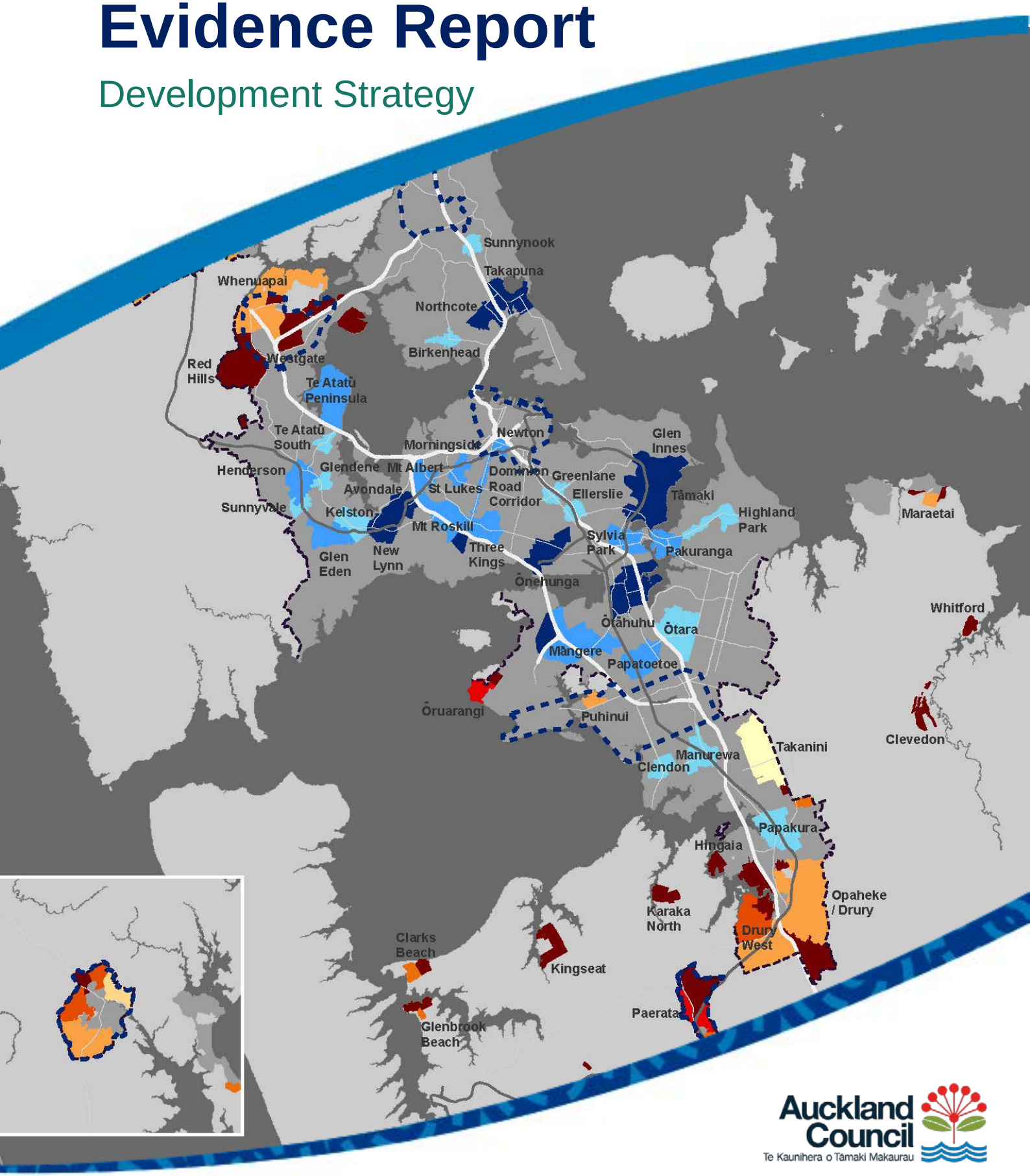
# Auckland Plan 2050 Evidence Report

## Development Strategy




Auckland Council
Te Kaunihera o Tāmaki Makaurau

June 2018
Auckland Plan, Strategy and Research Department
Auckland Council (2018). Auckland Plan 2050 Evidence Report: Development Strategy

ISBN 978-1-98-856442-5 (PDF)

The Auckland Plan 2050 was adopted by the Auckland Council Planning Committee on 5 June 2018.

This document supports the Development Strategy in the Auckland Plan 2050 as at June 2018. Please note that the Auckland Plan 2050 is a digital plan and may be updated from time to time. Please refer to the Auckland Plan website, www.theaucklandplan.govt.nz for the most up to date version of the full plan.

# Table of Contents

# Evidence report update

This is the final version of the evidence report to support the Development Strategy. A draft evidence report (February 2018) supported the consultation version of the draft Auckland Plan 2050. It was available during formal consultation on the draft plan, which took place from 28 February to 28 March 2018.

The draft evidence report has been amended to reflect updated data, new information, and feedback received. Changes have been made throughout the evidence report with substantive changes to:

- amend population, dwelling and job numbers
- further support rural production
- fulfil the requirements of the National Policy Statement on Urban Development Capacity
- amend the extent and timing of some existing development areas
- add new development areas
- delete development areas from within the nodes.

# Executive Summary

The Auckland Plan 2050 sets out the long-term vision for how Auckland will grow and how we will address our key challenges of high population growth, shared prosperity and reducing environmental degradation. The Development Strategy, a component of the Auckland Plan, proposes a plan for how and where Auckland will grow and provides clarity of where, and when, investment in planning and infrastructure will be needed.

The 2012 Auckland Plan set out a shared vision and agreed strategy to steer Auckland's future development over 30 years. Since 2012:

- Auckland has experienced rapid population growth
- the Auckland Unitary Plan has been adopted
- changes have been made to the legislative context.

These changes are reflected in the Auckland Plan 2050 Development Strategy which identifies the approach to how we can best accommodate and enable the next 30 years of significant growth expected in Auckland.

The Auckland Plan Development Strategy 2050 serves as Auckland's future development strategy, as required by the National Policy Statement on Urban Development Capacity 2016.

## Growth Approach

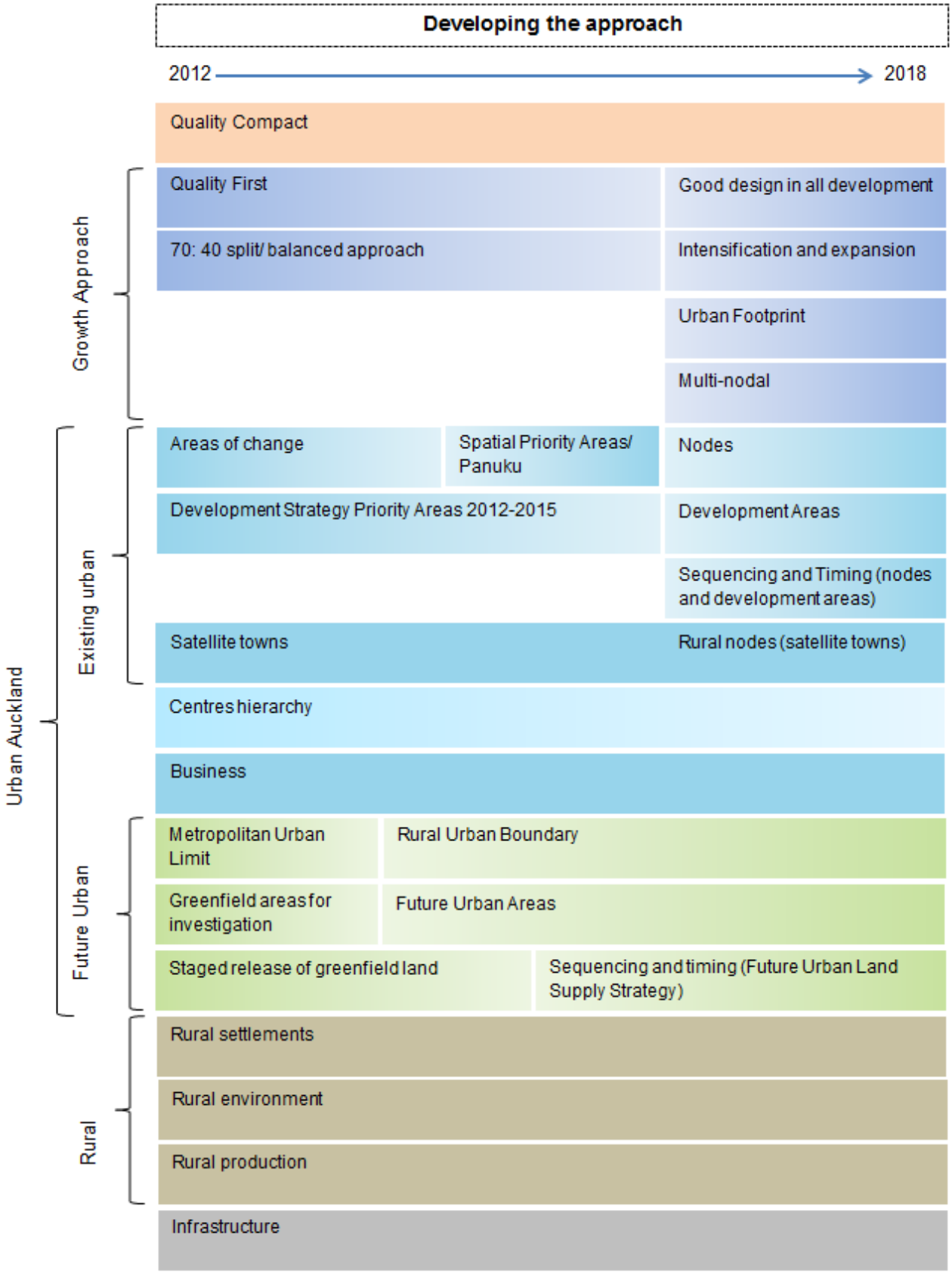
The broad spatial distribution of growth aligns closely with the 2012 Auckland Plan, continuing its vision of achieving a more quality compact urban form. Refreshed scenario modelling shows that the quality compact approach remains the most effective way to manage growth. The Auckland Plan 2050 builds on this approach by introducing two additional key mechanisms:

- urban footprint
- multi-nodal.

These three mechanisms work together to direct growth and match the expected concentrations of people with the locations of homes, urban activity and employment.

Figure A below shows the overall approach to growth and how the different aspects have evolved from 2012 to the approach taken in the Auckland Plan 2050 Development Strategy.

**Figure A Development Strategy approach to growth**




The urban footprint is a new concept that builds on the concepts of a quality compact Auckland and a Rural Urban Boundary. The urban footprint defines the extent of

Auckland's existing urban area together with the significant future urban areas sequenced for urbanisation over 30 years. This new urban footprint reflects the Auckland Unitary Plan zonings.

The multi-nodal approach establishes a spatial structure where the city centre continues to be the focus as Auckland's primary centre, and three other areas (Albany, Westgate and Manukau) are introduced as nodes critical to growth across the region.

This reinforces the urban form of Auckland, particularly defining the north, north-west and southern focal points and catchments.

### Intensify, most growth in urban areas

Auckland's existing urban area consists of a variety of interconnected neighbourhoods, centres and business areas, which support where most Aucklanders live, work and spend their leisure time.

Much of Auckland's urban area will change as the population grows. Achieving a quality compact urban environment requires a shift towards using land resources in a more efficient way.

This necessitates urban intensification to achieve a higher density of housing and business activity both in brownfields and greenfields, with emphasis on well-designed higher density development in the right places. Growth is enabled throughout most of Auckland's existing urban area, and all neighbourhoods are capable of accommodating growth to some extent.

Nodes and development areas are identified as areas that are likely to undergo significant growth and change. This approach builds on the areas of change identified in the 2012 Auckland Plan Development Strategy, the development capacity uplift provided through the Auckland Unitary Plan, and market feasibility and projects that are being delivered in various locations across Auckland.

The selection of a short list of development areas for the Draft Auckland Plan 2050 was based on a methodology, including criteria based assessment, for both the selection of areas and for the timing and sequencing of those areas. Further information received through consultation resulted in additions and changes to the definition, location and timing of development areas. This process resulted in the final selection of 18 development areas.

### Managed expansion into future urban areas

Future urban areas will be established on the fringe of Auckland's existing urban area, the rural nodes, and in rural and coastal settlements. These areas will make an important contribution to accommodating Auckland's growth over the next 30 years. The supply of future urban land is managed through a programme that sequences future urban land over 30 years. This will assist with the ongoing supply of greenfield land for development.

### Business areas, centres and neighbourhoods and rural production

The approach taken to business areas, centres and neighbourhoods and rural production builds on that taken in the 2012 Auckland Plan. Introduction of the multi-nodal approach sees each of the nodes supporting significant business and employment activity along with the functioning of strong centres and neighbourhoods. The Development Strategy 2050 includes a more refined direction regarding protection of highly productive land, and contains an updated list of rural towns and villages to reflect changes in their role and function.

### Co-ordination of future infrastructure demand

The Auckland Plan 2050 and the draft 30-year Infrastructure Strategy are aligned, with coordinated investment and planning to enable growth. These documents focus on enhancing Auckland's infrastructure performance while creating resilient infrastructure networks. The Auckland Plan 2050 approach:

- identifies, at a high level, the key infrastructure challenges and opportunities facing Auckland over the next 30 years
- identifies the future demand for infrastructure by consolidating available information on planned long-term infrastructure investments to understand Auckland's future infrastructure needs
- establishes a framework for aligning land use, growth and infrastructure planning and investment both spatially and temporally over a 30 year period.

### How the Development Strategy relates to the six Auckland Plan outcomes

This report is one of a set of evidence reports prepared to support the development of the Auckland Plan. The Development Strategy and the six outcomes set out in the Auckland Plan combine to achieve the type of Auckland Aucklanders want. Appendix 1 provides a summary of the key relationships between the Development Strategy and the six Auckland Plan 2050 outcome areas.

### Feedback

Through consultation with key stakeholders, feedback was received on early drafts of the Auckland Plan 2050 Development Strategy. Feedback was also received during formal consultation on the draft plan, carried out from 28 February to 28 March 2018. A summary of this all feedback and information on how this has shaped thinking is included in Section 9: Partner and stakeholder feedback and Section 10: Public consultation on the draft Auckland Plan 2050.

# 1 Introduction

## 1.1 Purpose

The purpose of this report is to inform, support and provide background material for the Development Strategy in the Auckland Plan 2050 and to assist in the future development of policy positions.

It is one of a set of interrelated evidence reports prepared to support the development of the Auckland Plan. Appendix 1 provides a summary of the key relationships between the Auckland Plan 2050 Development Strategy and the outcome areas. This report focuses on specialist knowledge and evidence related to changes in understanding of Auckland's responses to growth and spatial development since the first 2012 Auckland Plan Development Strategy.

The information has been drawn from a wide range of sources. Feedback from consultation with Aucklanders including key stakeholders, mana whenua and mataawaka informed the draft Development Strategy evidence report (February 2018). This supported preparation of the draft Auckland Plan Development Strategy 2050. Information on how feedback informed the draft Development Strategy is included in Section 9: Partner and stakeholder feedback.

Since preparation of the draft documents, further information has informed this revised evidence report and the adopted Auckland Plan Development Strategy 2050. This includes feedback received through formal consultation (28 February to 28 March 2018), a series of workshops with central government and further research. Information on how this has informed the final Plan is included in Section 10: Public consultation on the draft Auckland Plan 2050.

## 1.2 Development Strategy

Around 1.66 million people currently live in Auckland[1]. Over the next 30 years this number could grow by another 720,000 people to reach 2.4 million. This means we could need another 313,000 dwellings and up to 263,000 extra jobs.[2]

The Auckland Plan 2050 sets out the long-term vision for how Auckland will grow and how we will address our key challenges of high population growth, shared prosperity for all and reducing environmental degradation.

The Development Strategy proposes a plan for how and where Auckland will grow and provides clarity of where, and when, investment in planning and infrastructure may be needed.

[1] 1.66 million is the population as at 30 June 2017. This figure is rounded from 1,657,000 million. The 'Demographic trends for Auckland: Data sources and findings' Auckland Plan 2050 Evidence report contains further information on population numbers.
[2] Future population growth is based on Auckland Council's Land Use Scenario i11. For further information about population growth numbers see Appendix 2 of this report and the 'Demographic trends for Auckland: Data sources and findings' Auckland Plan 2050 Evidence report.

It serves as Auckland's future development strategy, as required by the National Policy Statement on Urban Development Capacity (Ministry for the Environment, 2016). See Section 8 for more information on meeting the requirements of the National Policy Statement on Urban Development Capacity.

The Development Strategy presents the outcomes we want to achieve and takes into account population and employment growth projections and the planning framework of the Auckland Unitary Plan. It takes a quality compact approach to growth, which includes:

- significant redevelopment and intensification in areas that are already developed
- newly established communities in the future urban areas
- enabling business growth by supporting flexible and adaptable business areas
- limiting residential growth in rural areas to ensure that rural production can continue and develop, while maintaining rural values.

The Development Strategy demonstrates the importance of working with partners and aligning investment in planning and infrastructure. It also shows that efficient land use is key in providing for the future residential, business and infrastructure needs of the region and supporting a high quality of life in both urban and rural areas.

# 2 Context

This section focuses on strategic planning since 2010. It looks at:

- the approach taken in the 2012 Auckland Plan Development Strategy
- monitoring of the 2012 Auckland Plan approach and how well it has achieved the intended aims
- changes since 2012 in both the legislative requirements and the new information available to inform an updated Development Strategy
- Māori responsiveness since the 2012 Auckland Plan.

## 2.1 Background

Strategic, regional planning has had a long genesis in Auckland. The first regional planning document, which focused on efficient infrastructure provision, was published in the 1950s. This was a period when major decisions (e.g. the construction of the Harbour Bridge, motorway construction, development of the Māngere Sewage Purification Works) influenced the direction of regional planning and urban form for a growing city (Regional Growth Forum, 1998).

The many local bodies within the Auckland region made integrated planning challenging. A major advance was the Auckland Regional Council and the seven local councils working together, as the Auckland Regional Growth Forum, to develop a Regional Growth Strategy 2050 (Auckland Regional Council, 1999).

The creation of Auckland Council in 2010 provided a step change and the potential for integrating land use and infrastructure through strategic planning. The specific legislative

requirement to develop a spatial plan for Auckland built on previous work in this new environment.

## 2.2 Understanding the 2012 Auckland Plan direction

In 2012, in response to a requirement in the Local Government (Auckland Council) Act 2009 (s79), Auckland Council adopted a spatial plan for Auckland – the 2012 Auckland Plan. Central to the 2012 Auckland Plan was the high-level Development Strategy which considered the physical, social, economic, and cultural wellbeing of Auckland. It sought to achieve sustainable development across Auckland, and deliver quality outcomes and improved quality of life for all.

The key growth direction in the Development Strategy focused on moving to a quality compact Auckland, preventing excessive expansion into Auckland's rural hinterland while focusing growth in the existing urban area. This focus was supported by promoting well-designed places where people and communities could live and interact successfully.

Compact growth related both to the desire for greater levels of intensification in existing and new urban areas, as well as the introduction of the Rural Urban Boundary. The Rural Urban Boundary defined the maximum extent of urban development in Auckland to 2040, and signalled further work needed to plan for a staged release of greenfield land for future residential and business development within that maximum extent.

The 2012 Development Strategy directed 60 to 70 per cent of total new dwellings inside the core urban area (i.e. the then Metropolitan Urban Limit). This meant that between 30 to 40 per cent of total new dwellings would be in greenfields, satellite towns, rural and coastal towns, and the rural area (outside the then Metropolitan Urban Limit).

Warkworth and Pukekohe were identified as satellite towns, acknowledging their potential to function semi-independently of the main urban area, and providing a range of services to the surrounding rural areas. These towns had substantial residential and employment growth allocations.

Growth in the remaining rural areas focused on existing towns, with rural and coastal villages not identified for significant growth, largely due to practical infrastructure constraints.

The 2012 Auckland Plan anticipated a broadly even balance of growth between the isthmus, the areas north and west of the isthmus, and the areas south and east of the isthmus. The pattern of growth envisaged intensification in centres and along transport corridors. To achieve this quality compact urban form, a range of housing types supported by good quality transport infrastructure would be required.

The Development Strategy was clear that a transformational change was required in the way the wider development sector works together, cooperates and collaborates, and embraces innovation.

The strategy also proposed an action plan and monitoring framework, together with spatial priority areas for early investment.

## 2.3 Key progress made on the Auckland Plan since 2012

Annual monitoring has been carried out on the Auckland Plan since 2012, with an additional five-year progress report published in 2018 (Auckland Council, 2018a).

Monitoring specific aspects of the 2012 Auckland Plan provides an indication of what progress is being made towards achieving a quality compact city and whether any changes are needed in the approach. The range of locations and housing types are particularly important measures of a quality compact form. These are discussed below and with further detail on monitoring of the 2012 Auckland Plan in Appendix 3.

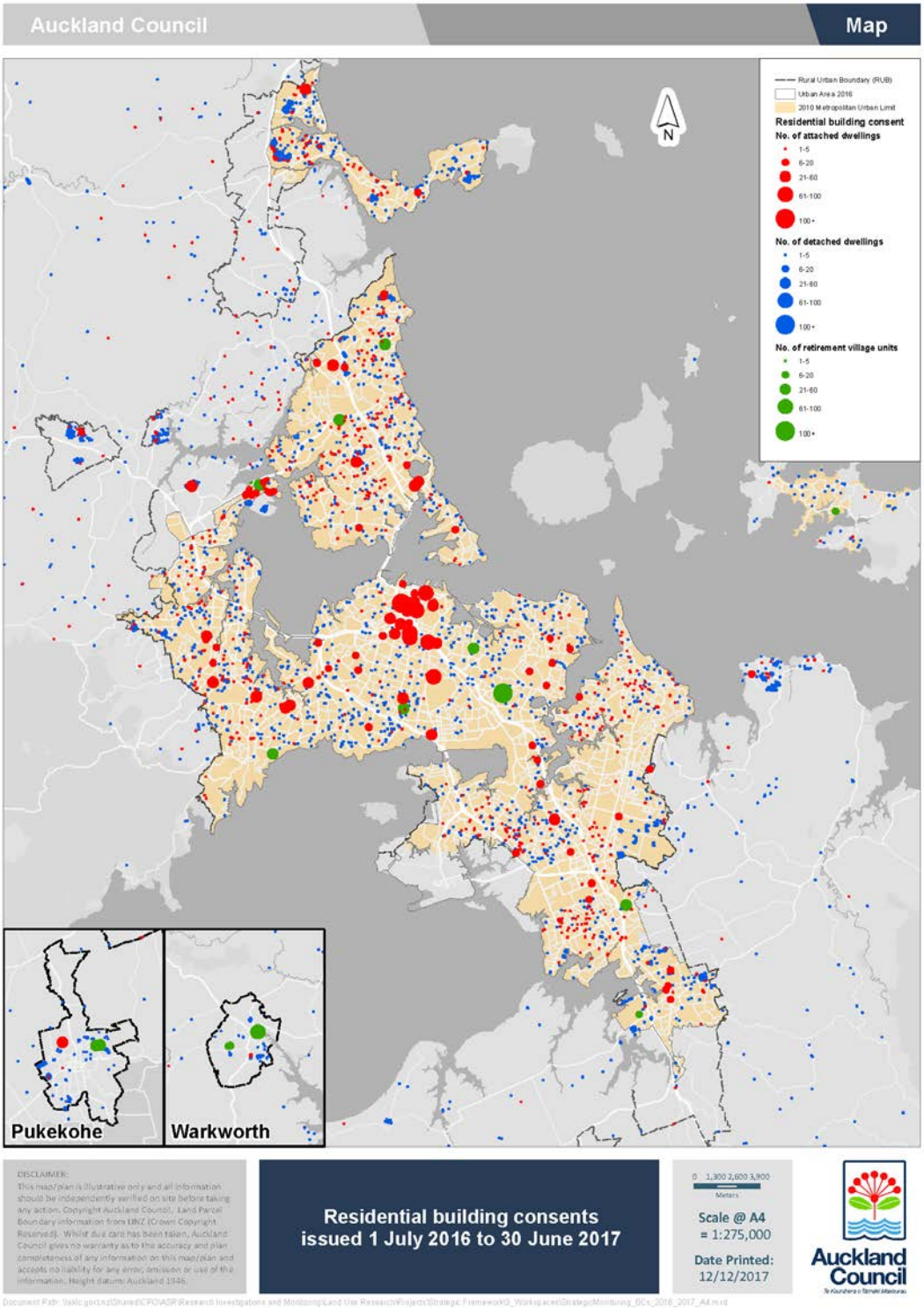
The 2012 Auckland Plan aimed to have up to 70 per cent of dwelling growth inside the Metropolitan Urban Limit and allowed for up to 40 per cent outside it over the 30-year period. In the first five years of implementation, 80 per cent of new residential dwellings consented were located inside the Metropolitan Urban Limit, with 20 per cent outside.

The 2012 plan also anticipated that up to 61 per cent of all new dwellings built would be attached. Across the region, the proportion of attached housing being consented has increased steadily, from 16 per cent of consented dwellings in 2012/13 to 43 per cent in 2016/17. Until recently, consents for attached dwellings were limited mostly to the city centre. In the last three years attached housing developments have become far more widespread across the urban area.

The distribution of consents for new residential dwellings within the Auckland metropolitan area over the period 1 July 2016 - 30 June 2017 is mapped (see Figure 1) by attached and detached dwelling type and number of dwellings. The mapping shows a concentration of consents for attached dwellings around the city centre and along the western rail corridor. A concentration is also emerging along the southern rail corridor and new development at Hobsonville. Distribution is otherwise dispersed across Auckland.

Monitoring the location and type of dwellings delivered over the past five years indicates that the overall distribution is generally as expected, with most growth inside the Metropolitan Urban Limit and a significant increase in the number and spread in location of attached dwellings. These measures together indicate that good progress is being made toward achieving a compact city, as set out in the 2012 Auckland Plan.

**Figure 1 Distribution of residential building consents issued 2016/17 (by dwelling type and number of dwellings)**




Source: Auckland Council

## 2.4 Changes since the 2012 Auckland Plan

While monitoring shows that progress towards achieving a quality compact city has been made since the 2012 Auckland Plan was adopted, significant changes indicate an update is needed. Two of the most important changes are recent high population growth and a new legislative context, including the adoption of the Auckland Unitary Plan.

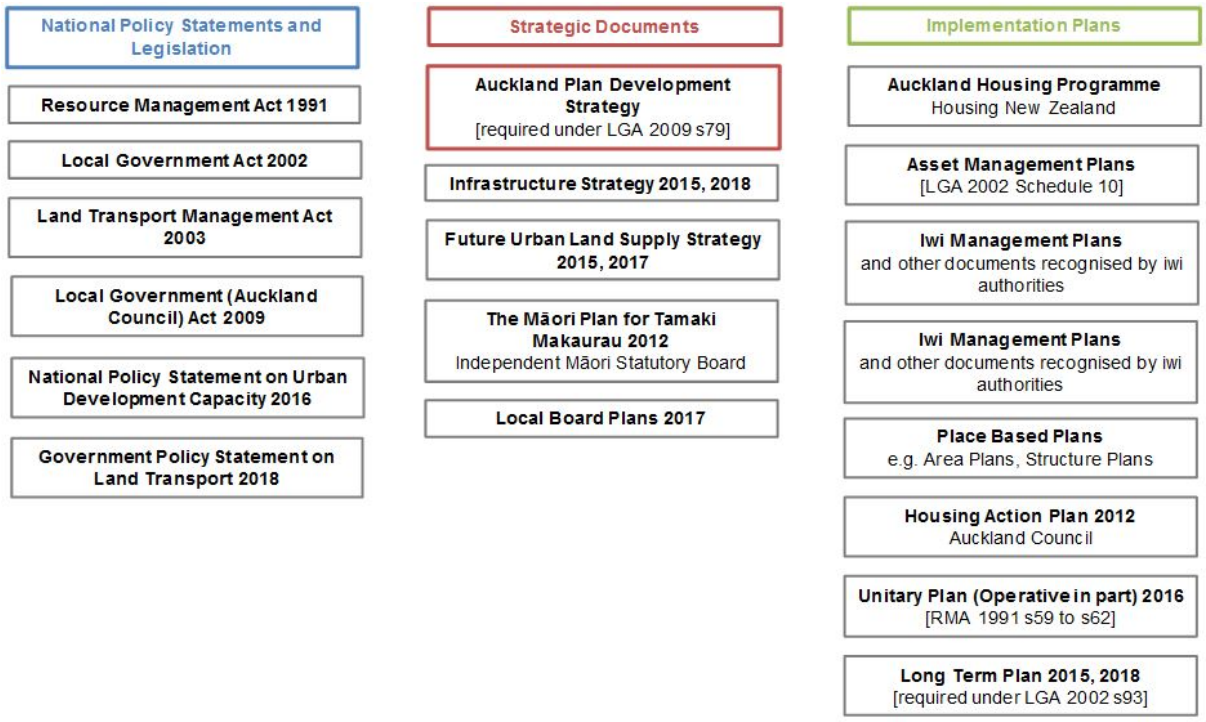
### 2.4.1 Population changes

Auckland's population has grown by 180,700 since 2012 which is more growth than previously anticipated. Significant growth is expected to continue over the next 30 years, possibly requiring an additional 313,000 homes and 263,000 jobs. For further information on population changes see the related Auckland Plan 2050 evidence report titled Demographic trends for Auckland: Data sources and findings.

### 2.4.2 Changes to the legislative context

Changes in the regulatory and planning environment have to be reflected in the Development Strategy. Figure 2 below illustrates some of these key documents, with a focus on those that have been refreshed or changed since 2012. The most relevant documents that inform the Development Strategy are discussed further below.

**Figure 2 Current legislative framework (left column) and new or refreshed supporting strategies and implementation plans**




#### Resource Management Act 1991

This act of parliament is Auckland and New Zealand's principal environmental and land use management legislation. It establishes a cascading planning framework for managing the effects of development on the environment, from a national to regional and local level.

#### Local Government (Auckland Council) Act 2009

This act of parliament establishes Auckland Council and requires council to prepare and adopt a long-term spatial plan for Auckland's growth and development. It must visually illustrate how Auckland may develop in the future; including how growth may be sequenced and infrastructure provided. To enable coherent and coordinated decision making, the strategy must consider the direction set by other relevant strategic documents, and provide a basis for aligning implementation plans that give effect to its outcomes.

### National Policy Statement on Urban Development Capacity 2016

This national policy statement requires Auckland to prepare a future development strategy by 31 December 2018. This is to demonstrate that there will be sufficient, feasible development capacity in the medium and long term. The Development Strategy for the Auckland Plan fulfils this requirement (see Section 8).

### Future Urban Land Supply Strategy

The Future Urban Land Supply Strategy, originally adopted in 2015, and updated in 2017, identifies the sequencing and timing of future urban land for development readiness over 30 years.

This strategy has informed the approach taken in the Auckland Plan 2050 Development Strategy, which integrates the future urban areas with the overall growth approach. Further information on the Future Urban Land Supply Strategy is in Section 5.2: Managed expansion into Future Urban areas.

### Auckland Unitary Plan

The Auckland Unitary Plan sets out the planning rules for Auckland and creates adequate capacity for jobs and homes over the next 30 years. It is a regulatory plan and the main implementation tool that has emerged since 2012.

The broad approach to the distribution of growth in the 2012 Auckland Plan Development Strategy was taken up in the Auckland Unitary Plan and reflected in changes to urban zoning and density controls. Most of Auckland's existing urban areas saw some degree of change, but in some areas the change was significant, particularly up-zoning around centres and areas with good access to the strategic transport network.

Additional information on capacity has now been provided through the development of the Housing and Business Development Capacity Assessment for Auckland (Auckland Council, 2017g).

### Infrastructure Strategy

This strategy has been developed to improve infrastructure planning and delivery. It primarily does this by coordinating investment and planning, linking strategic planning into council's 10-year budget process and the asset management plans of infrastructure providers, such as Auckland Transport and Watercare. It also addresses long-term infrastructure performance and resilience and guides future funding decisions.

## 2.5 Māori responsiveness since the 2012 Auckland Plan

Local Government has specific obligations under legislation to recognise and take account of the principles of te Tiriti o Waitangi, and to work in partnership with mana whenua in local government decision-making processes.

A Te Ao Māori perspective is inherently long-term and intergenerational in its outlook. This means that Māori have a particular interest in the long-term growth management outcomes sought by the Auckland Plan Development Strategy.

The Development Strategy reflects a process of on-going refinement in Auckland Council's approach to managing growth that dates back to 2012 and included multiple stages of engagement:

- 2012 Auckland Plan Development Strategy (2012)
- Proposed Auckland Unitary Plan, and identification of the Rural Urban Boundary (2013-2015)
- Future Urban Land Supply Strategy (2015)
- Future Urban Land Supply Strategy Refresh (2017)

The views and interests of mataawaka and mana whenua have been sought and included at multiple stages in this process. These views and interests are now reflected in the Development Strategy, for example, the overall approach to growth (quality compact), and intended outcomes sought for centres and development areas (a visible Māori identity). The areas identified for future urban development, and areas set aside as being of cultural and/or environmental significance are also a result of multiple points of engagement with mana whenua. Section 9.1 summarises feedback received by Māori and mana whenua prior to public engagement.

The Māori Identity and Wellbeing outcome area includes elements that can be mapped spatially and which are reflected in the Development Strategy. These include iwi boundaries, mataawaka and mana whenua marae, and areas of cultural significance. For further information see Appendix 1: Development Strategy relationship to outcome areas.

# 3 Responses to opportunities and challenges

This section sets out the opportunities and challenges to accommodate growth and the spatial response taken in the Development Strategy 2050 as a result.

There are five key aspects:

- ensuring sufficient capacity for growth across Auckland
- embedding good design in all development
- sequencing what gets delivered
- aligning the timing of infrastructure provision with development
- supporting rural production.

### 3.1.1 Ensuring sufficient capacity for growth across Auckland

The Auckland Unitary Plan allows for a significant level of enabled development capacity across Auckland, however not all of this capacity will be realised. This capacity must be commercially feasible to develop. This is in order to provide enough choice in housing, and to recognise that not all opportunities that are commercially feasible will be taken up. The National Policy Statement on Urban Development Capacity (Ministry for the Environment, 2016) requires Auckland Council to ensure that, at any one time, there is sufficient development capacity for housing and business growth, in particular that it is both feasible and supported by appropriate infrastructure.

**Opportunities and challenges**

Monitoring shows that significant progress has been made towards the anticipated urban form set out in the 2012 Auckland Plan. The challenge is how to build on that success when faced with ongoing population growth and the need to accommodate dwelling and job growth.

Around 313,000 dwellings and 263,000 jobs are likely to be required in Auckland over the next 30 years. The majority of this growth will need to be accommodated within Auckland's existing urban area and significant future urban areas. The challenge is to support this growth in a cost-effective way and to deliver good outcomes for the city, including its environment, people and economy. Housing delivery has not kept pace with demand, leading to an increasing shortfall in housing supply and consequential rises in house prices.

Many of the challenges that have been holding back housing delivery are non-spatial and are related to market conditions (e.g. the boom - bust cycle of construction) and the capacity and capability of the construction sector (Auckland Council, 2017c). While these are important factors in ensuring the delivery of housing supply, this report focuses on the spatial aspects of accommodating growth.

The Auckland Unitary Plan has enabled a significant amount of development capacity across the existing and future urban areas. This is significantly more than is required to meet likely demand. The challenge is to maintain an ongoing supply of feasible development capacity to meet demand. Appendix 4 contains further information relating to the Auckland Unitary Plan and capacity.

The Future Urban Land Supply Strategy provides the basis for aligning the delivery of infrastructure with the re-zoning of land (including residential and business) in the future urban areas (Auckland Council, 2017b). The existing urban area needs a corresponding strategy to help achieve the objectives of the Auckland Plan.

The National Policy Statement on Urban Development Capacity provides a clear direction and framework to ensure plans provide enough development capacity to meet demand, and for councils to be responsive to change.

These challenges require updating of the evidence base and provide an opportunity to review the approach to growth.

**Approach**

To understand demand and plan for growth across Auckland, the Development Strategy sets out the following:

- the status of the Development Strategy as the Future Development Strategy for Auckland
- findings from the Housing and Business Development Capacity Assessment, including demand
- the current level of feasible development capacity for housing
- the minimum targets for sufficient, feasible development capacity for housing
- how the shortfall of feasible development capacity for housing will be met.

### 3.1.2 Embedding good design in all development

The quality of design is integral to how a place functions, which can affect people's overall wellbeing. Good design can contribute to making Auckland a sustainable, attractive, equitable and desirable place. Providing a high quality living environment helps attract new people as well as retain New Zealanders (Ministry for the Environment, 2002).

Development has the potential to create better quality places which have the inherent ability to transform people's quality of life, stimulate the economy and enhance the environment (Design Council, 2013).

Successful urban environments are places that people want to use and are efficient and effective. They are ones that, in their creation, have involved mana whenua, people and communities and professionals from diverse sectors and therefore reflect and strengthen Auckland's local identity. They respect our natural environment and built and cultural heritage, are accessible and promote walking and cycling as viable options.

**Opportunities and challenges**

The Auckland Unitary Plan has delivered development capacity through up-zoning. As the city grows a range of liveable environments needs to be provided for our diverse population.

Quality is important at all scales of development. The challenge is how to integrate good design from a regional level down to individual sites. In existing urban areas this might be expressed through comprehensive redevelopment of larger sites and in future urban areas this could be achieved through structure planning.

Achieving good design requires a commitment from all sectors. Good design and a willingness to innovate will assist quality, affordability and provision of sufficient capacity. The challenge is to shift the focus of the planning process to stronger place making in addition to development control.

**Approach**

The ways in which good design will be achieved in response to the quality compact approach are through:

- adhering to universal principles of good design such as:
    - identity
    - diversity
    - integration
    - efficiency
    - functionality
    - attractiveness
    - longevity
    - innovation
    - legibility within new development at all scales (site, street, block, neighbourhood or city) and in the design of civic spaces as well as public and commercial buildings and individual house design.
- implementing high level planning for existing urban and future urban areas, including structure, centre and area planning. This is the method for creating the pattern of land use, transport and services network within a distinct area and analysis of opportunities and constraints relating to the land
- using the Auckland Design Manual which provides guidance on:
    - good design and best practice examples associated with Auckland's local context, public open space qualities and unique landscape)
    - complying with development standards
    - getting input from the urban design review panel.
- using the Roads and Streets Framework, which provides guidance on appropriately balancing the place and movement functions of road and street design. This will be supported by a Transport Design Manual.

### 3.1.3 Sequencing what gets delivered

Sequencing what gets delivered and when it will be delivered is important as it provides greater certainty to the market about where supporting infrastructure and services will be located. It also ensures value for money as infrastructure and service providers can target their investment in response to growth.

**Opportunities and challenges**

The Auckland Unitary Plan has enabled significant development capacity. However, it is not possible for all areas of Auckland to develop at the same scale and speed at the same time.

Limited funding sources are available to support Auckland to grow and change. This requires prioritisation of investment across different areas of Auckland and providing certainty to the market about where supporting infrastructure and services are needed and will be located.

The Development Strategy provides this certainty.

**Approach**

The Development Strategy sets out which of Auckland's areas are anticipated to develop and when:

- areas for growth and development are sequenced:
    - in the existing urban area, nodes and development areas are identified
    - in greenfield areas, future urban areas are identified
- planning and investment will be targeted to those areas where the greatest development capacity is taken up:
    - in the existing urban areas this means where actual development of scale happens
    - in future urban areas it means providing new bulk infrastructure.

### 3.1.4 Aligning the timing of infrastructure provision with development

The scale of Auckland's future growth and change requires a significant increase in the capacity and expansion of Auckland's infrastructure networks. Coordinated action between public and private infrastructure providers and the development sector is needed to enable this scale of development.

Coordinating and aligning infrastructure investment and provision with growth will minimise the costs of under-used assets and the problems with over-stressed, congested networks. It will increase Auckland's productivity and provide opportunity for synergy with budgetary, community and environmental benefits.

**Opportunities and challenges**

Monitoring shows that the broad growth approach is delivering a more compact city (see Appendix 3). However, Auckland's infrastructure is not meeting current demands. As Auckland continues to grow the infrastructure costs will also increase and we need to look for effective and efficient approaches to maintain and make the best use of our assets.

The scale and speed with which our population grows over the next 30 years, in combination with when and where across Auckland this growth occurs, will impact on infrastructure needs and costs.

Delivering infrastructure at the right scale, in the right locations and at the right time to accommodate this level of growth will be challenging. Poor alignment between the location and timing of growth and infrastructure investment can lead to over-stressed infrastructure networks, under-utilised assets, or to communities that do not have the right infrastructure at the right time.

The opportunity is to coordinate and align investment with growth in order to minimise the costs of under-used assets, increase Auckland's productivity and achieve better environmental outcomes.

**Approach**

The Development Strategy aligns growth and infrastructure provision by:

- expansion of strategic networks providing bulk services: public transport, roads, waste water and water
- coordinating investment and planning to enable growth in existing urban and future urban areas
- improving the performance of Auckland's infrastructure by dealing with aging and obsolete infrastructure, addressing differences in service provision, and using emerging technologies
- creating resilient infrastructure networks to cope with disruptive events, respond to on-going stresses and meet evolving needs.

This is a cross-cutting theme that relates to many aspects of the Development Strategy and is taken forward in more detail in Section 7: Auckland's Infrastructure.

### 3.1.5 Supporting rural production

Rural areas provide land for rural production, which contributes to wellbeing in a number of ways. Rural production:

- supports a wide group of businesses that provide a diverse range of jobs, goods and services
- is a defining element of rural character that appeals to both locals and tourists

Rural based business in Auckland has become increasingly diverse and innovative over time, with rural-based tourism being developed to complement direct rural production, making a significant economic contribution to rural communities and enhancing their prosperity.

**Opportunities and challenges**

Auckland's rural areas are valued for their productive uses. Rural production is dependent on rural land and additional housing in these environments affects rural character and production capability. Auckland's rural areas are also valued for their rural landscape and character, ecological areas and recreational opportunities. Ensuring all of these values are maintained will be challenging.

The Auckland Unitary Plan seeks to minimise the loss of rural productive land. It identifies the need to protect the finite resources of elite soils from urban expansion and establishes measures to avoid the loss of further elite soils, and limit development on prime land where practicable. Nevertheless, in light of the ongoing pressures facing rural areas, and the role of rural areas in food supply for a growing Auckland, the effectiveness of this will require monitoring over time to ensure that the maintenance of rural production, particularly horticulture, continues.

Monitoring of rural Auckland (Auckland Council, 2016e) has identified a high rate of rural subdivision, which has resulted in an increase in land fragmentation and loss of rural productive land.

The opportunity is to minimise further land fragmentation and reverse sensitivity in order to support the rural production sector and enable rural towns and villages to prosper.

**Approach**

The Development Strategy's strategic approach to rural growth and development continues on from the 2012 Auckland Plan. It reflects the Auckland Unitary Plan in terms of the location and extent of growth in rural areas and it focuses residential growth in the rural nodes of Pukekohe and Warkworth.

Section 6: Rural Auckland discusses the broader issues relating to Rural Auckland and the approach taken in the Development Strategy.

# 4 How will Auckland grow and change

Significant changes since 2012, particularly in terms of population growth and the legislative context (see section 2), mean that Auckland must move forward from the 2012 Auckland Plan Development Strategy to accommodate growth, and to address the opportunities and challenges facing Auckland (see section 3). We need a clear understanding of where and when investment in planning and infrastructure will be made.

This section focuses on the overarching growth approach taken forward in the Development Strategy and looks at the evidence supporting different aspects of the approach:

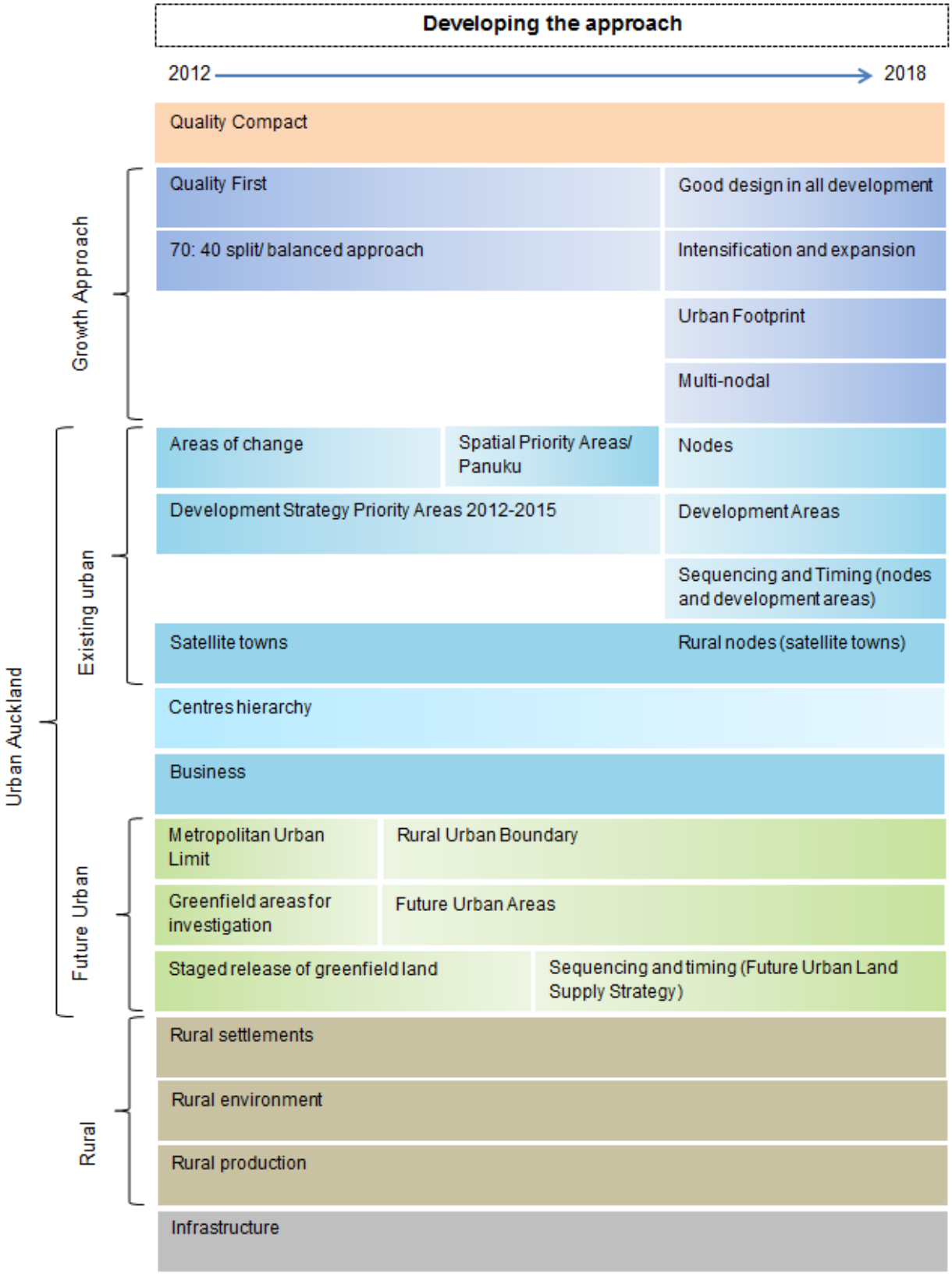
- Quality compact
- Urban footprint
- Multi-nodal.

Subsequent sections of the report look at specific components of the approach. These are:

- Urban Auckland (section 5)
    - Existing urban
    - Future urban
- Rural Auckland (section 6)
- Auckland's infrastructure (section 7)

Figure 3 sets out the different aspects of the approach.

**Figure 3 Development Strategy approach to growth**



## 4.1 Growth approach 2050

The broad spatial distribution of growth in the Auckland Plan 2050 builds on the 2012 Auckland Plan.

Auckland will take a quality compact approach to growth and development, supported by the new concepts of the urban footprint and multi-nodal approach. These new concepts reinforce the quality compact approach as they seek to create a more consolidated and compact city and limit expansion into rural areas.

## 4.2 Quality compact

Quality compact is not a new approach, generally or to Auckland. Auckland has been on a pathway towards a more compact city for almost two decades. The quality compact approach signals the long-term development priorities for Auckland of:

- significant redevelopment and intensification in areas that are already developed
- newly established communities in the future urban areas
- enabling business growth by supporting flexible and adaptable business areas
- limiting residential growth in rural areas to ensure that rural production can continue and develop, while maintaining rural values.

### 4.2.1 Defining ‘quality’

Quality development for Auckland means:

- using land efficiently
- fitting within the context of the wider area, including respecting and enhancing local character, identity and heritage
- supporting growth in the right place at the right time with the necessary infrastructure including providing good accessibility
- designing appropriately to enhance the amenity and functionality of areas
- sustainable development that will stand the test of time.

### 4.2.2 Defining ‘compact’

A compact approach to growth means:

- focusing growth within existing urban areas, in particular intensifying in areas within or close to centres and high quality transport hubs
- establishing new communities through managed expansion into future urban areas
- limiting growth in rural areas
- supporting flexible and adaptable business areas.

### 4.2.3 Benefits of the quality compact approach

There are many benefits of a quality compact approach to growth and development for Auckland including:

### Transport

- provides more cost effective transport infrastructure delivery, in particular for public transport and walking and cycling infrastructure with an overall more efficient transport network
- improves accessibility to jobs, services and education.

### Environmental

- concentrates adverse effects of urban activities into fewer receiving environments
- provides opportunities for environmental enhancements as part of new developments, redevelopments and infrastructure upgrades
- reduces pressure on natural resources and reduces greenhouse gas emissions
- protects rural character and activities from urban encroachment.

### Economic

- increases the economic viability of development and infrastructure delivery
- creates greater productivity and competiveness from agglomeration due to the concentration of workers, consumers and businesses
- maximises utilisation of existing infrastructure assets
- supports continuing and developing rural production.

### Social and cultural

- creates a diverse and vibrant urban environment which produces opportunities for social interaction and cohesion
- improves the viability of community services and infrastructure
- enables more well integrated and diverse housing options
- increases opportunities for health and cost benefits of active transport modes.

## 4.2.4 Why quality compact is still the approach for Auckland

### Testing growth options – scenario evaluation

In 2011, during the development of the 2012 Auckland Plan, four growth scenarios were worked up and tested to assess different growth patterns, their impacts and advantages, based on a high growth scenario.

The 2011 four scenarios were:

- Scenario A: Intensive Containment
- Scenario B: Intensive Expansion
- Scenario C: Dispersed Containment
- Scenario D: Dispersed Expansion.

Scenario B: Intensive Expansion provided for significant growth within the existing urban area throughout large centres and high amenity areas, with additional greenfield and

satellite centre growth. This was formed the basis of the Development Strategy in the 2012 Auckland Plan.

As part of development of the Auckland Plan 2050 an updated scenario evaluation was undertaken in 2016. The purpose of this evaluation was to understand whether the scenario testing undertaken in 2011 for the 2012 Auckland Plan was still robust and able to be applied to the preparatory work for the Auckland Plan 2050. The review was also intended to confirm whether the Development Strategy's central concept, of a quality compact approach to accommodating growth, was still the best approach.

Initial work indicated that much of the information from the 2011 evaluation was still inherently sound, and that it could serve as a base for an updated evaluation which:

- considered new information from project work since 2012 (e.g. Rural Urban Boundary, Auckland Unitary Plan, Future Urban Land Supply Strategy and Supporting Growth Project (New Zealand Transport Agency, 2017))
- added to the largely qualitative assessment in the 2011 report by considering more quantitative information.

The starting point for the 2016 scenario evaluation was to develop three new broad scenarios, based on a more proportionate medium growth forecast. The Auckland Plan 2050 baseline was Scenario I9, which allocated growth between urban and non-urban areas in a 66:34 ratio. This was the official, most up-to-date growth data set available at the time. This scenario continued the 2011 balanced approach between intensification and expansion, with approximately two thirds of expected dwellings in the existing urban area, and one third outside. Two alternative scenarios were tested; the *Intensive Scenario* (80:20), and *Expansive Scenario* (50:50), also following a medium growth forecast.

The scenarios highlighted the challenge of balancing greater *flexibility* to meet growth demands with greater *certainty* of how growth will occur. The findings identified that Scenario I9 was the preferred scenario where a balance was struck between a focus on intensification in the existing urban areas, and some expansion in identified areas at the periphery.

In mid-2017 Scenario I9 was updated (to become Scenario I11) to reflect new population projections (Statistics New Zealand - February 2017), final decisions on the Auckland Unitary Plan, and the 2017 refresh of the Future Urban Land Supply Strategy. This model continued the quality compact approach to managing growth advanced by the 2012 Auckland Plan and is consistent with the most recent agreed policy approach set out in the Auckland Unitary Plan.

Further discussion of the scenario evaluation is included as Appendix 6.

### 4.2.5 The Auckland Unitary Plan

Outside of the Development Strategy, the Auckland Unitary Plan has the strongest reference to the quality compact concept, both directly through the Regional policy statement 2016 and indirectly through zoning and development standards.

The Regional policy statement identifies urban growth and form to be a significant resource management issue for the Auckland region. Specifically, 'B2.2 Urban Growth and Form' and 'B2.3. A Quality Built Environment', set out objectives and policies that reinforce the quality compact concept (Auckland Council, 2016a).

At a high level, the objectives and policies guide the location of urban growth areas and illustrate how greenfield land, appropriate for urbanisation, will be managed until it is re-zoned for urban development. The objectives and policies also seek to enable urban growth with the intent of improving development capacity and encouraging a range of housing typologies and sizes.

The Regional policy statement states that, with growth, a high level of amenity is required to enable new development to be successful so that it meets the needs of new residents and the increased level of use. Through the Regional policy statement, the Auckland Unitary Plan illustrates that a quality built environment is one that responds to both the existing built and natural environment and improves opportunities for people's wellbeing and therefore seeks to maintain and enhance amenity values.

The Auckland Unitary Plan directly supports the Development Strategy's quality compact approach.

## 4.3 Urban footprint

The urban footprint is future based, looking forward over the 30 year timeframe of the Auckland Plan.[3] It defines the maximum extent of Auckland's existing urban area together with the future urban areas within the Rural Urban Boundary sequenced for urbanisation over this period. It is in line with the Auckland Unitary Plan. This is shown conceptually in Figure 4 below.

By 2050, most of Auckland's growth will have occurred within this urban footprint, including:

- significant redevelopment and intensification within the existing urban area
- newly established communities in the future urban areas
- major settlements in the rural areas - Auckland's two rural nodes (satellite towns of Warkworth and Pukekohe) together with Kumeū-Huapai and Riverhead in the north–west.

[3] The use of the term urban footprint in the Auckland Plan to denote a future extent of Auckland's physical urban area differs from the common usage of an urban footprint to define either current extent of an urban area (for instance Dixon, S. 2014) or an environmental footprint of individual people (see Parent, J. 2017). The only other example of an urban footprint that is future based is that of South-east Queensland (Queensland Government, 2017).

The rural and coastal towns and villages are not included in the urban footprint; they are considered as part of the rural area. While these settlements have urban components and associated future urban areas, the scale of these and the quantum of their growth, in relation to the Auckland urban area, are minor and they are more appropriately considered within the rural context.

The urban footprint is intended to illustrate that there is a clear distinction between urban and rural environments. Development within the urban footprint is anticipated to be urban in scale, intensity and character.

It also sends signals as to the areas that will be serviced with bulk infrastructure. This relates to both intensification of existing urban areas and managed expansion within future urban areas, and allows more efficient and effective planning of bulk infrastructure provision, particularly for greenfield development. Conversely, it also signals areas the council is not planning to service, thereby limiting development expectations in these areas.

In the Auckland Plan 2050, the concept of the urban footprint works together with the multi-nodal approach, also newly introduced. They reinforce the urban form of Auckland, particularly defining the north, north-west and southern growth areas and the nodes as urban focal points and their catchments.

While the Rural Urban Boundary defines Auckland’s Urban Footprint, the illustration below (Figure 4) is conceptual, providing an indication of the broad urban form and the relationship between the major urban components of Auckland in 2050.

**Figure 4 Draft conceptual diagram showing the urban footprint, the city centre with three nodes ( Albany, Westgate and Manukau), and two rural nodes (Warkworth and Pukekohe)**

## 4.4 Multi-nodal

The Auckland Plan 2050 builds on the 2012 Auckland Plan centres hierarchy (now part of the Auckland Unitary Plan) and introduces a multi-nodal strategic approach to addressing Auckland's growth. This section describes the multi-nodal approach and examines which areas of Auckland are the most appropriate to serve as nodes.

### 4.4.1 Urban Planning Models

#### Monocentric, Polycentric and Composite

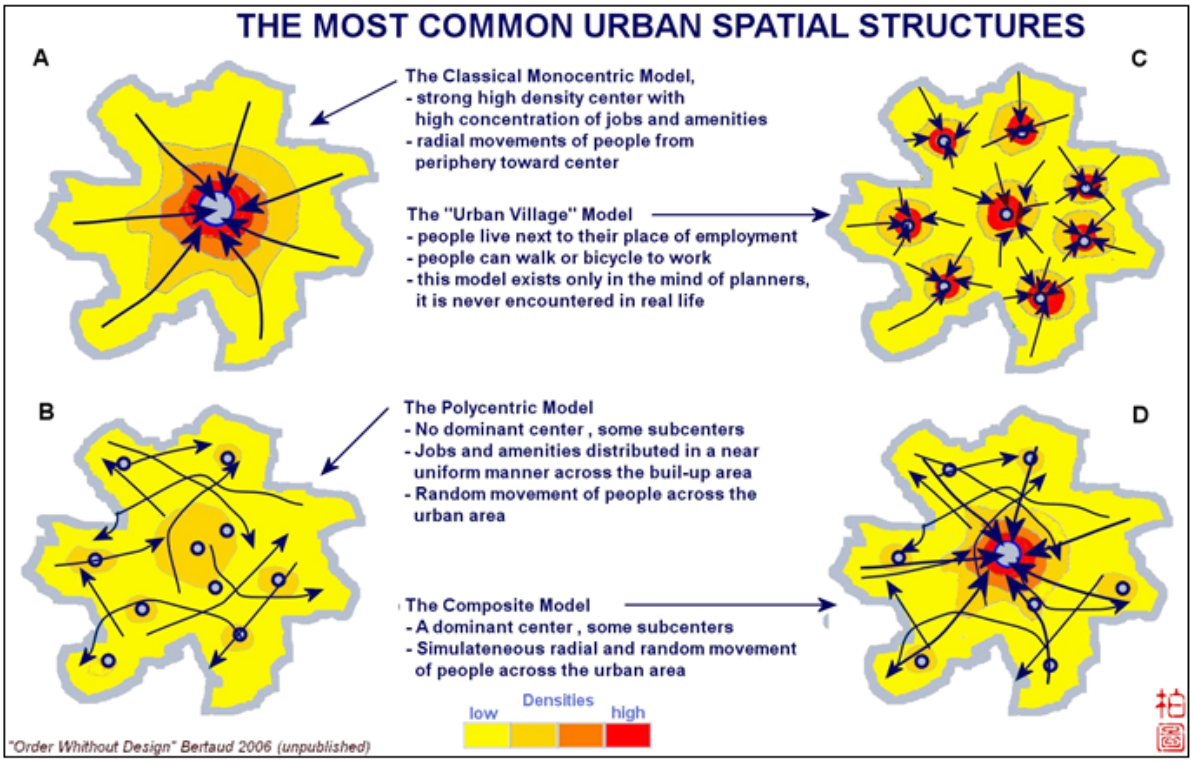
The way that urban areas are spatially structured plays a critical role in how a city functions. While some areas are planned from the beginning to adhere to a particular model, most cities develop and evolve organically over time. Planning that aligns land use and transportation can steer the growth of a city to an urban form that allows it to function more efficiently.

The majority of cities can be described as either monocentric or polycentric (Lin et. al. 2017), see Figure 5 below. Monocentric cities have a clear nucleus of commercial activity, often called the central business district where the majority of jobs are located, with people moving in and out of the central area for work, to attend an event or undertake higher education. Transport in this model focuses on the Central Business District with major transport corridors leading to and from this central core. Suburban areas, with predominantly residential development along with smaller areas of business, tend to make up the bulk of the rest of the urban area. In general housing is cheaper the further out it is from the core, leading to longer commutes.

The polycentric city model, on the other hand, sees these activities dispersed, with a number of smaller nodes, or hubs, in the urban area and no principal business centre. Jobs are therefore spread around the region and movements are more dispersed.

A third model, the composite, sees a dominant city centre, where the majority of jobs are located, supported by a network of sub centres. In this model other jobs are distributed around industrial areas and a network of smaller town and local centres (Nunns, 2014). In most cases, cities have evolved over time from the classic monocentric model to either a polycentric or a composite one as new centres develop and mature. The majority of cities today, including Auckland, are 'composite'.

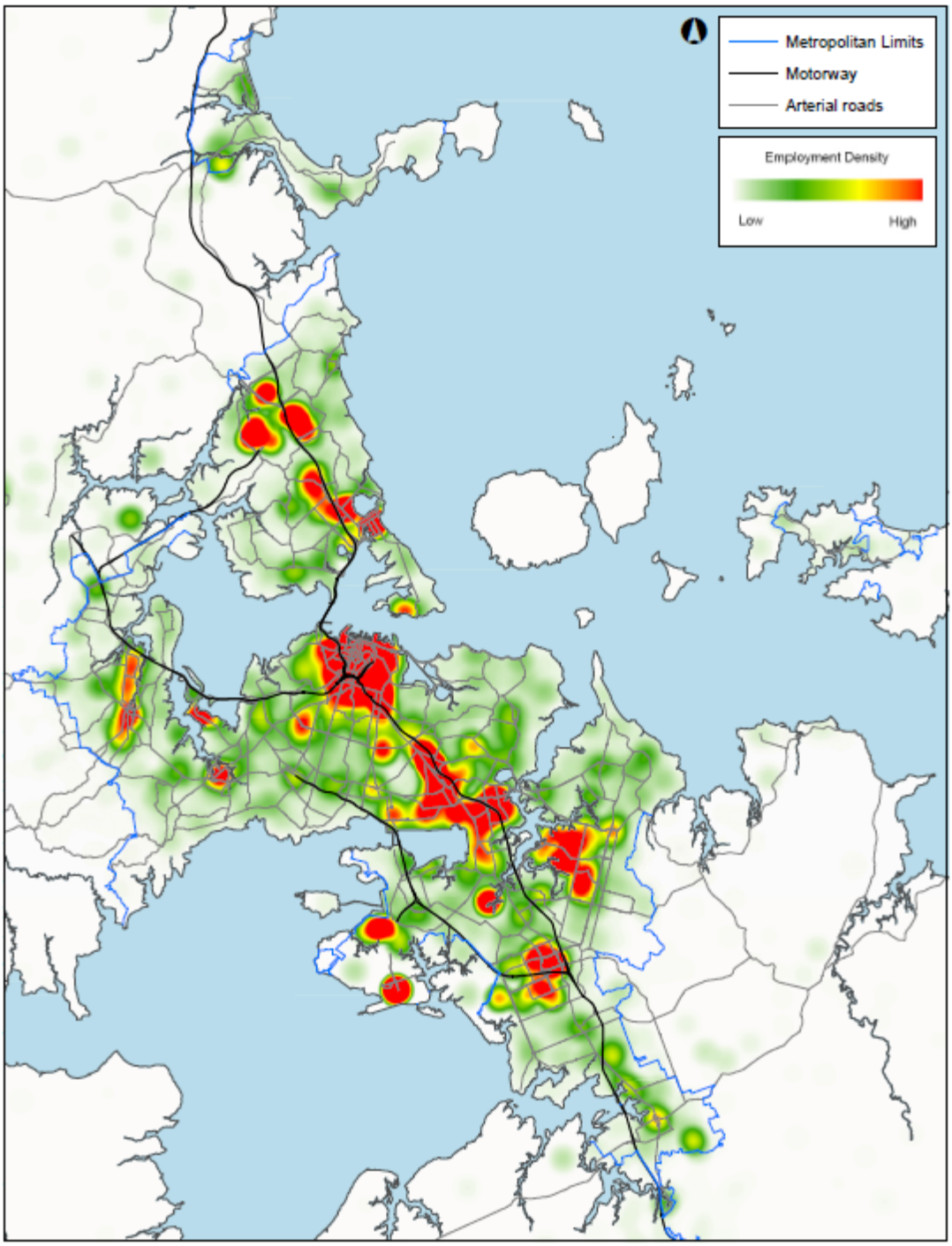
**Figure 5 The most common urban spatial structures**




Source: (Hallak, 2014). The social and spatial structure of urban and regional systems

Auckland's initial settlement clustered around the port growing into what is now a, dominant, thriving and still growing city centre. The city centre is supported by a network of centres of varying sizes, each playing different roles. Figure 6 below shows how employment is distributed around the region, with jobs focused in a dominant city centre and supported by smaller subcentres.

**Figure 6 Employment Density Heat Map (by employee count), Auckland Urban Area (based on 2013 census data); shows the composite nature of Auckland.**




### 4.4.2 2012 Auckland Plan

This composite model was reflected in the 2012 Auckland Plan (see Figure 7 below) which details a clear hierarchy (Auckland Council, 2012a) of centres with the city centre the top of the pyramid, supported by metropolitan centres, in turn supported by town centres, local centres and rural towns, and bookended with two satellite centres at either end of the region: Warkworth in the north and Pukekohe in the south.

Each of these centres plays an important role in Auckland's growth with the city centre and metropolitan centres expected to accommodate the majority of residential and business

growth. This hierarchy is enabled and reinforced in the Auckland Unitary Plan (Auckland Council, 2016a)[4] which also implements the Rural Urban Boundary which provides greater certainty over where growth will take place. The Rural Urban Boundary identifies the outside edge of the areas where urbanisation is expected to occur over the next 30 years.

**Figure 7 Urban and Rural centres map, 2012 Auckland Plan**


[4] The Auckland Unitary Plan B2.2.2 Policies "Identify a hierarchy of centres that supports a quality compact urban form (a) at a regional level through the city centre, metropolitan centres and town centres which function as commercial, cultural and social focal points for the region or sub-regions and (b) as a local level through local and neighbourhood centres that provide for a range of activities to support and serve as focal points for their local communities. See also B.2.3.1 Objectives and B2.5 Objectives.

### 4.4.3 A Multi Nodal City

#### What is a node?

The term node generally refers to a ‘core’ or junction of activity. In this case a node refers specifically to a sub-regional area with a large metropolitan centre at its core, encompassing a mix of activities such as shopping, offices, living, education, health, social and entertainment along with public spaces and public transport, supported by large business areas.

#### Auckland as a Multi Nodal City

The multi-nodal approach is a further development of the hierarchy of centres set out in the 2012 Auckland Plan. This is a new term that follows the composite model. The city centre continues to be the primary focus in the Auckland region for employment, retail, culture and entertainment, and is also the primary node. Three of the region’s metropolitan centres and their surrounding areas have been adopted as nodes: Manukau, Westgate and Albany. This recognises that over the next three decades, each of these nodes has a significant role to play as major sub-regional areas that support and strengthen the city centre, without compromising its importance.

The satellite towns of Warkworth and Pukekohe are identified as rural nodes. They service established and growing rural communities, are connected to urban Auckland through efficient transport links and will support further business and residential growth in rural Auckland.

This approach recognises that as Auckland continues to develop, there is a growing need for the emergence of large, dense areas of concentrated activity, in addition to the city centre. These are focused areas of employment, civic amenity and urban living. This approach also recognises that while the majority of Auckland’s residential and business growth will occur in the existing urban area, a smaller portion will take place in new, future urban areas in the north, west and south of the region.

The nodes will support growth in both existing and new urban areas. Their locations support the quality compact approach, by encouraging residential and business growth opportunities to concentrate into these nodes and their surrounding areas within the urban footprint. By offering more employment opportunities in closer proximity to housing, this spatial approach lessens the reliance on the city centre as the only sizeable employment destination. They improve Aucklanders’ choice in employment location and reduce time spent commuting for work.

Metropolitan centres in Auckland will still play a key strategic role, serving established and growing population catchments and providing a mix of activities including higher density living options and high quality public transport. These centres will continue to grow and develop over time. Each of these centres is unique and has a different ‘offer’, such as the coastal amenity of Takapuna, and the comprehensive retail and urban living offer in Newmarket.

### 4.4.4 Options Analysis: Identifying Auckland's nodes

The development of the Auckland Plan 2050 considered a number of nodes that might be best suited to service the sub-regional areas, taking a future-centric view of how they might grow and transform over the next 30 years (see Figure 8 below for the locations of the areas considered). The assessment of options looked at common attributes that would be expected of a node, such as location, size, access, connections, facilities, market attractiveness and urban form/structure. The location of these nodes is of particular importance, considering their existing and potential catchments within the urban footprint today and as they may be in 30 years' time. These nodes need to serve both existing urban areas as well as new communities and businesses located in future urban areas. The advantages and disadvantages of each option are described below.[5] A full assessment of all locations considered as nodes is detailed in Appendix 6.

[5] Some legacy councils undertook investigations to identify regional centres within their boundaries (Mackay, 2012). Auckland City Council identified only the city centre; North Shore City Council identified Albany and Takapuna, each serving different geographical catchments; Waitakere City Council identified Henderson, Westgate and New Lynn, each fulfilling complementary roles for different areas.

**Figure 8 Locations considered for the nodes to serve areas to the north, west and south of the city centre**

## The city centre

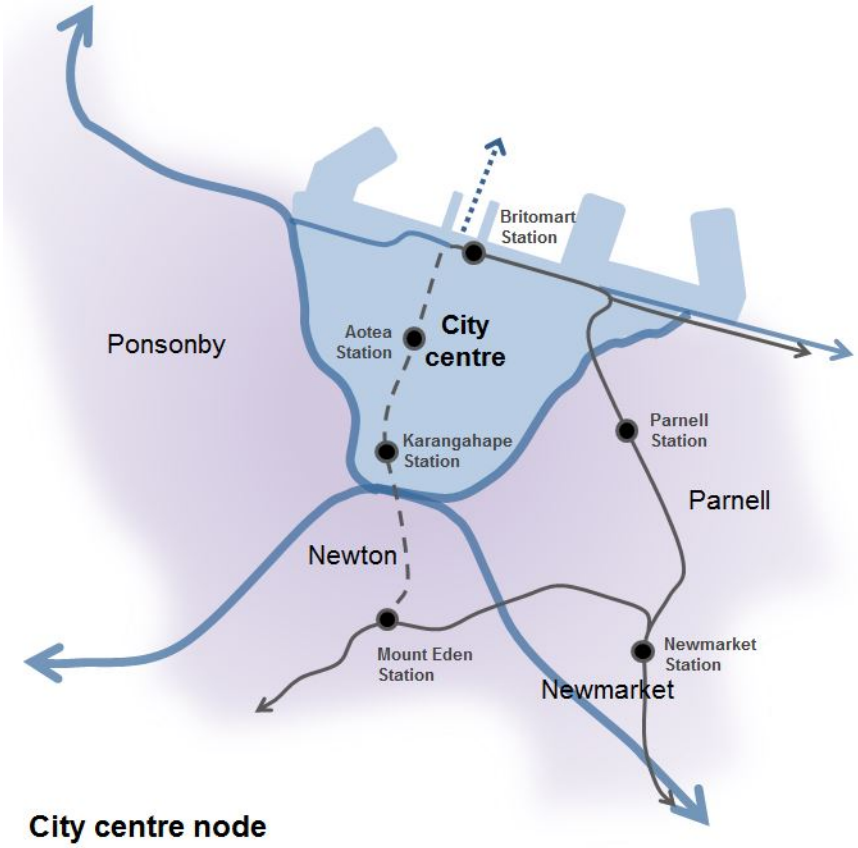
In the 2012 Auckland Plan the city centre is identified as a principal centre for the region, attracting international business and acting as the key visitor, commercial, financial, educational, transport and cultural centre for Auckland and New Zealand. It retains this role in the Auckland Plan 2050 as the primary centre in the multi-nodal model.

The city centre has experienced higher residential and employment growth in the past decade than the Auckland region as a whole. It continues to be an engine of economic prosperity, Auckland's cultural and civic hub and a key tourist gateway to New Zealand. Heavy public and private investment has been made in the city centre through public realm and transport upgrades, increased development activity and improved connections to new areas such as the waterfront. This has resulted in more people living, working and visiting the area. The city centre in 2018 provides over 90,000 (full-time equivalent) jobs, and this figure is expected to grow to over 150,000 jobs by 2050.

The largest of the nodes in terms of residential and employment density, the city centre is supported by nodes in the north, west and south, each serving large sub-regional areas and connecting to and reinforcing the role of the city centre as the principal node.

Figure 9 below is a conceptual diagram of the city centre node, which includes the city centre and fringe communities of Ponsonby, Newton, Newmarket and Parnell. The main transport connections to and around the city centre are also shown.

**Figure 9 City centre node**



## The northern node

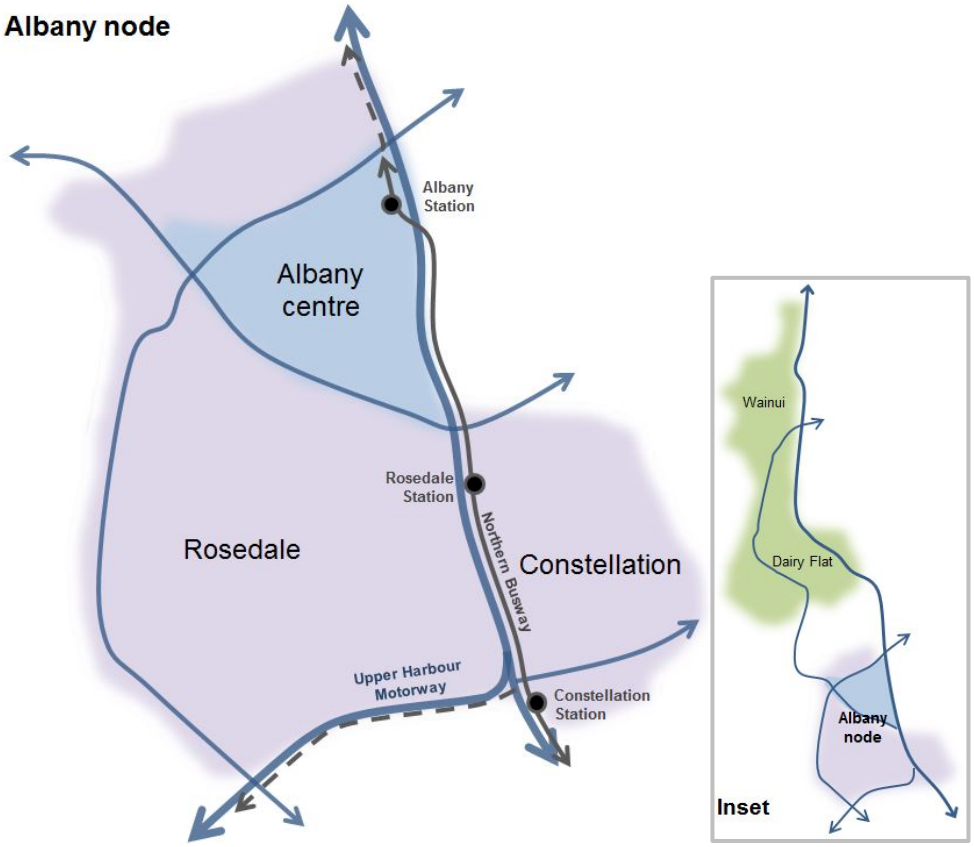
The options considered in the north were Albany, Takapuna, and a large, new centre in the future urban area of Dairy Flat/Silverdale (see Appendix 6).

Albany has been adopted as the node to serve the northern areas of Auckland. Albany has been developing slowly over the past 30 years into what is now a large metropolitan centre. Over this time, associated large new employment areas at Rosedale and Constellation have emerged. Travel north and south has become more efficient and reliable with the steady expansion of the Northern Busway. Once rapid transit is established along the Upper Harbour Motorway, Albany will also be well connected to the Westgate node and developing areas of the northwest.

Albany's retail offering substantially exceeds that of nearby Takapuna, and the centre has significant capacity for future growth. Albany is not without its challenges: it is vehicle-dominated and disconnected, with poor urban structure. However, it is market attractive and well positioned to serve the future urban areas of Dairy Flat and Silverdale as well as established areas of the North Shore. Its long-term future is developing into a significant centre of employment and urban living outside of the city centre.

Figure 10 below is a conceptual diagram showing the Albany node and the main transport connections. The inset diagram shows the wider context of Albany with the future urban areas to the north.

**Figure 10 Albany node (inset shows Albany alongside nearby future urban areas)**



## The north western node

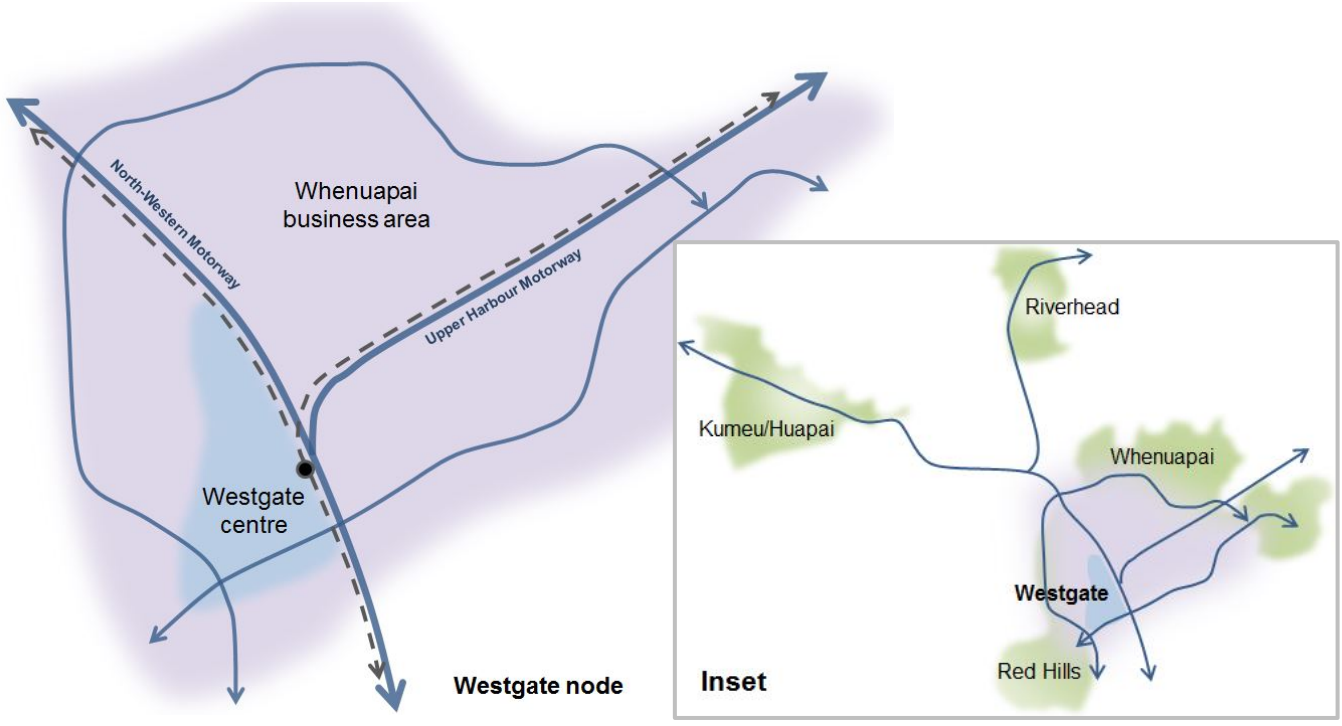
The options considered in the northwest were Westgate, Henderson and New Lynn (see Appendix 6).

Westgate has been adopted as the node to serve the northwest. It has the greatest opportunities and potential to develop and transform into a large, sub-regional node, located strategically to service and connect both existing and future urban areas. While New Lynn and Henderson both have large established population catchments, excellent facilities and a strong retail offering that will see continued growth and development as metropolitan centres, it is Westgate that is best positioned to serve as a node for the northwest.

Westgate has developed rapidly off its existing population catchment in Massey, West Harbour and Hobsonville, supported by improved motorway connections north, west and south. Its retail offering is greater than Henderson and New Lynn and new public amenities such as the Westgate Library, town square and Kopupaka Park will increase its appeal. Over the next 30 years, a large supporting business area will emerge at Whenuapai and future urban areas will develop at Whenuapai and Red Hills. A dedicated rapid transit service to Point Chevalier and the city centre, in the first decade, and extensions to Brigham Creek and Constellation Station in later decades, will position Westgate as a major transportation hub for the northwest and support further mixed use intensification of the centre.

Figure 11 below is a conceptual diagram showing the Westgate node and the main transport connections. The inset diagram shows the wider context of the surrounding future urban areas.

**Figure 11 Westgate node (inset shows Westgate alongside nearby future urban areas)**



## The southern node

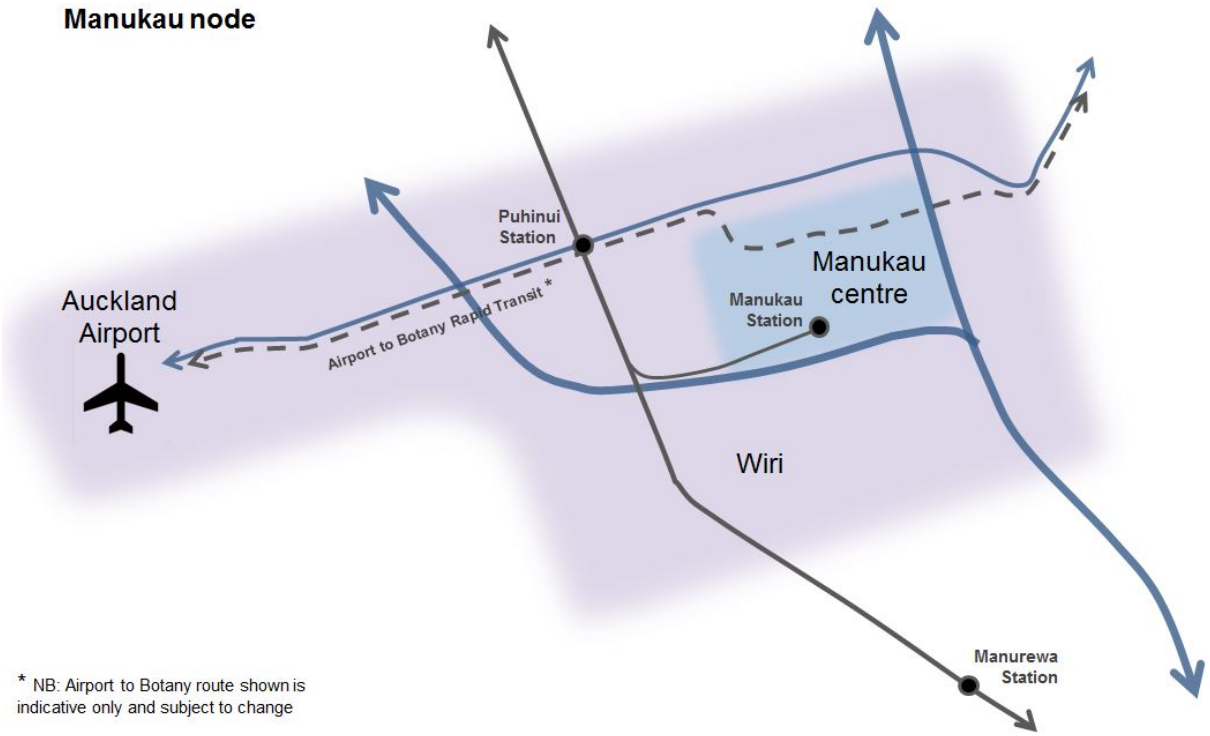
The options considered in the south were Manukau and a new, large centre in the future urban area in Drury (see Appendix 6).

Manukau has been adopted as the node for the south. A successful, thriving centre large enough to serve an entire sub-region needs to be well integrated with high quality public transport and be people-focused (Ministry for the Environment, 2005) (Smith, 2006). This takes time to develop. It requires substantial funding from both the private and public sectors for bulk and social infrastructure, high quality public spaces and built form.

Manukau has been evolving for over 50 years into the centre it is today, with a large mix of activities including central and local government offices, education facilities and public spaces. Manukau is supported by large employment areas and has strong connections to the growing airport precinct. Manukau also has a strong Māori and Pasifika identity that gives it a unique point of difference as a gateway for domestic and international travellers. While new centres further south in the future urban areas will develop as growth occurs, they will not be of sufficient size and diversity to fulfil the role of a node for the south for many years.

Figure 12 below is a conceptual diagram showing the Manukau node which encompasses the airport. The main transport connections to and around Manukau are also shown.

**Figure 12 Manukau node**



### Consideration of an eastern node

Preliminary assessment indicated that there were no suitable locations for such a node to the east of Auckland.

Botany is classified as a metropolitan centre under the Auckland Unitary Plan however the area has only recently been urbanised and it will take time to develop the diversity of activity and scale required to serve as a node. Further, the location of Botany approximately 7km from both Sylvia Park and Manukau, and in close proximity to rural areas in the east, means its sub-regional catchment is limited. Botany is also yet to be connected to the strategic public transport network. This will change over time as connections to the airport, via Manukau and to the city centre, via Pakuranga and Panmure are built. Further assessment of Botany as a node is set out in Appendix 6.

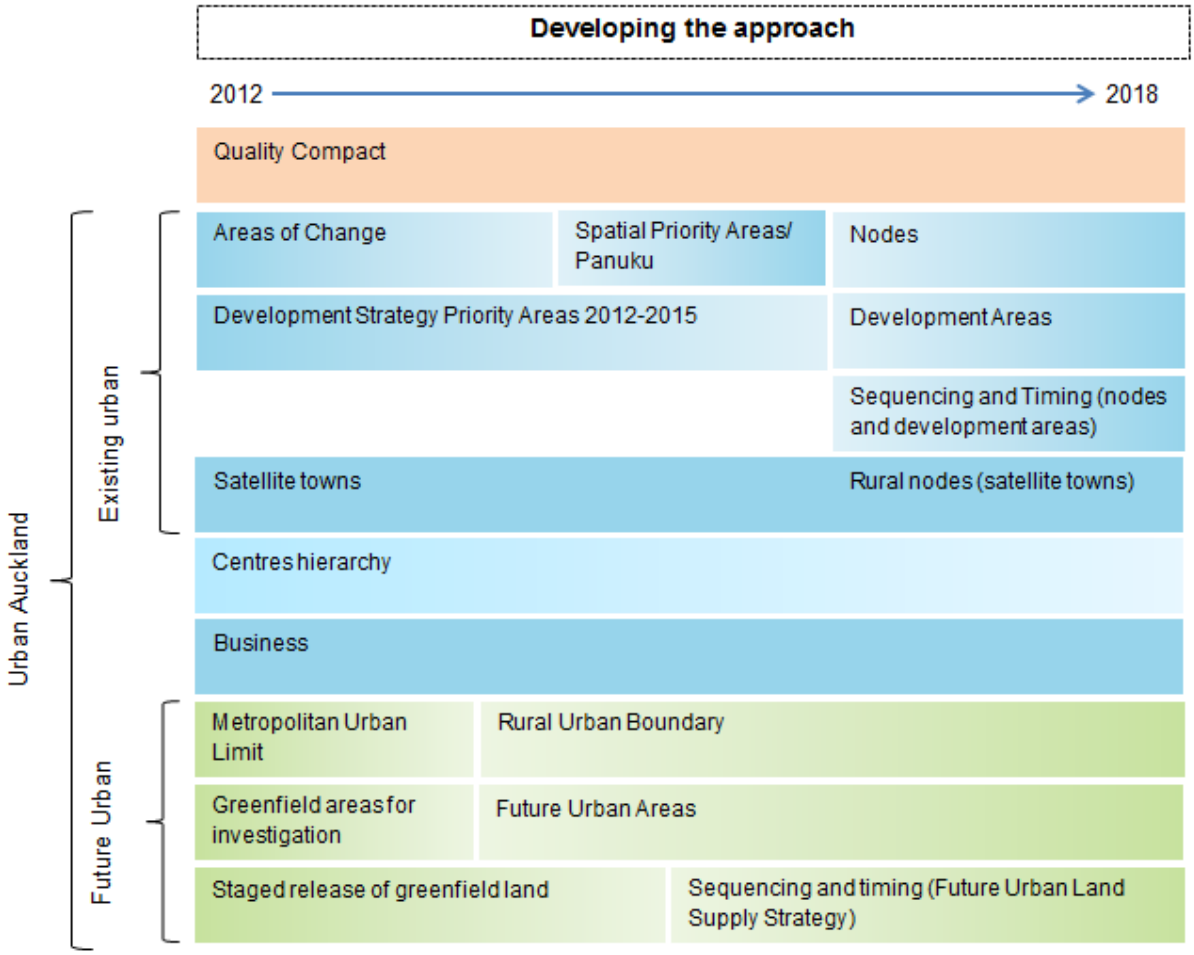
# 5 Urban Auckland

This section sets out the approach taken to managing growth in urban Auckland. For this report Urban Auckland is discussed in the following four components:

- the existing urban area which is already urbanised
- future urban areas where new communities will be established, on the fringe of Auckland's existing urban area, and in rural and coastal settlements
- business areas across Auckland where land is zoned for business uses
- a network of centres and neighbourhoods, where people can easily access their daily needs. This network approach applies across all urban areas.

Figure 13 shows the approach to managing growth in urban Auckland and how it has been refined since 2012. Each component contributes to achieving a quality compact city and requires a specific growth management response. The rationale for these responses is discussed in further detail in the following sections.

**Figure 13 Urban Auckland growth approach**



## 5.1 Existing Urban Area

### 5.1.1 Introduction

The existing urban area is expected to make an important contribution to achieving a quality compact Auckland. However, a targeted approach to development and intensification is needed to achieve this.

This section outlines:

- the existing urban area context, including:
  - the 2012 Auckland Plan approach
  - the Auckland Unitary Plan approach
  - existing urban area development trends 2012-2017
  - Auckland spatial initiatives since 2012
- opportunities and challenges and options to address these
- preferred approach – development areas
- methodology – an overview of the process used to identify and sequence development areas.

This section focuses on providing the evidence base to support the introduction of the development areas in the Development Strategy, as a comprehensive approach to servicing expected growth across the existing urban area.

### 5.1.2 Existing urban areas context

#### The 2012 Auckland Plan approach

The approach taken in the 2012 Auckland Plan focused most growth inside the existing urban area. Spatially, this meant providing for 60 to 70 per cent of new dwellings inside the Metropolitan Urban Limit within 'areas of change' (Auckland Council, 2012a).[6] Nine priority areas were identified to focus council's planning and investment, as well as other organisations', particularly central government. [7] These nine areas were refined through the 2015-2025 Long-term Plan process (Auckland Council, 2015h) and resulted in 10 Spatial Priority Areas. See Appendix 7 for further information on Spatial Priority Areas.

The degree of change, or intensification, varied with most change expected in the city centre and metropolitan centres, significant change expected in the town centres and lesser degrees of change in other areas. The form of change is a key part of achieving a quality compact Auckland and this meant intensification with more attached dwellings.

#### Auckland Unitary Plan approach

Much of Auckland's existing urban area has been up-zoned through the Auckland Unitary Plan. This allows more intensive development (e.g. attached housing or apartments) and

[6] See Maps D1 and D2 for areas of change.
[7] The nine areas were the city centre, the Southern Initiative, Hobsonville/Westgate and Massey North, Tāmaki, New Lynn, Ōnehunga, Takapuna, Warkworth, and Pukekohe.

includes more permissive development standards in some residential zones relating to height, density and parking (see Appendix 8).

While most areas of urban Auckland have some degree of change through the Auckland Unitary Plan process, change in some areas was significant, particularly up-zoning around centres and areas with good access to the strategic transport network.

Up-zoning means that there is capacity for around one million additional residential dwellings across Auckland. However commercial viability means only some of this capacity is actually feasible (taking into account current costs, revenue and yields).

It is important to understand how particular locations within the existing urban area could contribute to large scale housing and employment supply both now and over time. As market conditions change, a greater number of sites could become more feasible.

Understanding how and when feasibility changes over time, to provide for intensification opportunities in particular locations across Auckland, requires ongoing monitoring and investigation throughout the life of the Auckland Plan.

### Existing urban area development trends 2012-2017

As part of the Development Strategy Annual Implementation Updates, monitoring has been carried out since 2012. Trends in the type and location of new dwellings indicate how much progress is being made towards achieving a quality compact city.

Monitoring shows that progress is being made in achieving a quality compact urban form, with increases in the number of attached dwellings and also the location of dwellings in accessible locations. These trends are discussed further below.

*Dwelling types*

A more compact city means greater densities need to be achieved in the existing urban area to accommodate anticipated growth over the next 30 years.

The 2012 Auckland Plan anticipated that up to 61 per cent of all new dwellings built over 30 years could be attached. For the 2012/13 year, 16 per cent of Auckland's consented activity was for attached dwellings. However, this percentage has been steadily increasing. Attached dwellings now account for around 32 per cent of all dwellings consented in Auckland (see Appendix 3) (Auckland Council, 2018a).

*Dwelling location*

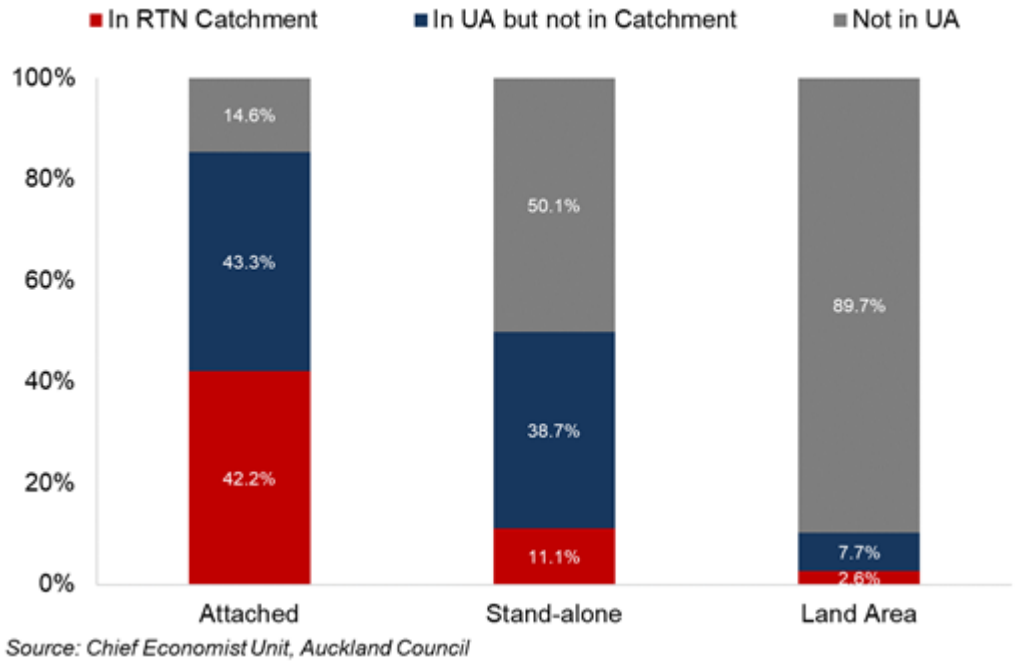
Focusing growth within the existing urban area is key to achieving the quality compact approach, particularly intensifying areas within or close to centres and high quality transport hubs.

Until recently, most consents for attached dwellings were in the city centre. In the last three years attached housing developments have become more widespread across the existing urban area. Mapping of development activity in the last year (see Figure 1) shows

a concentration of consents for attached dwellings around the city centre, and along the western and southern rail corridors.

This trend indicates an increasing preference for new housing in areas close to dedicated public transport routes; effectively bringing homes closer to major employment areas. Monitoring shows in the 12 months to May 2018, a disproportionately large number of dwellings were consented in the catchment areas for rapid transit networks. While only 2.6 per cent of Auckland's land area falls within a 1.5km walk of a rapid transit station (train or Northern Busway), 42 per cent of all attached dwelling developments consented were in the rapid transit station catchment area (see Figure 14). In the future, the completion of the City Rail Link and newly announced light rail projects are anticipated to increase this trend.

**Figure 14 Dwellings consented by type and area in relation to the rapid transit network catchment, 12 months to May 2018**

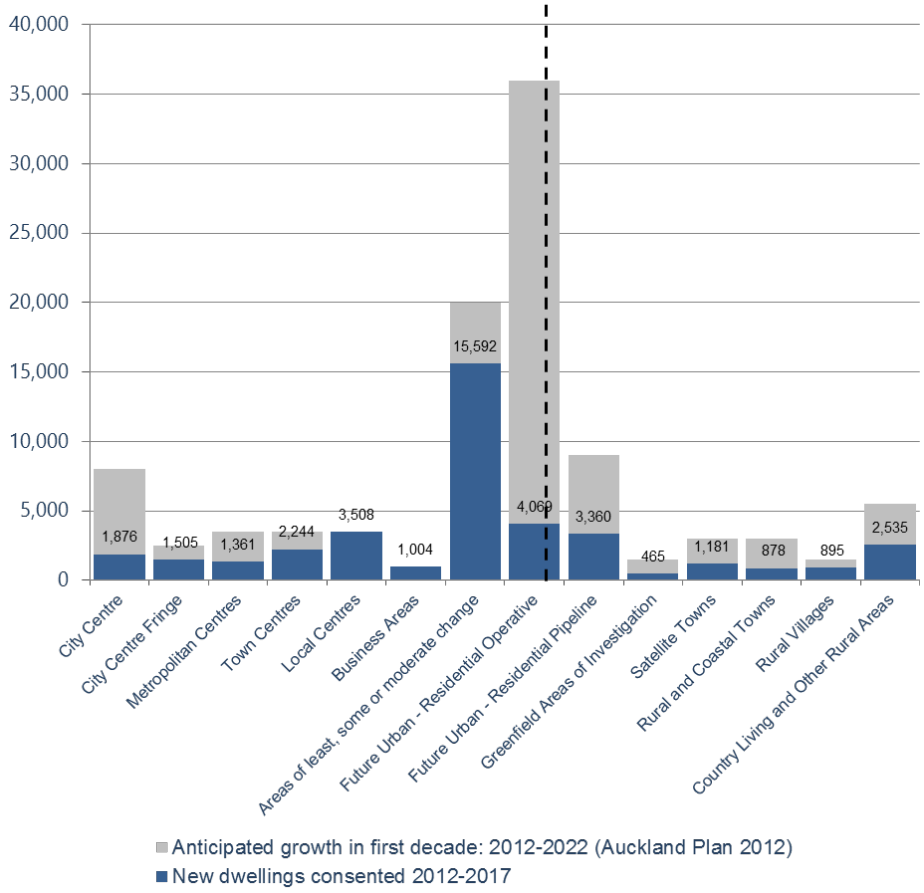



*Source: Chief Economist Unit, Auckland Council*

Figure 15 shows the location of new dwellings consented in the first five years (2012-2017) compared with what the 2012 Auckland Plan anticipated for the first decade (2012-2022) (Auckland Council, 2018a).

Consents within town centres and local centres have also been strong. Again, accessibility may be a factor in this trend. However, consents within the 'areas of least, some or moderate change' (typically suburban areas outside of centres) category have also been higher than expected. This shows a more dispersed pattern of development within the urban area than the 2012 Auckland Plan anticipated.

**Figure 15 New residential dwellings consented (2012-2017) by development strategy category, compared with anticipated dwelling growth in the first decade 2012-2021 (chart D7, 2012 Auckland Plan)**




## Spatial initiatives since 2012

An assessment was undertaken of work that has been done to support urban intensification since the 2012 Auckland Plan was adopted. Information sources included:

- Auckland Council Plans & Places – Area Spatial Planning Review and Work Programme (Auckland Council, 2017d)
- Auckland Council Group Housing Stocktake (Auckland Council, 2016b)
- Panuku Development Auckland's redevelopment plans (Panuku, 2018)
- Housing New Zealand redevelopment plans (Housing NZ, 2018).

Using this information, Table 1 below identified place-based priorities underway as at February 2018 for Auckland Council, Panuku and central government. The information showed a number of intensification initiatives spread across a wide range of council departments, council controlled organisations and central government agencies; all with different roles and responsibilities to help support the delivery of place-based intensification projects.

As discussed above (and in Appendix 7), the 2015-2025 Long-term Plan included 10 Spatial Priority Areas which focused on prioritising resources to deliver significant economic, social and environmental outcomes for Auckland. Each Spatial Priority Area

had specific visions and associated actions. Progress on each of the areas has varied, reflecting the individual nature of the areas and factors such as resource constraints. In some cases such as Whenuapai there has been a focus on completing planning. For other areas, such as Otahuhu and Manukau, significant progress has been made in both planning and implementation.

In the remaining areas, many of the actions identified are now largely complete. Work on place-based priorities will continue through areas identified as part of the Auckland Plan 2050 and Auckland's 10-year plan 2018-2028. Complementing these priorities there will be small scale, local projects through local board initiatives and programmes such as the Southern Initiative.

With the exception of Flat Bush the remaining areas are partially or completely identified in the Development Strategy 2050 as areas for significant housing and business growth (as nodes or development areas). The Crown and council are involved in implementation in many of these areas.

**Table 1 Auckland's identified place-based priorities (as at February 2018)**

| | Strategic Direction | Planning and Implementation | | | |
|---|---|---|---|---|---|
| | | Auckland Council | | | Central Government |
| | 2012 Auckland Plan | Plans and Places | Development Programme Office | Panuku | HLC and HNZ |
| City Centre | ✓ | ✓ | ✓ | ✓ | |
| Wynyard Quarter | | | | ✓ | |
| The Southern Initiative[8] | ✓ | | | | |
| Manukau | | ✓ | | ✓ | |
| Hobsonville, Westgate, Massey North | ✓ | ✓ | | | ✓ |
| New Lynn | ✓ | | ✓ | | |
| Ōnehunga | ✓ | | | ✓ | |
| Tāmaki | ✓ | ✓ | | ✓ | ✓ |
| Takapuna | ✓ | ✓ | ✓ | ✓ | |
| Devonport | | ✓ | | | |
| Warkworth | ✓ | | | | |
| Pukekohe | ✓ | ✓ | | ✓ | |
| Manurewa | | ✓ | | | |
| Papakura | | ✓ | | | |
| Takanini | | ✓ | ✓ | | |
| Flat Bush | | ✓ | ✓ | | |
| Ormiston | | | | ✓ | |
| Ōtāhuhu | | ✓ | ✓ | ✓ | |
| Middlemore | | ✓ | | | |
| Māngere | | ✓ | | | ✓ |
| Hibiscus and Bays | | ✓ | | ✓ | |
| Ōtara | | ✓ | | | |
| Papatoetoe | | ✓ | | ✓ | |
| Three Kings | | ✓ | | | |
| Albany | | | ✓ | | |
| Great North Road | | | ✓ | | |
| Northcote | | | ✓ | ✓ | ✓ |
| Henderson | | | | ✓ | |

[8] The Southern Initiative was established through the 2012 Auckland Plan. The purpose is to plan and deliver a long-term programme of co-ordinated investment and actions to bring about transformational social, economic and physical change. There is now a particular focus on social innovation and entrepreneurship. For more information see 'The Southern Initiative' supporting information to the Belonging and Participation outcome of the Auckland Plan 2050.

| | | | | | |
|---|---|---|---|---|---|
| Mt Roskill | | | | | ✓ |
| Avondale | | | | ✓ | |

### 5.1.3 Opportunities and challenges

Quality intensification of the existing urban area is critical to accommodating the expected growth in Auckland over the next 30 years. However, a number of opportunities and challenges to achieving intensification have been identified.

#### Accommodating growth within established communities – realising the potential

Neighbourhoods in Auckland's existing urban areas have established character and heritage valued by the communities that live and work in them. Growth and intensification needs to build on the qualities that people value.

The Auckland Unitary Plan provides the regulatory framework to enable more attached dwellings to be built. It introduces greater development potential on many sites in the existing urban area. Now the challenge is for this potential to be realised in ways that achieve the multiple outcomes sought by the Auckland Plan 2050.

While the Auckland Unitary Plan provides capacity for growth, the feasibility of this varies depending on factors such as economic conditions and the housing and construction markets. This means that some areas have much higher economic feasibility than others. However, feasibility will change over time. Identifying market attractive areas, and understanding when these areas are most likely to be redeveloped, provides potential for aligning efforts with the development community.

As stated in section 2.4.2, much of Auckland's existing urban areas have been up-zoned as part of the Auckland Unitary Plan. Often the "easy wins" have already been made through successive planning and development cycles. This has predominantly been through dispersed infill, with landowners subdividing and adding a dwelling on their sites. The challenge now is to get intensification in existing urban areas that builds on the quality compact approach; places with good access to public transport and other facilities. Monitoring already shows that there is a pattern of development activity emerging along rapid transport corridors such as the western and southern rail corridors (Auckland Council, 2018a). Completion of the City Rail Link and light rail projects is expected to support further growth in these communities by providing greater accessibility to areas of employment (City Rail Link Ltd, 2018) and increasing feasibility (Auckland Transport, 2015).

Fragmented land ownership and small sites limit the amount of comprehensive redevelopment that can be achieved. There are few large sites available for redevelopment within existing urban areas. Consolidated land holdings (in single ownership) are also rare. The opportunity is to use these sites to the best effect. One major landowner with a programme for redevelopment is Housing New Zealand. The land holdings of Housing New Zealand, potentially with other crown land holdings, represents an opportunity for council and the crown to work together to achieve common goals. Redevelopment of larger sites provides opportunities for comprehensive design with improved urban design and community outcomes.

For more information on barriers and success factors to achieving intensification see Appendix 9.

### Aligning land use and infrastructure

Within the existing urban area there are many place-based priorities and agencies involved in the delivery of these projects. Table 1 above shows that there are a number of areas where multiple agencies are investing. Each agency goes through its own process of setting the strategic direction, planning and delivery of each project, with the risk of overlapping processes, roles and responsibilities.

The challenge is to provide effective and efficient delivery of development, to avoid duplication of effort in the future, and to coordinate investment. A number of place-based initiatives demonstrate that there are opportunities to be gained from aligning land use and infrastructure planning and delivery. Appendix 10 provides two case studies (Manukau and New Lynn) that demonstrate the opportunities of aligning works from planning through to delivery, and the resulting outcomes for communities.

Intensification and infrastructure projects both require significant planning, consent and construction phases and therefore need clear signals to parties, agencies and the community. This is particularly the case where interrelated infrastructure projects are needed to enable residential and business growth. Major water, wastewater, stormwater and transport projects have been identified to provide additional capacity to meet current and future demands, replace ageing infrastructure, provide resilience and deliver environmental benefits. The central interceptor is an example of an infrastructure project where environmental outcomes could be achieved through renewing and upgrading wastewater systems on the isthmus at the same time as creating further development capacity. The City Rail Link is another example of a project that provides the opportunity to deliver multiple benefits.

Aligning the timing of infrastructure projects with land use development projects provides opportunity for synergy with budgetary, community and environmental benefits. Sequencing what gets delivered and when it will be delivered provides greater certainty to the market and ensures value for money as infrastructure and service providers can target their investment in response to growth.

### 5.1.4 Existing urban areas - possible options to address opportunities and challenges

In view of the opportunities and challenges (section 5.1.3 above) an assessment was made comparing the advantages and disadvantages of two options (see Table 2 below):

- maintaining the status quo with multiple agencies having place-based priorities
- introducing a more targeted concept focused on areas where significant growth is expected (termed development areas).

Table 2 Comparison of options to address opportunities and challenges in existing urban areas

| Option 1 Status Quo | Option 2 Targeted approach (development areas) |
|---|---|
| • Continuation and potentially progress made on existing projects. | • Can take into account projects/areas which have funding already committed. |
| • Limitations on budgets may mean funding is dispersed. Therefore meaningful progress/implementation of individual projects may be harder to achieve. | • Recognises areas where the market is delivering homes in the short term and identifies where significant growth is anticipated in the short, medium and long-term.<br>• Allows limited budget to be prioritised to areas and projects where there is more certainty to accommodate growth. |
| • Separate priorities through multiple agencies mean lack of clarity about projects, areas and their intended outcomes which may vary. Some outcomes address growth while others have social and community outcomes as a focus.<br>• May not deliver significant additional housing. | • Enables coordination of efforts and an understanding of why areas have been chosen and what is needed to implement change that supports growth and wider Auckland Plan outcomes.<br>• Provides a way for planning and investment to be targeted and prioritised to those areas where the greatest development is taken up. |
| • Multiple project drivers mean that there is a lack of clarity for infrastructure planning. | • Provides an integrated mechanism for longer-term planning of infrastructure to assist coordinated delivery. Infrastructure providers in particular require a long-term, comprehensive and agreed basis from which they can do their own long-term planning that aligns with where significant growth is most likely to happen. |
| • No single categorisation for existing urban areas undergoing or expected to undergo significant growth | • Complements the prioritisation and sequencing of future urban areas. |

### 5.1.5 Preferred Approach - development areas in existing urban areas

On the basis of the above analysis, the concept of identifying development areas was supported and taken forward as part of the overall growth approach in the Auckland Plan 2050.

A targeted approach to the development and intensification of the existing urban area, through development areas, could:

- assist decision-making by council, central government, iwi and key stakeholders in ascertaining the likelihood of capacity being taken up in different areas and understanding how capacity and feasibility may change for specific areas over time
- direct growth to deliver strategic outcomes – identifying where and when development and infrastructure services are likely to occur, leveraging off feasible capacity and major investments
- enable coordination of efforts, allowing multiple agencies to focus efforts on agreed areas.

### 5.1.6 Development area rationale

This section provides the rationale behind the development areas in the Auckland Plan 2050. It steps through:

- the evolution of place-based planning approaches for the existing urban area
- development areas, describing in more detail what they are and their general characteristics
- the relationship between nodes and development areas
- methodology – providing the process to identify specific Development Areas and their sequencing.

#### Intensification in the existing urban area

Figure 16 below summarises the progression of place-based planning approaches for the existing urban area from the 2012 Auckland Plan to the Auckland Plan 2050, putting the nodes and development areas approach into context.

The figure also shows that there is a level of on-going support for smaller scale growth throughout the rest of the existing urban area. The level of financial support that the council could provide will be determined through long-term plan processes.

Figure 16 Auckland Plan Development Strategy approach to intensification in the existing urban area


## Development areas – what are they?

The concept of development areas, to provide a comprehensive approach to servicing expected growth across the existing urban area, was investigated as part of the research for the Development Strategy. This approach was developed through consideration of information including:

- international case studies – providing information on approaches that have been used to achieve focused urban growth. For information on case studies (London, New South Wales, South East Queensland and Vancouver) see Appendix 12
- local case studies – providing information on projects that have been undertaken in Auckland. Appendix 10 illustrates the timelines and outcomes for two of the local examples – Manukau and New Lynn
- local context – providing a realistic approach that could advance Auckland Plan outcomes while aligning market signals with council's long-term planning.

Development areas provide a way for planning and investment to be targeted and prioritised to those areas where the greatest development capacity is taken up, or expected to be taken up. Development areas can also enable coordination of efforts and for all parties to understand why areas have been chosen and what is needed to implement change that supports growth and wider Auckland Plan outcomes.

Development areas are described in the Auckland Plan 2050 Development Strategy as being:

> "a comprehensive approach to servicing expected growth across the existing urban area.
>
> They are specific locations that are expected to undergo a significant amount of housing and business growth within the next 30 years. Planning and investment will be targeted and prioritised to these areas where the greatest development capacity is taken up."(Auckland Council, 2018c)

They are a refinement of the 'areas of change' that were identified in the 2012 Auckland Plan Development Strategy (Auckland Council, 2012a). Development areas build on the development capacity provided through the Auckland Unitary Plan as well as location based projects that are being delivered by council or other organisations.

Development areas, along with nodes, are an essential component to delivering growth across the urban area consistent with the outcomes of the 2012 Auckland Plan. Growth will still take place in the balance of the urban area (as enabled through Auckland Unitary Plan provisions) but not of the scale anticipated in the nodes and development areas.

Development areas are usually geographic areas with one or more centres[9] that currently act as an anchor for the wider development area (or could perform this function over time as the area accommodates growth).

Development areas will have a combination of the following characteristics:

- substantial capacity (enabled and/or feasible) (Ministry for the Environment, 2016a) provided in the Auckland Unitary Plan for housing and business development
- access to a large number of jobs within a reasonable commute time
- access to centres and the strategic public transport network[10] within easy walking distance
- major public landholdings with intended or potential redevelopment
- current or planned infrastructure capacity that is likely to enable significant additional growth – for example, the expansion of the strategic transport network that improves connectivity
- market feasibility.

[9] Centres play a critical role in the form and function of the city and could accommodate much of Auckland's growth. The Auckland Unitary Plan supports this pattern of development. Centres and neighbourhoods are discussed in greater detail in section 4.4 of this report.

[10] The Strategic public transport network provides a frequent, high capacity public transport network that enables for high volumes of travel to major employment centres. These services typically operate in their own dedicated corridors, offering mass transit that is at least partially separated from private vehicles and is much less affected by road congestion.

Each development area is different and will experience growth at varying rates and at different times. There is more certainty in anticipating where and when growth will happen in cases where major transformational projects, such as the City Rail Link, have been planned and funded. These projects are expected to unlock areas. There is less certainty about the level of growth and when growth will be realised for areas where transformational projects are still to be confirmed and budgeted for as part of long term planning. An example of this is the proposal for Light Rail which is in the early stages of planning with no confirmation of the overall project, let alone finalisation of details such as modes, routes and budgets.

The investment required in these areas will focus on addressing the impacts of increased demand on infrastructure and services as development occurs. Development areas are not identified in the Development Strategy for the purposes of initiating council-led regeneration. They are a tool for council, crown and other providers to prioritise capital expenditure. For council, this is linked to where development capacity is taken up. They also provide a platform for the future should the council wish to play a more active role in directing growth to particular locations within the existing urban area.

As shown in the case studies (Appendix 10) urban intensification and revitalisation projects are complex. To achieve the outcomes sought, funding may be needed over a long period of time once support for a development area has commenced.

Monitoring and reporting of the rate and type of development occurring in these development areas is critical to understanding the need for any amendments that may be needed to the areas or overall approach. Monitoring will also inform the council's long-term planning and the development of infrastructure providers' asset management plans.

### Relationship between nodes and development areas

Figure 16 above illustrates that nodes and development areas are key areas likely to undergo significant growth in the existing urban area.

These are two different but complementary strategic growth management tools that work together to support the quality compact approach.

As described in section 4.4, the city centre, Albany, Westgate and Manukau are identified as nodes. They are areas with large catchments that are critical to accommodating development across Auckland. They are based around a significant centre and include surrounding employment areas and high density residential areas. Growth in the nodes is expected over the entire 30 year period of the plan. The scale of sustained growth over this period has the potential to alter the structure and functioning of Auckland.

Development areas are smaller geographic areas than the nodes, and are spread across Auckland. They are also expected to undergo large scale redevelopment and change. However this growth is likely to smaller in scale than nodes, with more focused development timeframes.

More than 45 per cent of expected dwelling growth (around 147,000 dwellings) is focused in nodes and development areas (around five per cent of Auckland's land area). As this scale of redevelopment and growth occurs, substantial infrastructure and service investment will be required.

### Methodology – Process to identify and sequence development areas

The process to identify and sequence development areas was iterative and had four broad components.

1. Identifying a long list of potential development areas
    - developing locational criteria to assist with identifying potential development areas on a map.
2. Identifying a short list of development areas.
3. Sequencing and timing for the short list of development areas
    - developing criteria - to assist with sequencing and timing development areas
    - assessing short list of development areas to arrive at a sequence and timing for each development area.
4. Changes from consultation feedback and further information received.

The long and short lists were amended and reassessed over the course of the project to take into account further information from workshops and stakeholders.[11] This refined the areas, their physical scope and sequencing. There were also refinements made to the way that the development areas were presented, with grouping of individual development areas being introduced as the process evolved.

Further consideration was given to the location and timing of development areas through the consultation process, and the analysis of further information and feedback. The four broad components of the process are discussed in more detail in Appendix 11.

### Selection of final development areas

This process resulted in the inclusion of 18 development areas in the Development Strategy. Table 3 below shows the location and timing of the development areas included in the adopted Auckland Plan 2050.

**Table 3 Anticipated timeframe of development in Auckland's existing urban area**

| | **Decade 1 2018-2028** | | **Decade 2 2028-2038** | **Decade 3 2038-2048** |
|---|---|---|---|---|
| | Short term 2018-2021 | Medium term 2021-2028 | Long term 2028-2048 | |
| **Nodes** *Includes a component of future urban | | | | |
| City centre & city fringe | | | | |
| Albany* | | | | |

[11] See Section 9 Partner and stakeholder feedback

| | Decade 1 2018-2028 | | Decade 2 2028-2038 | Decade 3 2038-2048 |
|---|---|---|---|---|
| | Short term 2018-2021 | Medium term 2021-2028 | Long term 2028-2048 | |
| Westgate* | | | | |
| Manukau | | | | |
| **Development Areas** | | | | |
| Sunnynook | | | | |
| Takapuna | | | | |
| Northcote | | | | |
| Birkenhead | | | | |
| Te Atatū Peninsula | | | | |
| Te Atatū South | | | | |
| Glendene | | | | |
| Henderson | | | | |
| Sunnyvale | | | | |
| Avondale | | | | |
| New Lynn | | | | |
| Kelston | | | | |
| Glen Eden | | | | |
| Newton | | | | |
| Morningside | | | | |
| St Lukes | | | | |
| Mt Albert | | | | |
| Dominion Road corridor | | | | |
| Mt Roskill -Three Kings | | | | |
| Greenlane | | | | |
| Ellerslie | | | | |
| Glen Innes | | | | |
| Tāmaki | | | | |
| Panmure | | | | |
| Sylvia Park | | | | |
| Ōnehunga | | | | |
| Highland Park | | | | |
| Pakuranga Corridor | | | | |
| Pakuranga | | | | |
| Ōtāhuhu | | | | |
| Māngere | | | | |
| Māngere East | | | | |
| Otara | | | | |
| Papatoetoe-Hunters Corner | | | | |
| Manurewa | | | | |
| Clendon | | | | |
| Papakura | | | | |

## 5.2 Managed expansion into future urban areas

### 5.2.1 Introduction

This section details the methodology undertaken and the technical inputs considered to identify Auckland's future urban areas and the sequencing and timing of their development over 30 years. It provides an outline of the context for future urban areas including direction provided in the 2012 Auckland Plan and an overview of the process to identify the Rural Urban Boundary and future urban zones within the Proposed Auckland Unitary Plan.

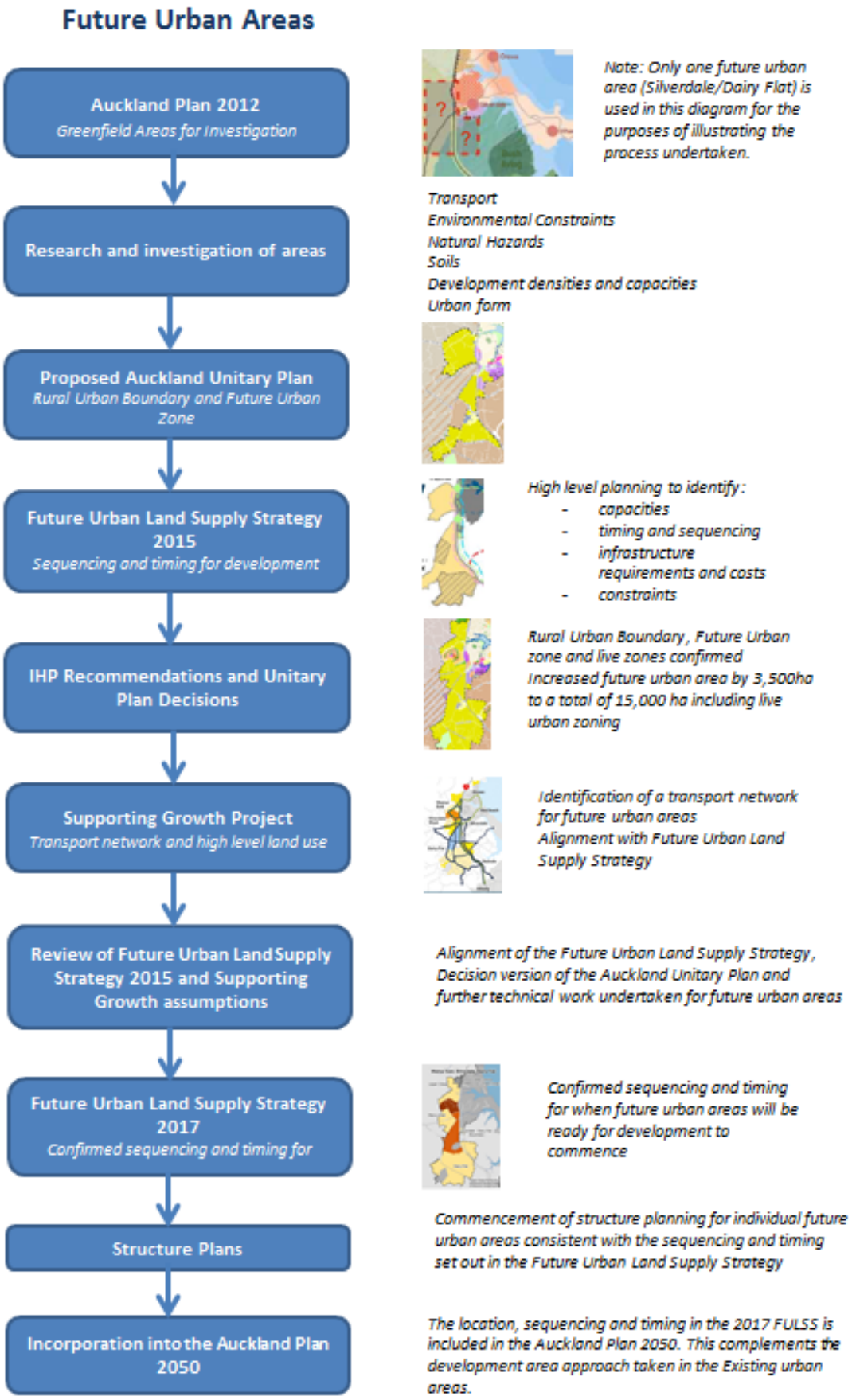
It discusses the issues, challenges and opportunities facing the development of the future urban areas and outlines processes that have occurred since the notification of the Rural Urban Boundary in the Proposed Auckland Unitary Plan in 2013, including the development of a strategy to manage the timing and delivery of urban zoning and bulk infrastructure to these areas.

### 5.2.2 Process overview

The council's approach to investigate managed expansion into the rural areas was signaled in the 2012 Auckland Plan as 'Greenfield Areas for Investigation'. Six large areas were identified outside of the existing urban area as potential locations for future urban development but they required further investigation. A further three areas, smaller in scale, were also identified.

The process to confirm the exact location of these greenfield areas, and their sequencing, timing, anticipated capacities and bulk infrastructure costs followed in 2012 and 2013 with further investigation and analysis of potential options for the locations of a Rural Urban Boundary and Future Urban zones. Once the areas had been confirmed through the Auckland Unitary Plan process, the sequencing and timing for development readiness was identified and confirmed by the council through the adoption of the Future Urban Land Supply Strategy. This strategy has helped to inform subsequent related processes such as the Supporting Growth project (New Zealand Transport Agency, 2017), structure planning, the 2018-2028 Infrastructure Strategy and the Auckland Plan 2050. The overall process to confirm the location, sequencing and timing of future urban areas is summarised in Figure 17.

**Figure 17 Process to confirm the location, sequencing and timing of future urban areas**



### 5.2.3 Context

#### Background – 2012 Auckland Plan approach

The 2012 Auckland Plan Development Strategy looked out 30 years to 2041 and set out the amount of capacity that was required to meet growth demand within a quality compact approach to growth. The strategy anticipated a compact urban form and greater intensification in existing urban areas and managed expansion into 'greenfield areas'. The greenfield areas were to provide up to 40 per cent of new dwellings outside the baseline 2010 Metropolitan Urban Limit.[12]

The broad strategy was to provide for a transition, decade by decade, from more greenfields residential development in the first decade through to more development in the existing urban area in the third decade. This reflected the need for the industry to change established greenfield development models and gear up to provide large areas for high quality intensified development in existing urban areas (Auckland Council, 2012a).

The 2012 Development Strategy identified capacity for around 60,000 dwellings in the development pipeline (greenfields land), two thirds of which were within the Metropolitan Urban Limits allowing for shorter-term continuity of supply of land for mixed housing types and some additional employment.

A number of large greenfield areas were identified in the Development Strategy as having the potential to accommodate significant new growth over the next 30 years. These areas were identified in the north, north-west and south of Auckland's urban area including around the satellite towns of Warkworth and Pukekohe. It was anticipated that up to 55,000 dwellings could be provided for in these areas.

The Development Strategy also required 1,400 hectares of additional greenfields to provide for business activities. Approximately 1,000 hectares of this would be for business activities that require large tracts of land (e.g. manufacturing, transport and storage, logistics and similar activities). A further 400 hectares of land would be provided for commercial activities such as retail, office and service activities. It was envisaged that these activities would be centres based activities.

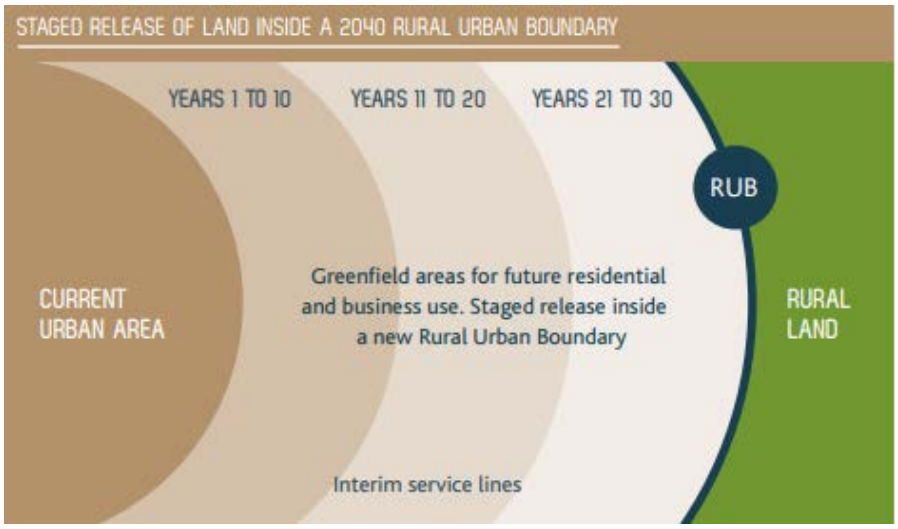
To provide for sufficient growth for the next 30 years, including beyond the 2010 Metropolitan Urban Limit, the 2012 Auckland Plan introduced the Rural Urban Boundary. This boundary was to be defined around all significant urban areas – the existing urban core, satellite towns and rural and coastal towns. The Rural Urban Boundary was considered an important tool in determining the future urban form, defining where the urban area stops and rural environments start. It was intended to define the maximum extent of urban development to 2040 in the form of a permanent rural - urban interface and

[12] The baseline 2010 Metropolitan Urban Limit was used to define the urban limit; this was agreed to by the former Auckland Regional Council and territorial authorities. The 2012 Auckland Plan used it as a baseline to monitor urban expansion.

would help to achieve well-planned, efficient urban development, conserve the countryside, and encourage further growth and development of existing urban areas.

The following diagram (Figure 18) was included in the Development Strategy to illustrate how it was envisaged that land would be released inside a Rural Urban Boundary over the term of the Plan – as a staged release, decade by decade following interim service lines.

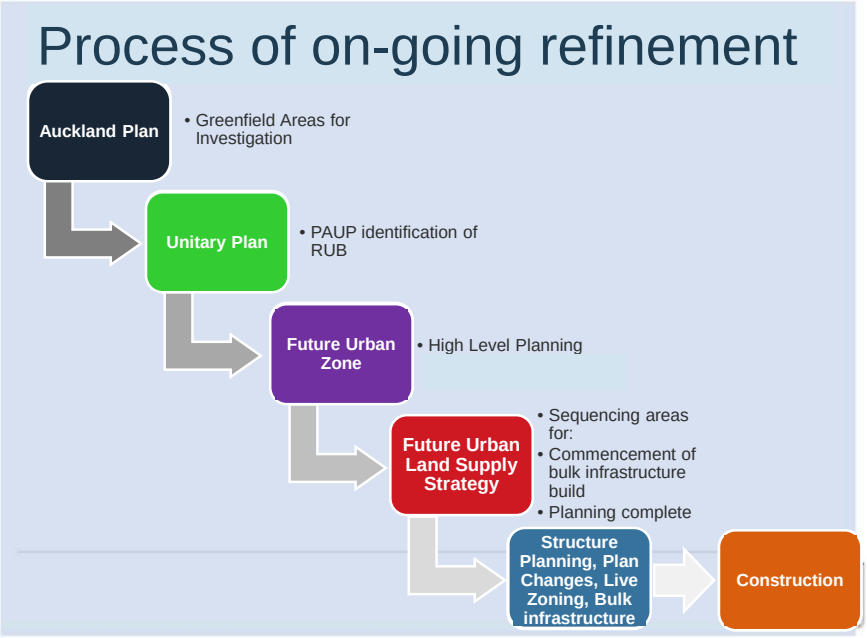
**Figure 18 Staged release of land inside a 2040 Rural Urban Boundary (Auckland Council, 2012a)**




## Ongoing process of refinement

The areas identified in the 2012 Auckland Plan for investigation were large in scale and required an intensive technical research and investigation process, including consultation processes, to further refine the identified ‘Greenfield Areas for Investigation’. This process progressively enabled the council, infrastructure providers, iwi, developers, landowners and key stakeholders to have a better understanding of how these areas could accommodate development and what their specific requirements were. The following diagram (Figure 19) illustrates the ongoing process that has assisted with refining the approach to the future urban areas from the initial concept of identifying greenfield areas to investigate for potential development, to construction.

**Figure 19 Process of on-going refinement for future urban areas**




## Future urban area development trends 2012-2017

*Dwelling type*

The 2012 Auckland Plan anticipated that up to 61 per cent of all new dwellings built over the following 30 years would be attached, to achieve the greater densities needed to meet anticipated growth. This required a shift towards the construction of more attached dwellings is required across Auckland including in the future urban areas. It is evident that this shift is occurring. Between 2012 and 2013, 84 per cent of Auckland's dwellings were detached however this has been steadily declining as a proportion of all dwelling types (Auckland Council, 2018a). In the 2016/17 year attached dwellings accounted for around 43 percent of all new dwellings consented in Auckland (see Appendix 3). This presents significant opportunities for development of the future urban areas to achieve greater densities than are typically seen in greenfield development. The framework for these densities and typologies to be achieved in the future urban areas will be set through structure plans and changes to the Auckland Unitary Plan.

*Dwelling location*

The 2012 Auckland Plan Development Strategy included a number of charts (Figures D6 and D7) showing anticipated dwelling growth, by location, for each decade of the 2012 Auckland Plan. The Auckland Plan Development Strategy – Annual Monitoring Update (2016/17) report provides information on growth and development trends in the future urban areas over a five year period between 2012 and 2017. This information is categorised into the following areas:

- Future urban: residential operative: areas of land identified for urban development within the 2010 Metropolitan Urban Limit (e.g. Flat Bush, Hingaia and Hobsonville) with operative zoning in place as at 2012

- Future urban: residential pipeline: areas of land identified for urban development as at 2012, but not (at that time) zoned or serviced. Most of these areas fell outside the Metropolitan Urban Limit (e.g. Scott Point, Riverhead and Huapai North). This was part of the pipeline of land for future development as at 2012. Much of this pipeline is now in the development phase
- Greenfield Areas for Investigation: areas of rural land identified in the 2012 Auckland Plan (e.g. Warkworth, Silverdale, Dairy Flat, Drury, Opaheke, Paerata), to be investigated during the drafting of the Auckland Unitary Plan for their suitability to urbanise. This land formed part of the future development pipeline identified in Appendix 19
- Satellite towns: identified in the 2012 Auckland Plan as Warkworth and Pukekohe, these rural towns have 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 and have the potential to accommodate growth within their existing urban area.

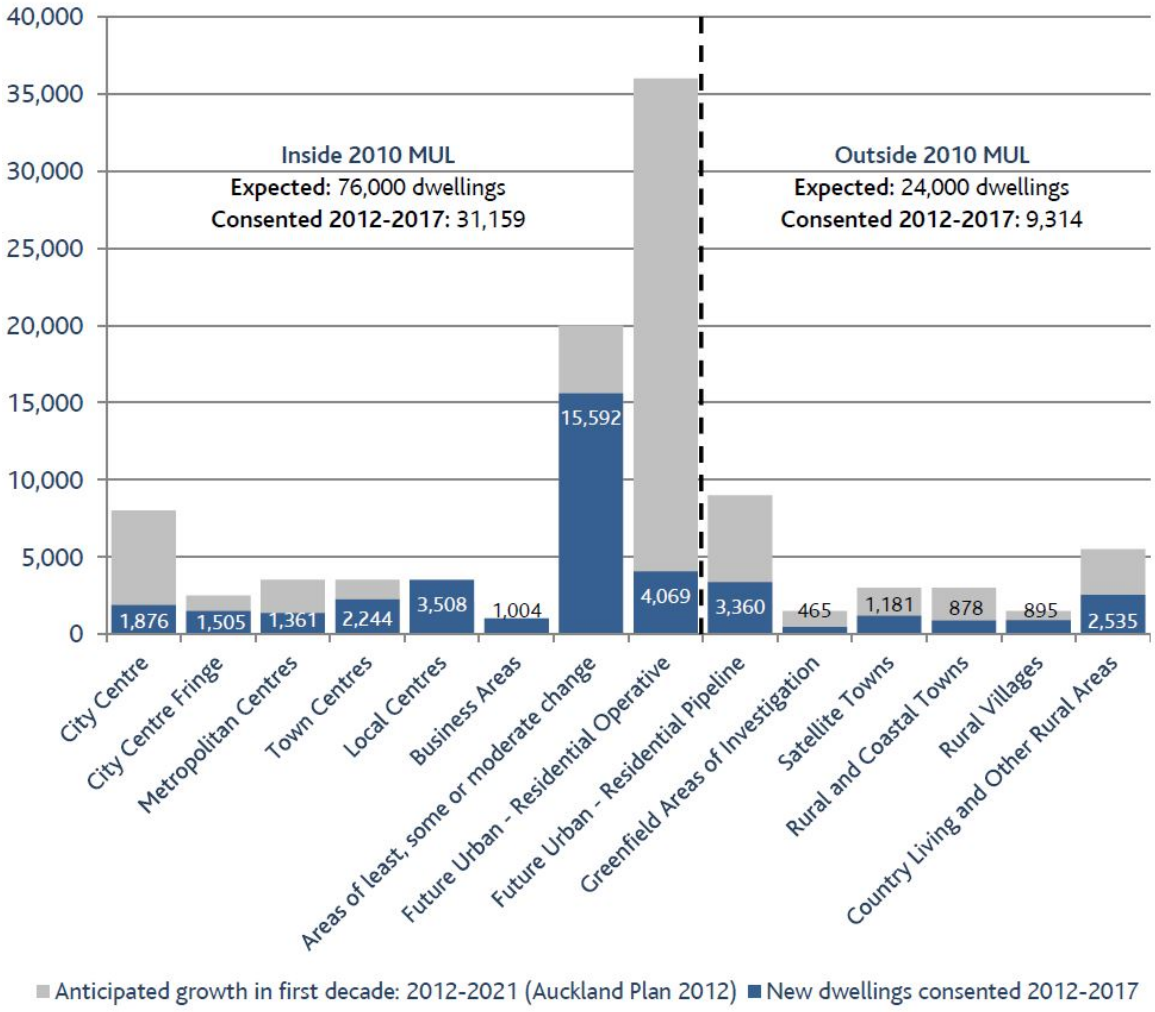
Figure 20 below compares the number of new dwellings consented over the last five years against what the 2012 Auckland Plan anticipated for the first decade (2012-2022) in each of these categories (Auckland Council, 2018a).

This indicates that for future urban areas, only a small portion of what the Auckland Plan anticipated for future urban operative and pipeline was consented over this period.

Consented activity within the ‘future urban: residential operative’ category is likely to under-represent actual delivery because the chart does not capture consents issued for new homes in these areas prior to 2012. This category captures greenfield developments within the 2010 Metropolitan Urban Limit already underway at the time of the 2012 Auckland Plan. It includes Hingaia, Flat Bush, Silverdale North and Hobsonville.

It is expected that it will take some time for development activity to increase once the areas move into the development phase. However, building activity in these areas is less than the 2012 Auckland Plan anticipated, suggesting these areas are taking longer than expected to fully develop. Further investigation as a part of ongoing monitoring and review may be required.

**Figure 20 New residential dwellings consented (2012-2017) by development strategy category, compared with anticipated dwelling growth in the first decade 2012-2021 (chart D7, 2012 Auckland Plan)**



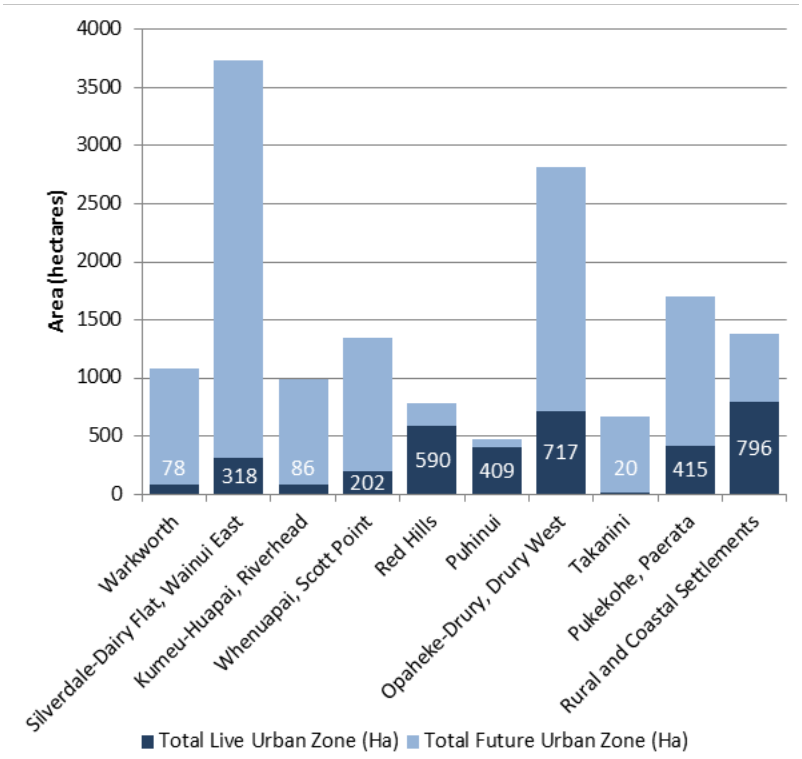

*Delivery in Future Urban Areas, as at 30 June 2017*

Figure 21 below shows the proportion of live zoning[13] that has occurred as at 30 June 2017 within each of the large future urban areas. A significant portion of Red Hills, Puhinui (for employment) and the rural settlements have been live zoned. In total, 3,631 hectares of future urban land have been live zoned as at 2017. This represents 24 per cent of the total area identified for future urban development.

To date, 1,331 new lots have been created in the future urban areas, three quarters of these (997 lots) in 2016/2017. Of the 906 dwellings consented in the future urban areas, half of these were consented in the 2016/2017 year. This indicates a significant increase in development activity as future urban areas identified for Special Housing Areas and sequenced early in the Future Urban Land Supply Strategy have progressed to the stage where infrastructure is in place and homes are being delivered.

[13] Live zoning is defined in the draft Auckland Plan glossary as an operative urban zone (e.g. residential, business or open space) which specifies development activities and rules.

**Figure 21 Proportion of live urban zone and future urban zone by future urban area (as at 30 June 2017) (Auckland Council, 2018a).**




### 5.2.4 Opportunities and challenges

#### Accommodating growth in new urban areas

The 2012 Auckland Plan signalled capacity for around 30 to 40 per cent of future growth to be accommodated outside the existing urban area. Some of this growth would be in the rural area but most of it would need to be provided in future urban areas. Development of future urban land not only contributes to providing housing supply over the next 30 years, future urban areas play an important role in providing choice, particularly in terms of location and housing type. However, the challenge to identifying large areas of greenfield land is to ensure that it is developed efficiently over time.

Greenfield land is often considered to be easier to develop than land in the existing urban area. This is largely due to the perceived lack of constraints such as fewer neighbours, larger landholdings and needing to design within an established urban form. This historical preference towards greenfield development has meant that land identified on the periphery of Auckland has been used up faster than anticipated. The Auckland Regional Growth Strategy 1999 identified large areas of greenfield land on the periphery of Auckland which were earmarked for 50 years of growth. By 2018, less than twenty years on, much of this land has been developed (Auckland Council, 2018a).

The less constrained greenfield land, often close to the existing urban area, has been developed or has been identified for development over the next one to five years. The required bulk infrastructure services are often easier and cheaper to provide in these areas that are close to the existing urban area. The remaining future urban areas have various

constraints, often significant, including the lack of urban infrastructure. Greenfield areas are getting further away from Auckland's key services and amenities which will require longer commuting distances and increased transport costs to access these services.[14] The challenge is to be able to provide future residents with choice and flexibility as to where they live while being able to afford the required infrastructure to support new communities on the periphery of Auckland.

### Interim responses to providing housing supply – Special Housing Areas

Special Housing Areas were established across Auckland to fast-track the development of housing (including affordable housing). They were set up with the intention of speeding up the supply of housing as agreed in the Auckland Housing Accord (2013) between the council and central government. Special Housing Areas provided fast-track consenting with limited rights of appeal and were established as an interim measure while the Auckland Unitary Plan was being developed.

A number of the Special Housing Areas approved were in future urban areas (e.g. Red Hills, Wainui East and Drury West). The Auckland Unitary Plan Independent Hearing Panel's recommendations included to live zone many of the Special Housing Areas as well as some large areas of future urban land adjacent to these Special Housing Areas. This occurred in Wainui East and Red Hills where approximately 480 hectares of land was live zoned adjacent to the approved Special Housing Areas. This live zoning was reflected in subsequent sequencing and timing of development. It also played a critical role in influencing the sequencing and timing of adjacent future urban areas.

### Scale of growth and development capacity

The Proposed Auckland Unitary Plan identified approximately 11,000 hectares of future urban land which equates to around 1.5 times the size of Hamilton's urban area (Auckland Council 2015e). This future urban area had the potential to accommodate around 110,000 dwellings. The decisions version of the Auckland Unitary Plan (2016) identified a further 2,791 hectares of future urban land including additional areas around the rural settlements. Future urban land now totals approximately 15,000 hectares which represents an increase of around 20 per cent. The future urban areas are estimated to have the potential for around 137,000 dwellings and approximately 70,000 jobs to be accommodated over 30 years. This land represents a significant geographical area across the north, northwest and south of Auckland that will require large scale planning and servicing to ensure good outcomes are achieved including efficient use of land, timely provision of infrastructure and good urban form.

As these areas are large in scale and predominantly rural with little or no infrastructure to service new growth, large bulk infrastructure projects will be required to service the scale of growth anticipated. Some areas are further constrained due to significant geotechnical or environmental issues and may require additional technical investigations and

[14] For more information on scenario modelling see section 4.2.4 and Appendix 5.

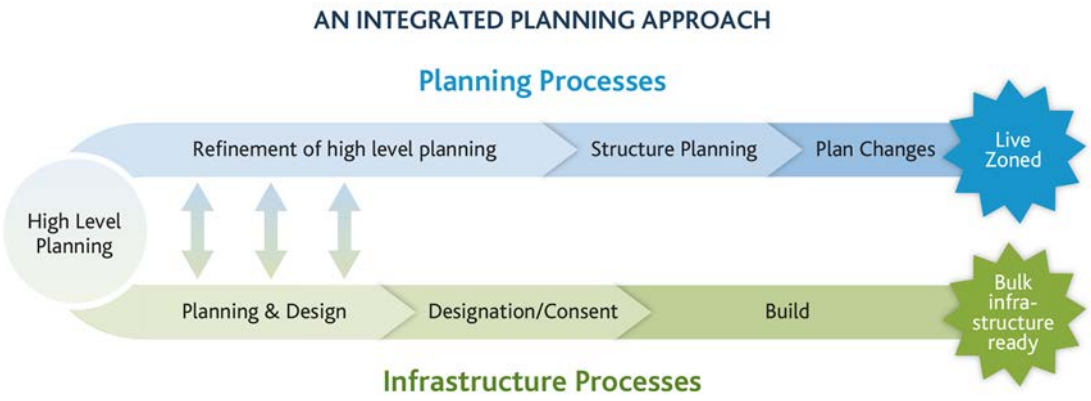
remediation prior to development commencing. These factors can often require long lead in times and commitment to significant funding prior to development commencing.

### Aligning infrastructure and land use planning (includes structure planning and plan changes)

All areas will require structure planning and plan changes which will need to align with the provision of bulk infrastructure prior to commencement of development.

The integration of land use and infrastructure is critical to enabling growth. Bulk infrastructure is expensive to provide and often has long lead in times due to the complexities of planning, consenting, funding and constructing projects of this scale. These projects need to be planned well in advance of development occurring to ensure that the infrastructure and live zoning are delivered at the right place at the right time (Trenouth, 2015). The following diagram (Figure 22) illustrates the steps in both the planning and infrastructure processes to ensure that live zoning and appropriate bulk infrastructure are delivered together:

**Figure 22 Steps in aligning planning and infrastructure provision**




### Agreeing priorities

The most significant challenge for the future urban areas is the cost of providing bulk infrastructure. It is estimated that these costs will be in the order of $20 billion (Auckland Council, 2017b), much of which is not currently funded. In order to assist the council, infrastructure providers, developers and land owners with the planning for these areas, and to ensure the required infrastructure is in place prior to development commencing, it is important to have an agreed sequencing and timing of when these areas will be ready for development.

Feedback, as part of consultation on the Future Urban Land Supply Strategy in 2015 and again in 2017, supported the need for sequencing and prioritising the future urban areas given the significant costs associated with providing bulk infrastructure to these areas (Auckland Council, 2017a). However, many did not agree with the sequencing and timeframes proposed for each area, and specifically requested some areas to be brought

forward. Requests for changes to the sequencing of areas were deliberated with a panel comprising representatives from the Planning Committee, before the strategy was adopted by the Committee in July 2017.

Limited access to funding sources combined with development priorities in the existing urban area means that it is not possible to develop all areas at the same time. Sequencing of the future urban areas spans across the three decades which helps to spread the costs out over this timeframe (Auckland Council, 2017b).

#### New communities

The future urban areas contribute to an ongoing pipeline of housing supply. It is essential that these new areas are developed as vibrant places for new communities who will live there. This will require a network of strong centres and neighbourhoods, integrated with good transport choices, and supported by a wide range of housing types and densities, as well as community facilities and access to employment.

Structure plans, supported by changes to the Auckland Unitary Plan, will provide a framework for how these new vibrant places will be achieved. This process presents a significant opportunity to provide integrated solutions to land use and infrastructure to maximise the potential for the establishment of new communities based on good design and quality outcomes.[15]

### 5.2.5 Methodology – process to identify and sequence future urban areas

The methodology for identifying future urban areas and determining the timing and sequencing of development included:

- understanding tools for managing Auckland's greenfield growth
- setting a Rural Urban Boundary and identifying future urban areas
- consideration of capacities and urban form
- identifying the sequencing and timing of future urban areas
- identifying a future transport network and high level land use
- consideration of feedback and consultation responses.

Further detail on this process, undertaken since the preparation of the Greenfield Areas for Investigation in the 2012 Auckland Plan, is set out in Appendix 18.

### 5.2.6 The approach to accommodating growth in new urban areas

A significant amount of research, investigation and consultation have been undertaken since the adoption of the 2012 Auckland Plan to identify the suitable location, timing and sequencing of future urban land. This has resulted in approximately 15,000 hectares of future urban land and a potential 137,000 dwellings and 70,000 jobs over the next 30 years.

[15] See Section 3.1.2: Embedding good design of this evidence report for further detail on good design.

This body of work has informed the approach taken in the Development Strategy 2050 which integrates the future urban areas with the overall growth approach. This growth approach uses the existing urban area, together with sequenced future urban areas within the Rural Urban Boundary, to describe the maximum extent of Auckland's urban footprint at 2050. This urban footprint concept also assists in communicating the quality compact approach to providing for growth which was a core concept of the 2012 Auckland Plan. The sequencing and timing of the future urban areas agreed through the Future Urban Land Supply Strategy 2017 has been integrated with the expected development timeframes for development areas.[16]

The key pieces of future urban work that have been integrated into the Development Strategy are:

- the Rural Urban Boundary and the future urban zones in the Auckland Unitary Plan
- the Future Urban Land Supply Strategy - setting out the agreed timing and sequencing for when future urban land will have live zoning and the necessary bulk infrastructure in place to enable development to commence.

[16] Refer Auckland Plan Development Strategy 2050 *Anticipated timeframe of development in existing urban area, Anticipated development and employment capacities and timing for future urban areas,* and *Anticipated development and employment capacities and timing for rural settlements* tables and relevant maps

## 5.3 Flexible and adaptable business areas

Auckland needs a sufficient supply of business land in appropriate locations and that supply needs to be flexible and adaptable given the uncertainties of Auckland's future economic needs over the next 30 years.

Land use decisions may have long-term economic impacts. Quality city form and design supports liveability, provides location opportunities for business, and is an important part of creating an attractive world-class city. It supports economic growth, as well as local economic development and employment (Auckland Council, 2012b). Identifying where and when business land will be available provides certainty about how a city will grow and helps inform investment decisions.

### 5.3.1 The 2012 Auckland Plan and Auckland Unitary Plan approach to business land use

The spatial aspects of the 2012 plan seek to ensure that sufficient business and employment land, particularly industrial land, is available, in line with a quality compact approach to growth (Auckland Council, 2012a). Evidence informing the 2012 Auckland Plan looked at land use issues related to economic activity and focussed on the demand and supply of business land (Taylor, 2012).

The Auckland Unitary Plan now ensures that a sufficient amount of land is available for a range of different business uses. Enabling sufficient development capacity in existing and future urban areas and sufficient land for new housing and business is a key factor in addressing the effects of growth over the next 30 years (Auckland Council, 2016a). Evidence provided through the Auckland Unitary Plan's hearing process indicated that in most zones and locations there is sufficient business land and that demand for commercial and industrial land is not expected to exceed development potential (Market Economics, 2016).

The Auckland Unitary Plan adopts the 2012 Auckland Plan quality compact approach and supports it through a policy approach of focussing residential intensification in and around commercial centres and transport nodes and along major transport corridors, with residential and commercial areas relatively close together.

### 5.3.2 Current employment patterns

#### Key existing employment areas

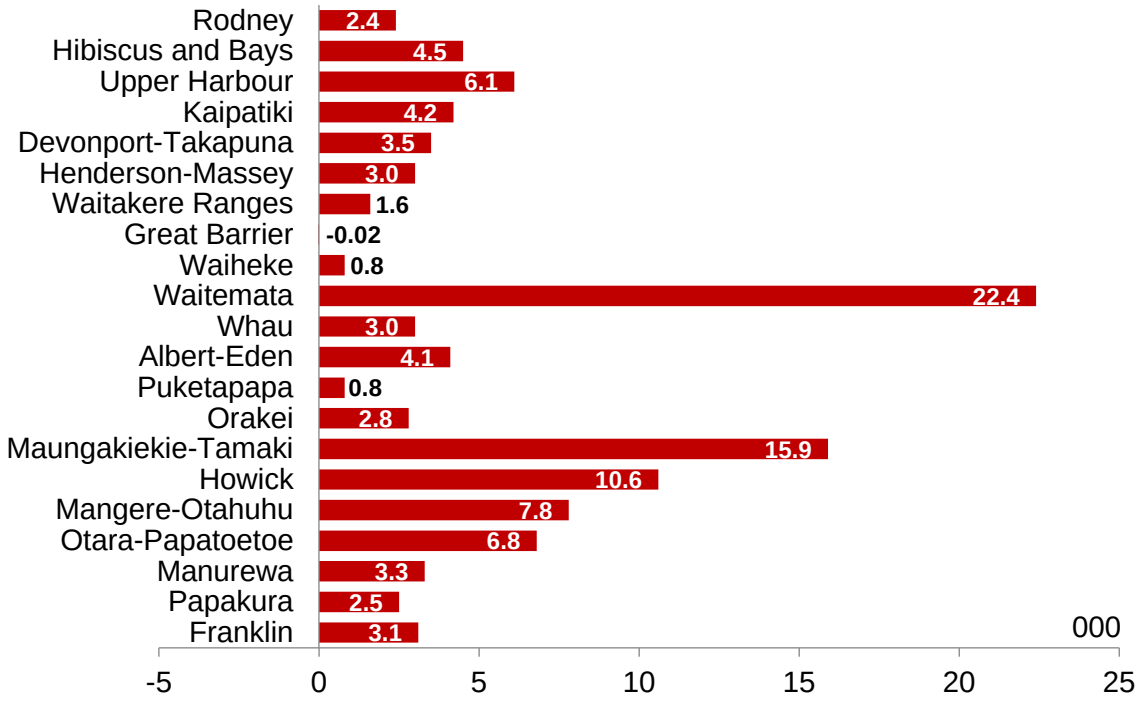
There are currently over 755,000 jobs across Auckland (Statistics New Zealand, 2017a). These jobs are not evenly distributed around Auckland; the majority of jobs are in the city centre, Auckland Airport, Ōtāhuhu, and East Tāmaki. With the exception of Great Barrier Local Board, employment growth has occurred across all local board areas between 2012-2017.

#### Areas with most job growth

In the last five years, 22,400 jobs were added in the Waitematā Local Board which covers the city centre, including Newmarket (Statistics New Zealand, 2017a). This is 21 per cent of the total job growth in Auckland and is the local board area that has experienced the

most growth. The southern areas of Auckland also experienced significant growth, and when combined account for 23,500 new jobs or 22 per cent of Auckland's job growth (Statistics New Zealand, 2017a).[17] A summary of employment growth, by local board, for Auckland is shown in Figure 23.

**Figure 23 Employment growth by local board, 2012-2017[18]**




## Sectors with most job growth

As shown in Table 4 the two sectors that have experienced the most growth over the last five years are the construction sector and the professional, scientific and technical services sector.

**Table 4 Top 10 employment growth industries, 2012-2017**

| Top 10 growth industries | Percentage share of growth | Number of jobs |
|---|---|---|
| 1. Construction | 15.6% | 17000 |
| 2. Professional, Scientific and Technical services | 15.5% | 16900 |
| 3. Accommodation and Food services | 12.7% | 13800 |
| 4. Retail trade | 11.5% | 12500 |
| 5. Administrative and Support services | 10.1% | 11000 |
| 6. Health Care and Social Assistance | 7.5% | 8200 |
| 7. Education and training | 4.5% | 4900 |
| 8. Transport, Postal and Warehousing | 4.1% | 4500 |

[17] Includes Franklin, Papakura, Manurewa, Ōtara-Papatoetoe, Māngere–Ōtāhuhu Local Board Areas.
[18] Source: Chief Economist Unit, Auckland Council; Statistics New Zealand

| | | |
|---|---|---|
| 9. Manufacturing | 3.6% | 3900 |
| 10. Wholesale trade | 3.5% | 3800 |

The construction industry grew by 17,000 jobs (15.6 per cent of all growth) and the professional, scientific and technical services sectors grew by 16,900 jobs (15.5 per cent of all growth). Construction growth is widespread, across the whole of Auckland, while growth of professional, scientific and technical services is concentrated in the city centre with almost half of these jobs offered there (Statistics New Zealand, 2017a).

Manufacturing is the second largest industry, after professional, scientific and technical services (Statistics New Zealand, 2017a).[19] However manufacturing is not a sector that is experiencing rapid growth (only 3.6 per cent of all growth between 2012 and 2017). Advanced industries[20] are key sectors that play an important role in Auckland's economy. They are important because they:

- are fast growing
- are more productive
- pay more
- cluster and agglomerate (ATEED & NZIER, 2017).

There is a heavy concentration of advanced industries in Auckland's city centre with 30 per cent of all advanced industry jobs within two kilometres. There is also a large concentration around Ōnehunga, Penrose, Mt Wellington and Ellerslie industrial areas. The proximity to other firms of a similar nature, transport routes, the major centres and access to the airport are important factors in where advanced industries establish (ATEED & NZIER, 2017).

### 5.3.3 Opportunities and challenges

The concentration and location of Auckland's businesses are changing and will continue to change over time. For example, heavy and light industries are consolidating activities, relocating and other higher intensity uses are taking their place.[21] This is influencing a change in the make-up and distribution of Auckland's economy that is expected to continue over the medium to long term.

Most employment growth is expected in sectors that prefer to locate in commercial areas and areas such as centres. Almost half of the expected employment growth is in four

[19] Professional, scientific and technical services make up 10.9 per cent of employment with 82,100 employees while Manufacturing makes up 10 per cent of employment with 75,700 employees.
[20] Advanced industries are key to sustaining Auckland's broader economic growth and enhancing its international competitiveness and will support new employment opportunities. They include knowledge intensive services (e.g. scientific research & analysis), high-tech manufacturing, and medium-high tech manufacturing.

[21] Newmarket and the Wynyard Quarter are examples of where this has occurred. In Newmarket, land extensive uses have been replaced by more intensive uses. For example Lion Brewery moved from Khyber Pass to East Tāmaki and the University of Auckland's Newmarket Campus is establishing on the site. At the Wynyard Quarter an events centre, restaurants, cafes and offices have replaced lower intensity historical petro-chemical, industrial, commercial and marine activities.

industries: health, retail, education and professional, scientific and technical services. Given this, it is likely that most demand for business floor space will be focussed in the commercial areas (Market Economics, 2016).

The impact of disruptive technologies and increasing automation are likely to lead to a growing share of jobs in advanced industries and further reductions in manufacturing jobs (McKinsey Global Institute, 2017).

These changes have the potential to significantly affect the quantity, type and location of business land needed. Given these uncertainties, the challenge is to ensure the existing and future urban areas have the flexibility to respond in a way that supports Auckland's future economic needs and ensures an ongoing supply of business land in appropriate locations.

### 5.3.4 Auckland Plan 2050 approach

The Development Strategy continues the approach taken by the 2012 Auckland Plan and Auckland Unitary Plan, most notably in the provision of sufficient supply of future business land.

The challenges discussed above mean that the Development Strategy 2050 approach must be flexible and respond to future business land needs. The focus is on:

- consolidation of the quality compact approach to accommodate anticipated business growth of 263,000 jobs across Auckland over the next 30 years
- introduction of the multi-nodal approach as areas for significant business and employment activity
- stronger alignment of where people work with where they live, supported by the nodes and development areas
- building on the Future Urban Land Supply Strategy that will provide up to 67,000 new jobs (and 137,000 homes).

#### Consolidation of the quality compact approach

A key benefit of this approach is greater productivity and employment growth, created through agglomeration when businesses, workers and consumers physically locate close to one another (ATEED & NZIER, 2017).

There are many unknowns about the future of work and the role that technological change will have. However, to keep pace with population growth, it is anticipated that Auckland could accommodate another 263,000 jobs over the next 30 years. Business areas need to be flexible and adaptable to be able to respond to this uncertain future and the development strategy provides for this.

The quality compact approach focuses most business development in areas that are easily accessible. It looks to make the best use of existing business land over the next 30 years by repurposing and intensifying existing centres and business areas where the benefits of agglomeration can be seen. These areas need to be protected because once lost to other uses, such as residential, they are difficult to replace.

## Introduction of the multi-nodal approach

The focus for future business growth is primarily through the intensification of the nodes, supported by the other existing centres and business areas across the urban area. The nodes have a growing catchment and over time will provide more options for people to live, work and study locally. This approach continues the focus on the city centre as the primary centre for employment growth in Auckland, complemented by the identification of three significant employment and business growth nodes and two rural satellite towns. Table 5 below shows the role and anticipated job growth in each of the nodes. For further information on the two rural satellite towns of Warkworth and Pukekohe see Section 6: Rural Auckland.

The nodes build on the Auckland Unitary Plan focus on commercial activities for employment but look to the surrounding areas for a wider range of business uses. A range of different business uses are needed to support the functioning of the nodes. Over the life of the Auckland Plan 2050 other sectors and industries are likely to emerge and the nodes will be able to adapt to and support this change.

**Table 5 Multi-nodal approach**

| Area | Strategic/economic role | Node job growth* |
|---|---|---|
| City centre | • primary business, employment, tourism, education, civic and cultural location<br>• largest and fastest growing employment centre<br>• key transport hub with excellent links<br>• large employment catchment, reaching beyond Auckland's limits | • 150,260 jobs currently in the city centre<br>• 75,850 additional jobs expected by 2048<br>• 50 per cent increase |
| Albany | • key node for the north<br>• strong centre and surrounding employment areas<br>• wide variety of business land uses[22]<br>• well connected via the Northern Busway<br>• serves a large catchment including the future urban areas at Wainui, Silverdale and Dairy Flat. | • 32,553 jobs currently in Albany centre<br>• 6740 additional jobs expected by 2048<br>• 21 per cent increase |
| Westgate | • key node for the north west<br>• existing retail and service employment<br>• extensive surrounding employment area[23]<br>• will become a key transport hub when the north-western rapid transit corridor is complete<br>• serves a new large catchment including the future urban areas at Red Hills and Whenuapai | • 6630 jobs currently in Westgate centre<br>• 20,260 additional jobs expected by 2048<br>• 306 per cent increase |

[22] Including Westfield Albany, Massey University, and light industrial and general business areas at Rosedale and Apollo Drive.
[23] Land at Whenuapai and Hobsonville Road provide for a range of business uses, including light industrial uses.

| Area | Strategic/economic role | Node job growth* |
|---|---|---|
| Manukau | • a large and established node for the south<br>• strong existing employment base<br>• significant surrounding industrial land and activities such as Auckland Airport and the inland Port at Wiri<br>• close proximity to key distribution networks including the southern and north-eastern motorways<br>• well connected by public transport | • 33,730 jobs currently in Manukau node<br>• 22,620 additional jobs expected by 2048<br>• 67 per cent increase |

*Note: These figures relate to the entire node which includes the centre and surrounding residential and business land. Figures from scenario i11.

### Future urban business areas

The Future Urban Land Supply Strategy anticipates that approximately 1,400 hectares of business land will be made available in greenfield areas across Auckland (Auckland Council, 2017b). Structure planning for each area will identify the optimum mix of different business activities and subsequent zoning. It is expected that land extensive industrial activities will be provided for through this process.

In addition to a number of town centres, neighbourhood centres and local centres providing a range of employment uses, future business land has also been identified at Warkworth North, Puhinui, and Silverdale West/Dairy Flat. This land will be serviced and supplied in line with the sequence of the Future Urban Land Supply Strategy and the exact location and quantity will be confirmed through structure planning and subsequent plan changes.

The Whenuapai Structure Plan (Auckland Council, 2016g), adopted in 2016, is an example of where structure planning has provided for business uses, including land extensive industrial uses. The Structure Plan provides for over 300 hectares of business land to meet demand for future industrial activities over the next 10 to 20 years. The Structure Plan identifies a need to provide greenfield business land, particularly for land extensive industrial activities such as manufacturing, transport and storage, logistics, construction and wholesale trade. The location of business, mixed use and centres is identified to enable this. The process of implementing the Structure Plan has started with a proposed plan change.

## 5.3.5 Monitoring

Future monitoring of business activities, including industrial activities across Auckland should highlight any trends in the amount, type and location of business development. This

should show the effectiveness of the spatial approach in ensuring there is a sufficient supply of business land in appropriate locations.

## 5.4 Building strong centres and neighbourhoods

A neighbourhood describes a geographically localised community within a larger city, town or rural area. Auckland consists of a wide range of neighbourhoods, often concentrated around a focal point. This focal point is usually a centre which the Auckland Plan 2050 defines as 'a focal point for a surrounding neighbourhood or area that contains a mix of activities or functions (e.g. shops, businesses, cafés, libraries, government services, public transport).' Neighbourhoods also contain a variety of different living options from higher density attached dwellings such as apartments located near the centres to lower density, detached dwellings in the wider neighbourhood.

Auckland's neighbourhoods and centres form a network connected by roading and public transport - providing access between living, working and recreation.

This section of the report examines Auckland's neighbourhoods and centres, in existing urban, future urban and rural communities, to better understand the role they play in addressing Auckland's growth and ensuring the success of Auckland over the next 30 years.

### 5.4.1 The importance of centres and neighbourhoods

Ideally, a centre is designed to be walkable, people-focused at a human scale and sustainable (Steuteville, 2017). They should be rich in character and activity and invite people to visit and stay. Successful centres have a mix of uses relevant to their size that provide for the day to day needs of the surrounding neighbourhood community (Ministry for the Environment, 2005).[24] In theory, if people can access what they need within a five to ten minute walk, then they are more likely to go by foot, reducing car dependency (Steuteville, 2017). Walking has major environmental, health and social benefits.

Developing urban Auckland as a network of walkable, people-friendly neighbourhoods and centres where people can easily access their daily needs, is fundamental to delivering a quality compact city. Growth and intensification will occur in and around all of Auckland's centres and neighbourhoods to some extent over the next 30 years, with some areas anticipated to accommodate significant growth. How successful this is depends on how these areas are designed, connected and how adaptable they are to change.

As focal points of the community, higher density in and around centres supports public transport and maximises investment in infrastructure. This pattern of development is adopted in the Auckland Unitary Plan.[25]

[24]The Ministry for the Environment's *Urban Design Protocol (2005)* states that liveable places provide choices in housing, work, transport and lifestyle opportunities. They are easy to move around in, with accessible services and a variety of integrated transport options that include walking and cycling. Their public spaces are accessible, well used and safe. Liveable places are healthy places to live.

25 In describing how a quality compact urban form will be achieved, the Auckland Unitary Plan Regional policy statement 2016 (B2.2.2 Quality compact urban form) stipulates that intensification needs to occur in and around centres, along

Auckland's network of centres will need to provide good accessibility and social benefits where people want to live and feel they belong. A study undertaken over three years found a strong correlation between community attachment and economic growth. This study discovered that neighbourhoods and places where people felt higher levels of connectivity and belonging were more economically resilient, with higher levels of GDP growth and experienced less impact from the global financial crisis (Knight Foundation, 2017). Another study into understanding the sense of belonging that older women feel to their neighbourhood found that a high level of belonging to a neighbourhood was associated with "better physical and mental health, lower stress, better social support and being physically active" (Young, Russell & Powers, 2004).

### 5.4.2 Current policies, plans and strategies

Since the 2012 Auckland Plan, many projects and strategies have been completed or are underway that have relevance to neighbourhoods and centres including the Auckland Unitary Plan, Supporting Growth – Delivering Transport Networks, the Future Urban Land Supply Strategy and individual structure plans.

#### The 2012 Auckland Plan

The 2012 Auckland Plan recognises the important role that centres and neighbourhoods have in Auckland, while noting that Auckland's centres are varied and play different roles, depending on their size, location and catchment. These varying roles are captured in a 'hierarchy' of centres which gives the city centre prominence as an employment, tourism, education and cultural heart of the region, supported by the network of metropolitan, town and local centres. Table 6 illustrates the range of attributes and activities envisaged in these centres. The centre attributes listed for specific centre types are based on a quality compact approach and in many cases specific centres, particularly newer ones, are still building diversity and character.

identified corridors and close to public transport, social facilities (including open space) and employment opportunities (Auckland Council, 2016a).

**Table 6 Urban Centres Hierarchy – Key Attributes – Table 10.2 in the 2012 Auckland Plan (Auckland Council, 2012a)**

| Centre | Built form | Transport | Economic | Social | Employment + Residential ratios and employment emphasis |
|---|---|---|---|---|---|
| City Centre | • High rise<br>• Highest densities in the region | • Regional hub<br>• Destination function but also has high trip generation<br>• Has the provision for high-frequency public transport | • 24 hours<br>• Central banking, finance, insurance, and professional services<br>• Other service and creative businesses<br>• Head offices<br>• Specialty retail<br>• Activity precincts | • Civic headquarters<br>• Major cultural / entertainment hub<br>• Premier public spaces<br>• Tertiary education | Strongest employment focus<br>Median ratio 4:1 |
| City fringe centres | • Medium rise<br>• High – medium density<br>• Includes character neighbourhoods | • Supports the City Centre<br>• Medium trip generation, mainly as an origin<br>• Has the provision for high-frequency public transport | • Day and night activities<br>• Diverse range of business activities<br>• Small- and medium-sized businesses<br>• Specialist precincts | • Local social infrastructure / entertainment<br>• High-quality public spaces | Strong emphasis on employment in business precincts<br>Median ratio 2:1 |
| Metropolitan centres | • High – medium rise<br>• High density | • Major hub at sub-regional scale<br>• Destination function but also with high trip generation<br>• Generally has the provision for high-frequency public transport | • Day and night activities<br>• Finance, insurance, and professional services<br>• Food and beverage<br>• Comparison retail<br>• Specialty retail<br>• Regional offices | • Cultural / entertainment destination<br>• High-quality public spaces<br>• Tertiary education | Strong emphasis on employment<br>Median ratio 2.8:1 |
| Town centres | • Medium – low rise<br>• Medium density | • Local catchment centre<br>• Medium to low trip generation, mainly as an origin<br>• Generally has the provision for high-frequency public transport<br>• Walkable catchment 800m | • Day and evening activities<br>• Small- and medium-sized enterprises<br>• Convenience and some specialty retail<br>• Professional / personal services<br>• Administration and support | • Community facilities<br>• Local parks | Balanced residential and employment<br>Median ratio 0.8:1 |
| Local centres | • Low – medium rise<br>• Medium – low density | • Local catchment centre<br>• Low trip generation, mainly as an origin<br>• Low-frequency public transport<br>• Walkable catchment 400-800m | • Day and evening activities<br>• Convenience retail (day-to-day)<br>• Small businesses | • Strong local and anchor point<br>• Neighbourhood parks | Residential focus with local services<br>Median ratio 0.5:1 |

Note: Any character and / or historic heritage qualities that may be present in a centre will, along with other factors such as infrastructure, help determine the form and quantity of growth that will be appropriate to the individual centre; this is best determined at the Area Spatial Planning level.

The 2012 Auckland Plan also notes that much of Auckland's population and employment growth was anticipated to go into its network of centres, in particular the larger ones: the city centre and the metropolitan centres. The role of these larger centres is to foster employment and economic productivity by creating and accommodating higher density clusters of jobs and higher density housing while supporting public transport.

## Rural settlements

The 2012 Auckland Plan provides a rural settlements classification (satellite towns, rural and coastal towns, serviced rural and coastal villages, unserviced rural and coastal villages). The scale and mix of activities in the satellite towns and the rural towns means that their centres should be considered as part of the monitoring of Auckland's centres. This will be important for understanding growth through monitoring and for future planning, particularly assessing the role of centres (both existing and proposed) in place based planning and structure planning. A list of these centres is provided in Appendix 23.

### The Auckland Unitary Plan

Much of what was advocated for in the 2012 Auckland Plan with regards to neighbourhoods and centres, including a centres hierarchy, has been incorporated into the Auckland Unitary Plan and is therefore now embedded in Auckland's statutory framework (see Appendix 24). As a result of the modifications to centres made by the Auckland Unitary Plan (Auckland Council, 2016a), an assessment was made of the centres hierarchy in the 2012 Auckland Plan, to understand whether any amendments were needed to Table 10.1 (Urban Centres: Hierarchy – Classification). This information and updating of the relevant tables is important as it provides a basis for future monitoring of where growth is happening and how this fits with Auckland's growth approach (see Appendix 23).

For urban centres, the revised table 10.1 (see Appendix 23) recommends a number of amendments, including changing centre categories and the names of centres. Whenuapai is added to the table as the first of the town centres to be redefined from a rural village to an urban local centre as a result of structure planning and plan changes for the Whenuapai future urban area.

Also of note is the recommendation to delete the city fringe centres category. These centres have now been added to the town centre (Devonport, Newton, Parnell and Ponsonby) and local centre (Grafton) lists in the updated table. However, the development of the city fringe over the next 30 years is still an important component of understanding Auckland's growth. The city fringe centres, with the exception of Devonport, are part of the catchment for the city centre node and so will be assessed in this context.

The centres hierarchy has not been replicated as part of the Auckland Plan 2050. It is a more detailed component of the spatial strategy that helps understand the network and role of the centres. The hierarchy and updating of the relevant tables, as discussed above (see Appendix 23), is noted here as it provides a basis for future monitoring of where growth is happening and how this fits with Auckland's growth approach.

### Future Urban Areas

The Future Urban Land Supply Strategy (Auckland Council, 2017b) sets out how and when new urban land is to be supplied for development over the next 30 years (see section 5.2: Managed expansion into future urban areas). It covers land that is zoned Future Urban in the Auckland Unitary Plan that will undergo structure planning, bulk infrastructure development and rezoning in order to be development ready, as well as some live zoned land. The development of new centres as focal points for new communities will be an essential component of the structure planning for these future urban areas to ensure that they contribute to the quality compact approach and are great places to live, work and get around.

The Supporting Growth project (New Zealand Transport Agency, 2017) developed a preferred transport network to support these future urban areas over the next 30 years. As part of this work, the location of new centres was recommended. Specific location and types of centres will be explored in more detail at structure planning stage, but in the

meantime this project provides a valuable reference for aligning land use and infrastructure (principally transport) provision to achieve a quality compact urban form in the areas yet to be urbanised.

### 5.4.3 Opportunities and Challenges for centres

There are a number of opportunities and challenges facing Auckland's centres over the next 30 years, such as ensuring that they are:

- resilient and flexible as growth is accommodated
- diverse and successful living and working environments
- accessible and walkable with good quality public realm
- adaptable to economic unpredictability and the rapid changes in technology and in the retail and businesses sector
- rich in character.

The principles that apply to successful centres are common across all centres, existing and new. The redevelopment of existing centres and the development of new centres provides the opportunity to apply these principles.

#### Existing centres

Retaining economic viability is an ongoing concern for many existing centres. The emergence of big box retail and malls can have a negative impact on the economic viability of centres as does the trend for online shopping (Harding & Powell, 2010). There are numerous strategies for dealing with this, including establishing a strong business association and/or business improvement districts (BIDs), establishing a strong point of difference and adapting to new shopping trends.

The development of shopping malls creates a number of challenges as well as opportunities. They can have a detrimental impact on nearby older centres (Powell & Allan, 2018)(Taylor, McClintock & Buckenham, 2003), are generally designed around the car, are usually not pedestrian friendly, can lack a sense of place or character and do not adapt easily to changing trends and social needs. They may lack a diversity of uses, in particular residential activity and social infrastructure, and often have restricted opening hours rather than providing both day and night activities (Hulusjo, 2010). However, they also present opportunities including representing significant blocks of land in single ownership with the potential for intensification and diversification. As development progresses in Auckland's nodes a number of sites may provide opportunities for working with owners to apply the principles of successful centres and achieve quality compact outcomes.

Another challenge facing some existing centres is that despite having feasible capacity for growth, they are not considered market attractive and are not being redeveloped or intensified. In these situations, the monitoring of centres is especially important in order to understand what is happening in Auckland's existing centres and develop ways to increase their market attractiveness.

### New centres

New centres provide a great opportunity to ensure that the principles of successful, walkable centres that support a quality compact Auckland, are established right from the start through structure planning.

Case studies of greenfield centres of Ormiston and Westgate show that successful centres take time to develop, often evolving and maturing over decades into diverse, mixed use and people-focused places. They require a long-term approach to planning and budgeting to achieve an overall vision. Timelines illustrating the development of these centres are provided in Appendix 25. For the council there is a need to align planning and infrastructure funding and provision so that anticipated growth can be supported (as detailed in section 5.2: Managed expansion into future urban areas).

### Transit Oriented Developments

Opportunities exist in both existing and new centres to create transit oriented developments. The term Transit Oriented Development (TOD) is used to describe an area with compact, mixed use development with good walking and cycling amenity centred on high quality public transport hubs. These areas are integral for a quality, compact urban form and provide people with a choice for how they get around without the reliance of private vehicles, by reducing travel distances.

### Centres and Neighbourhoods in Rural Settlements

Centres in rural areas play an important role in supporting the lives and businesses of the surrounding community. They vary from large satellite towns to small villages, and include a number of marae and other Māori land holdings. Local facilities include schools, halls and sport facilities as well as employment in activities such as farming, forestry and tourism. Depending on their size they may provide rural communities a focal point where they can conduct business, purchase goods and services or meet and socialise with others.

As Auckland's population grows, rural centres and neighbourhoods will also experience some levels of change. Young people may leave for more education, housing and employment opportunities offered in larger urban areas and older people may find it difficult to downsize and stay in an area due to lack of housing options and limited public transport. There is also difficulty in providing cost effective infrastructure across dispersed areas, although advancements in technology may improve delivery in the future. The development of new centres in nearby urban areas may challenge the provision and economic viability of local services, although improvements in rural infrastructure such as broadband may provide opportunities for rural based businesses. It is proposed to extend Ultra Fast Broadband coverage to 16 rural settlements in Auckland, from Leigh in the north to Bombay in the south. This will allow these communities to use business applications to improve productivity, access educational and entertainment content and a whole range of other benefits (Ministry of Business, Innovation & Employment, 2017b).

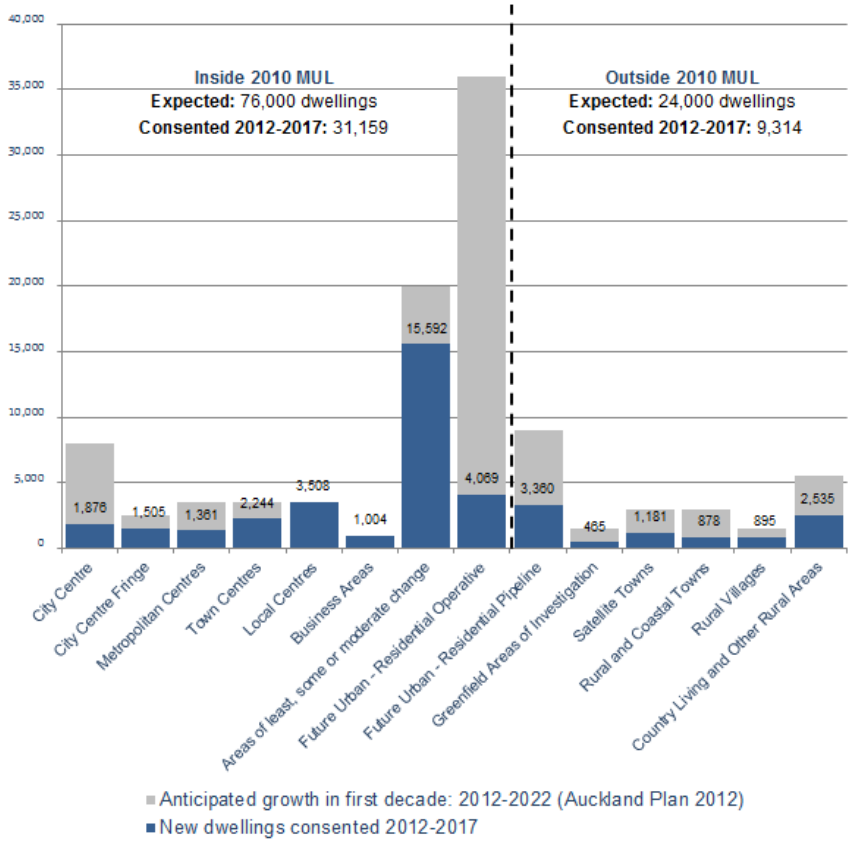
Rural towns and villages will be supported and their needs articulated through mechanisms such as local board plans, the long-term plan and other place making initiatives such as centre plans and community grant programmes.

### 5.4.4 What has been happening in Auckland's centres since 2012?

The Auckland Plan Development Strategy Annual Monitoring Update reports on the Development Strategy's anticipated growth patterns (see Figure 24 below). The 2016/17 report provides both a one year and a five-year snapshot of development. Findings for the five year period indicate:

- development in the city centre, city centre fringe, metropolitan centres and town centres has met expectations
- development in local centres has exceeded expectations
- a lot of growth is occurring in areas outside of nodes/centres, in areas that the 2012 Auckland Plan anticipated where the least amount, or only moderate amount, of change would occur.

**Figure 24 New residential dwellings consented (2012-2017) by development strategy category, compared with anticipated dwelling growth in the first decade 2012-2021**




Showing this information spatially (see Figure 1 in Section 2) indicates that over the last five years significant growth in attached dwellings has been occurring along major transport corridors. In particular, this can be seen along the western and southern rail lines and in areas close to the city centre.

Monitoring of centres and their catchments has been limited to investigations as part of projects for specific centres. Examples of monitoring centres include Panuku projects (such as Manukau) or precinct plans carried out by the council (such as Sunnynook).

The 2012 Auckland Plan anticipated that the majority of Auckland's growth would occur in, and in close proximity to, its network of centres and along corridors. This is fundamental to a quality compact approach addressing Auckland's growth with the majority of growth to occur in the existing urban areas.

Regular monitoring is needed to understand if growth is taking place in these centres, what pace and level of change is occurring, or where interventions may be needed.

### 5.4.5 Policy Direction in the Auckland Plan 2050

The Auckland Plan 2050 retains the direction of the 2012 Auckland Plan of advocating for a quality compact approach to addressing growth. Building on this strategy, along with the plans and strategies that have developed in the six years since the 2012 Auckland Plan was adopted, the refresh of the Plan provided an opportunity to further refine how Auckland addresses growth.

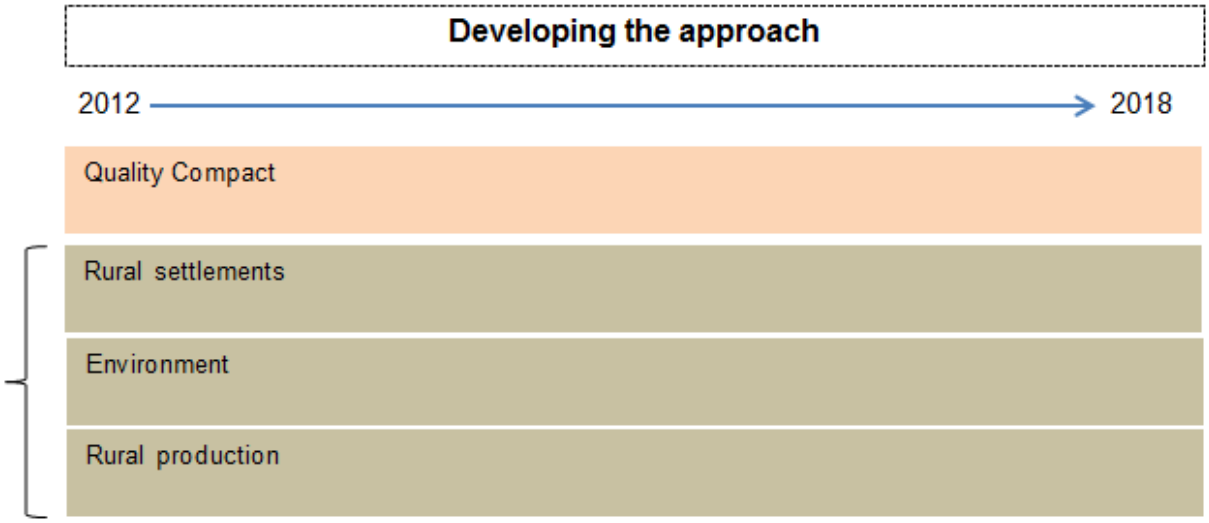
The Auckland Plan 2050 proposes a multi-nodal strategic approach to help steer growth into large nodes that serve sub regional areas (see section 4.4 for further information on the multi-nodal approach). This approach, which recognises the primacy of the city centre, and Manukau, Westgate and Albany as supporting nodes, sees these areas as developing and growing over the next 30 years to play a crucial role in addressing and focusing growth across the region. While these nodes cover large business and residential areas, centres, as the focal point of these nodes, play a vital role in their success.

The Auckland Plan 2050 also introduces the concept of development areas. These areas, based around identified centres, are expected to undergo a significant amount of housing and business growth in the next 30 years (see section 5.1.6).

# 6 Rural Auckland

This section sets out the evidence base to support the proposed approach to managing the growth and development of Auckland's rural areas over the next 30 years, in a way that best contributes to Auckland's social, economic, environmental, and cultural wellbeing.

Figure 25 Rural Auckland




### 6.1.1 The 2012 Auckland Plan approach

The 2012 Auckland Plan recognised the value that rural Auckland has for Aucklanders, with its natural and productive lands, and diverse lifestyle opportunities. However it also acknowledges the pressures rural Auckland faces from population growth, demand for rural living and experiences, diminishing and stressed ecology and natural systems, changing land values, and tensions created between different activities and values. In response, the 2012 Auckland Plan established a rural strategy for Auckland.

### 6.1.2 Basis of the 2012 Auckland Plan

Key elements of the rural strategy were to focus the largest proportion of growth (20,200 dwellings) into the two satellite towns of Pukekohe and Warkworth, with a lesser amount (18,000 dwellings) in smaller towns and villages, and less again (9,350 dwellings) in countryside living areas and the general rural area (Auckland Council, 2012a). This approach sought to enable growth and development in a balanced way which preserves rural production capability, and protects valued landscapes and natural and historic heritage areas, while providing diverse living opportunities. The quality compact urban form the Auckland Plan promotes anticipates preserving rural areas from urban expansion.

### 6.1.3 The Auckland Unitary Plan

The Proposed Auckland Unitary Plan, notified in 2013, was developed to provide for the regulatory implementation of the Auckland Plan. Options for how rural areas should be

managed were considered through the submission and hearing process. The recommendations of the Independent Hearing Panel highlighted the importance of ensuring sufficient feasible capacity to respond to demand, particularly for housing.

Accordingly, in relation to rural areas, the Panel recommended:

- some expansion of the Rural Urban Boundary around Auckland's main urban area, and the rural settlements of Pukekohe, Warkworth, Kumeū-Huapai and Riverhead
- adding more Future Urban and live zoning to a number of rural settlements
- enabling smaller towns and villages to be able to grow organically
- enabling new rural towns and villages to be established
- expanding Countryside Living areas to increase rural lifestyle opportunities
- enabling additional opportunities for rural subdivision.

In response to evidence presented in support of submissions (Horticulture NZ etc. al, 2014), the Panel recommended that "the contribution that rural areas make to the wider economic productivity of, and food supply for, Auckland and New Zealand" needs to be recognised as "this is a vital function" (Auckland Council 2016d). It also recommended that as well as rural character and amenity values, landscape and biodiversity values are to be maintained. It acknowledged that to enable rural production, while at the same time enabling a wider range of activities without unduly affecting those rural production activities, the issue of reverse sensitivity needs to be addressed and introduced stronger provisions to do that. However it considered that prime soils (Class 2 and 3) did not require the same level of protection as elite soils (Class 1) because of their wide geographic distribution across the region.

Auckland Council accepted the majority of recommendations, and there is now (at June 2018) an operative in part Auckand Unitary Plan. The decision on the appeals to rural subdivision was released by the Environment Court in June 2018 and is currently subject to appeal. The Hauraki Gulf Islands District Plan provisions currently apply to the Hauraki Gulf islands, and will be reviewed in the next few years.

## 6.2 Rural trends

Evidence regarding a range of rural trends informed both the 2012 Auckland Plan and the Proposed Auckland Unitary Plan hearings. Building on this evidence base, the following identifies evidence that has informed the preparation of the Auckland Plan 2050.

### 6.2.1 Rural Auckland's contribution to the economy

Rural Auckland makes an important contribution to the Auckland economy through rural production. Its direct contribution to Auckland's economy has declined from 0.5 per cent in 2010 to 0.4 per cent in 2016 (Infometrics, 2016), primarily due to the reduction in mining activity, and the stronger growth of the Auckland economy as a whole. In 2016 Auckland's primary industries (agriculture, forestry, fishing and mining) directly contributed $294.2

million, and direct employment was 9022. The most productive sector is horticulture, which has increased from $72.1 million to $80.8 million.[26]

The wider contribution of rural production to Auckland's economy is far greater, as it is integral to the value chain of other growth sectors, such as food and beverage and rural tourism (ATEED, 2017). The contribution attributable to agriculture, agricultural services and processing alone is approximately 2-3 per cent of Auckland's GDP, and is projected to grow to $70 billion in 2030 (Auckland Council Rural Advisory Panel, 2011).

The 2016 Auckland Plan targets monitoring report showed that Auckland's rural sector real GDP had a cumulative increase of 15.1 per cent from 2012 to 2016 ($428 million) (Auckland Council, 2016e).

### 6.2.2 Rural production

Rural areas provide land for rural production, which contributes to the wellbeing of Aucklanders. Rural production supports a wide group of businesses that provide a diverse range of jobs, goods and services. Rural production is also a defining element of rural character that appeals to both locals and tourists. Rural based business has become increasingly diverse over time, with rural-based tourism being developed to complement direct rural production, making a significant economic contribution to rural communities and enhancing their prosperity. Rural production is dependent on rural land, making a large component of rural land a form of business land for Auckland, that is spatially distributed outside the urban areas, but which is interdependent with them.

#### Horticulture

Horticulture requires flat or rolling land along with good quality soil, and a reliable high quality water supply (Sinclair Knight Merz, 2011). The average horticulture property size is 8-9 hectares (since 1996). Although Auckland grows the majority of the vegetables it consumes, and supplies significantly to the national food supply, growers have become increasingly concerned about the finite suitable growing land being encroached on by urban expansion and rural-residential activity (Gray, 2017a). Auckland contains 39 per cent of the nation's tomato production area, 33 per cent cabbage, 32 per cent lettuce, 28 per cent onion, 25 per cent broccoli and cauliflower, 19 per cent of potatoes, and 10 per cent of carrots (Horticulture New Zealand, 2016, 2017). It is also notable for its production of kiwifruit, wine grapes, olives, avocados and strawberries.

A significant horticulture trend has been consolidation in the industry. Horticulture in Auckland, once comprised of many growers, has now reduced to fewer and larger enterprises, sometimes operating a number of geographically separate properties, and employing vertical integration (growing, harvesting, packing and marketing) (Westpac, 2016). Operators are now keen to acquire sufficient land to meet growing demand, but are concerned about the threat Auckland's growth poses to some of the most productive horticultural land in the country, particularly around Pukekohe.

[26] These values are in 2010 dollars.

### Viticulture

Viticulture requires good drainage, but not necessarily high quality soils. Auckland's grape and wine production contributes to domestic and in-bound tourism, as well as exports. The wine growing area in Auckland covers 325 hectares with vineyard activity concentrated in Matakana, Kumeū, Clevedon and Waiheke Island. In 2016/17 there were 109 wineries and 4 grape growers in Auckland producing 934 tonnes of grapes for wine (NZ Winegrowers, 2017). In 2016 grape growing contributed $8.6 million to Auckland's GDP and 386 jobs (Infometrics, 2016).

### Pastoral

Pastoral farming comprises mainly sheep and beef farming, and also deer. It requires rolling land and medium quality soils. The average pastoral property size since 1996 has been in the 84-99 hectare range. Since 2002 Auckland's beef cattle have declined 29 per cent to 122,000 in 2016, and sheep have declined 45 per cent to 202,000 (Statistics New Zealand, 2016). This decline is consistent with national destocking trends for beef and sheep, due to low prices over that period.

### Equine

The equine industry requires flat or rolling land and average quality soils. Property sizes are mostly 5-10 hectares. It comprises the sporthorse sector and the thoroughbred racing sector. The sector contributes to recreation, tourism and exports.

### Dairy

Dairy farming requires flat or rolling land, medium quality soils, and large volumes of high quality water. The average Auckland dairy property size has generally increased over time from 53 hectares in 1996 to 67 hectares in 2016. The number of dairy cattle has increased by 10 per cent since 2002 to 165,000 in 2016. Auckland had 2,765 jobs in dairy and related processing in 2015 and contributed $222 million to Auckland's GDP (Martin Jenkins & Infometrics, 2016).

### Forestry

Forestry typically requires low quality land, and has varied in average size over time in Auckland from 462 hectares in 1996 to 373 hectares in 2016. Auckland has approximately 37,986 hectares (2.3 per cent of NZ) of exotic forestry (as at 1 April 2016), with the majority of trees, primarily of the Radiata Pine variety, in the 11-25 years age class (Ministry for Primary Industries, 2016).

Auckland had 5,461 jobs in forestry and wood processing in 2015, which contributed $634 million to Auckland's GDP in 2015 (Martin Jenkins & Infometrics, 2016). Auckland is important to the forestry sector as a large proportion of further processing for the domestic market occurs here. This processing is more orientated towards fabrication of framing for construction as well as consumer-orientated products, with joiners and cabinet makers in high demand in Auckland. There are approximately 600 job openings in forestry and wood processing to 2020.

A number of established forests are in transition as conversion to rural-residential development, as well as native planting, takes place. This is occurring at Puhoi, Te Arai and Weiti.

### Minerals

Minerals are essential for Auckland's development. They include aggregates, limestone, silica sand, shells, iron sand and clay. Sites suitable for quarries are those which contain the physical resource, which is not suitable for high value activities such as dairy or cropping, and has access to reliable water supply and electricity.

Mineral extraction sites operate across Auckland including quarries (Beachlands, Brookby, Hunua, Drury in the south, Millbrook, Matakana in the north, Stoney Ridge, Blackwells and Medlands in Hauraki Gulf Islands) and iron sand extraction (Glenbrook Steel).

Mining contributed $25.2 million to Auckland's GDP in 2016 (Infometrics, 2016). The demand for minerals in Auckland, particularly aggregates, is expected to increase from 10 million tonnes to 15 million tonnes per annum by 2041 (Auckland Council, 2016a).

### Aquaculture

The aquaculture industry depends on high water quality. Auckland's aquaculture sector comprises 80 active marine farms distributed across 320 hectares in Mahurangi Harbour, Clevedon coast, Waiheke Island, and Great Barrier Island (Auckland Council, 2017e). Auckland processes a considerable amount of aquaculture production from Northland and Waikato.

The Auckland aquaculture industry produces 37 per cent of NZ Pacific oysters and 5 per cent of greenshell mussels (Creswell, 2014). The Pacific oyster industry produced 689 tonnes in 2017. Auckland Greenshell mussel production has fluctuated from 4533 tonnes in 2013 to 3033 tonnes in 2017.[27]

## 6.2.3 Land use change

Auckland rural areas are dynamic and undergo significant changes in land use over time. This is clearly demonstrated in Table 7 which shows changes to the area of land in rural valuation categories over the 1996-2016 period (Quotable Value, 2017). The valuations are based on the "highest and best use" methodology, which do not represent actual use, although for the most part are a useful indicator of such, except possibly forestry.

[27] Figures supplied by Aquaculture New Zealand on 23/11/17

Table 7 Changes to area of land in rural valuation categories, Auckland region 1996 – 2016 (Quotable Value, 2017)

| Land Use | 1996 area (hectares) | 2016 area (hectares) | Difference (hectares) |
|---|---|---|---|
| **Dairy** | 76,296 | 48,714 | -27,582 |
| **Forestry** | 47,777 | 52,983 | 5,205 |
| **Horticulture** | 12,911 | 7,576 | -5,335 |
| **Pastoral** | 175,697 | 125,462 | -50,235 |
| **Specialist** | 5,761 | 4,382 | -1,379 |
| **Lifestyle improved** | 53,597 | 80,902 | 27,305 |
| **Lifestyle vacant** | 25,784 | 26,062 | 278 |
| **Total** | **397,824** | **346,081** | **-51,743** |

Over the 20 year period to 2016, rural production properties have reduced by 40 per cent in number and 25 per cent in total area, whereas rural lifestyle properties have increased by 50 per cent in number and 35 per cent in total area (Quotable Value, 2017). Some rural production land inevitably becomes lost to urban expansion, however the large extent of rural lifestyle properties also contributes to a reduction in rural production capability. In 2010 there was still three times as much land in rural areas in some category of agriculture compared with rural lifestyle properties, whereas in 2016 this had reduced to just over twice as much.

### 6.2.4 Rural subdivision

The Auckland Plan monitoring report (2016) showed that 60 per cent of rural subdivision consents granted were in the rural production, rural coastal and islands activity areas in the 2013-2016 period, despite a target of no more than 10 per cent being established for the 2013-2020 period (Auckland Council, 2016e).

High rates of subdivision leads to increasingly smaller land parcels of rural landholdings resulting in land fragmentation. This increases rural land values, and the likelihood of additional housing being introduced into rural environments, affecting rural character and rural production capability (Auckland Council, 2016h).

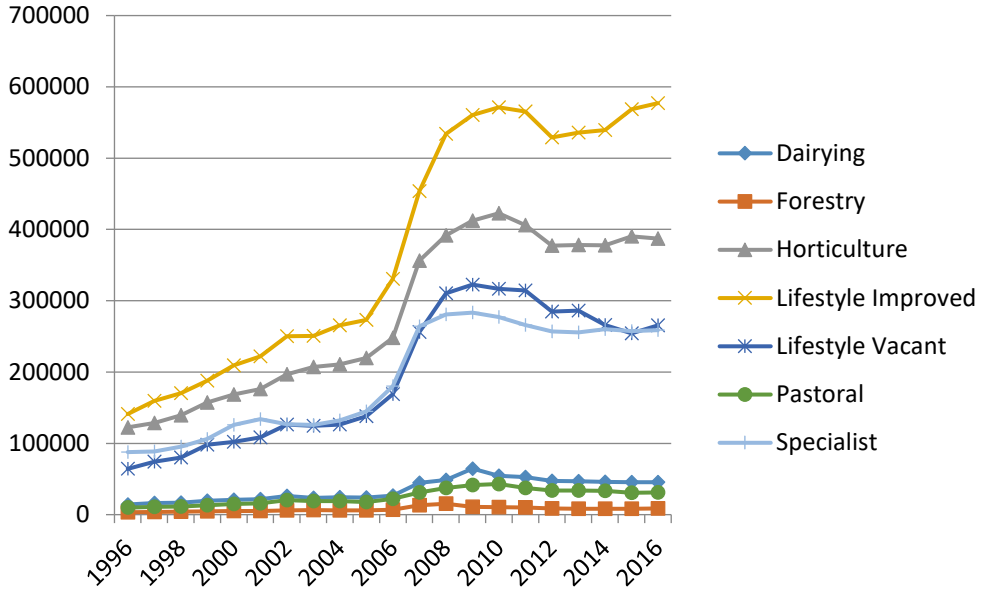
Between 1998 and 2015 the number of property parcels in rural Auckland increased by over 30 per cent, with the greatest increase (70 per cent) being in the one-two hectare category, followed by a 43 per cent increase in the 0.4-1 hectare range (Auckland Council, 2016h).

The Our Land report (Ministry for the Environment and Statistics New Zealand, 2018) reported on the state of New Zealand's soil, indigenous biodiversity and ecosystems. It identified significant shifts in land use in the past two decades, including that 35 per cent of Auckland's most versatile land is being used as lifestyle blocks. It highlights that urban expansion in Auckland is causing the loss of some of New Zealand's most versatile high class land and suggests the need for a new national policy statement to address this.

### 6.2.5 Land prices

A common feature of metropolitan areas is the upward pressure they place on rural land values on the urban periphery. This is caused by the increasing value of rural land for conversion to urban area and by its potential for rural-residential activity. Rural production categories have different land needs. A response of the rural production sector to the higher prices has generally been to consolidate into fewer larger properties to benefit from economies of scale, and to invest in technology to increase productivity. The rural land valuation categories show that in 2016 the average value per hectare for Auckland rural land was $387,126 for horticulture, $258,703 for specialist, $45,496 for dairy, and $31,030 for pastoral. By comparison vacant lifestyle properties were $265,405. Such values demonstrate the short-term incentive to convert to lifestyle use.

**Figure 26 Graph showing average price $ per hectare 1996-2016 (Quotable Value, 2017)**




Land price pressure on rural production capability remains a significant vulnerability.

### 6.2.6 Land with high productive potential

Auckland has lost considerable amounts of elite and prime land as it has grown, with some 10,399ha (8.3 per cent) lost to non-rural uses in the 1975-2012 period. South Auckland contains some of the most productive land in New Zealand (Gillingham, 2008), and provides the food bowl for Auckland, supplying most of its vegetables, as well as being the only supplier of certain fresh vegetables nationwide in spring (Curran-Cournane et. al, 2014).

The Auckland Unitary Plan establishes measures to avoid the loss of further elite soils, and limit development on prime land where practicable. Nevertheless, in light of the ongoing pressures facing rural areas, and its role in food supply for a growing Auckland, the effectiveness of this will require monitoring over time to ensure that the maintenance of rural production, particularly horticulture, continues.

### 6.2.7 Changes in the food system

Auckland's rural areas will continue to change over time. A range of external factors will influence this change.

One of these is the changing perception towards food, with growing local and international consumer demands for farm to plate assurances about labour practices, environmental performance (including climate change impact), animal welfare, and food quality and origin (Piddock, 2017) (Horticulture New Zealand, 2017b&c). The world tourism market is growing rapidly and increasingly being attracted by authentic visitor experiences such as visiting places to taste traditional local food, enabling immersion in the culture and heritage of a region (Coppola, 2016) (Tourism New Zealand, 2018) (Auckland Tourism Events and Economic Development, 2017b). Accompanying this is a growing trend to shift diet to a more vegetable and fruit, less meat regime for health, environment and animal welfare reasons (Gray, 2017b) (Johnston & Shaw, 2017) (NZ Herald, 2017) (Carden, 2017).

This trend is also being reflected in a growing recognition of the food system and its wider impact on human wellbeing from production to consumption to waste disposal. It includes a recognition that food is a feature relating to a wide range of public policies which warrant being considered as an integrated whole rather than separately. Hence the recent Canadian Government initiative to establish a National Food Policy (Government of Canada, 2018) (KPMG New Zealand, 2017).

Greater attention is being placed on growing, processing and marketing food in response to concerns regarding improved food access for all people, food production and marketing which better supports health and environmental goals, transparency about food production and quality, fair wages and access to labour in food production, the effect of food and food marketing on children, animal welfare, and preserving local food production capacity.

New Zealand and Auckland food producers have been responding to these shifts, as they recognise the competitive imperative in doing so (Horticulture New Zealand, 2017) (Oram, 2017). Nevertheless, there are calls for New Zealand to ramp up its approach to maintain its competitiveness. Furthermore, disruptive food technologies are now beginning to gain traction, and potentially pose a threat to New Zealand's traditional produce, or an opportunity to complement traditional rural production, for example, plant based protein meat substitutes (Sunfed Foods, 2018), milk substitutes, and indoor farming (NZ Listener, 2017) (Galloway, 2017) (New Zealand Landcare Trust, 2017).

## 6.3 Auckland Plan 2050 approach

The Auckland Plan 2050 continues with the same strategic approach to rural growth and development as the 2012 Auckland Plan, subject to a more refined direction regarding protection of highly productive land, and an amended list of rural town and villages to

reflect some being absorbed by larger urban areas, and new ones being created (see Appendix 20).

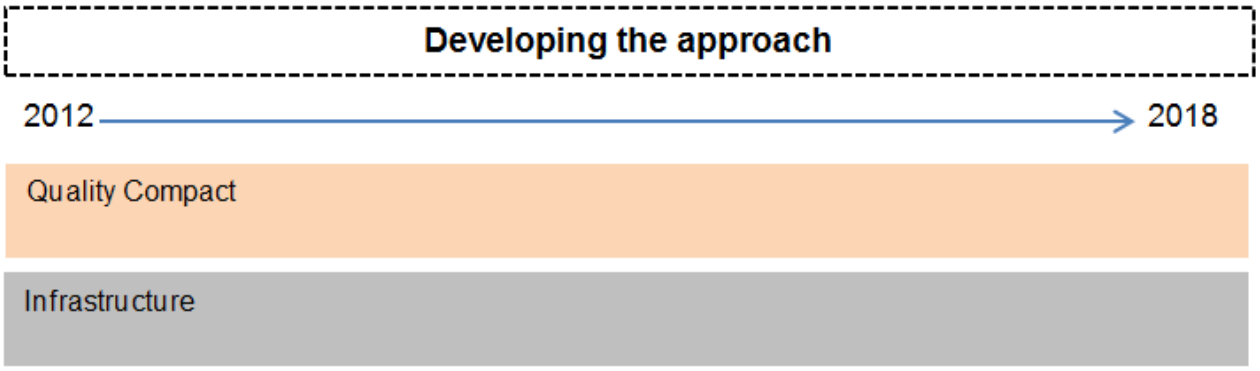
Rural production is supported to ensure that it can continue and develop. Land fragmentation and reverse sensitivity must be minimised to safeguard Auckland's land and soil resources particularly elite and prime soils. The resources and production systems such as water supply that underpin working rural land will also be supported.

The Auckland Unitary Plan provides ample development capacity in rural areas to accommodate growth in a variety of towns and villages, together with provision for countryside living for the next 30 years (Auckland Council, 2017g).

The two rural nodes (satellite towns) of Pukekohe and Warkworth feature in the multi-nodal approach in the revised Development Strategy. They provide the greatest number of facilities, service wide rural areas, and also contain the greatest amount of development capacity in rural areas. They are anticipated to develop their potential to become self-sufficient regarding jobs.

# 7 Auckland's infrastructure

Figure 27 Auckland's Infrastructure approach




This section outlines the scope, approach and evidence used to develop the infrastructure content of the Auckland Plan 2050 Development Strategy. This section is in two parts:

- scope of the infrastructure section, approach and framework developed to align growth and infrastructure planning in the development strategy
- summary of the key strategic infrastructure planning documents used to inform the development strategy.

## 7.1 Scope and approach

The infrastructure content in the development strategy is guided by the legislative requirements for the Auckland Plan in Section 79 of the Local Government (Auckland Council) Act 2009. Specifically, the Plan should:

- co-ordinate decision making by the Auckland Council and other parties to determine the future location and timing of critical infrastructure, services, and investment within Auckland
- provide a basis for aligning the implementation plans, regulatory plans, and funding programmes of the Auckland Council
- visually illustrate how Auckland may develop in the future, including how growth may be sequenced and how infrastructure may be provided
- identify the existing and future location and mix of critical infrastructure, services, and investment within Auckland (including, for example, services relating to cultural and social infrastructure, transport, open space, water supply, wastewater, stormwater and services managed by network utility operators).

Section 101B of the Local Government Act 2002 requires the preparation of an updated 30-year Infrastructure Strategy as part of the 2018 Long-term Plan. As there is a broad overlap between the requirements for the Auckland Plan and the Infrastructure Strategy, a package of material was prepared that would meet the requirements of both.

Given the legislative requirements, the scope of the infrastructure content of the Development Strategy has been identified as:

- identifying, at a high level, the key infrastructure challenges and opportunities facing Auckland over the next 30 years
- identifying the future demand for infrastructure by consolidating available information on planned long-term infrastructure investment plans to understand Auckland's future infrastructure needs
- establishing a framework for aligning land use, growth and infrastructure planning and investment both spatially and temporally over a 30 year horizon.

Further information on the anticipated cost and financing of council infrastructure over the 30-year period of the Auckland Plan is available in the Infrastructure and Financial Strategies within the 10-year budget.

### 7.1.1 Identifying key infrastructure challenges and opportunities

The 30-Year Infrastructure Strategy, adopted in 2015 as part of the Long-term Plan 2015-2025, identified a number of infrastructure challenges and opportunities which have informed the Auckland Plan. These included:

- growth
- service level expectations
- condition of existing assets
- sustainability
- resilience
- demographic change.

The current validity of these issues were confirmed with subject matter experts within the council group for the 2018 30-Year Infrastructure Strategy. Issues raised in consultation with non-council stakeholders were also considered (refer Section 9: Partner and stakeholder feedback).

These issues were reframed into the three infrastructure opportunities and challenges to meet requirements for both the Auckland Plan 2050 and the updated Infrastructure Strategy:

- co-ordinating investment and planning to enable growth
- enhancing the performance of Auckland's infrastructure
- creating resilient infrastructure networks.

### 7.1.2 Stakeholder Feedback

The Auckland Plan 2050 considers non-council infrastructure. To understand more about this infrastructure, staff engaged with key external infrastructure providers collectively including Transpower, Vector, Spark, Counties Power Limited, Refining New Zealand Limited, First Gas Limited, Chorus and the Auckland Utilities Operators Group.

Information was sought on their strategic challenges and opportunities and their long-term investment plans. Feedback received has been integrated into the Auckland Plan 2050. As many of these providers are private firms, information on their long-term investment intentions was limited due to commercial sensitivity. Issues that arose during stakeholder consultation with external infrastructure providers included:

- the need to ensure infrastructure providers are involved in plans of work along existing infrastructure corridors
- recognising the limitations of shared infrastructure corridors
- recognising the limitations of existing regulation and emerging technology
- recognising the uncertainty in the electricity network
- the changing uses of electricity due to technological change
- the challenges with undergrounding powerlines
- effectively aligning the delivery and maintenance of all infrastructures
- encroachment of development in areas surrounding pipelines
- rapid technology and innovation trends make it difficult to predict the changes and opportunities that will occur by 2050
- the location of hospitals and universities has a significant influence on movement, employment and other services in cities
- increasing land costs is escalating the cost of infrastructure projects
- the need to consider current and future network capacity and where required, the need for new education facilities for large scale residential development.

Feedback received across the whole early engagement process is set out in Section 9: Partner and stakeholder feedback.

### 7.1.3 Identifying future infrastructure demand

The 2012 Auckland Plan included a social and physical infrastructure chapter, as well as a chapter dedicated to transport. While the latter included a strategy for the investments in transport, the social and physical infrastructure section largely summarises those infrastructures listed as ‘critical’, rather than identifying future investment intentions or needs.

Subsequent to the adoption of the 2012 Auckland Plan, a number of strategic, long-term infrastructure plans have been developed for Auckland. This includes requirements introduced to the Local Government Act in 2014 for councils to prepare a 30-year Infrastructure Strategy as part of the Long-term Plan. The need to develop a longer-term view of infrastructure demand to meet the Infrastructure Strategy requirements, along with understanding the development and implementation of the 2012 Auckland Plan, meant there was relatively up-to-date information available for many infrastructure types from which to obtain the information needed for the Auckland Plan 2050. These include:

- Auckland Transport Alignment Project 2017, including the 2018 update
- Watercare Water Supply and Wastewater Asset Strategies 2016
- infrastructure modelling undertaken for the Future Urban Land Supply Strategy (water, transport, community) 2017
- Healthy Waters modelling undertaken for the Future Urban Land Supply Strategy and Auckland Plan Scenarios 2017
- Stormwater Asset Management Plan 2015
- Open Space Provision Policy 2016
- Community Facilities Network Plan 2015

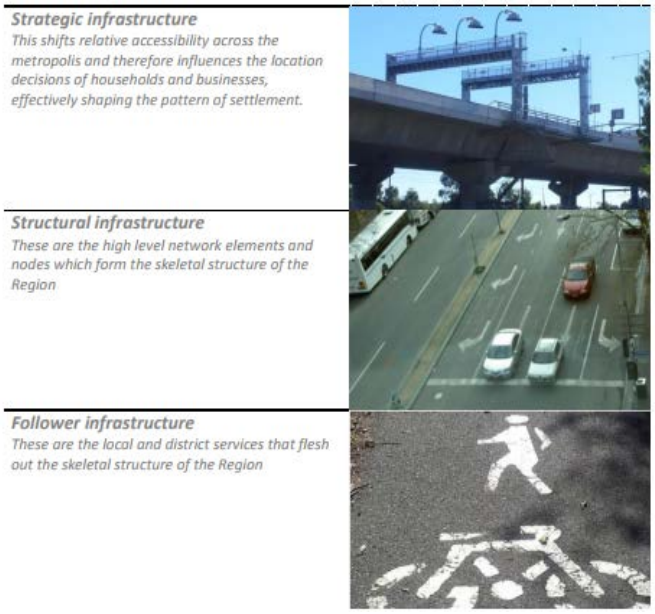
- Auckland Engineering Lifelines Group's Critical Infrastructure Report 2014
- Transpower's
    - Transpower Planning Report 2015
    - Transmission Tomorrow Plan 2016 and
    - Powering Auckland's Future – Auckland Strategy Direction
- Telecommunications Forum's Industry Sector Report 2017.

### 7.1.4 Developing a framework for aligning growth and infrastructure

A key objective for the infrastructure content of the Auckland Plan 2050 was to structure the information from the strategic planning undertaken by individual infrastructure providers into a framework that demonstrated alignment between the infrastructure and land use outcomes, and that can usefully inform decision making (such as priority setting in the Long-term Plan).

A review of Auckland Planning and Infrastructure commissioned by the New Zealand Council for Infrastructure Development identified a framework for considering how different infrastructure typologies impact on strategic land-use planning (refer to Figure 28 below).

**Figure 28 Infrastructure typology[28]**




A review of the previous Auckland Plan by NZCID / SGS identified a useful typology for considering the impact on settlement patterns and growth of future infrastructure projects (left).

This informed the framework developed for the Auckland Plan refresh to identify future infrastructure needs and alignment with growth outcomes (see below).

These typologies were considered to provide a useful starting point from which to consider future infrastructure investment needs in the Auckland Plan. Given the high level and long-term scope of the Auckland Plan, these were simplified into two broader categories.

- Large-scale (bulk) network projects - capturing the 'strategic infrastructure' typology from the NZCID / SGS report.

[28] Source: SGS Economics and Planning Pty Ltd, Review of Auckland Urban Planning and Infrastructure February 2014, 16.

- Areas where the aggregate investment in local ‘last mile’ infrastructure is strategically important to achieve the growth outcomes sought by the Plan - capturing the ‘structural’ and ‘follower’ typologies from the NZCID / SGS report.

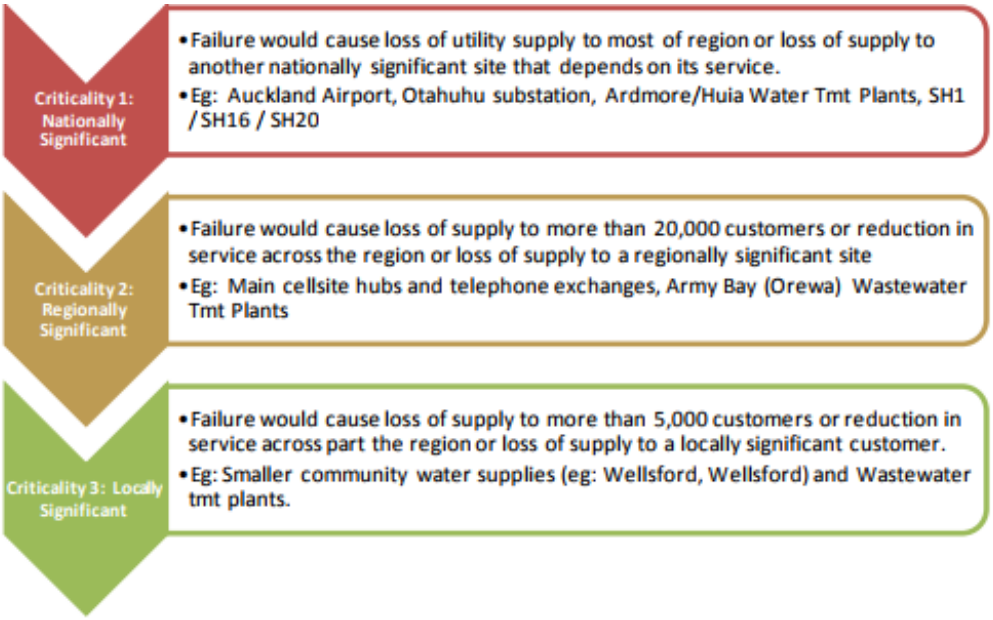
This subsequently evolved into the framework of strategic networks, nodes, future urban areas and development areas in the Development Strategy which is outlined in Figure 29 below.

**Figure 29 Growth and infrastructure framework in Auckland Plan 2050**


### 7.1.5 Critical infrastructure

Information from the Auckland Engineering Lifelines Group was used to update the assessment of critical infrastructure in the Auckland Plan. Auckland Engineering Lifelines Group is a voluntary organisation of lifeline infrastructure providers in Auckland, which had completed a recent assessment in 2014 (Auckland Engineering Lifelines Project 2) to define and identify the critical infrastructure in Auckland, understand the impact of hazards on this infrastructure and identify actions that can be taken to reduce critical infrastructure vulnerability. The validity of the information in the 2014 report was confirmed, and minor updates made, via council’s representatives in the Auckland Engineering Lifelines Group. The definition of critical infrastructure from Auckland Engineering Lifelines Group has been adopted for the Auckland Plan 2050 and is illustrated in Figure 30.

Figure 30 Definition of critical infrastructure[29]




## 7.2 Summary of key infrastructure planning documents

This section provides a summary of the long-term infrastructure planning documents that informed the Development Strategy.

### 7.2.1 Auckland Transport Alignment Project

Between 2015 and 2018 Auckland Council worked closely with the government through the Auckland Transport Alignment Project to develop a recommended long-term strategic approach to transport in Auckland.

Its strategic approach to addressing Auckland's transport challenges is illustrated in Figure 31 below.

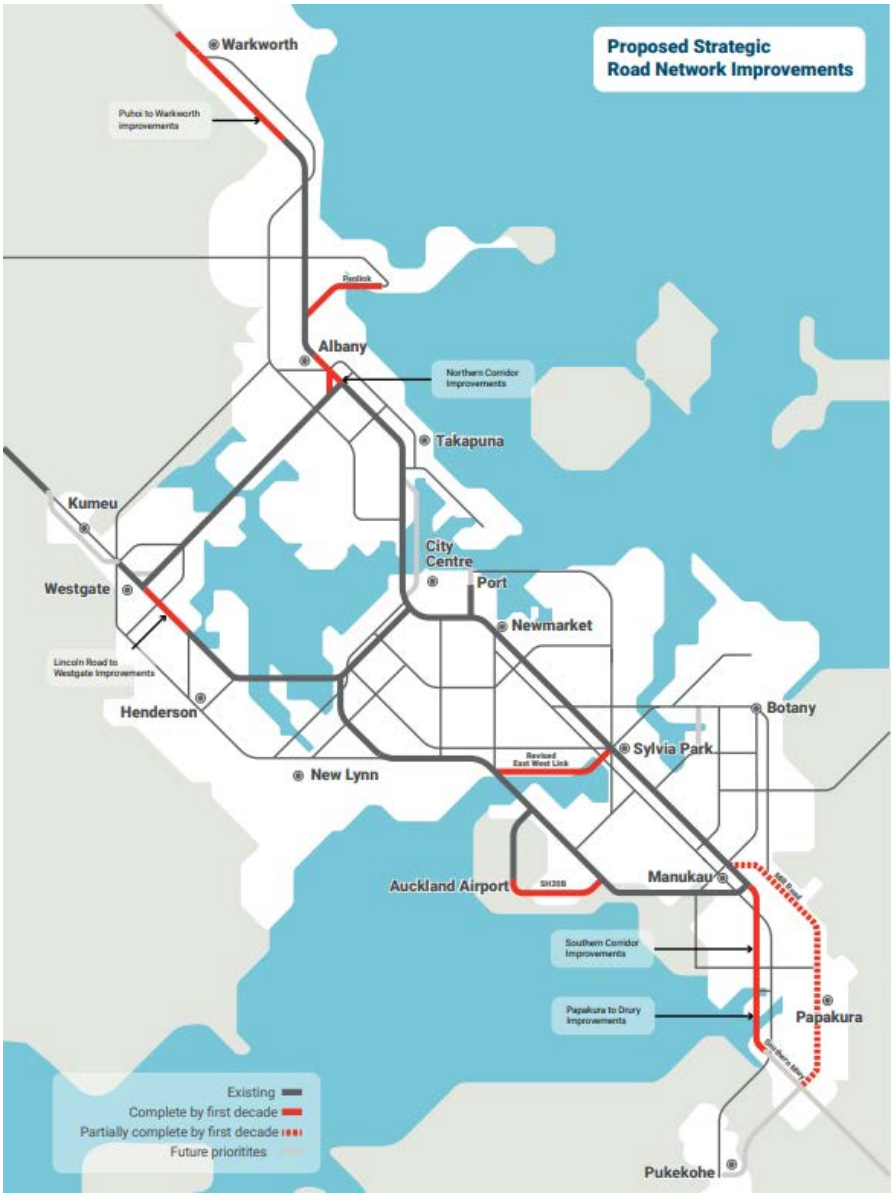
Figure 31 ATAP strategic approach[30]


[29] Source: Auckland Engineering Lifelines Project 2, 2014
[30] Source: Auckland Transport Alignment Project

ATAP identifies propsed future strategic networks for both roads and public transport, as well as an indicative package of priority (within 10 years), and longer term (within 30 years) investments. These have been reflected in the strategic infrastructure network maps included in the Auckland Plan 2050.

The ATAP strategic road network provides for a wide range of travel demands and caters to the highest traffic volumes. The approach proposed in ATAP to address transport challenges on the roading network primarily focuses on improving the efficiency of existing corridors by better balancing demand and capacity. The proposed future strategic road network is illustrated in Figure 32 below:

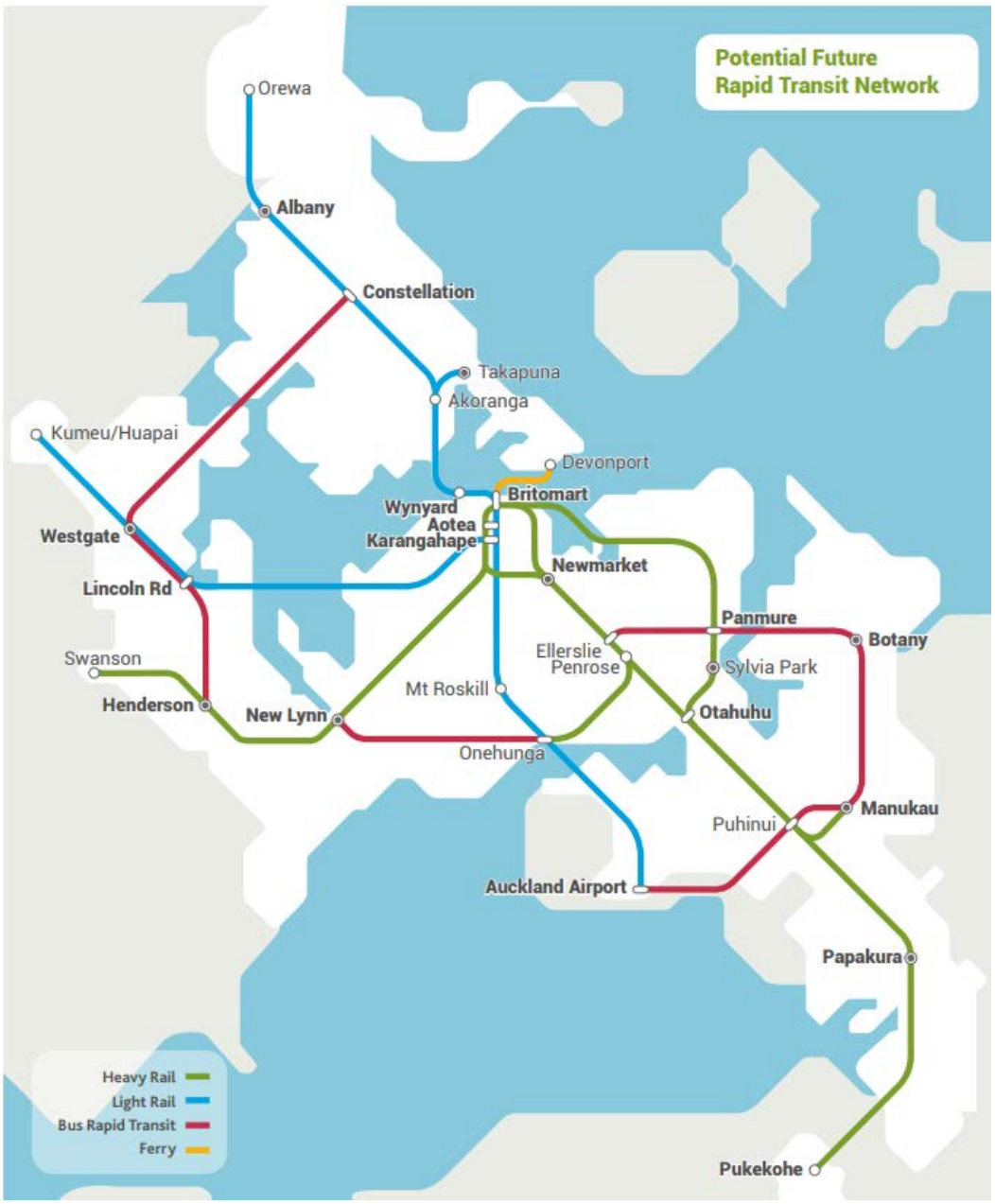
**Figure 32 Auckland Transport Alignment Project 2018: Proposed Strategic Road Network Improvements**[31]




[31] Source: Auckland Transport Alignment Project

The rapid transit network proposed in ATAP provides for high volumes of travel to major employment centres, especially into the central areas of Auckland. ATAP proposes to address public transport challenges by prioritising developments that address emerging capacity constraints and increases in demand, in addition to prioritising the expansion of the network to improve the corridors' overall efficiency and throughput. The proposed future strategic public transport network, and timing of improvements, is illustrated in Figures 33 and 34 below:

**Figure 33 Auckland Transport Alignment Project 2018: Potential Future Rapid Transit Network[32]**




[32] Source: Auckland Transport Alignment Project

Figure 34 Auckland Transport Alignment Project 2018: Proposed Rapid Transit Improvements


The Transport and Access outcome area of the Auckland Plan 2050 explores, in detail, the role investments in transport plays in the supporting and enabling growth.

### 7.2.2 Watercare Services Limited - Wastewater and Water Supply Asset Strategies

Watercare's Wastewater and Water Supply Asset Strategies 2016 and Asset Management Plan 2016-2036, identifies planned investments in bulk water supply and wastewater infrastructure needed to service Auckland's growth, while maintaining safe and reliable water and wastewater networks.

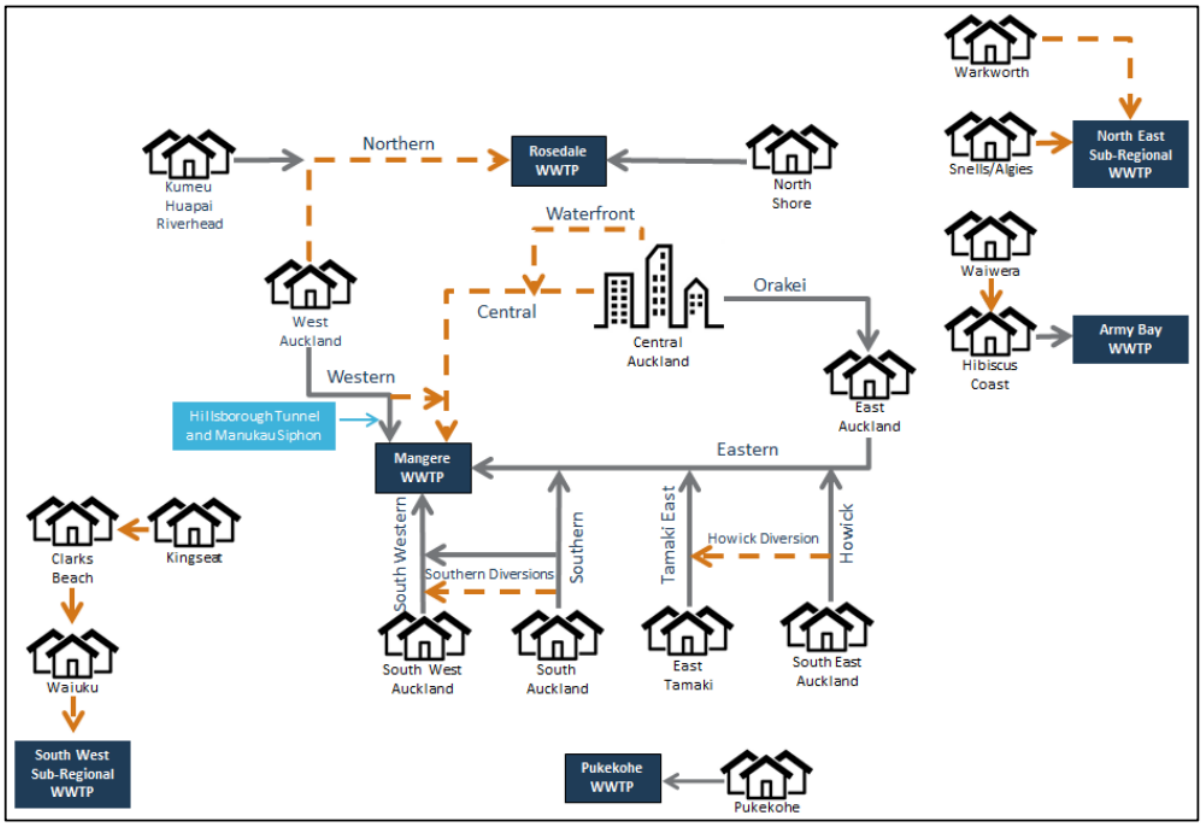
Auckland's population growth and increasing environmental expectations require a substantial investment in wastewater infrastructure. Watercare's wastewater asset strategy, presents a package of inter-related investments that will meet Auckland's long term wastewater needs. This includes upgrades to the two major wastewater plants at

Mangere and Rosedale, construction of the Central and Northern Interceptors and augmentation of the Southern Interceptor to service the metropolitan area of Auckland. Major upgrades to sub-regional treatment plants at Snells Beach, Army Bay and Waiuku are also planned.

The investments in the first decade of this strategy establish the core network that will meet Auckland's medium to long-term wastewater needs. Major investments in the second and third decades aim to augment the network established in first decade

The strategic wastewater network, and planned upgrades to 2036, to service Auckland is shown in Figure 35 below:

**Figure 35 Wastewater Network,( Watercare Services Limited, 2016b.)**



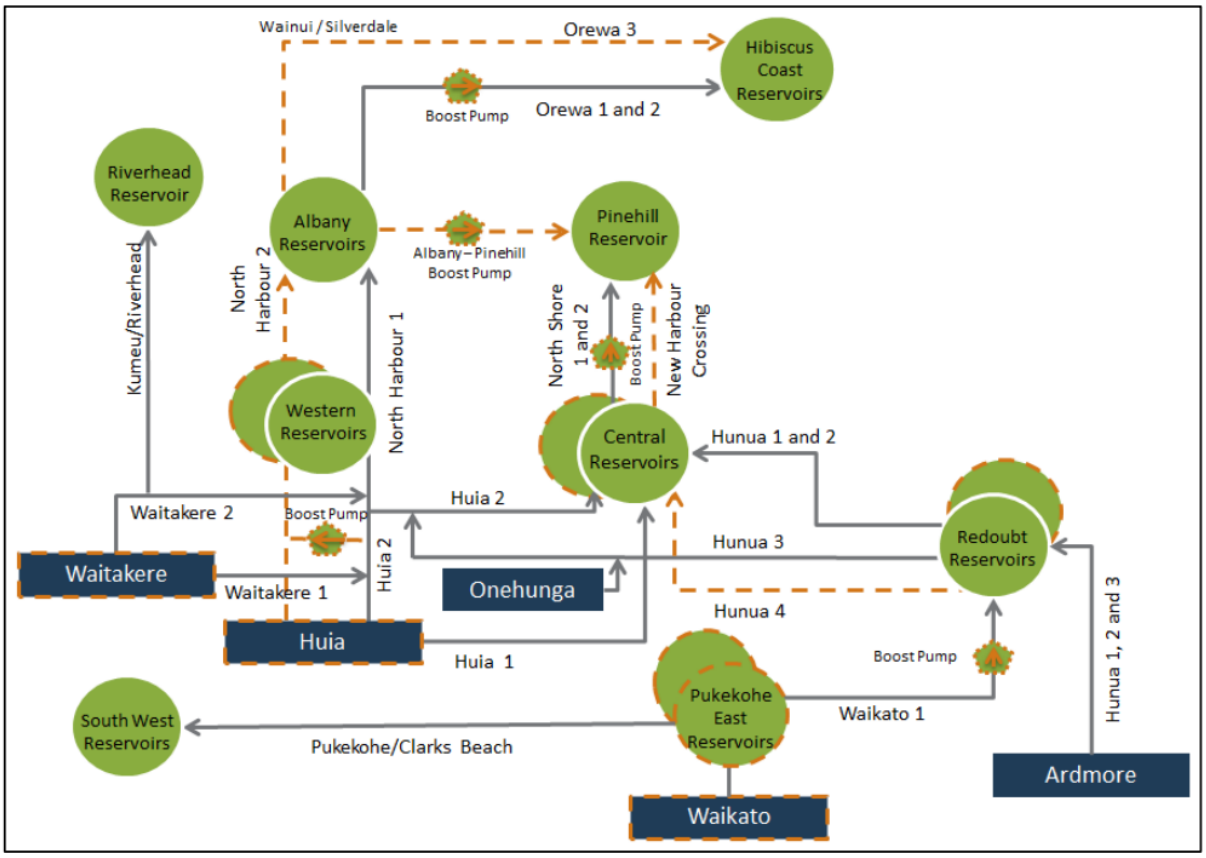

Watercare's water asset strategy presents a package of inter-related investments that provide a safe, resilient supply of drinking water that will meet Auckland's forecasted growth. It includes major investments in the Waikato and western treatment plants to service metropolitan Auckland. This is complemented with significant investment in the transmission network and reservoirs, including a second Waikato pipeline by 2048.

New technology, such as water recycling, may provide alternative options for sourcing some of Auckland's future drinking water. Smart water metering, pricing and other

demand management initiatives are expected to reduce per-capita consumption, reducing demand for some new investments.

The strategic water network, and planned upgrades to 2036, to service Auckland is shown in Figure 36 below:

**Figure 36 Water Supply Network, (Watercare Services Limited, 2016c.)**




### 7.2.3 Auckland Council Stormwater Strategic Asset Management Plan

The Water Sensitive Design approach to stormwater and flood management used in Auckland encourages green infrastructure responses, and at-source management of stormwater. This means that most of the public investment in stormwater infrastructure is expected is relatively small projects, responding to where and when growth occurs.

Within the first decade, significant investment is planned to enable development of Takanini (the current live zoned area), and the Western Isthmus Water Quality Improvement Programme which addressed areas of the region with combined sewer and stormwater systems. The largest investment currently identified in the second and third decades is the southern future urban area programme, which will enable urban development of a number of areas subject to significant flooding constraints including Opaheke, Drury and Takanini. Decisions will be required about the optimal technical solution to address flooding in this area, and given the relatively small area of benefit of this investment, the appropriate funding mechanism for this investment.

### 7.2.4 Community Facilities Strategic Asset Management Plan 2015 and Community Facilities Network Plan

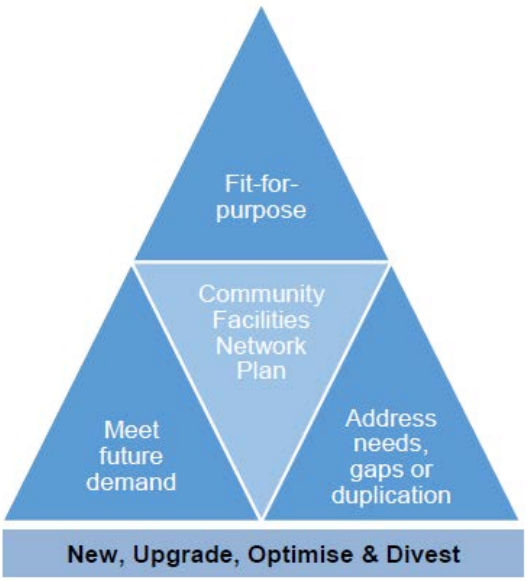
The Community Facilities Strategic Asset Management Plan and Community Facilities Network Plan identify the key challenges facing community facilities such as:

- gaps in or duplication of provision which sometimes leads to the uneven distribution of community facilities across Auckland
- existing facilities are no longer fit for purpose and are not catering for growing and diverse communities
- the development of new community facilities is restricted by the availability and cost of suitable land.

The response to these challenges and the overall strategic approach (see Figure 37 below), include:

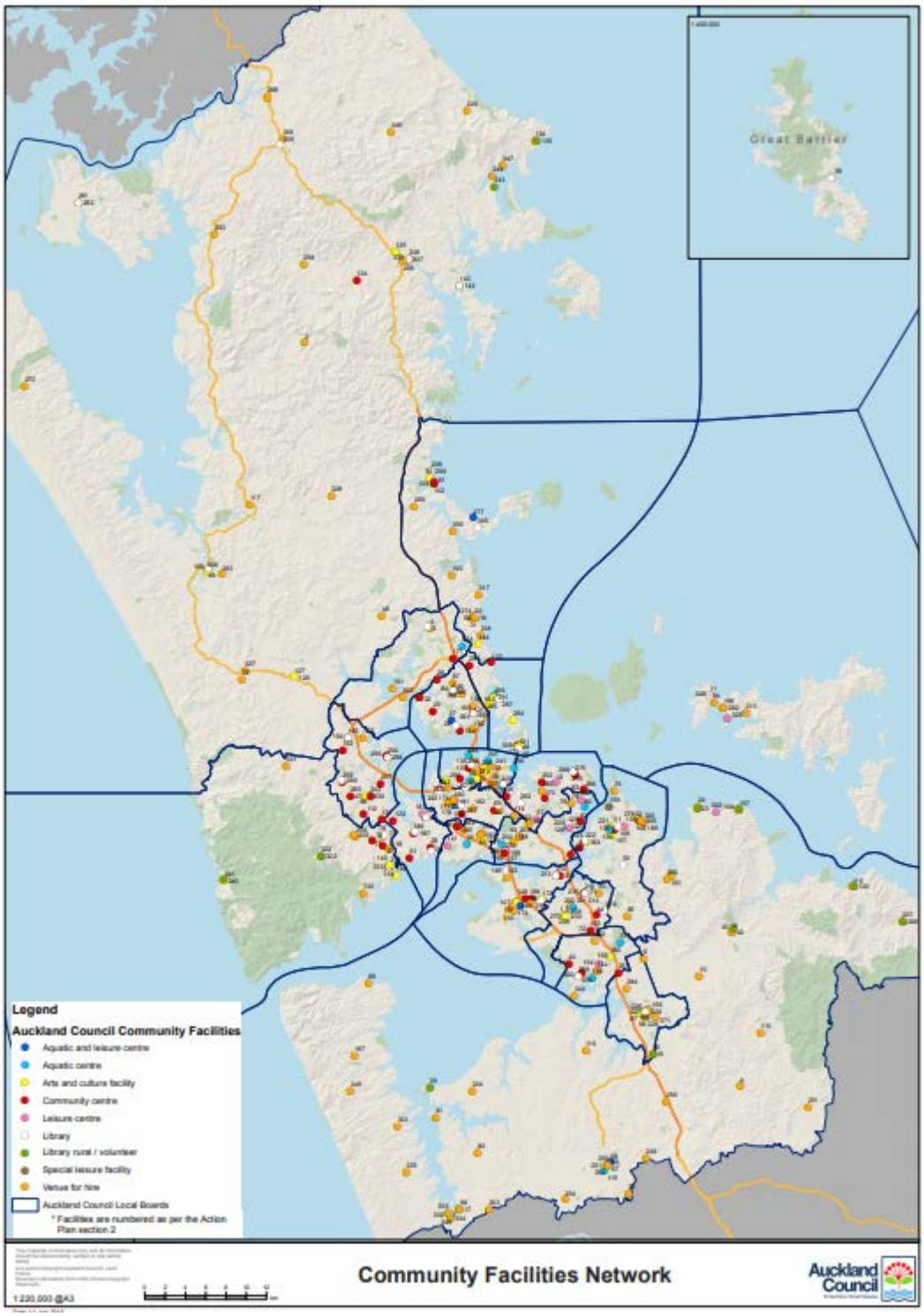
- better integration of community facilities by providing a wider range of services and activities in convenient locations for ease of access by communities
- making best use of council assets
- upgrading or developing new community facilities as a catalyst for the revitalisation of centres.

**Figure 37 Strategic approach to deliver community facilities**




The Community Facilities Network Plan identifies Auckland's network of council owned facilities in Figure 38 below. The associated Community Facilities Action Plan identifies key investments required in the network and informs prioritisation in council budgeting processes.

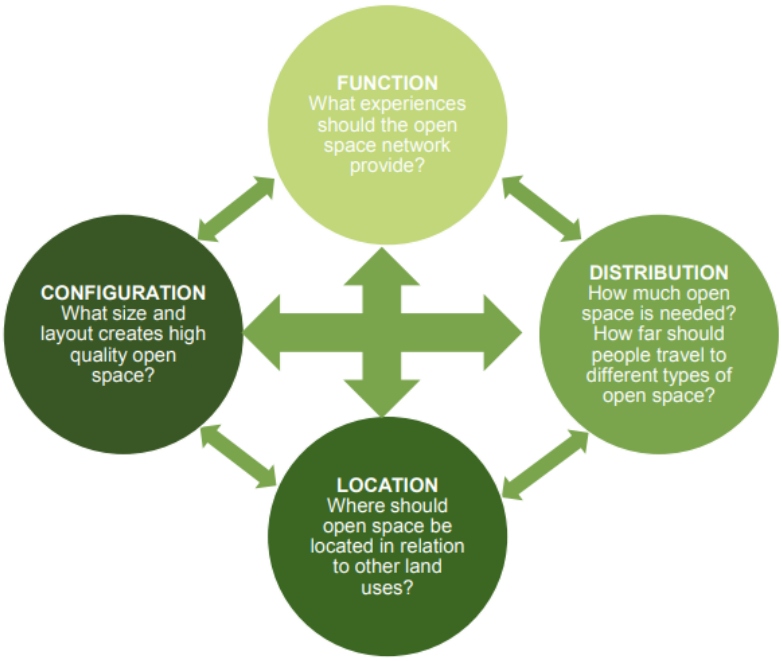
**Figure 38 – Auckland Council community facilities**




### 7.2.5 Open Space Provision Policy

The Open Space Provision Policy informs investment, asset and acquisition activities in open space. It guides spatial planning by both the public and private sectors. The policy considers provision at a network scale (across multiple open spaces, rather than an individual site) in terms of four inter-related factors (see Figure 39 below).

Figure39 Elements of open space provision



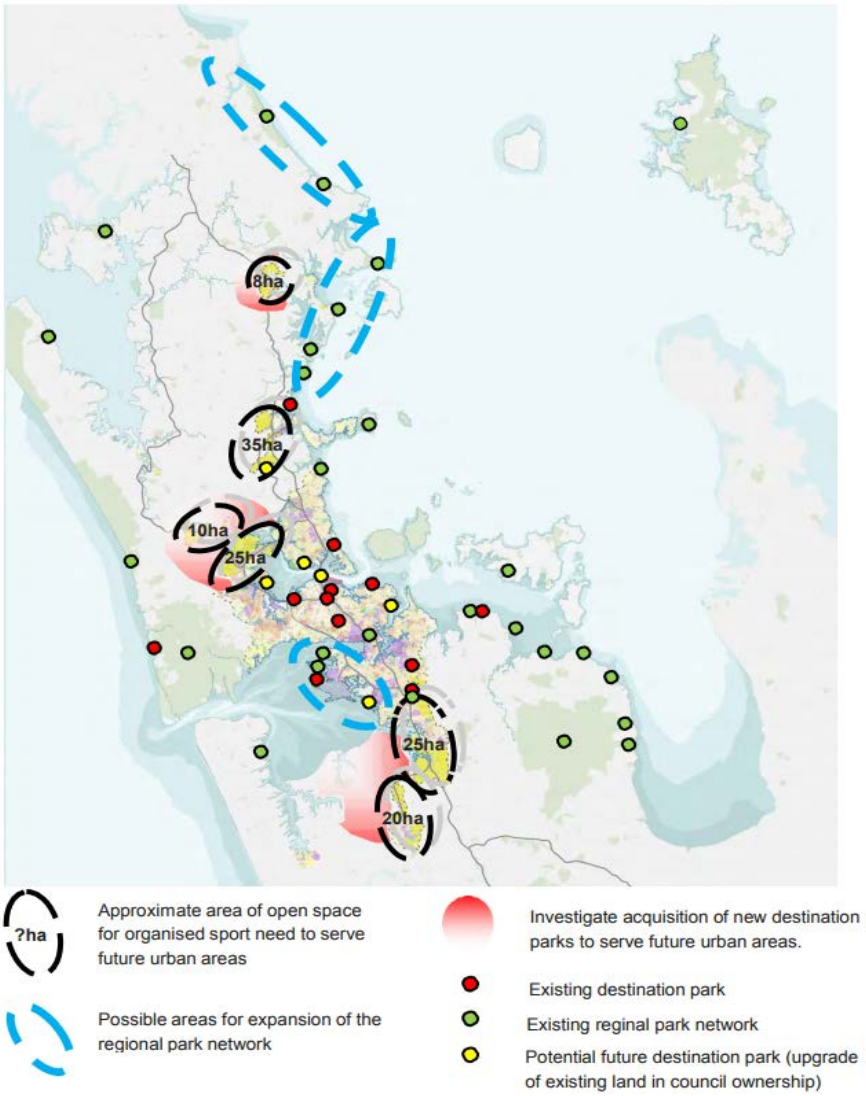

The policy adopts different approaches to investment requirements for open space between the existing urban (brownfield) and future urban (greenfield) areas:

- the existing urban areas has an established network of open spaces, and further acquisition is constrained by land supply and affordability. Investment prioritises improving the existing network to offer a wider range of activities and cater for more users.
- in future urban areas, new open spaces will need to be acquired and developed to meet the needs of future communities. The focus is on establishing connected, multi-functional open space networks.

More intensive residential housing typologies, with less private open space and an increasingly diverse population means that Auckland's open space network will need to deliver a wider range of activities and uses. Along with population growth and changing demographics, other major drivers influencing investment in parks and open space include the expected level of service, environmental sustainability, resilience and the condition of existing assets.

The Open Space Provision Policy identifies future investment needs in the destination park network and open space for sport and organised recreation, in Figure 40 below.

**Figure 40 Destination park network and open space for sport and organised recreation[33]**



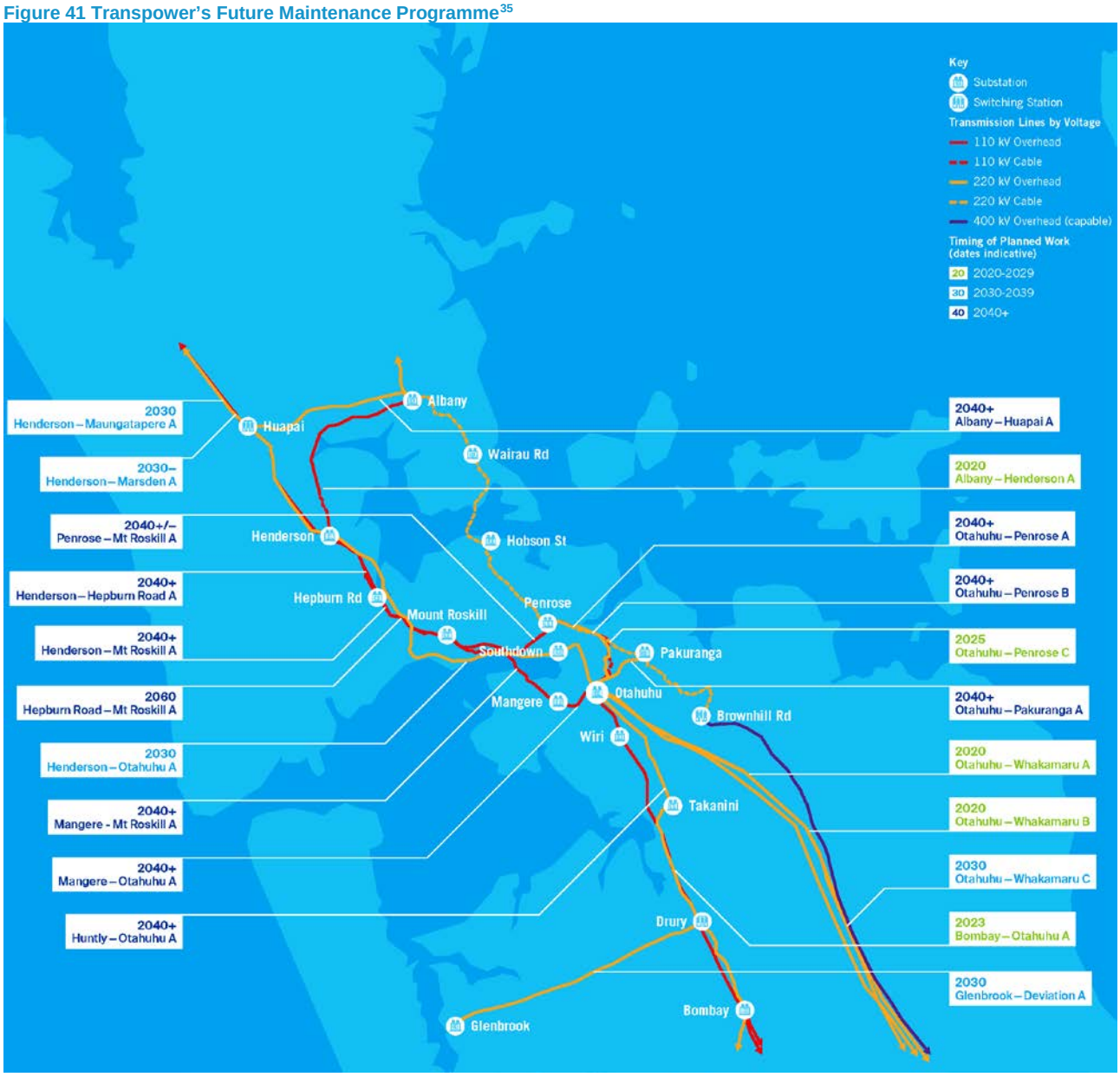

### 7.2.6 Electricity -Transpower

Transpower's Powering Auckland's Future – Auckland Strategy Direction, identifies Auckland as a significant user of electricity in the New Zealand market  The majority of Auckland's electricity comes from the south, with 95 per cent of peak electricity demand for Auckland and Northland coming from generation sources in the central North Island and South Island (predominantly renewable hydro, wind and geothermal generation).[34].

Figure 41 below identifies Auckland's transmission electricity network and key investments planned for Transpower:

[33] Source: Auckland Council Open Space Provision Policy, 2016
[34] https://www.transpower.co.nz/sites/default/files/publications/resources/AKLDEmergingStrategy.pdf pg 12

**Figure 41 Transpower's Future Maintenance Programme**[35]




The overall design of the current network is expected to be capable of providing Auckland's electricity transmission needs into the 2040s. However, elements of the network are reaching the end of their expected useful life and some assets will need major maintenance over the next 30 years including routine rewiring (reconductoring) and tower maintenance (painting, foundations).[36]

Energy efficiency is expected to reduce overall electricity demand over the next 30 years, through measures such as improved new housing standards and retrofitting of existing housing stock, as well as the continued evolution of energy efficient products for homes and businesses.[37] Solar panels to supplement or replace household power supply are becoming more common. The uptake of solar panels and home battery systems system is

[35] Source:Transpower
[36] https://www.transpower.co.nz/sites/default/files/publications/resources/AKLDEmergingStrategy.pdf pg 7
[37] https://www.transpower.co.nz/sites/default/files/publications/resources/AKLDEmergingStrategy.pdf pg 16

expected to impact on future transmission needs, although the magnitude of this is uncertain as technology is rapidly evolving.

### 7.2.7 Gas and Fuel Supply

Natural gas is piped from Taranaki through a series of gas lines, while petrol and aviation fuel is delivered from the Marsden Point refinery by way of a single pipe to Wiri in South Auckland.

Bulk supply of natural gas in Auckland is via First Gas' pipelines running from the Taranaki gas fields into the south of the region. Gas is then distributed across a network of smaller pipes, owned by Vector, to homes and businesses. The natural gas market is expected to experience little change out to 2030 and there is sufficient capacity in the short to medium term to service demand (New Zealand Treasury, 2015).

Consistent with national trends, improvements in vehicle efficiency have seen demand for petrol flatten since the mid-2000s (MBIE 2017). The uptake of electric vehicles will further influence this trend. The increasing number of flights from Auckland Airport has resulted in a significant increase in demand for aviation fuel, which is expected to continue to increase in the immediate future. Additional transmission capacity between Wiri and Auckland Airport is anticipated to be required as part of the wider redevelopment of the airport.

### 7.2.8 Telecommunications and digital infrastructure

Telecommunications infrastructure in Auckland, as in the rest of New Zealand, is undergoing rapid change as new technologies are introduced and New Zealanders are exposed to the services and economic opportunities that these technologies provide.

The government's Ultra-Fast Broadband programme is currently being implemented in Auckland which will enable fibre optic connections to the door. This technology is expected to be a cornerstone of Auckland's digital infrastructure for the period of the Auckland Plan. Roll-out (as at June 2018) is 75 per cent complete in the Auckland metropolitan area, and 100 per cent complete in Waiheke, Pukekohe and Waiuku (Ministry of Business, Innovation and Employment, 2018). Uptake of Ultra-Fast Broadband at June 2018 in Auckland was approximately 46 per cent.

Mobile and wireless technology is expected to evolve over the period of the Auckland Plan, with 4g wireless technology being superseded by 5g from the early 2020s onwards.

### 7.2.9 Education

The Ministry of Education is currently developing an Auckland Education Growth Plan to assess education options and forecast requirements for new schooling provision over the next 15 years. This will enable the Ministry, Treasury and wider Government to have greater certainty for future planning, approaches and delivery of education.[38]

[38] http://media.nzherald.co.nz/webcontent/document/pdf/201721/Auckland.pdf

### 7.2.10 Health

The Northern Regional Health Plan intends to improve health outcomes and reduce disparities across the Northern Region. The plan is founded upon working together as a region to provide health care that makes best use of resources, is sustainable, and improves access to services.

# 8 Meeting the requirements of the National Policy Statement on Urban Development Capacity

This section focuses on aspects of the National Policy Statement on Urban Development Capacity (Ministry for the Environment, 2016) relevant to the Development Strategy 2050. The main aspects discussed are a summary of:

- the National Policy Statement on Urban Development Capacity and the key requirements relevant to the Development Strategy 2050
- how the Auckland Plan Development Strategy 2050 meets the key requirements of future development strategies.

## 8.1 Summary and key requirements

The National Policy Statement on Urban Development Capacity sets out to promote integrated and responsive planning to support effective and efficient urban environments that enable people and communities and future generations to provide for their social, economic, cultural and environmental wellbeing. It recognises the national significance of well-functioning urban environments, with a focus on:

- enabling urban environments to develop and change in response to the changing needs of the communities, and future generations
- providing enough space for people to happily live and work, both through allowing development to go “up” by intensifying existing urban areas, and “out” by releasing land in greenfield areas.

The National Policy Statement on Urban Development Capacity directs local authorities to ensure that at any one time there is sufficient housing and business land development capacity over the short, medium and long term, with different expectations around the zoning and development infrastructure for each time frame.

The following list sets out the four key subject areas with a summary of related policy requirements relevant to Auckland and the Development Strategy 2050. For a full list of policy requirements refer to the National Policy Statement for Urban Development Capacity.

1. Outcomes for planning decisions

- Local authorities shall ensure that at any one time there is sufficient housing and business land development capacity over the short, medium and long term (that is feasible and able to be serviced) and satisfy themselves that other infrastructure required to support urban development are likely to be available (PA1 and PA2).

2. Evidence and monitoring to support planning decisions

- The requirement for a Housing and Business Development Capacity Assessment to be carried out, on at least a three-yearly basis (PB1, PB2, PB3, PB4 and PB5).
- Quarterly monitoring of a range of indicators (PB6 and PB7)

3. Responsive planning

- Local authorities shall provide an additional margin of feasible development capacity over and above projected demand (PC1 and PC2).
- Regional councils shall set minimum targets for sufficient, feasible development capacity for housing for the medium and long term (PC5 and PC6).
- Local authorities shall produce a future development strategy which demonstrates that there will be sufficient, feasible development capacity in the medium and long term and how the minimum targets for feasible housing development capacity will be met (PC12, PC13 and PC14).

4. Coordinated planning evidence and decision making (collaborative working processes).

- To achieve integrated land use and infrastructure planning, local authorities shall work with providers of development infrastructure, and other infrastructure to implement the National Policy Statement and prepare the required future development strategy (PD2 and PD4).

## 8.2 Meeting the requirements of the future development strategy

As stated above, the National Policy Statement on Urban Development Capacity 2016 outlines the requirements for the future development strategy (see PC12 to PC14).

Auckland is a high-growth urban area and the council is therefore required to produce a future development strategy by 31 December 2018 (Ministry for the Environment, 2017). The Auckland Plan Development Strategy 2050 serves as Auckland's future development strategy.

Further guidance is set out in Responsive planning – Guide on producing a Future Development Strategy (Ministry for the Environment, 2017) which contains ten requirements to be met in order to produce an effective future development strategy.

The table below shows each of these ten requirements, alongside how these points have been addressed in the Auckland Plan Development Strategy 2050.

**Table 8: How the Auckland Plan Development Strategy 2050 meets the key requirements for future development strategies**

| Future Development Strategies should contain: | How the Auckland Plan Development Strategy 2050 meets the requirements: |
|---|---|
| 1. explicit reference to policy PA1 that requires local authorities to ensure that at any one time there is sufficient feasible housing and business land development capacity in the short, medium and long term | • council has produced a Housing and Business Development Capacity Assessment (Auckland Council, 2017g). This has been a key data source for developing the Auckland Plan Development Strategy, including setting minimum housing targets<br>• the level of feasible development capacity |

| Future Development Strategies should contain: | How the Auckland Plan Development Strategy 2050 meets the requirements: |
|---|---|
| | set out in the Housing and Business Development Capacity Assessment is 326,000<br>• the long term minimum target for housing development capacity is 408,300<br>• a shortfall identified of around 82,000 over the long term<br>• margins of 15 and 20 per cent were added to the medium and long terms respectively<br>• a housing shortage of 35,000 was assumed for the medium term only |
| 2. the minimum targets for sufficient, feasible development capacity for housing that will be, or have been, included in regional policy statements and relevant territorial authority plans | • minimum targets for housing development capacity were set for the medium and long term<br>o 189,800 for the medium term (10 years)<br>o 408,300 for the long term (30 years)<br>• as required, the regional policy statement will updated to include these targets by the end of 2018 |
| 3. explicit reference to the housing and business development capacity assessment to demonstrate how any identified development capacity is sufficient and feasible | • council has produced a Housing and Business Development Capacity Assessment (Auckland Council, 2017g). This has been a key data source for developing the Auckland Plan Development Strategy, including setting minimum housing targets<br>• the current level of feasible development capacity exceeds demand in the medium term (1-10 years). However, over the long term (11-30 years), based on current assumptions, there is a shortfall of around 82,000 dwellings<br>• the long term shortfall is expected to be met in the following ways:<br>o Housing New Zealand developments<br>o Kiwibuild and later central government programmes<br>o Panuku Development Auckland developments<br>o in addition, other factors are also expected to improve feasibility, increase market confidence and deliver additional dwellings |

| Future Development Strategies should contain: | How the Auckland Plan Development Strategy 2050 meets the requirements: |
|---|---|
| 4. evidence of analysis undertaken to determine where and when there are opportunities for future development, informed by necessary assessment, scenario testing, constraints analysis, consultation, and existing strategies | • as part of Auckland's future development strategy this evidence report contains information on the evidence base, the methodology, and an assessment of alternative growth approaches |
| 5. a map and/or series of maps and tables outlining the location, timing, and sequencing of development capacity (including any "no-go" areas where relevant) | • maps showing the location, timing and sequencing of areas in both the existing urban and future urban areas<br>• maps showing constraints are included in the Auckland Plan<br>• tables showing the anticipated development capacities for existing urban areas, future urban areas and rural settlements<br>• templates for each of the nodes, development areas and remaining existing urban area showing:<br>o location<br>o anticipated household, population and employment growth, enabled housing capacity<br>o accessibility to jobs<br>o feasible development capacity<br>o phasing/sequencing |
| 6. identification of the development infrastructure and other infrastructure required to support future development capacity | • strategic infrastructure network maps and the enabling infrastructure tables identify the major infrastructure projects required to provide for anticipated growth over the life of the plan<br>• the 30-year Infrastructure Strategy (part of council's long-term plan) includes the projects shown in the Development Strategy strategic infrastructure maps and tables and identifies funding (if in decade 1), or inclusion in the long-term financial forecasts (if in decades 2 or 3)<br>• changes to strengthen the linkages to the 30-year Infrastructure Strategy and clarify responsibilities for infrastructure delivery |
| 7. implementation actions, that outline how the future development strategy will be given effect through RMA, LGA and | • 'How we will implement the development strategy' section of the Auckland Plan 2050 |

| Future Development Strategies should contain: | How the Auckland Plan Development Strategy 2050 meets the requirements: |
|---|---|
| LTMA planning documents and how infrastructure will be funded along with other non-statutory documents and processes | sets out:<br>o implementation partners<br>o mechanisms used to work together<br>o supporting strategies and plans<br>• the Auckland Plan 2050 and the 10-year budget 2018-2028 (including the 30-year Infrastructure Strategy) are aligned.<br>• the 10-year budget confirms funding for council infrastructure over the first 10-year period of the Auckland Plan 2050<br>• the strategies and policies of the 10-year budget outline how infrastructure costs will be funded<br>• the 30-year Infrastructure Strategy identifies council infrastructure required over the period 2028-2048 |
| 8. clear approach about how the future development strategy will be responsive to changes in demand for future urban development or where land owners' intentions change | • the Development Strategy acknowledges that the scale and location of feasible development capacity will change over the lifetime of the plan as market conditions change<br>• regular monitoring of development and tracking of actual dwellings built (uptake) will show what planning and infrastructure responses are needed<br>• the Development Strategy enables different stakeholders to co-ordinate efforts. For example, structure planning allows a responsive approach, taking into account stakeholder feedback (including council, infrastructure providers and land owners) |
| 9. clear approach for monitoring both the urban development outcomes and the implementation of the future development strategy | • monitoring of the Development Strategy is set out in the 'Measuring progress' section of the Auckland Plan 2050, including:<br>o 408,300 dwellings as the 30 year feasible development capacity target<br>o four measures to be used to track progress towards the aims of the Development Strategy:<br>– new dwellings consented by location and type<br>– net new dwellings consented and |

| Future Development Strategies should contain: | How the Auckland Plan Development Strategy 2050 meets the requirements: |
|---|---|
| | completed<br>– access to jobs<br>– zoned industrial land<br>• a continuation of annual monitoring of the Development Strategy over the last six years, since 2012<br>• quarterly monitoring for the National Policy Statement on Urban Development Capacity includes relevant information such as:<br>o residential zoned land<br>o residential dwelling supply<br>o business land supply |
| 10. a short summary of how consultation on the future development strategy was undertaken. | • sections 9 and 10 of this evidence report provide a short summary of the consultation process, along with a summary of feedback received and responses to the feedback |

# 9 Partner and stakeholder feedback

## 9.1 Engagement with mana whenua

Since the 2012 Auckland Plan, there has been a process of on-going refinement of council's approach to managing growth that is reflected in the Development Strategy. Mana whenua have been involved at each stage in this process, providing input in determining the Rural Urban Boundary in the Auckland Unitary Plan and the sequencing of future urban areas for urban development in the Future Urban Land Supply Strategy. Their views and interests are consequently reflected in the Development Strategy (see Figure 42).

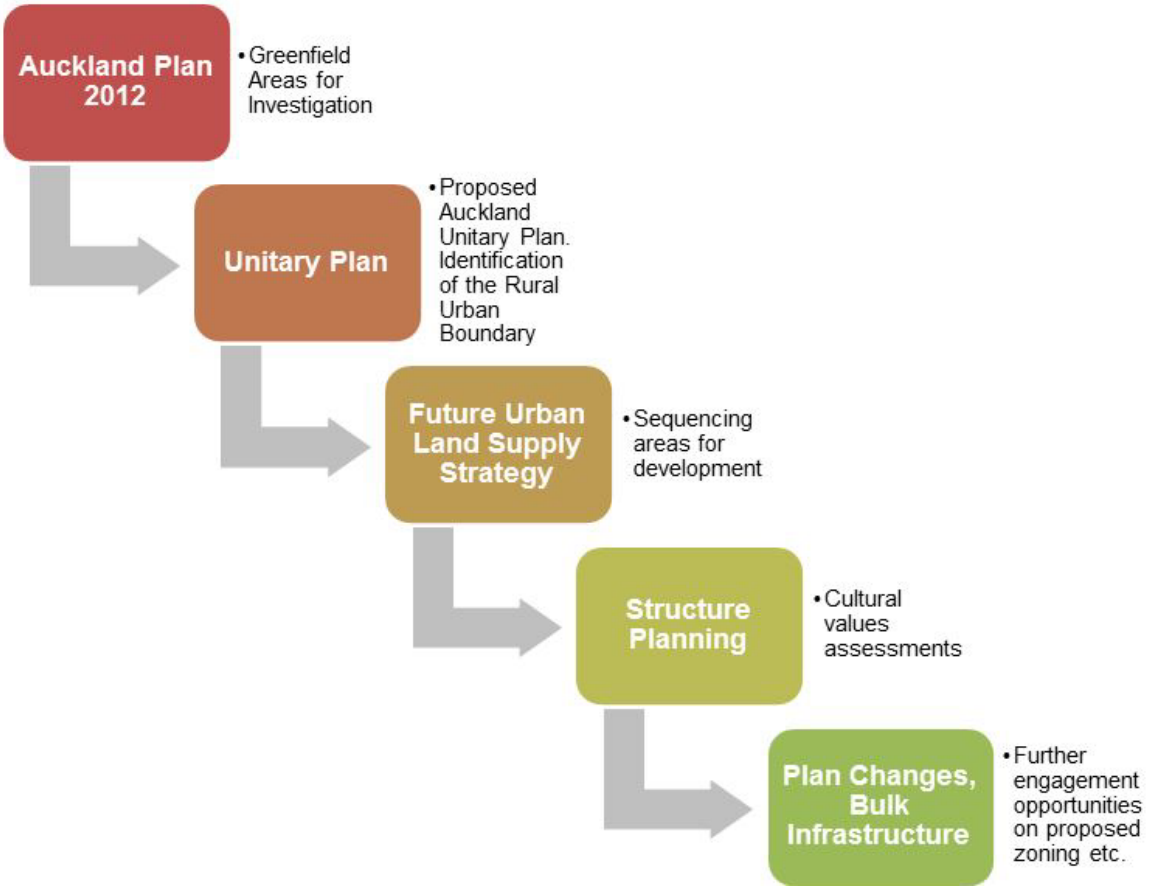
The Future Urban Land Supply Strategy 2015 applied five principles that underpin sequencing decisions. One of these principles was uplifting Māori social and economic wellbeing. This was applied in Future Urban Land Supply Strategy sequencing decisions, and has subsequently been incorporated in the Development Strategy 2050.

Structure planning is required of future urban areas before development can occur and for a set of responses and protection of sites and values to be incorporated into any development (Auckland Council, 2016a). These responses include requirements for cultural landscape mapping and cultural impact assessment, as well as archaeological or heritage assessment.

Further engagement to understand the views and interests of mana whenua and mataawaka will occur as these areas move through the plan change process and as urban development commences.

Mana whenua also have an enduring role in implementation of the development strategy. Mana whenua and mataawaka will be significant urban landowners, looking to actively participate in urban development and promoting specific outcomes for Auckland, the environment and for Māori. This will be achieved through partnership, shared investment and greater involvement in decision-making.

Figure 42 Points of engagement with mana whenua




### 9.1.1 Feedback received from Māori prior to public engagement on the Auckland Plan 2050

Early engagement across all areas of the Plan consisted of:

- six hui with mana whenua representatives, between March and October 2017
- internal council engagement with Te Waka Angamua and the Independent Māori Statutory Board
- engagement with mataawaka organisations.

A summary of all early engagement feedback from mataawaka and mana whenua is included below in Table 9.

Table 9 Summary of feedback from pre-engagement with mataawakai and mana whenua

| Summary of feedback | Summary of response to feedback |
|---|---|
| • There is a need to recognise mana whenua autonomy as the basis of the relationship - this is separate from the development strategy. [i.e. mana whenua have their own development aspirations/planning documents] | • Providing for mana whenua development aspirations has been recognised in the Auckland Unitary Plan and the Māori Identity and Wellbeing outcome. |
| • Engage mana whenua in projects from scoping and include mana whenua steering of programme decisions to ensure success as Auckland grows over the next 30 years. | • The continuing kaitiaki role of mana whenua has been identified in the implementation section of the Auckland Plan 2050. Mana whenua are a key partner in the implementation of the development strategy and will be engaged in subsequent projects including structure planning in the future urban areas and Panuku development areas. |
| • Genuine and deliberate strategy creation with mana whenua. What would the development strategy look like if it reflected Te Ao Māori? | • Mana whenua input has been sought as the strategy has been developed. The continuing kaitiaki role of mana whenua has been identified in the Implementation section of the Auckland Plan 2050. |
| • How does the development strategy talk to the outcomes? From a visual perspective, there is a need to clearly demonstrate the line of sight. For example, Environment and Cultural Heritage should be reflected in the development strategy rather than the strategy supporting development for development's sake. The development strategy has to reflect how it meets the outcomes/themes. | • The quality compact approach underpins the Auckland Plan and is integrated in, and aligns with, the other outcomes, including Environment and Cultural Heritage. The Māori Identity and Wellbeing outcome has elements that can be mapped spatially that will be reflected in the Auckland Plan 2050. |
| • Need to look at promoting development strategy via a Spatial Priority Area type/precinct type approach to development rather than ad hoc. | • The draft development strategy introduces development areas within the existing urban area as a means of concentrating development and place-making efforts. |
| • No mention of "green" infrastructure for either greenfield and brownfield developments. | • There is a focus area in Environment and Cultural Heritage specifically on green infrastructure. |
| • [new development] should not be designated near historic reserves (as far as practicable) | • The identification and management (including protection) of Māori cultural heritage is addressed through the |

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|---|---|
| | Auckland Unitary Plan. |

## 9.2 Feedback received from other partners and stakeholders prior to public engagement on the Auckland Plan 2050

The Development Strategy has also been informed by feedback from partners and stakeholders, including central government, community and environmental organisations, the private sector, professional bodies and industry associations..

A common theme of the feedback received across the whole early engagement process highlighted the importance of ensuring that the Development Strategy had a strong focus on both brownfield and greenfield growth and need for sufficient supply of, and funding for, infrastructure to support growth in both these areas. The draft narrative was amended to reflect the feedback before the finalised draft version was submitted to the Planning Committee on 28 November for approval.

Engagement with partners and stakeholders occurred in two phases. The first phase of engagement occurred between May and June 2017. The purpose of this phase was to provide opportunities for early input into the direction of the plan before formal consultation. It helped test whether the identified challenges and proposed direction of the plan were valid and whether the refresh was focusing in the right areas. In the first phase for the Development Strategy 150 feedback items were received. Table 10 below provides the summary of feedback received for the phase one engagement.

**Table 10 Summary of feedback from phase one engagement**

| Phase one engagement |
|---|
| • There were concerns about population growth and impacts of growth. This was coupled with support for the compact city concept, but a need to improve development quality.<br>• People noted the need to take technological change and the uncertainty it can create into account when planning for infrastructure (e.g. solar energy and battery power uptake).<br>• Feedback was provided on the need to recognise funding shortfalls and try new ways to fund infrastructure (e.g. targeted rates and long term infrastructure bonds).<br>• There was feedback on the necessity of heritage areas to be identified and protected, including providing adequate funding and the enforcement of regulations.<br>• There was feedback on the need to recognise Auckland's reliance on Waikato resources, the effects of Auckland's growth on Waikato and to align the growth strategy with both the Waikato and the Bay of Plenty. |

The second phase of engagement occurred between July and October 2017. The key purpose of engaging partners and stakeholders was to:

- continue the conversation on Auckland's long-term future

- tell the story of what has changed since the first plan was adopted in 2012, seek their early feedback and any additional perspectives they may have
- share evidence and identify challenges and future direction
- seek their input into the drafting of the plan
- recognise the critical implementation and partnering role they will play.

Over 160 feedback items were received for the second phase engagement for the Development Strategy.

The table below provides the summary of feedback received in phase two. It also includes a column on how the feedback from targeted engagement was taken into consideration. As Table 11 below shows, the feedback received was coded by themes.

**Table 11 Summary of feedback from phase two engagement**

| **Phase two engagement** | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| **Growth: General** | |
| • Need greater emphasis on how Auckland will address growth challenges, including where growth will go and why. | • Accepted - The *Development Strategy* builds on the growth challenge highlighted across the Auckland Plan. It introduces mechanisms to sequence growth in the future urban areas and through development areas in the existing urban area. |
| • Do not simply reflect Unitary Plan – need to be more visionary. | • Accepted - The *Development Strategy* embodies a whole of plan 30 year vision based on the quality compact approach. The strategy builds on the work of the Unitary Plan, particularly capacity work. It is broader in scope incorporating outcome areas across the four well-beings. |
| • Understanding that growth issues can span multiple local boards and have implications for implementation. | • Accepted - The strategy takes an integrated approach across the region. Information from the strategy is being used in long-term planning processes. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| • Integration between the *Development Strategy* and other parts of the plan needs to be clear. | • Accepted - The outcome areas are reflected in the strategy. In particular the strategic direction that relates to quality compact urban form under *Homes and Places* provides the link to the quality compact strategy which is the basis for the *Development Strategy*. There is also linkage with one of the focus areas under the *Access and Connectivity* outcome relating to integrating land-use and transport decisions to support quality urban living. |
| • Define what is meant by 'quality compact approach' and 'considering quality first' and 'well designed'. These approaches need to be aligned across rest of the plan. | • Accepted - The strategy has been amended to better articulate that 'quality compact' incorporates both intensification of existing urban areas together with development in identified future urban areas. To address any ambiguity, the term 'quality first' has been replaced by the heading, 'embedding good design in all development'. |
| • Need to recognise protected areas of natural beauty and cultural significance and environmental sustainability. | • Accepted - The *Environment and Cultural Heritage* outcome provides for this under the focus area that protects Auckland's significant environments and sites of cultural heritage from further loss. Information on nationally and regionally significant ecological areas, environmental constraints, landscapes, areas of historic heritage value and natural features are shown on maps in the plan. These protected areas were critical considerations in work for the Unitary Plan and subsequent thinking on development areas and future urban sequencing. The *Development Strategy* discusses "environmental outcomes are enhanced" as being an important feature of the quality compact approach to growth. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| **Growth: Urban** | |
| • We need complete communities. | • Accepted in part - The term complete communities is not used in the Development Strategy. However, the strategy incorporates elements of complete communities, such as a diverse mix of activities and services based around a walkable catchment and future business growth occurring through the intensification of centres. |
| • Retention of The Southern Initiative and opportunity for the model to be applied to the West. | • Accepted - The Southern Initiative remains a programme which coordinates investment to bring about transformational change to improve community outcomes in the south. Similar initiatives for other parts of Auckland which are challenged by high social need and low accessibility will be progressed through the Long-term plan process. |
| • Recognise the importance of Manukau as more than a metro centre | • Accepted in part - The significant role that Manukau plays in the south has been identified in the quality compact approach. Manukau is shown, along with the city centre, Albany and Westgate as a node. These nodes with their large catchments have ability to accommodate substantial growth. |
| • Strengthen story of brownfield growth (i.e. not just greenfield), where development is and will occur and infrastructure requirements needed. | • Accepted - Specific brownfield locations, “development areas”, have been identified in existing urban areas that are expected to experience a significant amount of housing and business growth. Current or planned infrastructure capacity was one of the factors considered in prioritising these areas. |
| • Understanding potential for redevelopment of key brownfield sites, including opportunities for affordable housing. | • Accepted - Identifies brownfield development opportunities. The *Homes and Places* outcome places particular emphasis on the issue of affordable housing. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| • Needs to incorporate a plan for renewal of small town centres (for example, Glen Eden). | • Accepted - A number of town centres in the existing urban area, including Glen Eden, have been identified as development areas. These areas are expected to experience a significant amount of housing and business growth. Supporting infrastructure will be prioritised in line with development occurring. |
| **Growth: Business** | |
| • Need to focus on protecting land for existing and future industry and commercial with a variety of employment opportunities, spread throughout the region to limit long commutes and dormitory suburbs. | • Accepted - The multi-nodal approach focuses employment opportunities around the city centre, Albany, Westgate and Manukau. This supports more people working or studying closer to where they live. Important employment land, including industrial land, is identified in both existing and future urban areas. The future quantity, type and location of business land is uncertain and it is acknowledged that flexibility is needed. |
| • Need to understand the differences between the sub-regional business areas (for example, industrial in south, different in north?) and business trends to encourage higher density business areas and jobs close to where people live. | • Accepted - Acknowledges that there are different uses across Auckland and an uneven distribution of jobs. Discusses the advantages of supporting uses including housing locating close to business areas. |
| • Outline port relocation and its implications | • Accepted in part - Information provided that acknowledges that in the long-term a new or expanded port option will be needed. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| **Growth: development areas** | |
| • Concern that Manurewa-Papakura in decade 3 [not accepted].<br>• Concern Silverdale and Browns Bay not included in development areas in decade 1 [not accepted].<br>• Disagree with timing of Henderson.<br>• Growth not happening in Takapuna but it is identified as a development area.<br>• How development areas will be funded – public/private.<br>• Move all funded development project to the first 3 years. | • Accepted in part - Development areas have now been redefined following further assessment work. Takapuna is included as a development area (years 1-3) as it has a high development potential and Panuku has identified this area as an “unlock” priority area. Henderson is now listed in the first decade, this responds to information about Panuku projects and the timing of the City Rail Link. The revised list does not include Manurewa, Papakura, Silverdale, or Browns Bay. These did not meet the development area criteria. Public and private involvement will be needed to progress development areas. |
| **Growth: Future urban areas** | |
| • Concerns about urban sprawl via greenfield areas in Unitary Plan, contrary to the quality compact approach. | • Accepted - Embodies a whole of plan 30 year vision based on the quality compact approach. The Development Strategy incorporates the approach from the Future Urban Land Supply Strategy of managed expansion of future urban areas through timing and sequencing of growth. It also recognises the importance of structure planning processes and aligning land use and infrastructure delivery. |
| **Growth: Aligning growth and infrastructure** | |
| • Focus Council investment in areas where high growth is happening or planned. Prioritise critical infrastructure upgrades for older areas of Auckland to cope with current demand and planned intensification, and ensure transport and water infrastructure is in place prior to enabling growth. | • Accepted - Emphasises alignment of land use and infrastructure. Recognises that the timing of growth with infrastructure investment need to be coordinated to maximise efficient utilisation of networks. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| **Growth: Capacity for growth** | |
| • National Policy Statement on Urban Development Capacity (NPS-UDC) requirements should be incorporated into the Development Strategy.<br>• Opportunity to collaborate amongst Upper North Island on NPS-UDC be included. | • Accepted - It is intended that the Development Strategy will also meet the Future Development Strategy required by the NPS-UDC. Further work including updated supply and demand information is being finalised and will be incorporated into the Development Strategy. The context section of the plan discusses inter-regional collaboration and opportunities for integrated land use and infrastructure planning. |
| **Growth: Infrastructure** | |
| • Important to ensure supply of, and funding for, sufficient infrastructure to support growth in brownfield and greenfield areas, including open space, transport, stormwater, wastewater and community facilities/social infrastructure that reduce the impact on streams and harbours over the next 30 years. | • Accepted - Noted in the infrastructure section which includes infrastructure network maps. The plan guides long term needs for infrastructure. Council's Long-term Plan including its 30 year Infrastructure Strategy determines funding. Social infrastructure is also addressed in the *Belonging and Participation* outcome. |
| • Look at new tools to fund development e.g. targeted rates. | • Accepted - This has been included in the plan implementation section. |
| • Past investment decisions which have resulted in sub-regional disparities in performance in some areas. | • Accepted - Acknowledged in the infrastructure section, and will inform infrastructure prioritisation and levels of service and the council's long-term plan. |
| • Different communities have different challenges and require different infrastructure provision. | • Accepted - Infrastructure section notes that a 'one size fits all' approach is not suitable. |
| **Rural** | |
| • Need to be clear about differences between rural and urban issues, rural diversity, and sufficient consideration given to the rural areas, and rural and coastal communities. | • Accepted - The strategy for rural and urban Auckland is different. Growth in rural Auckland will be focused mainly in the larger towns. It will be undertaken in a manner that maintains and enhances the character of rural towns and villages and supports rural production activities. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| • Rural infrastructure requirements need to be addressed, including the impact on infrastructure from growing numbers of visitors. | • Accepted - Infrastructure investment is needed to keep up with the pace and scale of growth and a one size fits all approach is not suitable given the diversity of Auckland. Infrastructure in the rural satellite towns of Pukekohe and Warkworth is currently being addressed through structure planning which will result in infrastructure solutions being found to enable the desired growth here. Growth in visitors to rural areas and the impact on infrastructure requires further investigation. |
| • Greater emphasis on significant growth impact and change happening in outlying areas. | • Accepted - The Hauraki Gulf Islands are included in the plan. The Development Strategy outlines the approach for growth in rural Auckland. The Hauraki Gulf Islands review will be informed by the Unitary Plan and the refreshed plan's rural approach. |
| • Concern of loss of arable land to sprawl. | • Accepted - The strategy for rural Auckland emphasises the need to keep rural land productive, protected and environmentally sound, including the safeguarding of elite and prime soils. The quality compact approach looks to make more efficient use of land, maintain rural character and productivity and enhance environmental outcomes. |
| • Reverse sensitivity impacts on rural production from increasing urban expansion. | • Accepted - Reverse sensitivity has been highlighted as an issue that needs managing in rural areas. The Unitary Plan contains specific provisions to address the reverse sensitivity effects that rural residential development can have on rural production activities. The Development Strategy quality compact approach looks to make more efficient use of land, maintain rural character and productivity and enhance environmental outcomes. |

| Phase two engagement | |
|---|---|
| **Summary of feedback by theme** | **Summary of response to feedback** |
| **Cross-Boundary Issues** | |
| • Request to include wider picture of Auckland's role in the Upper North Island and in New Zealand. | • Accepted - The Importance of Auckland's role in the Upper North Island and New Zealand is included in the introductory section of the plan. |
| • Requests Auckland continue to work collaboratively on cross-boundary issues both north and south including growth, transport, community infrastructure and demand for industrial land. | • Accepted - Acknowledges cross boundary issues and the need to work with other councils on these issues. The council continues to meet and collaborate with other councils. |

# 10 Public consultation on the draft Auckland Plan 2050

Auckland Council's Planning Committee approved the draft Auckland Plan 2050 for consultation in November 2017. Formal consultation on the draft plan took place from 28 February to 28 March 2018, alongside the draft 10-year Budget. The material to support consultation was available online and in libraries, service centres and local board offices. It included a combined Auckland Plan 2050 and 10-year Budget consultation document, the draft Auckland Plan website (the digital plan), an overview document with translations, and full print versions of the whole draft plan. Feedback was provided in writing (including via an online feedback form), in person (over 50 Have Your Say events) and via social media.

The consultation document contained the following statement and question on the Development Strategy:

*Auckland has to provide for around 740,000 more people in the next 30 years, which would mean another 320,000 dwellings and up to 270,000 extra jobs. The Auckland Plan proposes to manage long-term population growth by prioritising development in existing urban areas and establishing new communities and new business land in future urban areas. Investment in Auckland's infrastructure will need to keep up with the pace and scale of growth.*

*Do you think the proposed approach for enabling growth will effectively provide for Auckland's future?*

There were 14,613 public written submissions on the Development Strategy. Of these, 44 per cent agreed with the proposed approach, 37 per cent partially agreed, 17 per cent did not agree, and 2 per cent provided commentary but did not tick one of the yes/no/partial boxes.

Of the 554 comments received in-person, 26 per cent agreed with the approach proposed in the Development Strategy, 13 per cent partially agreed, 12 per cent did not agree and 49 per cent provided commentary but did not tick one of the yes/no/partial boxes.

Council controlled organisations also provided feedback (Panuku, Watercare, Auckland Transport and Auckland Tourism, Events and Economic Development). Central Government provided feedback through a series of collaborative workshops, held between Central Government agencies and Auckland Council.

Table 12 provides a summary of feedback received and our response to the feedback.

Table 12 Summary of feedback received from public engagement

| Phase three public engagement | |
|---|---|
| **Feedback theme** | **Summary of response to feedback** |
| **Balance of growth** | |
| • Significant feedback asked for a specific target to guide balance of growth. | • Plan promotes intensification opportunities and states that by 2050 most growth will have occurred within the urban footprint. No change recommended. |
| **Quality of intensification** | |
| • Concerns regarding perceptions of poor quality of development.<br>• Concerns about social impacts of intensive development, for example quality of life effects such as congestion, built environment dominance, amenity, noise, air pollution.<br>• Developments should be guided by the Auckland Design Manual. | • Existing text in the Development Strategy and the Homes and Places outcome incorporate directions on quality, including reference to the council's design manual. No change recommended. |
| **Decentralisation of growth outside Auckland** | |
| • Significant feedback that some of Auckland's growth (housing and business) be accommodated elsewhere, particularly along transport corridors from Auckland to Hamilton and, to a lesser extent, Auckland to Whangarei. | • Auckland Council has had informal discussions with adjacent and high growth councils regarding assessments of development capacity. Add text to reflect this in Implementation section. |
| **Multi-nodal model** | |
| • General support for multi-nodal model as a tool to focus investment decisions.<br>• Clarification sought on role of nodes, including city centre and how they relate to other aspects of the Auckland Plan and the Auckland Unitary Plan.<br>• General support for concept of rural nodes / satellite towns combined with concerns over possible negative impacts on congestion.<br>• Suggestions for additional satellite towns, e.g. Helensville. | • Text changes to supporting information on nodes, including timeframes, anticipated growth expected and geographical areas.<br>• Making it clear that city centre includes city fringe areas.<br>• Transport requirements, including in future urban areas and rural settlements, are addressed in Transport and Access outcome; further work will be through structure planning and plan changes.<br>• Helensville does not have capacity for business and residential growth to quality as a rural node. |

| Growth in development areas | |
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| • General support for development areas.<br>• Amendments to reflect new information put forward by central government on various development proposals.<br>• Many of the changes suggested were to either bring areas forward to start in years 1-3, to amend boundaries of some development areas, and to include new areas with large scale, medium to long term redevelopment potential (areas mainly in the south).<br>• Requested additional development areas and changes to proposed development areas:<br>• Glen Eden – bring forward to years 1-3 or 4-10, instead of 11-30<br>• Sylvia Park – bring forward to years 1-3.<br>• Mt Roskill, Mangere, Otara and Oranga – include as development areas and amend timing to align with the Auckland Housing Programme<br>• Papakura - include as a development area.<br>• Intensification in areas such as Remuera, Mt Albert, Herne Bay, Ponsonby, Grey Lynn and Freemans Bay should be included. | A number of additions and changes are made to location and timing of development areas including the following:<br>• Bring Glen Eden forward to year 4-10 timeframe to reflect natural progression of growth expected in west Auckland.<br>• No change to Sylvia Park timeframe – commercial development underway and residential development expected to progress later in years 4-10.<br>• Change timing and spatial extent for the Mt Roskill, Mangere and Oranga development areas to reflect Housing New Zealand and HLC's latest Auckland Housing Programme areas and timing.<br>• Include Papakura, Manurewa, Clendon and Otara as a new development area in years 11 – 30.<br>• Add supporting information to provide more detail on existing urban areas that are not identified as nodes or development areas. |
| **Provide infrastructure before growth in future urban areas** | |
| • Need to provide infrastructure before growth occurs.<br>• Some concerns that too much future urban land released without infrastructure provision. | • No change required – the Future Urban Land Supply Strategy sets up a programme to align delivery of development ready land where the necessary bulk infrastructure and zoning is in place prior to development commencing. |
| **Timing and sequencing of future urban areas** | |
| • Support for controlled greenfield expansion.<br>• Request to bring forward Maraetai 2 area to align with Maraetai 1.<br>• Amend sequencing to include Wainui Triangle land ready for development in years 1-3 to reflect infrastructure | • No change – timing and sequencing reflect the Future Urban Land Supply Strategy adopted in July 2017. |

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| committed and planned for Wainui East and to relate to sequencing of urbanisation for Wainui East.<br>• Bring Drury Stage 1 timing and sequencing forward to 2018-2022 timeframe to reflect structure planning progress.<br>• | |
| **Other future urban areas feedback** | |
| • Request changes to the location and hierarchy of centres to reflect the Drury Structure Plan process.<br>• Remove 'indicative centres' for future urban areas from maps because the location could change through the structure planning process.<br>• Request changes to acknowledge that services and facilities in existing urban areas could provide for future urban communities' needs, without the need for duplicating these in developing future urban areas. | • Add a reference to the Auckland Unitary Plan to reflect the importance of structure planning.<br>• No change to 'indicative centres' as they are clearly labelled as indicative on the maps indicating that changes are possible through the structure planning process.<br>• No change - through structure planning, consideration will be given to integrating facilities in the existing urban area where immediately adjacent to future urban areas. |
| **Flexible and adaptable business areas** | |
| • Support for the proposed approach to managing business land, particularly for safeguarding important industrial land.<br>• Some concerns about the impact of reverse sensitivity on industrial uses.<br>• Request for buffer zones around areas expecting significant housing and business growth.<br>• Support for employment areas outside of the city centre.<br>• | • No change in relation to reverse sensitivity or buffer areas - Auckland Unitary Plan sets out land use zoning across Auckland and provides details to manage how areas are to be used, developed or protected.<br>• Reference the role of nodes in improving choice in employment location. |
| **Building strong urban centres and neighbourhoods** | |
| • Request the role of centres is strengthened.<br>• Request reference to the existing hierarchy of centres.<br>• Support for intensification around public transport and requests to include reference to transit orientated developments. | • Amendments to strengthen the role of centres and reference the existing hierarchy of centres.<br>• Transit orientated development is a core principle built into and described in the Development Strategy and the Transport and Access outcome. |

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| **Approach to rural growth** | |
| • Support both for limiting residential growth in rural areas and for providing for growth in rural areas.<br>• Support for protection of rural production land and to ensure it can continue and develop.<br>• Highlight the recreation, nature, and other benefits of rural areas and suggested that these needed to be acknowledged, provided for and protected. | • Changes to reflect the need to limit residential growth in rural areas because of reverse sensitivity and fragmentation concerns and their effect on rural production.<br>• Changes to clarify that residential growth should be limited, not rural production.<br>• The Auckland Unitary Plan and other outcome areas of the Auckland Plan focus on wellbeing resulting from the natural environment and sport and recreation. |
| **Quarries** | |
| • Request that quarries are given a stronger emphasis.<br>• Request that Lake Road quarry at Te Arai is shown on the maps. | • No change - the rural section of the Development Strategy acknowledges the importance of minerals and aggregates to the future development of Auckland.<br>• Lake Road quarry is not identified as a Special Purpose Zone – Quarry in the Auckland Unitary Plan. No change is recommended. |
| **Aligning growth and infrastructure** | |
| • Concern about growth occurring without adequate or timely investment in infrastructure.<br>• Concern about the need to address Auckland's infrastructure deficit.<br>• Include reference in the Development Strategy to requiring two new hospital sites to meet expected demand. | • No change – the plan sets out strategic infrastructure networks, development areas and future urban areas and this is intended to improve the alignment, in terms of both location and timing, of growth and infrastructure investment.<br>• Include further text to signal that two additional hospital sites in the north and south will be required in the future. |
| **Infrastructure investment** | |
| • Concern about the ability of council to fund the infrastructure needed to support growth while also addressing existing infrastructure deficits. | • Changes to place further emphasis on the link between the Development Strategy and the 30-year Infrastructure Strategy, and recognise a broader range of drivers for infrastructure investment. |
| **Infrastructure definition/scope** | |
| • Feedback requested the need for further recognition of non-council and social infrastructure, such as parks, arts and cultural facilities. | • Changes to place further emphasis on non-council infrastructure, including amending the definition of 'infrastructure' to clarify that it includes |

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| | social infrastructure, such as facilities that support participation in arts and culture. |
| **Strategic networks / planned investments** | |
| • Changes to the strategic network maps and updating the maps to reflect ATAP 2. | • It is recommended the maps are updated with the most recent information, such as the 2018 ATAP update. |
| **Population growth, change, development capacity and National Policy Statement on Urban Development Capacity** | |
| • Concern about the accuracy of population and growth projections.<br>• Concern raised about whether enough capacity has been enabled to meet demand.<br>• Suggestions to amend and clarify parts of the Development Strategy to meet the National Policy Statement on Urban Development Capacity.<br>• Changes relate to the Development Strategy fulfilling the requirements of the Future Development Strategy for Auckland. | • No changes are required to address this concern as the Auckland Plan 2050 and the council's Long-term plan both use the medium population projections to plan for growth.<br>• Changes to clearly reference demand and the associated minimum targets for housing development capacity and to address the sufficiency of feasible development capacity levels.<br>• Amend explanatory text to demonstrate how the requirements of the National Policy Statement will be met.<br>• Include more detailed information on the broad location, timing and sequencing of future development capacity in the medium and long term in both future urban environments and through intensification opportunities.<br>• Include additional information on anticipated timeframes of enabling infrastructure projects. |
| **Monitoring and implementation** | |
| • Request a greater level of detail on how the council monitors and reports on growth across Auckland.<br>• Support for joint implementation plan with central government and council.<br>• Multiple agencies can drive implementation in different locations and benefit to having clear delineation of roles and responsibilities. | • No change- A programme of monitoring and regular reporting has been set up to better meet the National Policy Statement on Urban Development Capacity requirements. This complements the monitoring programme for the Development Strategy and the Future Urban Land Supply Strategy 2017. |

# References


Auckland Council. (2011). *Auckland Plan Technical Report: Scenario Evaluation.*

Auckland Council. (2012a). *The Auckland Plan.* Available at https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/Pages/auckland-plan.aspx [accessed 21/02/2018]

Auckland Council. (2012b). *Auckland's Economic Development Strategy.* Available at http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/theaucklandplan/economicdevelopmentstrategy/Pages/home.aspx [accessed 21/02/2018]

Auckland Council. (2013). *Proposed Auckland Unitary Plan Section 32 report*, Rural Urban Boundary. Auckland Council. Pages 2, 15, 16. Available at. http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/unitaryplan/Documents/Section32report/2.2%20RUB%20Location%20v3%202013-09-16.pdf [accessed 22/01/2018]

Auckland Council. (2015a). *Auckland 30-year Infrastructure Strategy 2015.* Section 6.8

Auckland Council. (2015b). *Community Facilities Network Plan 2015-2025.* Available at https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/community-social-development-plans/docscommunityfacilities/community-facilities-network-plan.pdf [accessed 21/02/2018]

Auckland Council. (2015b). *Community Facilities Strategic Asset Management Plan 2015-2025.* Available at https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/docsassetmanagementplan/community-facilities-strategic-asset-management-plan.pdf [accessed 21/02/2018]

Auckland Council. (2015d). *Open Space Strategic Asset Management Plan 2015-2025.* Available from https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/docsassetmanagementplan/open-space-strategic-asset-management-plan.pdf [accessed 21/02/2018]

Auckland Council. (2015e). *Stormwater Asset Management Plan 2015-2045.* Available from https://www.aucklandcouncil.govt.nz/environment/stormwater/docsassetmanagementplan/stormwater-asset-management-plan-2015-2045.pdf [accessed 21/02/2018]

Auckland Council. (2015f). *Future Urban Land Supply Strategy*, page 4.

Auckland Council. (2015g). *Adoption of the Future Urban Land Supply Strategy.* Available from http://infocouncil.aucklandcouncil.govt.nz/Open/2015/11/AUC_20151112_AGN_5982_AT_WEB.HTM [accessed 21/02/2018]

Auckland Council. (2015h). *Long-term Plan 2015-2025.* Available at https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/budget-plans/our-10-year-budget/aucklands-10-year-budget-2015-2025/Pages/full-2015-2025-budget.aspx [accessed 12/07/2018]

Auckland Council. (2016a). *Auckland Unitary Plan, Operative in part.* For business, see: B2 urban growth and form & B2.9. For rural, see section B7. For mana whenua see: B6.5.2.7. Available from: https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/Pages/default.aspx [Accessed: 17/11/2017]

Auckland Council. (2016b). *Auckland Council Group Housing Activity Stocktake.* Auckland Development Committee 14 April 2016, Item 13, Appendix A. Available at http://infocouncil.aucklandcouncil.govt.nz/Open/2016/04/AUC_20160414_AGN_6414_AT_WEB.HTM [accessed 21/02/2018]

Auckland Council (2016c). Governing Body adoption of the IHP recommendations on the Proposed Auckland Unitary Plan. 10/08/2016. Available at http://infocouncil.aucklandcouncil.govt.nz/Open/2016/08/GB_20160810_MIN_6662_WEB.HTM [accessed 21/02/2018]

Auckland Council (2016d). *Report to Auckland Council, Hearing Topic 11 Rural environment*, July 2016, Auckland Unitary Plan Independent Hearing Panel. Available at: http://temp.aucklandcouncil.govt.nz/EN/planspoliciesprojects/plansstrategies/unitaryplan/Documents/ihprecommendations/ihp011ruralenvironment.pdf [date accessed 18/1/18]

Auckland Council (2016e). *Auckland Plan Targets Monitoring Report 2016*. pp72-73. Available at http://temp.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/planspoliciespublications/technicalpublications/tr2016042aucklandplantargetsmonitoringreport2016.pdf [accessed 21/02/2018]

Auckland Council. (2016f). *Open Space Provision Policy 2016.* Available from https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-policies/Documents/open-space-provision-policy.pdf [accessed 21/02/2018]

Auckland Council, (2016g). *Whenuapai Structure Plan.* Available from: https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/Pages/whenuapai-structure-plan.aspx [accessed 26/02/2018]

Auckland Council. (2016h). *The Health of Auckland's Natural Environment in 2015*. Available from: https://www.aucklandcouncil.govt.nz/environment/state-of-auckland-research-report-cards/Documents/stateofenvironmentreport2015.pdf [accessed 31/05/18]

Auckland Council. (2017a). Adoption of the Refreshed Future Urban Land Supply Strategy. Available from: http://infocouncil.aucklandcouncil.govt.nz/Open/2017/07/PLA_20170704_AGN_6723_AT_WEB.htm [accessed 21/02/2018]

Auckland Council. (2017b). *Future Urban Land Supply Strategy*. Available from: https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/housing-plans/Pages/default.aspx [Accessed 20/02/2018]

Auckland Council. (2017c). *Mayoral Housing Taskforce report.* Available from: https://www.aucklandcouncil.govt.nz/mayor-of-auckland/mayor-priorities/Documents/house-taskforce-report.pdf [accessed 20/02/2018]

Auckland Council. (2017d). *Place-based Spatial Planning Update and Future Programme*. Auckland Development Committee 1 August 2017, Item 12. Available at http://infocouncil.aucklandcouncil.govt.nz/Open/2017/08/PLA_20170801_AGN_6724_AT_WEB.htm [accessed 21/02/2018]

Auckland Council (2017e). *Proposed Auckland Council submission on the National Environmental Standard for Marine Aquaculture*. Aug 2017. Available at http://infocouncil.aucklandcouncil.govt.nz/Open/2017/08/PLA_20170801_AGN_6724_AT.htm [date accessed 18/1/18]

Auckland Council (2017f). *Upper Harbour Local Board Plan 2017*. Available at https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/Documents/upper-harbour-local-board-plan-2017.pdf [accessed 21/02/2018]

Auckland Council, (2017g). *National Policy Statement on Urban Development Capacity 2016: Housing and business development capacity assessment for Auckland.* Available at http://www.knowledgeauckland.org.nz/publication/?mid=1781 [accessed 21/02/2018]

Auckland Council. (2018a). *Auckland Plan Development Strategy Annual Implementation Update* 2016/17, Retrieved from http://www.knowledgeauckland.org.nz/publication/?mid=1784 [Accessed 8/02/2018]

Auckland Council. (2018b). *Draft Auckland 30-year Infrastructure Strategy 2018.* Available from *http://infocouncil.aucklandcouncil.govt.nz/Open/2018/02/GB_20180221_ATT_7615_PLANS_WEB.htm* (Attachment D).

Auckland Council (2018c). *Draft Auckland Plan 2050*. Available at: https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/ak-have-your-say/Pages/default.aspx/

Auckland Council Chief Economist Unit. REINZ. Reserve Bank of New Zealand (2017). *Serviceability Affordability Model.* First published in *Auckland Economic Quarterly,* (Feb 2017). Available at https://ourauckland.aucklandcouncil.govt.nz/media/11399/chief-economist-auckland-economic-quarterly-february-28-2017.pdf [Accessed 15/12/2017]

Auckland Council Rural Advisory Panel. (2011). *A rural view: Rural Advisory Panel submission to Auckland Unleashed*. See Appendix 3: The economic contribution of Auckland's agricultural sectors to the Auckland economy. Available at http://temp.aucklandcouncil.govt.nz/SiteCollectionDocuments/aboutcouncil/localboards/franklinlocalboard/meetings/franklinlbaddag20110920.pdf [accessed 21/02/2018]

Auckland Regional Council, (1999). *Regional Policy Statement.* Policy 2.6.2. Available at http://www.aucklandcity.govt.nz/council/documents/regionalplans/aucklandcouncilregionalpolicystatement/ACRPS%20Chapter%202.pdf [accessed 20/01/2018]

Auckland Regional Growth Forum (1999). *A place sought by many, a brief history of regional planning for Auckland's growth.* Auckland Regional Council. Available at: http://www.waitakere.govt.nz/abtcit/ei/pdfs/urbanstudies/placesoughtbymany.pdf [accessed 26/02/2018]

Auckland Regional Growth Forum (2007). *Growing Smarter – an evaluation of the Auckland Regional Growth Strategy*, Auckland Regional Growth Forum. Available at http://knowledgeauckland.org.nz/publication/?mid=726& [accessed 26/02/2018]

Auckland Tourism, Events and Economic Development and New Zealand Institute of Economic Research. (2017). *Advanced Industries, Auckland's Opportunity.* Retrieved from https://www.aucklandnz.com/sites/build_auckland/files/media-library/documents/J000922_Paper_1_FINAL_Advanced_industries.pdf [date accessed: 17/11/2017]

Auckland Tourism, Events and Economic Development. (2017a).*Auckland Growth Monitor, October 2017.* Retrieved from https://www.aucklandnz.com/sites/build_auckland/files/media-library/documents/Auckland-Growth-Monitor.pdf [date accessed 18/1/18]

Auckland Tourism, Events and Economic Development (2017b). *Auckland Visitor Plan 2021* pp26-27. Retrieved from https://www.aucklandnz.com/sites/build_auckland/files/media-library/documents/Auckland_Visitor_Plan_2021_-_September_2015_1.pdf [date accessed 18/1/18]

Auckland Tourism, Events and Economic Development & Pānuku Development Auckland (2006). *Manukau Economic Draft Paper 3.0.*

Auckland Transport. (2105). *City Rail Link: Business Case.* Retrieved from https://at.govt.nz/media/1872988/at150458-crl-business-case_-whole-document_web2.pdf [date accessed 15/07/2018]

Auckland Transport (2018). *The Rapid Transport Network.* Available at https://at.govt.nz/about-us/transport-plans-strategies/rapid-transit-network [date17 /01/2018].

Byrne, J & Sipe, N (2010). *Green and open space planning for urban consolidation – A review of the literature and best practice*, Griffith University, Urban Research Program Issues Paper 11.

Carden, S (2017). *Our land will have more crops and fewer hooves on it*. New Zealand Herald. 20/4/17. Retrieved from http://www.nzherald.co.nz/opinion/news/article.cfm?c_id=466&objectid=11840894 [date accessed 18/1/18]

City Rail Link Limited. (2018). *Travel Times.* Retrieved from https://www.cityraillink.co.nz/crl-travel-times/ [date accessed 20/02/2018]

Coppola, M (2016). *Food, tourism, and culture: the keys to success of a global trend*. Available at https://www.trekksoft.com/en/blog/food-tourism-culture-keys-success-global-trend [date accessed 18/1/18]

Creswell, P (2014). *Snapshot of Aquaculture in the Hauraki Gulf.* Presentation to Aquaculture Roundtable on behalf of Ministry for Primary Industries. 22 Aug 2014. Pg4. Available at http://www.seachange.org.nz/PageFiles/387/Paul%20Creswell%20-%20Snapshot%20of%20Aquaculture%20in%20the%20Hauraki%20Gulf.pdf [date accessed 18/1/18]

Curran-Cournane, F, Vaughan, M & Fredrickson, C (2014) *Trade-offs between high class land and development: Recent and future pressures on Auckland's valuable soil resources.* Land Use Policy. Issue 39. Pages 146–154. Available at https://www.researchgate.net/publication/262490734_Trade-offs_between_high_class_land_and_development_Recent_and_future_pressures_on_Auckland%27s_valuable_soil_resources [accessed 21/02/2018]

Curran-Cournane, F, Golubiewski, N & Buckthought, L. (2018). *The odds appear stacked against versatile land: can we change them?* New Zealand Journal of Agricultural Research, DOI: 10.1080/00288233.2018.1430590.

Design Council. (2013). *Design Review: Principles and Practice.* Available at https://www.designcouncil.org.uk/sites/default/files/asset/document/DC%20Cabe%20Design%20Review%2013_W_0.pdf

Dixon, S. (2014). Comparing Urban Footprints*. Geography Education.* Available at https://geographyeducation.org/articles/comparing-urban-footprints/ [accessed 23/11/2017]

Fairgray, D (2015). *Proposed Auckland Unitary Plan, Independent Hearings Panel evidence on topic 028 Future Urban.* On behalf of Auckland Council. 20/02/2015

Galloway, J (2017). *KMPG expert Ian Proudfoot warns farmers they face a much different future.* Published in NZ Farmer, 11/4/2017. https://www.stuff.co.nz/business/farming/91298783/kmpg-expert-ian-proudfoot-warns-farmers-they-face-a-much-different-future [accessed 18/1/18]

Gas Industry Co. (2016). *The New Zealand Gas: fifth edition.* Available from http://gasindustry.co.nz/dmsdocument/5344 [Accessed 20/02/2018]

Gillingham, A (2008). *'Soils and regional land use - South Auckland, Waikato, Coromandel, Bay of Plenty*', Te Ara - the Encyclopedia of New Zealand, Available at: http://www.TeAra.govt.nz/en/soils-and-regional-land-use/page-3 [accessed 21/02/2018]

Gray, J (2017a). *Urban sprawl and the land that keeps on giving*, article in New Zealand Herald, 17 November 2017. Available at http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11944763 [date accessed 18/1/18]

Gray, J (2017b). *More food options urges US mogul*, article in New Zealand Herald, 6 December 2017. Available at https://www.pressreader.com/new-zealand/the-new-zealand-herald/20171206/282144996676542 [date accessed 18/1/18]

Greater London Authority (2016). *The London Plan*, www.london.gov.uk [accessed 21/02/2018]

Government of Canada, (2018). *A Food Policy for Canada* Retrieved from https://www.canada.ca/en/campaign/food-policy.html [date accessed 18/1/18]

Hallak, E. (2014). The social and spatial structure of urban and regional systems. *MUPD 652: Theory on Urban Form and Design.* Available at: https://urbandesigntheory.wordpress.com/2014/12/31/the-social-and-spatial-structure-of-urban-and-regional-systems/ [Accessed 20/02/2018]

Harding, A; Powell, F. (2010) *Where retailing and transport merge: Implications for New Zealand's future urban forms*. Available at https://www.planning.org.nz/Folder?Action=View%20File&Folder_id=185&File=Harding_Powell.pdf [accessed 22 Jan 2018]

Harris, C (2011). *The Ticky Tacky, Death of A Dream*. Published in *Metro* magazine, June 2011. (pp 54-59).

Hill, G. (2008). *The Effectiveness of the Auckland Metropolitan Urban Limit – Ring-fencing Urban Developmen*t, Environmental Defence Society Conference, June 2008, Page 11

Horticulture New Zealand, Pukekohe Vegetable Growers Association (2014). *Submission to Proposed Auckland Unitary Plan*. Available at http://www.hortnz.co.nz/assets/Natural-Resources-Documents/HortNZ-PAUP-Submission.pdf [date accessed 18/1/18]

Horticulture New Zealand, (2016) *Fresh Facts: NZ Horticulture.* Retrieved from http://www.freshfacts.co.nz/files/freshfacts-2016.pdf [date accessed 18/1/18]

Horticulture New Zealand, (2017a) *New Zealand domestic vegetable production: the growing story.* Retrieved from http://www.hortnz.co.nz/assets/Media-Release-Photos/HortNZ-Report-Final-A4-Single-Pages.pdf [date accessed 18/1/18]

Horticulture New Zealand, (2017b) *The story of fresh fruit and vegetables – from the seed to your plate.* Available at http://www.hortnz.co.nz/news-events-and-media/media-releases/the-story-of-fresh-fruit-and-vegetables-from-the-seed-to-your-plate/ [date accessed 18/1/18]

Horticulture New Zealand (2017c). *New Zealanders want country of origin labelling on fruit and veges.*. 9/3/17. Retrieved from http://www.hortnz.co.nz/news-events-and-media/media-releases/new-zealanders-want-country-of-origin-labelling-on-fruit-and-veges/ [accessed 18/1/18]

Housing New Zealand Corporation. (2018). *Auckland Housing Programme.* Available at https://www.hnzc.co.nz/housing-developments-and-programmes/auckland-housing-programme/ [accessed 20/02/2018]

Hulusjo, N (2010). Cities – Shopping Malls or Places for Everyone? Published in *Urban News.* Swedish National Heritage Board. pp 38-41 Available at http://samla.raa.se/xmlui/bitstream/handle/raa/149/9789172095656.pdf [accessed 22/01/2018]

Independent Māori Statutory Board (2012). *The Māori Plan for Tamaki Makaurau*. Pages 12-13. Available at http://knowledgeauckland.org.nz/assets/publications/Maori-Plan-for-Tamaki-Makaurau-2012-IMSB.pdf [Accessed 23/11/17]

Infometrics (2016). *Auckland Economic Profile.* Available at https://ecoprofile.infometrics.co.nz/Auckland [accessed 18/1/18]

Johnston, D & Shaw, D (2017). *NZ fruit & vegetable sector urged to watch consumer trends* Rabobank Ltd. Available at https://www.rabobank.co.nz/media-releases/2017/170717-nz-fruit-and-vegetable-sector-urged-to-watch-consumer-trends/ [date accessed 18/1/18]

Knight Foundation (2017). *Soul of the Community. https://knightfoundation.org/sotc* [accessed 21/02/2018]

KPMG New Zealand (2017), *Agribusiness agenda 2017: A recipe for action.* Retrieved from https://home.kpmg.com/content/dam/kpmg/nz/pdf/June/agri-agenda-2017-kpmg-nz.pdf [date accessed 18/1/18]

Lin,D., Allan, A.,Cui, J. and McLaughlin, R. (2017). *The effects of polycentric development on commuting patterns in metropolitan areas*. Available from http://www.regionalstudies.org/uploads/Dong_Lins_Final_Paper_for_RSA_Beijing_Global_Conference_of.pdf [accessed 21/02/2018]

Local Government (Auckland Council) Act 2009. s76. *A Spatial Plan for Auckland*. Available at: http://www.legislation.govt.nz/act/public/2009/0032/latest/DLM3338660.html [Accessed 25/11/2017]

Martin Jenkins, Infometrics (2016). *Upper North Island key industry sector trends to 2015 and labour forecasts to 2020: Final Report, Sector Analysis and Forecasts*. Martin Jenkins for Upper North Island Strategic Alliance. Available at https://www.waikatoregion.govt.nz/assets/PageFiles/20345-UNISA/key%20sector%20trends_sector_analysis_final.pdf [date accessed 18/1/18]

Mackay, D. (2012). *Auckland Plan Technical Report – Centres and Corridors*. Auckland Council.

Mackay, D. (2014). *Proposed Auckland Unitary Plan, Independent Hearings Panel evidence on the Rural Urban Boundary.* On behalf of Auckland Council. 14/10/2014. Available from https://hearings.aupihp.govt.nz/online-services/new/files/RQ31VWDX4twfEgOFxBU0Ls6eDu4vnsSdjnFvnIMpcIRQ. [accessed 21/02/2018]

Market Economics. (2016). *PAUP Business Land: Summary of Land Demand by Activity and PAUP Supply*. Pages 10, 12-13. Retrieved from https://hearings.aupihp.govt.nz/programmes/ListProgrammeEvents?id=1 [date accessed: 17/11/2017]

McKinsey Global Institute. (2017). *A Future that Works: Automation, Employment and Productivity*. Retrieved from https://www.mckinsey.com/global-themes/digital-disruption/harnessing-automation-for-a-future-that-works [date accessed: 17/11/2017]

Mead, D & Ritchie, R. (2011) *Toward a preferred urban form*. Auckland Plan 2012 Technical Report.

Metro Vancouver (2017). *Metro Vancouver 2040, shaping our future.* Regional Growth Strategy Implementation Guideline #4, Identifying Frequent Transit Development Areas. Available at www.metrovancouver.org/services/regional-planning/PlanningPublications/1325_MPE_RGS_Guideslines_4APR26LR.pdf [accessed 21/02/2018]

Ministry for the Environment. (2002). *People Places Spaces, a design guide for urban New Zealand.* Available from http://www.mfe.govt.nz/sites/default/files/people-places-spaces-mar02.pdf [accessed 21/02/2018]

Ministry for the Environment (2005). *Attributes of successful towns and cities*. Available at http://www.mfe.govt.nz/publications/towns-and-cities/new-zealand-urban-design-protocol/2-attributes-successful-towns-and [accessed 21/02/2018]

Ministry for the Environment, (2016). *National Policy Statement on Urban Development Capacity 2016 (NPS UDC)*. Published Oct 2016. Ministry for the Environment: Wellington. Available at http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-2016 [accessed 22/02/2018]

Ministry for the Environment, (2016a). *How Councils Estimate Demand and Supply of Development Capacity for Housing and Business*. Ministry for the Environment: Wellington

Ministry for the Environment (2017). *National Policy Statement on Urban Development Capacity: Responsive planning – Guide on producing a Future Development Strategy.* Ministry for the Environment: Wellington. Available at https://www.mfe.govt.nz/sites/default/files/media/Towns%20and%20cities/Final-NPS-UDC-Future-Development-Strategy-guidance.pdf [accessed 08/07/2018]

Ministry for the Environment and Statistics New Zealand. (2018). *Our Land report*. Available at http://www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/Our-land-2018.pdf [accessed 31/05/2018]

Ministry of Business, Innovation and Employment. (2017a). *Energy in New Zealand*. Available from http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand/documents-images/energy-in-nz-2017.pdf [accessed 21/02/2018]

Ministry of Business, Innovation and Employment. (2017b). *Rural Broadband Initiative*. Available from http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/fast-broadband/broadband-and-mobile-programmes#rural [accessed 18 January 2018]

Ministry of Business, Innovation and Employment. (2018). *Broadband Deployment Update.* Available from http://www.mbie.govt.nz/info-services/sectors-industries/technology-communications/fast-broadband/documents-image-library/03-mar-quarterly-broadband-update.pdf [accessed 16/07/2018]

Ministry of Business, Innovation and Employment and Ministry for the Environment (2017). *National Policy Statement on Urban Development Capacity: Guide on Evidence and Monitoring*. Published June 2017: Wellington. Available at http://www.mfe.govt.nz/sites/default/files/media/Towns%20and%20cities/FINAL-NPS-UDC%20Evidence%20and%20Monitoring%20guide.pdf [accessed 22/02/2018]
Ministry of Transport (2017). *Auckland Transport Alignment Project: Supporting information.* Available at: http://www.transport.govt.nz/land/auckland/atap/ [accessed 26/02/2018]

Ministry for Primary Industries (2016). *New Zealand's Forests: Quick Stats.* Retrieved from http://www.mpi.govt.nz/news-and-resources/open-data-and-forecasting/forestry/new-zealands-forests/ [date accessed 18/1/18]

New South Wales Government, Department of Planning and Environment (2014). *A Plan for Growing Sydney*. Available at www.planning.nsw.gov.au [accessed 21/02/2018]

New Zealand Herald (2017) *Kiwis' hunger for paleo, protein and dairy free products unstoppable.* Published 12/12/2017. Available at: http://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=11957933 [accessed 18/1/18]

New Zealand Landcare Trust (2017). *Farming must adapt to disruptive tech.* Published 28/8/17. Available at http://www.landcare.org.nz/News-Features/Features/Farming-Must-Adapt-to-Disruptive-Technology [accessed 18/1/18]

New Zealand Listener (2017). *Betting the farm.* 13/10/17. Available at https://www.pressreader.com/new-zealand/new-zealand-listener/20171013/281539406180043 [date accessed 18/1/18]

New Zealand Productivity Commission (2015) *Using Land for Housing: Final Report.* Available at https://www.productivity.govt.nz/inquiry-content/2060?stage=4 [accessed 21/02/2018].

New Zealand Treasury. (2015). The thirty year *New Zealand infrastructure Plan 2015.* Available from http://www.infrastructure.govt.nz/plan/2015/nip-aug15.pdf [accessed 21/02/2018]

New Zealand Wine Growers. (2017). *Annual Report.* Retrieved from https://www.nzwine.com/media/6600/nzw-annual-report-2017.pdf [date accessed 18/1/18]

New Zealand Telecommunications Forum Inc. (2017). *Telecommunications: enabling New Zealand's future.* Available from https://www.tcf.org.nz/assets/reports/2017-tcf-industry-report-web-ready-2.pdf

New Zealand Transport Agency (2017). *Supporting Growth: delivering transport networks.* Available from http://nzta.govt.nz/projects/supporting-growth-delivering-transport-networks

North Shore City Council (2010) *North Shore City Centres Review and Framework*

Nunns, P (2014). Alain Bertaud in Auckland. Published in *Greater Auckland*. Available at https://www.greaterauckland.org.nz/2014/09/24/alain-bertaud-in-auckland/ [Date accessed: 20/02/2018]

Oram, R (2017). *Is kiwi agribusiness innovation still world-beating?* Published online by Newsroom. https://pro.newsroom.co.nz/articles/2292-rod-oram-on-the-100th-anniversary-of-the-vacuum-milking-machine-is-kiwi-agribusiness-innovation-still-world-beating [date accessed 18/1/18]

Panuku Development Auckland. (2018). Projects. Available at https://www.panuku.co.nz/projects [accessed 20/02/2018]

Parent, J (2017). *Urban Landscape Analysis Tool.* University of Connecticut- Center for Land Use Education and Research. Available at http://clear.uconn.edu/tools/ugat/Urban_Footprint.htm [accessed 23/11/2017]

Piddock, G (2017). *Sheep and beef farming is about love not meat business.* Available at https://www.stuff.co.nz/business/farming/98506383/sheep-and-beef-farming-is-about-love-not-meat-business [accessed 6/11/17]

Powell, F & Allan, A (2018). *Successful neighbourhood shopping centres: What are the important features for independent retailers?* Available at https://www.researchgate.net/publication/237253255 [accessed 21/02/2018].

Queensland Government. (2017). Urban Footprint. *Shaping South-East Queensland.* Page 101. Available at https://dilgpprd.blob.core.windows.net/general/shapingseq.pdf [accessed 24/11/2017]

Queensland Government. (2017b). *Economic Development Queensland, the Introduction to priority development areas*. Available at http://www.dilgp.qld.gov.au/resources/plan/pda/introduction-to-pdas.pdf [accessed 24/11/2017]

Quotable Value (2017). *Rural Land Use Change, Core Logic data*. Prepared for Auckland Council.

Sinclair Knight Merz (2011). *Mapping Auckland's Rural Production Systems, Industry Stakeholder Survey Report*, Auckland Plan Technical Research, Auckland Council.

Smith, K. (2006). What makes a town centre a town centre? *Planning Commissioners Journal, Number 62, Spring. Available from* http://plannersweb.com/wp-content/uploads/2006/04/307.pdf

Steuteville, R (2017). Great idea: Pedestrian shed and the 5-minute walk. Published 7/02/2017 in *Public Square: A CNU Journal*. Available at https://www.cnu.org/publicsquare/2017/02/07/great-idea-pedestrian-shed-and-5-minute-walk [accessed 18/12/2017]

Statistics New Zealand (2016), *Agricultural production statistics: June 2016 (final).* Retrieved from https://www.stats.govt.nz/search?Search=agricultural%20production%20data [date accessed 18/1/18]

Statistics New Zealand (2017a). *Business Demography Dataset: Employee Count by Industry and Area Unit.* Retrieved from http://nzdotstat.stats.govt.nz/wbos/ [date accessed: 17/11/2017]

Statistics New Zealand (2017b).*Commuter View.* Available at http://www.stats.govt.nz/datavisualisation/commuterview/index.html [date accessed: 23/11/2017]

Sunfed Foods (2018). *Sunfed Foods.* Retrieved from https://sunfedfoods.com/ [accessed 18/1/18]

Taylor, D (2012). *Auckland Plan Technical Report – Business Land and Employment*. June 2012. Auckland Council.

Taylor, N. McClintock, W & Buckenham, B (2003). Social impacts of out-of-centre shopping centres on town centres: a New Zealand case study *Impact Assessment and Project Appraisal*, 21:2, pages 147-153. Available at http://www.tandfonline.com/doi/pdf/10.3152/147154603781766428 [Accessed 21/02/2018]

Tourism New Zealand (2018), *New Zealand's culinary culture.* http://media.newzealand.com/en/story-ideas/new-zealands-culinary-culture/ [accessed 18/1/18]

Transpower New Zealand Limited. (2015). *Transmission planning report.* Available from https://www.transpower.co.nz/sites/default/files/uncontrolled_docs/TPR2015CompleteFINAL.pdf

Transpower New Zealand Limited (2016). *Transmission tomorrow.* Available from https://www.transpower.co.nz/sites/default/files/publications/resources/Transpower%20-%20Transmission%20Tomorrow26052016.pdf

Trenouth, C. (2015). Proposed Auckland Unitary Plan, Independent Hearings Panel evidence on the Rural Urban Boundary, Topic 016 and 017. Available from *https://hearings.aupihp.govt.nz/online-services/new/files/Tcok2H5f5VjnWbdXh29LFIoJY265UOV92KKYetzm9sgT*

Tucker, M. (2014). *Statement of Evidence before the AUP IHP on topic 013 RPS objectives and policies.* On behalf of Auckland Council. 24/11/2014

Tucker, M. (2015). *Supplementary Statement of Evidence before the AUP IHP on topic 013 RPS Urban Growth.* On behalf of Auckland Council. 30/1/2015

Watercare Services Limited. (2016a). *Asset Management Plan 2016-2036.* Available from *https://www.watercare.co.nz/CMSPages/GetAzureFile.aspx?path=~%5Cwatercarepublicweb%5Cmedia%5Cwatercare-media-library%5Creports-and-publications%5Cwatercare-asset-management-plan-2016-2036.pdf&hash=c999a1177a85361b806adcf60f74c46bc687f7b4880bc036e62f663d8c7ee825* [accessed 21/02/2018]

Watercare Services Limited. (2016b). *Wastewater Asset Strategy: an* overview. Available from https://www.watercare.co.nz/CMSPages/GetAzureFile.aspx?path=~%5Cwatercarepublicweb%5Cmedia%5Cwatercare-media-library%5Creports-and-publications%5Cwastewater_asset_strategy.pdf&hash=7cd5b77add4695aa96bb9c4853177417d47f5eb5ca4057b170c9ebb8a33369cc [accessed 21/02/2018]

Watercare Services Limited. (2016c). *Water Asset Strategy: an* overview. Available from https://www.watercare.co.nz/CMSPages/GetAzureFile.aspx?path=~\watercarepublicweb\media\wa

tercare-media-library\reports-and-publications\water_asset_strategy.pdf&hash=549e8c60f98b6b074719d48883523b3016312d8c1c6912bb68bb35558c55dc7a [accessed 21/02/2018]

Westpac, (2016). *Industry Insights: Horticulture.* Available at https://www.westpac.co.nz/assets/Business/Economic-Updates/2016/Bulletins-2016/Industry-Insights-Horticulture-July-2016.pdf [accessed 18/1/18]

Young, A. Russell, A. & Powers, J. (2004) The sense of belonging to a neighbourhood: can it be measured and is it related to health and wellbeing in older women? First published in *Social Science and Medicine.* Vol 59, Issue 12 (Dec 2004). Pages 2,627-2,637

# Appendix 1: Development Strategy relationship to the Auckland Plan 2050 outcome areas

**Table 13 Key relationships between the Development Strategy and the Auckland Plan 2050 outcome areas.**

| Outcome | Key Relationships |
|---|---|
| Belonging and participation | • A focus on quality compact contributes to meeting Aucklanders' changing expectations for how Auckland grows.<br>• Working together in delivering anticipated growth provides all Aucklanders with the opportunity to develop a sense of belonging.<br>• Concentrating activity into urban centres and neighbourhoods across Auckland provides a wider range of local activities to meet the full spectrum of people's needs. |
| Māori identity and wellbeing | • Supports growing Māori land development aspirations by providing clarity about when future urban land will be bulk-serviced and ready for development.<br>• Identifies the need to improve the performance of Auckland's infrastructure so that social and environmental outcomes are improved.<br>• Quality compact approach focuses growth away from the most sensitive natural resource areas.<br>• Approach seeks to build whanaungatanga through its focus on centres and neighbourhoods and enhancing sense of place. |
| Homes and places | • Quality compact approach builds strong centres, neighbourhoods and communities.<br>• Changes in population characteristics will drive the demand for different housing solutions, delivered at scale and at an accelerated pace.<br>• Greenfield growth needs to create vibrant places for the new communities who will live and work there.<br>• Supports accelerated delivery of dwellings and place through identification of sequenced 30 year strategic infrastructure networks. |
| Transport and access | • Quality compact approach builds strong centres, neighbourhoods and communities.<br>• Changes in population characteristics will drive the demand for different housing solutions, delivered at scale and at an accelerated pace.<br>• Greenfield growth needs to create vibrant places for the new communities who will live and work there.<br>• Supports accelerated delivery of dwellings and place through identification of a sequenced 30 year strategic infrastructure networks. |

| Outcome | Key Relationships |
|---|---|
| Environment and cultural heritage | • Growth creates more opportunities for environmental enhancement.<br>• Protects rural environments from urban encroachment.<br>• Works with Auckland's geography and effects on its natural and cultural heritage in accommodating growth. |
| Opportunity and prosperity | • Reinforces the need to safeguard existing business land, particularly important industrial areas.<br>• Multi-nodal nodal approach provides more options for people to work or study closer to where they live.<br>• Quality compact approach supports greater agglomeration benefits that increase economic productivity.<br>• Identifies development areas and sequencing of managed expansion into future urban areas providing capacity for business and employment growth. |

# Appendix 2: Forecasting future population growth – scenario modelling outputs 2018

This appendix details the changes in dwelling growth, employment growth and population growth between the draft Auckland Plan 2050 and the adopted Auckland Plan 2050.

The growth figures used in the Auckland Plan 2050 are based on the Auckland Council's Land Use Scenario i11.

In the modelling process, Scenario i11 data breaks the Auckland region up into 557 zones. These zones are based on the Auckland Regional Transport (ART) model which was developed for transport planning purposes and includes two ART zones for Tuakau-Pokeno. These two zones are included in the model because changes in this northern Waikato area affect transport in the south of Auckland. However, as these two zones are not in Auckland, they should not be included when calculating population growth numbers for Auckland.

In calculating growth numbers for the draft Auckland Plan 2050, the ART zones for Tuakau-Pokeno were incorrectly included in the overall figures for Auckland. This resulted in the inclusion of the growth numbers set out in Table 14 below.

**Table 14 Growth numbers included in draft Auckland Plan 2050 (including the Tuakau-Pokeno ART zones) (2018 – 2048)**

| Area | Dwelling Growth 2018-2048 | Employment Growth 2018-2048 | Population Growth 2018-2048 |
|---|---|---|---|
| **Auckland's 555 ART zones, plus Tuakau-Pokeno (zones 555 and 556)** | 320,000 | 270,000 | 740,000 |

In calculating the growth numbers for the adopted Auckland Plan 2050, the output was updated to exclude the two Tuakau-Pokeno zones, meaning only the 555 zones in the Auckland Region were used.

Table 15 below shows the growth numbers associated with the Tuakau-Pokeno area, and the final growth numbers from 2018 to 2048. Figures in this evidence report have been updated to reflect these changes.

Table 15 Changes to growth numbers from the removal of the Tuakau-Pokeno ART zones (2018 – 2048)

| Area | Dwelling Growth 2018-2048 | Employment Growth 2018-2048 | Population Growth 2018-2048 |
|---|---|---|---|
| **Tuakau-Pokeno (ART zone no. 555)** | 2,273 | 47 | 4,824 |
| **Tuakau-Pokeno (ART zone no. 556)** | 2,334 | 153 | 4,304 |
| **Total** | 4,607 | 200 | 9,127 |
| **Auckland growth numbers (excluding Tuakau-Pokeno)** ***rounded to the closest 1000** | 313,000 | 263,000 | 720,000 |

# Appendix 3: 2012 Auckland Plan Development Strategy Monitoring

Annual monitoring has been carried out on the Auckland Plan since 2012, with a five-year progress report published in 2018 (Auckland Council, 2018a). This appendix summarises findings from the monitoring report.

Auckland is now halfway through the first decade of implementing the 2012 Auckland Plan Development Strategy. Overall, Auckland's population has increased by an estimated 180,700 people in the five years from July 2012-June 2017. Approximately two thirds of population growth in this period has occurred through net international migration, with the remaining third a result of natural increase. In the same period, the average Auckland house became 25 per cent less affordable (Auckland Council Chief Economist Unit et. al, 2017).

The 2012 Auckland Plan anticipated a total of 100,000 new residential dwellings would be built in the first decade, an average of 10,000 each year. In the first 5 years the number of new residential dwellings consented annually has increased from 5,501 in 2012/13 to 10,121 in 2016/17.

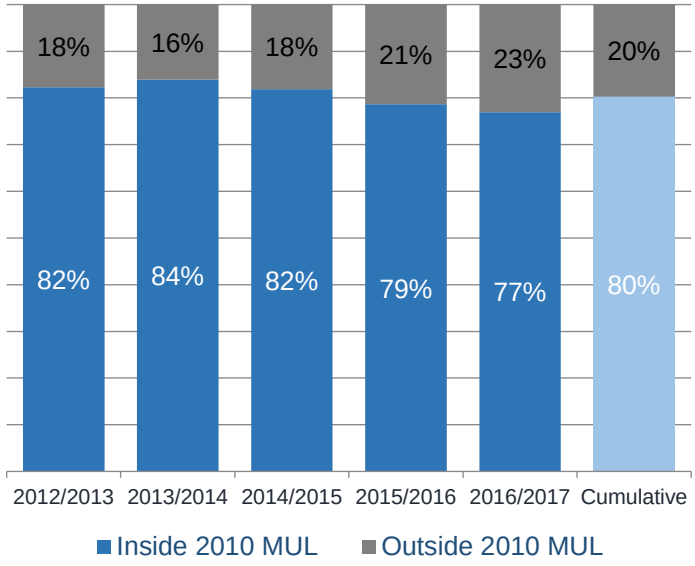
**Table 16 New residential dwellings consented in Auckland (region-wide) by reporting year end June (2012-2017)[39]**

| REPORTING YEAR | CONSENTED DWELLINGS |
|---|---|
| Year 1 (2012-2013) | 5,501 |
| Year 2 (2013-2014) | 7,078 |
| Year 3 (2014-2015) | 8,398 |
| Year 4 (2015-2016) | 9,381 |
| Year 5 (2016-2017) | 10,121 |
| Total (2012-2017) | 40,479 |

The housing preferences of Aucklanders are diverse. A broad range of housing types are required, in a variety of locations. These characteristics are also important measures of a quality compact urban form. The Auckland Plan aimed to have up to 70 per cent of dwelling growth inside the Metropolitan Urban Limit and allowed for up to 40 per cent outside it over the 30-year period of the plan. In 2016/2017, 77 per cent of new residential dwellings consented were located inside the Metropolitan Urban Limit, with 23 per cent outside it (see Figure 43).

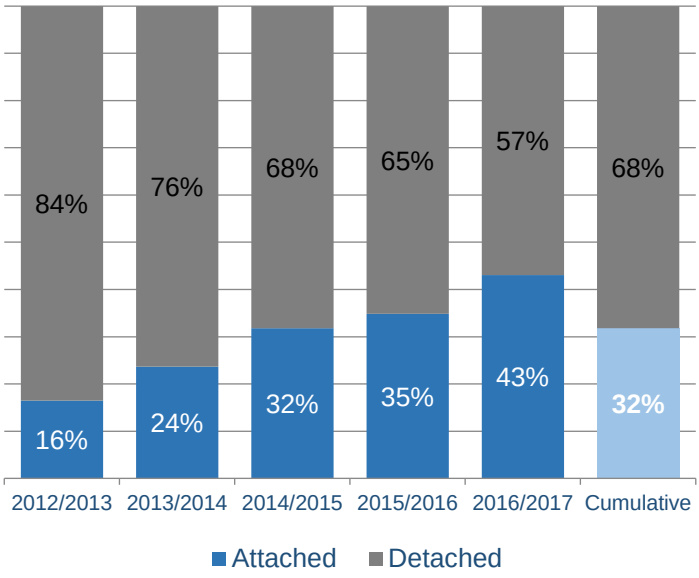
[39] This information is correct as at 30 June 2017. Statistics New Zealand regularly revise historical data and so information presented here may not exactly match official data sourced at a later date.

**Figure 43 Proportion of consented dwellings inside and outside 2010 Metropolitan Urban Limit (2012-2017)**




The Auckland Plan anticipated that up to 61 per cent of all new residential dwellings built would be attached. Across the region, the proportion of attached housing being consented has increased steadily over the last five years (see Figure 44). In 2016/2017, 43 per cent of new dwellings consented were attached dwellings.

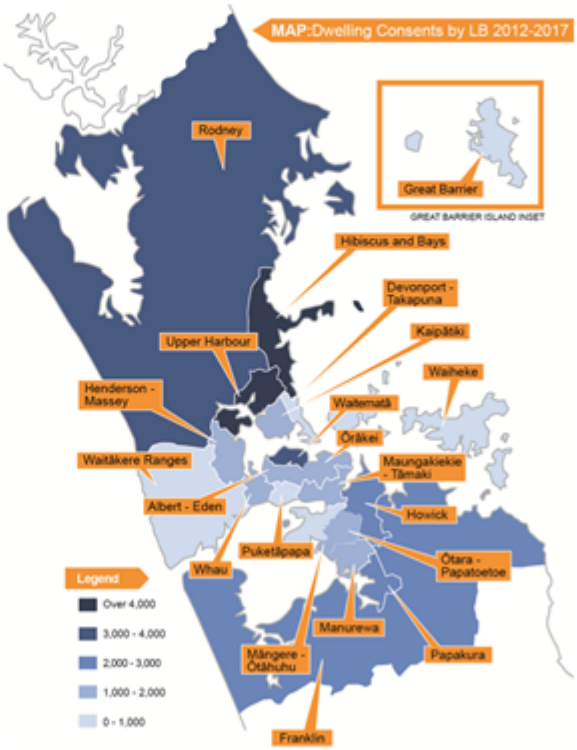
**Figure 44 Proportion of consented dwellings by dwelling type (2012-2017)**




The areas of greatest residential consenting activity in 2016/2017 were in the north; Hibiscus and Bays, Upper Harbour and Rodney local board areas (see Figure 45). This was consistent with the trend over the past five years. While most areas experienced an increase in consenting activity in 2016/2017, activity in Howick and Ōrākei local board areas decreased slightly, relative to previous monitoring years.

**Figure 45 New residential dwellings consented by local board area (1 July 2012 – 30 June 2017)**

| Consented Dwellings 2012 – 2017 (July – June) | |
|---|---|
| Hibiscus and Bays | 5,381 |
| Upper Harbour | 4,318 |
| Rodney | 3,739 |
| Waitematā | 3,591 |
| Franklin | 2,909 |
| Howick | 2,624 |
| Papakura | 2,614 |
| Orākei | 1,896 |
| Maungakiekie - Tāmaki | 1,860 |
| Henderson - Massey | 1,848 |
| Whau | 1,480 |
| Albert – Eden | 1,311 |
| Manurewa | 1,208 |
| Otara - Papatoetoe | 1,128 |
| Kaipatiki | 1,005 |
| Puketāpapa | 970 |
| Waitākere Ranges | 750 |
| Devonport - Takapuna | 747 |
| Māngere - Otāhuhu | 744 |
| Waiheke | 331 |
| Great Barrier | 25 |
| **Total** | 40,479 |




The 2012 Auckland Plan anticipated that approximately 76,000 of the planned 100,000 dwelling growth in the first decade (2012-2021) would be located inside the 2010 Metropolitan Urban Limit (MUL), and 24,000 outside of it. The share of growth located in metropolitan, town and local centres was expected to increase over time, particularly in the second and third decades (2022 onward).

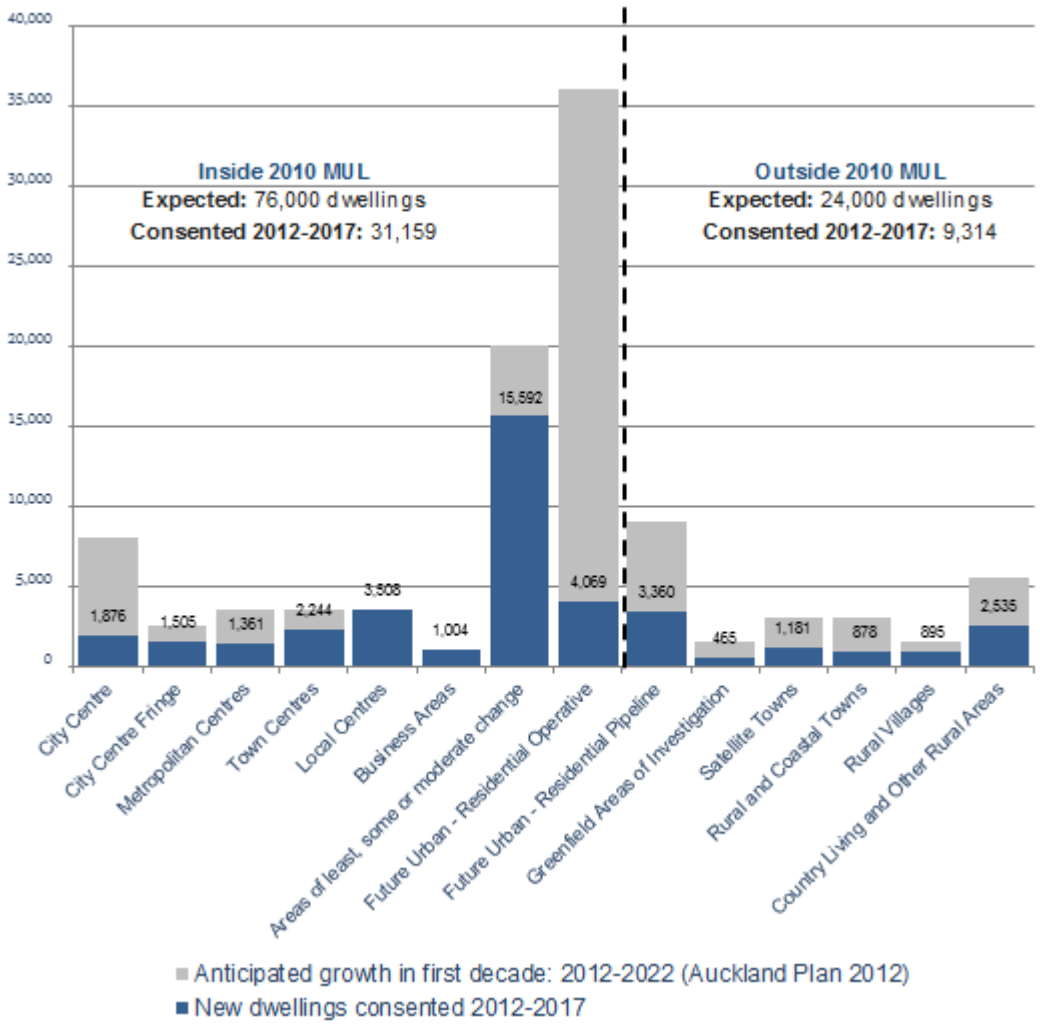
Figure 46 (below) illustrates where residential development activity was expected to take place in the first decade 2012-2021, by area category (chart D7 in the 2012 Auckland Plan). It compares this with data on new residential dwellings consented in the first five years of monitoring, July 2012 – June 2017. The overall distribution is generally as expected, with some exceptions discussed below.

The ‘future urban: residential operative’ category includes greenfield developments within the 2010 MUL already underway at the time of the 2012 Auckland Plan. This includes Hingaia, Flat Bush, Silverdale North and Hobsonville. Consented activity in these areas has been less than the 2012 plan anticipated, suggesting they are taking longer than expected to fully develop. However, activity within this category is likely to under-represent actual delivery. This is because the information does not include consents issued for new homes in these areas prior to 2012, which were constructed in the monitoring period.

The number of new dwellings consented in the city centre is also lower than expected. Some residential construction activity currently underway in the city centre is for large, complex developments that were consented prior to the monitoring period. Recent consenting activity has shifted more into high-end apartment (with larger internal floor areas than dwellings in prior developments of a similar scale), office and hotel developments.

Consents within the 'areas of least, some or moderate change' (typically suburban areas outside of centres) category have been higher than expected. This shows consents approved in the last five years have been more dispersed within the urban area than the 2012 Auckland Plan anticipated. Consents within local centres have also exceeded expectations, by a factor of 1.7.

**Figure 46 New residential dwellings consented (2012-2017) by development strategy category, compared with anticipated dwelling growth in the first decade 2012-2021 (chart D7, 2012 Auckland Plan)**



# Appendix 4: Auckland Unitary Plan and capacity

The Auckland Unitary Plan will help Auckland meet its economic and housing needs by determining what can be built and where, while creating a higher quality and more compact Auckland. The Auckland Unitary Plan sets out an enabling zoning pattern to guide development across the region. It seeks to implement the growth strategy set out in the 2012 Auckland Plan to focus growth in and around centres, transport nodes and corridors.

## Enabled and feasible capacity

The Auckland Unitary Plan formed the basis for capacity assessments for:

**plan-enabled capacity:** this is the cumulative effect of all zoning, objectives, policies, rules and overlays and existing designations in plans, and the effect this will have on opportunities for development being taken up (Ministry for the Environment 2016, p14).

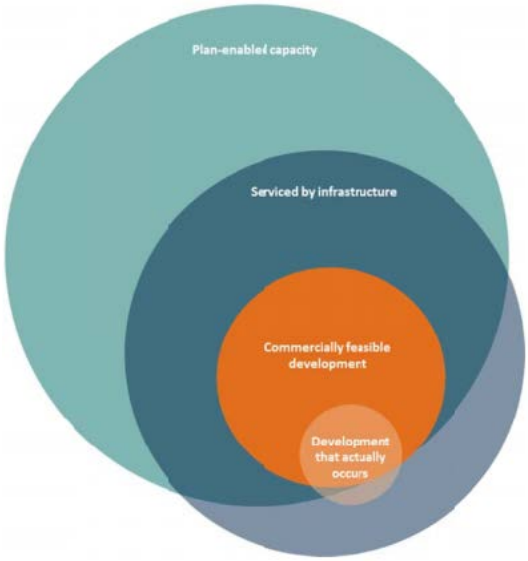
**feasible capacity:** this is the amount of development capacity that is commercially viable, taking into account current costs, revenue and yields (Ministry for the Environment 2016, p7).

The number of dwellings assessed as being feasible in Auckland's existing urban area increased significantly from 84,000 in the Proposed Auckland Plan (2013) to 270,000 in the Auckland Unitary Plan (Operative in Part) in 2016. Most of this change came from 'up-zoning' across the region, with an increase in the Terraced Housing and Apartment Building (THAB), Mixed Housing Urban (MHU) and Mixed Housing Suburban (MHS) zones. In addition to this, the rules for these zones changed, in most cases allowing greater degrees of intensification and a relaxation in density controls.

While these changes allowed for a theoretical increase in residential plan-enabled capacity, the Independent Hearings Panel recognised that not all of this increased development potential would be taken up to the maximum allowed under the Auckland Unitary Plan. The Independent Hearings Panel therefore focused on ensuring enough feasible capacity was available.

The relationship between plan-enabled capacity, feasible capacity and what the market actually delivers is illustrated below in Figure 47.

**Figure 47 Housing capacity in Auckland**




Ensuring that significantly more land than is required is zoned, to satisfy the likely demand, provides flexibility and supply across multiple locations to lessen the impacts of competition.

The assessment focuses on feasibility based land value versus capital value. As land value increases and capital value decreases development becomes more feasible. However, feasibility will change over time as a result of a range of factors and the assessment provides a broad tool to test the feasibility of development; it does not predict where growth will occur (Auckland Council, 2017g).

The approach of ensuring sufficient feasible capacity is consistent with the National Policy Statement on Urban Development Capacity 2016. This recognises the national significance of “well-functioning urban environments, with a particular focus on ensuring that local authorities through their planning both enable urban environments to grow and change in response to the changing needs of the communities and future generations and provide enough space for their populations to happily live and work” (Ministry for the Environment 2016, p3).

The National Policy Statement on Urban Development Capacity goes on to explain that this “space” can be delivered by allowing development to go “up” by intensifying existing urban areas, and “out” by releasing land in greenfield areas. In light of the National Policy Statement on Urban Development Capacity requirements, the feasible capacity assessment has been reviewed as part of the Housing and Business Assessment Report 2017 (Auckland Council, 2017g). This report has been used in finalising council’s Development Strategy which serves as the future development strategy, as required under the National Policy Statement on Urban Development Capacity by December 2018.

# Appendix 5: Scenario modelling 2016

This appendix provides a:

- summary of the previous 2011 scenario evaluation and an overview of the findings
- discussion of the reasons for the 2016 evaluation and an outline of the general methodology
- summary of the 2016 findings with the potential impacts of each scenario broken down into the categories of transport, infrastructure, housing, environment and open space, employment and agglomeration
- discussion of the limitations and assumptions
- list of new information available in 2016

## Introduction

The 2012 Auckland Plan development strategy adopted the strategic approach of moving to a quality compact Auckland (Auckland Council, 2012a). The Plan anticipated a more compact urban form and greater intensification predominantly in existing urban areas but also new urban areas.

An evaluation of four scenarios was undertaken as part of the technical work that underpinned this approach in the 2012 Auckland Plan. In 2016, as part of the preliminary work on the refresh of the Auckland Plan, an assessment was made of the 2011 scenario assessment work to determine its robustness and applicability to 2016 scenarios. The three updated scenarios were:

- Intensive Scenario with an urban growth focus
- Scenario I9, the balanced scenario and official growth dataset (as at 2016)
- Expansive Scenario with an urban growth focus.

The scenario evaluation was needed to confirm whether the development strategy's central concept of quality compact approach to accommodating growth was still the best approach.

The wider 'liveability' factors included in the 2011 scenario evaluation were considered to still be robust. However, the 2016 evaluation recognised that there was value in considering new quantitative information.

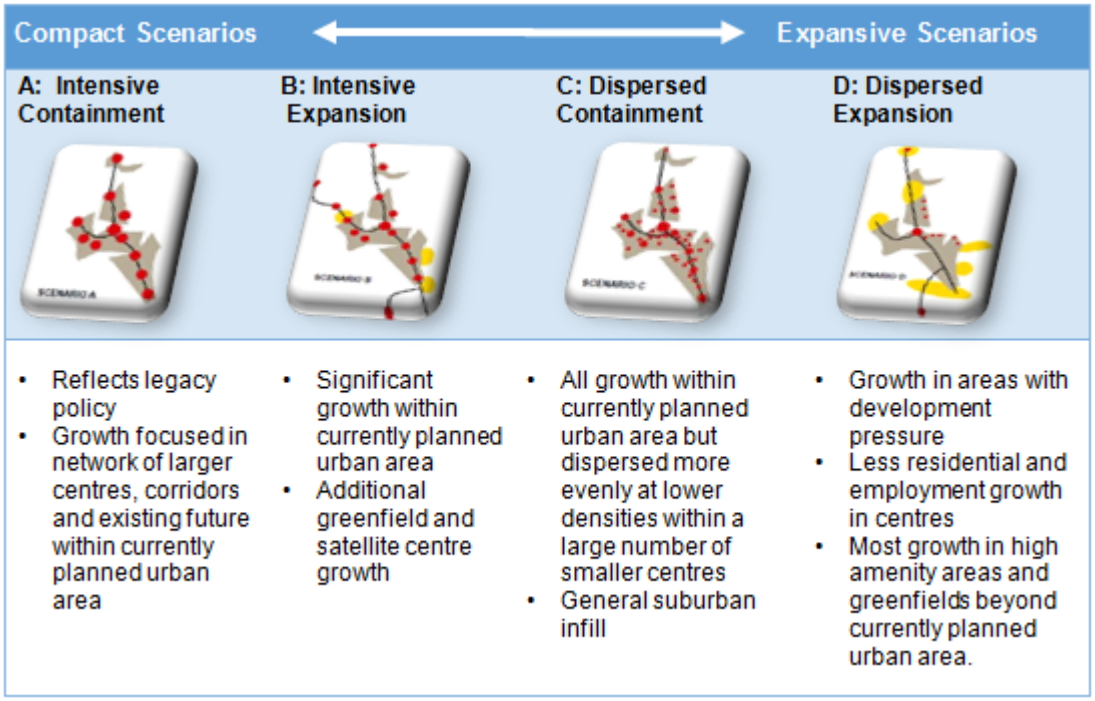
The re-evaluation concluded that the 2011 evaluation was still relevant to current policy development and the results were still sound. It supported the Auckland Plan 2050 baseline Scenario I9 which seeks a balanced approach to both urban intensification and greenfield growth as the preferred approach.

A summary of the 2011 and 2016 Scenario Evaluations are set out in the sections below.

## Scenario Evaluation 2011

To confirm the approach for the 2012 Auckland Plan Development Strategy, through establishing an evidence base, a high level scenario assessment was undertaken. Different land uses and transport concepts, timings and locations were assessed against four scenarios that each accommodated a population of 2.3 million by 2051, as shown in Figure 48 below.

**Figure 48 Previous assessment scenarios (2011)**




A multi criteria assessment (MCA) was undertaken. The broad range of criteria (which included 24 assessment measures) (Auckland Council, 2011) covered the four wellbeings. The criteria evaluated included:

- economic wellbeing – increased productivity and improved access to labour pool
- environmental wellbeing – reduced greenhouse gas emissions and protection of or enhancement of marine values
- social wellbeing – greater housing affordability and improved accessibility for deprived households
- cultural wellbeing – protection of Māori heritage and areas of cultural significance
- implementation – market feasibility.

Overall, the evaluation process was heavily focused on quantitative transport modelling and expert qualitative judgements in order to assess the scenarios.

The evaluation process did not identify one of the four scenarios as the final and preferred spatial form for Auckland. However, the two 'dispersed' scenarios (Scenarios C and D) performed the worst and were ruled out (Auckland Council, 2011).

The findings did outline some of the key elements that should be considered when arriving at the preferred spatial form. Both scenarios A and B were viable options and suggested a quality compact form as the preferred future spatial form (see Table 17).

This evaluation illustrated that to achieve the outcomes sought; Auckland requires a compact spatial form which retains some flexibility to cater for future growth pressures.

**Table 17 Results summary of 2011 scenarios**

| Subject/Criterion | Scenario A | Scenario B | Scenario C | Scenario D |
|---|---|---|---|---|
| Economic | 0 | 3 | 2 | -9 |
| Environmental | -3 | -11 | -6 | -15 |
| Social | 1 | 1 | 0 | -12 |
| Cultural | 1 | -2 | -6 | -9 |
| Implementation | -4 | -4 | -11 | -15 |
| **TOTAL** | **-5** | **-13** | **-21** | **-60** |

## Scenario Evaluation 2016

The evidence base available to input into scenario modelling has grown significantly since the development of the 2012 Auckland Plan. Initial work indicated that much of the information from the 2011 evaluation was still robust, but that it would be valuable to consider new information which would serve as a base for an updated evaluation.

The 2016 evaluation added to the largely qualitative assessment in the 2011 report by considering more quantitative information. The 2016 scenario evaluation also considered the following new information from project work and information since 2012:

- Rural Urban Boundary (RUB), which determined the extent and location of the Future Urban Zone in the North, Northwest and South of Auckland's urban area.
- Future Urban Land Supply Strategy (FULSS) that set out the staging and sequencing of the release of greenfield land for urban development over the next 30 years with indicative timeframes.
- Auckland Unitary Plan (AUP) which significantly increased development capacity across the region, allowing Auckland to grow both intensively or extensively depending on where housing and market preferences are strongest.
- Auckland Transport Alignment Project (ATAP) which brought together greater cross-organisational understanding about the accessibility decline across the region and necessary transport interventions required to address this.

- Supporting Growth (formerly Transport for Future Urban Growth, TFUG) which has further explored what transport infrastructure will be required to service Auckland's greenfield growth.

The 2016 scenario evaluation was undertaken to test the three different growth paths for Auckland (from intensive to expansive). This analysis built on a qualitative and quantitative assessment of liveability, including social, cultural, economic and environmental costs (Auckland Council, 2011). It highlighted differences in the relative costs and benefits of accommodating growth through alternative forms of urban development and identified significant factors that required trade-offs. It informed the preferred growth scenario detailed in the development strategy.

It was also important to update the modelling to support ongoing spatial planning and ensure it was fit for purpose, highlight progress to date and existing implementation issues and to identify new information that would assist with making strategic trade-offs.

## Methodology

### Defining the scope

A review of the 2011 scenario modelling concluded the overall evaluation was still relevant and the results were still sound. Additional work considered necessary included:

- updating scenarios and incorporating new information
- updating the evaluation to include:
  - information for specific evaluation criteria (i.e. for heritage, natural hazards, and environmental topic areas).
  - addition of quantitative analysis.

More detail on each of these areas of additional work is considered below.

### Updating scenarios

The initial steps scoped the issues and then developed various growth distribution scenarios, starting with Auckland's current growth baseline, Scenario I9 – which at the time was the official, up-to-date growth dataset used by Auckland Council and its CCOs for planning purposes.[40] There were two versions of this scenario, one based on a medium growth projection and on a high growth projection.

These datasets reflected the current thinking on population, household and employment growth in accordance with the strategy outlined in the 2012 Auckland Plan. In order to

[40] These datasets are regularly amended to reflect new land use proposals in the region with the latest version being Scenario I11.

meet the emerging requirements of the National Policy Statement on Urban Development Capacity the medium projection dataset was used.

Two further scenarios were then developed which were a redistribution of the Scenario I9 dataset which focused growth in a more *intensive* way and spread growth in a more *expansive* way as shown by Figure 49 and 50.

- Scenario I9: Growth was generally allocated between the urban and non-urban areas in a 66:34 ratio.[41]
- Intensive: Growth was redistributed from locations outside of the urban area into the inner urban areas to reflect greater levels of intensification in the isthmus.
- Expansive: Growth was redistributed from inner urban locations into the future urban zones, added through the Auckland Unitary Plan process, and surrounding areas in rural zones.

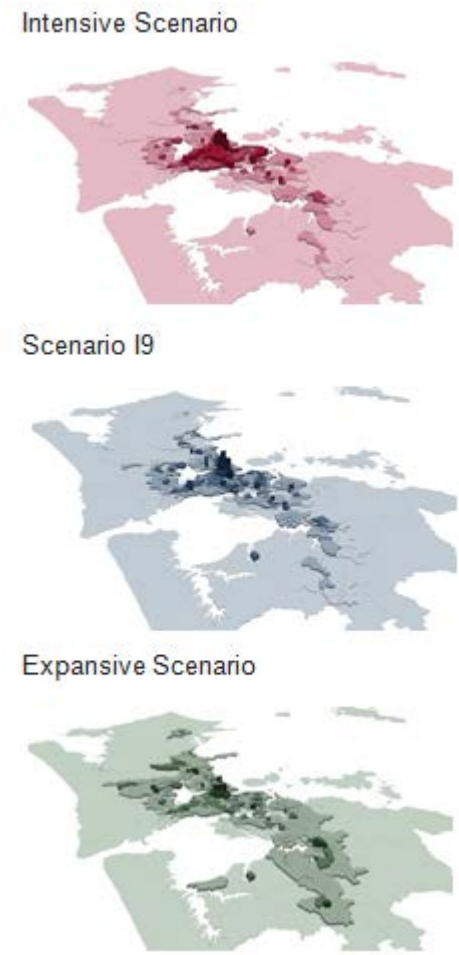
In order to create the additional scenarios, several assumptions were made to redistribute the Scenario I9 growth data. Key assumptions across the intensive and expansive scenarios were to use a baseline year of 2013 and end year of 2046. Growth data up to 2016 was also kept constant, with minimal changes up to 2026. For further information see the discussion below on limitations and assumptions.

**Figure 49 Scenario assessments 2016**

| Expansion ⟷ Intensification | | |
|---|---|---|
| **Intensive Scenario**<br>Urban Growth Focus | **Scenario I9**<br>Auckland Plan Baseline | **Expansive Scenario**<br>Greenfield Growth Focus |
| **80:20** | **66:34** | **50:50** |
| Increased growth emphasis in existing urban areas, specifically inner Auckland and areas of high public transport accessibility. | Based on the *70:40* strategy in the Auckland Plan, which seeks a balanced approach to both urban intensification and greenfield growth. | Increased growth emphasis in greenfield locations, particularly in the future urban zones and surrounding areas. |

[41] This ratio sits within the 70:40 range set by the 2012 plan.

**Figure 50 Spatial illustration of 2016 growth scenarios**




## Updating the evaluation

The previous assessment provided a good overview of wider 'liveability' factors. This was taken forward alongside the 2016 scenario modelling as shown by Figure 51.

For the 2016 scenario modelling, rather than redoing the previous MCA based process, where practicable a cost benefit appraisal of the new scenarios was carried out. Quantifiable cost implications of each scenario were considered to add robustness to the evaluation (for example infrastructure costs and agglomeration impacts were monetised).

The areas of focus for the 2016 analysis were those where there were the greatest gaps in information and understanding. The analysis assessed the impacts of accommodating growth through alternative forms of urban development.

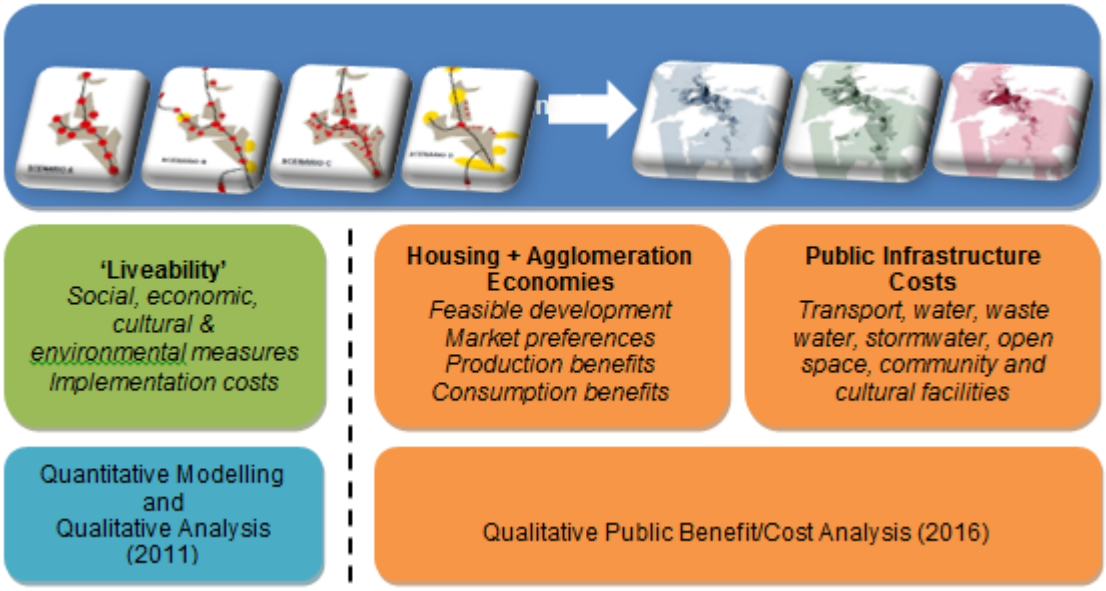
The process evaluated:

- the public **costs** associated with infrastructure to support a new development (transport, water and social infrastructure) and third-party impacts such as changes in transport demand, accessibility and congestion, and environmental impacts on water, soil and air (which are monetised where possible).

- the possible **benefits** of housing provision (extent of feasibility and different typologies expected) and agglomeration. This approach focused on only those costs and benefits that differentiate alternative development paths, not the net benefits or costs of population growth as they would stay relatively similar under alternative growth paths.

The growth scenarios, as described above and outlined in Figure 50 , show the potential density of household growth between 2016 and 2046 based on different spatial distributions within Auckland Regional Transport ('ART') zones. With the exception of Scenario I9, the scenarios maps are illustrative only to reflect the conceptual approach for each.

**Figure 51 Scenario assessments 2011 to 2016**




The scenario evaluation used Scenario I9, as at the time of modelling in 2016 this was the up-to-date dataset. Scenario I11 was developed in mid-2017 which had four key differences from Scenario I9:

- **Updated Auckland Population Forecast**

  Auckland Regional population forecasts were released by Statistics New Zealand in March 2017. The medium forecast has been used as the basis for the total population in Scenario I11.

- **Rebase model zones to 2016 estimates**

  Population estimates (by zone) were provided by Statistics New Zealand as at June 2016. I11 reflects these.

- **FULSS Refresh**

  Household growth in future urban areas has been forecast based on the anticipated dwelling yields and development ready timings from the refresh of the Future Urban Land Supply Strategy.

- **Average Household Sizes**

Assumed average household sizes were adjusted to limit the decline in forecast household size relative to the 2016 situation.

The Auckland Plan Development Strategy uses Scenario I11 as this model reflected a quality compact approach to urban form.

## Scenario Findings 2016

Scenario modelling showed that the 2012 Auckland Plan quality compact approach to growth remains the best path to pursue.

The scenario modelling demonstrated that there is less public infrastructure cost to Auckland in a more intensive urban form as opposed to a more expansive one.

The scale of growth expected in Auckland is large (even on a medium projection). The challenges this presents in providing infrastructure are significant.

The scenarios highlight the challenge of balancing greater flexibility to meet growth demands with greater certainty of how growth will play out.

### Transport

Transport is one of the areas of biggest impact in performance terms. The Auckland Transport Alignment Programme package was tested across all scenarios. However, the expansive scenario highlights some tipping points due to the extent of greenfield growth. The transport modelling demonstrated demand-side management (in the form of road pricing) was crucial to improving network performance under any scenario. The intensive scenario results in more public transport (except peripheral corridors) and fewer cars travelling (except on the isthmus) whereas the expansive scenario results in the opposite. In terms of congestion, the intensive scenario demonstrates more widespread “minor to moderate” congestion but less aggregate very severe congestion. The expansive scenario revealed slightly less widespread congestion, but more aggregate very severe congestion due to more overall car travel.

### Infrastructure

For some infrastructure components, the balanced approach was the worst outcome. I9 was the most costly growth path overall for community facilities. This is because the “up and out” approach triggers both catchment and population provision targets. This scenario results in the most additional facilities needed, as well as moderate utilisation of those facilities. The intensive scenario is cheapest, and would have higher utilisation of facilities. The expansive scenario is cheaper than I9, and would see higher utilisation of new facilities serving greenfield areas, but lower utilisation of facilities in the existing urban area.

Watercare advised there are no significant differences in bulk infrastructure requirements or costs due to the centralised design of regional bulk wastewater and water networks, and the extent of the service area being constant between the three scenarios.

Water infrastructure is more adaptable to the different scenarios, but cost savings can be made if greenfield areas are delayed. Notwithstanding, growth in standalone greenfield areas needs to be managed so it does not reach thresholds that require very costly trunk infrastructure provision. A larger infrastructure requirement, in terms of assets, equals higher operating expenditure in the future, which is highlighted by the expansive scenario.

### Housing

Increased housing provision is a key outcome for all three scenarios – the scenarios share the same quantum of housing growth, only the spatial distribution is different. Therefore the different scenarios have benefits for housing provision in terms of location and typology.

### Environment and open space

A more expansive urban form requires more open space to be acquired and developed in greenfield areas. When compared with the existing urban area, land costs mean that greenfield development has a comparatively high marginal cost to service these areas with open space. In general, the cost differences between the scenarios are proportional to the extent of new urbanisation (see Table 18).

**Table 18 Environmental costs across scenarios**

| Environmental Factor | Intensive | Baseline (I9) | Expansive |
|---|---|---|---|
| Local air quality (transport) | $63 | $59 | $54 |
| Greenhouse gas | $108 | $112 | $119 |
| Local air quality (Domestic fire) | $119 | $120 | $121 |
| Soils | $611 | $1,063 | $1,527 |
| **TOTAL ($ Million)** | **$901** | **$1,353** | **$1,821** |

The impact of a more intensive urban form on the open space network is less certain. Recent surveys indicate that Aucklanders do not perceive open spaces to be too busy - rather many users would prefer to see the open space network used more intensively. This indicates there may be high amount of latent capacity within the open space network in the existing urban area, although particular activities, such as sports field activities, may become more constrained.

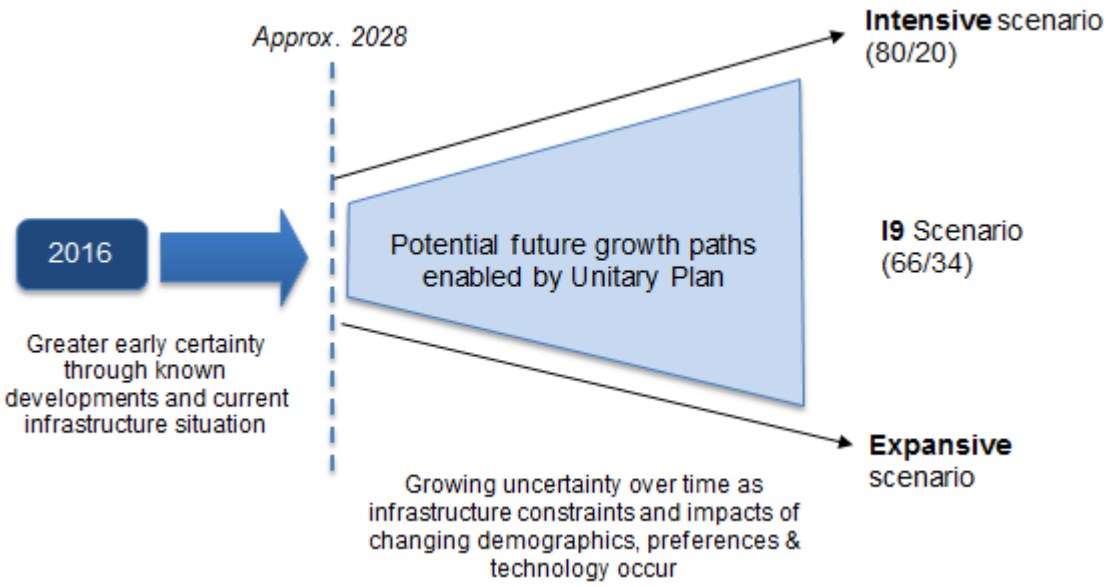
### Employment and agglomeration economies

The intensive scenario has a higher overall access to employment. However, the expansive scenario results in lower overall access to employment (but shorter travel times in isthmus and greenfield areas). On the whole, an intensive scenario is expected to result in higher levels of economic productivity than an expansive scenario. This reflects the fact that the areas that experience increased agglomeration potential tend to have a higher level of starting employment and higher starting productivity levels due to their mix of industries, firms, and workers.

## Limitations and assumptions

There are a number of assumptions, with their own uncertainties, across each of the criteria so the scenario outcomes are considered as an indication only. There was information that was unable to be quantified or measured such as agglomeration. While benefits that arise from production were included, benefits from consumption were not. Therefore, at an aggregate level, this indicates that the true benefit or cost associated with each scenario is likely to be greater than what is represented. A relatively high degree of path dependency, as shown in Figure 52, is evident– for example, the provision of new greenfield areas (future urban zoning), the commitment to significant infrastructure schemes, and the opportunities afforded by the Auckland Unitary Plan. There are also large growth areas that will be developed over the timeframe of the Auckland Plan.

**Figure 52 Diagram illustrating path dependency**




## New information 2016

**M.E Spatial and Research First**- The Housing We'd Choose- A study of housing preferences, choices and trade-offs in Auckland (prepared for Auckland Council, May 2015)

**Auckland Council**- Understanding the Costs and Benefits of Planning Regulations: A Guide for the Perplexed (Technical Report 2016/18)

**Auckland Council**- Open Space Provision Policy: Working Final Draft June 2016

**MRCagney**- Agglomeration economies- A review of theory and evidence to support the Auckland Plan refresh (8th September 2016)

**JMAC** Transport modelling

**Auckland Council**- State of environment report 2015

**The centre for international economics**- Cost of residential servicing (Final report) Prepared for Auckland Council 2015

**Auckland Council**- Future Urban Land Supply Strategy (Publically available, adopted 12 November 2015)

**Statistics New Zealand Housing in Auckland**-Trends in housing from the Census of Population and Dwellings 1991 to 2013 (Publically available, 2014)

# Appendix 6: Options Analysis for the nodes

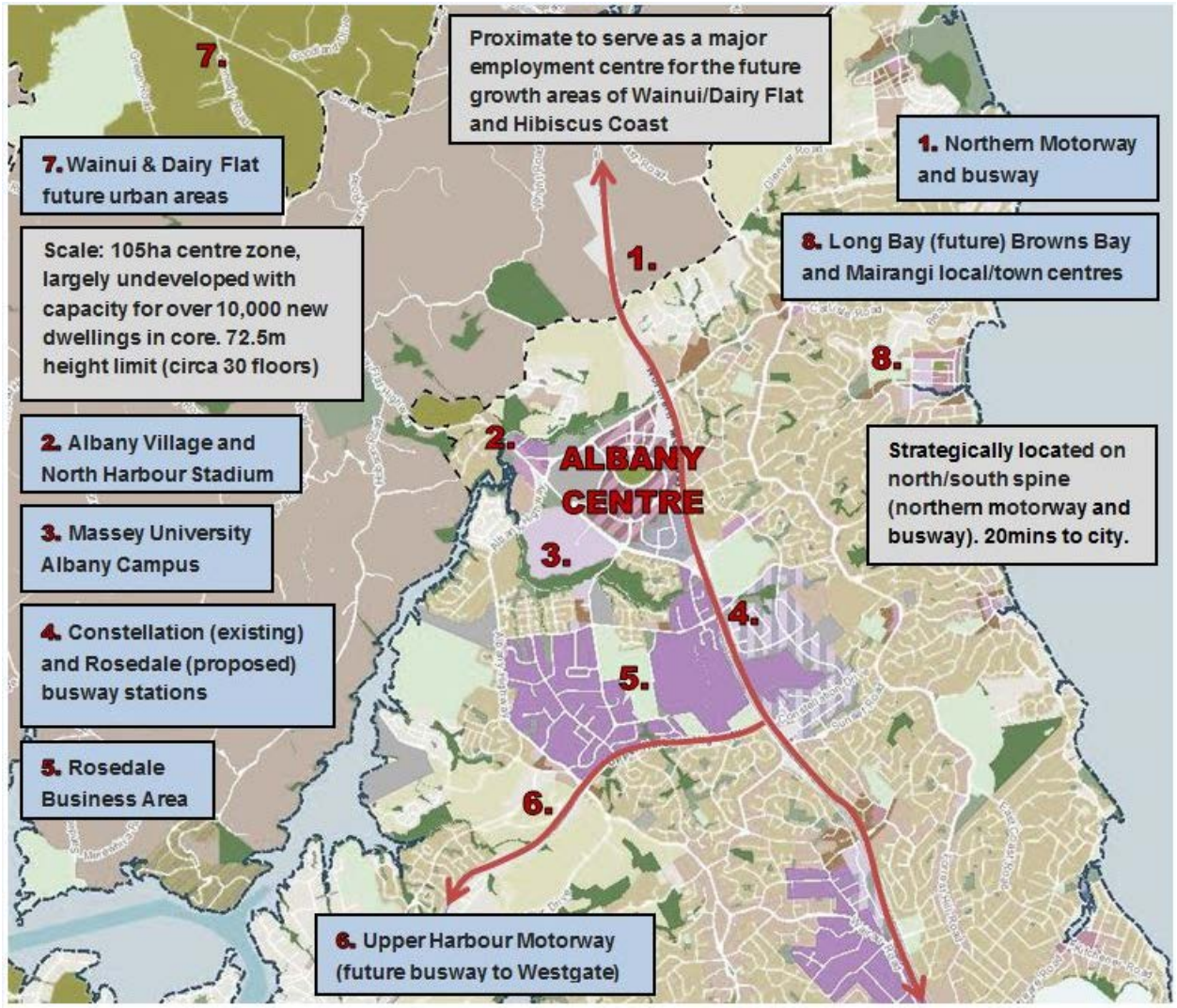
This appendix summarises the options assessment made for locations considered as potential nodes. It is not exhaustive, and does not detail all aspects/qualities of the locations considered. All areas are indicative only.

## Northern node

### Albany

*This area includes the metropolitan centre at Albany and the employment land to the south.*

**Figure 53 Illustrative map showing key features of the Albany node**




**Spatial Priority Area: No**
**Panuku Transformation Area: No**

**Advantages of recommending Albany as a node include:**

- **Location.** Albany is located in Upper Harbour, Auckland's fastest growing local board area. It is close enough to serve as the major employment centre for the Hibiscus Coast and future growth areas of Wainui and Dairy Flat, as well as its large, established North Shore catchment.
- **Accessibility.** Albany is strategically located beside the Northern Motorway and busway, giving Albany superior connections and access north and south. Albany has three major routes north to Dairy Flat and the Hibiscus Coast: the Northern Motorway, Dairy Flat Highway and East Coast Road. The Northern Busway places Albany within 22 minutes travel time of the city centre.
- **Size.** Albany has a large metropolitan centre zone of approximately 105 hectares. The zone allows development up to 72.5m in height. Much of this is yet to be developed. Albany has enough plan-enabled and feasible capacity in this zone for over 10,000 new dwellings.
- **Facilities.** Albany has a wide range of civic facilities including; a community centre and library, a university campus, recreation centre, aquatic centre, central government offices and district court.
- **Established employment base.** Albany centre is the second largest employment centre in the North Shore, with the potential for another 10,000 jobs, on top of the current 5,000 jobs (Auckland Council, 2017f).
- **Sub-regional catchment**. Albany is approximately 15 kilometres from the city centre, the vast majority of its employment base draws from within the local North Shore catchment (Statistics New Zealand, 2017b).[42]
- **Market attractive.** Albany and its supporting business area is already a highly successful and established retail and employment centre. Albany does not yet have many higher density mixed use residential developments typical of more established centres (such as Takapuna). However, recent developments such as Library Lane and the Rose Garden Apartments are proving successful and increasing its residential appeal.

**Disadvantages of recommending Albany as a node include:**

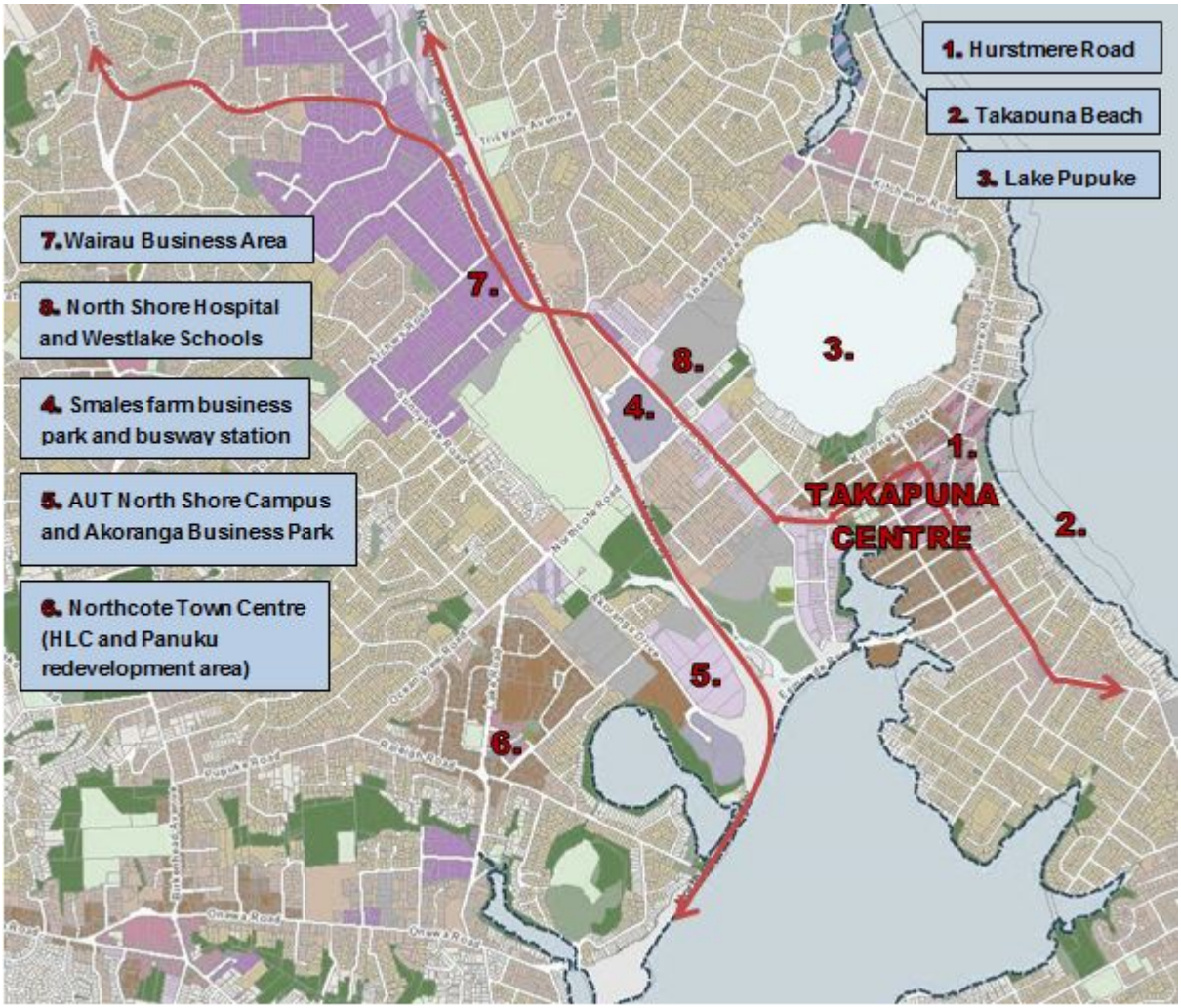
- **Poor Urban Structure.** The layout of Albany has been designed with vehicle use in mind and has poor pedestrian amenity (Harris, 2011), its various elements (the village, university, shopping centre, business and residential areas) are all isolated from each other and the curved streets mean there are few pedestrian sightlines or logical direct routes.
- **First generation development.** Although this is changing, Albany remains characterised by first generation suburban retail developments with poor urban form. It requires substantial further investment and development to establish a more pedestrian friendly centre.
- **Disconnected Open Space.** Although Albany has a number of notable open spaces and natural features, particularly around the village and Lucas Creek, these are hidden away, disconnected from each other and poorly utilised.

[42] At the 2013 census, there were 7,000 employees working in the Albany census area unit (CAU) The majority of these workers travelled from Northcross, Browns Bay and the upper East Coast Bays, Greenhithe, Unsworth Heights and Orewa

## Takapuna

*This area encompasses the Takapuna metropolitan centre and surrounds, including Taharoto Road to Smales Farm business park, North Shore Hospital and Westlake Schools, and westwards to Barry's Point, Akoranga and Northcote.*

**Figure 53 Illustrative map showing key features of the Takapuna node**




**Spatial Priority Area: Yes**
**Panuku Transformation Area: Yes - Unlock**

### Advantages of recommending Takapuna as a node include:

- **Amenity.** Takapuna has a superb natural setting. Nestled between a freshwater lake and ocean beach. Takapuna is a walkable centre with an established traditional main street and high pedestrian amenity
- **Market Attractive.** Takapuna is market attractive, particularly for residential living. A number of high-end apartment developments are underway in and around the centre. Nearby Northcote is gearing up to undergo comprehensive redevelopment over the next decade
- **Diverse.** Takapuna has a diverse mix of industries. Hospitality, retail and smaller office firms dominate in Takapuna. Several top-listed companies have head offices at the

nearby Smales Farm and Akoranga business parks. An eclectic mix of service industries, outdoor and automotive retailers are present in Barry's Point. Wairau Road dominates the large format retail scene and Northcote has developed organically into a collection of ethnic (mainly Asian) restaurants and grocers. Each has a different offering.

- **Social and community infrastructure**. Council offices, a library, aquatic and recreation complex, community centre, North Shore Hospital and AUT campus, Takapuna has a wide range of social infrastructure

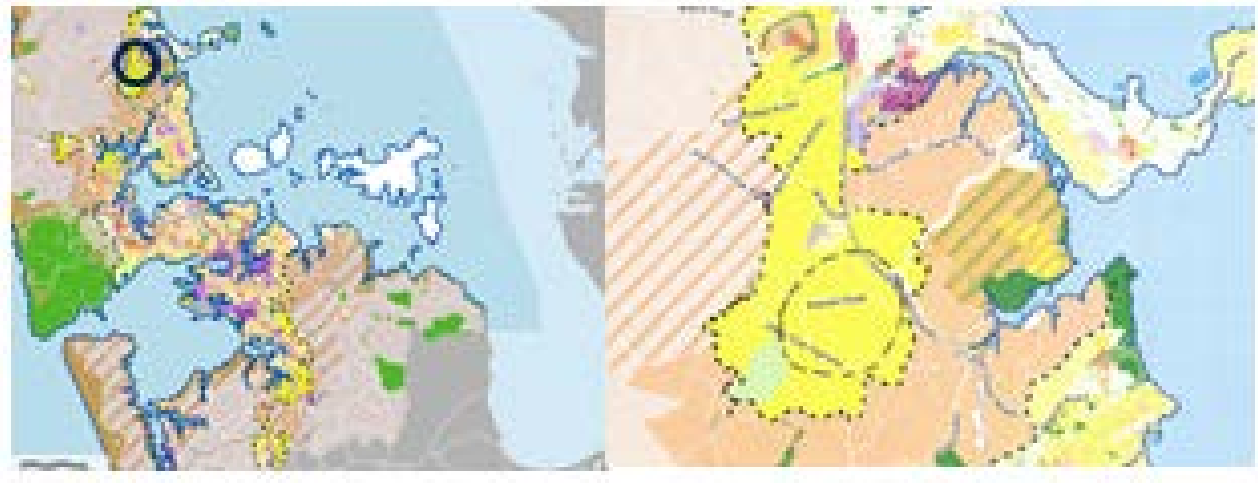
**Disadvantages of recommending Takapuna as a node include:**

- **Accessibility.** The metropolitan centre of Takapuna is located off the Northern Motorway and Northern busway. It is not as well served as locations on the busway by rapid transit connections to the city centre and other destinations further north. It is geographically constrained, with fewer access points than other centres of a similar size.
- **Location.** While Takapuna's location is an unrivalled natural setting its amenity may make it more attractive for residential growth rather than employment growth. While Takapuna is close to the city centre and to areas that will receive considerable natural growth and intensification (particularly Northcote), it is a long distance from the future growth areas of Dairy Flat and Wainui.
- **Structure.** Takapuna is naturally expanding toward the northwest, along Anzac Ave and Taharoto Road, but similar to Albany it lacks structure. The various elements of AUT and Akoranga business park, Barry's Point, Wairau Valley, Northcote Centre, North Shore Hospital and Smales Farm are isolated and disconnected from each other.
- **Size.** The Takapuna metropolitan centre zone is small in physical area, and its supporting mixed use areas are far smaller than other locations considered. Their growth potential is in redevelopment, which has more barriers to overcome than greenfield locations such as Albany.
- **Market offering.** Takapuna's main drawcard is changing to be much more about food and hospitality than retail. While the retail offering in Takapuna is sizeable, the Shore City mall is small by metropolitan centre standards. Most large-format anchor stores are located some distance away in Wairau Valley. The range of services available in Takapuna does not meet all of residents' needs. Instead Wairau generally fulfils homeware and hardware, vehicle servicing and repair needs.

## Dairy Flat, Silverdale

*A new, sub regional hub somewhere in the future urban areas of Dairy Flat and Silverdale; exact location unknown.*

**Figure 54 Location Map- Silverdale/Dairy Flat future urban area**



**Spatial Priority Area: No**
**Panuku Transformation Area: No**

### Advantages of recommending Silverdale/Dairy Flat as a node include:

- It would serve the large future urban area of Silverdale/Dairy Flat, along with established areas of Hibiscus Coast, that currently lack a higher-order employment centre.
- It has good connections to the north and south along the Northern Motorway, and a planned extension to the Northern busway (New Zealand Transport Agency, 2017).
- A 'clean slate' opportunity to establish a strong underlying urban structure, focused around mass transit.

### Disadvantages of recommending Silverdale/Dairy Flat as a node include:

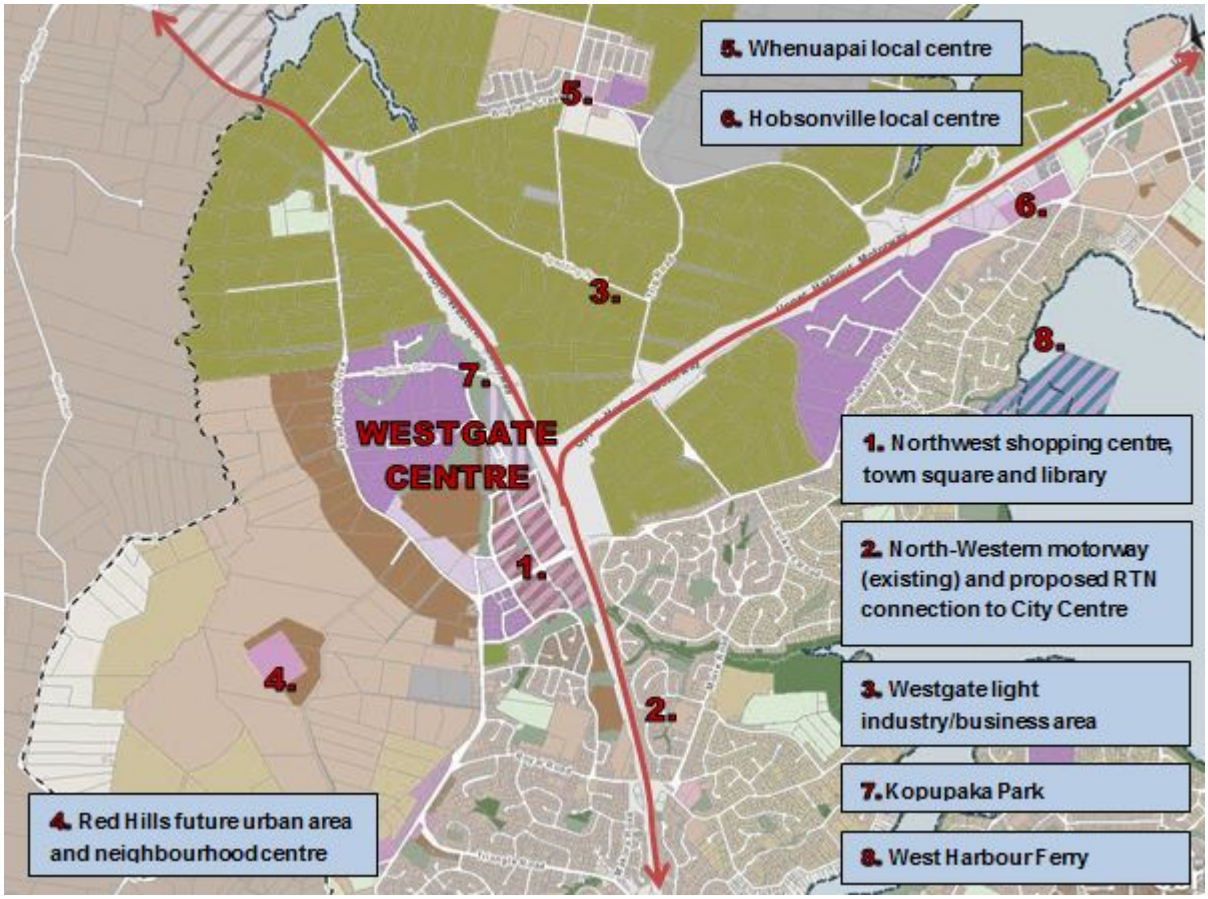
- No utility infrastructure, roading infrastructure, public transport infrastructure, parks or open space, community or social infrastructure.
- The location would take a long time to establish and mature into a centre with higher-order employment that addresses the strong pattern of commuting out of Hibiscus Coast.
- Competition with Silverdale, which already has a number of large-format retailers and is developing into a significant centre to serve the Hibiscus Coast and Wainui areas.
- Dairy Flat is not sequenced for development in the Future Urban Land Supply Strategy until 2033 or later, so it would take a long time for the residential catchment to develop.
- No major public landholdings in the area (except Greens Road Reserve)
- The exact location of new centres in this area has not been decided
- The location would compete with Albany which is already well established.

## Northwestern node

### Westgate

*This area includes the metropolitan centre at Westgate and the surrounding employment land, in particular to the north. The Future Urban areas of Whenuapai and Red Hills form part of the future catchment.*

**Figure 55 Illustrative map showing key features of the Westgate node**




**Spatial Priority Area: Yes**
**Panuku Transformation Area: No**

### Advantages of recommending Westgate as a node include:

- **Scale.** Westgate is big. 35 hectares of metropolitan centre zone and over 300 hectares of light industry/business land either zoned or identified in and around Westgate, Whenuapai and Hobsonville Road. Westgate is poised to be a major employment centre.
- **Amenity.** Westgate will soon open a new 3,600sqm library and community centre fronting onto Te Pumanawa Square, a large public square at the heart of the new town centre. The community centre will house additional services such as a citizens advice bureau. It also has a traditional main street shopping environment that gives visitors a different experience to other suburban centres of its size. It has 28 hectares of public

open space and parkland in and around the town centre, the most notable of which is the 22ha Kopupaka Park.

- **Market Attractive.** Westgate boasts over 400,000 square metres of completed and tenanted retail space and 7,800sqm of office space. While no mixed use residential development has been delivered in the centre to date, a lot of residential development is taking place in the surrounding area, which is expected to grow from a population of 21,700 in 2018, to over 100,000 people by 2048[43]. Total public and private sector investments in Westgate are expected to top $1 billion by 2020.
- **Accessible.** Westgate has superior highway connections north, east and south via state highways 16, 18 and 20 respectively. The completion of the proposed north western rapid transit corridor will cut journey times to the city centre from the current 55 minutes (varies depending on congestion) to 35 minutes. The Waterview Connection has vastly improved accessibility south and further improvements are in the planning pipeline.
- **Location.** Westgate is approximately 17 kilometres from the city centre, enabling its own sub-regional catchment to establish. One that leverages off its established connections and existing population base in Massey, West Harbour and Hobsonville, but is poised to become a major sub-regional centre for the future urban areas of Whenuapai, Red Hills and Kumeū.
- **Structure.** Westgate has good urban structure, with a block street layout and hierarchy of pedestrian frontages from its main street to those fronting parks and open spaces.
- **Retail offering.** Westgate already has an established retail and service offering broad enough to meet most of local residents' weekly needs, one which rivals Albany and other large centres.

**Disadvantages of recommending Westgate as a node include:**

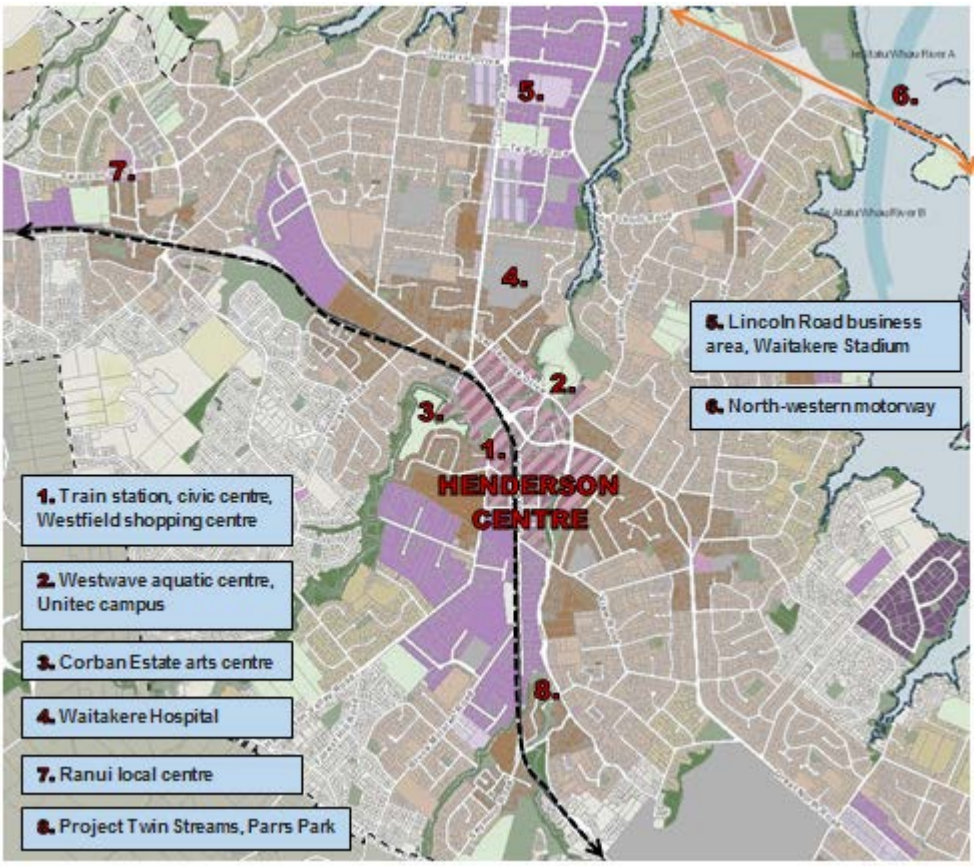
- **Newly-emerged.** It is located on the suburban fringe of Auckland, and is a greenfield development location. It will take time to establish the range and diversity of activities and employment and residential base characteristic of an established centre.
- **Vehicle-dominated**. Westgate, with the exception of Maki Street, is currently car-oriented with large arterials intersecting the area and poor pedestrian amenity. Frontage controls have been put in place to establish a higher standard of pedestrian amenity than that allowed in the past.
- **Lacks dedicated public transport.** While dedicated public transport corridors are in the planning pipeline, Westgate does not yet have quality public transport services typical of a sub-regional centre. It is also distant from the western rail line.

[43] The surrounding area includes Westgate, Red Hills, Whenuapai and West Harbour. It does not include Hobsonville Point or Massey. Population figures are from the ART model vs i11.

## Henderson

*This area includes the metropolitan centre at Henderson and the surrounding employment and high density residential land.*

**Figure 56 Illustrative map showing key features of the Henderson node**




**Spatial Priority Area: No**

**Panuku Transformation Area: Yes**

### Advantages of recommending Henderson as a node include:

- **Facilities.** Henderson is an established metropolitan centre, with an established catchment stretching from Te Atatū and Massey to Glen Eden. Key facilities include the Corban Estate Arts Centre, Auckland Film Studios, WestCity Waitakere, Waitakere Mega Centre, West Wave Pool and Leisure Centre, Waitakere Hospital, the Trusts Stadium and Parrs Park.
- **Quality Public Transport.** Henderson is a major public transport hub for West Auckland and a key stop on the western rail line, which connects Henderson to New Lynn, Newmarket and the City Centre. The completion of the City Rail Link will reduce the travel time between Henderson and the City Centre considerably.
- **Capacity**. Henderson has a large amount of Terraced Housing and Apartment Building (THAB) zoned land surrounding the centre, with large employment areas in Henderson South and the Lincoln Road area. There are also numerous council landholdings in and around the area.

- **Amenity**. Henderson has had a lot of public investment in a network of walking and cycling pathways along its Twin Streams, the location of a key environmental enhancement project underway for over a decade.

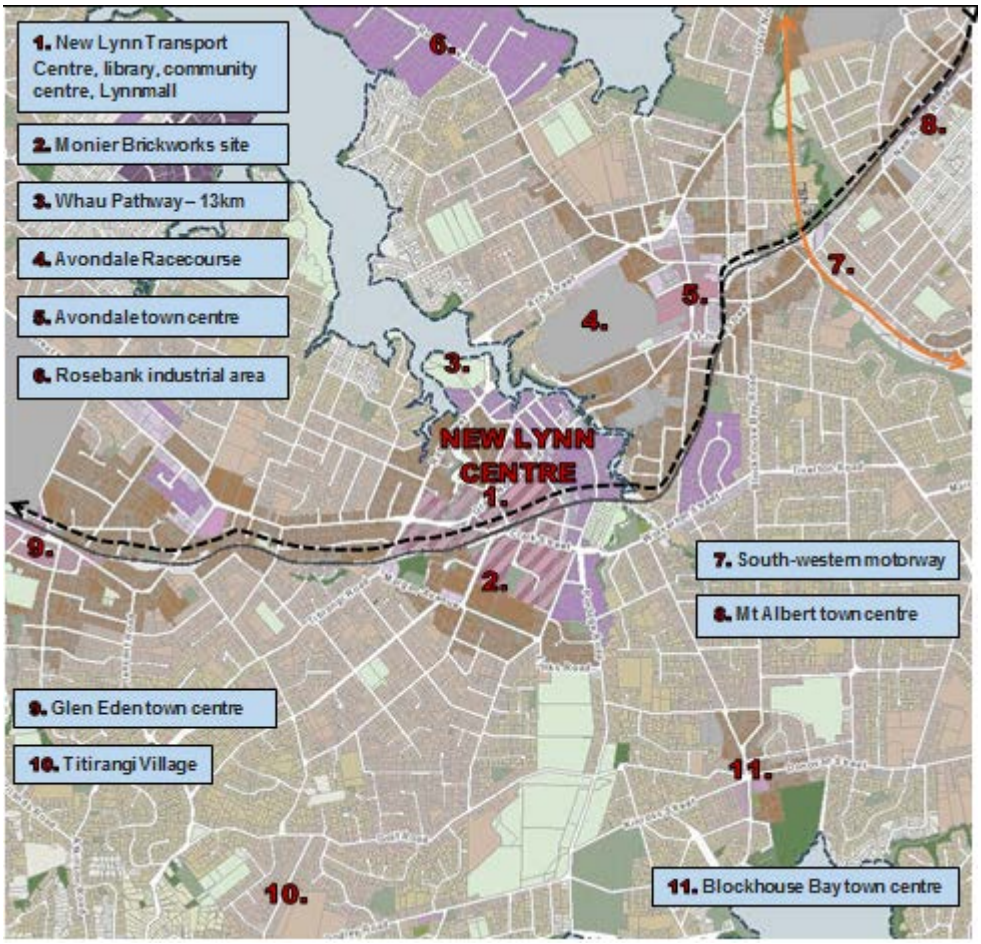
**Disadvantages of recommending Henderson as a node include:**

- **Location.** Henderson is located far from the future urban areas of northwest Auckland, and the transport connections to/from these areas are poor. While Henderson is on the western rail line, it is also a long distance from the north-western motorway, so it does not enjoy the connections north, south and west that Westgate has.
- **Market-attractive.** Henderson is not currently market attractive for redevelopment and more intensive forms of residential living. Its retail offering is encountering strong competition from the Lincoln Road corridor that leads to it. While there is a strong employment base in Henderson, there are other locations closer to the city centre that are more attractive for future office based employment and no further business land is earmarked for development.

## New Lynn

*This area includes the metropolitan centre of New Lynn and employment areas to the east along with medium density residential areas to the west.*

**Figure 57 Illustrative map showing key features of the New Lynn node**




**Spatial Priority Area: Yes**
**Panuku Transformation Area: No**

### Advantages of recommending New Lynn as a node include:

- **Location.** New Lynn's location on the portage between the isthmus and West Auckland means it has a large catchment encompassing both southwestern parts of the isthmus, and the west. It also constrains access/movement across the portage, meaning locals in the west catchment are more likely to want to travel only as far as New Lynn to meet their everyday needs.
- **Accessibility.** New Lynn is located on the western rail line, with good connections to Newmarket and Britomart. It is well-connected to Henderson further west, both by rail and road. While some distance from Auckland's motorway network, it has reasonable connections to Maioro St interchange on the southwestern motorway for travel south. New Lynn is a major transport interchange for the west, with all buses in the area running through it. It is also the fourth busiest rail station on the Auckland rail network.
- **Transformative Investment.** New Lynn has received significant public and private investment to transform it into a transit-oriented centre. This included

undergrounding/trenching of the rail line that ran through its centre, a new transport interchange and parking building, a shared space, and significant public realm upgrades to its streets and open spaces. New developments, such as the Merchant Quarter apartments, the Monier brickworks site and the Lynnmall expansion, have taken place, and the area is becoming more market attractive. Completion of the City Rail Link is expected to further reduce the travel time between New Lynn and the city centre to 23 minutes, from the current 40 minutes. This will further increase its market appeal.

- **Centre hierarchy.** New Lynn is the main metropolitan centre for a number of smaller centres around it, including; Avondale, Mt Albert, Glen Eden, Titirangi and Blockhouse Bay. Any investment in New Lynn will have spin-off effects on these smaller centres.
- **Open space.** Te Whau coastal pathway will link New Lynn to the Whau River coastline from Olympic Park all the way to Te Atatū Peninsula. The walk/cycleway will form a continuous loop of off-road cycleway with the SH16 northwestern cycleway and the Waterview shared path.

**Disadvantages of recommending New Lynn as a node include:**

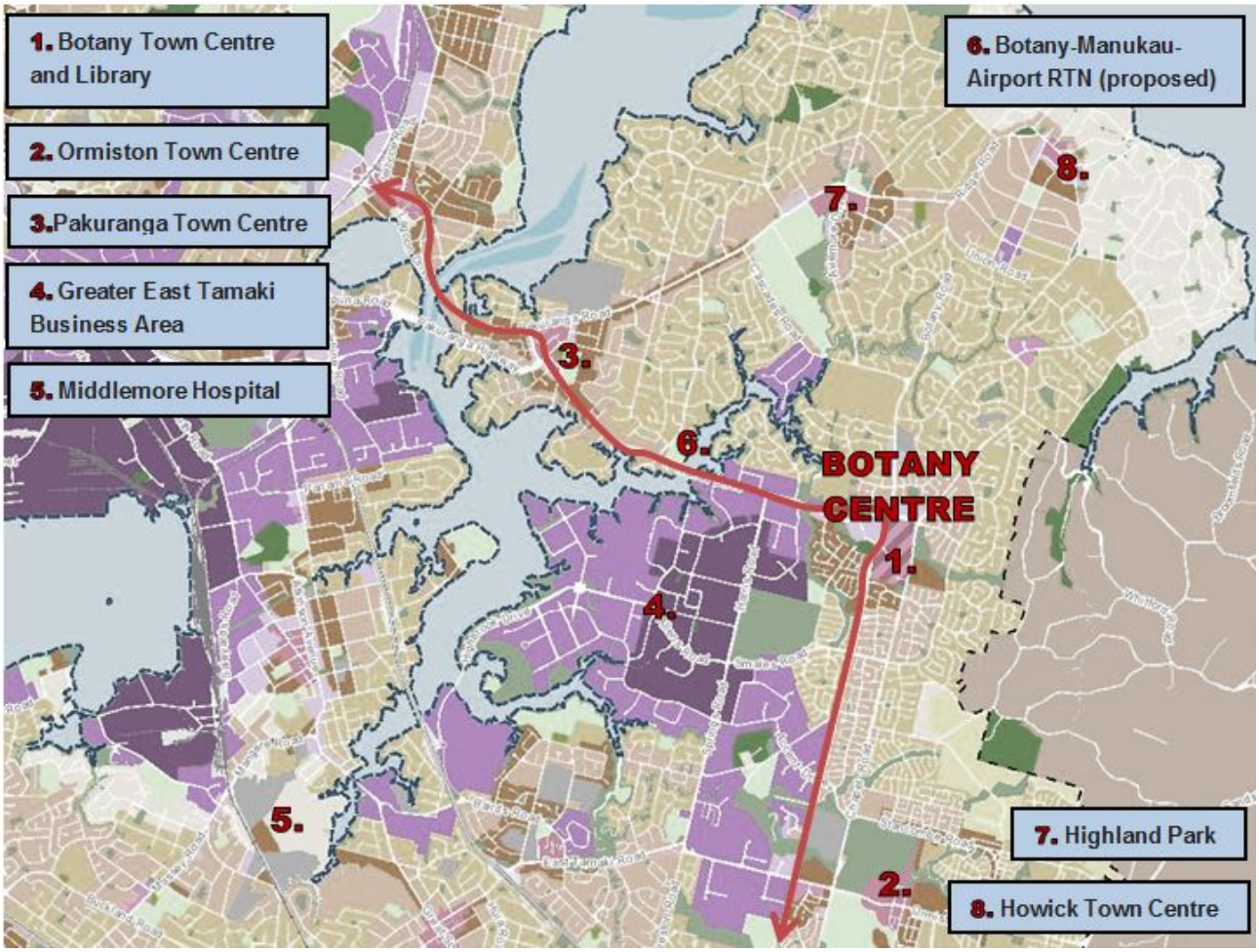
- **Distance.** New Lynn is far from the future urban growth areas in the northwest. While its catchment will have some organic growth through infill and redevelopment, this is not likely to be significantly greater than other suburban areas.
- **Proximity.** New Lynn is located approximately nine kilometres from the city centre, and increasingly will be competing for employment and retail spend with the city centre and Newmarket.
- **Size.** While New Lynn has some established light industry around its periphery, and some relationship with the Rosebank business area, neither are of the same size nor scale as Westgate, or Henderson. Most of the activities in its light industry zone are evolving into local service industry. Westgate already has a far greater retail offering than New Lynn.
- **Connections.** New Lynn does not have the same connections north, west and south that Westgate has, while it does have the railway and is more proximate to the city centre, Westgate will have a similar level of public transport service and proximity to the city with completion of the north-western busway in the near future.
- **Amenity.** New Lynn lacks the amenity of many other centres of its size, such as Henderson, Takapuna and Newmarket. It does not have as many civic or community facilities and its parks and open spaces (despite significant investment) are not well connected or used. The Whau pathway may help to change this.
- **Market attractive.** While there are some signs New Lynn is increasing its market appeal, and potential for the City Rail Link to change its development potential, it is currently not considered market attractive for comprehensive redevelopment.

## Eastern node

### Botany

*This area includes the metropolitan centre at Botany and the employment land to the west.*

Figure 58 Illustrative map showing key features of the Botany node




**Spatial Priority Area: No**
**Panuku Transformation Area: No**

**Advantages of recommending Botany as a node include:**

- **Large Catchment.** Botany is located in east Auckland, in the Howick Local Board Area, which has an estimated population of 150,000 (in 2017) and includes Howick, Pakuranga, Flat Bush and East Tāmaki. It is approximately 7km from both Manukau and Sylvia Park metropolitan centres.
- **Redevelopment Potential.** Botany has a relatively small metropolitan centre zone of approximately 23 hectares. The zone allows development up to 72.5m in height. Much of this is yet to be developed. Botany has enough plan-enabled and feasible capacity in and around its centre for over 4,000 new dwellings.
- **Employment Offer.** Botany is the largest retail centre in the area, with the potential for another 1800 jobs, on top of the current 550. There is a large and established commercial and light industrial business area in nearby East Tāmaki.

- **Market Attractive.** Botany and its supporting business area is a successful and established retail and employment centre with recent development over the past twenty years. The centre is set to undergo a multi-million dollar expansion to its entertainment and retail offering. It does not yet have many higher density mixed use residential developments typical of more established centres (such as Takapuna).

**Disadvantages of recommending Botany as a node include:**

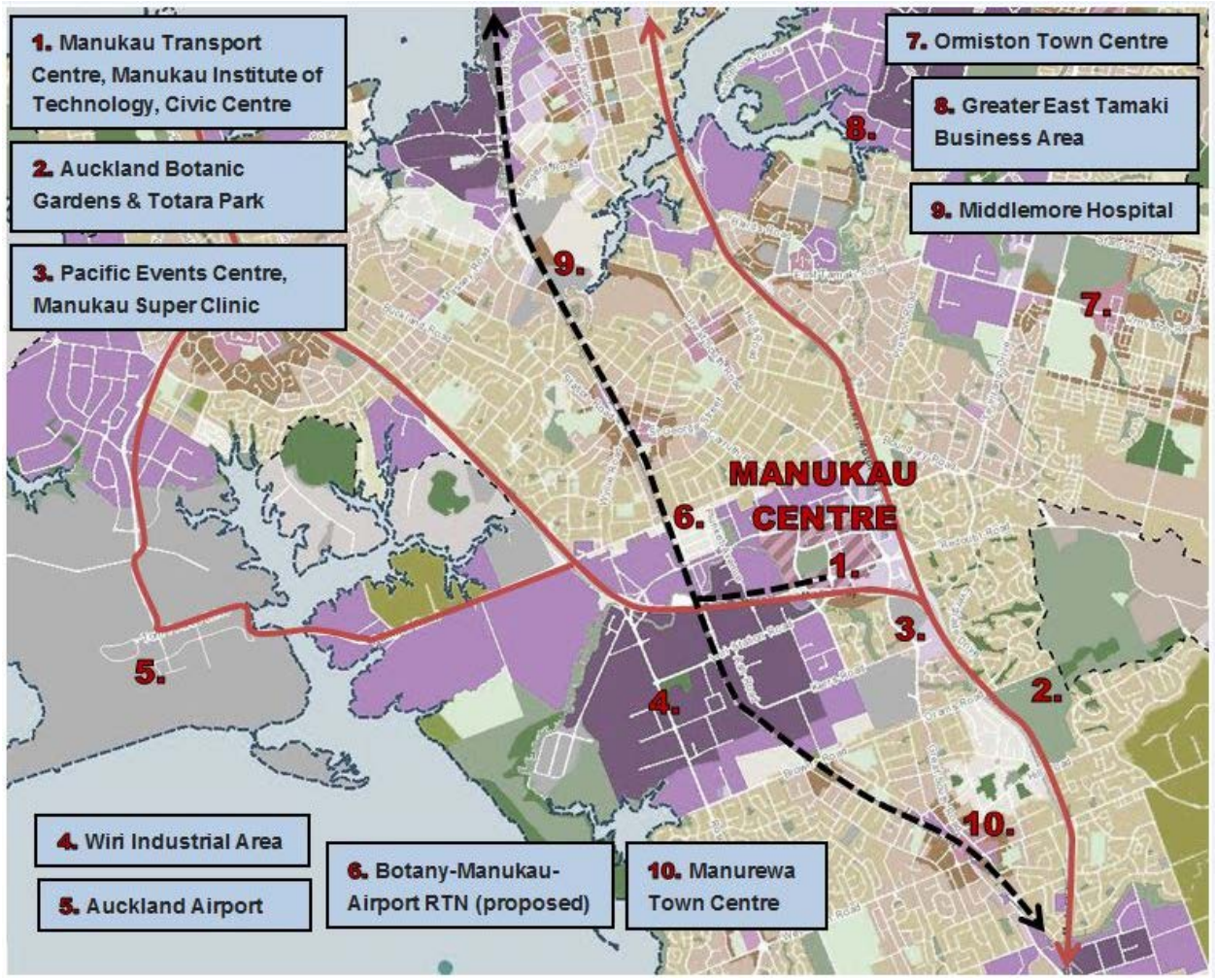
- **Poor Connectivity.** Botany is currently not well connected to the city centre or other parts of Auckland. Connections will improve when the Panmure to Pakuranga and later Pakuranga to Botany sections of New Zealand's first urban busway are completed as part of AMETI.
- **Recent Development.** Much of Botany is relatively recently urbanised and in small parcels, making comprehensive redevelopment unlikely in the short to medium term. The centre has developed around private vehicle use, with large areas of car parking surrounded by busy arterials. Substantial further investment and development would be required to establish a more pedestrian-friendly centre.
- **Proximity to other Centres.** Botany is located approximately 7 km from both Sylvia Park and Manukau, which are both large, established centres with a significant pull from East Auckland. These centres effectively compete with Botany for retail spend, commercial tenants and investment.
- **Facilities.** Botany is lacking in community facilities. There is a library in the town centre. Community facilities including community halls, council recreation and leisure centres are in nearby areas including Howick and Pakuranga.
- **Accessibility.** Botany is located at the intersection of Ti Rakau and Te Irirangi Drives, with poor motorway access. It is not currently on the rapid transport network although will eventually be connected to the city centre and the airport via AMETI. Bus travel to the city centre takes just over an hour, whilst travel to Manukau takes 30-45 minutes by bus.

## Southern Node

### Manukau

*This area includes the Manukau City Centre and its supporting catchment, which includes the airport, major business areas and several smaller centres.*

Figure 59 Key features of the Manukau node and surrounding area




**Spatial Priority Area: Yes**
**Panuku Transformation Area: Yes**

**Advantages of recommending Manukau as a node include:**

- **Size.** Manukau is the largest of Auckland's 10 metropolitan centres by share of employment. It is Auckland and New Zealand's largest centre of manufacturing and industry, with large and growing industrial districts in Wiri, East Tāmaki and the Airport Corridor.
- **Gateway.** Manukau is Auckland's southern gateway, and the closest to Auckland Airport, which is significant for its growth prospects. Widening of SH1 to Papakura and the proposed Mill Road corridor will further enhance its southern gateway status.
- **Culture.** Manukau's strong Māori and Pasifika identity gives it a compelling brand from which to attract new market attention as a location of opportunity (ATEED & Panuku, 2006).

- **Facilities.** Manukau is the civic and administrative heart of south Auckland, with a wide range of central government offices, local government offices, recreation facilities, a stadium/events centre, medical clinic, higher education institutes, library and even a theme park.
- **Connections.** Manukau has superior connections, being 35 minutes from the city centre by rail, and at the juncture of southern and southwestern motorways. It is a major public transport interchange for south Auckland. It is also the most proximate major centre to Auckland Airport, and a proposed rapid transit corridor as part of AMETI will give Manukau a dedicated public transport link to the airport with a new interchange at Puhinui and connections further east.
- **Growth.** As well as being a major employment growth centre, Manukau is proximate to significant new urban growth areas at Ormiston/Flat Bush, Takanini and Drury.
- **Self-containment.** Manukau is far enough from the city centre that it does not compete with central Auckland in meeting most residents' everyday needs. Most residents' employment needs are also met within south Auckland.

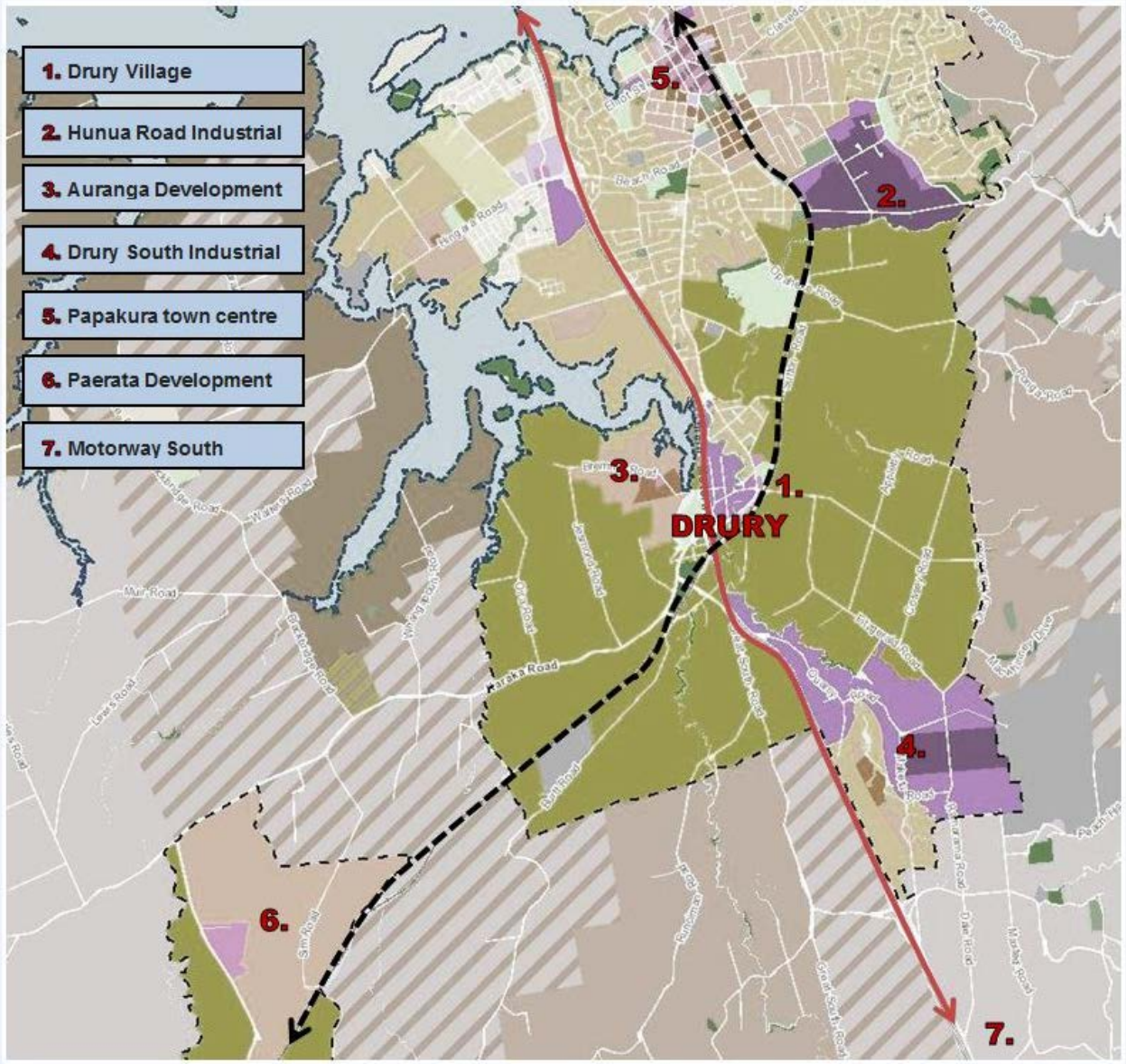
**Disadvantages of recommending Manukau as a node include:**

- **Connections south.** The distance between Manukau and new future urban areas around Drury and Takanini may make it difficult for Manukau to adequately serve these areas.
- **Market Attractiveness.** An established centre, Manukau may not be nearly as attractive a short-term investment prospect as a new greenfield centre further south. Further development opportunities are likely to require redevelopment of sites.
- **Vehicle-oriented.** Although this is slowly changing, Manukau is a very vehicle-dominated centre, with large amounts of space within the centre dedicated to at-grade parking. While this presents further development opportunities in future, at present it results in a poor quality pedestrian environment. Manukau has a number of large-format retailers around the fringes of its centre and busy ring roads that feed onto the motorway network.

## Drury (new centre)

*A new, sub regional hub somewhere in the future urban area in Drury; exact location unknown.*

**Figure 60 Illustrative map showing key features of the Drury future urban area**




**Spatial Priority Area: No**
**Panuku Transformation Area: No**

### Advantages of recommending Drury as a node include:

- **Location.** Adjacent to the North Island Main Trunk railway line and southern motorway, Drury is located on the main north/south corridor, which makes it an attractive growth location, particularly for industrial activities.
- **Growth Prospects.** Drury has a large future urban area and is well positioned to serve as a new centre for the local area as its population grows. There is a large amount of

planned transport infrastructure for the area including upgrades to the Southern Motorway, the Mill Road corridor and rail upgrades (New Zealand Transport Agency, 2017).

- **Capacity.** There is currently high level developer interest in the area and capacity for growth.

**Disadvantages of recommending Drury as a node include:**

- **Undeveloped.** Drury is currently only a small village centre with some limited industrial activity. A new, large centre in this area would take time to establish and mature. It would require substantial investment in new infrastructure.
- **Cost of infrastructure.** The cost of servicing a large new centre at Drury is high, including parks and open space, community and social infrastructure, water, wastewater and transport improvements beyond that currently planned.
- **Catchment.** Drury lacks the catchment of a large metropolitan centre. Most of the catchment area around Drury is rural. It will take a long time (20-30 years or longer) for the future urban areas to be developed and built on around Drury.
- **Facilities.** A rural village, Drury lacks all of the facilities expected of a major urban centre, including local and central government offices and civic facilities, hospitals, higher education institutions, stadiums and event centres, and quality public transport services.
- **Existing centres.** Papakura, located less than 5km north of Drury, is Auckland's smallest metropolitan centre, and the emergence of a new major commercial centre and node at Drury may over-provide for forecast population and household growth in the area. This could potentially diminish the role and function of Papakura significantly. The exact location of new centres in the southern future urban areas has not yet been decided; a structure plan for the area is currently underway that will examine these issues.
- **Distance.** Most employment for the future residents of Drury will be to the north; at Manukau, the airport and its nearby business districts (Wiri & East Tāmaki). Drury is a considerable distance from these established areas. It will take a long time for Drury to grow into a centre with a large enough employment base to serve its own population.
- **Access.** There are limited corridors leading north from Drury to Manukau and the rest of Auckland, namely; the North Island Main Trunk railway, Great South Road, Southern Motorway and Mill Road. These routes are already heavily congested from current and projected growth, and may constrain the development of a node at Drury. The establishment of a node at Drury would put increased pressure on these corridors.
- **Poor amenity.** Drury has no parks or major open space. It is also a thoroughfare and pinch-point for several major infrastructure networks through the area. These include:
  - the southern motorway (state highway one)
  - the north island main trunk railway
  - the Maui gas pipeline
  - a number of large overhead transmission lines

These networks each present their own challenges to establishment of a major urban centre at Drury, including urban form and structure, public safety and amenity. A structure plan for the area is currently underway that will examine these issues.

# Appendix 7: 2015 – 2025 Long-term Plan Spatial Priority Areas

Nine priority areas were introduced in the 2012 Auckland Plan as areas where, over the first three years of the Plan, there would be a particular focus on further planning and implementation.[44]

Through the 2015-2025 Long-term Plan process (Auckland Council, 2015h) these nine areas were refined and resulted in 10 Spatial Priority Areas (see Figure 61 below). This focused the majority of planned infrastructure improvements into carefully planned spatial priority areas (including the city centre and The Southern Initiative), supporting housing and job growth and making the best use of existing infrastructure.

The prioritisation tools that were used to shape the Long-term Plan were:

- Auckland Transformational Shifts (set in the 2012 Auckland Plan)
- Spatial Priorities.

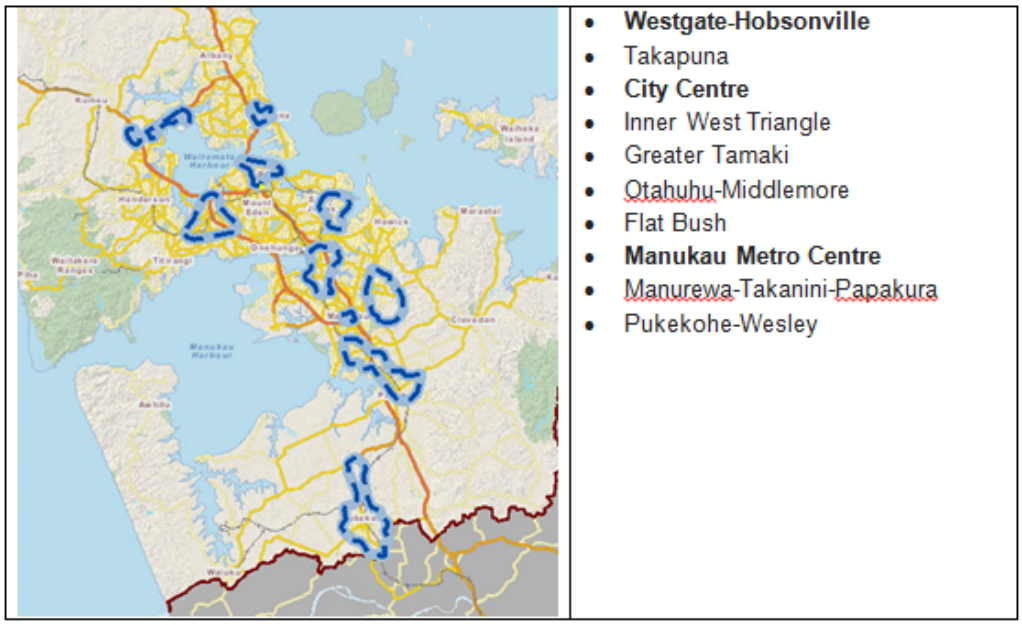
Spatial prioritisation was one way to ensure the council's limited resources were focused into areas that enabled multiple benefits, for example more jobs, more houses, greater transport options, connected communities, improved recreation, and a quality environment. Identifying a set of spatial priorities was one way to help prioritisation over the timeframe of the Long-term Plan.

The 2015-2025 Long-term Plan acknowledged that spatial priorities change over time. Once successful outcomes and change in an area have been enabled, new spatial priorities will be identified and considered as part of future long-term planning processes.

Progress on the specific visions and associated actions for each of the areas has varied, reflecting the individual nature of the areas and factors such as resource constraints. Many of the actions identified are now largely complete and work on place-based priorities will continue through areas identified as part of the Auckland Plan 2050 and Auckland's 10-year plan 2018-2028. Complementing these priorities there will be small scale, local projects through local board initiatives and programmes such as the Southern Initiative.

[44] The nine priority areas were the city centre, the Southern Initiative, Hobsonville/Westgate and Massey North, Tāmaki, New Lynn, Ōnehunga, Takapuna, Warkworth, and Pukekohe.

**Figure 61 2015-2025 Long-term Plan Spatial Priority Areas**



- **Westgate-Hobsonville**
- Takapuna
- **City Centre**
- Inner West Triangle
- Greater Tamaki
- Otahuhu-Middlemore
- Flat Bush
- **Manukau Metro Centre**
- Manurewa-Takanini-Papakura
- Pukekohe-Wesley

# Appendix 8: Auckland Unitary Plan zonings

This appendix provides a summary of the range of zones that apply across the existing urban area and those future urban areas that have been live zoned.

For future urban areas that have not yet been live zoned, these zones could be applied through structure planning and plan change processes.

**Table 19 Auckland Unitary Plan zonings and descriptions**

| Zone | Description |
|---|---|
| Future Urban | Applied to greenfield land that has been identified as suitable for urbanisation. It is a transitional zone therefore 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. |
| Residential Single House SH | Limited intensification possible, in legacy character and spacious residential areas. Existing houses can be converted into 2 dwellings and minor dwellings are permitted |
| Residential Mixed Housing Suburban<br><br>MHS | Extensive areas of suburban housing with density and development standards allowing substantial intensification.<br><br>It is the most widespread residential zone covering many established suburbs and some greenfields areas. Much of the existing development in the zone is characterised by one or two storey, mainly standalone buildings, set back from site boundaries with landscaped gardens. The zone enables intensification, while retaining a suburban built character. Development within the zone will generally be two storey detached and attached housing in a variety of types and sizes to provide housing choice. |
| Residential Mixed Housing Urban<br><br>MHU | Extensive areas around centres and corridors, generally allowing more intensification than legacy plans, in some areas substantially more, and up to three storeys.<br>It is a reasonably high-intensity zone enabling a greater intensity of development than previously provided for. Development will typically be up to three storeys in a variety of sizes and forms, including detached dwellings, terrace housing and low-rise apartments. This supports increasing the capacity and choice of housing within |

| Zone | Description |
|---|---|
| | neighbourhoods as well as promoting walkable neighbourhoods, fostering a sense of community and increasing the vitality of centres. |
| Residential Terraced Housing and Apartment Building<br><br>THAB | Areas around centres allowing intensive apartments and terraced housing, of four or more storeys.<br><br>It is a high-intensity zone enabling a greater intensity of development than previously provided for in planning provisions. This zone provides for urban residential living in the form of terrace housing and apartments. The zone is predominantly located around metropolitan, town and local centres and the public transport network to support the highest levels of intensification. The purpose of the zone is to make efficient use of land and infrastructure, increase the capacity of housing and ensure that residents have convenient access to services, employment, education facilities, retail and entertainment opportunities, public open space and public transport. This will promote walkable neighbourhoods and increase the vitality of centres. The zone provides for the greatest density, height and scale of development of all the residential zones. Buildings are enabled up to five, six or seven storeys in some areas depending on the scale of the adjoining centre, to achieve a transition in height from the centre to lower scale residential zones. |
| Business Metro Centre, Town/Local/Neighbourhood Centres | Increased scale of development allowed, in height and floor area. Less parking required. Generally permissive of intensive residential and business activity, approximately double the capacity of legacy plans overall. |
| Business Mixed Use<br><br>MU | Increased scale of development allowed compared to legacy plans, with substantial intensive residential component anticipated. Four storeys and higher.<br>The zone is typically located around centres and along corridors served by public transport. It acts as a transition area, in terms of scale and activity, between residential areas and the City Centre, Metropolitan Centre and Town Centre zones. It also applies to areas where there is a need for a compatible mix of residential and employment activities. The zone provides for |

| Zone | Description |
|---|---|
| | residential activity as well as predominantly smaller scale commercial activity that does not cumulatively affect the function, role and amenity of centres. The zone does not specifically require a mix of uses on individual sites or within areas. |
| General Business zone | Provision for business activities from light industrial to limited office, large format retail and trade suppliers. Large format retail is preferred in centres but it is recognised that this is not always possible, or practical. These activities are appropriate in the Business – General Business Zone only when they do not adversely affect the function, role and amenity of the other business zones.<br>Although the application of the zone within Auckland is limited, it is an important part of Unitary Plan's strategy to provide for growth in commercial activity and manage the effects of large format retail. |

# Appendix 9: Barriers and success factors to achieving quality intensification

Now that the Auckland Unitary Plan has delivered development capacity through up-zoning there is an opportunity to focus on what is needed to deliver the quality urban intensification sought by the Auckland Plan.

This was explored by the Auckland Mayoral Taskforce on Housing who reported back in June 2017 on options and recommendations to build more homes at a pace and a scale which meets the demand created by population growth. The report includes 33 specific proposals to be “investigated” and/or trialled and/or scaled up. Many of them are to do with improving the construction industry capability itself, while others address political and economic factors that have been holding delivery back. The Auckland Design Manual continues to provide information on how to deliver good design. Other factors such as community facilities and services, improved amenity and accessibility all contribute to achieving quality intensification.

***Barriers to intensification***

A number of studies over the last couple of decades have looked at the barriers to intensification (New Zealand Productivity Commission, 2015). In order to achieve the level of intensification sought by the Auckland Plan it is necessary to acknowledge these barriers and confirm whether they still exist or any additional barriers are present.

The post-Auckland Unitary Plan environment suggests a shift in focus, to identify and overcome barriers to quality urban intensification. Further, there is an increasing shift in emphasis towards addressing financing and implementation barriers rather than those in the planning and regulatory framework.

Some important barriers to achieving quality intensification in the Auckland context include:

- development economics and access to secure finance
- land aggregation and assembly
- funding for infrastructure improvements and potential negative impact resulting from growth on levels of service
- complex council regulatory requirements and some remaining zoning restrictions
- limited ability (council) to prevent infill development or lower-level site development where this may create an opportunity cost for future redevelopment configurations
- ability (private sector) to deliver transformational/innovative/green projects may be restricted by regulatory environment
- development and construction sector constraints – limited at-scale developers, labour shortages, material costs
- creating a culture of trust, working together effectively– community/council/developers (look to best practice internationally for what is most effective)

In additions to these barriers, the Mayoral Taskforce on Housing identified the following barriers to intensification (Auckland Council, 2017c):

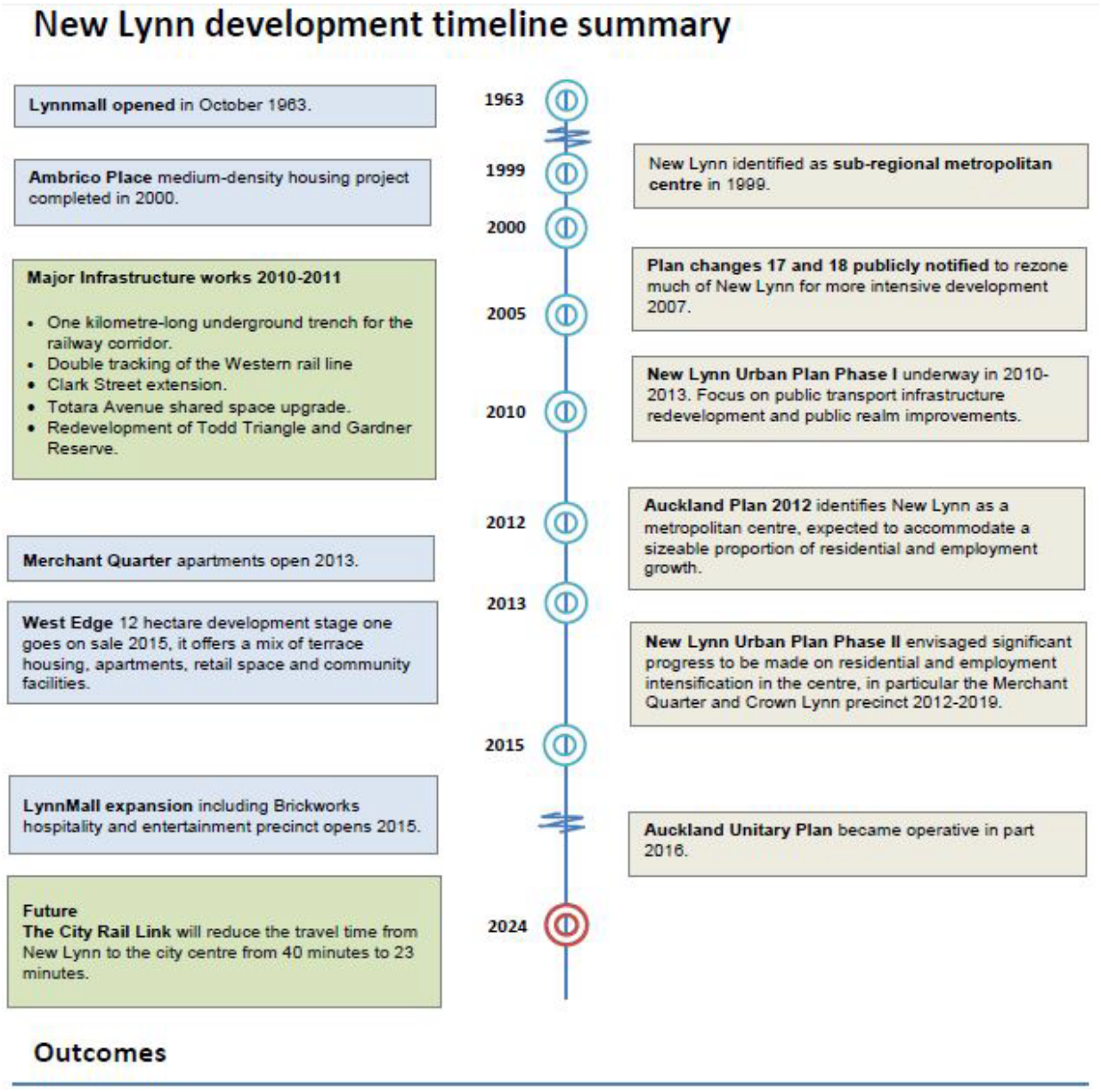
- the boom-and-bust cycle in construction is a barrier to long-term investment – making it difficult to the construction industry to scale up their operations
- residential financing is increasingly constrained by banking regulations
- integrated infrastructure supply and land use is now the key barrier to housing supply
- consenting can be complex and uncertain
- building consents can limit innovation
- joint and several liability causes councils to be conservative.

### *Success factors for achieving quality intensification*

The following are generally recognised success factors for achieving quality intensification in Auckland:

- alignment of focus, energy and funding to reinforce the strategic direction, for example; long term plan infrastructure investments reinforce the intensification strategy and provide opportunities to consider how infrastructure projects can enable sought urban form outcomes (Auckland Regional Growth Forum, 2007)
- provision of green spaces and greening of Auckland's public realm. Evidence suggests intensifying cities requires greater emphasis on residents' ability to access green space; gardens, parks, playgrounds, roof-gardens and vertical gardens (Byrne & Sipe, 2010)
- location. Intensification works better in some locations than others (walkable catchments, access to public transport, high amenity areas such as coastal locations)
- quality of materials and design (overcoming the legacy of leaky buildings)
- infrastructure
- community facilities and services (Auckland Council, 2015b)
- connections and linkages
- amenity
- good design (Auckland Design Manual online resources, urban design review/panels)
- employment opportunities. Modelling results from the Auckland Transport Alignment Project indicate future employment growth will be concentrated in the city centre/city fringe and airport precinct. The type of employment available will shift more toward the service sector and information technology, and be influenced by increasing connections and global competition (Ministry of Transport, 2017)

# Appendix 10: Case studies and key milestones in planning for urban intensification and regeneration




### Infrastructure

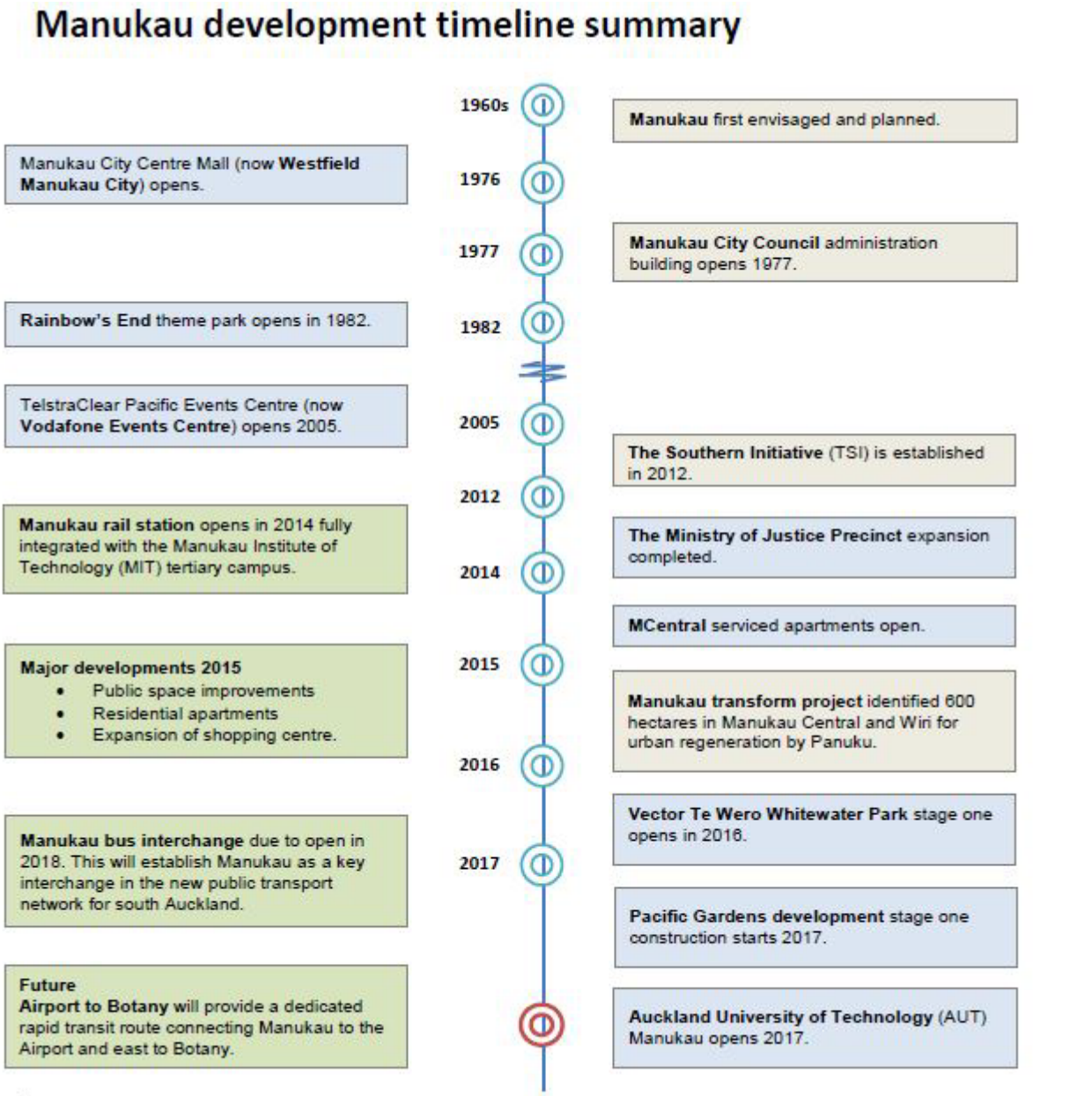
- The New Lynn transport interchange was the single largest investment in Auckland rail in 60 years and the country's largest ever public transport infrastructure investment.
- These developments have established New Lynn as an important centre, built for people who live in apartments, work close to home, or own businesses in the town centre, and who have the option of public transport, walking and cycling to get around.
- Compared with 2012, trains are now carrying 66 per cent more passengers when leaving New Lynn heading towards the city in the morning peak.
- Great North Road and Delta Ave upgrades have given New Lynn residents, visitors and workers higher amenity and a more pedestrian-friendly environment.

### Planning

- Plan change 17 (New Lynn) enabled high density residential developments and urban design controls ahead of the Auckland Unitary Plan.
- The Auckland Unitary Plan allows for further intensification and variety of housing typologies. This in combination with transport infrastructure upgrades has encouraged new medium and high density developments.

### Developments

- The Merchant Quarter development features a medical centre, public car park and shared space.
- The large scale Brickworks upgrade brought a cinema back to New Lynn after a 14-year absence and aims to make Lynn Mall a destination for dining and entertainment.




## Outcomes

### Infrastructure

- The Davies Avenue boulevard development connects the train station, the new bus interchange, MIT campus, surrounding residential and commercial area and the northern car park. The project also enhances integration of Hayman Park.
- A proposed future rapid transit corridor from the Airport to Botany will give Manukau a dedicated public transport link to the airport with a new interchange at Puhinui and connections further east.

### Planning

- The TSI team mobilises community innovation to deliver transformational social, physical and economic change.
- The new Manukau bus station presents an opportunity for adjacent mixed residential and commercial development that makes the most of the proximity to major public transport routes.
- The added convenience and amenity of being close to public transport will make it easy for people to live and work in the area.

### Developments

- Te Wero, along with Te Papa Manukau and Rainbow's End are establishing Manukau as a tourist destination.
- Two major tertiary institutions (AUT and MIT) have opened in Manukau, they will attract about 10,000 students.
- Pacific gardens 9.4 hectare development includes over 1100 apartments and terrace homes.

# Appendix 11: Methodology – Process to identify and sequence development areas

This appendix sets out the methodology used to identify and sequence development areas.

The four broad components of the process are:

- identifying a long list of potential development areas
- identifying a short list of development areas
- sequencing and timing for the short list of development areas
- identifying the final development areas

Each of these components is discussed in more detail below.

### 1. Identifying a long list of potential development areas

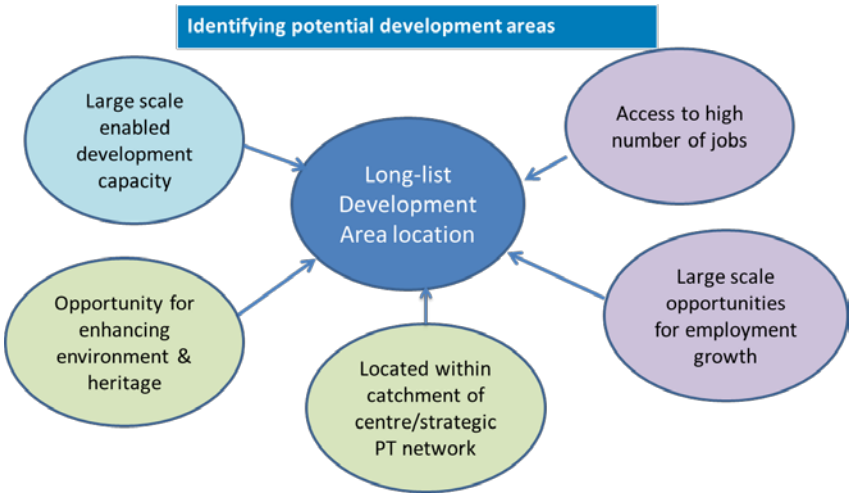
*Developing locational criteria*

Draft criteria were compiled and refined with input from council staff to assist with identifying potential development areas on maps. This included an analysis of existing criteria used by planning and development agencies in prioritising spatial planning projects.[45] Engagement with infrastructure providers enabled them to have input into the draft criteria. There was also an opportunity, early on in the process, for infrastructure providers to test potential development areas. Feedback was provided by: Auckland Transport; Watercare; Parks and Open Space; Healthy Waters; Community Facilities; and Panuku.

Figure 62 below illustrates the issues that formed the basis for the criteria to identify the longlist of potential development areas. The detailed criteria are provided in Appendix 14.

[45] For a summary of the existing criteria used by planning and development agencies to priortise spatial projects see Appendix 11. This exercise informed both locational criteria and those identified for sequencing and timing development areas as art of the second step in this process.

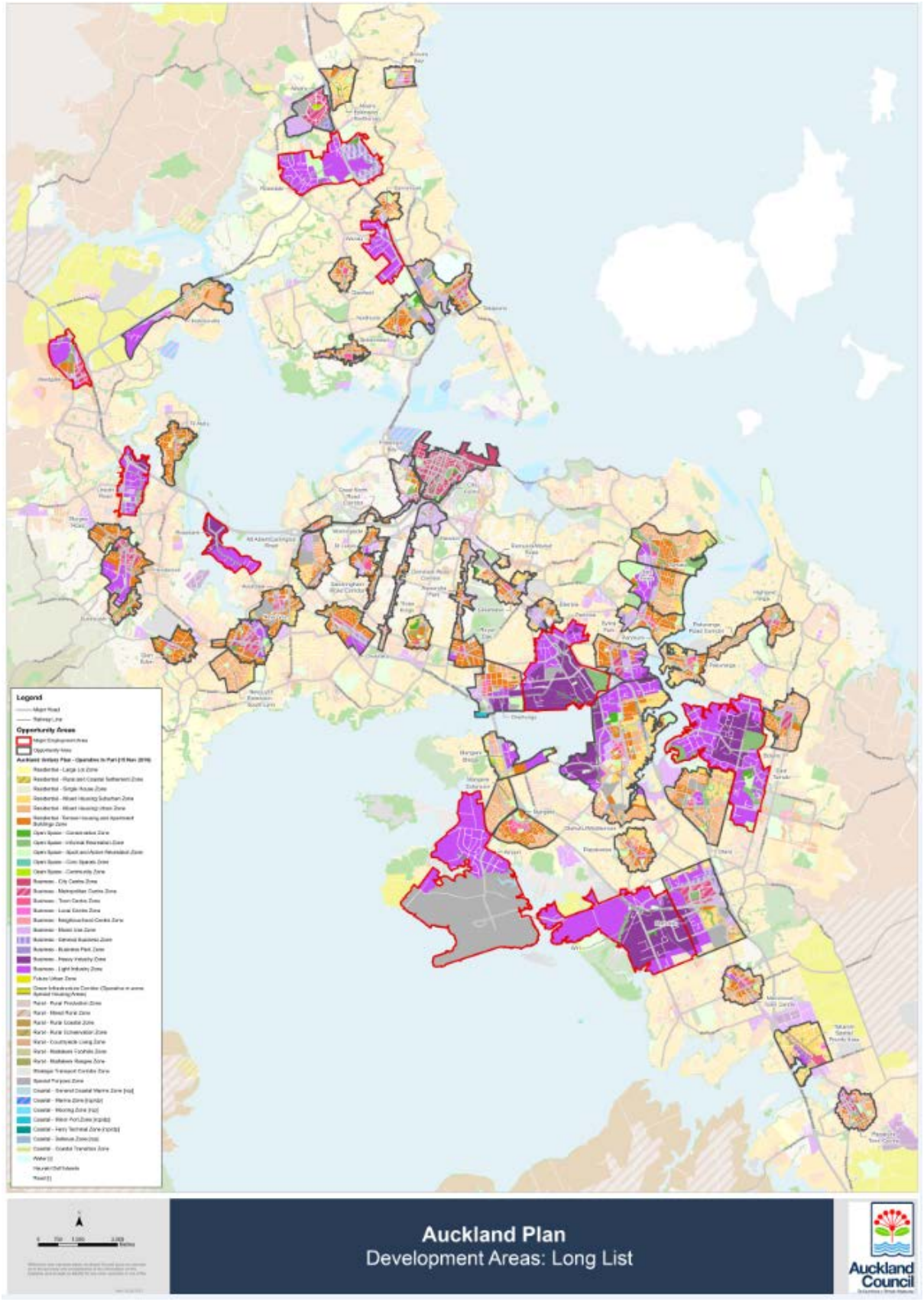
**Figure 62 Consideration for the location of Development Areas long list**




A long list, of possible locations for development areas, was identified using this set of high level criteria.[46] The map below (Figure 63) shows the long list of possible locations across Auckland, and associated business areas.

[46] Some areas suggested for inclusion were not included in the long list as they did not have the required scale of expected growth.

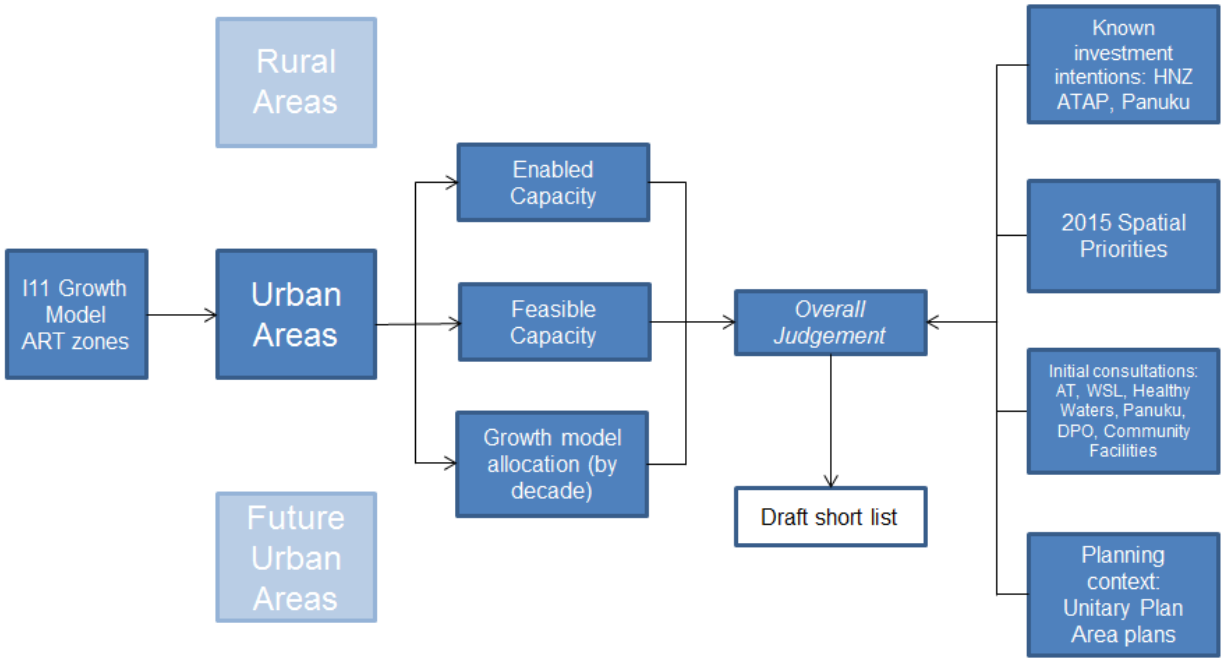
**Figure 63 Location of development areas long list considered**



## 2. Identifying a draft short list of development areas

The long list of areas comprised 53 separate areas. This long list was narrowed down to a draft short list, and the development areas sequenced over the 30 year timeframe of the Auckland Plan 2050. This draft short list was further refined through feedback from the Planning Committee. Figure 64 below shows the general process that was used to arrive at a draft short list of 20 development areas.

**Figure 64 Process to arrive at development areas draft short list**



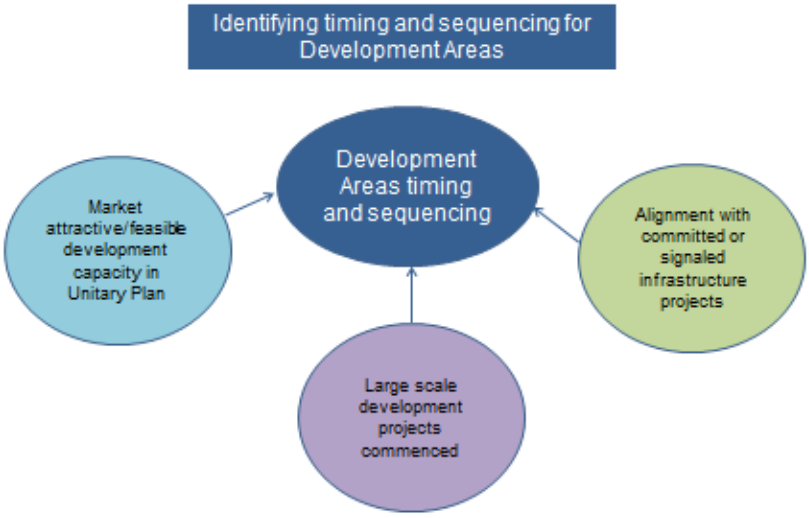

## 3. Sequencing and timing for the short list of development areas

The sequencing and timing criteria assisted with defining the relative timeframes and sequencing for when growth is expected to occur within these areas over the short, medium and long-term.

Sequencing and timing of development areas focuses on when it is likely that development at scale will occur in the area, largely as a result of planned public and/or private sector investment and market attractiveness. The amount of growth possible depends on the amount of capacity created through zoning changes in the Auckland Unitary Plan as discussed in Appendix 8.

To clarify when growth is likely to occur, a set of criteria was developed focusing on the feasibility of development, alignment with bulk infrastructure and large scale development projects underway in the area. These three criteria together indicate the likely timing of development and provide a means to sequence growth. Figure 65 below illustrates the criteria, which are included in more detail in Appendix 15.

**Figure 65 Considerations for development areas sequencing and timing**




The existing feasibility of development was considered a key aspect for identifying development areas. Those areas that are market attractive and able to provide significant yield are important to delivering the short-medium term housing demand. Areas that are not currently identified as feasible will also be important to long term supply of housing to ensure that homes are provided where people want to live and through a range of housing types and price points. Some of these areas are currently priorities for regeneration, such as Tāmaki and Northcote where Housing NZ has significant projects underway. Other areas, such as Avondale, are identified as priorities by Panuku.

Significant projects have been undertaken in Manukau by various agencies, organisations and developers over a number of years, and Manukau will continue to attract further investment opportunities.

Therefore some development areas may not be feasible right now. These are areas where there is significant development capacity enabled (but not yet feasible) through the Auckland Unitary Plan. These are generally the areas that have been selected as a focus for where housing and business growth is most likely to occur in the 20-30 years. Within the existing urban area bulk/development infrastructure is already in place, planned infrastructure improvements will likely increase market attractiveness.

Growth is not overly constrained by the lack of bulk/development infrastructure as it is in future urban areas. Rather growth tends to affect service levels. Impacts on levels of service include for example increased flooding, traffic congestion and reduced water quality. It can be unclear when the cumulative impact of growth might start to impact on service levels. Often renewal projects, where infrastructure requires replacement, will include a component to accommodate future growth and slow decreases in service levels.

The sequencing and timing of development areas reflects the timing of investment in strategic transport networks identified by the Auckland Transport Alignment Project. Accessibility to employment, markets, education and social opportunities have a major influence on where households and businesses locate. Improvements in accessibility, as a

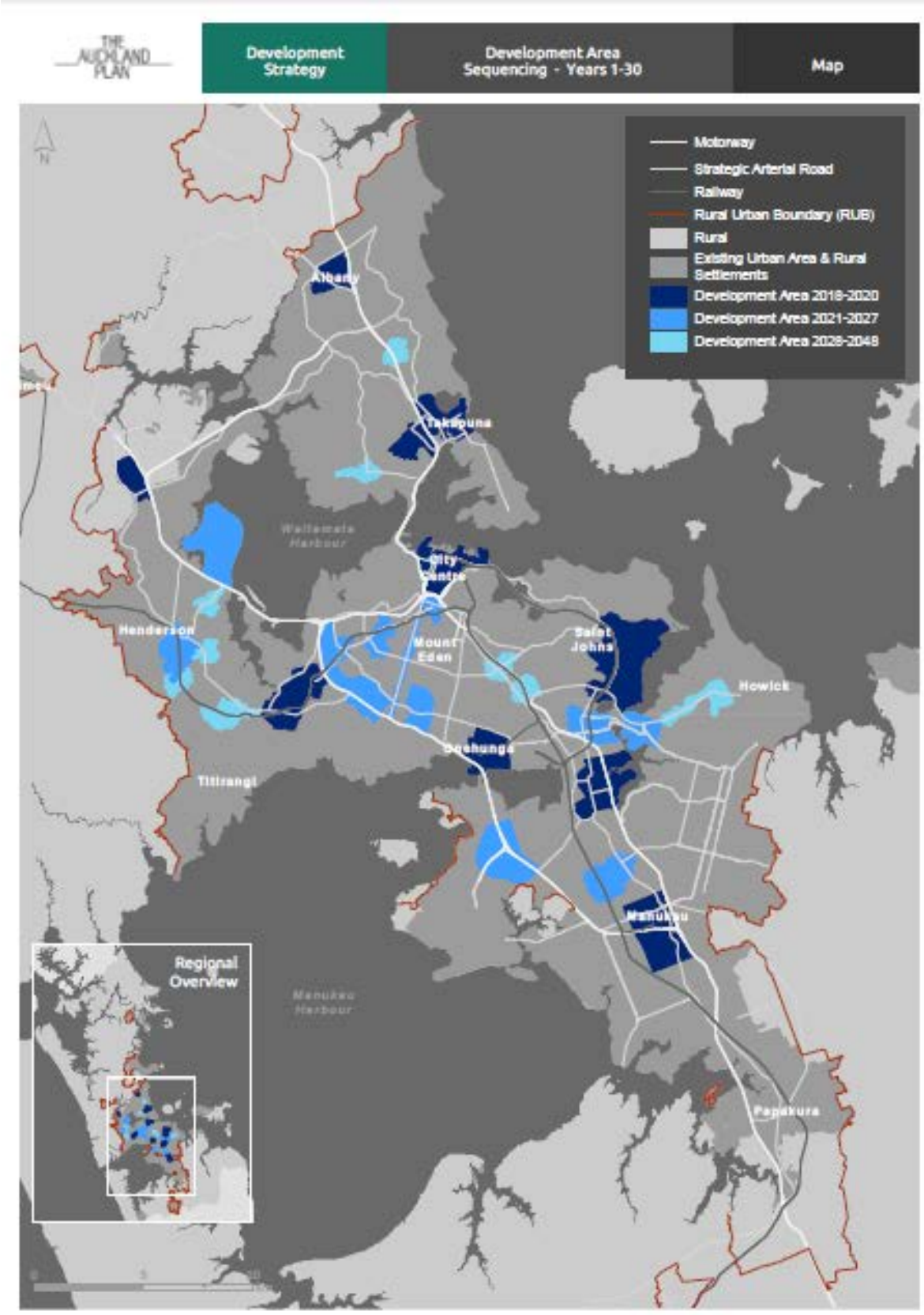
result of transport investment, will increase the demand for growth in a location. The timing of major improvements to strategic transport networks is a trigger for when growth at scale is likely to occur.

Water and wastewater infrastructure has less influence on the sequencing and timing of development areas. The planned, funded investment in these strategic networks will accommodate the broad scale and location of growth envisaged by the Development Strategy.[47]

Some areas were combined with a neighbouring area to form an area of a scale that met the criteria and this process resulted in a shortlist of 20 development areas, selected for consultation. These are shown on the map below (Figure 66).

[47] Upgrades to local water networks are necessary to provide capacity between individual developments and the strategic network. However, due to the relatively small scale and short implementation timeframe of upgrades to local networks, they are not a relevant consideration for sequencing of development areas in the medium to long-term (years 4-30).

**Figure 66 Twenty development areas selected for consultation, with sequencing phases shown**



## 4. Identification of final development areas from feedback and further information

Formal consultation on the draft plan, including the 20 shortlisted development areas, took place from 28 February to 28 March 2018. Further information and feedback received through the consultation process resulted in changes to the number, extent and timings of some development areas. See section 10 for a summary of feedback received from public consultation.

Changes to the shortlist are set out below.

- The addition of four new development areas:
  - Ōtara
  - Manurewa
  - Clendon
  - Papakura.

- Boundary and/or timing changes to existing development areas:
  - Ōnehunga
  - Māngere
  - Mt Roskill
  - Kelston (formerly Fruitvale)
  - Glen Eden
  - Ōtāhuhu.

- Deletion of development areas from within the nodes:
  - city centre
  - Albany
  - Westgate
  - Manukau.

The draft Development Strategy 2050 showed development areas sitting within the wider area of the nodes. Feedback suggested that the role of the nodes and the relationship between nodes and development areas should be clarified. Feedback indicated that this created confusion about the purpose of the two concepts. Development areas were therefore removed from within the nodes, leaving the nodes as a single concept. Complementary information about each of the nodes was added to in the Development Strategy 2050 (i.e. equivalent information to that provided for development areas relating to maps, and a descriptor and facts for the area).

This process resulted in the final selection of 18 development areas (some grouped with neighbouring areas). Table 20 below shows the final selection of nodes and development areas.

Appendix 16 outlines the general rationale for the selection of the development areas and contains a summary of these areas, including any that were grouped to form a larger area.

A number of areas were eliminated due to factors such as insufficient scale, lack of market demand, or little or no investment committed or signaled. Further information on these areas, including the rationale for not including them is set out in Appendix 17.

**Table 20 Final nodes and development areas shown with sequencing**

| | Decade 1 2018-2028 | | Decade 2 2028-2038 | Decade 3 2038-2048 | Expected dwelling growth 2018-2048 | Feasible development capacity 2017 (dwellings) |
|---|---|---|---|---|---|---|
| | Short term 2018-2021 | Medium term 2021-2028 | Long term 2028-2048 | | | |
| **Nodes** | | | | | | |
| City centre & city fringe | | | | | 25,240 | 220 |
| Albany* | | | | | 5,750 | 990 |
| Westgate* | | | | | 33,190 | 41,190 |
| Manukau | | | | | 4,750 | 1,560 |
| **Nodes total** *Includes a component of future urban | | | | | **68,930** | **43,950** |
| **Development Areas** | | | | | | |
| Sunnynook | | | | | 990 | 990 |
| Takapuna | | | | | 5,390 | 1,150 |
| Northcote | | | | | 1,450 | 880 |
| Birkenhead | | | | | 2,820 | 2,010 |
| Te Atatū Peninsula | | | | | 1,110 | 700 |
| Te Atatū South | | | | | 290 | 600 |
| Glendene | | | | | 0 | 390 |
| Henderson | | | | | 3,780 | 570 |
| Sunnyvale | | | | | 530 | 410 |
| Avondale | | | | | 2,440 | 980 |
| New Lynn | | | | | 6,850 | 280 |
| Kelston | | | | | 1,150 | 990 |
| Glen Eden | | | | | 1,550 | 1,270 |
| Newton | | | | | 2,980 | 30 |
| Morningside | | | | | 490 | 90 |
| St Lukes | | | | | 1,320 | 310 |
| Mt Albert | | | | | 1,190 | 230 |
| Dominion Road corridor | | | | | 1,980 | 300 |
| Mt Roskill -Three Kings | | | | | 6,240 | 2,600 |
| Greenlane | | | | | 1,570 | 200 |
| Ellerslie | | | | | 2,280 | 230 |
| Glen Innes | | | | | 3,600 | 3,420 |
| Tāmaki | | | | | 960 | 1,230 |
| Panmure | | | | | 1,780 | 1,080 |
| Sylvia Park | | | | | 5,210 | 1,520 |
| Ōnehunga | | | | | 3,890 | 640 |
| Highland Park | | | | | 1,380 | 2,900 |
| Pakuranga Corridor | | | | | 1,040 | 3,630 |

| | Decade 1 2018-2028 | | Decade 2 2028-2038 | Decade 3 2038-2048 | Expected dwelling growth 2018-2048 | Feasible development capacity 2017 (dwellings) |
|---|---|---|---|---|---|---|
| | Short term 2018-2021 | Medium term 2021-2028 | Long term 2028-2048 | | | |
| Pakuranga | | | | | 1,700 | 2,890 |
| Ōtāhuhu | | | | | 2,250 | 2,870 |
| Māngere | | | | | 1,250 | 1,340 |
| Māngere East | | | | | 780 | 1,820 |
| Otara | | | | | 1,660 | 1,320 |
| Papatoetoe-Hunters Corner | | | | | 2,230 | 2,710 |
| Manurewa | | | | | 990 | 2,730 |
| Clendon | | | | | 660 | 1,570 |
| Papakura | | | | | 2,160 | 1,530 |
| **Development areas total** | | | | | **77,930** | **48,390** |

# Appendix 12: International examples of approaches to achieve focused urban growth

The idea of focusing on specific areas within a city to support further development is not new. A range of methods are used to achieve focused development or redevelopment in many cities around the world. There are some differences between the concept of development areas in the Auckland Plan and similar concepts used in other cities. These differences mainly relate to the degree to which a local authority is able to support and actively encourage development in locations where growth is needed to achieve certain outcomes (eg, supporting investment in public transport and other significant urban infrastructure, urban form and community outcomes, economic growth).

The sections below provide a summary of four international examples that identify specific approaches to achieve focused urban growth; London, United Kingdom, New South Wales and South-east Queensland, Australia and Vancouver, Canada.

***London, United Kingdom – Opportunity and Intensification Areas*** (Greater London Authority, 2016).

London uses the concept of 'Opportunity and Intensification Areas'. Opportunity and Intensification Areas are separate concepts.

Opportunity Areas are London's major source of brownfield land which has significant capacity for development -such as housing or commercial use – and existing or potentially improved public transport access. Typically, Opportunity Areas can accommodate at least 5,000 jobs, 2,500 homes or a combination of the two, along with other supporting facilities and infrastructure.

Intensification Areas are built up areas with good existing or potential public transport links and can support redevelopment at higher than existing densities. They have significant capacity for new jobs and homes but at a level below that which can be achieved in the Opportunity Areas.

The Mayor of London works closely with the local councils and stakeholders in development Opportunity Areas by proving encouragement, support and leadership in preparing and implementing Planning Frameworks which help to realise the potential of the areas.

The concept can be applied to new areas within London. Some areas identified currently may not support the level of growth expected and will require further investment particularly in transport.

***New South Wales, Australia – Priority Growth Areas and Precincts*** (New South Wales Government, 2014)

The strategic growth approach used in New South Wales is the identification of Priority Growth Areas and Precincts. A Priority Growth Area is a large area that contains a

number of smaller areas called precincts. Each precinct undergoes a greater detail of planning to produce precinct plans. These provide a planned approach to growth in Sydney, with new homes and jobs located close to public transport, shops and services, while retaining and enhancing a community's character.

Planned Precincts are investigated by the Department of Planning and Environment, in close consultation with local communities and councils, to develop plans for future growth. The Planned Precinct programme coordinates the delivery of infrastructure to ensure that growth will be supported by improved traffic and transport infrastructure, open space and community facilities that support quality of life for current and future communities.

Planning for the areas is coordinated by state and local government which helps ensure infrastructure such as schools, parks, community facilities, public transport and road upgrades are delivered to support community needs.

An infrastructure schedule may be prepared to identify what is needed to support proposed population growth within the precinct.

***South East Queensland, Australia – Priority Development Areas*** (Queensland Government, 2017b)

A Priority Development Area is an identified growth area within an existing community that is approved for future growth. These specific areas require coordinated land use and infrastructure planning and infrastructure investment to unlock it for new urban development or redevelopment.

Priority Development Areas are delivered by Economic Development Queensland (EDQ) under the Economic Development Act 2012, and provide an effective means for accelerating planning and development outcomes.

Priority Development Areas play an important role in delivering ShapingSEQ's goals. In particular, they help ensure there is adequate serviceable land made accessible to achieve the dwelling supply targets and employment planning baselines.

Priority Development Areas provide an effective means for fast-tracking planning and development outcomes. The use of Priority Development Areas remains an important planning tool to support the delivery of ShapingSEQ and achieving outcomes for growth, particularly "growth by consolidation".

Priority Development Areas provide economic or community benefits which may include:

- job creation
- increased investor confidence
- government facilitation
- delivery of development with community benefit
- facilitation of a major event.

***Vancouver, Canada – Urban Centres and Frequent Transit Development Areas***
(Metro Vancouver, 2017)

Vancouver uses an urban centres based approach to focus its growth combined with the identification of Frequent Transit Development Areas (Regional Growth Strategy 1.2, page 16). The Metro Vancouver 2040 Regional Growth Strategy, states that Urban Centres are transit-oriented communities with diverse populations, a range of employment opportunities, public spaces, and lively cultural and entertainment amenities and that these characteristics make Urban Centres ideal locations to direct and accommodate growth in the region. The 26 locations are identified as priority locations for higher density housing, employment and services, commercial, cultural, entertainment and institutional uses. The Urban Centres are intended to emphasize place-making, an enriched public realm, and promote transit-oriented communities, where transit, cycling and walking are the preferred modes of transportation (RGS, p. 10).
Although Urban Centres are the priority locations for significant growth, additional growth areas near the frequent transit network are identified by municipalities not only to strategically accommodate the anticipated increase in population and employment but to also meet other regional goals of creating complete communities and supporting transportation choice.

The Growth Strategy introduces the concept of Frequent Transit Development Areas (FTDAs). They are intended to be additional priority locations to accommodate concentrated growth in higher density forms of development. They are located at appropriate locations along the Frequent Transit Network. Frequent Transit Development Areas complement the network of Urban Centres, and are characterized by higher density residential, commercial and mixed uses, and may contain community, cultural and institutional uses. Urban design for these areas promotes transit-oriented communities where transit, cycling and walking are the preferred modes of transportation (RGS, p. 10).

Vancouver's Growth Strategy targets 40 per cent of residential and 50 per cent of employment growth to Urban Centres, and 28 per cent of residential and 27 per cent of employment growth to Frequent Transit Development Areas.

Metro 2040 provides planning guidelines for Urban Centres and Frequent Transit Development Areas. Directing compact and diverse forms of development to focused locations:

- Supports an efficient regional land use pattern and transportation network, which in turn reduces energy use, greenhouse gas emissions, pollution, and household expenditure on transportation, and improves air quality;
- Protects natural areas, and agricultural and industrial land by concentrating growth;
- Provides jobs close to where people live;
- Promotes and expands opportunities for transit, multi-occupancy vehicles, cycling and walking;

Provides access to a range of housing choices, employment, social and cultural opportunities, parks, greenways and recreational amenities.

# Appendix 13: High level summary of existing criteria

The following Table 21 summarises information on criteria used by different planning and development agencies to set their priorities for spatial projects.

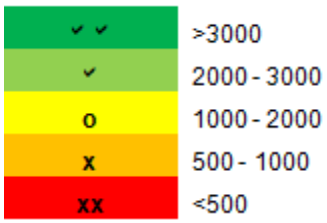
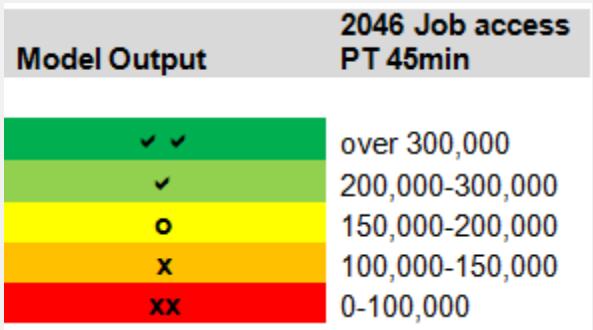
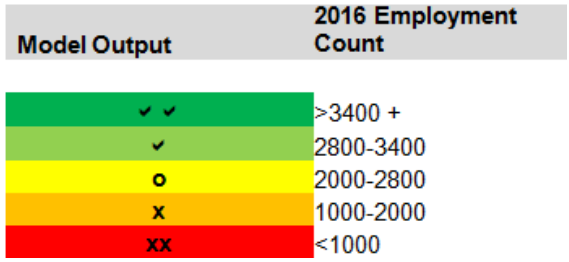
**Table 21 Existing spatial priorities and criteria**

| | Criteria themes | | | | |
|---|---|---|---|---|---|
| **Spatial priority/initiative** | **Auckland Plan** | **Infrastructure** | **Growth** | **Economic** | **Feasible** |
| *LTP (2015)* | Consistent with Development Strategy<br>Aligns / advances transformational shifts | Infrastructure capacity available/exists? | Provides growth capacity | Optimises existing investment<br>Enables economic development | Market interest |
| *Strategic SHAs (2014)* | Auckland Plan priorities | Water infrastructure enabled<br>Transport accessibility | Applicable PAUP zoning | | Development opportunities |
| *Panuku Development Auckland priorities* | | Proximity to public transport<br>Infrastructure readiness | Scale and impact | Leverage off previous investment | Key land holdings<br>Commercially viable<br>Partnerships opportunities |
| *Housing Infrastructure Fund (2016)* | | | Yield<br>Capacity under the NPS – UDC<br>Expected timing of dwelling construction | Spend per dwelling<br>Co-benefits and economic growth | Developer interest evidenced |

# Appendix 14: Development areas locational criteria

This appendix sets out the locational criteria used to select the shortlist of development areas.

Table 22 Locational criteria to identify development areas

| Criteria | Commentary |
|---|---|
| **Plan enabled capacity? (redevelopment)** | Auckland Unitary Plan Capacity for Growth Model output<br>  <br>i.e. dwellings within the defined development area spatial boundary. |
| **Access to employment?** | Based on Auckland Transport Alignment Project (ATAP) measures<br>• Number of jobs accessible within 45min AM peak **public transport** commute by 2046<br>  |
| **Opportunity for growth in employment?** | Measures<br>• number of jobs<br>• % employment growth<br>  <br>Uses growth model (scenario I11) |
| **Location - catchment of a** | Development area is located: |

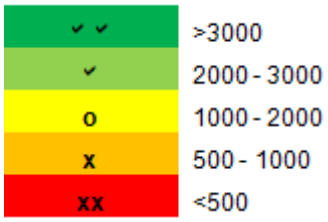
| Criteria | Commentary |
|---|---|
| **Centre and/or RTN?** | • within catchment of a Centre and/or<br>• within walkable catchment (1000m) of Rapid Transit Network (RTN)[48] |
| **5. Enhances environment & heritage?** | Opportunity to enhance environment and heritage?<br>• Provide opportunities for restoration of major urban estuarine environments and streams (Tāmaki, inner Manukau, Whau River, Wairau, Oratia, Opanuku, Oakley, Puhinui)<br>• Provides opportunities to enhance existing land uses to deliver better freshwater outcomes *[delivering National Policy Statement for Freshwater Management not just about restoring the estuarine and freshwater environment, but improving surrounding land use]*<br>• Provides opportunities to address/improve existing flooding constraints<br>• Avoids or improves areas currently affected, or likely to be affected, by environmental constraints including coastal and flood zones<br>• Avoids protected/significant natural environment and heritage areas<br>• Leverages existing restoration projects (completed, underway, programmed) |

[48] The Rapid Transit network (RTN) provides the highest level public transport service that gives fast and consistent regional access, to provide a reliable and superior alternative to driving, in order to allow people to travel efficiently, and reduce traffic and emissions. The RTN exhibits high frequency services all day (at least 7am to 7pm) every day (7 days a week) and operates on a dedicated right of way. (Auckland Transport, 2018)

# Appendix 15: Development areas sequencing and timing criteria

This appendix sets out the criteria used for the sequencing and timing of the shortlist of development areas.

**Table 23 Criteria to sequence and time development areas**

| Criteria | Commentary |
|---|---|
| **Feasible development capacity?** | Auckland Unitary Plan Capacity for Growth Model output<br>  |
| **Regeneration opportunity & ability to optimise use of existing planned investments?** | Some areas may not necessarily be considered market attractive but provide opportunities for place-based urban regeneration over the long-term and justify additional public intervention. There may also be an opportunity to build on and leverage significant planned investments (public or private sector) to achieve good intensification outcomes.<br>Qualitative assessment that looks at:<br>• Existing public sector commitments – e.g. LTP programme (SPAs), Panuku Transform/Unlock, Housing NZ programme, Crown land programme, major infrastructure projects)<br>• Future places & opportunities that may emerge to address social/economic issues<br>• Consideration of the deprivation index map. |

| Criteria | Commentary |
|---|---|
| **Alignment with existing/planned infrastructure provision?** | Does adequate bulk infrastructure[49] exist to service future development in the area? Or is adequate bulk infrastructure likely to exist to service future development in the area?<br><br>Are there constraints?<br>• Physical network constraints<br>- Timing and delivery of bulk infrastructure<br><br>Planned investments within these services/networks will assist with determining likely sequencing over time.<br>• Community Facilities Network Plan<br>• Parks and Open Space provision<br>• Greenways network<br>• Education/schools<br>• Health services. Planned investments within these services/networks will assist with determining likely sequencing over time.<br>**Measure**<br>✔✔ No constraints within trunk<br>✔ Few constraints and funding committed (10 yrs)<br>O Constraints but funding medium term (20 yrs)<br>X Constraints and indicative funding long term (30 yrs)<br>Xx Constraints and no indicative funding<br><br>Yes/No or Traffic light<br>Yes or green light will indicate higher priority in terms of overall sequencing/programme timing. Red or orange suggests there will be need for additional infrastructure investment to provide a catalyst for future growth & intensification or there may be a longer time-frame for delivery of required bulk infrastructure. |

[49] Water supply, Wastewater, Transport and Stormwater.

# Appendix 16: Rationale for selection of development areas

The identification of specific areas where there are notable opportunities for intensification will support the development of a strategy to encourage intensification within the existing urban area. These areas are referred to as ‘development areas’.

This appendix sets out the rationale for the selection of the final 18 development areas included in the adopted Auckland Plan 2050. It first gives a brief overview of the process, followed by a summary of each of the areas selected.

The assessment for selecting the shortlist of development areas for consultation is shown in Appendix 14 and 15.

In total, 37 individual development areas were shortlisted across the existing urban area. These were included in the draft Development Strategy for consultation.

Table 24 below shows the assessment for selecting each of the shortlisted development areas.

**Table 24 Assessment of short list**

| | Identifying Development Areas | | | | Identifying Timing and Sequencing of Development Areas | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Area/Location | Plan enabled capacity (redevelopment) | Access to employment PT 2026 | Employment growth 2018-2048 | Environment / heritage | Feasible Development Capacity | Water | Wastewater | Transport (ATAP) | Stormwater | Sequencing |
| Albany | 256 | 200,000 - 300,000 | 4065 | | 9303 | | | | | Years 1-3 |
| Avondale | 14490 | Over 300,000 | 151 | | 2458 | | | | | Years 1-3 |
| Birkenhead | 6804 | 200,000 - 300,000 | 590 | | 2779 | | | | | Years 11-30 |
| City Centre | 0 | Over 300,000 | 64180 | | 13055 | | | | | Years 1-3 |
| Dominion Road Corridor | 5069 | Over 300,000 | 815 | | 1788 | | | | | Years 4-10 |
| Ellerslie | 4278 | Over 300,000 | 1402 | | 845 | | | | | Years 11-30 |
| Fruitvale | 6793 | 150,000 - 200,000 | -3 | | 1518 | | | | | Years 11-30 |
| Glen Eden | 16966 | 150,000 - 200,000 | -14 | | 485 | | | | | Years 11-30 |
| Glen Innes | 22133 | 200,000 - 300,000 | 447 | | 11871 | | | | | Years 1-3 |
| Glendene | 5000 | 0 - 100,000 | -7 | | 129 | | | | | Years 11-30 |
| Greenlane | 10054 | Over 300,000 | 301 | | 1753 | | | | | Years 11-30 |
| Henderson | 12784 | 0 - 100,000 | 5070 | | 338 | | | | | Years 4-10 |
| Highland Park | 11513 | 0 - 100,000 | 116 | | 5525 | | | | | Years 11-30 |
| Mangere | 23489 | 150,000 - 200,000 | 448 | | 1599 | | | | | Years 4-10 |
| Manukau | 7312 | 150,000 - 200,000 | 5858 | | 412 | | | | | Years 1-3 |
| Morningside | 3609 | Over 300,000 | -13 | | 405 | | | | | Years 4-10 |
| Mt Albert | 3960 | Over 300,000 | 413 | | 3225 | | | | | Years 4-10 |
| Mt Roskill | 20036 | Over 300,000 | 608 | | 4618 | | | | | Years 4-10 |
| New Lynn | 8923 | 200,000 - 300,000 | 4856 | | 9795 | | | | | Years 1-3 |
| Newton | 581 | Over 300,000 | 5059 | | 2162 | | | | | Years 4-10 |
| Northcote | 8540 | 200,000 - 300,000 | 320 | | 3213 | | | | | Years 1-3 |
| Onehunga | 7878 | Over 300,000 | 348 | | 4234 | | | | | Years 1-3 |
| Otahuhu | 15611 | 200,000 - 300,000 | 384 | | 5047 | | | | | Years 1-3 |
| Pakuranga | 12681 | Over 300,000 | 13 | | 7518 | | | | | Years 4-10 |
| Pakuranga Road Corridor | 13067 | 100,000 - 150,000 | -26 | | 4111 | | | | | Years 11-30 |
| Panmure | 8594 | 200,000 - 300,000 | 735 | | 3706 | | | | | Years 1-3 |
| Papatoetoe | 22662 | 150,000 - 200,000 | 351 | | 2404 | | | | | Years 4-10 |
| St Lukes | 5551 | Over 300,000 | -30 | | 1523 | | | | | Years 4-10 |
| Sunnynook | 8373 | 200,000 - 300,000 | 411 | | 2828 | | | | | Years 11-30 |
| Sunnyvale | 3572 | 0 - 100,000 | -6 | | 374 | | | | | Years 11-30 |
| Sylvia Park | 10587 | Over 300,000 | 4030 | | 5911 | | | | | Years 4-10 |
| Takapuna | 6005 | 200,000 - 300,000 | 11623 | | 7630 | | | | | Years 1-3 |
| Tamaki | 4086 | 200,000 - 300,000 | 394 | | 3078 | | | | | Years 1-3 |
| Te Atatu Peninsula | 21159 | 150,000 - 200,000 | 180 | | 1943 | | | | | Years 4-10 |
| Te Atatu South | 7101 | 200,000 - 300,000 | 126 | | 67 | | | | | Years 11-30 |
| Three Kings | 6479 | Over 300,000 | 1654 | | 793 | | | | | Years 4-10 |
| Westgate | 5628 | 200,000 - 300,000 | 10371 | | 444 | | | | | Years 1-3 |
| **Grand Total** | **351624** | | **125220** | | **128887** | | | | | |

Formal consultation on the draft plan, including the shortlisted development areas, took place from 28 February to 28 March 2018. Further information and feedback received through the consultation process resulted in changes to the number, extent and timings of some development areas. These changes are set out below.

- The addition of four new development areas:
  - Ōtara
  - Manurewa
  - Clendon
  - Papakura.

- Extensions and/or changes to the timing of existing development areas:
  - Ōnehunga
  - Māngere
  - Mt Roskill
  - Kelston (formerly Fruitvale)
  - Glen Eden
  - Ōtāhuhu.

- The deletion of development areas from within the city centre and Albany, Westgate and Manukau nodes to simplify the concepts.

Below is a summary that describes why each area was selected. Some development areas are in the same geographic area and have been grouped while others are geographically separated from any other development area. Growth will likely be localised around respective centres, with the exception of Dominion Road Corridor. They are all located on existing strategic transport corridors and development potential will likely extend beyond the main centre and into surrounding residential areas.

**Development areas - Summaries of each area**:

*Avondale, New Lynn, Kelston and Glen Eden.*

These areas have a significant amount of plan-enabled capacity, some of which is feasible. This is supported by relatively unconstrained infrastructure provision with the exception of stormwater constraints in Kelston and Glen Eden.

Following consultation the Fruitvale development area was renamed Kelston to better reflect the suburban area it includes. The development area boundary was also extended to the north and south to better reflect the catchment of the rail station and to incorporate a broader range of development opportunities. The Glen Eden development area boundary was also extended, predominantly to the south, to better reflect the catchment of the rail station and to incorporate a broader range of development opportunities. Glen Eden was also brought forward to the 4-10 year sequencing period due to current development activity.

The position of these areas on the strategic transport network is expected to provide access to a reasonable amount of employment opportunities, by public transport, by 2026.

*Birkenhead*

Birkenhead has a good amount of plan-enabled capacity, a reasonable amount of which is feasible. This is supported a relatively unconstrained infrastructure provision in the short to medium term however some transport constraints exist in the longer term.

Although there is only a small amount of employment growth expected for the Birkenhead area, by 2026 the area will be accessible to 200,000-300,000 employment opportunities within 45mins by public transport.

*Dominion Road corridor and Mt Roskill-Three Kings*

Dominion Road corridor has a good amount of plan-enabled capacity some of which is feasible. Water and wastewater infrastructure are relatively unconstrained but there are existing constraints in the stormwater infrastructure. Mt Roskill has a large amount of plan-enabled capacity while Three Kings has a reasonable amount. However, the feasibility in both areas is only a small proportion of respective plan-enabled capacity. Some constraints exist in the transport network for all three areas but these are expected to be addressed in the medium term.

Following consultation the Mt Roskill and Three Kings development areas were combined to take advantage of development opportunities in a small area between them that was previously excluded. Roskill South – a small area just south of Mt Roskill summit – has also been included to reflect the Crown’s current development activity. This area has been added to the 1 to 3 year sequencing period.

Dominion Road corridor is expected to experience relatively low growth in employment opportunities, Mt Roskill is expected to have a very small amount and Three Kings is expected to have moderate growth. However, the location of these areas on the strategic public transport network provides accessibility to over 300,000 employment opportunities.

*Glen Innes, Tāmaki and Panmure.*

Areas in this cluster have a large amount of plan-enabled capacity and a reasonable proportion of this is feasible. This is supported by relatively unconstrained infrastructure provision.

Although little employment growth is expected within the cluster, its position on the strategic transport network is expected to provide access to 200,000-300,000 employment opportunities, by public transport, by 2026.

*Greenlane and-Ellerslie*
Greenlane has a significant amount, and Ellerslie a reasonable amount, of plan-enabled capacity but only small proportions of each area are feasible. Both areas have relatively unconstrained infrastructure provision to support additional dwellings.

Ellerslie is expected to experience some employment growth and both areas will be accessible to over 300,000 employment opportunities, by public transport, by 2026.

*Māngere and Māngere East*

Māngere contains a significant amount of plan-enabled capacity however only a small amount is considered feasible. Water infrastructure is relatively unconstrained but there are some constraints in the wastewater and transport networks that will be addressed in the medium term. Significant constraints exist in the stormwater network.

Following consultation the Māngere development area was extended and a new development area added in Mangere East. The northern part of the Māngere development area was brought forward to the 1 to 3 year sequencing period and the new Māngere East development area is in the 4 to 10 year sequencing timeframe. This reflects the Crown’s development interest and significant land holdings in the areas.

Low employment growth is expected in Māngere but it will have access to a reasonable amount of employment opportunities within 45mins of public transport by 2026.

*Manurewa and Clendon*

Manurewa was considered as part of the long list of development areas due to it reasonable amount of plan-enabled capacity and large areas of council-owned land. Despite this, it was not included in the final list due to the large amount of previous investment in the town centre to improve the rail station, upgrade park and ride facilities and improve public realm and streetscape. Redevelopment opportunities, as a result of these upgrades, have not been taken up.

Consultation and discussion with Housing New Zealand Corporation (HNZC) and Homes, Land Community (HLC), determined that both Manurewa and Clendon are being considered for redevelopment towards the end of the 30-year lifetime of Auckland Plan 2050. This prompted the inclusion of Manurewa and Clendon in the 11 to 30 year sequencing period.

*Newton, Morningside, St Lukes and Mt Albert.*

Morningside, St Lukes and Mt Albert all have a reasonable amount of plan-enabled capacity. Combined, these areas have a reasonable amount of feasible development capacity which is supported by relatively unconstrained infrastructure provision.

Newton is expected to experience reasonable growth in employment opportunities whereas the other areas in this cluster are expect to remain relatively stable. The location of all four areas on the strategic transport network will provide accessibility to over 300,000 employment opportunities, by public transport, by 2026.

*Ōnehunga*

Ōnehunga has a good amount of plan-enabled capacity and a reasonable amount is also feasible. The water and wastewater network are relatively unconstrained but some medium term constraints exist in the transport and stormwater networks.

Following consultation, the northern boundary of the Ōnehunga development area was extended to include the Oranga area as the Crown is currently progressing significant redevelopment opportunities. The southern boundary has also been amended to remove heavy industry land to the south-east of Ōnehunga town centre. This change has been made to ensure the focus on residential redevelopment in retained.

Low employment growth is expected in Ōnehunga but it's location on the strategic transport network will enable access to a reasonable amount of employment opportunities within 45mins of public transport by 2026.

*Ōtāhuhu*

Ōtāhuhu has a large amount of plan-enabled capacity a good proportion of which is feasible. This is supported by relatively unconstrained infrastructure networks.

Following consultation the western boundary of the Ōtāhuhu development area has been extended to ensure it includes the rail station and some of the surrounding industrial land.

Although only a small amount of employment growth is expected, Ōtāhuhu's location on the strategic transport network will provide access to reasonable amount of employment opportunities, by public transport, by 2026.

*Ōtara*

Ōtara was considered as part of the long list of development areas due to the large amount of HNZC housing on relatively large sites. Revitalisation of the town centre was also considered an opportunity. However, it was anticipated that the redevelopment of sites in this area would happen towards the end or outside the 30-year timeframe of Auckland Plan 2050.

Consultation and discussion with HNZC and HLC confirmed that redevelopment in the Otara area would commence within the 30 year timeframe of Auckland Plan 2050 and was therefore added to the 11 to 30 year sequencing period.

*Pakuranga, Pakuranga Corridor and  Highland Park.*

Combined, these areas have a significant amount of plan-enabled capacity and a reasonable amount of this development is feasible. This is supported by relatively unconstrained infrastructure provision with the exception of medium term wastewater constraints.

There is expected to be minimal growth in employment opportunities within the cluster but its position on the transport network will provide access to a moderate amount of employment opportunities, by public transport, by 2026.

*Papakura*

Papakura was considered as part of the long list of development areas due to its location on the rail network and the opportunity for the town centre to support greenfield growth in the Opaheke-Drury area to the south. It also has a reasonable amount of plan-enabled capacity. However, due to the previous significant investment in the town centre and the limited amount of development potential realised, this area was not included in the final list of development areas.

Consultation and discussion with HNZC and HLC determined that this area is being considered for redevelopment within the 30-year lifetime of Auckland Plan 2050. This prompted the inclusion of Papakura in the 11 to 30 year sequencing period.

*Papatoetoe*

Papatoetoe contains a large amount of plan-enabled capacity however only a small proportion is feasible. Apart from medium term constraints in the wastewater network, the area has relatively unconstrained infrastructure provision.

Although only a small amount of employment growth is expected, Papatoetoe's location on the strategic transport network will provide access to 150,000-200,000 employment opportunities, by public transport, by 2026.

*Sunnynook*

Sunnynook has a good amount of plan-enabled capacity some of which is feasible. This is supported by relatively unconstrained infrastructure networks.

Although only a small amount of employment growth is expected, Sunnynook's location on the strategic transport network will provide access to reasonable amount of employment opportunities, by public transport, by 2026.

*Sylvia Park*

Sylvia Park has a large amount of plan-enabled capacity a good proportion of which is feasible. This is supported by relatively unconstrained infrastructure networks.

A reasonable amount of employment growth is expected and Sylvia Park's location on the strategic transport network will provide access to over 300,000 employment opportunities, by public transport, by 2026.

*Takapuna and Northcote*

Takapuna and Northcote both have a reasonable amount of plan-enabled capacity most of which is feasible. This is supported by relatively unconstrained infrastructure provision with the exception of significant stormwater constraints in Northcote.

Takapuna is expected to experience significant employment growth and the location of both areas on the strategic transport network is expected to provide access of 200,000-300,000 employment opportunities, by public transport, by 2026.

*Te Atatū Peninsula, Te Atatū South, Henderson, Sunnyvale and Glendene.*

Combined, these areas have a significant amount of plan-enabled capacity however only a small amount is feasible. Infrastructure is generally unconstrained apart from medium term transport constraints in Te Atatū.

Henderson is expected to experience moderate employment growth but the whole cluster is expected to have access to 200,000-300,000 employment opportunities, by public transport, by 2026.

# Appendix 17: Rationale for locations not selected as development areas

This appendix sets out the rationale for locations considered, but not selected, as development areas. Business areas are discussed first, followed by areas that are predominately residential.

**Business areas**
Development areas are specific locations that are market attractive and where a significant amount of both housing and business growth is expected in the next 30 years. The process for identifying potential development areas involved identifying land across Auckland, including areas zoned for business uses. The following business areas were identified:

- Silverdale South
- Rosedale
- Wairau
- Lincoln Road
- Rosebank
- Penrose
- Auckland Airport
- East Tāmaki
- Wiri.

These business areas are crucial to the success of Auckland. They contribute to the economy, provide employment, and are often located on large, flat sites that are increasingly difficult to find as Auckland intensifies. The Development Strategy approach to business land, particularly important industrial areas, is to protect them because once lost to another use they are difficult to replace.

Business areas may have opportunities for a significant amount of business growth, however, the zonings and the importance given to protecting these areas for business uses means they do not have the large-scale residential capacity required.

**Predominantly residential areas**

**Takanini**
Takanini is a greenfield area and early development has already taken place. The refresh of the Future Urban Land Supply Strategy schedules the remaining areas of development after 2040. At this time, due to environmental concerns, there is little development potential.

**Browns Bay**
Browns Bay has poor accessibility and no significant improvements are currently signalled. Any redevelopment will likely be market-led, without council investment. Although the Auckland Unitary Plan has applied a town centre zone to Browns Bay, and a small amount of mixed-use, the majority of the area has been zoned mixed housing urban or suburban.

**Newmarket**
Newmarket is already developing and is being led by the market. Development is limited by a View Shaft overlay in the Auckland Unitary Plan along with some areas of special or heritage character. It is anticipated that council investment is not required in the short to medium term.

**Freemans Bay**
Freemans Bay is already developing and will likely be influenced by development in the city centre. The area also has a lot of leasehold land and the Heritage and View Shaft overlays in the Auckland Unitary Plan limits the amount of large scale redevelopment potential.

**Royal Oak**
A large amount of Terraced Housing and Apartment Building zoning has been applied to Royal Oak however View Shaft overlays are restricting its development potential.

**Botany**
Botany is a relatively new centre and its surrounds has developed into a medium to high density residential area. Apart from potential development on the Town Centre's carparks, this are will likely redevelop towards the end of the 30 year period.

**Sturges Road**
The area surrounding Sturges Road has recently been developed and remaining potential maybe taken up by the time intervention occurs. It could also be boosted by redevelopment opportunities in Henderson but this is yet to be seen.

**Glenfield**
Kaipataki Local Board is currently planning the revitalisation of the Glenfield Town Centre. Although a reasonable number of properties are zoned Terraced Housing and Apartment Buildings in the Auckland Unitary Plan, there is limited market feasibility and redevelopment is likely to take place towards the end of the 30 year period.

**Māngere Bridge**
Māngere Bridge will experience some growth however a large proportion of the area is protected by View Shaft overlays in the Auckland Unitary Plan. It has a reasonable amount of feasible capacity although the majority of capacity is within one SHA development.

**Hobsonville**
Hobsonville is largely a greenfield area which is progressively being developed by HLC. The area has already had significant council investment which will become better utilised as residential development progresses.

**Pt Chevalier**
Redevelopment of Pt Chevalier town centre has been constrained by large scale transport projects. These projects are now largely complete which provides an opportunity investment in Pt Chevalier. However, as an extension of Great North Road corridor, it is likely any redevelopment will be market driven, without extensive council investment.

**Ormiston (Flat Bush)**
Ormiston Town Centre is in the last stages of development and surrounding residential development in Flat Bush will continue without further council investment.

**Great North Road Corridor**
Great North Road is currently undergoing significant change as former industrial sites are being transformed into high-density, residential developments. It is envisaged that this corridor will continue to develop over time but will be dependent on market conditions.

**Sandringham Road Corridor**
Sandringham Road is currently a key transport link between the south west of the isthmus and the city centre. There are some areas with heritage and view shaft overlays in the Auckland Unitary Plan which limits development potential.

**Manukau Road Corridor**
Manukau Road is currently a key transport link between the south of the isthmus and the city centre. Apart from developments at Alexandra Park, any large scale redevelopment will likely be led by the market and/or take place towards the end of the 30 year period. The Auckland Unitary Plan has zoned some areas as Terraced Housing and Apartment Buildings however these areas are restricted by View Shaft and heritage overlays which will limit redevelopment potential.

**South Lynn**
The South Lynn development area has been incorporated in the New Lynn development area.

# Appendix 18: Methodology – Process to identify and sequence future urban areas

This appendix outlines the process and methodology undertaken since the identification of the Greenfield Areas for Investigation in the 2012 Auckland Plan including:

- tools for managing Auckland's greenfield growth
- setting a Rural Urban Boundary and identifying future urban areas
- capacities and urban form
- identifying the sequencing and timing of future urban areas
- identifying a future transport network and high level land use.

## Identifying future urban areas – methodology

### The Auckland Unitary Plan and the Rural Urban Boundary

The use of growth management mechanisms in Auckland has been a major policy position for over 60 years. The Metropolitan Urban Limit was the growth management method previously used in the Auckland Regional Policy Statement 1999 to manage Auckland's growth (Auckland Regional Council, 1999). In effect, it provided a proxy for measuring the quantum of urban containment and intensification compared with urban expansion. There was provision in the Regional Policy Statement for the limits to be moved ahead of the need for further development capacity.

While it has been acknowledged that the key objectives for the Metropolitan Urban Limit have changed over time (Hill, 2008), their inclusion in the Auckland Regional Policy Statement intended them to contribute towards avoiding the adverse effects of urbanisation and to achieve integrated development. The Regional Policy Statement provided for the urban limits to be moved. However, it has also been acknowledged that the Metropolitan Urban Limit is just one tool and that it is insufficient on its own to address urban and rural growth management issues and that some form of containment policy is likely to be part of the mix (Hill, 2008).

Various growth management alternatives were investigated at the time of preparing the 2012 Auckland Plan including the Rural Urban Boundary in combination with the use of future urban zones (Auckland Council, 2014). This was considered to be the best alternative mechanism to the Metropolitan Urban Limit to manage growth as it was able to define the maximum extent of urban development over the life of the Plan in the form of a permanent rural-urban interface. The aim was to help achieve well-planned, efficient urban development, conserve the countryside and encourage further growth and development of existing urban areas. The Plan noted it was one of a number of tools to be used in guiding Auckland's future development.

The growth management of Auckland's urban area was then identified as a significant resource management issue in the preparation of the Proposed Auckland Unitary Plan (Auckland Council, 2014). It was considered that the growth of the urban area's footprint presents a number of environmental matters that are required to be addressed by the Resource Management Act. Therefore, the planning and identification of future growth areas and their boundaries in the Auckland Unitary Plan were required to manage environmental effects, while also providing for Auckland's growth.

The method that is now used in the Auckland Unitary Plan is a Rural Urban Boundary combined with a future urban zone. Different to the Metropolitan Urban Limit, the Rural Urban Boundary is set significantly further out, providing certainty to landowners, developers and infrastructure providers by identifying enough greenfield capacity (15,000 hectares inside the Rural Urban Boundary and around rural settlements) for around 30 years of growth. Private plan changes proposing to expand the Metropolitan Urban Limit were not possible under the Auckland Regional Policy Statement 1999, however the Rural Urban Boundary is now addressed at the District Plan level in the Auckland Unitary Plan.[50] This means it is now possible for anyone to apply for a private plan change to amend it. The Auckland Unitary Plan Independent Hearings Panel explained that its recommendation to shift the Rural Urban Boundary to District Plan level was necessary to provide sufficient flexibility to adapt to changing circumstances.

**Greenfield Areas for Investigation (2012 Auckland Plan): Setting the Rural Urban Boundary**

An important piece of work that informed the Auckland Plan Development Strategy 2012 was the Preferred Urban Form workstream. Within an overall agreed direction of a quality compact approach to accommodating growth, priorities for the selection of new areas for growth were considered as part of this work. New areas for growth were then selected based on a process of identifying opportunities and constraints. The following factors were considered:

- landform and landscape
- response to global and national issues
- natural hazards
- response to local environmental issues
- opportunities to enhance existing urbanised waterways and coastal areas.

The 2012 Auckland Plan identified six large rural areas within three clusters in the north, north west and south of Auckland for further investigation to confirm where future greenfield growth could occur over the next 30 years. Three smaller areas were also identified for further investigation in the locations of Beachlands, Clarks Beach and

[50] The Proposed Auckland Unitary Plan put forward the Rural Urban Boundary at the Regional level. However this was amended to a District Plan level method by the Independent Hearings Panel as part of its recommendations.

Glenbrook. However, these areas were much smaller in scale and they were not included in the broader greenfield investigation.

The six large areas for investigation were in the following cluster locations (refer Appendix 19 for Greenfield Areas for Investigation identified in the 2012 Auckland Plan and Appendix 20 for maps of each area):

Northern cluster:

- Warkworth
- Wainui/Silverdale.

North west cluster:

- Whenuapai/Red Hills
- Kumeū/Huapai and Riverhead.

Southern cluster:

- Karaka/Drury
- Pukekohe/Paerata.

Based on a broad range of criteria, various greenfield options were considered and analysed to confirm the appropriate location of a Rural Urban Boundary during the drafting of the Proposed Auckland Unitary Plan between 2012 and 2013.[51]

The following sections summarise the process undertaken to arrive at the Rural Urban Boundary and future urban zone in the Proposed Auckland Unitary Plan 2013.

**Key considerations for a Rural Urban Boundary (principles)**
Greenfield growth can be accommodated in a variety of locations and built forms, all of which have differing environmental, social, economic and cultural effects. One of the key considerations for the identification of a Rural Urban Boundary and future urban zone at the time was that the areas identified must be able to support a “quality compact” form of urban development (Auckland Council, 2013). This translates to land that can readily support a range of densities and urban land use types which would be found in an urban area. The development of these greenfield areas would need to include the provision of new centres, residential and business areas, good accessibility including walking, cycling and public transport and supporting infrastructure.

The Rural Urban Boundary Section 32 Report (required under section 32 of the Resource Management Act) notes that where possible, land that is unable to support development

[51] For assessment of RUB alternatives see Rural Urban Boundary location (Auckland Council, 2014) p16

due to significant geotechnical or hazard risks should be avoided. Environmentally sensitive areas and sites were also to be avoided where possible. The Rural Urban Boundary, as proposed in the Proposed Auckland Unitary Plan 2013 sought to avoid or mitigate adverse effects on these areas, by allowing for the implementation of green infrastructure corridors and minimising the need for significant earthworks.

Other considerations (principles) that guided the identification of a Rural Urban Boundary included:

- focus on transport networks – optimising the use of existing and proposed transport infrastructure by using investment in public transport and promoting a shift towards public transport, walking and cycling
- recognition of rural production systems – limiting the loss or degradation of rural production systems including aquifer recharge areas and areas of elite soils
- utilisation of infrastructure – recognising that little urban infrastructure had been developed in these areas and a complete suite of new infrastructure, ranging from network utilities to parks and schools would be needed
- protection of cultural heritage – recognising the region's cultural heritage and in particular, the values of mana whenua
- a defensible Rural Urban Boundary – determining the strongest possible physical limits to urban growth. In most cases boundaries followed features such as: ridgelines (typically aligning with roads), streams and floodplains contributing to natural catchments with obvious edges or boundaries.

The development of the Rural Urban Boundary was subject to both a detailed research phase and a special consultative procedure. As outlined in the Proposed Auckland Unitary Plan Rural Urban Boundary Section 32 Report, research underpinning those parts of the Auckland Plan that promote the Rural Urban Boundary included:

- a multi layered analysis (including mapping) of regional constraints and opportunities (such as natural hazards, outstanding landscapes, transport networks) that affect the location of new urban areas
- identification of legacy planning including plan changes and structure plans
- analysing demographic information, including projected population growth for the life of the Auckland Plan
- cross referencing of research with other Auckland Plan workstreams including transport, network utilities, rural and environment
- transport and land use modelling.

The analysis of the proposed Rural Urban Boundary built on the work that was undertaken by previous councils (prior to 2010) as well as recent work to develop the Auckland Plan, and additional technical analysis with input from a number of internal and external stakeholders. The Proposed Auckland Unitary Plan (2013) Section 32 analysis on the Rural Urban Boundary provides detail on this analysis with supporting technical information (Auckland Council, 2013).

The analysis undertaken led to the identification of a number of “no-go” areas which included the Waitākere/Hunua Ranges, Okura/Weiti, Albany/Paremoremo Escarpment, Riverhead/Woodhill Foothillls and Pukekohe/Bombay Hills.

Alternatives for new greenfield areas were then able to be identified and were considered against a number of trade-offs that needed to be resolved to finalise areas for future growth. These included testing against effects on environmental, cultural, economic and social costs, benefits and efficiency of the various potential growth areas to inform recommendations on the preferred configuration of the Rural Urban Boundary. Specific assessment criteria included ones on transport, rural production versus urban expansion, infrastructure provision, employment and housing affordability.

**Capacities, urban form and methodology**

The high level analysis of Rural Urban Boundary options, as part of the Section 32 Report on the Rural Urban Boundary location, included the consideration of the broad theoretical capacity of the proposed future urban areas. This was used to test against the total additional capacity requirements for the greenfield areas set out in the 2012 Auckland Plan of around 90,000 dwellings. Rather than a prediction of future growth, the capacities arrived at represented future potential capacity based on a mix of expected zoning and similar known greenfields development patterns.

The identification of a net developable area was a key determinant of the anticipated capacity of each future urban area. The net developable area varied depending on how much land was identified for protection. This was based on estimated riparian margins, with varying buffers depending on stream types and ecological values. Of the remaining land, 30 per cent was set aside for roading, and 15 per cent for public open space, schools, healthcare and other uses.

The form that urbanisation might take in each area was determined by applying a ‘centres based’ approach to development with centres of different sizes identified. Assumptions for the distribution of housing typologies across centre types and the wider urban areas were based on those achieved at Flat Bush.[52] The site size and apartment height assumptions were consistent with the approach taken by the Auckland Unitary Plan at the time. An alternative, lower density scenario was also used with fewer apartment dwellings and larger site sizes for standalone houses. This approach allowed for a range of dwelling numbers to be identified to represent possible variations in the take-up of capacity and build out rates. The potential dwelling capacity arrived at for the Proposed Auckland Unitary Plan was in the range of 76,500 to 93,500 (Auckland Council, 2013).

Further technical work and analysis were undertaken to arrive at a strategy for sequencing the development of the future urban land (Auckland Council, 2015e) as well as agreeing

[52] Assumptions were based on Flat Bush as this provided a current example of large scale development with a variety of housing and centre typologies.

on a strategic transport network for the greenfield areas (New Zealand Transport Agency, 2017).

**Confirmation of Rural Urban Boundary and Future Urban Areas (Auckland Unitary Plan – Decisions Version)**

The Independent Hearings Panel of the Auckland Unitary Plan recommended retaining the Rural Urban Boundary as a growth management method. However, as it is now at the District Plan level it is now possible for anyone to apply for a private plan change to amend its location and include additional future urban land.

The Independent Hearings Panel also recommended significant changes to the future urban areas proposed by increasing the size of some areas as well as live zoning parts of other areas. As a result there is now a total of approximately 15,000 hectares of future urban land identified in the Auckland Unitary Plan with an anticipated capacity for 137,000 dwellings. This is an increase from approximately 11,000 hectares and 110,000 dwellings under the Proposed Auckland Unitary Plan. The Panel recommended 2,380 hectares to be live zoned. Some of this land was already identified as Special Housing Areas. However the Independent Hearing Panel recommended a significant increase of live zoning in Wainui and Red Hills. Additional future urban land and live zoning was also recommended by the Panel in the rural settlements of Puhunui, Kingseat and Glenbrook Beach.

The council adopted the Independent Hearings Panel recommendations in 2016 (Auckland Council, 2016c).

The following section outlines the process to develop an agreed sequencing and timing for the development of the future urban areas over the next 30 years based on the Auckland Unitary Plan Decisions version.[53]

### Identifying sequencing and timing for future urban areas

**Future Urban Land Supply Strategy 2015**

Evidence (Tucker, 2014) and supplementary evidence (Tucker, 2015) to the Proposed Auckland Unitary Plan Independent Hearings Panel on the RPS Urban Growth (Topic 013) included the introduction of the concept of a land release programme. Subsequently, this became the Future Urban Land Supply Strategy.

Research was undertaken prior to the development of this strategy to understand the best practice methods used in other cities to manage the growth of new urban areas over time. Nine locations studied including the Western Bay of Plenty, Toronto and Perth. The majority of areas studied undertake yearly monitoring to understand the number of years of land supply available and whether more land is required to be released for development

[53] Note parts of the Auckland Unitary Plan are still subject to appeal. For the latest updates on Auckland Unitary Plan appeals refer to https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-appeals/Pages/updates-on-auckland-unitary-plan-appeals.aspx

to meet specified targets. In most cases, planning of new areas is undertaken in accordance with the results of this monitoring. A high level summary of the best practice analysis is attached as Appendix 21 to this report.

The Future Urban Land Supply Strategy (2015) (Auckland Council, 2015f) was developed under the Local Government Act 2002 (using the special consultative procedure outlined in section 87 and decision making in section 76) to complement the resource management methods and provisions of the Proposed Auckland Unitary Plan. It provides certainty for infrastructure providers, the community, and developers on when the council is programming land use planning (structure plans and plan changes), and infrastructure planning and delivery. It was also considered that the strategy would deliver a strategic and proactive approach to the supply of future urban land across Auckland.

The Strategy will help to inform:

- Auckland Council infrastructure planning and management of its infrastructure funding priorities and sequencing
- central government, such as Ministry of Education, with medium to long-term projections, development locations and investment decisions
- private sector infrastructure providers with forward planning and investment decisions.

Central government recognised the need for longer term planning of infrastructure through the requirements for all councils to develop 30-year infrastructure strategies as part of their long-term planning.[54] Through the development of Auckland Council's first 30-year Infrastructure Strategy, the cost of infrastructure to service greenfield growth was identified as a major challenge. The Infrastructure Strategy indicated that the Future Urban Land Supply Strategy would enable the council to better understand and manage the timing and delivery of required infrastructure and assist to inform future long-term plans (Auckland Council, 2015a).

The Future Urban Land Supply Strategy identifies a programme designed to enable phased urban development of future urban land within the Rural Urban Boundary. It was intended to signal when land would become "development-ready" by indicating the phasing of where and when structure planning, rezoning and bulk infrastructure projects will occur. It did not include future urban areas outside of the Rural Urban Boundary such as in rural and coastal settlements.

The development of greenfield land for urban activities requires the provision of bulk infrastructure which demands significant funding, programming and planning by infrastructure providers. Evidence presented to the Independent Hearings Panel on the Future Urban Land Supply Strategy made the point that the servicing of future urban land with bulk infrastructure is most cost effective when undertaken at scale and that as public

[54] Requirement under Section 101B of the Local Government Act (2002).

funds are limited, it is not possible, efficient or cost effective for bulk infrastructure to be provided in a piecemeal fashion over the whole of the future urban area at the same time (Mackay, 2014).

**Process**

The Future Urban Land Supply Strategy (2015) was prepared following a series of workshops with internal and external infrastructure providers, elected members and staff. The following four principles guided the prioritisation of areas:

- optimise the outcomes from investment
- supply on time
- support uplifting Māori social and economic wellbeing
- create good quality places (Auckland Council, 2015e).

The prioritisation through these principles included consideration of:

- ability to deliver bulk infrastructure in different future urban areas according to existing and proposed infrastructure investment programmes
- location of approved Special Housing Areas
- areas subject to plan changes
- the degree to which land is subject to environmental constraints.

In order to assess each area against these principles, and at the same time understand the bulk infrastructure requirements and potential timing of projects, high level conceptual planning of each area was undertaken. Potential yields of dwellings and employment numbers from each future urban area were estimated. These estimates provided an understanding of the ability for the areas identified within the Rural Urban Boundary to meet the 30-year projections in the Auckland Plan. It also provided an understanding of the infrastructure that might be needed to service these areas.

A summary of the process undertaken is attached as Appendix 22 to this report.

## Ongoing refinement

**Supporting Growth project**

To assist with the strategic planning and the funding of transport networks in future urban areas, an alliance between Auckland Transport, New Zealand Transport Authority and Auckland Council was established in 2016 to agree on a strategic transport network to service development in these areas over the next 30 years (New Zealand Transport Agency, 2017). The project that this alliance is responsible for is referred to as “Supporting Growth” but was formerly known as “Transport for Future Urban Growth (TFUG)”.

The Future Urban Land Supply Strategy (2015), along with the analysis that was undertaken to arrive at the sequencing and timing of the future urban areas, was used as a key input to inform the Supporting Growth project.

The Supporting Growth project delivered a preferred network map and report, following extensive consultation.

Transport network plans for all the growth areas will act as overarching planning tools that will guide the transport investment, consenting and development. The ongoing planning process links into all other planned transport initiatives for the wider north, west and south Auckland areas.

The programme will begin delivering some of the key priorities laid out in the Auckland Transport Alignment Project (a collaboration between Auckland Council and the New Zealand Government to improve alignment on a long-term strategic approach to transport in Auckland). It has also worked closely with the "three waters" providers (water supply, stormwater, wastewater) to ensure it is aligned with the wider regional plans being developed for the city.

Developing the transport network in these growth areas will:

- make the existing transport network safer
- better integrate public transport, roads, footpaths and cycleways
- manage the existing network in a way that gets the most out of what we already have
- contribute to creating strong communities and centres with local jobs and improve access to employment and essential services
- provide greater transport choice for people living in growth areas and allow for high frequency, high quality public transport
- support the economic growth of Auckland by maintaining travel time reliability for freight to key industrial areas and ports
- help provide certainty for when future growth areas will have transport network in place and be ready for urban development
- improve arterial road connections to future urban areas, and the rest of Auckland.

The deliverables of the Supporting Growth Project also helped to inform a refresh of the Future Urban Land Supply Strategy in 2017 including updating costs.

**Special Housing Areas, further technical work and the Auckland Unitary Plan decisions**

Special Housing Areas were introduced under the Housing Accords and Special Housing Act 2013 which was intended to fast track the rezoning of land for urban uses and deliver substantial housing supply in the first five years. The approval of a number of Special Housing Areas in the future urban areas had a significant influence on the early sequencing and timing of these areas in the Future Urban Land Supply Strategy. Many of these areas were given a live urban zoning through the Auckland Unitary Plan process. As discussed above, the approval of these Special Housing Areas also played a significant role in the Independent Hearings Panel's recommendations to live zone land adjacent to some Special Housing Areas (e.g. Wainui East and Red Hills). The additional live zoned land then had to be included in the first tranche of future urban land sequencing.

Within some of the future urban areas, further technical work was required to understand the specific constraints and related development and infrastructure costs. The areas that were investigated in greater detail due to significant geotechnical and flooding constraints were Takanini and Opaheke/Drury. The flooding and geotechnical challenges posed by Takanini represented significant financial and infrastructure construction risks for the council. As a consequence, further technical investigations will need to be carried out to determine suitable and feasible infrastructure solutions prior to development. For these reasons the 2017 Future Urban Land Supply Strategy delayed development readiness of the Takanini future urban zone (592 hectares) from Decade Three, first half (2038 – 2042) to Decade Three, second half (2043 – 2047).

As discussed above, the Decisions version of the Auckland Unitary Plan was released in 2016 which significantly changed the future urban areas by increasing the size of some of the areas as well as live zoning part of others.

The learnings from processes discussed above including Special Housing Areas, further technical work, the Supporting Growth Project and the decisions on the Auckland Unitary Plan contributed towards the refresh of the Future Urban Land Supply Strategy.

### Future Urban Land Supply Strategy 2017

Given the significant changes that have occurred to the future urban areas since the adoption of the Future Urban Land Supply Strategy in 2015, including the introduction of Special Housing Areas between 2013 and 2016, decisions to the Auckland Unitary Plan in 2016 and further technical work, there was a need to refresh the sequencing and timing of future urban areas in the strategy.

The amount of land zoned for future urban activities has increased to 15,000 hectares and a potential 137,000 dwellings and 70,000 jobs over 30 years. This is an increase from approximately 11,000 hectares and 110,000 dwellings shown in the 2015 strategy. Included in this increased area were 1,700 hectares of future urban land (either future urban zone or a live urban zone). This represents around 11 per cent of the total 15,000 hectares provided in the Auckland Unitary Plan.

The changes have had a significant impact on the sequencing and timing of development identified in the 2015 strategy and the resulting provision of bulk infrastructure to these areas. The refresh process and resulting agreed sequencing and timing reflected development opportunities through the Auckland Unitary Plan and the subsequent impact of the opportunities on network infrastructure provision. As discussed above, the significant increase of future urban development opportunities in the rural and coastal settlements and the collective scale of these areas in terms of the infrastructure required to service them meant that these needed to be included in the strategy's sequencing and timing.

A number of amendments to the sequencing were therefore made. Areas were either put back due to infrastructure constraints and the prohibitive costs to invest in all future urban areas at the same time, or areas were brought forward due to live zoning in the Auckland

Unitary Plan or market readiness and the ability of the council to provide interim infrastructure solutions (e.g. Drury West).

Almost 50 percent of the future urban land identified in the strategy is proposed to be development ready within the first decade (2018 – 2027) (Auckland Council, 2017a).

### Consultation processes

Extensive consultation was undertaken over the course of developing and refining the future urban areas; including specific consultation processes for the development of the Rural Urban Boundary under the 2012 Auckland Plan as well as the development and refinement of the Future Urban Land Supply Strategy.

The council has worked closely with key infrastructure providers on identifying the Rural Urban Boundary in the Auckland Unitary Plan, as well as developing the Future Urban Land Supply Strategy and again for the refresh of the strategy in 2017. Key infrastructure providers include Watercare, Auckland Transport, New Zealand Transport Authority and Ministry of Education.

Consultation was also undertaken for the Supporting Growth project (New Zealand Transport Agency, 2017). Further information on consultation processes and feedback can be found in various documents on the FULSS referenced at the end of this report.

### Conclusions

Since 2012, there has been a considerable amount of work undertaken to refine the planning for future urban areas to ensure that they are ready for development with the zoning and bulk infrastructure in the right place at the right time.

The evidence of Douglas Fairgray indicates that “The Future Urban Zone is not intended to function on its own and that the Future Urban Zone and Rural Urban Boundary and Future Urban Land Supply Strategy are each very important influences on urban growth processes; and that in combination these mechanisms will have a critical role in achieving Auckland’s growth objectives” (Fairgray, 2015).

To ensure responsiveness and flexibility to deliver an adequate supply of development ready land in the right location at the right time, specific monitoring will be undertaken on the Future Urban Land Supply Strategy as part of a wider Auckland Plan 2050 monitoring framework.

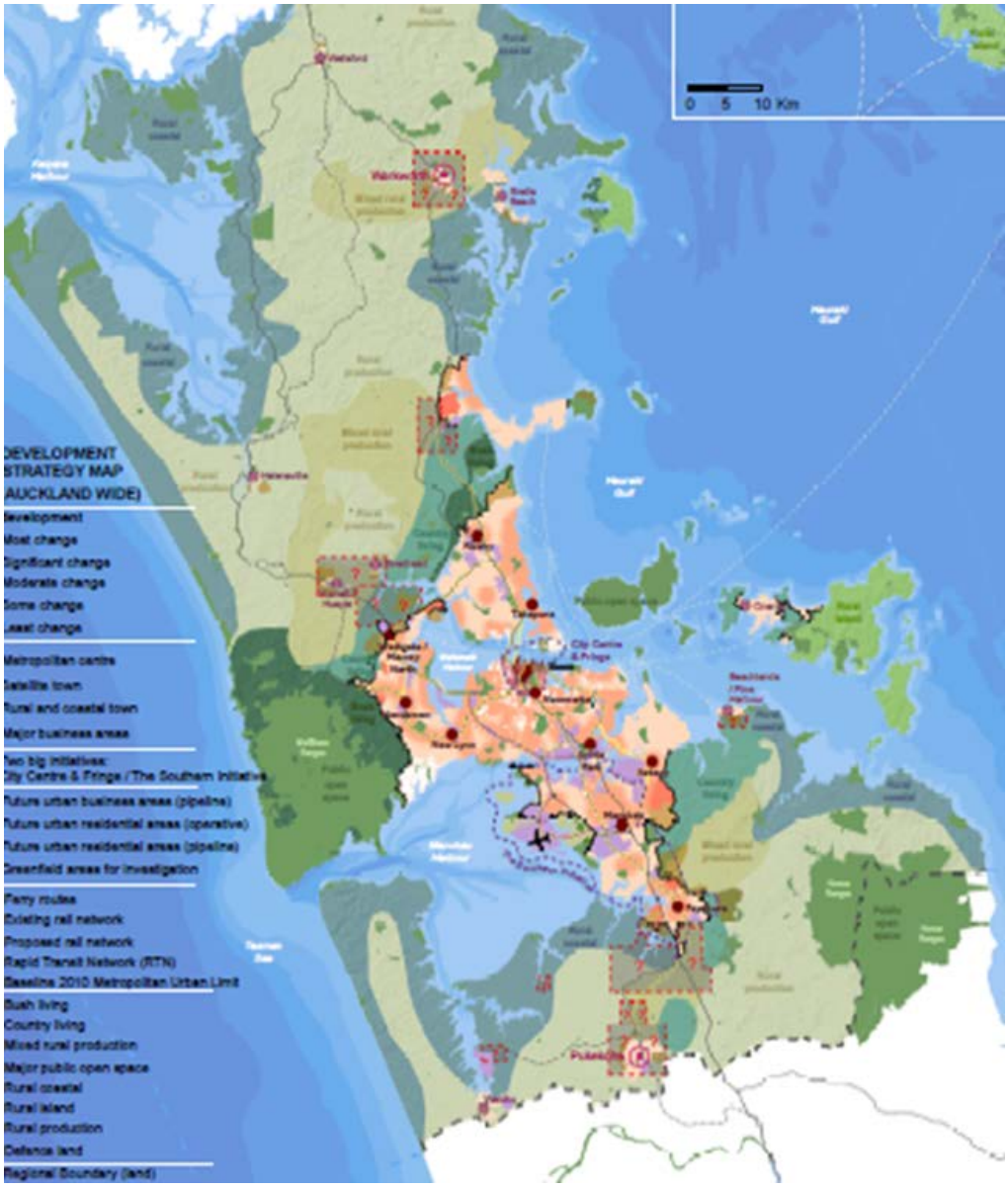
# Appendix 19: Greenfield areas for Investigation identified in the 2012 Auckland Plan

The greenfield Areas for Investigation were illustrated Maps D1 and D2 in the 2012 Auckland Plan Development Strategy. The Plan indicated that

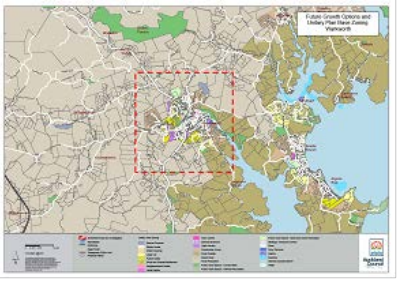
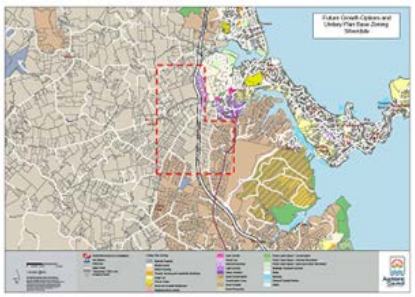
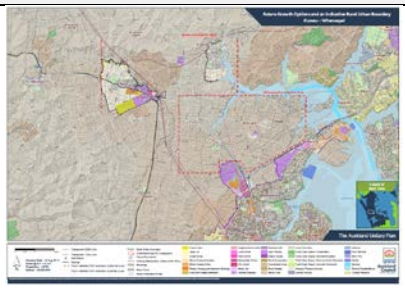
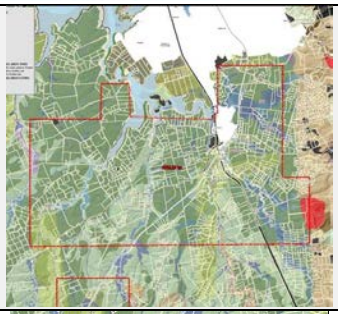
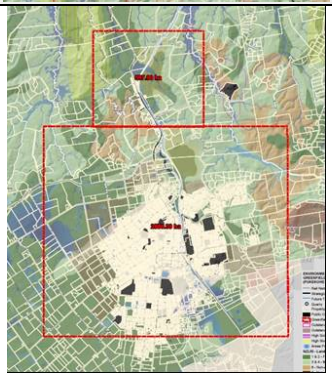
“136 The greenfield areas for investigation have been identified to enable up to 40% of new dwellings outside the baseline 2010 Metropolitan Urban Limit. These areas wither have existing infrastructure, or are viable areas for the provision of new infrastructure. They are close to or can provide new employment and new homes, and are relatively unconstrained by environmental factors.

137 The investigation of these areas is a priority for plan implementation, and will be conducted in a way that considers and supports all the outcomes and strategic directives in this Plan.

**Figure 67 Map D2, 2012 Auckland Plan**



# Appendix 20: Maps showing the clusters of Greenfield Areas for Investigation (2012 Auckland Plan)

| Future urban areas | | Clusters |
|---|---|---|
| Warkworth |  | Northern cluster |
| Wainui/Silverdale |  | |
| **Kumeū** / Huapai / Riverhead and Whenuapai / Red Hills |  | North west cluster |
| Karaka/Drury |  | Southern cluster |
| Pukekohe/Paerata |  | |

# Appendix 21: High level summary of best practice

| Location Key Strategy Timeframe | Scale of land for release | Pipeline of supply | Key projection metrics Growth ratio Land use | Use of a growth boundary | Use of a future urban zone | "Release" process |
|---|---|---|---|---|---|---|
| **Western Bay of Plenty**<br><br>**SmartGrowth 2013**<br><br>**Timeframe: 2051 with focus on 2013-2023** | Not available | 10 years of zoned residential land. Generation 2 and 3 areas provide 15,000 dwellings which is between 22 and 30 years supply | 113,477 more people 55,626 dwellings 850 hectares of business land<br><br>70-75% of residential urban growth delivered through greenfield expansion and 25-35% through infill<br><br>Residential, business | Yes urban limits used. This can be reviewed subject to certain criteria. | Strategy identifies future industrial and urban growth areas. Tauranga CC uses a future urban zone in some cases (a rural zone essentially). Western Bay of Plenty DC does not. | The greenfield areas and their capacity are identified through the Strategy. The uptake is monitored over time and the amount of greenfield stock of 10 years is maintained. Greenfield land identified for development pre-2021 is already zoned and structure planned. Land post 2021 will be structure planned and zoned as the overall stock demands it. It can be bought forward if monitoring shows a drop in the stock. Pre 2021 greenfield land can be developed subject to resource consent approval and must meet density targets. |
| **Melbourne, Victoria**<br><br>**Plan Melbourne**<br><br>**Timeframe: 2050** | 39,000ha of urban growth zone land | 50,000 growth area residential lots to the market in 2014 | 3.4 million more people.1.6 million dwellings. 1.7 million jobs<br><br>60% of dwellings to established areas, 40% of new dwellings to growth areas<br><br>Residential, industrial, business, natural features and open space | Yes Metropolitan Urban Boundary | Yes Urban Growth Zone | State Government designates growth area. These are then subject to a high level Growth Corridor Plan. Before development can occur detailed planning in the form of a Precinct Structure Plan must be completed. PSPs are produced by the Metropolitan Planning Agency with local Council (they are consulted) They show how individual development fit together. They are given effect by a plan change and live zones. A planning permit is then required to develop the land. |
| **Australian Capital Territories Act**<br><br>**Planning Strategy (2012) informed by the Canberra Plan (2008). National Capital Plan (Statutory)**<br><br>**Timeframe: To 2030** | It is calculated annually and changes over time. 2014-2015. 3,6000 dwellings, 123,000sq m industrial land, 75,000sqm commercial land | Measured by the Residential and building Activity annually. No minimum benchmark system used. Pipeline is demand for houses per annum and population growth. | 92,000 people. 45000 new dwellings. 50000 jobs. 300 hectares of industrial land<br><br>50% of all new dwellings delivered through urban intensification<br><br>Residential, Industrial. Office, retail/ service | No. ACT itself has a defined legal boundary. | No | Government land so process is controlled by the Territory Government. The areas of land released (both greenfield and brownfield) and the land use make up are based on the monitoring reports. The property sector are consulted. Land which is required for supply is identified, planned and serviced by the Land Development Agency. They then sell the land by lot. |
| **Metropolitan Sydney NSW**<br><br>**A Plan for growing Sydney (2014)**<br><br>**Timeframe: 2031** | Two 'Growth Centres' 27,000 hectares in area | 18 years of 'release' land which is approved by the State Government for urban purposes but not yet structure planned. 13 years supply of release areas which are zoned. 8 years supply of zoned | 1.6 million more people. 664,000 dwellings. 700,000 new jobs<br><br>No targets<br><br>Residential, Employment | No | No. Metropolitan Urban Area and Metropolitan Rural area identified on maps but not a zone per se. | Greenfield housing development is primarily focused in the designated North West Growth Centre and South West Growth Centre which should have supply to 2040. The land is approved by the State Government for urban purposes. It is then rezoned by the State and local Councils and serviced with trunk and lead in infrastructure provided by the water authorities and developers. The land is then subject to development |

| Location Key Strategy Timeframe | Scale of land for release | Pipeline of supply | Key projection metrics Growth ratio Land use | Use of a growth boundary | Use of a future urban zone | "Release" process |
|---|---|---|---|---|---|---|
| | | released areas with servicing capacity for water and wastewater truck infrastructure. | | | | approval for subdivision by local councils and developed. |
| **South East Queensland**<br><br>**South East Queensland Regional Plan 2009-2031**<br><br>**South East Queensland Infrastructure Plan and Programme 2009-2026**<br><br>**Timeframe: 2031** | 14500 ha industrial land<br>Land area for dwellings not given. | 10 years of "planned supply" where a development permit is able to be applied for and likely to be approved(consistent with planning scheme)<br>15 years of combined planned and emerging (not yet consistent with planning scheme) | Additional 1.8 million people<br>754,000 dwellings<br><br>50% of all new dwellings to existing urban areas<br><br>Residential<br>Employment | An urban footprint to 2031 is used but this can be amended to reflect changed circumstances | Urban footprint is not a zone.<br>Underlying zones apply. | All development occurs within the urban footprint.<br>Development areas are the focus for urban growth and are identified in the SEQ Plan for certainty. They can be planned and led by the State, Councils or developers.<br>Development requires approval from local Council.<br>The SEQIPP identifies the regionally significant infrastructure priorities to enable growth. |
| **Perth and Peel State Planning Strategy 2050**<br><br>**Directions 2031 and Beyond**<br><br>**Timeframe: 2031** | 18,600 hectares of undeveloped urban or urban deferred land | 25 years supply of undeveloped land comprising at least 15 years urban an urban deferred land and a 10 year buffer of rural land identified for future urban expansion | 550,000 more people<br>328,000 dwellings<br>353,000 jobs<br><br>47% of future growth to be infill<br><br>Residential<br>business | No growth boundary | Urban deferred is a zone | Land is identified as urban deferred under the regional planning scheme. It must meet certain requirements for the Western Australian Planning Commission to approve it to be transferred to the urban zone.<br>Under some circumstances rural land can be rezoned urban. Subdvisions are approved by WPAC and major infrastructure is provided to urban zoned land by the State.<br>Developers can prefund. |
| **Calgary, Alberta (Calgary Regional Partnership)**<br><br>**Calgary Metropolitan Plan (2014) Municipal Development Plan (2009)**<br><br>**Timeframe: 2076** | 12,210 hectares of prioritised growth areas<br>3918 hectares of industrial commercial areas | Citywide target of 10 years of planned to be serviced<br>In greenfield areas there should be 15 years of land with an Area Structure Plan and 2-5 years (3,5 years average) of land serviced .<br>3-5 years of serviced industrial land | 1.6 million people and 700,000 jobs by the year 2076<br><br>New suburban areas (those outside the 2005 boundary) to accommodate 70% of population by 2039.<br><br>Residential and industrial | No growth boundary.<br>City limits is mapped but not a growth boundary | Future Greenfield Areas are identified to control subdivision and restrict uses | The MDP identifies large tracts of future greenfield land. This is land which does not have an "Area Structure Plan"<br>Plans for new communities in Future Greenfield Areas will be established through the Area Structure Plans following completion of a Regional Context<br>Study. |
| **Toronto (Golden Horseshoe),**<br><br>**Ontario Growth Plan for Greater Golden Horseshoe (2006)**<br><br>**Timeframe: 2041** | 107,100 hectares | Sufficient land to accommodate not more than 20 years supply | 3.7 million people<br><br>40% of annual growth to be within the built-up area<br><br>Residential and employment | Each municipality delineates "urban boundaries" beyond which no urban development is to occur | For areas designated for future urban growth an "existing development zone" is used which only permits legal uses of land existing on the lot as of the effective date of the by-law . | The development of greenfield land falls to individual municipalities within the context and target set by the Provincial Strategy.<br>Land is identified for urban development usually through a 'secondary plan' for a specific area. The land is then rezoned, subject to a subdivision approval and finally a site plan approval before development can occur. |
| **Metro Vancouver Region ,** | See far right | Sufficient land to accommodate | 1 million people over 500,000 jobs | Urban containment boundary | No | 90,404 hectares of land were within the UCB in 2011<br>7,850 hectares of the 70,904 |

| Location Key Strategy Timeframe | Scale of land for release | Pipeline of supply | Key projection metrics Growth ratio Land use | Use of a growth boundary | Use of a future urban zone | "Release" process |
|---|---|---|---|---|---|---|
| **British Colombia**<br><br>**Metro Vancouver 2040**<br><br>**Timeframe: 2040** | | 98% of future urban growth | 98% of all new growth will be contained within the Urban Containment Boundary<br><br>Residential and employment | | | hectares of land designated General Urban remained largely undeveloped and were intended for future urban development and uses. These areas are located at the periphery of the various local areas.. |

# Appendix 22: Summary of the process to sequence future urban land (2015)

The approach undertaken during 2014/2015 to identify the sequencing of the likely structure planning/development readiness for the future urban areas was primarily a technical exercise as outlined below.

- A focus on building greater understanding of each urban area by consolidating the planning information held across the council and an understanding of the high level technical analysis for each area. This provided a clearer picture regarding potential land uses, development capacities, the development opportunities and constraints and the bulk infrastructure projects required to urbanise these areas.
- Development of a suite of principles to guide development of the Strategy and to assist with understanding which areas could offer the greatest benefit from prioritisation within the short, medium and long term timeframes of the Strategy.
- A series of technical workshops undertaken with key stakeholders including Auckland Transport, Watercare, Veolia and the New Zealand Transport Agency. The workshops looked at each geographic location in isolation to understand the local infrastructure picture.
- Information from the workshops was then used to inform the regional picture and focused understanding of the trade-offs required to prioritise one area over another across the region. The regional analysis also compared development capacities and key enabling infrastructure projects (their timelines and potential costs where known) across the period covered by the strategy to ensure that capacity could be delivered and infrastructure costs would be appropriately spread.
- The outputs from all of these stages were then consolidated into a sequencing table which sets out the order and timing for when these areas will be “development ready”.

# Appendix 23: Centres in the Urban, Rural and Future Urban Areas

This appendix identifies the changes that have occurred to the classification of some of Auckland's centres from the 2012 Auckland Plan to the Auckland Plan 2050, including an updated version of the 2012 Plan's Table 10.1.

**Auckland's network of centres within the Metropolitan Urban Limit**

The development of the Auckland Unitary Plan provides updated information about the centres network. The following changes to the centre categories (2012 Auckland Plan) are recommended to reflect updated information as part of the Auckland Unitary Plan process and updated growth approach for the Auckland Plan 2050.

- Stoddard Road amended from local to town centre. This change reflects the considerable redevelopment expected in this area and the direct access to SH20
- addition of three new local centres (at Red Hills, Jervois Road and Panama Road) to reflect the scale of centre development, the catchments of these centres, and their redevelopment potential
- Greenhithe was deleted from the list of local centres, it is now part of the neighbourhood centres category[55]
- Whenuapai has been added to the list of local centres. Formerly this was a rural village (serviced). However, with the urbanisation of this area through structure planning and plan change this now needs to be considered with urban centres.

Centre name changes

- These changes are made to reflect common usage- Highbury amended to Birkenhead, Valley Road/Eden Quarter amended to Valley Road.

Deletion of the city fringe centres category

- These centres have now been added to the town centre (Devonport, Newton, Parnell and Ponsonby) and local centre (Grafton) lists in the updated table below. The development of the city fringe over the next 30 years is still an important component of understanding Auckland's growth. However, the city fringe centres are part of the catchment for the city centre node and so will be assessed in this context.

[55] This report does not include information on the neighbourhood centres category.

**Table 25 Update 2012 Auckland Plan showing information on additions and deletions to the urban centres categories**

| International City Centre (1) | Town Centres (39) | Local Centres (60) | |
|---|---|---|---|
| City Centre* | Avondale | Addison | Morningside |
| **~~City Fringe Centres~~** | ~~Highbury~~/Birkenhead | Albany Village | Mt Eden |
| ~~Devonport~~ | Browns Bay | Balmoral | Mt Roskill |
| ~~Grafton~~ | **Devonport** | Beach Haven | Mt Wellington |
| ~~Newton~~ | Ellerslie | Belmont | Northcross |
| ~~Parnell~~ | Glen Eden | Blockhouse Bay | **Panama Road** |
| ~~Ponsonby~~ | Glen Innes | Botany Junction | Ranui |
| **Metropolitan Centres (10)** | Glenfield | Chatswood | **Red Hills** |
| Albany* | Highland Park | Clendon | Sandringham |
| Botany | Howick | Dawson Road | St Heliers |
| Henderson | Hunters Corner | Drury | ~~Stoddard Road~~ |
| Manukau* | Māngere | Favona | Stonefields |
| New Lynn | Manurewa | Glendene | **Sturges** |
| Newmarket | Milford | **Grafton*** | Sunnyvale |
| Papakura | Mt Albert | ~~Greenhithe~~ | Swanson |
| Sylvia Park | **Newton** | Greenlane East | Te Atatū South |
| Takapuna | Northcote | Greenlane West | Titirangi |
| Westgate/Massey North* | Ōnehunga | Greville | Torbay |
| | Ōrewa | Grey Lynn | Valley Road/~~Eden Quarter~~ |
| | Ormiston | Hauraki Corner | West Lynn |
| | Ōtāhuhu | Gulf Harbour | **Whenuapai** |
| | Ōtara | Hingaia | Windsor Park |
| | Pakuranga | Hobsonville | |
| | Panmure | Homai | |
| | Papatoetoe | **Jervois Road** | |
| | **Parnell** | Kelston | |
| | Pt Chevalier | Kepa Road/Eastridge | |
| | **Ponsonby** | Kingsland | |
| | Remuera | Long Bay | |
| | Royal Oak | Lynfield | |
| | Silverdale | Mairangi Bay | |
| | St Lukes | Māngere Bridge | |
| | **Stoddard Road** | Māngere East | |
| | Sunnynook | Market Road | |
| | Takanini | Massey West | |
| | Te Atatū Peninsula | Meadowbank | |
| | Three Kings | Meadowlands | |
| | Whangaparāoa | Mission Bay | |

Note: New centres are in bold type, deleted centres are in strikethrough.

* part of nodes (see section 4.4)

### Rural Settlements

Auckland's rural settlements are places where people live, and have urban residential and/or a business zone or a rural and coastal settlement zone (under the Auckland Unitary Plan), or equivalent of these in the Hauraki Gulf islands District Plan.

The 2012 Auckland Plan identified 88 rural settlements classified as satellites, towns and serviced and serviced villages. The classification is based on their existing and future role and function described in Table 26.

**Table 26 2012 Auckland Plan rural settlement classification role and function**

| Rural settlement classification | Current role and function | Future role and function |
|---|---|---|
| Satellite towns/rural nodes | • Potential to function independently of the main urban area.<br>• Provides a range of services to surrounding rural areas.<br>• Developing quality transport links. | • Locations of significant residential and employment growth – subject to appropriate infrastructure being in place.<br>• Strong, accessible, diverse and enhanced centres. |
| Rural towns | • Urban settlements of varying sizes with suburban zones in rural areas.<br>• Varied local character and services.<br>• Reflect lifestyle choices such as rural town life, dormitory residential and retirement living. | • Expected to grow to between 2,000 to 10,000 people.<br>• Less independent from main urban areas.<br>• Less of a focus for intensification or employment growth. |
| Rural serviced villages | • Small rural settlements of varying sizes - 100-5,000 people.<br>• Close connections to rural and natural surroundings.<br>• Provide centre for rural residents, dormitory residential, holiday and retirement living to varying degrees.<br>• In some cases serve visitors with low key services and tourist development. | • Some have critical constraints in wastewater capacity.<br>• Villages with adequate service capacity have potential for well-planned growth at locally appropriate scale. |
| Rural un-serviced villages | • Range from tight clusters to more dispersed areas.<br>• Share constraints, varying functions and qualities of serviced villages. | • Envisaged to have little or no growth.<br>• Will change and develop in ways that preserve their character. |

The draft development strategy 2050 has updated this classification and Table 22 lists 92 rural settlements. A number of settlements now not included in the table, are transitional

settlements, as they are anticipated to amalgamate with a larger urban area. This is due to being within, or connected by, a future urban zone which will be part of the urban area for example; Buckland and Paerata into Pukekohe, Waiau Beach into Clarks Beach and Whenuapai into suburban Whenuapai.

Others have been combined such as Kumeū-Huapai and Snells Beach/Algies Bay. Clevedon Waterways is added as a result of the Auckland Unitary Plan and Bon Accord, Vivian Bay and North Cove added to include Kawau Island. A number of new un-serviced settlements have been added. As well as these listed settlements, there are a number of papakainga (Māori housing development) in rural areas, such as Motairehe and Kawa on Great Barrier Island.

**Table 27 Auckland Plan 2050: Rural and coastal settlements' classification showing changes from 2012 to 2017**

| Satellites (2) | Towns (8) | Villages | | |
|---|---|---|---|---|
| | | Serviced (21) | Un-serviced (61) | |
| Pukekohe* | Beachlands/ ~~Pine Harbour~~ **Maraetai*** | Bombay | ~~Ararimu~~ | Orapiu[4] |
| Warkworth * | Helensville* | ~~Buckland~~ | ~~Ardmore~~ | Orere Point |
| | KumeūKumeu-Huapai* | Clarks Beach* | **Awana[6*]** | Orua Bay |
| | Riverhead* | **Clevedon[2*]** | Awhitu ~~Central~~ | ~~Ostend~~ |
| | Snells Beach/Algies Bay* | **Clevedon Waterways[2*]** | Baddeleys Beach | Pakiri |
| | ~~Oneroa~~ | Glenbrook Beach* | Bethells Beach (Te Henga) | ~~Palm Beach~~ |
| | **Waiheke urban area[2]** | ~~Herald Island~~ | Big Bay | **Paparimu** |
| | Waiuku | ~~Karaka~~ | **Birds Beach** | Parau |
| | Wellsford* | **Karaka North*** | **Bon Accord[5]** | Paremoremo |
| | | Kawakawa Bay | ~~Brookby~~ | Piha |
| | | Kingseat* | **Buckleton Beach** | Pollock |
| | | ~~Laingholm~~ | Campbells Beach | Port Albert |
| | | ~~Maraetai~~ | Claris[6] | Port Fitzroy[6] |
| | | Martins Bay | ~~Clevedon~~ | Puhoi |
| | | Matakana | Coatesville | **Rainbow's End** |
| | | **Okura*** | Cornwallis | Sandspit |
| | | Omaha | ~~Dairy Flat~~ | Scotts Landing |
| | | Parakai | Grahams Beach | Shelly Beach |
| | | Patumahoe | **Hingaia South** | ~~Surfdale~~ |
| | | Point Wells | Huia | **South Cove[5]** |
| | | Stillwater | Hunua | Tapora |
| | | **Te Hana** | Kaipara Flats | ~~Taupaki~~ |
| | | ~~Waiau Beach~~ | **Karaka South** | ~~Te Hana~~ |
| | | Waiwera | **Karekare** | Ti Hihi |
| | | ~~Waimauku~~ | Kaukapakapa | Te Toro |
| | | Weiti[2] | Leigh | **Ti Point** |

| Satellites (2) | Towns (8) | Villages | | |
|---|---|---|---|---|
| | | Serviced (21) | Un-serviced (61) | |
| | | ~~Whenuapai~~ | **Little Huia** | Tomarata |
| | | **Whitford** | Makarau | Tryphena[6] |
| | | | Matakawau | **Vivian Bay[5]** |
| | | | **Matakawau Point** | Waiau Pa |
| | | | **Matingarahi** | Wainui |
| | | | Medlands[6] | **Waimauku*** |
| | | | Muriwai | Waitakere |
| | | | **North Cove[5]** | Waitoki |
| | | | **Okiwi[6]** | **Wattle Bay** |
| | | | **Okupu[6]** | Whangaparapara[6] |
| | | | **Jamieson/Opahi Bay** | Whangateau |
| | | | ~~Omiha~~ | ~~Whitford~~ |
| | | | ~~Onetangi~~ | |

**Notes for Table 27:**

**Bolded** – added since 2012
~~Strikethrough~~ - changed category
*Rural settlements associated with future urban area/live zoning where future development may require future consideration of centres
[1] Reticulated wastewater
[2] Zoned for development subject to servicing requirements
[3] Includes Oneroa and Blackpool, Surfdale, Ostend, Palm Beach, Onetangi, and Omiha villages
[4] Waiheke Island
[5] Kawau Island
[6] Great Barrier Island

# Appendix 24: Centres in the Auckland Unitary Plan

This appendix provides further clarification and detail of Auckland's centres, including definitions from the Auckland Unitary Plan. These definitions distinguish the varying roles that Auckland's network of centres play, from the city centre and metropolitan centres through to local and neighbourhood centres. The Auckland Regional policy statement 2016 endorses the role that a hierarchy of centres plays in contributing to a quality compact urban form. The relevant policy from the Regional policy statement is set out below.

**Table 28 Centre types and descriptions**

| Centre | Role |
|---|---|
| City Centre | The city centre is the top of the centres hierarchy and plays a pivotal role in Auckland's present and future success. The Business – City Centre Zone seeks to ensure the city centre is an international centre for business and learning, innovation, entertainment, culture and urban living.<br><br>To maintain and enhance the vibrancy of the city centre, the zone permits a wide range of activities to establish in most parts of the city centre. The zone also manages activities that have the potential to adversely affect the amenity of the city centre or that have the potential to generate reverse sensitivity effects on identified marine and port activity areas. |
| Metropolitan Centres | Metropolitan Centre Zone applies to centres located in different sub-regional catchments of Auckland. These centres are second only to the city centre in overall scale and intensity and act as focal points for community interaction and commercial growth and development and contain hubs serving high frequency transport.<br><br>The zone provides for a wide range of activities including commercial, leisure, high-density residential, tourist, cultural, community and civic services. Zone provisions, in conjunction with rules in the other business zones, reinforce metropolitan centres as locations for all scales of commercial activity.<br><br>These centres are identified for growth and intensification. Expansion of these centres may be appropriate depending on strategic and local environmental considerations. |
| Town Centres | Local Centre Zone applies to suburban centres throughout Auckland, the satellite centres of Warkworth and Pukekohe, and the rural towns of Helensville and Wellsford. The centres are typically located on main arterial roads, which provide good public transport access.<br><br>The zone provides for a wide range of activities including commercial, |

| Centre | Role |
|---|---|
| | leisure, residential, tourist, cultural, community and civic services, providing a focus for commercial activities and growth. Most of these centres are identified for growth and intensification. Expansion of these centres may be appropriate depending on strategic and local environmental considerations. |
| Local Centres | Local Centre Zone applies to a large number of small centres throughout Auckland. The centres are generally located in areas of good public transport.<br><br>The zone primarily provides for the local convenience needs of surrounding residential areas, including local retail, commercial services, offices, food and beverage, and appropriately scaled supermarkets. Large-scale commercial activity requires assessment to ensure that a mix of activities within the local centre is enabled. The expansion of local centres will be appropriate if it provides greater social and economic wellbeing benefits for the community. Provisions typically enable buildings up to four storeys high, enabling residential use at upper floors. |
| Neighbourhood Centres | The Business – Neighbourhood Centre Zone applies to single corner stores or small shopping strips located in residential neighbourhoods. They provide residents and passers-by with frequent retail and commercial service needs.<br>Provisions typically enable buildings of up to three storeys high and residential use at upper floors is permitted. Development is expected to be in keeping with the surrounding residential environment. |

**Regional policy statement (2016)**

**B2.2.2. Policies**

(6) Identify a hierarchy of centres that supports a quality compact urban form:

(a) at a regional level through the city centre, metropolitan centres and town centres which function as commercial, cultural and social focal points for the region or sub-regions; and

(b) at a local level through local and neighbourhood centres that provide for a range of activities to support and serve as focal points for their local communities.

**B2.5.2. Policies**

(1) Encourage commercial growth and development in the city centre, (1)metropolitan and town centres, and enable retail activities on identified growth corridors, to provide the primary focus for Auckland's commercial growth.

(2) Support the function, role and amenity of centres by encouraging commercial (2)and residential activities within centres, ensuring development that locates within centres contributes to the following:

(e) a character and form that supports the role of centres as focal points for communities and compact mixed-use environments;

# Appendix 25: Examples of timelines for developing centres

Growth on Auckland's urban periphery has meant the development of large new centres to service the new communities. These new centres take time to evolve and grow and need to be planned as part of overall structure planning and master-planning, consented and constructed. Time is also needed for these centres to achieve maturity in the retail, commercial and social offer that they provide focused on the new communities.

The two timelines below provide examples of developing centres in the north-west and the south and illustrate the progress to date.

**Figure 68 Timeline showing development of Westgate**

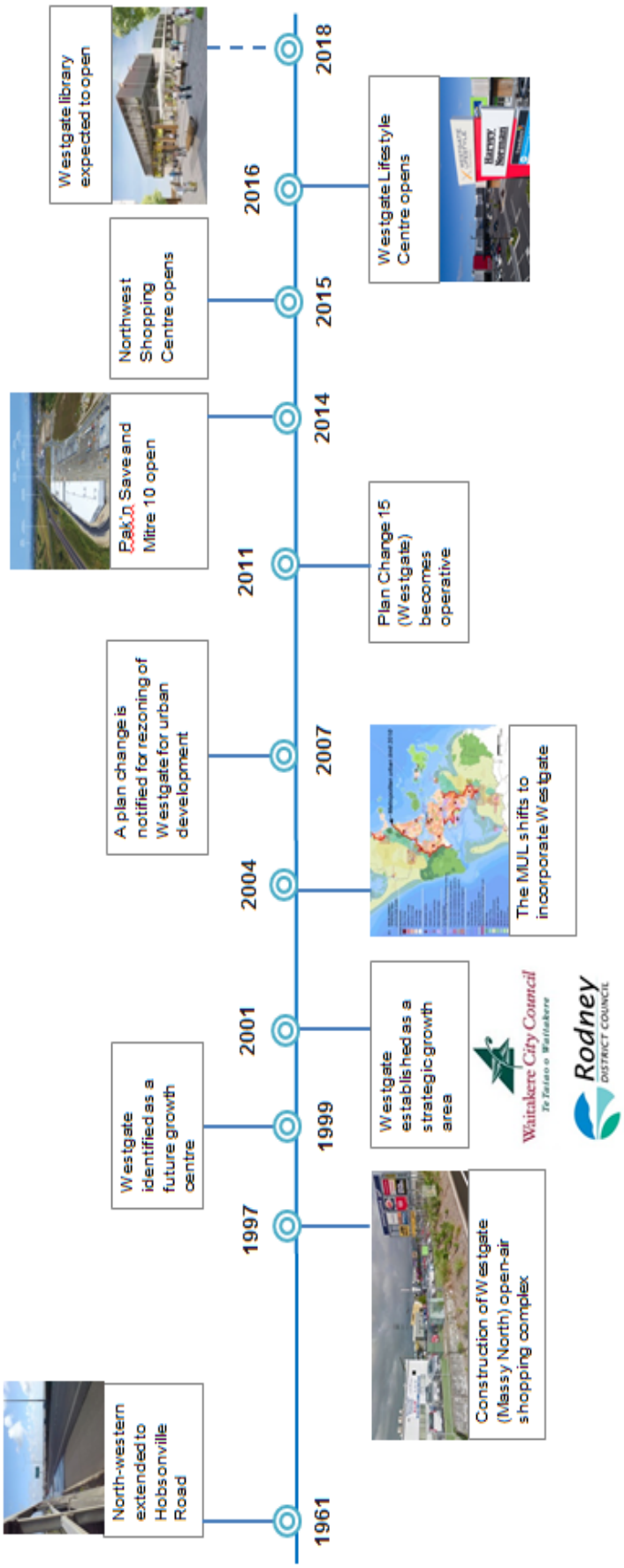
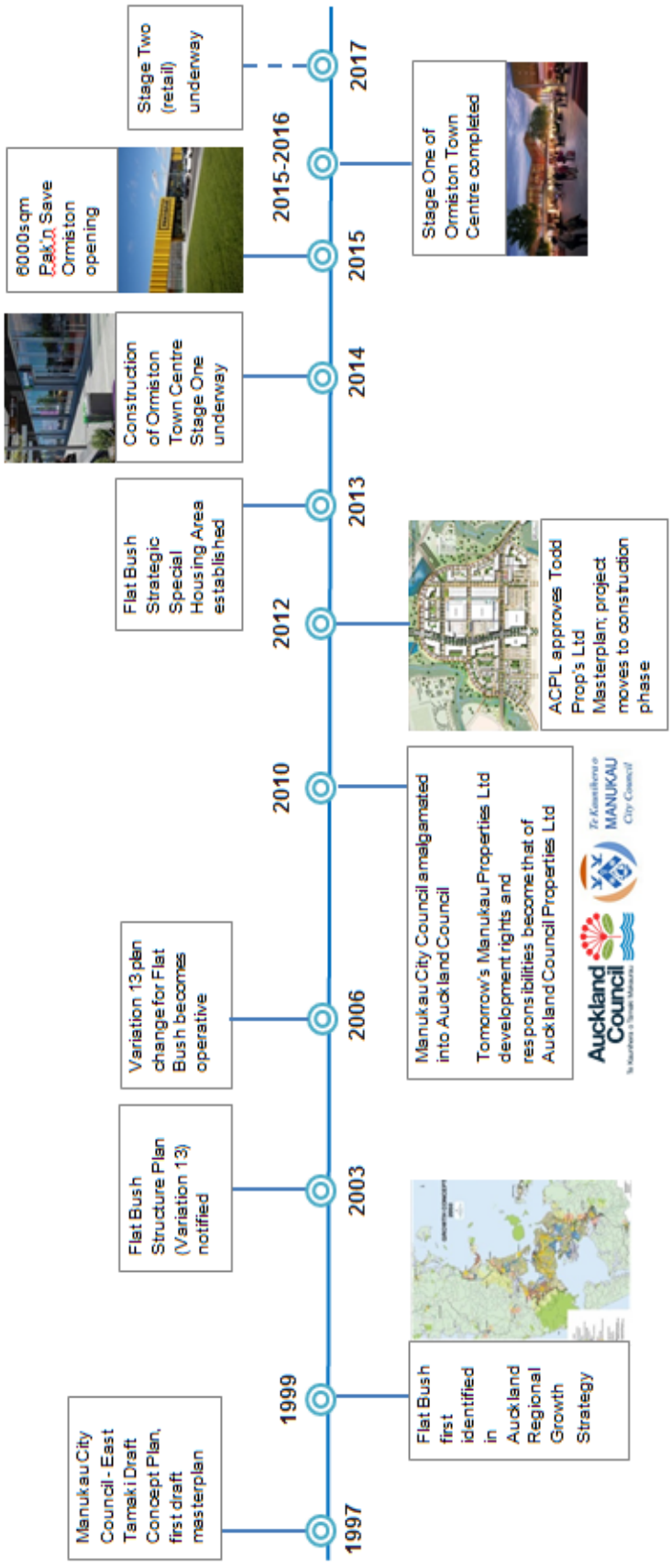


**Figure 69 Timeline showing development of Ormiston Town Centre**

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