcome identified by these mana whenua is to ensure their cultural interests and resources are protected and managed appropriately so that future generations can continue to utilise and benefit from these. Maintaining and enhancing the life supporting capacity and mauri of their taonga is fundamental to this. This means that the future urbanisation and development of the structure plan areas should have positive environmental and cultural effects.

The planning principles used to develop the structure plan recognise the fundamental relationship between Māori cultural values and the natural environment.

In response to feedback from mana whenua the structure plan:

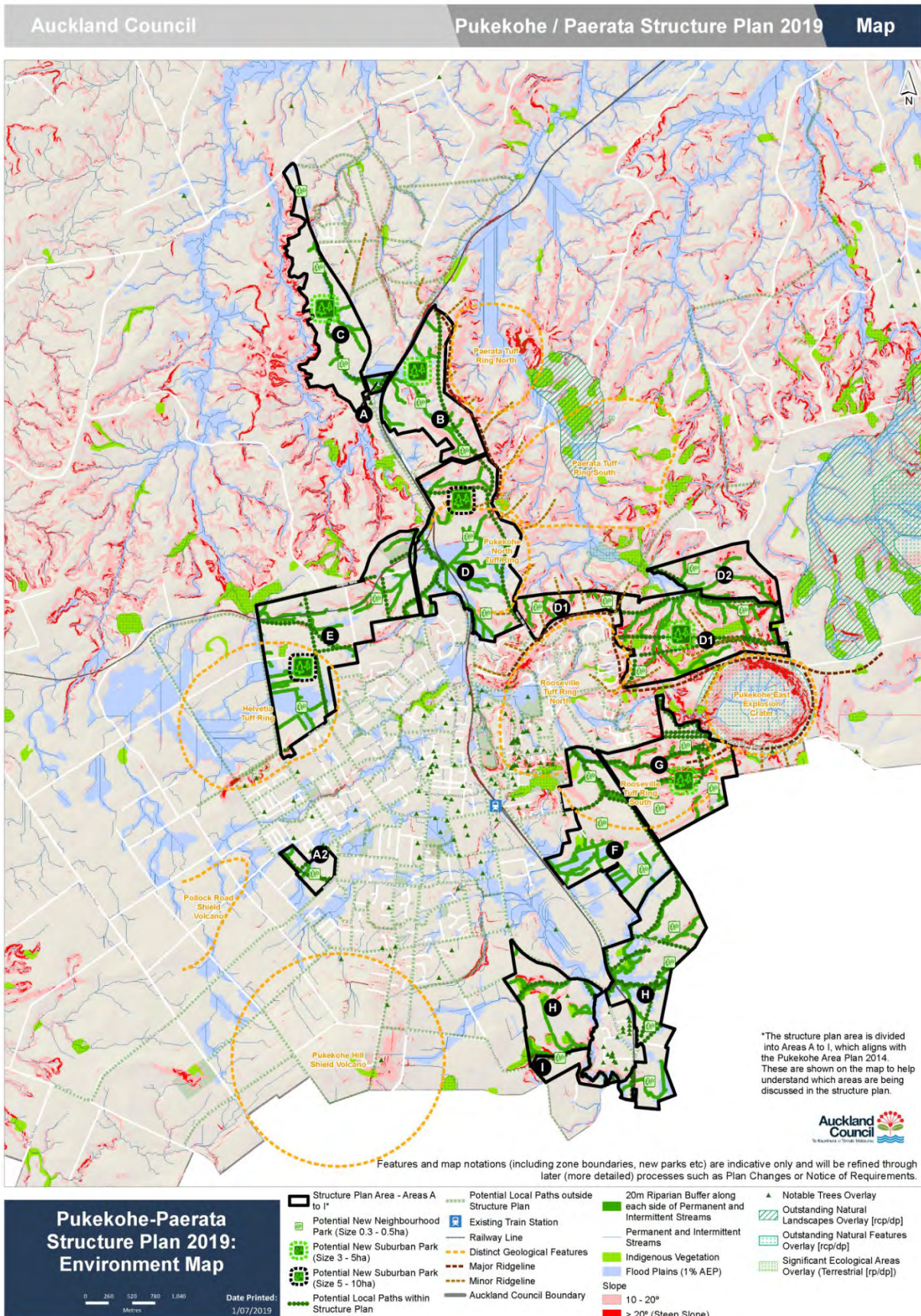
- proposes a riparian buffer along all permanent and intermittent streams in recognition of the multiple cultural and environmental values these streams and their riparian margins can have
- identifies areas subject to floodplains and proposes these be kept free from inappropriate urban development
- identifies the indicative location of geological features such as tuff rings and major ridgelines and recommends that these values are recognised and considered in future planning and development
- identifies the indicative location of indigenous vegetation and recommends that these values are recognised and considered in future planning and development
- where possible proposes lower density residential zones in areas that have a higher occurrence of streams or steeper terrain to reduce the impact of development on cultural values
- encourages the use of Te Aranga Māori Design Principles throughout future planning and development⁸
- recognises the opportunities to integrate future open space, potential greenways/local paths, the proposed riparian buffers along permanent and intermittent streams, and areas subject to floodplains. This can have positive cultural, environmental and social benefits
- proposes land uses that will provide for a variety of housing and employment opportunities that potentially can support mana whenua and the wider community.

Refer to sections 4.1.5, 4.1.6 and 4.3.5 for further information about Treaty settlements, iwi management plans and mana whenua engagement.

See Map 3 above for the location of proposed zones. See Map 4 below for the indicative locations of areas subject to floodplains, the proposed riparian buffers along all streams⁹, geological features and ridgelines, and indigenous vegetation.

⁸ These principles are on the Auckland Design Manual website at http://www.aucklanddesignmanual.co.nz/design-subjects/maori-design/te_aranga_principles. The website notes these '...principles have arisen from a widely held desire to enhance mana whenua presence, visibility and participation in the design of the physical realm.'

Map 4: Pukekohe-Paerata Structure Plan 2019: Environment Map



⁹ Note the map does not differentiate between permanent and intermittent streams

3.3.6 Transport

The Supporting Growth Programme is a collaboration between the NZ Transport Agency, Auckland Transport and Auckland Council to investigate, plan and deliver the transport networks Auckland needs over the next 30 years to accommodate future urban growth. The programme was formerly known as the Transport for Future Urban Growth Programme.

In 2016, a high-level preferred network plan was produced for the South (and other future growth areas of Auckland) based on information from the Future Urban Land Supply Strategy (FULSS) and the Auckland Unitary Plan at the time.

In 2018, Te Tupu Ngātahi (the Supporting Growth Alliance) was formed to review the Supporting Growth 2016 preferred network in light of the new government's transport priorities and Auckland Council's latest land use planning. Te Tupu Ngātahi is currently undertaking an Indicative Business Case with a long term (2048) strategic view to defining a high-level transport network to support the full extent of growth in the future urban areas of the south. In parallel to this, Te Tupu Ngātahi has prepared an Integrated Transport Assessment (ITA) in support of both the Pukekohe-Paerata and the Drury-Opāheke Structure Plans.

The Integrated Transport Assessment is based on the draft strategic network being developed through the Te Tupu Ngātahi Indicative Business Case, with some added detail on land use integration, collector roads and staging. The draft strategic network has now been approved by the Auckland Transport and NZ Transport Agency boards.

The purpose of the Integrated Transport Assessment is to identify, at a high-level, the following transport networks and their integration with surrounding land uses.

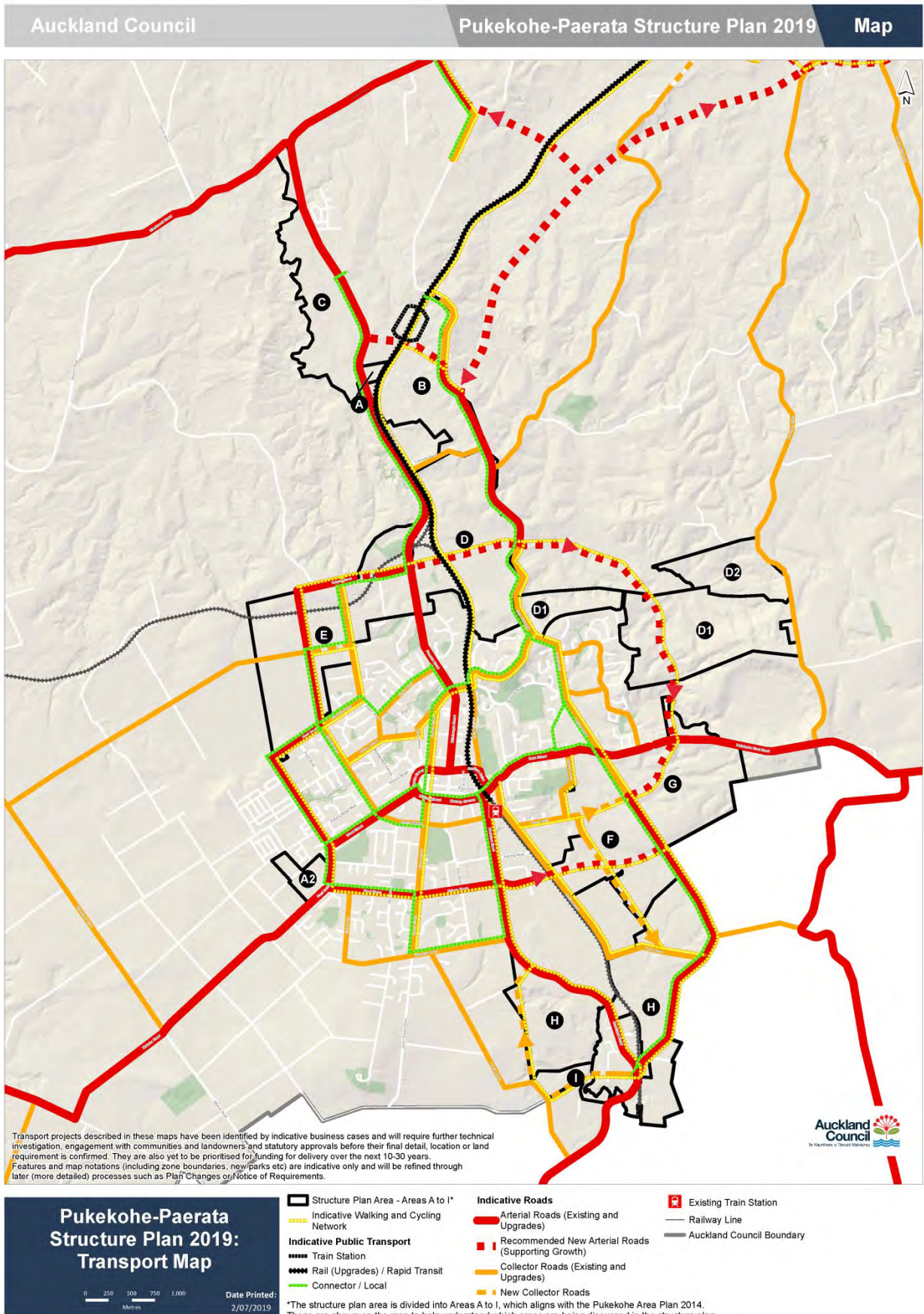
- Road networks.
- Active mode (walking and cycling) networks.
- Public transport networks.

The recommended network is outlined in Map 5 of this structure plan, below. On this finalised structure plan map, mapping associated with indicative collective roads in the live zoned Franklin 2 Precinct in Paerata has been removed.

Public consultation in 2017, 2018 and 2019 indicated that transport was a significant issue for the Pukekohe-Paerata community. There are significant challenges in provision of transport infrastructure for the south. This includes transport within Pukekohe-Paerata and connections to other parts of Auckland and beyond. Land use and transport need to be integrated.

It should also be noted that the indicative transport networks shown in the structure plan and Integrated Transport Assessment are based on the land use shown in Map 3 of the 2019 structure plan. Significant alterations to land use in the future may necessitate review of indicative transport networks.

Map 5: Pukekohe-Paerata Structure Plan 2019: Transport Map



Source: Transport information is from the Integrated Transport Assessment

Refer to section 4.2.3 in this structure plan for further information about transport.

3.3.7 Heritage

The Pukekohe-Paerata structure plan area sits within a wider historic heritage landscape that reflects a range of heritage values. Historic heritage should be viewed as an asset and an opportunity for place-shaping, so that the places and things people value about Pukekohe and Paerata can be maintained and enhanced.

The planning principles used to develop the structure plan recognise the importance of protecting and enhancing Pukekohe's heritage and celebrating its diverse history and stories. They also encourage future development to respect and enhance local character, identity and heritage.

The 2017 Historic Heritage Assessment for the structure plan area recommends a range of further work that could be undertaken to ensure future urbanisation and development of the area respects and reflects the area's heritage values.

More information relating to historic heritage can be found in section 4.2.8.

3.3.8 Other infrastructure

The provision of infrastructure projects and services will require substantial public and private investment. It is critical that the provision of infrastructure and services is planned and coordinated to align with planned growth.

See Map 6 below for the location of existing and proposed water and wastewater infrastructure, and key electricity and gas infrastructure.

Watercare Services Limited has provided a servicing plan (see section 4.2.4) and identified the necessary network needed to implement this.

Water

Watercare provides both bulk and local water services to the Pukekohe-Paerata area. Pukekohe's water supply is sourced from the Waikato River and treated at the Waikato water treatment plant. The existing supply network is reaching its capacity to service the growing region. Watercare has a programme in place to address these issues, as part of catering for the wider structure plan growth area. Some of these assets are reaching the limits of their ability to provide water services to a growing community. There are existing issues within the Pukekohe water network, which the expected growth within the structure plan area will exacerbate. Watercare will undertake trunk upgrades and will work with developers to upgrade water assets to service the structure plan area as required. Water pipelines will follow roading alignments and be constructed in conjunction with the roads, as part of individual development proposals. Trunk and local network pipelines providing water to the structure plan area will be designed to meet the anticipated development yield. All new pipelines will consider the upstream and downstream development potential when being designed and constructed.

Refer to section 4.2.4 for further information about water.

Wastewater

The existing network has limited capacity to accommodate additional flows. Watercare will undertake upgrades in the existing wastewater network to accommodate the anticipated development yield. The Pukekohe transmission pump station and the pipe between Pukekohe and the wastewater treatment plant have capacity for the expected growth and will be upgraded as required to meet additional growth expectations.

Trunk and local network pipelines collecting and conveying wastewater from the structure plan areas are being sized to meet the anticipated development yield. Watercare will undertake trunk upgrades and work with developers to upgrade wastewater assets to service the structure plan area as required. Local wastewater pipes will be constructed in alignment with individual development proposals. All new pipelines will consider the upstream and downstream development potential when being designed and constructed.

The Pukekohe transmission pump station has recently been constructed to accommodate future flows from the Pukekohe-Paerata structure plan area, as well as underdeveloped land zoned for residential use and forecast intensification within the existing urban area.

Refer to section 4.2.4 for further information about wastewater.

Power Supply

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).

Telecommunications

Telecommunication providers have been involved in the structure plan process.

Community Facilities

Auckland Council's Community Facilities Network Plan provides a framework for assessing open space and community facilities requirements. A community facilities assessment for Pukekohe-Paerata was completed in March 2019 and identified that, in general, new service provisions should be directed towards greenfield growth areas such as Paerata. For the existing urban areas the priority is to enhance existing facilities.

The assessment made the following recommendations.

- Investigate the need for a new multipurpose space in Paerata (library, arts and community space) subject to growth in the next 10 to 15 years. The facility should be located in Paerata town centre to support population growth and emerging community needs.
- Consider the need for additional indoor courts to support population growth, particularly growth forecast in Paerata in the next 10 to 15 years.
- Investigate options for Franklin and Jubilee pools to make services fit for purpose and respond to the needs of the growing population.

- Identify opportunities to optimise existing community facilities for increased utilisation or operational efficiency and include Franklin: The Centre, Pukekohe Town Hall and Pukekohe Old Borough Building.

The timing and type of facility and combination of spaces required will depend on the pace of growth, the make-up of the future community, when populations reach the facility provision threshold and the capacity of existing facilities in the wider area to cater for growth.

The Pukekohe-Paerata Structure Plan 2019 will support the community facilities network plan priorities to ensure we have the right facility, in the right place at the right time. The structure planning process provides opportunities to consider partnership solutions, including partnering to develop new facilities or providing funding to other providers to secure public access to existing facilities.

Refer to section 4.2.6 for further information about community facilities.

Education

The Ministry of Education is responsible for managing schools in New Zealand. Within the Auckland region significant population growth is expected to occur as a result of natural increase and migration from overseas and from other parts of the country. The Ministry of Education has been involved in the structure plan process.

Healthcare

The Drury and Pukekohe areas lie within the Counties Manukau District Health Board (CMDHB). The wider Pukekohe-Paerata area has good access to primary and secondary health care provision.

- Approximately seven medical centres in the Pukekohe area, clustered within the existing town centre
- Four hospitals/secondary health care facilities (i.e. Pukekohe Hospital, Manukau Super Clinic, Middlemore Hospital and the Botany Super Clinic).
- Middlemore Hospital is the closest emergency care centre and the focus for secondary health care. It is accessible by public transport.

The four District Health Boards in northern New Zealand have developed the Northern Regional Long Term Investment Plan (NRLTIP) to articulate the strategic direction for the Northern Region¹⁰ using a 25-year planning horizon¹⁰. Due to demand for healthcare in the CMDHB area, the NRLTIP has identified the need for an additional acute site in the south of Auckland, and potentially north Waikato.

¹⁰ Northland DHB, Waitemata DHB, Auckland DHB, Counties Manukau Health. Northern Region Long Term Investment Plan, January 2018.

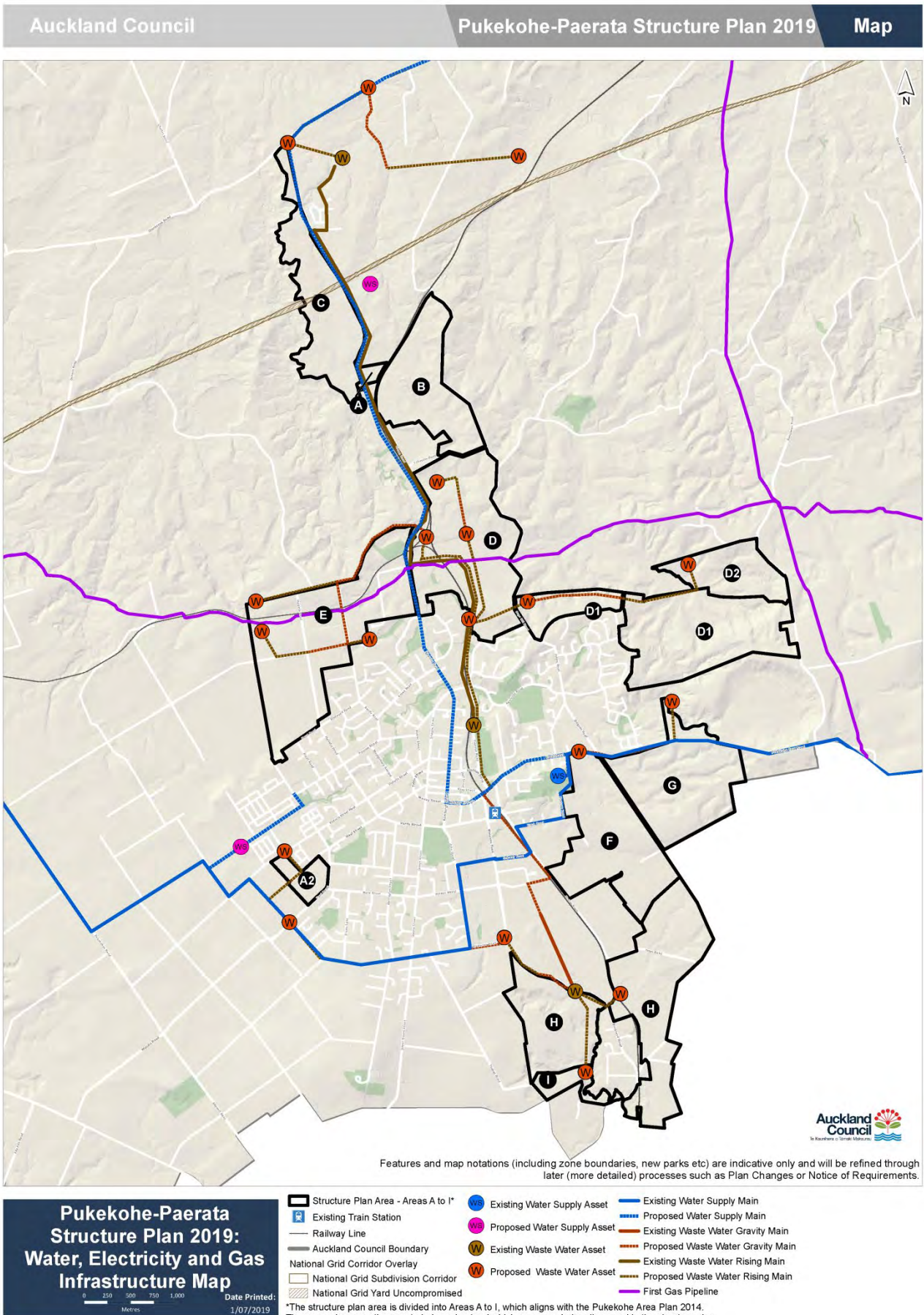
Aside from health facilities, the environment in which people live affects their health and well-being. Potential health and well-being impacts from the Pukekohe-Paerata Structure Plan 2019 include:

- greater resident access to services, within and outside of the structure plan area, and reduced reliance on cars due to the additional train station and public transport services
- zoning to enable varying residential densities for housing choice
- riparian margins improving ecological health, biodiversity and water quality
- provision of parks and open space at both neighbourhood and suburban/regional levels, giving greater opportunity for informal recreation.

However, in realising the health and safety benefits of these proposals, the implementation will be important. Matters to be considered at plan change and development stages include design of transport routes to enable walking from residential areas to key service destinations, pedestrian oriented design and a safe walking and cycling network.

Refer to section 4.2.12 for further information about healthcare.

Map 6: Pukekohe-Paerata Structure Plan 2019: Water, Electricity and Gas Infrastructure Map



3.3.9 Managing hazards

The Pukekohe-Paerata Structure Plan 2019 takes into account the following key hazards.

Flood hazards

Pukekohe-Paerata has floodplains associated with the three major stream catchments that run through the area – Whangapouri, Oira and Tutaenui. The major floodplains are shown on Map 3 and Map 4 of this structure plan (ponding due to culverts and other obstructions is not necessarily shown).

All forms of flooding will be increased in the future by climate change. The predicted increases have been included in the floodplain mapping but there is some degree of uncertainty to this.

The Auckland Unitary Plan directs new greenfield development to avoid locating buildings within floodplains. In some cases, flood tolerant activities (such as car parking and loading areas) can be located within the floodplains, provided they do not exacerbate the risks from flood hazards. Flood hazards are the most prominent risk associated with urban development in Pukekohe-Paerata.

The Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan identifies ways to achieve the objectives of the Auckland Unitary Plan. It takes into account the unique topography, geology and hydrological characteristics of the area. The overall approach is to integrate stormwater infrastructure into the natural environment through water sensitive design.

The Pukekohe-Paerata Structure Plan 2019 will respond to flood hazards by:

- avoiding development on the 1 per cent annual exceedance probability floodplains to avoid exposing more people and property to risks from flooding
- avoiding development on stream edges and enhancing riparian buffers to protect water quality and to manage flood waters
- incorporating water sensitive design in land use and development to manage stormwater (outlined in Appendix 06).

The structure plan is able to incorporate the above responses and meet the growth challenge.

The yield calculations for the Pukekohe-Paerata Structure Plan 2019 exclude the area of land required for managing flood hazards from the amount of developable area.

The plan change process will implement the structure plan's flood hazard response. Further specific consideration may result in additional bespoke planning provisions. More information on potential matters for future plan changes can be found in section 3.4.3.

More information on flood hazards can be found in section 4.2.2.

Geotechnical hazards

Geotechnical hazards also exist in Pukekohe-Paerata. These hazards are unlikely to be a fundamental obstacle to development as long as development is undertaken in accordance with suggested guidance provided in the specialist report, inclusive of more detailed site-specific reporting at development stage.

The Pukekohe-Paerata Structure Plan 2019 has taken into account the risks from likely geotechnical hazards when deciding on an appropriate land use response. The structure plan considers that engineering controls will appropriately address the identified hazards.

More information on geotechnical hazards can be found in section 4.2.10.

Land contamination

Possible land contamination risks have been identified, and potentially contaminated land may be suitable for development subject to preliminary or detailed site investigations. The Auckland Unitary Plan contains provisions which require the assessment and management of contaminated land prior to development. This approach will progressively reduce the existing potential contamination sources in the area that pose a risk of adverse effects on the environment and/or human health.

More information on land contamination can be found in section 4.2.11.

3.4 Implementation of the plan

3.4.1 Staging

The Pukekohe-Paerata Structure Plan 2019 will provide for 30 years of urban growth. The area will grow over time in stages.

The council's Future Urban Land Supply Strategy 2017 states that:

- Stage One will be the Paerata Future Urban zoned land which is scheduled to be development ready in the first half of Decade One (2018 to 2022)
- Stage Two will be the Pukekohe Future Urban zoned land which is scheduled to be development ready in the second half of Decade One (2023 to 2027).

“Development ready” means that urban zoning and bulk infrastructure is provided. The rate of urban development needs to be coordinated with infrastructure development.

3.4.2 Infrastructure Funding Options

Appendix 1 of the Auckland Unitary Plan also requires a staging plan as part of a structure plan. The critical infrastructure that provides essential bulk services which enable land development include:

- Parks and Open Spaces (Auckland Council and Minister of Conservation), see section 4.2.7 for more information.

- Transport networks (Auckland Transport, The New Zealand Transport Agency and KiwiRail), see section 4.2.3 for more information.
- Stormwater networks (Auckland Council), see section 4.2.2 for more information.
- Water and Wastewater (Watercare Services Ltd), see section 4.2.4 for more information.
- Community facilities (Auckland Council), see section 4.2.6 for more information.
- Electricity and gas (including Transpower, Counties Power, Vector and First Gas).
- Telecommunications (various private sector providers).

Other community services (schools, hospitals, social services and courts) and emergency services (police, fire, ambulance) will also be delivered in conjunction with growth.

Agencies responsible for the above infrastructure have all been involved in the preparation of the structure plan.

The council funds and delivers its public growth infrastructure projects primarily through the collection of development contributions and Watercare's infrastructure growth charges and rates. Developers typically contribute less than one third¹¹ of this cost through development contributions and infrastructure growth charges, with the rest subsidised by the ratepayer and the taxpayer. Infrastructure sequencing and funding for the council's structure planning areas (including Drury and Pukekohe) is yet to be resolved.

Infrastructure projects also have long lead times for planning and construction. Development will need to be staged in accordance with infrastructure decision making over time. Funding options are being investigated inclusive of targeted rates and special purpose vehicle private financing.

Critical new indicative transport, water, wastewater and open space infrastructure are shown on Map 3, Map 4, Map 5 and Map 6 of this structure plan along with existing infrastructure.

Appendix 1 of the Auckland Unitary Plan requires an infrastructure funding plan as part of a structure planning process. The funding plan for bulk infrastructure will be finalised as more information becomes available, prior to any decision on plan change timings.

3.4.3 Potential matters for future plan changes

The Pukekohe-Paerata Structure Plan 2019 will form the basis of future plan change/s. The plan change process/es will enable the delivery of additional housing and employment opportunities by rezoning the existing Future Urban Zone land to 'live' zones. The zones will generally follow the land uses shown in the Pukekohe-Paerata Structure Plan 2019 (see Map 3 of this structure plan). It will be at the plan change stage of the process where specific interface consideration can be applied, for example between new urban zoned land uses and existing horticultural land use.

¹¹ Auckland Economic Quarterly, February 2019.

In addition to zones, the Auckland Unitary Plan contains spatial tools such as overlays, controls, Auckland-wide provisions and precinct provisions that control resource management matters.

The preparation of the Pukekohe-Paerata Structure Plan 2019 has identified the following matters that may (subject to further investigation) be part of future plan changes.

It should be noted that plan changes for areas or features outside the Future Urban Zone are not within the scope of this structure plan process.

Land use

- Rezone land to:
 - Residential – Single House
 - Residential – Mixed Housing Suburban
 - Residential – Mixed Housing Urban
 - Residential – Terrace Housing and Apartment Buildings
 - Business – Light Industry
 - Business – Neighbourhood Centre
 - Business – Local Centre.
- Refine the position of the proposed Local Centre and consider if an additional Local Centre is needed in the south-eastern part of the structure plan area.
- Consider the need/location for Neighbourhood Centres once residential and business zones are confirmed.

Interfaces and Linkages

The structure plan areas are on the edges of 'live' zoned areas of Pukekohe and Paerata. They also border rural land. The importance of horticulture to the economy and character of the area is recognised in this structure plan. Future plan changes will need to consider how interfaces and linkages between and within the structure plan areas and adjacent land are addressed in the following situations.

Zone interfaces and linkages:

- between new business zoned land and existing rural zoned land (e.g. Rural Production Zone)
- between new residential zoned land and existing rural zoned land
- between existing residential and business zoned land and new residential and business zoned land
- between new business and new residential zoned land
- between new residential land and special purpose zones

- between new business land and special purpose zones
- between new parks and residential areas
- whether it is appropriate to use public roads as a buffer between residential and rural land uses (encouraged by the Pukekohe Hill Precinct under the Auckland Unitary Plan)
- identify whether provisions are needed for 'gateways' for interface between Buckland and Pukekohe as well as between rural and urban areas
- consideration of controls relating to buffers, screening, landscaping, setback and roading layout.

It should be noted that:

- existing residential zones adjoining structure plan areas vary by age, scale and subdivision pattern and include activities such as marae and childcare
- existing rural zones adjoining structure plan areas contain various farming, horticultural and lifestyle activities
- existing special purpose zones adjoining structure plan areas contain showgrounds, horse racing and training facilities, car racing facilities, a school and a cemetery.

The following matters should also be considered.

- Whether land use and future street layouts promote healthy lifestyles. That is, a land use mix and street layout that encourages walking, cycling and other forms of active transportation and recreation.

Mana whenua cultural values

Māori cultural values are inextricably connected with the environment. It is important that Māori cultural values are considered in their own right and not just when they align with other environmental values. Mana whenua for the Pukekohe-Paerata area have a unique relationship with the area. In order to ensure future development of the area recognises, protects, maintains and enhances mana whenua cultural values, further consideration of appropriate controls will be needed, in conjunction with ongoing engagement.

This may require additional area specific planning requirements to achieve better environmental and cultural outcomes than are currently provided for in the Auckland Unitary Plan, and additions to existing Auckland Unitary Plan schedules. This may include consideration of how:

- activities adjacent to waterways/water bodies are managed. e.g. access, orientation of site and siting and orientation of building platforms, impervious surfaces etc.

- stormwater is managed and treated
- the health of ecosystems can be enhanced e.g. eco-sourced riparian plantings within the riparian buffers
- new development can be required to use Te Aranga Māori Design Principles
- kaitiaki can be enabled to carry out their responsibilities including cultural monitoring
- mana whenua physical and cultural landscapes and sites of significance can be identified and protected e.g. additions to various Auckland Unitary Plan overlays
- the natural functions of wetlands and floodplains can be restored
- to ensure best practice for erosion and sediment control.

Landscape and environment

Environmental features such as streams, tuff rings and vegetation do not necessarily stop at Future Urban zone boundaries. These features can provide opportunities to enhance environmental linkages within and beyond the structure plan area.

There are current barriers to linkages within and beyond growth areas, such as the railway line, road locations and streams. Connectivity is considered as part of the structure planning process.

The following matters should be considered.

- How to protect key parts of original volcanic geological features (e.g. tuff rings). This may include:
 - further investigation into whether any of the other geological features warrant inclusion in the Outstanding Natural Features Schedule of the Auckland Unitary Plan
 - ridge protection mechanisms e.g. Ridge Protection Overlay in the Auckland Unitary Plan
 - view protection e.g. Local Public Views Overlay or Volcanic Viewshafts and Height Sensitive Areas Overlay or other mechanisms.
- How to create buffers on the edge of the rural urban boundary and around key landscape features. This may include:
 - using parks/open space/riparian margins
 - vegetated setbacks
 - larger lot sites along edge of new urban area, near edge of crater etc
 - coverage controls.
- How to protect our waterways, vegetation and ecology. This may include:
 - planting of appropriate width and species mix (indigenous) in riparian margins

- restoration of wetlands
- fencing of all streams and wetlands to reduce damage to streams and reduce pollutants entering the water
- buffer planting around existing areas of native vegetation
- more street tree planting within the urban footprint
- identification of trees that warrant inclusion in the Notable Tree Schedule in the Auckland Unitary Plan
- consideration of incorporating open space, riparian margins and other ecological/geological/topographical features into a green network.
- How to ensure the walking and cycling network makes use of green links.
- How to best integrate our roading network and our open space. This may include:
 - require orienting streets to protect visual connection into the surrounding rural area
 - ensuring streets are designed to protect views to/from tuff rings and ridges, in case these are not protected through volcanic viewshafts
- Further investigation into features that reflect heritage and character of area to see if they need additional protection.
- How to best implement the recommendations of the Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan. This may include:
 - exploring opportunities to achieve water sensitive design as the basis for future developments
 - appropriate controls to ensure development maintains and enhances the water quality of our waterways, particularly stormwater discharges
 - identifying non-statutory methods to enhance our waterways
- Assume a minimum 20m riparian buffer along both banks of permanent and intermittent streams.
- How to connect people with nature to improve physical and mental health and well-being.

Open space

- Consideration of what controls are needed to ensure indicative open space, indicative riparian buffers and other elements of the green network are delivered.
- How to provide for active urban edges facing parks.
- Consideration of incorporating park edge roads around open spaces
- Consideration of what controls are needed to maintain amenity values where an industrial area faces onto a riparian area.

- Ensuring recreational land uses are at a sufficient scale and within walking distances of residential areas to support a healthy, active community.
- Responding to topographical, ecological and geological features in a positive way and incorporate them as part of a revised open space network plan:
 - where practical and feasible, orienting proposed new open spaces to acknowledge geological features
 - where practical and feasible and once they are identified, to co-locate open spaces to adjoin esplanade reserves, waterways, riparian margins, wetlands, bush areas and stormwater detention system assets.

Transport

- Consideration of what controls are needed to deliver the indicative transport network identified in the Integrated Transport Assessment.
- How the future transport network will enable efficient multi-modal transport.
- Consideration of roads and pathways to increase canopy and vegetation cover.
- Consideration of road boundaries as zone interfaces.

Heritage

- Further investigation of the identified heritage 'places of interest' to determine if any warrant inclusion in the Historic Heritage Schedule in the Auckland Unitary Plan.
- Identification of trees that warrant inclusion in the Notable Tree Schedule in the Auckland Unitary Plan.

Managing Hazards

- Consideration of best practice controls for erosion and sediment.
- How to best implement the recommendations of the Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan. This may include:
 - appropriate controls to ensure new buildings avoid locating in natural flood plains
 - appropriate controls to ensure new development do not worsen existing flood hazard risks.

4 Developing the Pukekohe-Paerata Structure Plan 2019

4.1 Strategic context

There are statutory and non-statutory documents that are to be considered where appropriate in the development of structure plans, in accordance with Appendix 1 of the Auckland Unitary Plan. For an analysis of how these matters are addressed, see Appendix 01 of this structure plan. The key outcomes sought by these documents, where relevant to the Pukekohe-Paerata Structure Plan 2019, are summarised below. Further detail is provided in Appendix 03 of this structure plan.

4.1.1 The Auckland Plan 2050

The Auckland Plan 2050 (Auckland Plan) provides a long-term spatial plan for Auckland looking ahead to 2050. It is council's long-term spatial plan to ensure Auckland grows in a way that will meet the opportunities and challenges of the future. The plan sets the high-level direction for Auckland. It outlines the big issues facing Auckland, including the values that will shape how we work together. It identifies key organisations that will play important roles in creating our shared future. The Auckland Plan's Development Strategy and its six outcomes set Auckland's strategy to 2050. They consider how we will address the key challenges of high population growth and environmental degradation, and how we can ensure shared prosperity for all Aucklanders. The Development Strategy also shows how Auckland will physically grow and change over the next 30 years, and specifically addresses the need for business land in future urban areas.

The Auckland Plan signals that over the next 30 years Auckland could grow by another 720,000 people to reach 2.4 million. To meet the challenges associated with population growth in Auckland, the Auckland Plan anticipates that land for an additional 320,000 dwellings and approximately 270,000 additional employment opportunities will be needed to support this growth. Part of that growth will occur in southern Auckland.

Pukekohe and Warkworth are classified as satellite towns in the Auckland Plan. The Auckland Plan defines a "satellite town" as 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 states that satellite towns also act as rural nodes. They:

- service their surrounding rural communities
- are connected to urban Auckland through state highways and, in the case of Pukekohe, by rail
- will support significant business and residential growth.

The Auckland Plan describes Pukekohe as follows:

“Pukekohe: The satellite town of Pukekohe is the rural node at the southern extent of Auckland. It is strategically located on the North Island Main Trunk railway line and is connected to Auckland via State Highway 22. It serves a wide catchment, and is centred on rural production with some of New Zealand’s most elite soils and prime agricultural land. Pukekohe has the potential to function semi independently from the main urban area of Auckland. This can reduce the need for travel out of Pukekohe to access services, facilities and employment. An increase in business land will help achieve this aim.”

The Auckland Plan estimates that the future urban development areas around Pukekohe and Paerata have the potential to accommodate approximately 14,000 dwellings.

4.1.2 Future Urban Land Supply Strategy and Pukekohe-Paerata’s growth context (south Auckland and north Waikato)

The council’s Future Urban Land Supply Strategy 2017 sets out a programme for sequencing future urban zoned land over 30 years across Auckland.

The Pukekohe-Paerata structure plan area is part of Auckland’s larger southern growth area. This area is approximately 20km south of Auckland’s central city and the area is approximately 30km in length. The southern growth area makes up the largest proportion of future urban areas in Auckland (45 per cent).

For an illustration of the growth context for the Pukekohe-Paerata structure plan area, see section (i) of Appendix 03: Strategic context – further detail.

The southern growth area includes the large future urban areas of Takanini, Drury-Opāheke and Pukekohe-Paerata. The rural settlements in the south include Oruarangi, Maraetai, Clevedon, Clevedon Waterways, Karaka North, Kingseat, Clarks Beach, Glenbrook Beach and Patumahoe. Together, the areas zoned for future urban expansion comprise a large land area of about 6706ha.

In Paerata the Future Urban Land Supply Strategy:

- identifies the already live zoned Paerata Wesley College 326ha Special Housing Area as able to accommodate approximately 4550 dwellings
- identifies the rest of the Paerata Future Urban Zone as able to provide 201ha of further land supply between 2018 and 2022, to accommodate approximately 1800 dwellings and a local centre
- anticipates the total 527ha Paerata area identified in the July 2017 strategy as having an approximate capacity of 6350 dwellings.

In Pukekohe the Future Urban Land Supply Strategy:

- identifies the already live zoned Pukekohe 89ha Belmont Special Housing Area as able to accommodate approximately 720 dwellings

- identifies the rest of the Pukekohe Future Urban zone as able to provide 1088ha of further land supply between 2023 and 2027, to accommodate approximately 7200 dwellings
- anticipates the total 2177ha Pukekohe area identified in the July 2017 strategy as having an approximate capacity of 7920 dwellings.

Waikato growth context

The Waikato District Council growth areas of Pokeno and Tuakau lie within 4km of the Auckland Council boundary. The proximity of settlements (including associated future urban areas) to the Auckland-Waikato boundary means there are significant interdependencies between southern Auckland and northern Waikato that cross administrative government boundaries.

For more detail about Waikato growth, see section (i.i) of Appendix 03: Strategic context – further detail.

4.1.3 Pukekohe Area Plan 2014

In 2014 the Franklin Local Board prepared the Pukekohe Area Plan, which was adopted by Auckland Council.

The Pukekohe Area Plan covers the (then) existing urban zoned area of Pukekohe and the area zoned Future Urban Zone in the (then) Proposed Auckland Unitary Plan. This includes Pukekohe, Paerata to the north and Buckland to the south.

This plan, along with feedback received in consultation on higher level strategic planning for the southern growth areas, informed the initial work on the Pukekohe-Paerata Structure Plan 2019.

For more detail see section (ii) of Appendix 03: Strategic context – further detail.

4.1.4 National policy statements and national environmental standards

These are Resource Management Act national policy and regulatory documents prepared by government. The council gives effect to these documents through provisions in the Auckland Unitary Plan. Accordingly, the Pukekohe-Paerata Structure Plan 2019 will need to demonstrate an urban structure that can give effect to relevant national policy statements and environmental standards. The relevant ones are listed below. For further detail about these documents and how the structure plan responds, see section (iii) of Appendix 03: Strategic context – further detail.

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 Pukekohe-Paerata Structure Plan 2019 responds to this policy statement by:

- the use of water sensitive design as the basis for planning future development

- identifying enhancement opportunities, including riparian planting, and encouraging reinstatement of natural channels
- considering the likely controls needed as part of a future plan change.

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. However, the existing transmission corridor that runs through Pukekohe-Paerata has been taken into account in preparing this structure plan.

National Policy Statement on Urban Development Capacity 2016

The National Policy Statement on Urban Development Capacity directs local authorities to provide sufficient development capacity in their resource management plans, supported by infrastructure, to meet demand for housing and business space.

The Pukekohe-Paerata Structure Plan 2019 responds by providing residential and business capacity that is consistent with the Future Urban Land Supply Strategy and therefore is consistent with this policy statement.

National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

This National Environmental Standard 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 Pukekohe-Paerata structure plan area has been undertaken as part of the structure plan process.

Proposed National Policy Statement for Versatile and High-Class Soils

The Minister for the Environment has announced that work has started on this document.

4.1.5 Treaty settlement legislation

Treaty settlements acknowledge the agreements reached between the Crown and iwi to recognise some of the cumulative effects of breaches of the Treaty of Waitangi and its principles on the economic, social, physical, cultural and spiritual well-being of tangata 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 who are represented by their settlement bodies.

Structure planning provides for the council to take into account Treaty settlements particularly where there are statutory acknowledgements, deeds of recognition, 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.

For further information about the relevant Deeds of Settlement (awaiting enacting legislation) and Treaty settlement legislation relevant to the structure planning areas refer to *Mana Whenua Engagement Summary*, Auckland Council 2019.

4.1.6 Iwi planning documents

Iwi management plans may express environmental, cultural, economic, spiritual aspirations and values, areas of cultural significance and outline how the iwi/hapū expects to be involved in resource management practices. There is no prescribed form an iwi management plan must take.

The council's structure planning process provides for any iwi management plan that an iwi authority has lodged with the council, where it is relevant to the rohe / region / district, to be taken into account.

Not all mana whenua with an interest in the structure planning areas have an iwi management plan prepared at this stage, however, there are a number of other documents that they have developed which have assisted in better understanding their environment and their role as mana whenua and kaitiaki.

For further information about iwi management plans relevant to the structure planning areas refer to *Mana Whenua Engagement Summary*, Auckland Council 2019.

4.1.7 Auckland Unitary Plan Operative in Part

The Auckland Unitary Plan is the council's combined statutory Resource Management Act 1991 plan for Auckland. It includes the Regional Policy Statement which sets out the overall strategic framework for Auckland and addresses Auckland's growth challenge in a number of ways.

The development of the Future Urban zones in Pukekohe-Paerata is part of the solution to the growth challenge. Residential intensification has also been enabled in the existing urban areas.

For further details, see section (iv) of Appendix 03: Strategic context – further detail.

Appendix 1 of the Auckland Unitary Plan also sets out specific guidelines for structure planning¹². These guidelines have been followed in preparation of the Pukekohe-Paerata Structure Plan 2019. An analysis of how these matters are addressed is attached as Appendix 01 to this structure plan.

4.1.8 Auckland Council 10-year Budget Long-term Plan 2018-2028

The council's 10-year Budget (Long-term Plan) 2018-2028 was adopted in May 2018. It outlines a 10-year budget for the council's investment in Auckland. Large-scale greenfield

¹² Appendix 1 Structure plan guidelines, Auckland Unitary Plan Operative in Part
<http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx>

development in the south is anticipated in this budget, including services and infrastructure in the Pukekohe-Paerata structure plan area.

4.1.9 Franklin Local Board Plan

Pukekohe is located within the Franklin Local Board area. The Franklin Local Board Plan (2017) is a three-year strategic document that guides local board activity, funding and investment decisions for the 2017 to 2020 period.

For more detail about the local board plan and how the structure plan responds, please see section (v) of Appendix 03: Strategic context – further detail.

4.1.10 Infrastructure strategies, plans and initiatives

Supporting Growth programme

Transport has an important role to play in enabling urban development and helping ensure Pukekohe-Paerata continues to be an enjoyable place to live, work and play. Te Tupu Ngātahi (the Supporting Growth Alliance) will determine the key strategic transport infrastructure required to urbanise the Pukekohe-Paerata Future Urban Zone. A set of recommended transport projects is being determined and then the specific routes will be route protected (i.e. designated).

As outlined in section 3.3.6 above, the Supporting Growth Programme has been initiated to investigate, plan and deliver the transport networks Auckland needs over the next 30 years to accommodate future urban growth.

In 2018, Te Tupu Ngātahi undertook extensive partner, stakeholder and public consultation on options for the transport network in the South. An analysis of this consultation along with technical assessments of options has informed the draft strategic transport network.

Further information on transport can be found in section 4.2.3.

Regional Land Transport Plan 2018-2028

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, the New Zealand Transport Agency 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.

The key priority areas for the Regional Land Transport Plan, as relevant to the Pukekohe-Paerata Structure Plan 2019, include:

- the State Highway 1 (SH1) Southern Corridor Improvements project between Manukau and Papakura
- the SH1 Papakura-to-Bombay project which builds on the improvements being delivered as part of the Southern Corridor Improvements project and forms an early priority for the Supporting Growth Programme
- the State Highway 22 (SH22) Drury to Paerata short-term improvements project which is being investigated through the Safe Roads Programme. This project aims to prevent crashes on this road, and ensure that if a crash happens, people are less likely to be killed or seriously injured
- the electrification of the rail line to Pukekohe station, additional electric trains and rail corridor improvements between Wiri and Quay Park which will collectively enable frequent trains to Pukekohe.

Regional Public Transport Plan 2018

The Regional Public Transport Plan 2018 describes the public transport network proposed by Auckland Transport over the next ten years and identifies the services integral to that network. The plan outlines a hierarchy of service layers and aspirational levels of service for each service layer. These include Rapid services (operating at least every 10 minutes between 7am-7pm on a dedicated right-of-way, e.g. rail), Frequent services (operating at least every 10 minutes between 7am-7pm), along with a complementary network of connector and peak services.

There are five routes described in the Regional Public Transport Plan including the extension of electrified rail services to Pukekohe station. Bus services comprise the Cape Hill Road, Birdwood Road, Wellington Street loops and routes servicing Wesley College and Waiuku.

Watercare Asset Management Plan 2016-2036

For details on this plan and on the water and wastewater strategy for the Pukekohe-Paerata Structure Plan 2019, see sections 3.3.8 and 4.2.4 of this structure plan and section (vi) of Appendix 03: Strategic context – further detail.

4.1.11 Other Auckland Council plans and strategies

The other relevant council plans and strategies are listed below. For further detail about these documents and how the structure plan responds, see section (vii) of Appendix 03: Strategic context – further detail.

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.

Draft Tāruke-ā-Tāwhiri Auckland Climate Action Framework 2019

Council agreed to consult on this framework in June 2019.

Auckland Urban Ngahere (Forest) Strategy 2018

This 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.

Auckland Council's Indigenous Biodiversity Strategy 2012

This strategy sets out the council's approach to maintaining and enhancing Auckland's biodiversity.

Auckland Growing Greener 2016

Auckland growing greener describes council's priorities for achieving good environmental outcomes as Auckland grows. It sets four priority areas: urban transformation, zero waste, restoring nature, healthy waters.

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. Te Aranga Māori design principles are outcomes-based principles founded on intrinsic Māori cultural values and are part of the Auckland Design Manual.

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.

Panuku Development Kia Puāwai/Unlock Pukekohe High Level Project Plan

Council endorsed a plan in June 2019 by Panuku Development (a council-controlled organisation) to enhance the Pukekohe town centre.

4.2 Technical Report Summaries

Specialist technical reports have been commissioned by the council throughout the structure planning process to understand the opportunities, constraints, planning issues and concepts for urban development within Pukekohe-Paerata.

A number of technical reports were completed and included in the 2017 consultation material. Since then some of these reports have been updated and additional reports have been received about further topics.

Reports cover the following topics.

- Business land demand and location (2018).
- Stormwater, flooding and freshwater management (updated 2019).
- Transport (2019).
- Water and wastewater supply (2019).
- Open space and recreation (updated 2019).
- Community facilities (updated 2019).
- Landscape values (2017).
- Heritage and archaeology (2017).
- Ecology (updated 2019).
- Geotechnical hazards (updated 2018).
- Contaminated land (2018).
- Urban design (2018).

A health impact assessment and a summary of mana whenua engagement have also been prepared in 2019 to inform the structure planning process.

Appendix 04 lists the most recent versions of these reports. Full copies of these reports are available on the council's website at: <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/Pages/default.aspx>.

The background reporting is summarised in the sections below.

4.2.1 Business land demand and location

The growth of Pukekohe-Paerata needs to provide for business activities as well as housing. For land use planning purposes this requires estimation of the future demand for land for business activities. Suitable locations for business activities also need to be determined.

Business land demand

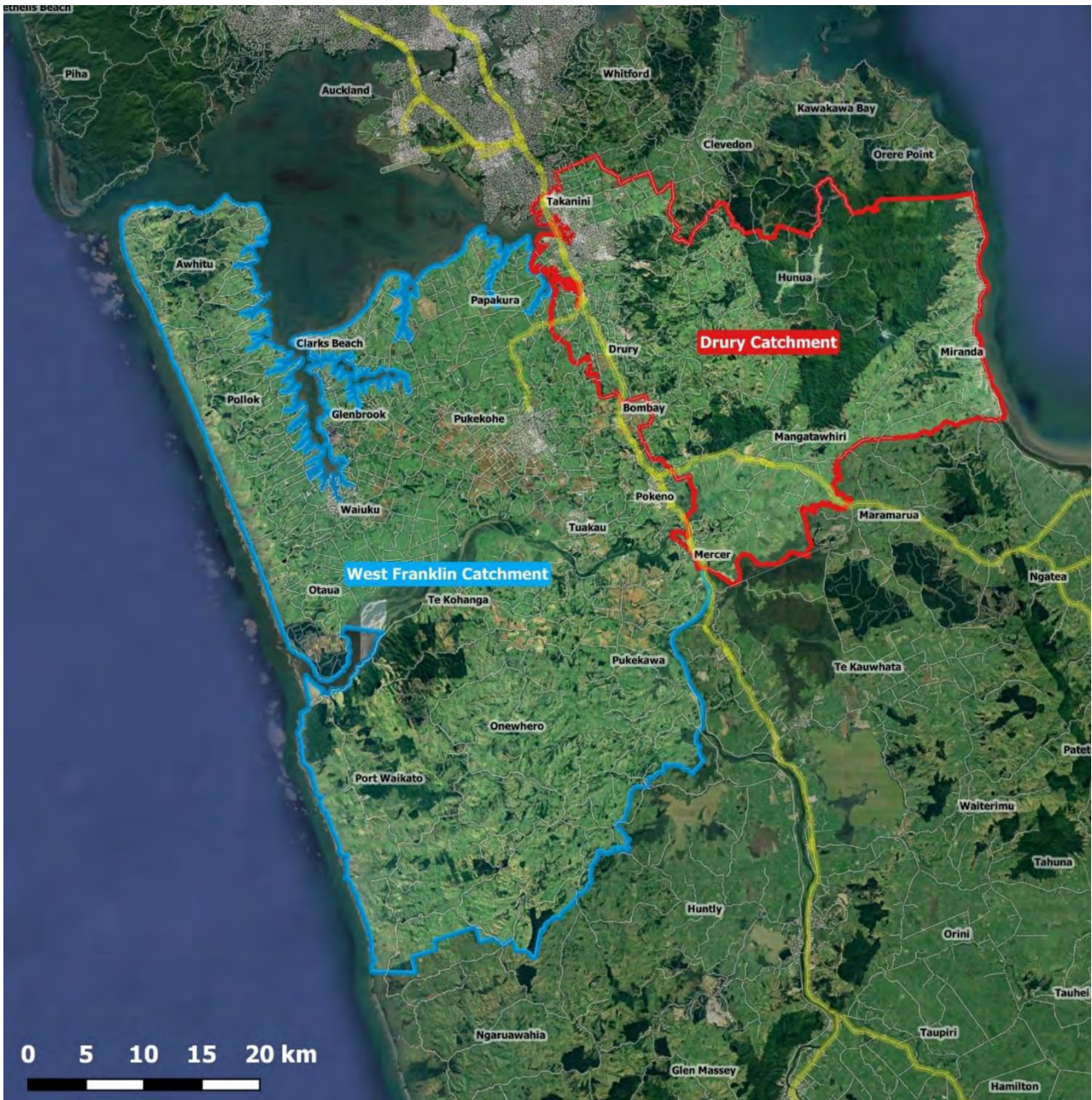
Initial structure planning analysis in early 2017 was informed by business land demand analysis undertaken as part of the Future Urban Land Supply Strategy work in 2015 and updated in 2017. This indicated that significant new areas of centre and industrial land would be required to support population growth in the south.

The initial structure planning analysis was also informed by the 2014 Pukekohe Area Plan which identified that new areas of industrial land would be required to support growth in the area.

Property Economics Ltd was commissioned to provide estimates of the amount of business land that would be needed to service future population growth in the south of Auckland. This included estimates of the amount of industrial, commercial services and retail activities that would need to be provided for in structure planning to ensure a prosperous community. Interim results of this work were available in late 2017 and the final report was completed in June 2018. This assessed the future demand for business activities in the Drury and West Franklin business demand catchments as shown in Map 7 below.

Further information can be found in the background report: Heath, T., (2018). *West Franklin and Drury Future Business Land Assessment*. Auckland, New Zealand: Property Economics Ltd.

Map 7: Drury and West Franklin business demand catchments



Source: Property Economics

This Property Economics report assessed the projected future demand for retail, commercial services (offices) and industrial land by 2048 (30 years).

This work informed the development of the Pukekohe-Paerata Draft Land Use Plan 2018, which included provision for business land and a local centre.

MRCagney was engaged by council later in 2018 to:

- peer review the Property Economics business land demand projections

- review the criteria used by the council for selecting suitable business land locations
- review likely employment densities
- provide additional related advice.

This peer review and advice was provided in a series of five technical notes (referenced at end of this section).

Table 2 below summarises the reviewed projections from MRCagney in late 2018.

Table 2: Business land demand estimates

	Drury catchment to 2048	West Franklin Catchment to 2048
Industrial	136ha deficit of net developable area, plus additional gross land area requirements for roads, reserves, flood affected areas and any other constraints in industrial areas.	83 to 306ha deficit of net developable land area, plus additional gross land area requirements for roads, reserves, flood affected areas and any other constraints in industrial areas. 80 to 100ha of net developable area, plus additional gross land area requirements for roads, reserves, flood affected areas and any other constraints in industrial areas recommended for Pukekohe-Paerata structure plan area.
Commercial offices	Included in centre estimate below	Included in centre estimate below
Centre (retail and commercial and offices)	47ha deficit (lower bound – more realistic within 30 years) 71ha deficit (upper bound – less realistic within 30 years)	6ha deficit (lower bound – more realistic within 30 years) 34ha deficit (upper bound – less realistic within 30 years)

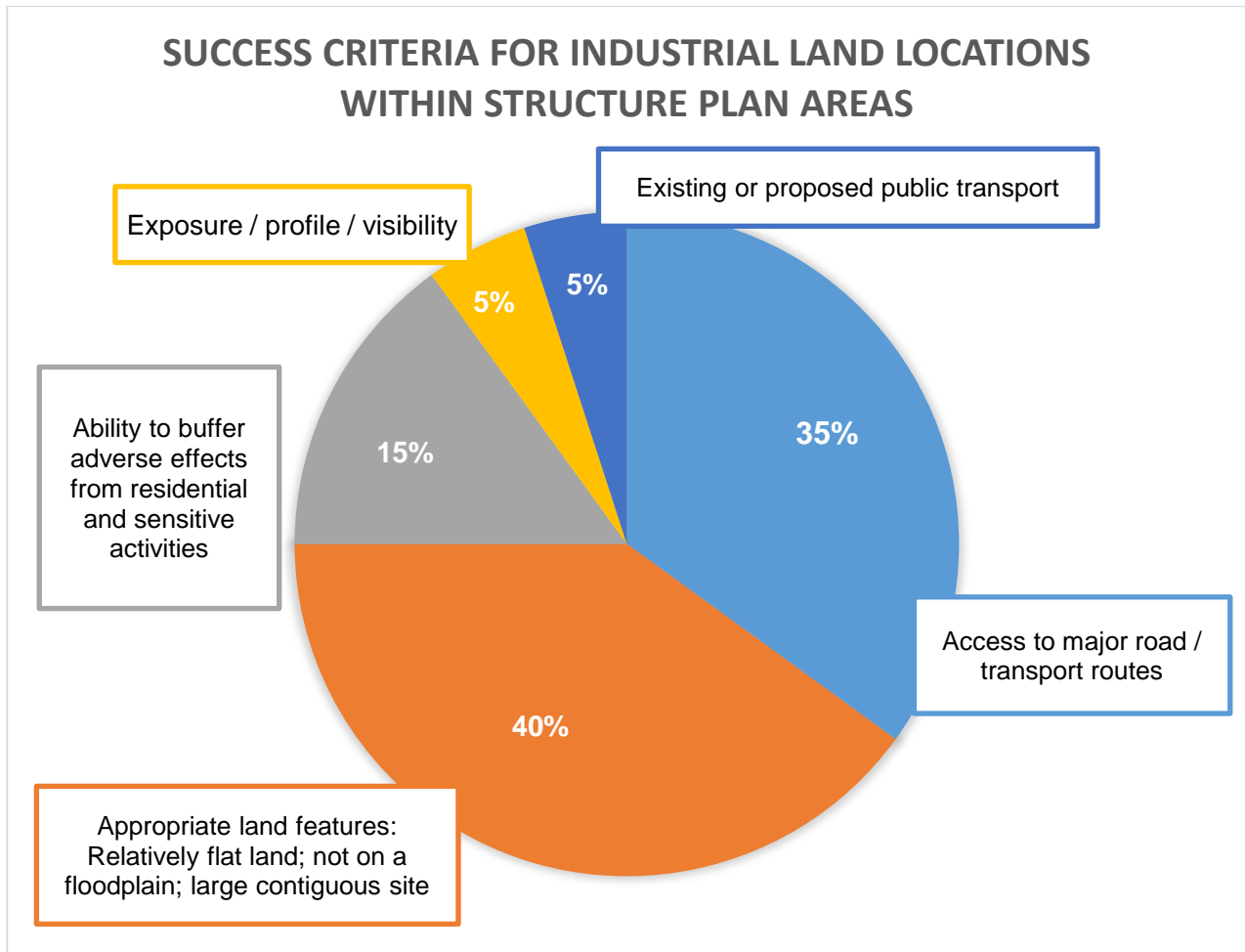
Industrial business land location

Industrial, retail and commercial office business activities have locational requirements for commercial success that need to be considered. The council had developed locational criteria for determining potentially suitable areas for these activities in structure planning. MRCagney was engaged to review existing locational criteria used by councils¹³ and recommend appropriate ones. The outcome of that review is summarised below.

The suggested criteria for industrial land location are summarised in Figure 2 below.

¹³ Review included Auckland Council and other councils.

Figure 2: Suggested success criteria for industrial land location within structure plan areas

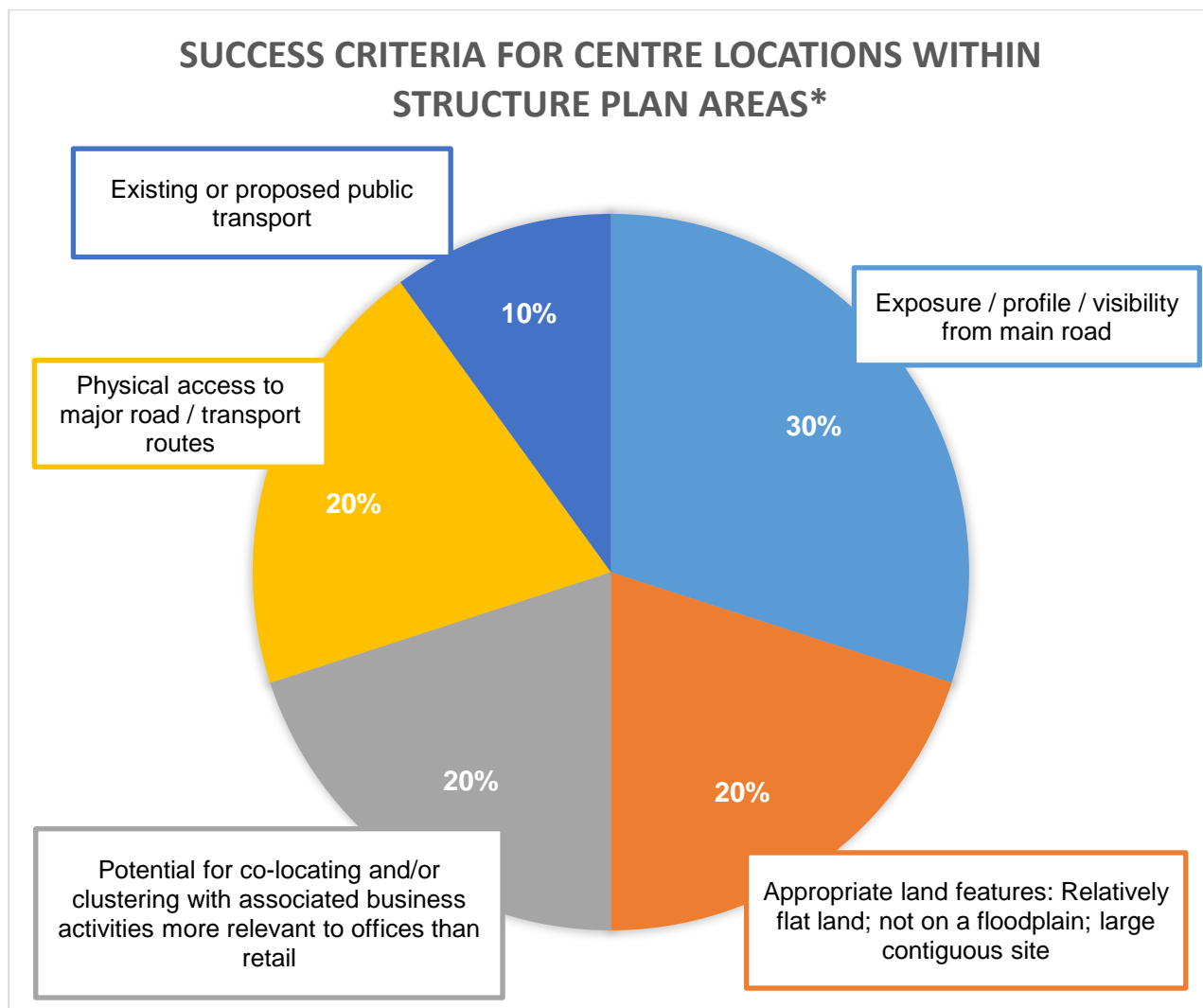


Source: MRCagney

Centre business land location

Access to a supporting catchment of customers is important for centre activities. Assuming that this will be the case for the Pukekohe-Paerata and the Drury-Opāheke structure plan areas, Figure 3 below summarises the locational criteria for successful mixed-use centres.

Figure 3: Suggested success criteria for centre land within structure plan areas



*Prerequisite: population catchment will exist relevant to scale of centre and services on offer. Source: MRCagney

Further information can be found in the background reports:

Nunns, P., (2018). *Technical Note: Locational prerequisites for commercially successful business land*. Auckland, New Zealand: MRCagney Ltd

Nunns, P., (2018). *Technical Note: Land per employee ratios for greenfield business areas*. Auckland, New Zealand: MRCagney Ltd

Nunns, P., (2018). *Technical Note: Review of Property Economics West Franklin and Drury Future Business Land Assessment report*. Auckland, New Zealand: MRCagney Ltd

Joseph, C., (2018). *Technical Note: Success factors for rapid transit network stations*. Auckland, New Zealand: MRCagney Ltd

Nunns, P. & Joseph, C., (2018). *Technical Note: Summary of implications for business land locations*. Auckland, New Zealand: MRCagney Ltd

4.2.2 Stormwater, flooding and management of freshwater environments

The Pukekohe-Paerata structure plan area spans three stream catchments.

- Whangapouri Creek Catchment, which drains to the Manukau Harbour.
- Oira Creek Catchment, which drains to the Manukau Harbour.
- Pukekohe South-Tutaenui Stream Catchment, which drains to the Waikato River.

The key stormwater characteristics and constraints can be summarised as:

- significant flood plains in the future urban areas
- potential for urban areas upstream of Pukekohe to exacerbate existing flooding issues, if not appropriately managed
- potential sediment loadings within streams due to earthworks and stream bank erosion caused by increased impervious surfaces
- potential capacity constraints at culverts (under railway and state highway) and major structures
- sensitive receiving environments, including aquifers and the degraded Pahurehure Inlet.

Opportunities include:

- protecting flood plains and controlling or mitigating the adverse effects of flooding to protect health and safety of the public and ensure future resilience to flooding.
- hydrology mitigation to provide baseflow, reduce potential stream erosion, improve water quality and maintain/enhance stream health
- protect and maintain major overland flow paths as part of flood management
- protect and enhance the stream network through protecting permanent and intermittent streams and wetlands, removal of on-line farm ponds, riparian planting and fish barrier removal
- locating water sensitive infrastructure (such as infrastructure that uses bioremediation) next to streams where possible to improve ecological linkages and public amenity.

Management approach

The Stormwater Management Plan seeks to achieve the following outcomes.

- Protecting and enhancing permanent and intermittent streams, including (but not limited to) the use of greenways, stream bed and bank shaping and grading, riparian buffers and controls to manage runoff.
- Apply hydrological mitigation to minimise hydrological impacts on streams within and downstream of the Pukekohe-Paerata structure plan area.

- Require on-site or communal treatment train approach to ensure water quality of the sensitive receiving environments is not impacted.
- Apply the flood risk management hierarchy (supported by the Auckland Unitary Plan).
 - Avoid locating development in floodplains.
 - Where infrastructure has to cross floodplains, ensure that floodwater conveyance is provided for.
- Where required, provide flood risk attenuation.

The Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan provides guidance on how a water sensitive design can inform development location, patterns and form in the Pukekohe-Paerata area. The recommended stormwater management approach takes into account the sensitivity of the receiving environments to further contaminants to achieve integrated stormwater management (as directed in policies E1.3(8) and (10) of the Auckland Unitary Plan).

Water sensitive design is a design process to achieve integrated stormwater management.¹⁴ It is defined as:

An approach to freshwater management, it is applied to land use planning and development at complementary scales including region, catchment, development and site. Water sensitive design seeks to protect and enhance natural freshwater systems, sustainably manage water resources, and mimic natural processes to achieve enhanced outcomes for ecosystems and our communities.

Water sensitive design approaches are outlined in Appendix 06: Water sensitive design approaches.

Since the closure of the April 2019 consultation, council's Healthy Waters department has undertaken additional analysis on the issue of stream bank erosion as a continuation of the 2019 Stormwater Management Plan. This work highlights the risks from sedimentation on receiving environments as a result of inappropriate urban development. Further field work and trial modelling has shown that stream bed and bank strengthening are likely to be needed for managing stream erosion.

The April 2019 Stormwater Management Plan recommended a 20m riparian buffer for permanent streams and 10m for intermittent streams. This no longer reflects current research and initial results on the causes of stream bank erosion. The Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan 18 July 2019 includes updates to reflect stream bank erosion effects on water quality and erosion risks downstream of development. A 20m riparian buffer for all streams may be needed for works to stabilise the stream, convey flood flows and provide for self-sustaining riparian

¹⁴ Set out in Auckland Council Guidance Document 04

planting. Further assessment will be needed to refine this approach at the plan change stage.

The Pukekohe-Paerata Structure Plan 2019 takes a precautionary approach and seeks a 20m riparian buffer on each side of permanent and intermittent streams to manage the risks to the sensitive receiving environment.

Further information can be found in the background report: Reddish, J., (2019). *Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan*. Auckland, New Zealand: WSP Opus.

4.2.3 Integrated Transport Assessment

Te Tupu Ngātahi (the Supporting Growth Alliance) has prepared an Integrated Transport Assessment in support of both the Draft Pukekohe-Paerata and the Draft Drury-Opāheke Structure Plans 2019.

The Integrated Transport Assessment provides a high-level review of the proposed land use and transport networks required to support travel and accommodate transport demands. It covers the following key matters.

- The extent of both the Drury-Opāheke and Pukekohe-Paerata study areas, including existing zoning and land use.
- Existing transport networks, known constraints and committed transport projects.
- Relevant transport plans and strategies.
- Private developments and relevant background documents known to Te Tupu Ngātahi at the time of report preparation.
- The future land use scenario as proposed by both the Draft Drury-Opāheke Structure Plan 2019 and Draft Pukekohe-Paerata Structure Plan 2019, including estimated residential and employment yields, as well as a high-level sequencing plan derived from the council's Future Urban Land Supply Strategy.
- The indicative transport network to support the future land use scenario, including arterial and collector roads, public transport including rapid transit, and strategic active mode networks.
- The mode split and trip generation that will be generated by both draft structure plans' land use activities.
- Accessibility of proposed activities to various transport modes.
- Traffic modelling outputs, including expected mode share, patronage, accessibility, and expected traffic flow and network performance.
- Transport network staging and potential future refinements required to support plan changes, notices of requirement and/or site-specific proposals.
- Considerations for subsequent planning processes to sustain the integration of land use and transport outcomes.

The Integrated Transport Assessment is based on the draft strategic network, developed by Te Tupu Ngātahi with some added detail on land use integration, lower order networks (i.e. collector roads) and staging.

The draft strategic network has now been approved by the Auckland Transport and New Zealand Transport Agency boards. It should also be noted that the indicative transport networks shown in the Pukekohe-Paerata Structure Plan 2019 and in the Integrated Transport Assessment are based on the land use shown in Map 1 on page 5 of the 2019 draft structure plan. Significant alterations to land use in the future may necessitate review of indicative transport networks.

The indicative transport networks are shown on Map 5 on page 30 of this structure plan and are summarised below.

Roading network

The Pukekohe-Paerata structure plan area is bisected by the North Island Main Trunk (NIMT) railway and is also connected to SH1 via SH22 and Pukekohe East Road at the Drury, Ramarama and Bombay interchanges respectively.

The indicative roading network shown in the Pukekohe-Paerata Structure Plan 2019 and the Integrated Transport Assessment includes the key features listed and described in Table 3 below.

Table 3: Key features of proposed roading network

	Component	Description
Strategic road corridors	Mill Road (between Manukau and Drury, parallel to the east of SH1)	Additional corridor to support improved local access to future urban areas and improve resilience by reducing reliance on SH1.
	Pukekohe Expressway	Pukekohe Expressway following edge of the Future Urban Zone to support resilient access to Pukekohe and Paerata and enable urbanisation of SH22. Will link to the Mill Road corridor project at the Drury South Interchange.
	SH1 upgrade	Additional lanes for the Papakura to Bombay section and north of Takaanini.
	Connection from SH22 to Pukekohe Expressway	Link connecting to two strategic corridors – Pukekohe Expressway and SH22.
	SH22 Improvements	Safety and capacity improvements to the SH22 corridor, including the SH22 ‘Safe Roads’ project and potential future urbanisation of sections of the corridor.
Arterial network	Pukekohe-Paerata arterial network	Arterial road corridors in the following general locations: <ul style="list-style-type: none"> • Pukekohe ‘inner ring route’ • Improvements to Pukekohe East Road • Connection from SH22 to the Pukekohe Expressway • Safety upgrades to Buckland Road, Logan Road and Harrisville Road.
Collector Roads	Pukekohe-Paerata collector network	Collector roads as shown in Map 5 (on page 30) including urbanisation of existing roads and new roads.

The proposed road network provides both north-south and east-west arterial roads to carry the movements generated by the proposed land use activities within the structure plan area. Given that much of the Paerata area is located within the Franklin 2 (Wesley) precinct of the Auckland Unitary Plan, an indicative road network has already been identified. The Integrated Transport Assessment essentially adopts the key components of the network included in the Precinct. This comprises five key collector roads in addition to

the Indicative Business Case network assumed to be necessary at full build-out in 2048. Of these, two are upgrades/extensions of existing roads; and three are new roads.

For the Pukekohe area, the network design process has identified fourteen key collector roads in addition to the Indicative Business Case network assumed to be necessary at full build-out in 2048. Of these, nine are upgrades of existing roads; and five are new roads. This does not include the existing collector network within the existing urban area of Pukekohe which is assumed to remain in its current form. The indicative collector roads within the proposed roading network are detailed in sections 6.6 and 6.7 of the Integrated Transport Assessment, while indicative cross-sections for the arterial and collector roads are detailed in section 8.4 of the Integrated Transport Assessment. The collector roads shown on the draft structure plan are indicative only. The purpose is to provide guidance and show a general 'intent' as to where roads could connect through to other strategic links and support future growth. As noted in section 3.3.6 above, the outcomes of the structure plan consultation period and subsequent Integrated Transport Assessments may alter the roading network if supported by further analysis which will be required to inform future plan change processes.

The exact form and location of the collector roads will be determined through future plan changes and at the time of subdivision of the land for development. The landowner/developer will work with Auckland Council and Auckland Transport at the time of subdivision to determine the ideal location for the road, taking into account statutory obligations, physical constraints and what integrates well with the development.

Public Transport Network

The Integrated Transport Assessment recommends major investment in the public transport network for the structure plan area. This would be developed progressively over time as the area develops. The key elements to the public transport service identified in the Integrated Transport Assessment are outlined in Table 4 below.

Table 4: Key features of indicative public transport network

	Component	Description
Rapid transit (heavy rail) upgrades	Rail corridor capacity upgrade	Increased rail capacity to four tracks between Wiri and Pukekohe.
	New rail station locations	New rail station at Paerata in addition to the existing station at Pukekohe to enable rapid/frequent rail services.
Connector and local bus network	Connector and local buses	These networks would run at lower frequencies, providing coverage to both Pukekohe and Paerata, and interchange with rail services.

Pukekohe will also be served mainly by feeder (connector and local) routes with rail services operating as the backbone rapid transit service.

Rapid transit provides fast, frequent, high capacity public transport services along corridors that are separated from general traffic and therefore unaffected by road congestion. The draft Indicative Business Case and the Integrated Transport Assessment have investigated options for rapid transit in south Auckland and are recommending a staged approach.

The indicative public transport network for Pukekohe-Paerata is shown on Map 5 of this structure plan. Collectively, the recommended public transport network for the Pukekohe-Paerata and Drury-Opāheke areas is projected to contribute significantly to meeting travel demands over the long term. This is further detailed in Chapters 7 and 8 of the Integrated Transport Assessment.

For the Pukekohe-Paerata area, a new station at Paerata, including a park-and-ride facility, will be the first of the three new stations to be developed for the area included in the Integrated Transport Assessment. This is because it serves land that is already live-zoned and under development and is well placed to intercept car trips from the rural hinterland to the west and south.

Walking/Cycling Network

The Integrated Transport Assessment identifies a proposed walking and cycling (active mode) network. The network includes regional and primary networks for active modes including separated facilities on or parallel to strategic and arterial roads. Indicative secondary walking and cycling networks are also identified on indicative collector roads. The overall network is outlined on Map 5 of this structure plan.

The key regional and primary connections associated with arterial routes identified in the Integrated transport Assessment are listed and described in Table 5 below.

Table 5: Key features of proposed active mode network

	Component	Description
Active mode network	Regional and primary walking and cycling connections.	<ul style="list-style-type: none"> Regional walking and cycle route along SH1 (to Papakura) and the North Island Main Trunk railway line (between Papakura and Pukekohe). Primary cycle routes with footpaths along all arterial roads for the Pukekohe-Paerata area. Grade-separated active mode crossings on SH1 and the North Island Main Trunk.
	Secondary walking and cycling connections.	<ul style="list-style-type: none"> the Integrated Transport Assessment indicates secondary connections on indicative collector roads there will also be walking connections through esplanade reserves and other greenways.

Given the rural character of the structure plan area, the roads in the study area are of a variable rural highway standard, generally without footpaths or dedicated cycling facilities. The urbanised parts of the wider study area such as Pukekohe have urban roads with footpaths and kerb-and-channel drainage, but very few dedicated on or off-road cycle routes. Current low volumes through much of the study area make many of these routes popular with leisure and sports cyclists, but this amenity is likely to be degraded as the area urbanises at which point dedicated infrastructure becomes necessary.

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 an 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 vehicle. It should be noted that in Pukekohe-Paerata the connection distances between residential areas, centres and key attractors, such as employment areas and schools, are generally less than 5km, further encouraging walking and cycling trips within the urban area.

The principles used to determine the main routes include:

- connecting to key destinations in new and existing growth areas
- connecting routes to public transport
- provision of safe facilities separated from traffic and pedestrians that are legible, continuous and connected routes between the communities and key destinations
- linking to local paths/greenways where they provide access to key destinations.

Another important part of the active mode network referred to in the Integrated Transport Assessment is greenways and trails. These would predominantly be on low-volume streets and through reserves, with their function typically as recreational facilities, but in some cases also a useful form of transport and connectivity.

Further information can be found in the background report: Winter, S., (2019). *Supporting Growth Drury – Opāheke and Pukekohe – Paerata Structure Plan Integrated Transport Assessment*. Auckland, New Zealand: Te Tupu Ngātahi.

4.2.4 Water and wastewater

Watercare Services Limited prepared a Water and Wastewater Servicing Plan in 2019 to support the Pukekohe-Paerata Structure Plan 2019.

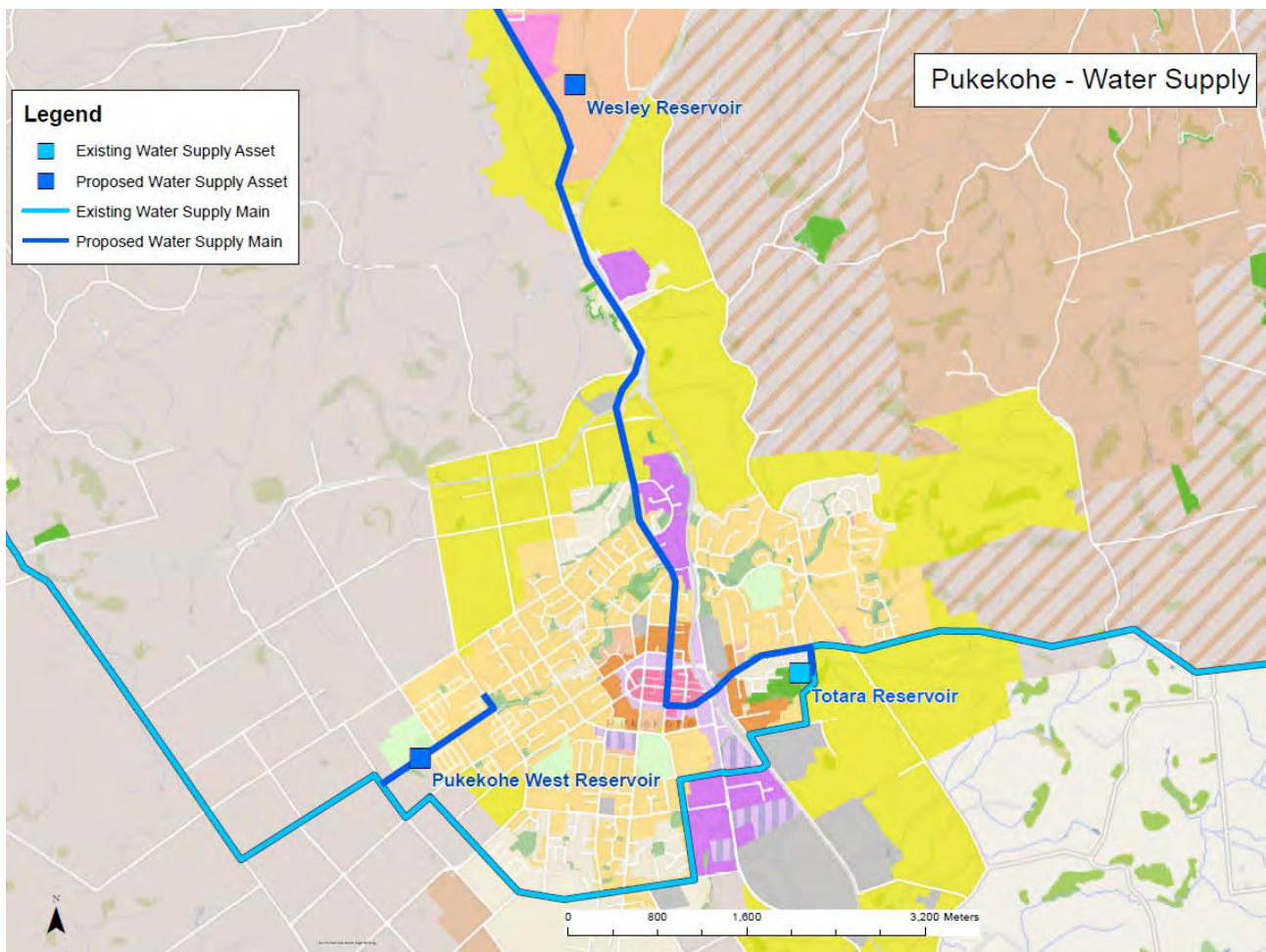
Watercare provides both bulk and local water and wastewater services to the Pukekohe-Paerata area. Some of these assets are reaching the limits of their ability to provide water services to a growing community.

There are existing issues within the Pukekohe water and wastewater network, which expected growth within the structure plan area will exacerbate.

Trunk and local network pipelines providing water, as well as trunk and local network pipelines collecting and conveying wastewater from the Pukekohe-Paerata structure plan area, are being designed to meet the proposed yield. Trunk upgrades will be staged to meet development, while local network pipelines will follow roading alignments and will be constructed in conjunction with roads as part of individual development proposals.

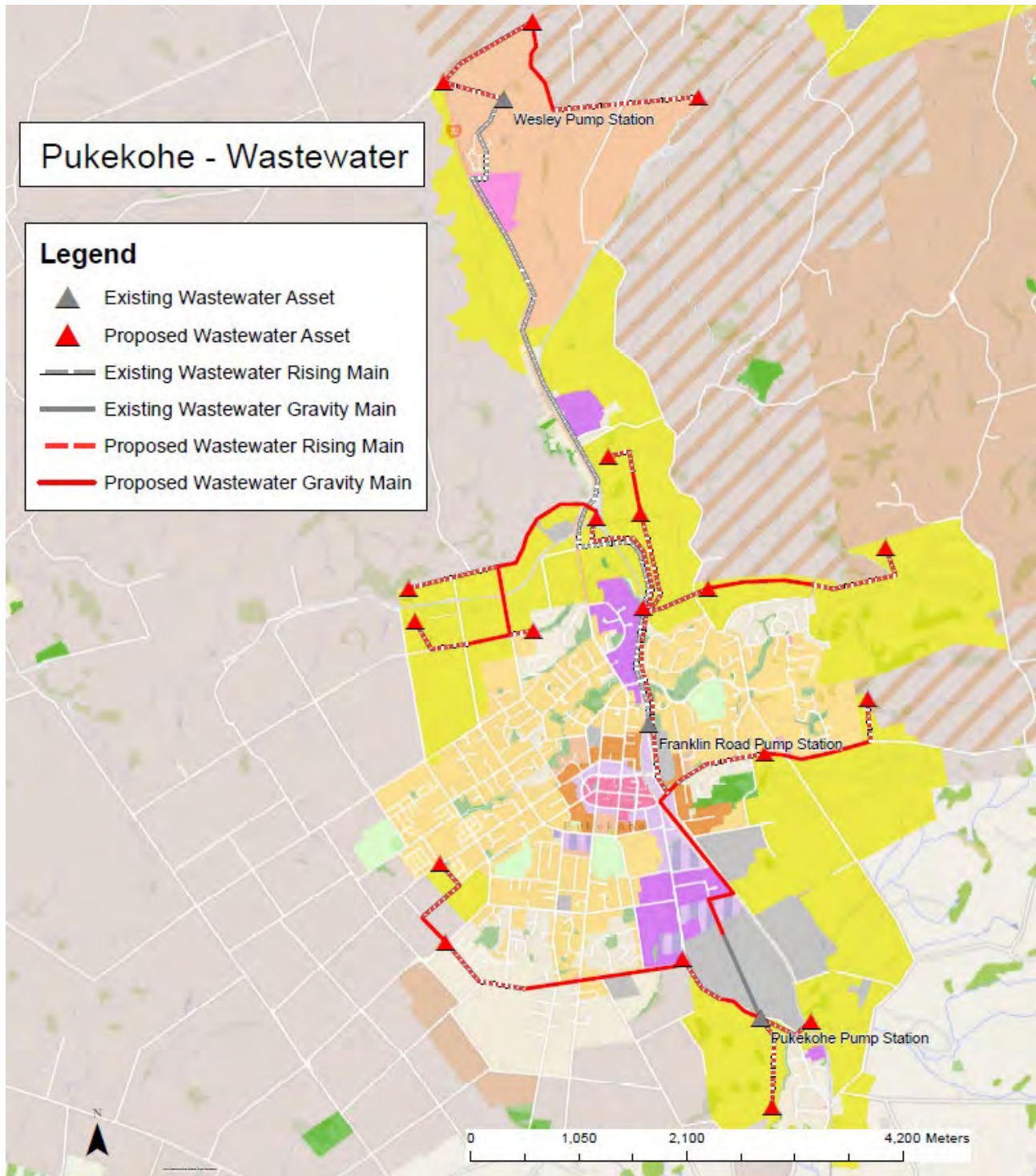
Map 8 below shows an indicative servicing plan for transmission water infrastructure. The majority of the water assets will be constructed by developers as part of their development proposals.

Map 8: Indicative Pukekohe-Paerata Water Servicing Plan for transmission water infrastructure



Map 9 below shows an indicative servicing plan for wastewater. This includes assets expected to be constructed by Watercare, as well as assets servicing the local catchments, expected to be constructed by developers.

Map 9: Indicative Pukekohe-Paerata Wastewater Servicing Plan for wastewater



Further information can be found in the background report: Allen, C., (2019) *Water and Wastewater Servicing Plan Draft Pukekohe/Paerata Structure Plan*. Auckland, New Zealand: Watercare Services Limited.

4.2.5 Open Space and Recreation

The Public Open Space Report is based on the council's Parks and Open Spaces Strategic Action Plan and its supporting documentation. It has also taken into account recent changes in the policy environment including:

- the Auckland Plan 2050
- the Pukekohe-Paerata Paths Plan (2018)
- feedback received as part of consultation and engagement about the Draft Pukekohe-Paerata Structure Plan (2018)
- refinement to the proposed residential zones within the structure plan area (these indicate a potential population in the structure plan area of 33,750 rather than 36,000 people).

The Auckland Plan recognises the benefits arising from public open space including enhancing biodiversity, improving public health, increasing property values and contributing to the overall quality of life. The Auckland Unitary Plan supports these objectives and aims to ensure Auckland's recreational needs are met through the provision of a range of quality open space areas that provide for both passive and active activities.

Auckland Council's Parks and Open Spaces Strategic Action Plan provides a framework for the assessment of open space requirements. This includes the Pukekohe-Paerata structure plan area, with the calculation for public open space based on population growth and future land-use. The Open Space Provision Policy 2016 and the Parks and Open Spaces Acquisition Policy 2013 are ancillary documents of particular relevance to the planning for new neighbourhood and suburban parks. The Parks and Open Spaces Acquisition Policy provides policy guidance in relation to:

- the methods used to fund and acquire land for parks and open space
- how land should be acquired for new parks and open space
- how to prioritise opportunities to acquire land for parks and open space.

These tools have been applied to the Pukekohe-Paerata Structure Plan 2019 to determine the needs of the future open space network. Population growth is a key driver when planning for future open space. In the case of the Pukekohe-Paerata Structure Plan 2019, the forecast growth of 33,750 people effectively doubles the size of the Pukekohe population. Over the next 30 years there will be a requirement for significant additional open spaces to serve the area.

Feedback on the Draft Pukekohe-Paerata Structure Plan (2018) resulted in some changes to the 2019 proposed zoning and the predicted population of the structure plan area. As a result, changes were made for public open space requirements. The updated open space needs are shown in Table 6 below.

Table 6: Updated open space needs

Open space typology	Number of open spaces	Size (ha)	Total (ha)
Neighbourhood park	26	0.3-0.5	7.8-13
Suburban park			
• Small-medium	4	3-5	12-20
• Large	2	Up to 10	20
Local Centre (Civic)	1	0.1-0.2	0.1-0.2
			Total area = 39.9-53.2ha

The Pukekohe-Paerata Paths Plan also provides an opportunity to establish an underlying green network aligned with the public open spaces and other green or civic areas within the structure plan area. The Pukekohe-Paerata Paths Plan aims to provide for a cycling and walking network which connects recreational opportunities, ecological areas and landscape features of interest. The Pukekohe-Paerata Structure Plan can assist in achieving this objective.

A similar opportunity exists where public open space areas can support the enhancement and protection of landscape features. For example, landscape features or geological features such as tuff rings, shield volcanoes and explosion craters within the structure plan area itself (or close to it) could be incorporated as part of the open space network plan. The open space network plan can also co-locate open spaces to adjoin esplanade reserves, waterways, wetlands, bush areas and stormwater detention system assets.

Further information can be found in the background report: Noon, S., (2019). *Pukekohe-Paerata Structure Plan Parks and open space report*. Auckland, New Zealand: Auckland Council.

4.2.6 Community Facilities

A report has been prepared which updates the 2017 Pukekohe-Paerata Structure Plan Community Facility Provision report and includes draft findings from the 2018 Pukekohe-Paerata facility provision investigation.¹⁵

Community engagement feedback on the Draft Pukekohe-Paerata Structure Plan in September and October 2018 gave strong support for additional community facilities including libraries, swimming pools, playgrounds, gym facilities and sports club rooms.

The Pukekohe-Paerata structure plan area currently has six council owned facilities including a library, arts centre, venues for hire, two pools and a recreation facility. This is

¹⁵ The 2018 Pukekohe-Paerata facility provision investigation considers the structure plan area and the existing urban area.

complemented by many non-council facilities providing a wide range of services to the community including: culture, arts, sports and recreation events and venues for hire.

The potential future housing density and residential population of the Pukekohe-Paerata structure plan area (Future Urban Zone) is expected to reach around 12,500 dwellings with a potential 33,750 extra people by 2046.¹⁶

In 2018, the Pukekohe-Paerata community facility provision investigation (the investigation) was carried out to address the need for community space in the Pukekohe-Paerata area.

The investigation reviewed the current state of community provision, identified gaps in service or facility provision and proposed recommendations to address gaps and needs.

Based on forecast growth of 33,750 people over the next 30 years there will be a requirement for additional community facilities to serve Pukekohe-Paerata in the future.

This is likely to include:

- a new multipurpose space (library, arts and community space) in Paerata subject to growth in the next 10 to 15 years
- additional indoor courts
- changes for Franklin and Jubilee pools to make services fit for purpose and respond to the needs of the growing population
- identifying opportunities to make best use of existing community facilities for increased utilisation or operational efficiency.

The Community Facility Provision Report 2017 provided preliminary advice on community facility provision to the Pukekohe-Paerata structure planning process. That advice recommended a multipurpose community facility incorporating community, arts, library and space for hire in the Buckland area. Further investigation and population yield predictions in 2019 shows the growth in Buckland will increase by 3500 extra people. The Buckland population is not expected to reach 10,000 in the medium term and therefore there is no need for provision of a multipurpose community facility. The Pukekohe-Paerata Structure Plan Community Facility Provision report 2019 report also considers nearby growing townships of Tuakau in the Waikato District and Drury and recognises these communities are likely to utilise nearby services in Pukekohe and Paerata.

The timing and type of facility and combination of spaces required will depend on the pace of growth, the make-up of the future community, when populations reach the facility provision threshold and the capacity of existing facilities in the wider area to cater for growth.

There may be options to deliver additional provision through partnerships, or other innovative methods such as changes to the way services are provided, new ways of providing services, or the provision of new facilities.

¹⁶ Pukekohe-Paerata yield summaries January 2019, Auckland Council

Further information can be found in the background report: Ennor, L. & Fowler, R., (2019). *Community Facilities Pukekohe-Paerata Structure Plan*. Auckland, New Zealand: Auckland Council.

4.2.7 Landscape

A landscape and visual assessment by Opus Consultants Limited was prepared for the Pukekohe-Paerata structure plan area in 2017.

The report identifies and provides an evaluation of existing landscape attributes and the likely effects of urbanisation on landscape character and visual amenity. It also identifies ways in which the landscape can positively contribute to the area's future urbanisation. It recommends landscapes to be protected, opportunities to enhance landscape character and visual amenity, and opportunities for new landscape interventions to help shape a quality urban environment.

Landscape character in relation to the underlying landform of the study area is strongly expressive of its geological origins. The southern volcanic field has created distinctive patterns of volcanic cones and tuffs with craters and intact or dissected rims. These geological features extend throughout the study area but are more distinctive and legible in the upper area to the south, encircling the Pukekohe urban area. Pukekohe Hill is the most prominent volcanic feature and forms the major landmark for Pukekohe.

There are six tuff rings and two major ridgelines in and around the structure plan area, with minor ridgelines running out from these. Of particular note are:

- Pukekohe North Tuff Ring (in the Future Urban Zone)
- the Roosevelt Tuff Rings (North and South)
- Pukekohe East Explosion Crater and its tuff ring (partly within the Future Urban Zone)
- Helvetia Tuff Ring to the west of Pukekohe (partly within the Future Urban Zone)
- the broad Oira Valley which includes the Paerata Tuff Rings (North and South) (adjacent to the Future Urban Zone)
- the Tuhimata bluff east of Paerata (beyond the Future Urban Zone)
- a major east-west ridge around the north and northeast sides of the Roosevelt Tuff Ring North and around the Pukekohe East Explosion Crater (partly within the Future Urban Zone)
- a major north-south ridge along Cape Hill Road and Sim Road (partly within the Future Urban Zone).

The natural landscape character has been diminished throughout the entire study area, largely due to the near wholesale removal of primary vegetation and the modification of stream gullies for farming purposes. Only 2.2 per cent of primary forest remains. While the

original hill and gully landforms are in fact more highly discernible due to forest removal, they are expressive of a heavily modified landscape.

Opus' report breaks the area down into 16 landscape character areas and ranks their sensitivity to modification.

The assessment identifies the following key landscape opportunities.

- Establishment of an integrated landscape framework for the new urban form based on the natural landform and drainage patterns and processes that have shaped the existing landscape and give it its unique identity.
- Maintaining and enhancing the integrity of volcanic features as distinctive elements of the local landscape character.
- Maintaining and enhancing high visual amenity and visibility.
- Establishment of an integrated network of public open space.
- Maintaining and enhancing sustainability values.
- Establishment of high liveability values within the new urban environment.
- Establishment of a landscape transition between urban and rural landscapes at the boundaries to create a distinct edge to the urban settlement.
- Promotion of high amenity open space hubs centred around cultural and natural attractions.

Further information can be found in the background report: Hamilton, C., (2017). *Paerata-Pukekohe Structure Plan Landscape and Visual Assessment Background investigations for Auckland Council* (Report No. 3AL240.00). Auckland, New Zealand: Opus International Consultants Ltd.

4.2.8 Heritage and archaeology

A historic heritage assessment¹⁷ for Pukekohe-Paerata was completed in 2017. It was not considered that this report needed to be updated as the underlying situation and issues have not changed in the past two years.

The historic heritage assessment provides an overview of historic heritage values, issues, opportunities and recommendations to guide decision-makers when land is rezoned from Future Urban to more intensive zonings. The structure plan specifically addresses the areas within the Future Urban Zone (i.e. the structure plan area) around Pukekohe and Paerata. The historic heritage assessment, however, takes a broader approach and also considers places surrounding the Future Urban Zone, recognising that historic heritage places and historical events are often not bound by delineated boundaries. Areas beyond the Future Urban Zone can have important historical and/or geographic connections to the structure plan area

¹⁷ Includes built and archaeological historic heritage places

Historic heritage within the Pukekohe and Paerata area fits within both the wider statutory and non-statutory context: including the statutory Resource Management Act 1991, Auckland Unitary Plan, Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) and the non-statutory Pukekohe Area Plan, Pukekohe Heritage Survey, Cultural Heritage Inventory and Auckland Plan.

The Pukekohe-Paerata structure plan area is set to undergo significant changes over the next 30 years. Planned growth will be accompanied by pressure to develop at higher densities and heights, which could lead to demolition and/or destruction of historic heritage places. Additionally, scheduled historic heritage places may be adversely affected, with the potential to become devoid of their historic and spatial context. The historic heritage assessment recommendations propose addressing thematic gaps in the schedule relating to this area, as well as to identify previously unrecorded historic heritage places and expand records on places. Historic heritage should be viewed as an asset and an opportunity for place-shaping, to help ensure that the historic heritage places and qualities valued about Pukekohe-Paerata can be appropriately maintained and enhanced.

Recommendations include:

- producing a prioritised ‘places of interest’ list, and where appropriate, evaluating high priority places. If the place meets the criteria and thresholds in the Auckland Unitary Plan section B5.2.2, recommend the place for scheduling through a plan change
- include additional places identified on the Cultural Heritage Inventory (CHI) or ArchSite database, where appropriate
- explore commissioning a heritage interpretation plan for the area, including ideas for place-shaping, place-naming, colour schemes, design references, public artworks and other heritage interpretation
- this may also include exploring commissioning design guidelines to help shape new development in a way that respects and/or recognises existing historic heritage values
- engage with the community and key stakeholders to help expand on historical information and the identification of potential places of historic heritage value.

Further information can be found in the background report: Francesco, C. & Freeman, R., (2017). *Historic Heritage Assessment Pukekohe-Paerata Structure Plan*. Auckland, New Zealand: Auckland Council.

4.2.9 Ecology

An ecology report for Pukekohe-Paerata was completed in 2017 and updated in 2019. The Draft Pukekohe/Paerata Structure Plan process: Summary Report – September 2017 included the following information, which is still applicable.

The Pukekohe-Paerata area is a highly modified landscape, with a large provincial town centre surrounded predominantly by arable horticultural activity. Consequently, very little native vegetation remains, and freshwater habitats are severely degraded.

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

Constraints for development include:

- proximity of developable area to watercourses
- avoidance of watercourse loss, i.e. no permanent loss with culverting
- avoidance of vegetation loss, especially Significant Ecological Areas.

Key opportunities specifically relate to:

- 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 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 to provide recharge of water tables
- repatriation of modified watercourses to reinstate sinuosity and habitat heterogeneity.

Implementing these opportunities will align with various provisions regarding environmental protection as detailed in the Auckland Unitary Plan. They will also contribute to the implementation of national strategies such as the National Policy Statement for Freshwater Management and the National Biodiversity Strategy, and regional environmental policies such as those in the Auckland Plan 2050 and the Auckland Growing Greener principles – using growth and development as opportunities to also restore and enhance natural environments and waterways.

Further information can be found in the background report: Sinclair, S., (2019). *Ecology Assessment: constraints and opportunities report Pukekohe-Paerata Structure Plan*. Auckland, New Zealand: Auckland Council.

4.2.10 Geotechnical assessment

Riley Consultants Ltd (Riley) were commissioned to undertake a geotechnical assessment of the Pukekohe-Paerata structure plan area. They carried out their original assessment in 2017. This work comprised of a desktop review of geotechnical information to hand, a walkover of selected parts of the area that are publicly accessible, and a review of previous research undertaken in the area (most significantly by Tonkin and Taylor Ltd, 2013).

Based on their findings, Riley determined that further investigation was required in areas that had not previously been included in the Tonkin and Taylor investigations. Consequently, Riley's 2018 updated report builds on the 2017 version and includes further research for these additional portions of the Future Urban Zone (shown on drawing 170275-14 of their latest report).

Based on the classifications and conclusions of the previous research undertaken, Riley confirm that there are three main geotechnical hazards within the subject area:

1. slope instability
2. compressible organic and cohesive soils resulting from long-term consolidation settlement
3. liquefaction of fine granular soils during earthquake shaking.

The presence and magnitude of these constraints affects the development possibility or 'development premium' of the land. A low development premium reflects a low level of constraint and therefore a more economical development potential whereas a high premium reflects a number of constraints or a severe level of constraint which requires further assessment and/or remedial work before development can occur.

Many of the Future Urban Zone areas reviewed are classified as low development premium with areas of medium development premium associated with potentially compressible alluvial soils largely in the north, and more extensive high development premium areas in the east associated with steeper terrain (this area has been reconsidered to include areas previously not included in the Future Urban Zone). There are also areas of high development premium in the centre and south east associated with compressible and potentially liquefiable alluvial deposits.

Riley conclude that, provided development is consistent with the guidance provided in their report, the identified geotechnical constraints within the study area are unlikely to be a fundamental obstacle to the development of the identified Future Urban Zone. Site-specific reporting at development stage should, however, be undertaken to understand localised geotechnical constraints that may affect development.

Further information can be found in the background report: Price, S., (2018). *Paerata-Pukekohe Structure Plan Background Investigations Geotechnical Assessment*. Auckland, New Zealand: Riley Consultants Ltd.

4.2.11 Land contamination

Riley Consultants Ltd was commissioned to review existing information on contaminated land in the Pukekohe-Paerata structure plan area. This generally concludes that any potentially contaminated land may be suitable for development subject to preliminary or detailed site investigations. These matters will need to be addressed as future plan changes and development progress.

Further information can be found in the background report: McClean, J., (2018). *Technical Investigation Contamination Assessment Pukekohe-Paerata Future Urban Zone*. Auckland, New Zealand: Riley Consultants Ltd.

4.2.12 Health impact assessment

Pukekohe-Paerata lies within the Counties Manukau District Health Board (CMDHB) area of care. The CMDHB area extends from Otahuhu in the north to Waikaretu in the south (part of Waikato district).

The wider Pukekohe-Paerata area has good access to primary and secondary health care provision.

- Approximately seven medical centres in the Pukekohe area, clustered within the existing town centre.
- Four hospitals/secondary health care facilities (i.e. Pukekohe Hospital, Manukau Super Clinic, Middlemore Hospital and the Botany Super Clinic).
- Middlemore hospital is the closest emergency care centre and the focus for secondary health care. It is accessible by public transport.

The four District Health Boards in northern New Zealand have developed the Northern Regional Long-Term Investment Plan (NRLTIP) to articulate the strategic direction for the Northern Region using a 25-year planning horizon.¹⁸

Due to demand for healthcare in the CMDHB area, the NRLTIP has identified the need for an additional acute site in the south of Auckland, and potentially north Waikato.

To enable the provision of health care services, the Pukekohe-Paerata Structure Plan 2019 has provision for general practitioner services in Centre zones and the Terrace Housing and Apartment Buildings Zone¹⁹. Larger care centres and emergency services are enabled in the Light Industry Zone, subject to standards.

Aside from health facilities, the environment in which we live affects our health and well-being. Air pollution and water contamination have obvious effects on our health; but there are indirect effects of our urban environment on our health such as the exercise we do, our commuting patterns etc.

¹⁸ Northland DHB, Waitemata DHB, Auckland DHB, Counties Manukau Health. Northern Region Long Term Investment Plan, January 2018.

¹⁹ subject to permitted activity standards in the Auckland Unitary Plan

Potential health and well-being impacts from the Pukekohe-Paerata Structure Plan 2019 include:

- the additional train station and public transport services help residents access services within and outside of the structure plan area, potentially enables greater use of walking and cycling (active modes) to access public transport and reduces reliance on cars
- enabling local employment through light industry and centre zonings, which reduces the social cost of commuting
- zoning to enable varying residential densities for housing choice to increase the potential for residents to access housing that suits their needs
- locating the highest residential densities by the train station, which encourages transit-oriented development and enables greater use of walking, cycling and public transport as primary transport modes and reduces reliance on cars
- the 20m riparian buffers improve ecological health and water quality, increasing the amount of green space (and potentially providing additional walking and cycling routes) and reducing potential negative effects of contaminated waterways
- provision of parks and open space at both neighbourhood and suburban/regional levels provides opportunity for informal recreation
- clustering light industry zones to reduce potential for boundary effects such as noise.

However, in realising the health and safety benefits of these proposals, the implementation will be important. Matters to be considered at plan change and development stages include:

- route morphology and convenience are considered when transport routes are designed to enable walking from residential areas to key service destinations
- pedestrian oriented design and route safety is considered for walking and cycling network
- utilise the 20m riparian buffers for a walking and cycling network, where possible.

Further information can be found in the topic paper: Laird, E. & Kaur, J., (2019). *Health Topic Paper: Draft Drury-Opāheke Structure Plan 2019, Draft Pukekohe-Paerata Structure Plan 2019*. Auckland, New Zealand: Auckland Council.

4.2.13 Neighbourhood Design Statement

A neighbourhood design statement (NDS) has been prepared for the combined Drury-Opāheke and Pukekohe-Paerata structure plan areas. This is a specialist document that supports the implementation of the structure plan and plan change processes.

The NDS provides guidance on how to achieve a mix and pattern of different land uses, integration with transport, and built form design in order to create distinctive and liveable neighbourhoods.

This NDS covers the whole structure plan area as there are many universal issues with impacts across neighbourhood boundaries. There are several types of neighbourhoods discussed in this structure plan.

- Centres (small and larger) with mixes of uses.
- Residential dominated areas.
- Employment dominated areas.

The NDS focuses on five key themes. They are:

- neighbourhoods that vary in density and mix of uses according to their locational attributes
- neighbourhoods with many safe choices of movement with good access to services and amenity
- neighbourhoods with many choices of use and activity that reflect the needs of the community and the sub region
- neighbourhoods that celebrate their unique identity and are attractive, safe and easily understood
- neighbourhoods that protect and enhance the natural environment while enabling urbanisation.

Further information can be found in the background report: Mentz, K., (2018). *Southern Structure Plan Area Neighbourhood Design Statement*. Auckland, New Zealand: Urbanismpius Ltd.

4.3 Consultation

Consultation and feedback on the Pukekohe-Paerata structure plan has been an ongoing process since 2017.

This structure plan has been prepared under the relevant provisions of the Local Government Act 2002, including those relating to consultation. The requirement for consultation as part of the structure planning process is to collect feedback from landowners, stakeholders, infrastructure providers and communities to inform the content of the structure plan.

Engagement for the Pukekohe-Paerata structure plan project sought to move beyond these consultation requirements and involve stakeholders and the community in seeking ideas for the structure plan. The objectives of this structure plan engagement are to:

- inform landowners within the structure plan area, the public and other relevant stakeholders about this project
- engage with mana whenua from the beginning of the structure plan process in a way that respects and provides for their cultural and traditional relationship to the areas, and enables their input into shaping the future planning and development of the structure plan areas
- 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 Pukekohe-Paerata area
- consider stakeholders' and community's views in relation to the development of the Pukekohe-Paerata area
- satisfy formal statutory requirements for consultation and engagement.

The following sections summarise this process.

4.3.1 Pre-structure plan consultation

Work on the Pukekohe-Paerata structure plan was informed by feedback received in preceding consultation on higher level strategic planning for the southern growth areas, and on the Pukekohe Area Plan. This included public meetings undertaken by the council in relation to the Proposed Auckland Unitary Plan (2013), the Future Urban Land Supply Strategy (2017) and the Transport for Future Urban Growth Programme²⁰ (2016).

4.3.2 Phase 1 September to October 2017

A consultation programme for the Pukekohe-Paerata structure plan started in 2017. This first phase aimed to inform the public and stakeholders about the project and provide opportunities to understand their views.

The document "*Draft Pukekohe/Paerata Structure Plan Process: Summary report - September 2017*" was prepared to provide a summary of the technical information and planning issues. A scenario map ("*Pukekohe/Paerata Potential New Landuse Scenario 1 Preliminary Draft*") was prepared for consultation.

The 2017 consultation documents were informed by the Pukekohe Area Plan 2014 and updated technical research about opportunities and constraints. The preparation of the Pukekohe Area Plan 2014 had also included background technical investigations and public consultation. Key changes were made to Pukekohe-Paerata area planning provisions between the notification of the Proposed Auckland Unitary Plan in 2013 and the now part operative Auckland Unitary Plan version. The 2017 map therefore took the nine Pukekohe Area Plan growth outcomes and areas as a starting point, and generally

²⁰ A collaboration between Auckland Council, the New Zealand Transport Agency and Auckland Transport. This programme has since been superseded by Te Tupu Ngātahi's Supporting Growth Programme.

followed the proposed Pukekohe Area Plan zoning location, distribution and extent, with modifications to:

- include the final Rural Urban Boundary location as shown in the Auckland Unitary Plan Operative in Part version²¹
 - the Rural Urban Boundary was extended to the east
 - the Rural Urban boundary was reduced in the south
- exclude the live zoned Special Housing Areas for Wesley and Belmont. The Wesley area is now zoned Mixed Housing Urban and Local Centre and is subject to “Franklin 2” Auckland Unitary Plan precinct provisions. Most of the Belmont area is now zoned as Mixed Housing Suburban
- identify the proposed residential areas on the scenario map as low, medium, or high residential density areas rather than as specific Auckland Unitary Plan zones. This is because since the Pukekohe Area Plan was developed, there had been changes to the extent of, and provisions for, the residential zones which were notified in the Proposed Auckland Unitary Plan. Residential zoning in the Auckland Unitary Plan was intensified in existing residential areas, with increased Terrace Housing and Apartment Building, Mixed Housing Urban and Mixed Housing Suburban zoning, decreased Single House zoning and the removal of Large Lot residential zoning. Provisions within these zones also changed
- show business land totalling 259ha gross across Areas B, D, E, F and H. The Pukekohe Area Plan states that at least 100ha of new business land should be enabled, and totals 259ha gross
- map the business areas as “business”. Future business land in the Pukekohe Area Plan 2014 was shown as Light Industry rather than as Business – Light Industry. The Scenario 1 2017 map did not show a specific business zone because an updated technical assessment of business land demand had not been completed to make recommendations on land requirements for retail, commercial activities, light industry and heavy industry (if required)
- show the Future Urban Zone areas added (since the Pukekohe Area Plan) as residential to reflect the nearby residential zoning
- incorporate key features from “Supporting Growth: Delivering Transport Networks” 2016. These included:
 - improved rail corridor
 - additional station at Paerata
 - new or improved road corridor connections around Pukekohe
 - SH22 safety improvements
 - new road corridor to east and south of Pukekohe, linking to SH22.

²¹ This included amendments to the Rural Urban Boundary made in May 2017 following the settlement of an appeal.

Information on the opportunities, constraints and planning issues and concepts, including maps and supporting technical documents, was made available to the public online. This was on council's "Shape Auckland" website from 25 September 2017 until 20 October 2017 and feedback was requested. Property owners and occupiers and other stakeholders within the Future Urban Zone received letters and/or emails advising them of the process. Advertisements were also placed in the Franklin Times and Papakura Courier. Display information was also available during the consultation period at council's Papakura service centre, the Sir Edmund Hillary Library in Papakura and at council's Pukekohe service centre and library. Opportunities to help shape the structure plan were provided through a series of open days and drop-in sessions.

In total, 87 people or organisations provided written feedback on the draft Drury-Opāheke and Pukekohe-Paerata structure plans in 2017. 47 pieces referred specifically to Pukekohe-Paerata. Some feedback referred to both geographical areas.

A summary of the feedback received is set out in the document *Pukekohe-Paerata Structure Planning Feedback Summary 2017*. Key points identified in feedback included:

- transport – traffic, roading, public transport
- infrastructure timing and staging
- rural – productive soils, character and function of Pukekohe, reverse sensitivity/interfaces
- residential zoning, location and staging
- business land demand
- ecology
- open space provision
- social infrastructure.

The feedback provided was considered in the development the next stages of structure planning.

4.3.3 Phase 2 September to October 2018

Following the receipt of the 2017 feedback, more work was undertaken which included:

- ongoing work with mana whenua
- updating of flood information
- consideration of business land location
- identification of potential neighbourhood and suburban park locations
- working with Te Tupu Ngātahi on transport options for Paerata-Pukekohe.

A brochure was prepared which included a map showing suggested land uses, and questions about a suggested vision statement and land uses.

The main mapping changes made since the 2017 consultation were:

- removal of the 2016 transport infrastructure which was replaced by the Supporting Growth Programme's 2018 consultation options shown on separate maps
- identifying Auckland Unitary Plan residential zones for residential land
- increasing business land zoning. The "Pukekohe-Paerata Draft Land Use Plan Map" (2018) released for public consultation did not suggest specific business zonings (apart from a local centre) because the 2018 consultation also occurred prior to the finalisation of the business land demand analysis. In the absence of that analysis, council took the big picture position in its 2018 consultation material that adequate business land and opportunities for local employment should be provided in the Pukekohe-Paerata structure plan area and that such land should be distributed between both northern and southern Pukekohe. Additional business land was therefore shown in the southern part of Area F west in the 2018 consultation material
- consequently reducing residential zoning. The residential land component of Area F was shown as medium to high density Mixed Housing Urban.
- a potential local centre in Structure Plan Area D
- inclusion of indicative open space.

This second consultation phase aimed to inform the public and stakeholders about the Pukekohe-Paerata Draft Land Use Plan and provided opportunities to understand their views. This consultation was held in conjunction with parallel consultation on the Supporting Growth Programme's 2018 transport options.

Information on the draft, including maps and supporting technical documents, was made available to the public online on the Shape Auckland website from 10 September 2018 until 10 October 2018 and feedback was requested. Property owners and occupiers within the Future Urban Zone and other stakeholders again received letters and/or emails advising them of the process. Advertisements were again placed in the Franklin Times and Papakura Courier. Display information was again available during the consultation period at council's Papakura service centre, the Sir Edmund Hillary Library in Papakura and at council's Pukekohe service centre and library.

Opportunities to help shape the draft were provided through a series of open days and drop-in sessions. Stakeholder meetings were also held with a number of government, infrastructure and rural interest groups. Council staff also met with council's Youth Advisory Panel and Rosehill College students.

In total, 269 people or organisations provided written feedback on the draft Drury-Opāheke and Pukekohe-Paerata structure plans in 2018. 166 pieces referred specifically to Pukekohe-Paerata. Some feedback referred to both geographical areas.

A summary of the feedback received is set out in the document *“Pukekohe-Paerata structure planning, draft land use plan 2018, Engagement summary 2018”*. Key points identified in feedback were:

- transport a key issue
- protection of productive rural land an issue
- numerous comments about residential and business land zonings
- 45 feedback items in opposition to business land near Isabella Drive
- Future Urban Zone extensions sought.

4.3.4 Phase 3 April 2019

The purpose of this final consultation phase was to check the layout of land uses and any other matters set out in the draft.

Following the receipt of the 2018 feedback, more work was undertaken which included updated information about stormwater, water supply and wastewater, transport, business land supply, contaminated land, open space and community facilities. Further consultation was held with mana whenua. More information was received about health and urban design.

To support the 2019 public engagement the council prepared the *“Draft Pukekohe-Paerata Structure Plan: Summary report – April 2019”*. That report explains the further work council had done since the 2018 public engagement and provided a draft structure plan for the area. The further work and key changes since the 2018 engagement are summarised below.

- Key outcomes.
 - The key outcomes used to develop the draft structure plan were refined to further reflect feedback and aspirations identified by the community.
- Land uses.
 - Amount of business land proposed was reduced to approximately 94ha (net developable land).
 - Type of business land was refined and proposed to be Light Industry Zone and Local Centre Zone.
 - Amount of residential land was increased (due to decrease of business land).
 - Potential open space was refined.
- Expert technical reports were completed or updated. Key reports included:

- Transport: an Integrated Transport Assessment was developed which discusses the scale and staging for key components of an indicative transport network. Key components of this indicative transport network were shown on the Draft Pukekohe-Paerata Structure Plan 2019 maps.
- Business Land Demand and Location analysis: this analysis estimated the amount of business land that would be needed to service future population growth in the south of Auckland, including the Pukekohe-Paerata structure plan area. It also included criteria to help identify successful locations for new industrial land.
- Environmental.
 - Environmental information was added to the draft structure plan maps e.g. geological features such as tuff rings and a 20m riparian buffer along both sides of permanent and intermittent streams. The natural, physical and/or cultural values of these features provided opportunities for enhancement and protection as Pukekohe-Paerata develops and grows.

The final phase of consultation on the Draft Pukekohe-Paerata Structure Plan 2019 was held between 5 April to 30 April 2019.

Similar to the first two phases of consultation, property owners and occupiers within the Future Urban Zone and other stakeholders received letters and/or emails advising them of the process, and advertisements were placed in the Franklin Times and Papakura Courier.

Information on the Draft Pukekohe-Paerata Structure Plan 2019, including maps and supporting technical documents were available on the council's 'Have your say and help shape Auckland' website (www.aucklandcouncil.govt.nz/haveyoursay). Display information was available during the consultation period at council's Papakura service centre, the Sir Edmund Hillary Library and at council's Pukekohe service centre and library.

Feedback on the Draft Pukekohe-Paerata Structure Plan 2019 could be provided on a feedback form via email, online, post, or at one of the open days and drop-in sessions. Stakeholder meetings were also held with a number of government, infrastructure, business and rural interest groups.

For Pukekohe-Paerata the feedback form included four maps showing the proposed business and residential zones, indicative open spaces, indicative transport network, indicative water infrastructure and a range of environmental features such as geological features, floodplains, a 20m riparian buffer along all permanent and intermittent streams, ridgelines, potential local paths etc. The feedback form also included four questions about the proposed business and residential zones and the vision statement. People could also comment on any other aspect of the structure planning.

In total, 222 items of written feedback were received from people and organisations in response to the Draft Drury-Opāheke and Pukekohe-Paerata Structure Plans 2019.

Eighty-six pieces of feedback referred specifically to Pukekohe-Paerata. Some of this feedback referred to both geographical areas.

A summary of the feedback received in April 2019 is set out in the document “Draft Pukekohe-Paerata Structure Plan 2019 Feedback summary 2019”. Key points identified in feedback were:

- the importance of co-ordinating growth timing with infrastructure timing and provision
- transport issues
- location-specific feedback in support of, and in opposition to, residential and business land zoning. Rezoning of areas beyond the structure plan area was also sought
- more than a dozen items of feedback expressed concern about how to balance the growth of the urban area with the protection of nationally important fertile soils
- support or opposition for the suggested 20m riparian buffer for permanent and intermittent streams was expressed in a dozen items of feedback
- flooding, stormwater and runoff
- urban/rural interfaces and zone interface provisions
- support for retention of tuff rings, including suggestions to avoid development in their vicinity or to include them in parks
- the importance of connectivity.

4.3.5 Mana whenua engagement

Mana whenua have a special cultural and spiritual relationship with the environment. This relationship with their ancestral lands, water, sites, waahi tapu²² and other taonga are a matter of national importance under the Resource Management Act 1991.²³ The Local Government Act 2002 also recognises this relationship and requires local authorities to provide opportunities for Māori to be involved in decision making processes and consultation.²⁴

In relation to mana whenua, the council’s structure planning process provides for the following to be taken into account.

- Iwi planning documents.
- Treaty settlement legislation.

²² Sacred place or site. See <https://maoridictionary.co.nz/> for full definition

²³ Resource Management Act 1991, Part 2, Section 6(e).

²⁴ Local Government Act 2002, sections 81 and 82

- Identification, investigation and addressing of potential effects of urbanisation on mana whenua values.²⁵

The Drury-Opāheke and Pukekohe-Paerata structure plan areas sit within the area of interest of approximately 10 mana whenua groups.²⁶ These include:

Marutūāhu Tribal Region

- Ngāti Maru
- Ngāti Pāoa**
- Ngāti Tamaterā**
- Ngaati Whanaunga**

Waiohua – Tamaki Tribal Region

- Ngāi Tai ki Tāmaki
- Ngāti Tamaoho
- Ngāti Te Ata Waiohua
- Te Ākitai Waiohua
- Te Ahiwaru Waiohua

** Drury-Opāheke structure plan area only

Waikato-Tainui Tribal Region

- Waikato-Tainui

The council has sought to include mana whenua early in this structure planning process. The iwi listed above were contacted by the council in July 2017 (at the Mana Whenua Kaitiaki Forum) and September 2017. This was to inform them that the council would start structure planning for these areas, and to invite them to be involved in the process. From this, four iwi chose to be actively involved with the council in the southern structure planning process and formed a working group. They are Ngāi Tai ki Tāmaki, Ngāti Tamaoho, Ngāti Te Ata Waiohua and Te Ākitai Waiohua. Huakina Development Trust were invited by these iwi to also be part of this process.

At this point in time other mana whenua with customary interests in the structure planning areas have either opted to not be involved or have deferred to the four iwi who are actively involved. However, this does not preclude them from being involved in any engagement going forward if they wish.

Regular hui have been held in Pukekohe with this working group and the council throughout the structure planning process. Approximately 19 hui or workshops have been held between September 2017 and June 2019.

These hui have been a forum to openly discuss the structure planning process, mana whenua relationships with the structure planning areas (past, present and future), and their aspirations, concerns and issues with future development of the structure plan areas.

²⁵ Appendix 1 Structure plan guidelines, Auckland Unitary Plan Operative in Part.

²⁶ This information has been sourced from the council's Geographic Information System on GeoMaps.

The regular hui have informed the development of the Drury-Opāheke and Pukekohe-Paerata structure plans.

Some mana whenua also submitted feedback as part of public engagement.

Engagement with mana whenua is ongoing and will continue beyond the structure plan process.

For further information about the engagement process with mana whenua refer the *Mana Whenua Engagement Summary*, Auckland Council 2019.

Key matters raised

The ongoing engagement hui have provided an opportunity for mana whenua to provide feedback.

At a high level the key outcome for the working group is that their natural and cultural resources are protected and enhanced in a manner that respects and recognises their cultural values. This means that:

- their mana is upheld, acknowledged and respected
- iwi can assert rangatiratanga over their ancestral taonga
- kaitiaki can fulfil their obligations and responsibilities
- tikanga Māori is observed throughout the planning process and subsequent development of the areas
- iwi can undertake customary activities and resource use, especially along the margins of waterways
- resources retain their mauri, and mana whenua have physical access to them.

The working group has expressed that future development of the structure plan areas should provide environmental and cultural benefits and effects should be positive, remedying and rectifying past wrong doings. For the working group this 'enhancement approach' is central to their beliefs and takes a holistic view of the whole environment to improve its quality for future generations. They were particularly concerned about cumulative effects.

For the working group this also means that some sensitive areas should not be developed such as low-lying flood prone areas and riparian margins. It also means that more than the bare minimum of environmental outcomes should be sought. They also expressed that the rules in the Auckland Unitary Plan may not always be sufficient, and additional area specific planning requirements may be needed to achieve better environmental and cultural outcomes. As part of this, cultural monitoring will be necessary to ensure future planning and development of these areas does protect and enhance their natural and cultural resources in a manner that respects their cultural values.

Mana whenua also identified it is important that existing and future residents and users of the structure plan areas gain a greater understanding of their cultural values, history and

connections to the areas. Culturally and/or spiritually significant sites should be restored (in partnership with various parties), and the built environment should reflect Māori culture. The use of Te Aranga Māori design principles as a basis for ensuring local mana whenua design aesthetics are included in developments will be important to achieve this. Te Aranga Māori design principles are outcomes-based principles founded on intrinsic Māori cultural values and are part of the Auckland Design Manual.

The working group also expressed that any future development of these areas should positively contribute to their economic and social well-being. While all in the working group felt that the matter of their economic and social well-being was important, not all felt that the structure planning process was the most appropriate place to enable it.

More specific feedback was also given in relation to:

- water e.g. waterways; water quality; coastal environment; groundwater, recharge and water allocation; stormwater; wastewater
- heritage protection and recognition
- soil, earthworks and sediment control
- biodiversity
- urban design, open space and transport network
- sustainability and natural hazards
- economic development.

For further information about these key matters raised by mana whenua refer to *Mana Whenua Engagement Summary*, Auckland Council 2019.

Following the public release of the Draft Pukekohe-Paerata Structure Plan in April 2019, discussions with mana whenua have raised some additional matters and refined preferences on other matters. This includes mana whenua support for:

- a refined approach to the requirement for riparian buffers along streams
- town centres to be 'transport orientated development' to minimise the need for travel and maximise employment and residential densities. These town centres should also have a strong sense of identity and support the social and economic well-being of future communities. Much of the feedback about centres was specific to the future development of Drury-Opāheke, but the more general comments about the role of centres and the need for more employment opportunities is also relevant to the future development of Pukekohe-Paerata
- park and ride facilities located near train stations to cater for outlying rural communities.

The March 2019 *Mana Whenua Engagement Summary* report has not been updated to reflect this later feedback.

4.4 Rationale for Pukekohe-Paerata Structure Plan 2019 proposed land uses

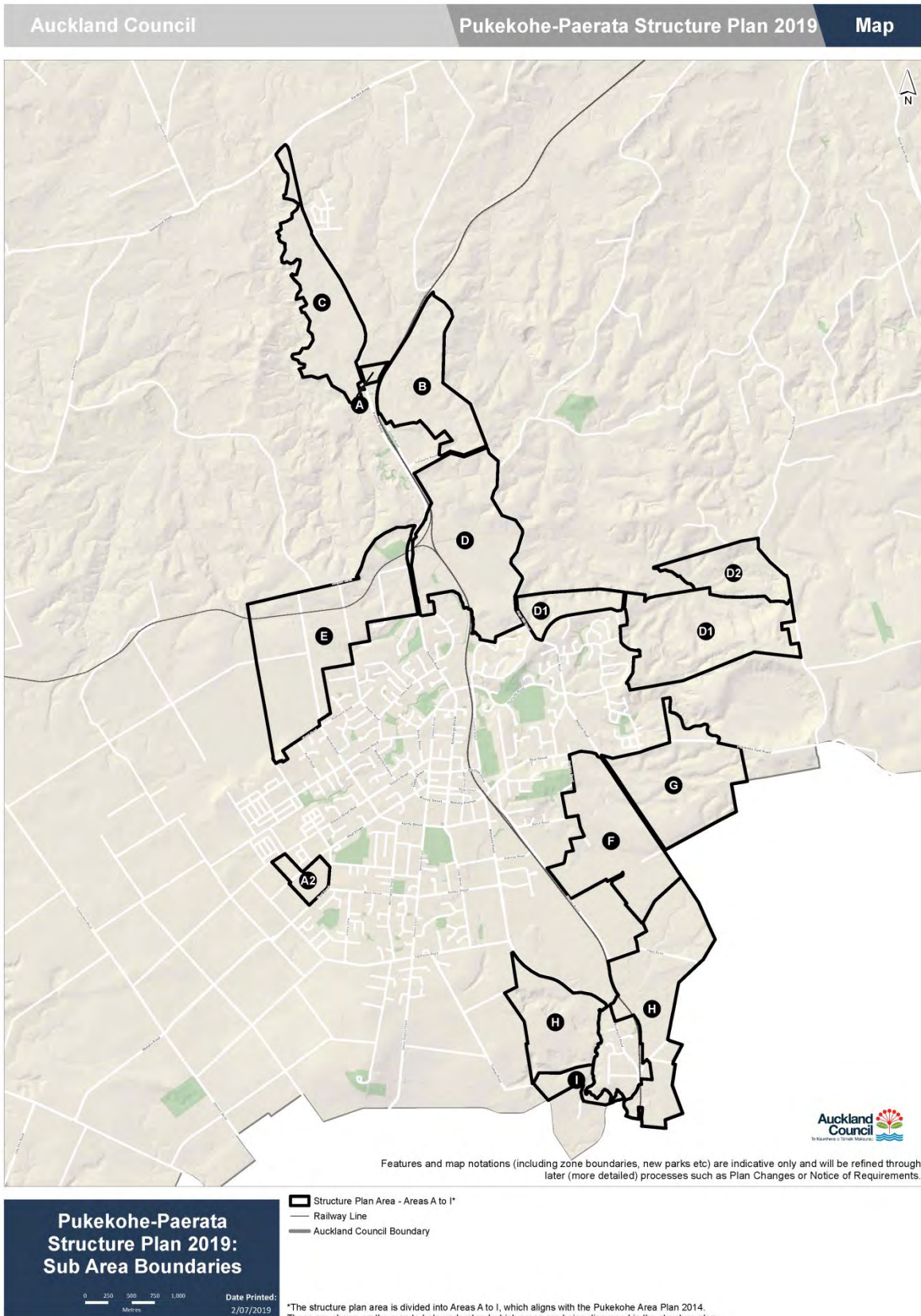
Proposed zonings have evolved throughout the structure plan process. A summary of the proposed land uses and key changes in the 2017, 2018 and 2019 consultation structure plan maps is summarised above. A summary of changes between the 2019 draft and final structure plan versions is found in section 1.

A brief breakdown of zoning rationale for the zones shown in the Pukekohe-Paerata Structure Plan 2019 is included here by alphabetical structure plan area (Areas A to I).

Generally, where possible, roads have been used as boundaries between different zones.

Map 10 below shows the location of each of these structure plan areas.

Map 10: Location of structure plan areas



4.4.1 Area A – Wesley College (remnant)

The proximity of this area to the proposed Paerata train station provides an opportunity for high density residential use. The area is therefore proposed to be zoned Residential – Terraced House and Apartment Buildings (high density). The area is a remnant of the area which was rezoned as a Special Housing Area. The majority of this area is located in a flood plain and/or a stream with proposed riparian buffers.

4.4.2 Area A2 – Belmont

Area A2 is a remnant of the Belmont Special Housing Area. It was not included in development applications when the rest of the Belmont Special Housing Area was developed. The land is flat and slopes up gently towards the south. There is a floodplain running through the middle below McNally Road and in the north-western corner. From a geotechnical perspective these areas have constraints that give them a low development premium (see section 4.2.10 for an explanation of ‘development premium’). This area is proposed to be zoned Residential – Mixed Housing Suburban. This zoning reflects its proximity to the recently rezoned Mixed Housing Suburban land to its north and east.

4.4.3 Area B – North-east Paerata

The proximity of the northern part of this area to the proposed Paerata train station provides an opportunity for high density residential use. The northern part of the area is therefore proposed to be zoned Residential – Terraced House and Apartment Buildings. The southern part of the area is proposed to be zoned Residential – Mixed Housing Urban (medium to high density) given its proximity to the existing Local Centre Zone in Paerata (Franklin 2 Precinct). It is considered that this area should be entirely residential given the opportunity it represents to consolidate residential land use in Paerata.

4.4.4 Area C – North-west Paerata

This area is proposed to be zoned as Residential – Mixed Housing Urban (medium to high density). This reflects the urban zoning and planned development around Wesley College which is on the other side of SH22 (Paerata Road). The development around Wesley College is the Wesley Special Housing Area and is now managed by the Franklin 2 Precinct in the Auckland Unitary Plan.

4.4.5 Area D – South Paerata and Adams Drive

Area D consists of two parts.

Area D west

The western part is bound by SH22 (Paerata Road) on the west, the North Island Main Trunk railway line on the east and the existing Adams Drive industrial area to the south. The area is generally flat and nearly half of it is covered by floodplains, especially along the edge of the railway line.

This part of Area D is proposed as Business – Light Industry Zone. This provides a continuation of the Light Industry land to the south in Adams Drive. Its position next to SH22 provides for access to a major transport route.

Area D east

This eastern part of Area D is within the Whangapouri Creek catchment area and has a large stream system in the centre of it. These streams generally radiate out from the railway line. At the north of this area is a smaller area covered by floodplains. This north part also has steeper slopes near the streams. The larger low-lying area in the central part of Area D is also covered by floodplains.

This low-lying area is located in the centre of the Paerata North Tuff Ring.

The Pukekohe Area Plan and 2017 consultation material show Area D east as residential. The 2018 consultation occurred prior to the finalisation of the business land demand analysis. In the absence of that analysis, council took a big picture position and proposed there should be more business land than suggested in 2017. This included an additional area of business land in Area D. This was to provide adequate business land and local employment opportunities across the north and south of Pukekohe.

Following:

- significant feedback in 2018 opposing business land in this location
- the receipt of business land demand analysis which showed that not all the land proposed for business in the 2018 consultation material was required
- further consideration of the location of the ridge forming part of the Paerata North Tuff Ring

Area D east is now proposed to be zoned residential (other than a Local Centre) rather than partly for business.

The northern and central part of Area D east are proposed to be zoned for medium to high density residential use as Residential – Mixed Housing Urban given its proximity to Paerata. The southern part of Area D east is proposed to be zoned Residential – Mixed Housing Suburban which is the same zoning as most of the adjoining land near Isabella Drive to its south.

An indicative local centre (approximately 2ha gross) for retail and commercial services is proposed in Area D east, in an area not subject to floodplains, to service northern Pukekohe. Its location will be influenced by refinement of roading and frequent transport networks. For context, the recent local centre development at Hingaia is approximately 1.7ha.

4.4.6 Area D1 (west) – Grace James Road

This area is bound by the rural urban boundary to the north, Grace James Road to the south and Cape Hill Road to the west. Area D1 (west) is along the southern face of a

ridge, sloping down from Grace James Road towards a stream system. From a geotechnical perspective this area has constraints that gives it a high development premium²⁷. The northern edge of the Roosevelt Tuff Ring North is along the southern boundary of this area. Several ridgelines run north from this into the area. From a landscape perspective this area is identified as being very highly sensitive to modification.

Area D1 (west) is proposed to be zoned as Residential – Mixed Housing Suburban to provide continuity with the zoning of the adjoining land to its west in Area D (east).

4.4.7 Area D1 (east) and Area D2 – Pukekohe north-east

These areas are generally steeply undulating pastoral land and several ridgelines run through them. The northern edge of the Pukekohe East Explosion Crater runs along the southern boundary of Area D2. This explosion crater is scheduled as an Outstanding Natural Feature in the Auckland Unitary Plan. A ridgeline also runs along the southern boundary of this area. From a geotechnical perspective these areas have constraints that give them a high development premium²⁸. A previous landfill has been identified in the southern part of Area D1 (east).

The areas contain several significant ecological areas scheduled in the Auckland Unitary Plan. There are also several areas of unscheduled indigenous vegetation identified. From a landscape perspective these areas are identified as having very high sensitivity to modification.

These areas are proposed to be zoned Residential – Single House to reflect their peripheral location, topography and environmental characteristics. Furthermore, this area adjoins the Runciman Precinct to the north. This precinct recognises landform, landscape, vegetation and riparian corridor features that warrant protection and enhancement.

4.4.8 Area E – Pukekohe north-west

Area E falls steeply from Heights Road in the north-east to a flat area in a dip and then rises again, flattening out to the west and south. The eastern part of the area is undulating, becoming flat as it nears SH22 (Paerata Road). The Glenbrook railway branch line traverses the land more or less east to west. The area is traversed by the headwaters of the Whangapouri Creek, with some steep contours. The area includes Significant Ecological Areas. The Helvetia Tuff Ring stretches over the south-western part of Area E. This part is also subject to flooding. There are also areas of flooding near the railway line in the north-eastern part between Butcher Road and Paerata Road.

Area E also has geotechnical constraints that give it a rating of predominantly low development premium²⁹ with small areas of high development premium in the northern part aligning with the streams and gullies. There is a large block identified as medium

²⁷ See section 4.2.10 for an explanation of 'development premium'

²⁸ See footnote 27 above.

²⁹ See footnote 27 above.

development premium in the eastern portion as it meets Area D and an area identified as high development premium surrounding the North Island Main Trunk railway line.

The north-western and north-eastern corners of Area E are proposed to be zoned Business – Light Industry. This reflects the existing rural business operations in this area and the area's proximity to the railway line and northern road routes in and out of Pukekohe

The remaining part of Area E is proposed to be zoned Residential – Mixed Housing Suburban (medium density). This is an extension to the existing predominantly Mixed Housing Suburban zoning in north-western Pukekohe.

4.4.9 Area F – Pukekohe East central

Area F is bound by existing residential and open space zoned properties to the north and north-west, the Franklin ASB Showgrounds, Station Road to the west, the Franklin Trotting Club along the western/southern Boundary, Area H on the south-east and Golding Road on the east. At the northern end the land slopes down from Ngahere Road and Golding Road towards Whangapouri Stream in between the roads. There are two landfills recorded in this area, one located on the northern side of Royal Doulton Road and the other occupying a significant area of the northern section of Area F, above Birch Road.

Area F contains a large area with geotechnical constraints that give it a rating of high development premium³⁰. This covers the southern area and includes the boundary of Station Road (west). It runs along the edge of the Roosevelt Tuff Ring South in the eastern part of Area F. North of this area, the land has been identified as low development premium.

Areas subject to flooding have been identified in the southern part of Area F, in particular between the A and P Showgrounds and the Auckland Trotting Club.

The Pukekohe Area Plan shows Area F as residentially zoned Mixed Housing Suburban, with the area between the ASB showgrounds and the trotting club proposed to be zoned Business – Light Industrial. The 2017 consultation material shows these areas zoned as residential medium density and business.

The 2018 consultation occurred prior to the finalisation of the business land demand analysis. In the absence of that analysis, council took the big picture position in its 2018 consultation material that adequate business land and opportunities for local employment should be provided in the Pukekohe-Paerata structure plan area and that such land should be distributed between both northern and southern Pukekohe. Additional business land was therefore shown in the southern part of Area F west in the 2018 consultation material. The residential land component of Area F was shown as medium to high density Mixed Housing Urban.

Following:

³⁰ See footnote 27 above.

- the receipt of business land demand analysis which showed that not all the land zoned for business in the 2018 consultation material was required
- feedback opposing business land in this location

the southern part of Area F is now proposed to be zoned Residential – Mixed Housing Suburban (medium density) rather than a business zone. The northern part of Area F is still proposed to be zoned Residential – Mixed Housing Urban (medium to high density). This reflects its proximity to the existing Pukekohe Town Centre. The remaining business land, between the A and P Showgrounds and the Auckland Trotting Club, is proposed to be zoned Business – Light Industry.

4.4.10 Area G – Pukekohe East central

Area G is split into two parts by Pukekohe East Road. North of Pukekohe East Road is the smaller part of Area G. On the west this is bound by land zoned Residential – Mixed Housing Suburban which is still largely undeveloped. On the north-east this part of Area G is bound by the Rural Urban Boundary. This boundary generally follows the contours of the land and a stream north of Pukekohe East Road. The eastern side of Area G contains the outer edge of the Pukekohe East Explosion Crater. This explosion crater is scheduled in the Auckland Unitary Plan as an Outstanding Natural Feature. This part of Area G is proposed to be zoned Residential – Mixed Housing Suburban (medium density) and follows the zoning pattern set out in all the previous consultation material.

South of Pukekohe East Road, the larger part of Area G is bound by Golding Road on the west. Adjacent to the eastern boundary is Rural Production Zone. The south and south-east boundary is the boundary between Auckland Council and Waikato District Council jurisdictions. The adjacent zone in the operative Waikato District Plan is Rural (Franklin). This plan is currently under review.

From a geotechnical perspective a large part of Area G has constraints that give it a medium development premium³¹.

South of Pukekohe East Road Area G contains the Roosevill Tuff Ring South. A ridgeline that goes around the edge of the explosion crater continues across into the larger part of Area G. South of Pukekohe East Road the land is generally undulating and is steeper around the stream system. From a landscape perspective Area G is identified as being highly sensitive to modification.

South of Pukekohe East Road a stream system runs west-east through the area. Steeper slopes are generally around the streams. Several small areas along some of the streams area subject to floodplains.

Approximately three quarters of this part of Area G is proposed to be zoned Residential – Mixed Housing Suburban (medium density). The remainder of the area is closer to the existing Pukekohe Town Centre and is therefore proposed to be zoned Residential –

³¹ See footnote 27 above.

Mixed Housing Urban (medium to high density), along the corners of Golding Road and Pukekohe East Road. This proposed zoning follows the zoning pattern set out in all the previous consultation material.

4.4.11 Area H – Buckland and surrounds

Area H consists of two parts.

Area H west

This part of Area H is on the south-eastern slopes of Pukekohe Hill. The land rises from the north and south to the west, flatter in the middle with gullies and streams in the north and south. There are three Significant Ecological Areas along the stream between Tuakau Road, Area I and the eastern border of Area H West. The Pukekohe Park Raceway is to the north-east of Area H west, on the opposite side of Manukau Road.

This part of Area H has geotechnical constraints that give it a ranking of predominantly low development premium³² with large areas area of high development premium through the centre, along the eastern area adjoining Manukau Road and along the gully adjoining Area I.

Area H west is shown as Light Industry in the Pukekohe Area Plan, and as business land in the 2017 consultation material. In the 2018 consultation material the extent of business land in this area was reduced in the very south to reflect the location of the stream and the three Significant Ecological Areas west of Buckland. The extent of this business land is the same as 2018 and it is now proposed to be zoned Light Industry. This zoning reflects access to transport routes and the proximity to the Pukekohe Park Raceway.

The southern part of Area H west is proposed to be zoned Residential – Single House. This is the same as suggested in 2018. This lower density reflects the existing zoning in Buckland township and is less likely to adversely affect the landscape and environmental values associated with the Significant Ecological Areas and the stream.

Area H east

This part of Area H is bordered to the west by the Buckland urban area and the Franklin Trotting Club, to the north by Area F and to the east by Golding Road, Logan Road and farmland. It includes one piece of land to the west of the railway line (466 Buckland Road) between Pukekohe Park Raceway and the existing urban area of Buckland. A stream associated with the Tutaenui Stream traverses the area south of Yates Road, having crossed Logan Road. Areas subject to flooding have been identified, in particular between the railway line and Logan Road. The area is mostly flat with some gullies, and primarily grassed and in rural use. There are two areas of landfill, one to the north of Yates Road and the second at the intersection of Buckville and Logan roads.

This part of Area H predominantly has geotechnical constraints that give it a low development premium rating. However, there is also a significant area of high

³² See footnote 27 above.

development premium land starting in the north-west corner and stretching across the northern portion. This merges with a significant area of high development premium in Area F to the north. In area H, this area of high development premium merges to medium development premium through the middle following the gully to the south.

The Pukekohe Area Plan shows the northern part of Area H east as Business – Light Industrial, with the southern part residentially zoned as Single House. The 2017 consultation material shows these areas as business and residential low density.

The 2018 consultation occurred prior to the finalisation of the business land demand analysis. In the absence of that analysis, council took a big picture position in its 2018 consultation material that adequate business land and opportunities for local employment should be provided in the Pukekohe-Paerata structure plan area and that such land should be distributed between both northern and southern Pukekohe. Additional business land was therefore shown in the northern part of Area H east in the 2018 consultation material. In 2018 the residential land component of Area H east was shown as medium density Mixed Housing Suburban.

Following:

- the receipt of business land demand analysis which showed that not all the land zoned for business in the 2018 consultation material was required
- feedback opposing business land in this location

the amount of business land in the northern part of Area H east has been reduced and is now slightly less than shown in the Pukekohe Area Plan. This remaining area of business land is now proposed to be zoned Light Industry.

The residential component of Area H east is proposed to be zoned Residential – Mixed Housing Suburban to align with the proposed zoning of Area F to its north.

4.4.12 Area I – Buckland south and Pukekohe Hill

Area I is relatively flat adjoining Buckland township, then slopes uphill towards Tuakau Road, located on the south eastern slopes of Pukekohe Hill. The area is bordered by Tuakau Road to the west, Area H, a stream and a live zoned area of Open Space – Conservation to the north, and Buckland Road and land in crops to the south. Area I predominantly has geotechnical constraints giving it a ranking of low development premium³³, with high development premium located along its northern and eastern boundaries.

This area is proposed to be zoned Residential – Single House. This zoning is the same as the zoning in the existing Buckland township. This zone is the same as shown in the Pukekohe Area Plan and the 2018 consultation material.

³³ See footnote 27 above.

Glossary of Māori terms

This glossary provides a basic explanation of Māori terms used. For a full explanation of all these terms please see <https://maoridictionary.co.nz/>.

hapū	<i>kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society.</i>
hui	<i>meeting</i>
iwi	<i>extended kinship group, tribe</i>
kaitiaki	<i>custodian, guardian</i>
mana	<i>prestige, authority, control, power, influence, status, spiritual power</i>
mana whenua	<i>territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory – power associated with possession and occupation of tribal land</i>
mauri	<i>life principle, life force... the essential quality and vitality of a being or entity</i>
rangatiratanga	<i>chieftainship, right to exercise authority</i>
rohe	<i>region, territory, area, border (of land)</i>
tangata whenua	<i>local people, hosts, indigenous people - people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried.</i>
taonga	<i>treasure, anything prized – applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and technique</i>
tikanga	<i>the customary system of values and practices that have developed over time and are deeply embedded in the social context</i>
waahi tapu / wāhi tapu	<i>sacred place or site</i>

Appendices

Appendices are attached to this structure plan as listed below.

- Appendix 01: Auckland Unitary Plan Operative in Part Appendix 1 analysis
- Appendix 02: Summaries of, and housing typologies expected in, Auckland Unitary Plan Operative in Part residential zones
- Appendix 03: Strategic context – further detail
- Appendix 04: List of technical reports and topic papers
- Appendix 05: Consultation Document Summary
- Appendix 06: Water sensitive design approaches

Appendix 01: Auckland Unitary Plan Operative in Part Appendix 1 analysis

Table 7: Where the Pukekohe-Paerata Structure Plan 2019 addresses the matters set out in Appendix 1: Structure plan guidelines of the Auckland Unitary Plan Operative in Part, section 1.3 External documents to be taken into account

Appendix 1 of Auckland Unitary Plan sections	Matters as set out in Appendix 1 of Auckland Unitary Plan 1.3 External documents to be taken into account <i>When preparing structure plans, the external documents in the following list are to be considered where appropriate.</i>	Structure plan section reference
(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.	2.1, 4.1.1, 4.2.5, 4.2.8, 4.2.9
(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.	4.1.4, 4.2.9, Appendix 03
(3)	This Plan, in particular the regional policy statement.	1, 2.1, 2.2, 2.4.2, 3.3.1, 3.3.3, 3.3.6, 3.3.8, 3.3.9, 3.4.2, 3.4.3, 4.1, 4.1.3, 4.1.4, 4.1.7, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.8, 4.2.9, 4.2.12, 4.3.2, 4.3.5, 4.4.4, 4.4.7, 4.4.10, 4.2.3, 4.2.5, 4.2.8, 4.2.9, 4.3.1, 4.3.5, 4.4, Appendices 02 and 03
(4)	Auckland Council's 10-year budget (the Long-Term Plan)	4.1.8

	and implementation programmes.	
(5)	Local board plans and area plans.	1, 2.5, 3.3, 4.1.3, 4.1.9, 4.2.1, 4.2.8, 4.3.1, 4.3.2, 4.4.5, 4.4.9, 4.4.11, 4.4.12, Appendix 03
(6)	Existing integrated catchment management plans and associated network discharge consents.	3.2.4, 3.4.2, 4.2.2, 4.2.5, Appendix 06
(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.	1,2.2, 3.2.3, 3.2.6, 3.3, 3.3.6, 3.3.8, 3.4.2, 4.1.4, 4.1.8, 4.1.10, 4.1.11, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.3.4, Appendix 03, Appendix 05
(8)	Iwi planning documents.	3.3.5, 4.1.6, 4.3.5
(9)	Treaty settlement legislation.	4.1.5, 4.3.5
(10)	Auckland Council's Parks and Open Space Strategy Action Plan.	4.2.5
(11)	Auckland Council's Auckland Design Manual.	3.3.5, 4.1.11, 4.3.5, Appendix 03
(12)	Auckland Council's Code of Practice for Land Development and Subdivision.	4.1.11, Appendix 03

Table 8: Where the structure plan addresses the matters set out in Appendix 1: Structure plan guidelines of the Auckland Unitary Plan Operative in Part, section 1.4 Matters to identify, investigate and address

Appendix 1 of Auckland Unitary Plan sections	Matters as set out in Appendix 1 of Auckland Unitary Plan 1.4 Matters to identify, investigate and address <i>A structure plan is to identify, investigate and address the matters set out below.</i>	Structure plan section reference
1.4.1 Urban growth		
(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.	1, 2.1, 3.3.1, 3.3.2, 4.1.1, 4.1.2, 4.1.4, 4.2.1, 4.4
(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 more intensive activity for urban development or for comprehensive redevelopment, in coordination with infrastructure.	1, 3.4.1, 3.4.2
(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, 3.4.3, 4.2.3, 4.2.7, 4.4
(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, 3.4.3, 4.2.3, 4.2.7, 4.4
(5)	Opportunities to improve access to landlocked parcels, including Māori land.	3.3.6
1.4.2 Natural resources		
(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.	3.3.3, 3.4.6, 4.2.9,
(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	3.3.3, 3.4.3, 3.4.3

(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.	3.3.3, 3.3.4, 3.4.3
(4)	Measures to manage natural hazards and contamination.	3.3.9, 4.2.2, 4.2.10, 4.2.11
(5)	The location of mineral resources and how access to regionally significant extractable deposits is to be managed.	N/A
1.4.3 Natural and built heritage		
(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.	3.3.3, 3.3.5, 3.3.7, 3.4.3, 4.2.7, 4.2.8
1.4.4 Use and activity		
(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.	3.3, 3.3.1, 3.3.2, 4.4
(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:	3.3.1, 3.3.2, 3.3.9, 3.4.3
(a)	seeking to avoid the introduction of additional zones;	3.3.1, 3.3.2, 3.3.9, 3.4.3
(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	3.3.5, 3.4.3
(c)	recognising specific place-based provisions through the use of precincts.	3.4.3
(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,	3.3.2, 3.4.3, 4.2.1

	cycling and public transport.	
(4)	A mix of residential intensities sufficient to support the vitality of centres and communities and to provide housing and transport choice.	3.3, 3.4.3, 4.2.3, 4.4
(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, 3.3.5, 3.4.3, 4.2.1, 4.2.5, 4.2.6, 4.4
(6)	The location and protection of infrastructure and management of reverse sensitivity effects on infrastructure from subdivision, use and development.	3.3.6, 3.3.8, 3.4.3, 4.2.3, 4.2.4
(7)	The location and protection of use and development and management of reverse sensitivity effects on use and development.	3.3.1, 3.3.2, 3.4.3, 4.4
1.4.5 Urban development		
(1)	A desirable urban form at the neighbourhood scale including all of the following:	3.2.6, 3.3.1, 3.3.2, 3.3.3, 4.2.3, 4.2.13
(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;	3.3.6, 3.3.4, 4.2.3, 4.2.13
(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;	3.3.1, 3.4.3, 4.2.13, 4.4
(c)	provision of open spaces which are highly visible from streets and of a scale and quality to meet identified community needs	3.3.4, 4.2.5, 4.2.13
(d)	appropriate transitions within and at the edge of the structure plan area between different land use activities, intensities and densities	2.4, 3.3, 3.4.3, 4.4
(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, 3.4.2, 4.2.2, 4.4, Appendix 06
1.4.6 Transport networks		

(1)	Integration of land use and development within the local and strategic transport networks	3.3.1, 3.3.2, 3.3.6, 3.4.3, 4.2.3, 4.4
(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	3.3.6, 4.2.3
(3)	Support for transport and accessibility that is multi-modal and interconnected with an appropriate number and location of access points.	3.3.6, 3.4.3, 4.2.3
(4)	Transport effects on land uses and the management of these effects.	3.3.6, 3.4.3, 4.2.3, 4.4
1.4.7 Infrastructure		
(1)	The location and protection of existing and planned infrastructure, including network infrastructure corridors.	3.3.8, 3.4.3, 4.1.10, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.12. Appendix 03
(2)	The location, scale and capacity of existing and new infrastructure to serve the structure plan area.	3.3.8, 3.4.3, 4.2.2, 4.2.3, 4.2.4, 4.2.6, 4.2.12. Appendix 03
(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, 3.4.3, 4.2.2, Appendix 06
(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.	3.3.4, 3.3.8, 3.4.1, 3.4.2, 4.2.5, 4.2.6, 4.2.12
1.4.8 Feedback from stakeholders		

(1)	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.	4.3
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Table 9: Where the structure plan addresses the matters set out in Appendix 1: Structure plan guidelines of the Auckland Unitary Plan (Operative in Part), section 1.5 Specialist documents to support the structure plan and plan changes process

Appendix 1 of Auckland Unitary Plan sections	Matters as set out in Appendix 1 of Auckland Unitary Plan 1.5 Specialist documents to support the structure plan and plan changes process <i>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.</i>	Structure plan section reference
(1)	Land use:	
(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
(b)	assessment against any relevant sub-regional spatial plan; and	1, 2.5, 3.3, 4.1.3, 4.1.9, 4.1.1, 4.1.2, 4.2.1, 4.2.8, 4.3.1, 4.3.2, 4.4.5, 4.4.9, 4.4.11, 4.4.12, Appendix 03
(c)	analysis of anticipated land use supply and demand informing the spatial allocation of areas for different activities, intensities and densities.	1, 3.3, 4.4
(2)	Infrastructure:	
(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, 4.2.2
(b)	integrated transport assessment;	3.3.6, 4.2.3
(c)	water and wastewater servicing plan; and	3.3.8, 4.1.10, 4.2.4
(d)	other infrastructure plans.	3.3.6, 4.1.10

(3)	Impact on natural and cultural values:	
(a)	landscape assessment	3.3.3, 4.2.7
(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;	3.3.5, 3.3.7, 4.1.1, 4.1.6, 4.2.6, 4.2.8, 4.3.5
(c)	archaeological, historic heritage and special character assessment;	3.3.5, 3.3.7, 4.2.8
(d)	natural heritage assessment; and	3.3.3, 4.2.7, 4.2.8, 4.2.9
(e)	freshwater and ecological assessment.	3.3.3, 3.3.9, 4.2.2, 4.2.9, Appendix 03
(4)	Environmental risk:	
(a)	geotechnical assessment	3.3.9, 4.2.10
(b)	land contamination and mediation assessment; and	3.3.9, 4.2.11
(c)	health impact assessment	4.2.12
(5)	Implementation:	
(a)	staging plan	3.4.1, 3.4.2
(b)	funding plan	3.4.1, 3.4.2
(c)	affordability assessment	3.3.1
(d)	neighbourhood design statement	4.2.13
(e)	other documents depending on the characteristics of the land and water resources of the area	

Appendix 02: Summaries of, and housing typologies expected in, Auckland Unitary Plan Operative in Part residential zones

Residential Zones summarised in this appendix:

- Terraced Housing and Apartment Buildings
- Mixed Housing Urban
- Mixed Housing Suburban
- Single House
- Large Lot.

Terraced Housing and Apartment Buildings

- Objectives seek to achieve an urban residential character, enabling terrace housing or apartment building development of five to seven storeys.
- Applied to areas that are highly accessible adjacent to metropolitan, town and local centres and transport links.
- All dwellings require resource consent.
- No minimum or maximum number of car parking spaces required.
- Height 16m (or as specified).
- No density limit.



Terrace housing



Apartments



Apartments

Mixed Housing Urban zone

- Objectives seek to achieve an urban residential character of up to three storeys.
- Applied to areas with good access to transport and services, close to higher density residential, business zones and transport links.
- Height 11m (+ 1m @ 15 degrees).
- One to three dwellings is permitted, four or more requires resource consent.
- No density limit (300m² minimum site area for vacant lot subdivision).



Low rise terrace housing



Low rise apartments



Detached dwelling

Mixed Housing Suburban zone

- Objectives seek to achieve a suburban residential character of up to two storeys.
- Most widespread residential zone that provides a transition between the Mixed Housing Urban and Single House zone.
- Height 8m (+ 1m @ 15 degrees).
- One to three dwellings is permitted, four or more requires resource consent.
- No density limit (400m² minimum site areas for vacant lot subdivision).



Low rise terrace housing



Attached/duplex dwellings



Detached dwelling

Single House zone

- Objectives seek to maintain and enhance the amenity values of established residential neighbourhoods.
- Objectives seek to ensure that development is in keeping with the neighbourhood's existing or planned suburban built character of predominantly one to two storey buildings.
- Provide for minor dwellings and conversion of existing dwellings into two.
- Height 8m (+ 1m @ 15 degrees).
- Density limit one dwelling per site (600m² minimum site area for vacant lot subdivision).



Large Lot zone

- Applied in areas with physical constraints, ecological features, landscape qualities or infrastructure constraints.
- Height 8m + 1m @ 15°.
- 20 per cent building coverage or 400m² whichever is lesser.
- 35 per cent impervious surface areas or 1400m² whichever is lesser.
- Density control of one dwelling per site (4000m² minimum site area for vacant lot subdivision).



Appendix 03: Strategic context – further detail

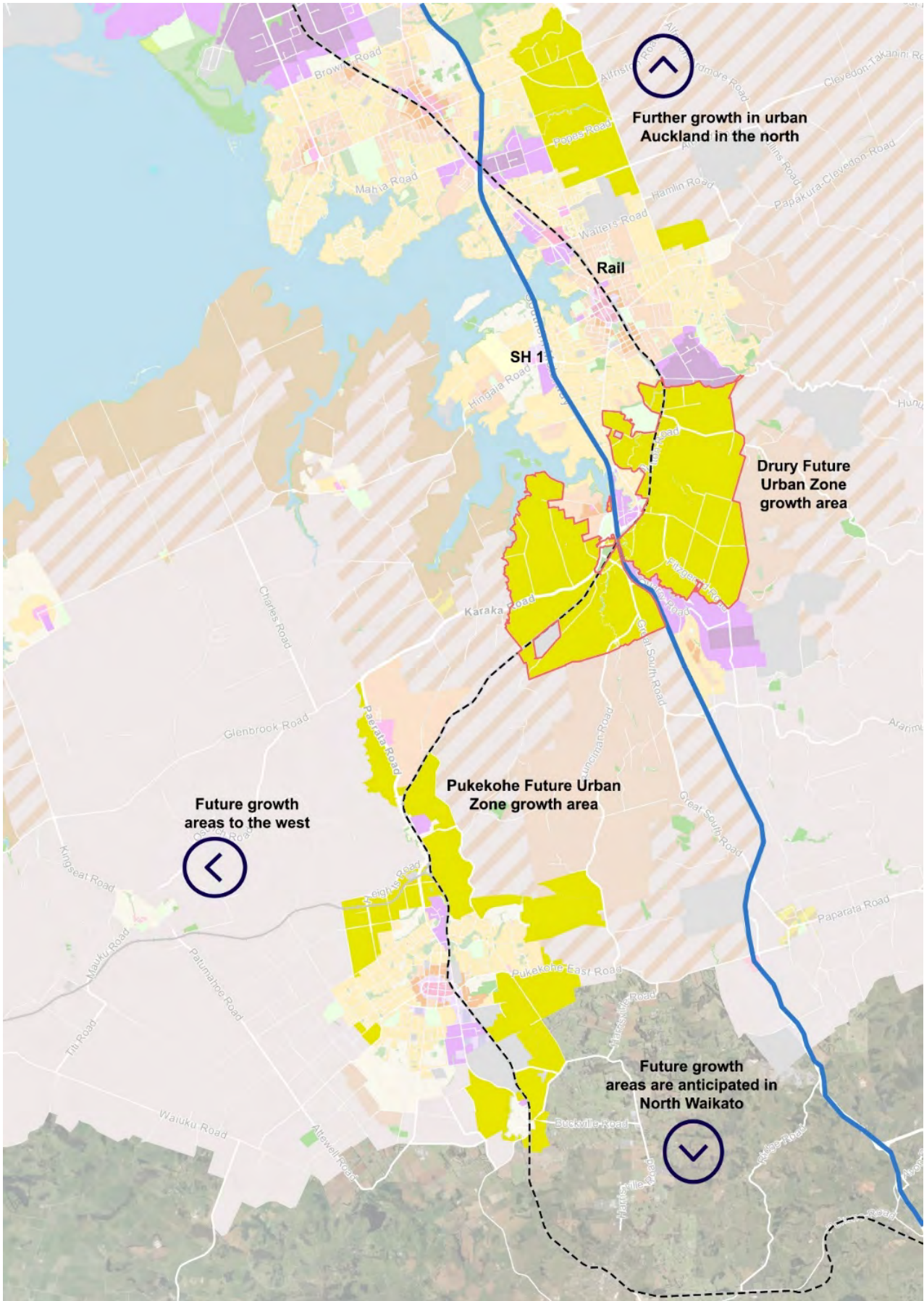
There are statutory and non-statutory documents that are to be considered where appropriate in the development of structure plans, in accordance with Appendix 1 of the Auckland Unitary Plan (for an analysis of how these matters are addressed, see Appendix 01 of the Pukekohe-Paerata Structure Plan 2019).

The key outcomes sought by these documents, where relevant to the Pukekohe-Paerata Structure Plan 2019, are summarised in section 4.1 of this structure plan and further detail on some documents is provided below.

i) Growth context for the Pukekohe-Paerata structure plan area

Map 11 below illustrates the growth context for the Pukekohe-Paerata structure plan area.

Map 11: Growth context for the Pukekohe-Paerata structure plan area



i.i) Waikato growth

The Pokeno and Tuakau growth areas lie within 4km of the Auckland Council boundary. The proximity of settlements (including associated future urban areas) to the Auckland-Waikato boundary means there are significant interdependencies between southern Auckland and northern Waikato that cross administrative government boundaries.

The Waikato towns close to the border of the Auckland-Waikato boundary are experiencing significant residential growth, with the majority of growth over the last decade taking place in Pokeno and neighbouring rural areas. Pokeno currently has 757 households (2016)³⁴. Forward planning undertaken by Waikato District Council provides additional capacity to accommodate another 3,200 households. Tuakau currently has 1636 households (2016). Additional capacity is being provided to accommodate another 6270 households through to 2045. The Hamilton to Auckland Corridor Plan recommends that the long-term growth potential in Pokeno can be maximised through transit-orientated quality intensification.

The proposed Waikato District Plan was notified in 2018 and submissions have closed. The next stage is the receipt of further submissions. It contains the following policy:

4.1.3 Policy – Location of development

(a) Subdivision and development of a residential, commercial and industrial nature is to occur within towns and villages where infrastructure and services can be efficiently and economically provided.

(b) Locate urban growth areas only where they are consistent with the Future Proof Strategy Planning for Growth 2017.

ii) Pukekohe Area Plan 2014

In 2014 the Franklin Local Board prepared the Pukekohe Area Plan, which was adopted by the council.

The Pukekohe Area Plan covers the (then) existing urban zoned area of Pukekohe and the area zoned Future Urban Zone in the (then) Proposed Auckland Unitary Plan. This includes Pukekohe, Paerata to the north and Buckland to the south.

The Pukekohe Area Plan provides for a detailed response to the growth directions of the Auckland Plan, which identifies Pukekohe as a satellite town. In addition, development of the area plan allowed the Franklin Local Board to provide direction on the zoning and Rural Urban Boundary (urban edge) that was included in the Proposed Auckland Unitary Plan for the Pukekohe area.

Its vision was that “Pukekohe will be a vibrant and dynamic satellite town offering a range of employment and residential opportunities, with excellent transport connections, infrastructure, open space and recreation facilities, and a thriving local economy.”

³⁴ Growth data from page 92 of “Future Proof Strategy Planning for Growth” November 2017 – Waikato Regional Council, Hamilton City Council, Waikato District Council, Waipa District Council, New Zealand Transport Authority and Tangata Whenua.

The Pukekohe Area Plan outlined how Pukekohe was envisaged to grow and change over the next 30 years. It set out desired outcomes and the actions that would help to achieve them. It divided the then Future Urban zoned land into nine areas and identified “growth outcomes” for them.

iii) National policy statements and national environmental standards

National Policy Statement for Freshwater Management 2014

The National Policy Statement for Freshwater Management provides direction for the council on the management of freshwater. Chapter E1 Water quality and integrated management of the Auckland Unitary Plan provides three strategic objectives to give effect to this policy statement. They are:

- freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas
- the mauri of freshwater is maintained or progressively improved over time enabling traditional and cultural use of this resource by mana whenua
- stormwater and wastewater networks are managed to protect public health and safety and to prevent or minimise adverse effects of contaminants on freshwater and coastal water quality.

The Pukekohe-Paerata Structure Plan 2019 incorporates the findings of Watercourse Assessment Reports for the Whangapouri Creek, Oira catchment and the Pukekohe South-Tutaenui catchment. A finalised version of the Watercourse Assessment Reports will be available prior to decisions on plan change timings.

Approximately 100km of watercourses were assessed to identify their classifications (permanent, intermittent, transitional, ephemeral, wetlands); and to provide baseline information on the existing condition of waterways (ecological health, infrastructure condition, flooding). This will also help to identify parts of the watercourse network that would meet the requirements to have future esplanade reserves.

The Pukekohe-Paerata Structure Plan 2019 responds to the National Policy Statement for Freshwater Management by:

- the use of water sensitive design as the basis for planning future development
- identifying enhancement opportunities, including riparian planting, and encouraging reinstatement of natural channels
- considering the likely controls needed as part of a future plan change.

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. No additional response is considered necessary. However, the existing transmission corridor that runs through Pukekohe-Paerata has been taken into account.

National Policy Statement on Urban Development Capacity 2016

The National Policy Statement on Urban Development Capacity is relevant to the Pukekohe-Paerata structure plan process. This policy statement 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 National Policy Statement on Urban Development Capacity requires that high growth councils (of which Auckland is one) 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. For the greenfield expansion areas of Auckland, the council has produced the Future Urban Land Supply Strategy that identifies the location, timing and sequencing of future development capacity.

The Pukekohe-Paerata Structure Plan 2019 responds by providing residential and business capacity that is consistent with the Future Urban Land Supply Strategy and therefore is consistent with the National Policy Statement on Urban Development Capacity.

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 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 Hazardous Activities and Industries List (HAIL) have occurred must be identified. This National Environmental Standard 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 Pukekohe-Paerata Structure Plan 2019 has been undertaken as part of the structure plan process.

Proposed National Policy Statement for Versatile and High-Class Soils

The Minister for the Environment has announced that work has started on this document.

iv) Auckland Unitary Plan Operative in Part

The development of the Future Urban zones in Pukekohe-Paerata is part of the solution to the growth challenge. Residential intensification has also been enabled in the existing urban areas.

The Proposed Auckland Unitary Plan (PAUP) was notified in 2013. The Auckland Unitary Plan replaces the former Regional Policy Statement and 13 district and regional plans, including the Auckland Council District Plan – Operative Franklin Section 2000. The Auckland Unitary Plan is now operative in part.

The Auckland Unitary Plan process established a Rural Urban Boundary (RUB) around Pukekohe-Paerata. The Rural Urban Boundary was established to define the maximum extent of urban development in greenfield land to help meet the growth projected in the Auckland Plan. The Future Urban Zone is applied to land located within the Rural Urban Boundary. The land in the Future Urban Zone has been determined to be suitable for future urban development.

The Auckland Unitary Plan is the council's combined statutory Resource Management Act 1991 plan for Auckland. It includes the Regional Policy Statement which sets out the overall strategic framework for Auckland. Sections B1 to B10 of the Regional Policy Statement all have relevance to structure planning and in particular section B2 – Urban growth and form sets out objectives and policies for urban form and growth. Future plan changes to create urban zones for Pukekohe-Paerata must give effect to the Regional Policy Statement.

Appendix 1 of Auckland Unitary Plan also sets out specific guidelines for structure planning. These guidelines have been followed in preparation of the Pukekohe-Paerata Structure Plan 2019 (for an analysis of how these matters are addressed, see Appendix 01 of this structure plan).

The Pukekohe-Paerata structure plan area is mostly zoned Future Urban, with some small areas zoned Open Space, 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.

v) Franklin Local Board Plan

The Franklin Local Board Plan (2017) is a three-year strategic document that guides local board activity, funding and investment decisions for the 2017 to 2020 period. A key role of the local board plan is to provide a basis for development of the annual local board agreement for each financial year. These local board agreements record the delivery and funding of local activities and intended levels of service for that area, for the year. The

aspirations of the plan which will guide this work and make Franklin a better community for all are:

- a well-cared-for natural environment where our diverse natural environment is enhanced, protected and maintained
- a thriving local economy which attracts people to live, work locally and visit its attractions
- an improved transport system towards better public transport and safer roads
- growth is dealt with effectively by making full use of existing outdoor space and community facilities before developing new
- communities feel ownership and connection to their area through supporting community participation in helping to shape people's quality of life, creativity, health and well-being.

Specific key initiatives of the Franklin Local Board Plan (2017) relevant to Pukekohe-Paerata include the following (divided into infrastructure and non-infrastructure related initiatives).

- Infrastructure related.
 - Improving the water quality of our waterways and harbours.
 - Support activities that repurpose or recycle, and provide information on how best to dispose of waste, particularly hazardous waste.
 - Implement local paths plans to make open space connected, accessible and well used e.g. Development of a trails plan for the Pukekohe-Paerata area.
 - Champion a Zero Waste management facility in Pukekohe.
 - Continue to build on improvements already made, including the introduction of a new bus network for Pukekohe, and the ongoing development of an integrated bus and train station at Pukekohe.
 - Continue to advocate to Auckland Transport for improvements to public transport services and infrastructure.
 - Work with Auckland Transport to improve pedestrian safety and accessibility in urban centres.
 - Progress the need for electrification of trains between Papakura and Pukekohe to decrease travel time and avoid changing trains.
 - Continue to advocate for roads to be fit-for-purpose for all types of users, including quarry trucks, horticultural operations moving freight, commuters, and local people moving around our area, that are safe and reflect the rural environment.

- Work with key agencies, such as Watercare, Auckland Transport and central government to ensure services such as water, wastewater and roading are in place for growth areas.
- Non-infrastructure related.
 - Encourage major employers to locate in Franklin and provide local jobs.
 - Use council networks to connect local schools with regional career and employment events.
 - Encourage rural innovation hubs to be established in Franklin.
 - Support the promotion and linking of local attractions, events and heritage.
 - Building on our strengths in rural industries such as agriculture, horticulture and equine offers the opportunity to establish Franklin as a rural centre of excellence.
 - Establishing rural research programmes, developing a rural services hub and complementary activities for equine and motorsport industries will increase the opportunities for local young people to work locally.
 - Continue partnering with organisations like schools, churches and government departments on the best outcomes to meet community needs.
 - Plan for growth in the right places, centred on local and town centres, to protect productive soils used for local agriculture and horticulture.
 - Support events that celebrate the identity of Franklin and bring the whole community together e.g. vibrant local arts scene.
 - Advocate to the Governing Body and work with the community to ensure areas experiencing growth have appropriate, action-focused plans.
 - Ensure we are making the best possible use of existing outdoor space and community facilities.
 - Plan the development of new facilities to support growth, where needed.
 - Provide safe, reliable and accessible social infrastructure for Aucklanders that contributes to placemaking and thriving communities.
 - Invest in community-led projects that create better connection to and through our environment, such as the Waiuku, Pōhutukawa Coast and Pukekohe trails, and in outdoor spaces and community facilities that cater for growth, like the Karaka Sports Park.
 - Provide safe, reliable and accessible social infrastructure for Aucklanders that contributes to placemaking and thriving communities.
 - Enhance, protect and maintain our environment by leveraging local benefit from new water quality and pest management targeted rate initiatives and the

waste management and minimisation plan, and we will support Kauri dieback prevention in the Hunua Ranges. We will support new waste minimisation facilities and programmes addressing illegal dumping and littering.

- Fund, enable and deliver community events and experiences that enhance identity and connect people fund, enable and deliver arts and culture experiences that enhance identity and connect people.
- Showcase Auckland's Māori identity and vibrant Māori culture.

The Pukekohe Structure Plan 2019 is consistent with the Franklin 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 for replanting and identifies the potential for future community facilities consistent with those in the local board plan.

The structure plan process has also enabled the Pukekohe community to be influential and empowered through various consultation phases of the project, most notably through the use of online and printed platforms with a series of public drop in events throughout the engagement periods, targeted stakeholder events and workshops with youth to generate ideas on how the structure plan could look. The collaborative engagement events and activities were an opportunity for community members to come up with a land use plan for Pukekohe's expansion area.

vi) Infrastructure strategies, plans and initiatives

Watercare Asset Management Plan 2016-2036

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 development in Pukekohe-Paerata is aligned with the timing of water and wastewater infrastructure provision.

The asset management plan identifies significant work programmes to growing demands. The projects that will directly impact the structure plan area are:

- increased water take from the Waikato Water Treatment Plant
- completion of the Pukekohe trunk sewer upgrade to convey wastewater from Pukekohe to its wastewater treatment plant
- expansion of the Pukekohe Wastewater Treatment Plant doubling its capacity to support the planned growth

vii) Other Auckland Council plans and strategies

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 being:

- the way we travel
- the way we generate energy
- our built environment and green infrastructure
- zero waste
- 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 Pukekohe-Paerata Structure Plan 2019 responds to Low Carbon Auckland in the provision for housing intensification, active transport modes, public transport, and riparian margins to protect streams and enhance biodiversity.

Draft Tāruke-ā-Tāwhiri Auckland Climate Action Framework 2019

Council agreed to consult on this framework in June 2019. The framework focuses on eleven key moves to deliver a net-zero emissions, climate resilient Tāmaki Makaurau.

- 1) Enhance ecosystem services and connectivity.
- 2) Make development and infrastructure climate-compatible.
- 3) Shift to decentralised renewable energy.
- 4) Transform existing buildings and places.
- 5) Deliver clean, efficient and accessible mobility options.
- 6) Future-proof communities and empower individual action.
- 7) Enable a just transition to a zero carbon, climate resilient economy.
- 8) Grow a low-carbon, resilient food system.
- 9) Youth and intergenerational equity.
- 10) Resilient Māori communities.
- 11) Lay the foundation for our success.

Auckland Council has responsibility for some but not all these actions.

Auckland Council also declared a “climate emergency” in June 2019, with one of its commitments being to “*continue to robustly and visibly incorporate climate change considerations, in practical terms, into council work programmes and decisions*”.

Examples of how the Pukekohe-Paerata Structure Plan 2019 responds to climate change include through its provision for housing intensification, active transport modes, public transport, and riparian margins to protect streams and enhance biodiversity.

Auckland Urban Ngahere (Forest) Strategy 2018

Auckland’s urban ngahere 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.

The 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 Pukekohe-Paerata Structure Plan 2019 responds to the strategy by requiring riparian margins along all permanent and intermittent streams and providing for new open spaces. This also enables a future opportunity to establish an underlying green network that over time can increase canopy cover and create corridors of native habitat connecting fragments of native vegetation.

There is also opportunity for roads, streets and pathways to be used to increase canopy and vegetation cover to improve environmental and health and well-being outcomes.

Auckland Council’s Indigenous Biodiversity Strategy 2012

This strategy sets out the council’s approach to maintaining and enhancing Auckland’s biodiversity. The Pukekohe-Paerata Structure Plan 2019 responds to the strategy by protecting existing significant ecological areas and by promoting environmental values.

Auckland Growing Greener 2016

Auckland growing greener describes council’s priorities for achieving good environmental outcomes as Auckland grows. It sets four priority areas:

- urban transformation
- zero waste
- restoring nature
- healthy waters.

The structure plan responds to these with a land use concept that provides for:

- quality intensification

- public transport, walking and cycling
- environmental networks to protect our streams.

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 Pukekohe-Paerata. The Neighbourhood Design Statement, discussed in section 4.2.13 of this structure plan, refers to best practice examples provided by the Auckland Design Manual.

Te Aranga Māori design principles are outcomes-based principles founded on intrinsic Māori cultural values and are part of the Auckland Design Manual. The structure plan recognises the importance of mana whenua presence, visibility and participation in the design of the physical realm and encourages the use of these principles throughout future planning and development of Pukekohe-Paerata.

The plan change process that follows the structure plan will consider more specific provisions required to implement a quality-built environment in Pukekohe-Paerata.

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.

Panuku Development Kia Puāwai/Unlock Pukekohe High Level Project Plan

This plan to enhance the Pukekohe town centre is to be achieved through council property redevelopment, public realm investment associated with council properties, partnering with others and placemaking. The plan is intended to catalyse and reinvigorate wider private development potential in Pukekohe and its surrounding area.

The structure plan provides for growth on the periphery of Pukekohe and reinforces Pukekohe town centre as the heart of Pukekohe-Paerata.

Appendix 04: List of technical reports and topic papers

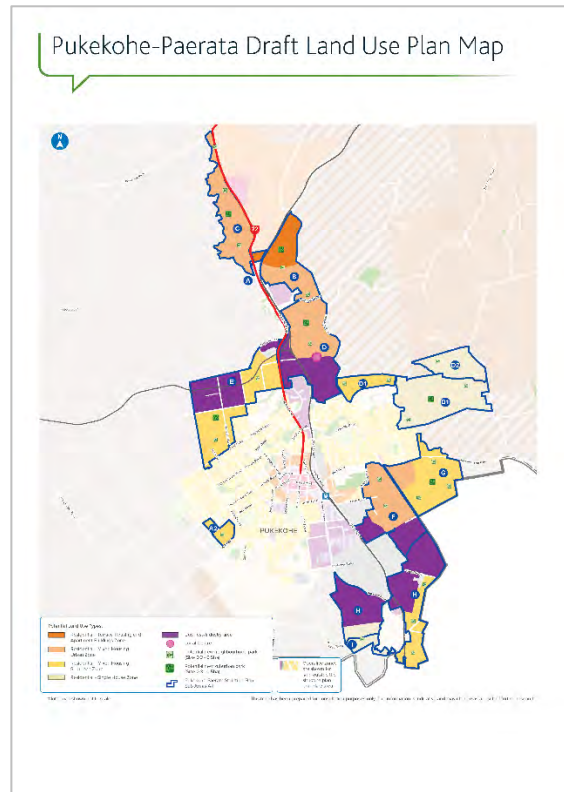
Report topic	Reference
Business land demand and location	<p>Heath, T., (2018). <i>West Franklin and Drury Future Business Land Assessment</i>. Auckland, New Zealand: Property Economics Ltd</p> <p>Nunns, P., (2018). <i>Technical Note: Locational prerequisites for commercially successful business land</i>. Auckland, New Zealand: MRCagney Ltd</p> <p>Nunns, P., (2018). <i>Technical Note: Land per employee ratios for greenfield business areas</i>. Auckland, New Zealand: MRCagney Ltd</p> <p>Nunns, P., (2018). <i>Technical Note: Review of Property Economics West Franklin and Drury Future Business Land Assessment report</i>. Auckland, New Zealand: MRCagney Ltd</p> <p>Joseph, C., (2018). <i>Technical Note: Success factors for rapid transit network stations</i>. Auckland, New Zealand: MRCagney Ltd</p> <p>Nunns, P. & Joseph, C., (2018). <i>Technical Note: Summary of implications for business land locations</i>. Auckland, New Zealand: MRCagney Ltd</p>
Community facilities	Ennor, L. & Fowler, R., (2019). <i>Community Facilities Pukekohe-Paerata Structure Plan</i> . Auckland, New Zealand: Auckland Council
Contaminated land	McClellan, J., (2018). <i>Technical Investigation Contamination Assessment Paerata-Pukekohe Future Urban Zone</i> . Auckland, New Zealand: Riley Consultants Ltd
Cultural values assessment	(2019). <i>Mana Whenua Engagement Summary</i> . Auckland, New Zealand: Auckland Council
Ecology	Sinclair, S., (2019). <i>Ecology Assessment: constraints and opportunities report Pukekohe-Paerata Structure Plan</i> . Auckland, New Zealand: Auckland Council
Geotechnical	Price, S., (2018). <i>Paerata-Pukekohe Structure Plan Background Investigations Geotechnical Assessment</i> . Auckland, New Zealand: Riley Consultants Ltd
Health	Laird, E. & Kaur, J., (2019). <i>Health Topic Paper: Draft Drury-Opāheke Structure Plan 2019, Draft Pukekohe-Paerata Structure Plan 2019</i> . Auckland, New Zealand: Auckland Council.
Historic heritage	Francesco, C. & Freeman, R., (2017). <i>Historic Heritage Assessment</i>

and archaeology	<i>Pukekohe-Paerata Structure Plan</i> . Auckland, New Zealand: Auckland Council
Landscape	Hamilton, C., (2017). <i>Paerata-Pukekohe Structure Plan Landscape and Visual Assessment Background investigations for Auckland Council</i> (Report No. 3AL240.00). Auckland, New Zealand: Opus International Consultants Ltd.
Open space	Noon, S., (2019). <i>Pukekohe-Paerata Structure Plan Parks and open space report</i> . Auckland, New Zealand: Auckland Council
Stormwater and flooding	Reddish, J., (2019). <i>Paerata Pukekohe Future Urban Zone Structure Plan Stormwater Management Plan</i> . Auckland, New Zealand: WSP Opus.
Transport	Winter, S., (2019). <i>Supporting Growth Drury – Opāheke and Pukekohe – Paerata Structure Plan Integrated Transport Assessment</i> . Auckland, New Zealand: Te Tupu Ngātahi.
Water and wastewater	Allen, C., (2019) <i>Water and Wastewater Servicing Plan Draft Pukekohe/Paerata Structure Plan</i> . Auckland, New Zealand: Watercare Services Limited.
Urban design	Mentz, K., (2018). <i>Southern Structure Plan Area Neighbourhood Design Statement</i> . Auckland, New Zealand: Urbanismplus Ltd.

2018 Consultation Phase 2



Draft Pukekohe-Paerata Structure Plan 2018 – Brochure cover

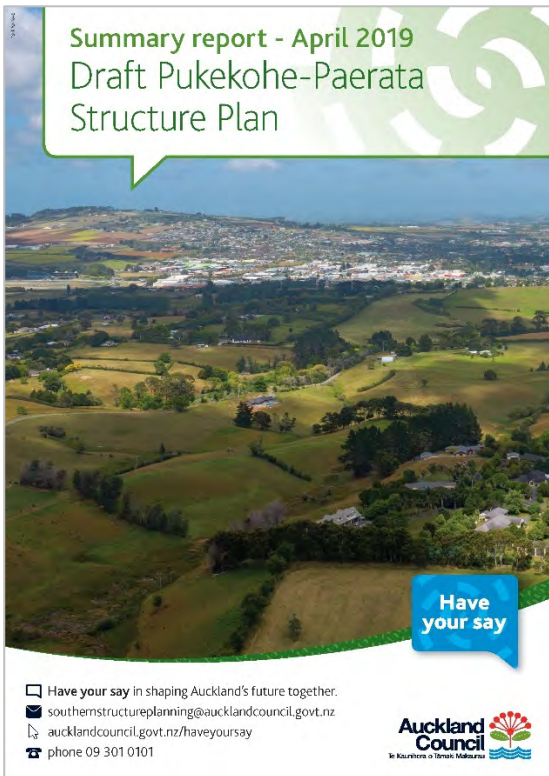


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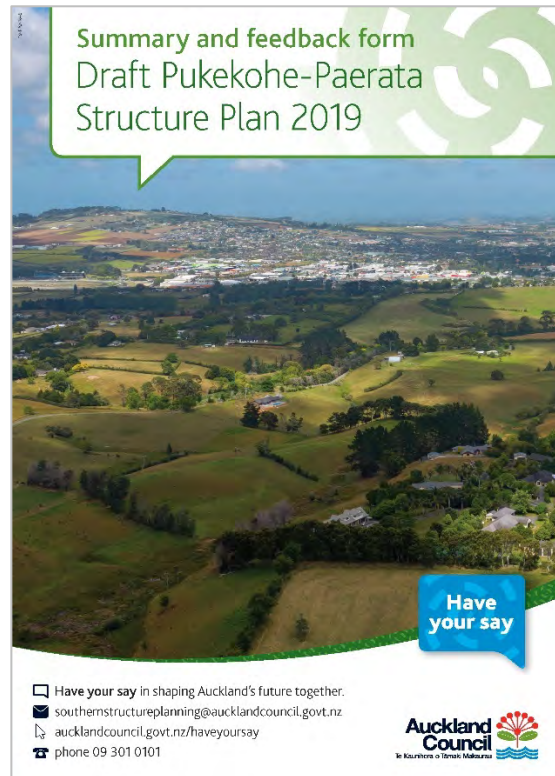


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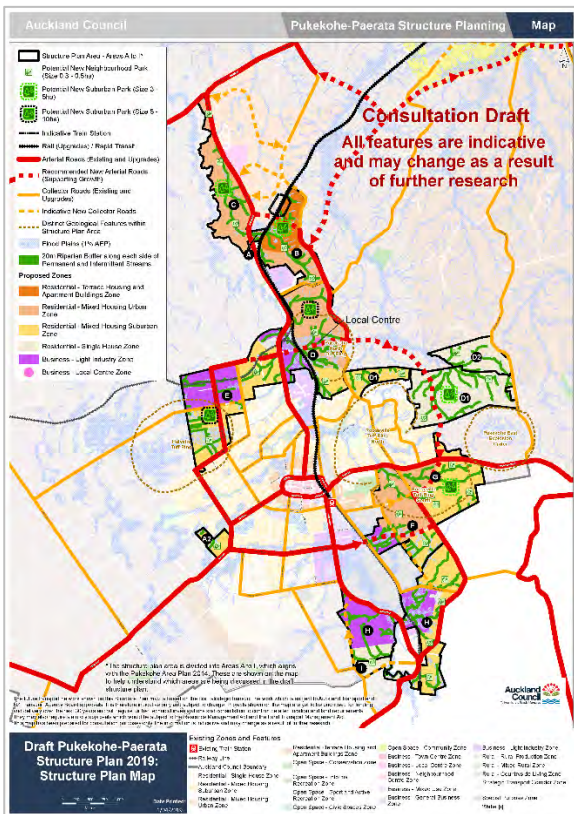
2019 Consultation Phase 3



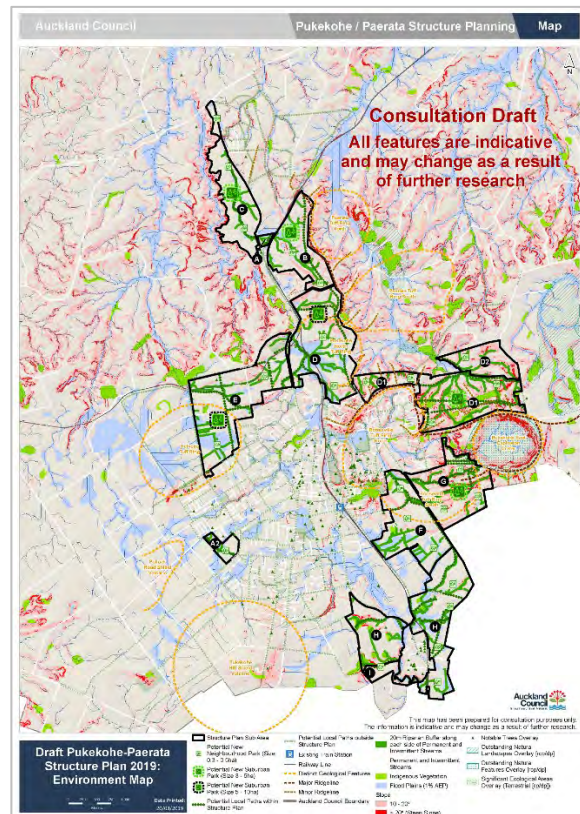
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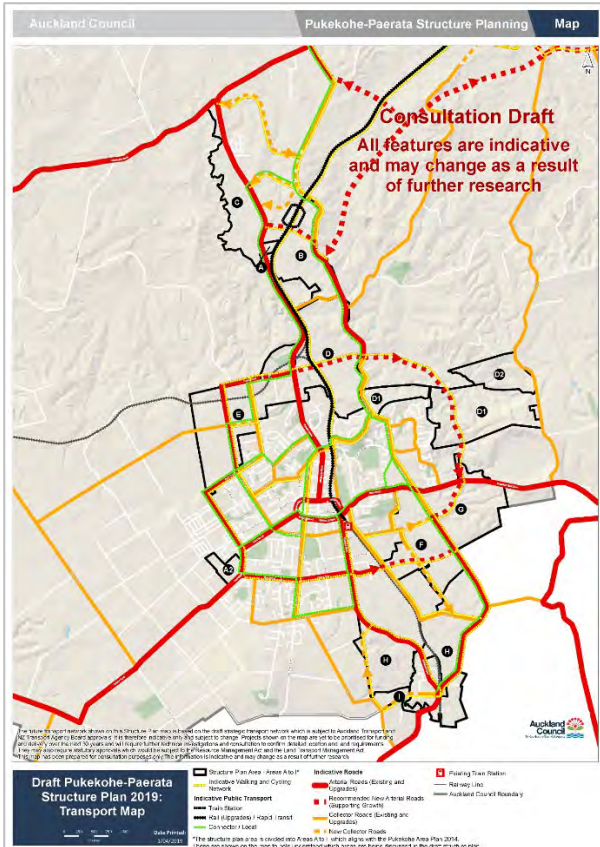
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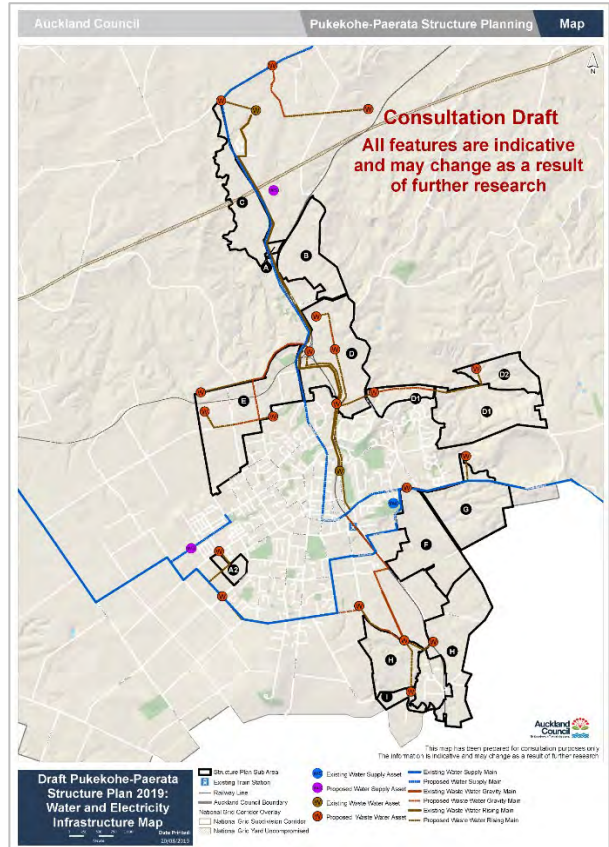
Draft Pukekohe-Paerata Structure Plan 2019 – Structure Plan Map



Draft Pukekohe-Paerata Structure Plan 2019 – Environment Map



Draft Pukekohe-Paerata Structure Plan 2019 – Transport Map



Draft Pukekohe-Paerata Structure Plan 2019 – Water and Electricity Infrastructure Map



Draft Pukekohe-Paerata Structure Plan 2019 – Engagement Summary cover

Appendix 06: Water sensitive design approaches

Key Principles		
<ul style="list-style-type: none"> • Working with the existing landform – minimising cutting and filling that effects infiltration and changes the natural flowpaths, as far as practicable. • Minimise impervious surfaces and land disturbance thereby retaining the natural infiltration capacity of the soil. • Apply exemplar erosion and sediment control measures (in particular small site development) to minimise the impact on the downstream receiving environment. • Disconnection of impervious surfaces from the receiving environment to encourage infiltration and attenuation prior to discharge to the stormwater system. • Maximise soil infiltration for hydrology mitigation and ground water recharge. • Re-vegetation/planting to reduce runoff and erosion and maximise biodiversity. • Reduce contaminant sources by avoiding zinc/copper roof material. • Provide attenuation to peak flows in extreme events (up to the 1 per cent AEP) where there is the potential to increase flood risk to others downstream. 		
Land Use	Requirements	Options
Residential	Hydrological mitigation – retention and detention	<ul style="list-style-type: none"> • above ground rainwater storage/re-use tanks • rain gardens/planter boxes • underground storage tanks, structural cells • permeable pavement and porous concrete • filter trenches/trench drains <p>Note: infiltration for retention is preferred.</p>
	Primary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> 1. soakholes (where practicable, and subject to testing) 2. retain and enhance permanent and intermittent streams 3. swales 4. pipe network
	Secondary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> 1. retain and enhance permanent and intermittent streams 2. swales and open channels 3. road corridors
	Flood risk attenuation (where required)	<ol style="list-style-type: none"> 1. ‘at source’ storage, e.g. underground storage 2. wetlands. 3. ‘dry’ basins with multi-purpose functionality

All roads/ carparking and High Contaminant Generating Activities (HCGAs)	Hydrological mitigation – retention and detention	<ul style="list-style-type: none"> rain gardens tree pits filter trenches/trench drains permeable pavement and porous concrete <p>Note: infiltration for retention is preferred.</p>
	Stormwater treatment	<ul style="list-style-type: none"> rain gardens tree pits filter strips/swales wetlands
	Primary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> soakholes (where practicable, and subject to testing) retain and enhance permanent and intermittent streams swales pipe network
	Secondary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> retain and enhance permanent and intermittent streams swales and open channels road corridors
	Flood risk attenuation (where required)	<ol style="list-style-type: none"> 'at source' storage, e.g. underground storage wetlands 'dry' basins with multi-purpose functionality
Business	Hydrological mitigation – retention and detention	<ul style="list-style-type: none"> rainwater storage tanks (above or below ground) rain gardens/planter boxes permeable pavement and porous concrete filter trenches/trench drains detention basins <p>Note: Infiltration for retention is preferred. Where retention is not achieved then treatment of impervious surfaces is required prior to discharge</p>
	Stormwater treatment	<ul style="list-style-type: none"> rain gardens tree pits

		<ul style="list-style-type: none"> • filter strips/swales • proprietary treatment devices • wetlands
	Primary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> 1. soakholes (where practicable, and subject to testing) 2. retain and enhance permanent and intermittent streams 3. swales 4. pipe network
	Secondary stormwater conveyance	<p>In order of preference:</p> <ol style="list-style-type: none"> 1. retain and enhance permanent and intermittent streams 2. swales and open channels 3. road corridors
	Flood risk attenuation (where required)	<ol style="list-style-type: none"> 1. 'at source' storage, e.g. underground storage 2. Wetlands 3. 'dry' basins with multi-purpose functionality
Special Purpose	Hydrological mitigation – retention and detention	To be confirmed.
	Primary stormwater conveyance	
	Secondary stormwater conveyance	

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