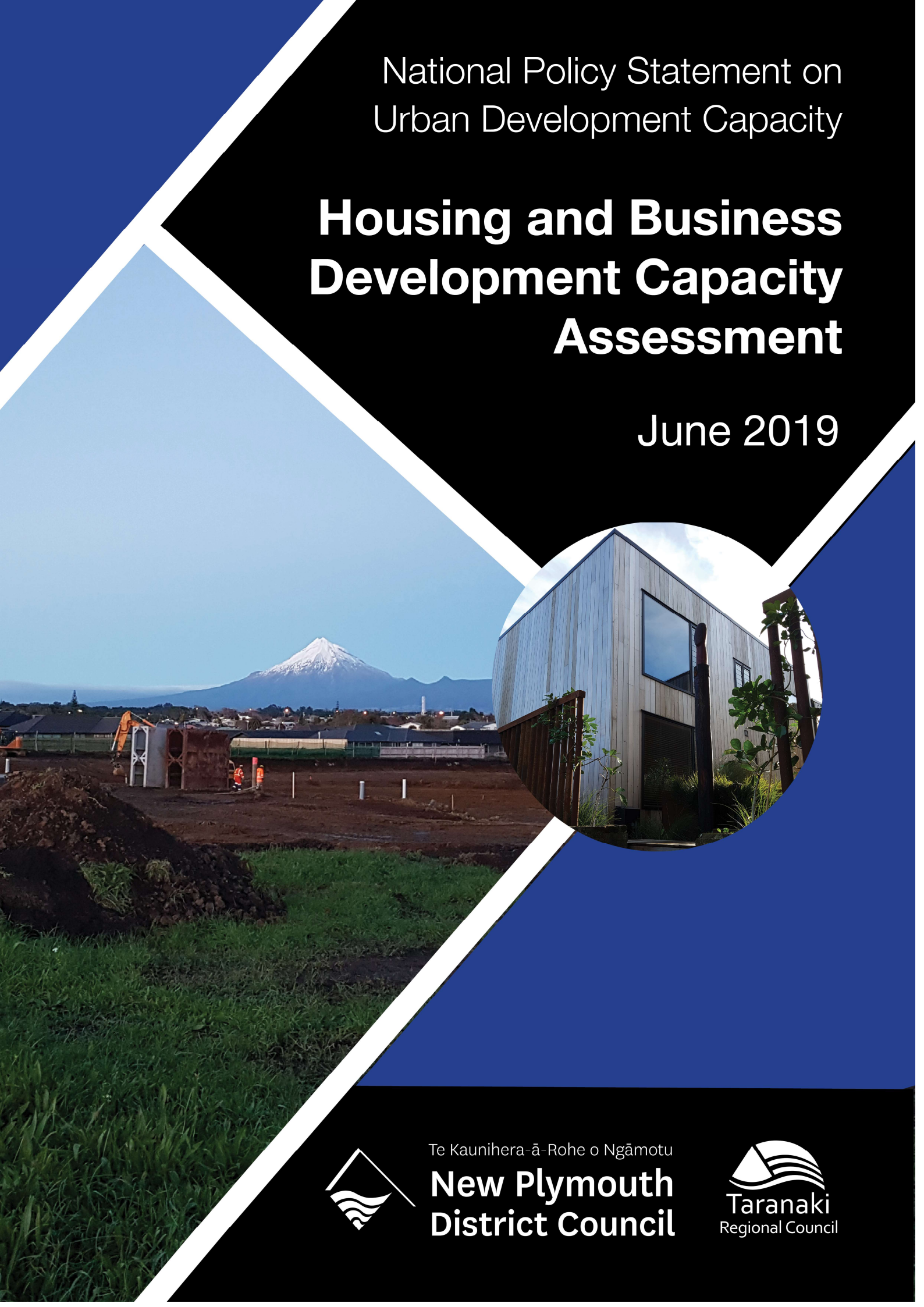National Policy Statement on Urban Development Capacity

Housing and Business Development Capacity Assessment

June 2019

Te Kaunihera-ā-Rohe o Ngāmotu
New Plymouth District Council

Taranaki Regional Council

Table of Contents

This report has been prepared by New Plymouth District Council

1 Executive Summary

This report presents the key results of the Housing and Business Development Capacity Assessment (HBA) for the New Plymouth District.

In 2016, the New Plymouth District was identified as a high-growth urban area. Consequently, the New Plymouth District Council (NPDC) must meet all requirements of the National Policy Statement on Urban Development Capacity (NPS-UDC) 2016. This includes having a well-developed understanding of land and development markets in the district, and ensuring enough supply of housing and business space to meet current and future demand.

This HBA report is a detailed analysis of housing and business growth across the New Plymouth District, based on current and future levels of demand, supply and development capacity. Required every three years, the HBA provides a robust, comprehensive and frequently-updated evidence base that will inform and guide development capacity and planning decisions in the district. It will also assist with development of minimum targets for sufficient, feasible housing development capacity for inclusion in the *Regional Policy Statement for Taranaki* and the *New Plymouth District Plan*. This report fulfils Policies PB1-PB5 of the NPS-UDC and underpins the Future Development Strategy (FDS) for New Plymouth.

1.1 Summary of Key Results

Overall, the HBA indicates that the New Plymouth District has sufficient housing and business development capacity for the short term (within three years), the medium term (between three and ten years) and the long term (between 10 and thirty years). Current levels of development capacity and proposed additional supply over time will meet the projected demand for housing and business development capacity throughout the district. The key trends and issues are as follows.

Key trends and issues for housing

	Projected number of households	Total Change	NPS-UDC Margin	Projected number of households	Total Change
2018	34,295			34,295	
Short Term (2018-21)	35,454	1,156	20%	35,686	1,391
Medium Term (2021-28)	37,996	2,541	20%	38,736	3,050
Long Term (2028-48)	43,629	5,634	15%	45,214	6,479
Total		9,334			10,919

Table 1.1: Housing Demand Projections for New Plymouth District

Population growth means more houses are required in the future

- The New Plymouth District population is projected to grow to about 106,100 people by 2048 (22,700 more people than live here today). To accommodate this growth, the district will need an additional 10,919 new dwellings (or 364 new dwellings per annum) over the next 30 years.

Sufficient capacity in the short and medium term to meet demand

- The New Plymouth District's existing residential zoned land and infill housing potential provides sufficient capacity in the short and medium term. Further residential land has been identified in the Draft District Plan[1] and will provide capacity in the medium term.

Sufficient future growth areas in the long term

- There are sufficient future growth areas to meet long term housing and business capacity demands in the district.

Infrastructure is required for growth areas

- Infrastructure spending of around $128.7 million is required over the next thirty years to support future growth. Currently, an estimated 19 per cent[2] of this spend will be recovered via mandatory contributions from property developers.

Changes in demographics will require a variety of housing typologies

- Our changing and ageing population will require more single-person and couple-only households. This includes significantly increased demand for small and multi-unit dwellings, as well as rest homes and retirement villages. Current housing trends may not provide the range of housing choices we are likely to require in the future.

Greenfield development is more feasible than infill development

- The feasibility outputs for residential greenfield development are around 90 per cent, whilst infill development has much lower feasibility at 20 per cent. The infill development model needs to be further adapted to accurately reflect on the ground feasibility of infill development.

Key trends and issues for business

Demand	Retail	Commercial	Industrial	Total Change
Employment Growth by Sector				
2018	5,940	7,920	10,750	24,610
Short Term (2018-21)	9,320	9,090	12,430	30,840
Medium Term (2021-28)	11,130	10,000	13,780	35,660
Long Term (2028-48)	15,070	11,230	15,210	41,510
Gross Floor Area Floor Space Growth by Sector (ha)				
Short Term (2018-21)	2.1	1.5	32.2	35.8
Medium Term (2021-28)	2.5	4.0	82.9	89.4
Long Term (2028-48)	5.4	3.7	77.9	87.0
	10.0	9.3	193.0	212.3

Table 1.2: Business Demand Projections for New Plymouth District

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[1] The Draft District Plan was released in February 2018 and is currently being refined into the Proposed District Plan due to be publicly notified in mid-2019.

[2] Based on New Plymouth District Council historical funding

Business land needs are met

- There is good provision of business floor space across the New Plymouth District, at least over the short to medium term. Over the long term, demand for floor space may be met by redeveloping existing business land uses within the Central City. Confirmation of actual market demand will require ongoing monitoring and a review of up-take in some locations.

Ample supply of business land within the Central City

- The New Plymouth District has sufficient capacity to meet commercial and retail demand through multi-level developments in the Central City area.

Sufficient provision for industrial land on the eastern side of the city

- There is sufficient land supply on the eastern side of New Plymouth City to meet industrial demand into the long term. There is currently no supply identified on the western side of the city.

2   Context

2.1   The New Plymouth District

With an area of 2,324 square kilometres, the New Plymouth District is the tenth largest district in New Zealand. It is made up of New Plymouth, the largest centre, and a number of surrounding settlements that support smaller communities and lifestyle living. New Plymouth City is the focus of the region's economy, which is dominated by dairy farming, oil, natural gas and petrochemical exploration. The city is also the Taranaki region's financial centre and home to Port Taranaki, the only deep-water port on the west coast of New Zealand.

New Plymouth is recognised as the tourist hub of the Taranaki region, which Lonely Planet named '2nd Best Region in the World to Visit' in 2017. Lying 11km north of the city centre, New Plymouth's Airport is the fourth busiest regional airport in New Zealand, and the ninth busiest overall. It caters for 440,000 passengers per annum, a number growing each year. The airport is a strategic infrastructure asset for the regional economy, particularly in terms of facilitating tourism and trade.

The district is growing. The past 10 years have seen sustained population growth of 800 to 1,000 people per year. By 2028 we expect to have another 9,000 people calling the district home. By 2048, the district is expected to have grown by 27 per cent, requiring around 3,700 new dwellings. A significant proportion of our residents will be aged 65 years and over. As a result of these projections, the Government has recognised New Plymouth District as one of 13 high-growth districts in the country.

The New Plymouth District Council (NPDC) and Taranaki Regional Council (TRC) have agreed that this HBA will cover demand for housing and business in the New Plymouth District only. It will assess housing and business land capacity in the New Plymouth urban area and in surrounding urban townships such as Oakura, Waitara and Inglewood. Future versions of the report will consider including the South Taranaki and Stratford districts.

Figure 2.2.1 – The New Plymouth District Study Area

2.2   Policy Context

A number of key policy and strategy documents have informed this HBA. These include:

- National Policy Statements on Urban Development Capacity and Freshwater Management, and the New Zealand Coastal Policy Statement
- National Infrastructure Plan
- Government Policy Statement on Land Transport
- Regional Policy Statement for Taranaki 2010 (in particular the built environment objectives and policies)
- Regional Land Transport Plan for Taranaki 2015-2021
- Long Term Plans (LTP) (New Plymouth District Council and Taranaki Regional Council)
- New Plymouth District Blueprint
- New Plymouth Operative District Plan
- New Plymouth Draft District Plan

Draft District Plan

NPDC's District Plan is currently under review. The review aims to address issues arising from the Operative District Plan and to give effect to the New Plymouth District Blueprint[3]. The Blueprint is a high-level spatial plan for the district, developed with the community that guides and integrates Council planning and decision-making.

Our Draft District Plan was released in 2018 and the Proposed District Plan is set to be publicly notified in 2019. Among other things, the Draft District Plan tackles the following top four issues:

- **Central City and Local Centres**: There is opportunity for the District Plan to better facilitate and direct desired development into the central city. Likewise, other town and key suburban centres will benefit from more deliberate planning provisions that encourage activities to locate in these centres (including residential living and commercial activities).

- **Residential Growth**: To provide for the district's growing population and to strengthen local communities, the District Plan will ensure that growth is located in appropriate locations and is supported by adequate infrastructure that meets wider sustainability objectives. This change provides a significant opportunity to build a range of housing types, with more intensive housing and activities around key centres.

- **Managing Industry**: The District Plan can help ensure sufficient employment land supply for the district and that appropriate land uses are located around the port and airport. There is also a need to manage the effects of large-scale rural industry and protect key industries from more sensitive activities locating nearby. The district requires a pragmatic, solution-focused District Plan and regulatory framework to support these industries and the communities in which they locate, and to provide certainty for investment.

- **Coastal Management**: The District Plan can help ensure activities do not affect the natural values of the coast. The District Plan also manages activities at risk from coastal hazards. There is an opportunity to manage the landward parts of our coastline in a more sustainable way.

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[3] http://www.newplymouthnz.com/Council/Council-Documents/Plans-and-Strategies/New-Plymouth-District-Blueprint

2.3 Policy Limitations

This report highlights some issues that should be taken into account when devising planning responses.

- It can take several years to progress a District Plan from initial preparation stage to an operative District Plan, which is not then subject to further review until it has been operative for 10 years. Therefore, a 3-yearly review period for the HBA is not well-aligned with District Plan timeframes.

- At any time, data included in the HBA may not support certain objectives in the Operative District Plan and there is limited means to respond.

- Feedback received from the community during the notification period for the District Plan may require the HBA or the Future Development Strategy to be amended earlier than intended.

- Integrating the data into long term planning, funding and infrastructure development timeframes is challenging, because there are many different parts of the Council that deliver these mechanisms.

- Review of the data in this document may require consequential amendments to the LTP and IS and to other relevant Council policies and bylaws.

- This assessment is limited in that it is only ever a 'snapshot in time' of the housing and building data. Significant change will be more readily reflected in Quarterly Monitoring Reports.

3   Our Approach

This section outlines the general methodologies used to assess key elements of the housing and business capacity. More details, including data sources, can be found within each section of the report.

3.1   Quarterly Monitoring

As required by the NPS-UDC, NPDC monitors a range of housing and business market and price efficiency indicators on a quarterly basis. This monitoring ensures NPDC and other local authorities have timely information about demand, urban development activity, and market function, including how market changes may affect sufficient capacity for housing and business land in the district.

To date NPDC has produced reports for December 2017, March 2018 and March 2019, with the latest report available on both the NPDC and TRC websites. Future quarterly monitoring will continue to gather data on housing and business demand and supply and sufficiency of housing and business land. The HBA should be read in conjunction with these quarterly monitoring reports.

3.2   Demand Assessment

The NPS-UDC suggests demand assessments should begin with growth population projections as calculated by Statistics NZ. Projections help focus attention on potential events, risks, and opportunities and provide reasonable expectations about the future. They allow people and policy-makers to plan and make decisions accordingly. However, accurate population projections depend on accurate population estimates, which are based on records of births, deaths, and migration.

Basing projections on 'estimates' in itself contains an inherent uncertainty. Household Census information can have inaccuracies in base population or end population estimates. There may also be inaccuracies in the assumptions that future projections are based on. Non-demographic factors such as war, disaster, major government decisions (immigration), and major business and institutional decisions (industries and institutions opening, closing, or moving areas) may also impact the accuracy of projections.

Statistics NZ provides a range of national projections or scenarios for different projects and customers.[4] This report uses a medium-high projection, which is based on the district retaining Statistics NZ's medium projection for births and deaths, and the high projection rate for net migration. This reflects improving economic circumstances in the region, resulting in job creation and inward migration patterns. Birth and death rates are likely to be substantially accurate given that they reflect existing trends and there is little likelihood of step-changes in the rates. This population projection covers the entire district, including rural areas.

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[4] Statistics New Zealand (2016). How accurate are population estimates and projections? An evaluation of Statistics New Zealand population estimates and projections, 1996–2013. Retrieved from www.stats.govt.nz.
ISBN 978-0-908350-66-7 (online)

3.3   Capacity Assessment

The NPS-UDC requires councils to provide sufficient development capacity to meet demand over a 30-year period. Policy PA1 requirements are as follows:

Short Term	Development capacity must be feasible, zoned in the District Plan and serviced with development infrastructure.
Medium Term	Development capacity must be feasible, zoned and either: • Serviced with development infrastructure, or • The funding for the development infrastructure required to service that development capacity must be identified in a LTP required under the Local Government Act 2002.
Long Term	Development capacity must be feasible, identified in relevant plans and strategies, and the development infrastructure required to service it must be identified in the relevant IS required under the Local Government Act 2002.

Whilst a majority of residential and business capacity is provided in the district's urban areas, (including New Plymouth City and some smaller urban areas surrounding the Central City), this report assesses the capacity across the entire district. The current capacity assessment does include a small percentage of developable land in rural areas although in the long term, only around seven per cent of total capacity is forecast to occur within the rural environment.

The capacity assessment is based on the Operative District Plan provisions for the short term, and on both the Operative and Draft District Plan provisions for the medium to long term. More details on the NPS-UDC Purpose and Requirements can be found in **Appendix 1**.

3.4   Retail Expenditure Modelling

The following flow chart shows the methodology of the Retail Expenditure Growth Model, which has been used to estimate retail expenditure or growth to 2048. This graphical representation shows the key inputs into the model, and assists in interpreting model outputs to assess demand. A detailed breakdown of the model and its inputs is set out in **Appendix 2.**
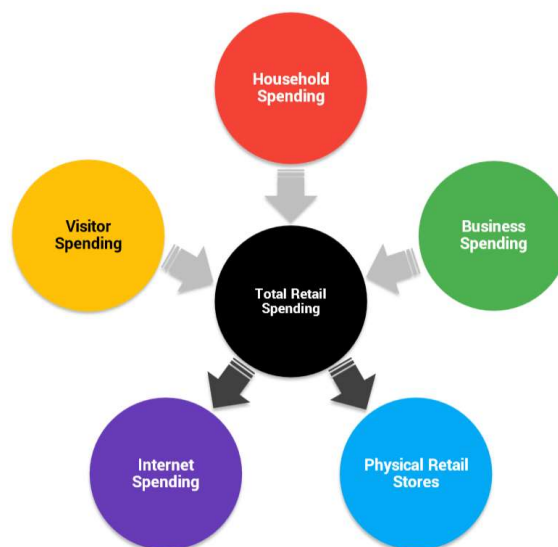

Figure 3.1: Retail Expenditure Model Flow Chart

3.5 Employment Projections

New Plymouth's commercial and industrial employment rates are projected out to 2048, factoring in changing labour force rates. Population and household projections have been derived using Statistics NZ's medium-high series population forecasts, historic business demographic trends and the changing demographic profile of the New Plymouth market. The key inputs are the latest Statistics NZ medium-high series projections (2017 release) and recent building consent data from 2000 to 2017.

Sector projected employment is based on a variety of factors including:

- National and Regional GDP and employment projections.

- Population projections – these are key both to labour force projections and population-based employment.

- Labour Force projections (skilled/unskilled).

- New Plymouth's relative business land supply and prices.

- Growth trends over the past 14 years.

- Economic development directions.

- Locational criteria by sector.

- National/Regional and local supply of inputting goods and location of market.

- Business sector analysis.

- Increasing working age.

Commercial land demand estimates are based on the current business environment. It is important to note that these are net projections. As such, they do not include servicing requirements and are rounded to the nearest whole number for ease of understanding.

Estimates of future industrial land demand are based on sector by sector employment projections and on analysis of sustainable land efficiencies. Calculations of these requirements include:

- The net ratio of land to employee by industrial sector (these estimates are based on specific sectors and have been compiled based on empirical data such as regional rating databases).

- A locational assessment of efficient land utilisation (i.e. whether the local price is such that industrial land will be efficiently used).

- Price.

- Historical trends by sector towards increased land or labour efficiencies.

- Changes in technology (capital).

It is important to note that these projections do not factor in changes to industrial land prices resulting from price changes in surrounding areas, which can influence where businesses decide to locate. However, given the unpredictability of land values, this report assumes that the relative prices between New Plymouth and surrounding areas will remain constant over the forecast period.

3.6 Infrastructure Assessment

This is the actual and likely availability of development and other infrastructure to support the development of residential land in the short, medium and long term[5]. The infrastructure assessment considers whether any area currently zoned for residential use is:

1.   Serviced by infrastructure necessary for development;

2.   Scheduled to be serviced through Council LTP funding;

3.   Identified within a Council Infrastructure Strategy; or

4.   Whether the infrastructure has a specified constraint on development.

NPDC aims to meet the growth needs through efficient and cost effective infrastructure networks and is seeking greater intensification in the district. This requires a better understanding of New Plymouth's existing infrastructure and the implications of any infrastructure decisions upon wider networks. A table of all growth related projects can be found in **Appendix 3**.

NPDC must also consider infrastructure such as education, power, gas and transportation required to support urban development. This requires consulting with providers to ensure there are no significant barriers to infrastructure being available.

According to the Ministry of Education, the majority of the district's schools have capacity to accommodate anticipated growth, with the exception of the Carrington/Junction Road growth areas. With enrolments already increasing, the three main primary schools in these areas may have some infrastructure capacity issues in the long term. NPDC will consider including a designation for a future primary school when developing the Smart Road growth area Structure Plan.

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[5] Required under Policy PB3 (b) of the NPS-UDC

4   Housing Capacity Assessment

This section analyses the future demand for housing in New Plymouth District and includes estimates of the district's capacity to develop new housing to meet this demand. It takes into account New Plymouth's Draft District Plan, future capacity enabled by development infrastructure provisions, and the likely commercial feasibility of development based on current market conditions.

4.1   Demand for Housing

Aggregate housing demand

The primary driver of housing demand in the New Plymouth District is population growth. Other drivers such as demand for visitor accommodation, student accommodation and seasonal worker accommodation are relatively minor.

Population projections indicate that over the next 30 years, development capacity for 10,919 dwellings is required across the New Plymouth District. Housing demand over 30 years is assessed at between 5,900 (low scenario) and 13,750 (high scenario).

The NPS-UDC requires an additional capacity margin of at least 20 per cent in the short and medium term, and 15 per cent in the long term (over and above the projected demand). This is to factor in "a proportion of feasible development capacity that may not be developed".

	Projected household Growth	Total increase between years	NPS-UDC Margin	Projected household growth	Total increase between years
2018	34,295			34,295	
Short Term (2018-21)	35,454	1,156	20%	35,686	1,391
Medium Term (2021-28)	37,996	2,541	20%	38,736	3,050
Long Term (2028-48)	43,629	5,634	15%	45,214	6,479
Total		**9,334**			**10,919**

Table 4.1: Housing Demand Projections for New Plymouth District

Statistics NZ projections

Statistics NZ population projections are based on existing trends for births, deaths and migration. The *medium* projection reflects the status quo. The *high* projection assumes higher births, lower deaths and higher migration, while the *low* projection assumes the opposite. The graph below outlines these projections.[6]

As discussed in a report "*How accurate are population estimates and projections?*" (September 2016)[7], past Statistics NZ population forecasts for the district have not been accurate. The graph below shows the projections released in 2002, versus the estimated population through to 2011 (labelled 'revised estimate'). Statistics NZ's medium projection was for the population to fall by 1,360 by 2011, when in fact it grew by 6,960.

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[6] The projections from 2048 onwards have been privately provided to NPDC by Statistics NZ under assumptions agreed to by NPDC.
[7] http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/how-accurate-pop-estimates-projns-1996-2013.aspx
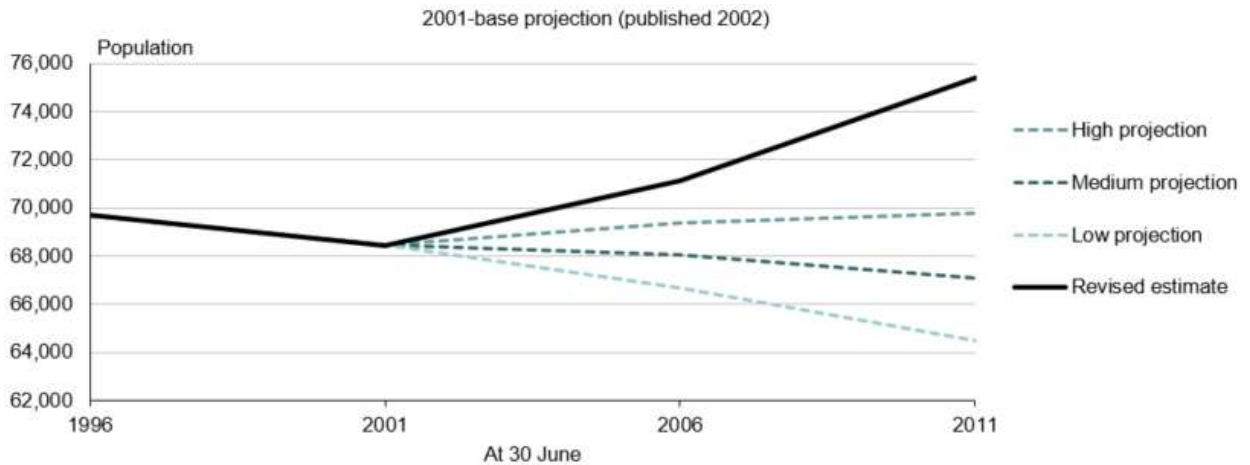
2001-base projection (published 2002)

Figure 4.1: – Projected and estimated residential population 1996-2011

While latter projections forecast growth for the New Plymouth district, Statistics NZ's projections have been considerably lower than the actual population growth. Following the 2013 Census, Statistics NZ increased the 30 June 2013 population estimate by 2,400 – to 77,100. Statistics NZ had previously given medium projections, when the district actually experienced a significantly greater population increase (3.2 per cent).

Current projections do forecast slower population growth than current rates, with further slowed growth at every 5 year juncture. The graph below shows the forecast growth if the average growth rate from 2008 to 2016 (925 per annum) continues, against the Statistics NZ medium population projection. The forecast based on current average growth is only slightly below Statistics NZ's projected high growth rate. This shows that Statistics NZ do not project that recent growth will continue but will instead slow (although not to a point where there is a static or declining population).
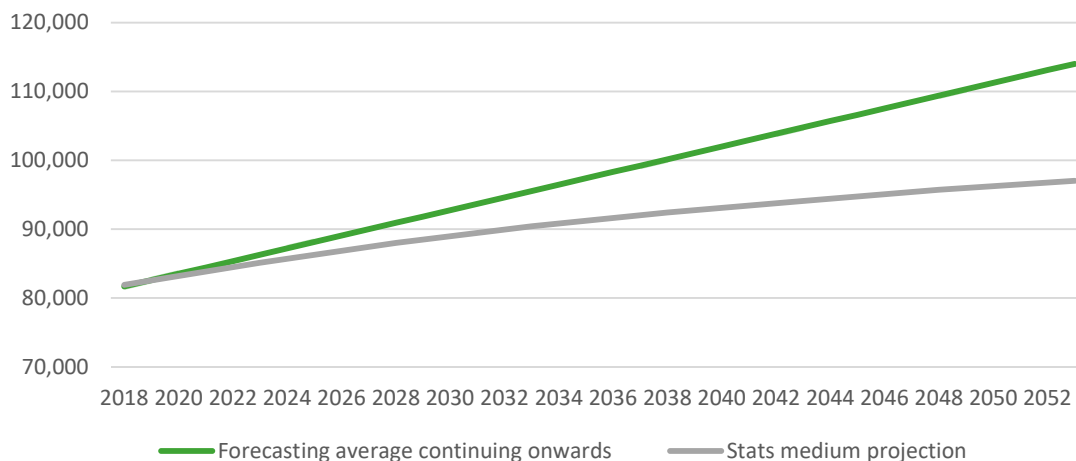
Figure 4.2 – Statistics New Zealand Medium forecast versus straight-line average increase

Based on the information above, Statistics NZ's medium projection would be an <u>under</u>-projection of the most likely scenario. However, Statistics NZ medium projections of natural increase (that is birth and death rates), are likely to be substantially correct, given they reflect existing trends and there is little likelihood of step-changes in birth or death rates.

The population projections in Figure 4.3 below are used in the HBA. They retain Statistics NZ's medium projection for births and deaths, but use the high projection rate for net migration. This methodology reflects improving economic circumstances resulting in job creation and inward migration patterns, (based on existing migration trends continuing). Using a combination of these projections provides an indication of the forecast relative to other key forecasts. The population projections are then converted into dwelling projections for the New Plymouth District based on an assumption of 2.62 people per household.
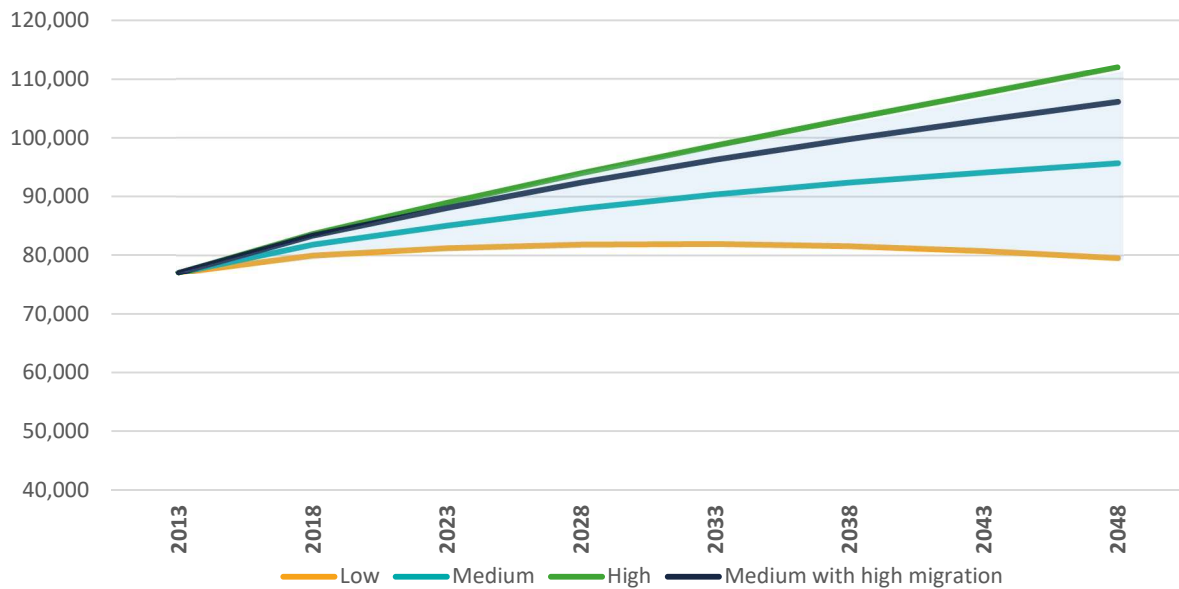
Figure 4.3: New Plymouth District Population Projections

Housing demand by location

Over the past five years, around 65 per cent of all new dwellings were located in residential areas of the district, with the majority of these dwellings located within the New Plymouth and Bell Block urban area (88 per cent). A further 35 per cent are in non-residential areas. Areas experiencing a higher increase in land value are in close proximity to specific amenities, such as those near the city centre or coastal properties with sea views.

The New Plymouth District includes both urban and rural locations. Figure 4.4 demonstrates where residential development has occurred in the New Plymouth urban area over time. As shown, significant amounts of growth have occurred in the Bell Block area and on the residential boundary into rural environments.

Figure 4.4: Residential Built Year by Location

NPDC has actively monitored building consent development for the past 25 years. Whilst a majority of developments have been in the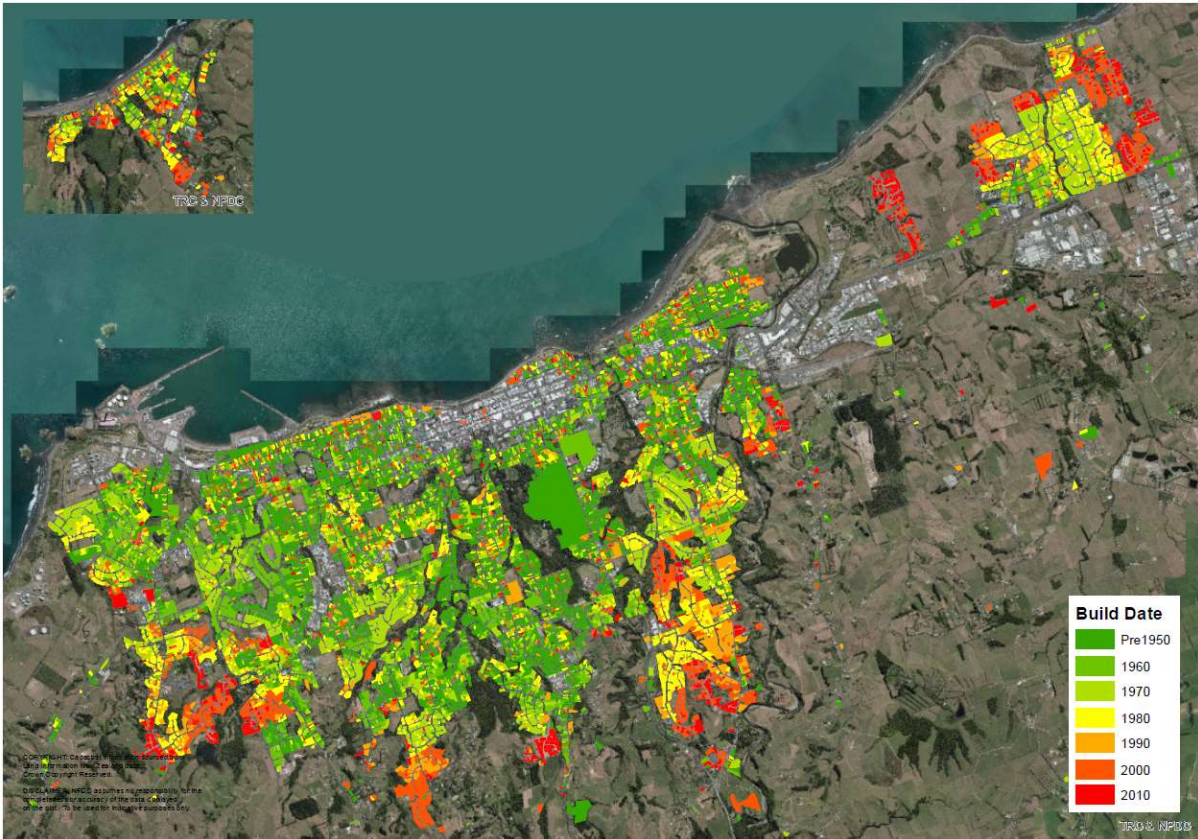 residential environment area, there has been an increase in the number of building consents in other environment areas over the past two years.
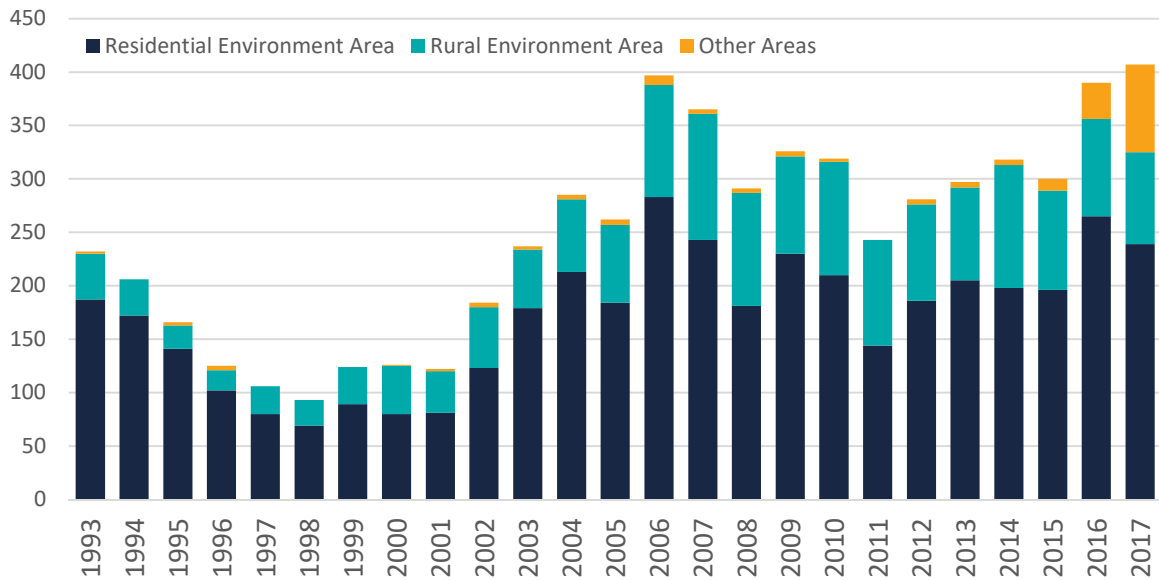

Figure 4.5: Number of Residential Building Consents by Environment Area

On average, Central New Plymouth accounts for around 59 per cent of all consents within the residential environment over the past ten years. Bell Block accounts for an additional 29 per cent. This leaves around 12 per cent accounted for in the remaining townships.
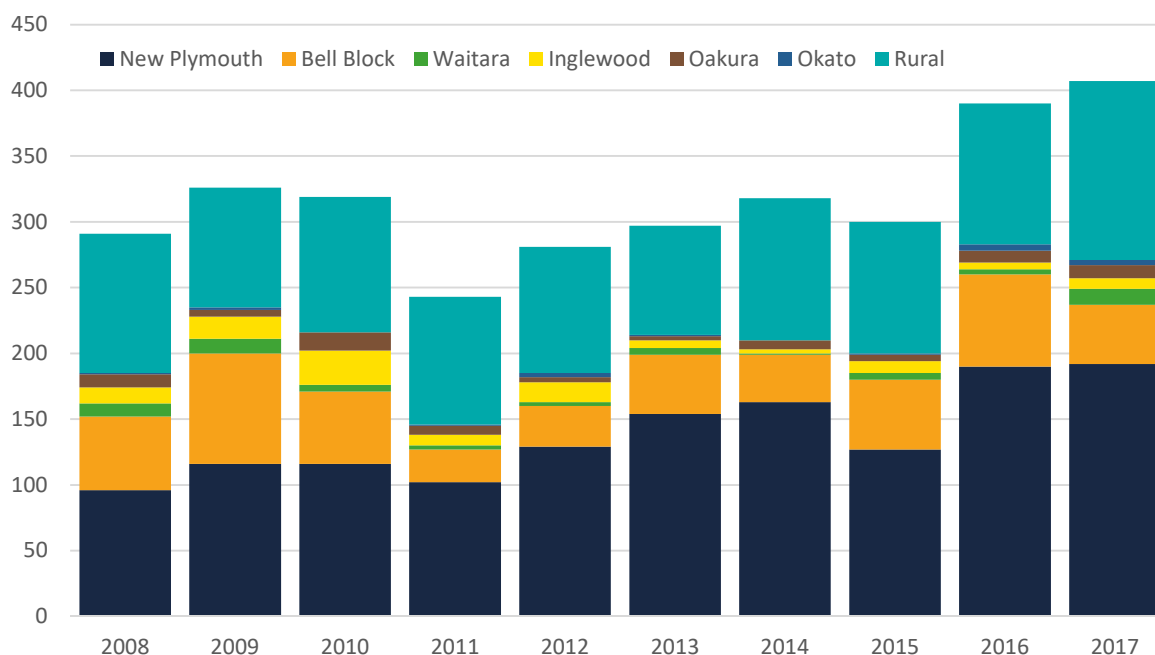

Figure 4.6: Number of consents by location within the Residential Environment

Housing demand by type

Overwhelmingly, the predominant housing type built in the district is the detached house, with housing types such as units, flats, townhouses, or studio accommodation less available in the current market. Changes to the future social makeup of the district and the varying needs and demographics of residents will lead to an increased requirement for a wider range of housing types. Closely linked to this is a need for an increased proportion of low-cost accommodation and social housing in the long term. Infill and medium density housing is a key component of providing this additional housing. Therefore, a major focus of the Draft District Plan is to provide more opportunities for infill development and medium density housing.

While the majority of building consent applications are for standalone detached houses, there has been an ongoing increase in the number of applications for retirement villages. This reflects an increase in the district's ageing population.

The market for apartments or other small dwellings is yet to make a significant appearance. The Draft District Plan includes policies and methods to encourage building of apartments and townhouses.

	Houses	Townhouses, flats, units, and other dwellings	Apartments	Retirement Village Units
Last 12 months	92%	6%	0%	1%
Last five years	81%	5%	1%	13%
Last 10 years	83%	5%	0%	12%

Table 4.2: New Plymouth Residential Building Consent Applications by type
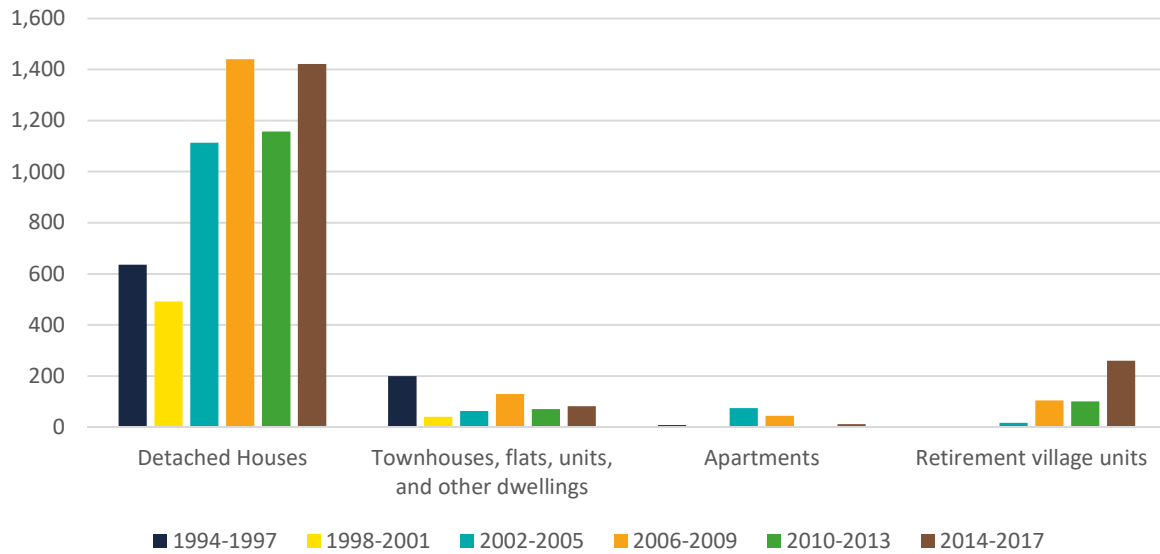
Figure 4.7: Number of Historical Residential Building Consent Applications in New Plymouth

Over the past 10 years, the average house size in the district has been consistent, at around 200m^2. Factors such as building costs, section size, and reduced household ratios have little effect on the size of house being built.
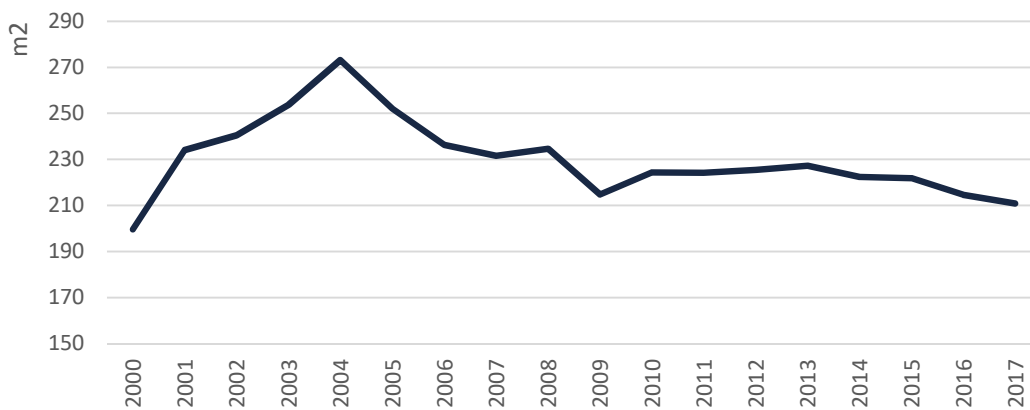
Figure 4.8: Average size of detached house in New Plymouth by building application year

The majority of dwellings constructed in the district have three to four bedrooms. The number of three bedroom dwellings has decreased over time, while the number of four bedroomed dwellings has increased.
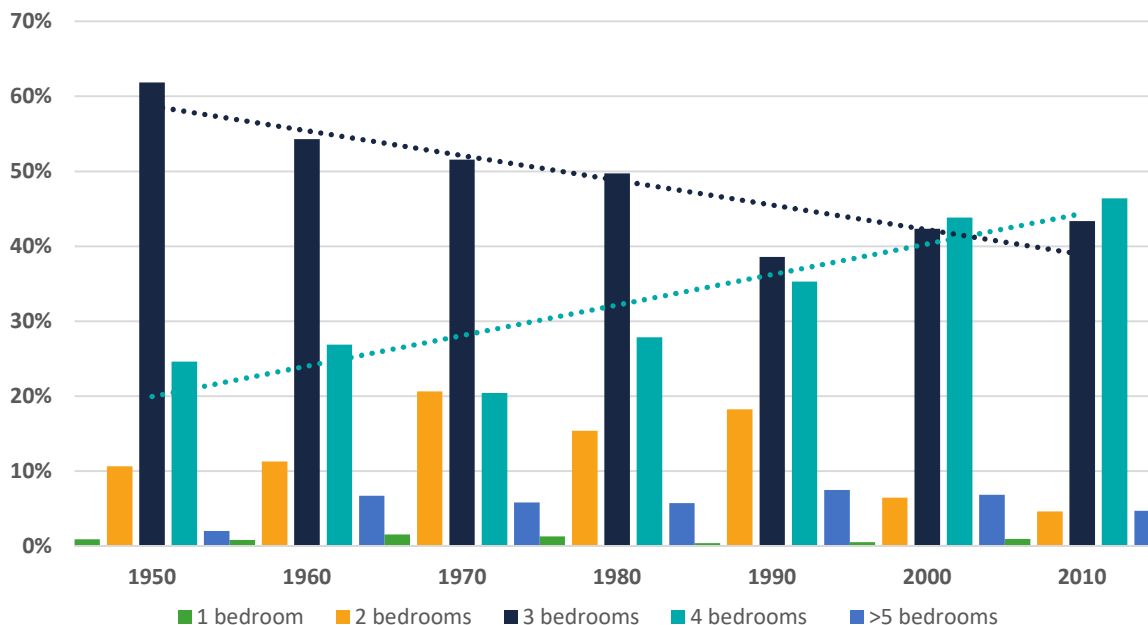
Figure 4.9: Number of bedrooms by year built

Source: QV Data

Trends show continued demand for three to four-bedroom standalone detached houses, with an average floor area of 200m^2. Taking into account the aging population and smaller family size, NPDC seeks to support increased development of one to two-bedroom units and intensification of available land in the district. This would help support the ageing population and reduce the further requirements for greenfield land[8]. The District Plan review and other future initiatives aim to support intensification of the residential urban area.

How affordable is our housing

MBIE's Housing Affordability Measure (HAM) assesses housing affordability, based on the impact of changes in house prices or rents, mortgage interest rates and incomes. The HAM "Buy indicator" calculates the residual income of potential home-owning households after housing costs, if they were to buy a modest first home in the area in which they currently live.

According to MBIE, the 'Buy indicator' for housing affordability in the New Plymouth District has improved over the past ten years and housing has been consistently more affordable in New Plymouth than other North Island cities. Improvements to affordability are the combined result of low interest rates, wage growth and slower house price inflation. While the improvement in housing affordability is positive, home ownership is still not an option for many residents. For example at March 2016, 72 per cent of first home buyers[9] in New Plymouth could not comfortably afford typical 'first home' prices.

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[8] Reducing the demand for greenfield land will contribute to a reduction in urban sprawl and consequently transport and infrastructure costs, a reduction in the loss of productive soils, and a focus on making urban New Plymouth more attractive and liveable.

[9] More information about this can be found in the Quarterly Monitoring Report on the NPDC website
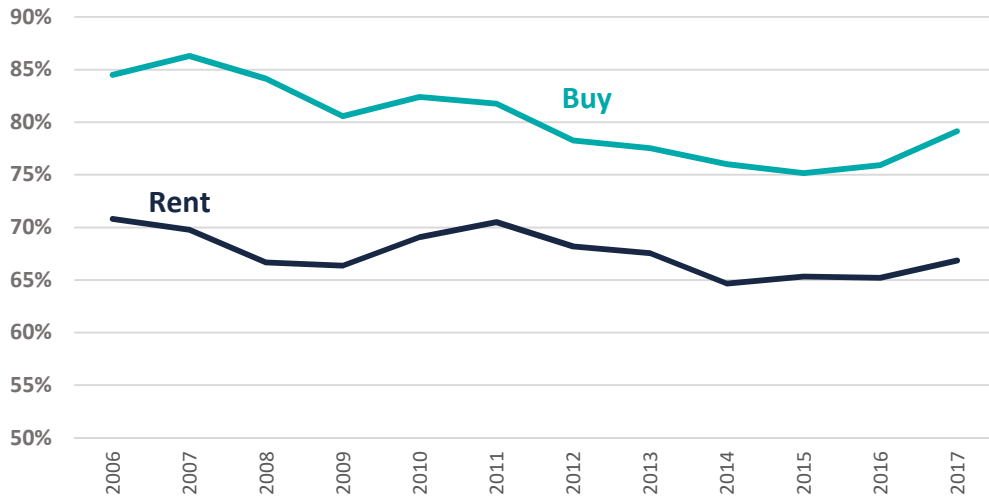
Figure 4.10: HAM -Housing and Rental Affordability in New Plymouth

Source: MBIE Urban Development Capacity Dashboard, March 2018

Although the cost of renting in New Plymouth has increased over time, rental affordability has improved. This is because the rental increases have been fairly small and are still lower than house price increases. Increased rental affordability is also due to factors such as wage growth. Over the past ten years, the cost of renting has increased, but the rate of rent increase has slowed. Consequently, affordability has improved. In summary, it is more affordable to rent in the New Plymouth district than to purchase a home.
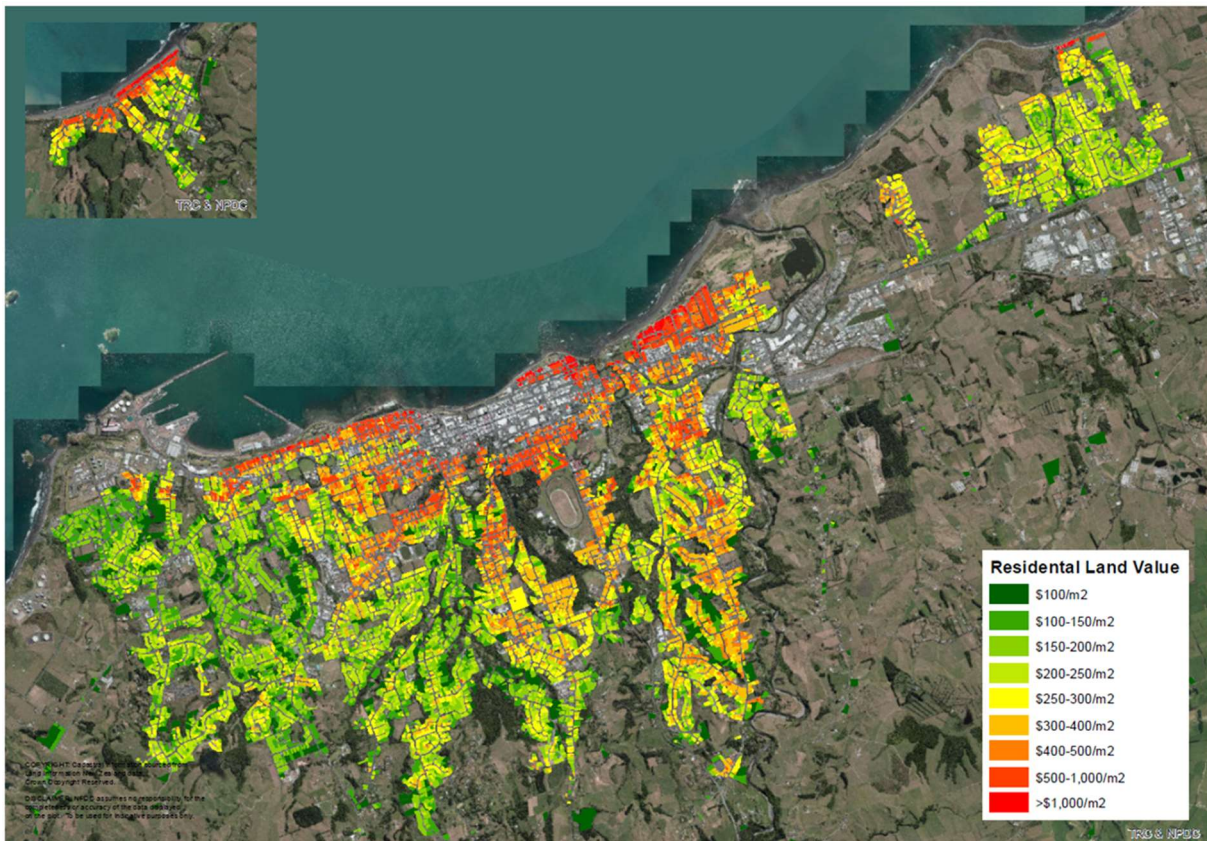
Figure 4.11: Residential Land Value (m²) by location

Source: QV Data

Across the district, land value as a percentage of capital value has slowly increased over the past nine years. This increased ratio shows that over time land has become more valuable than the buildings that occupy it, indicating increased demand for land.

Areas experiencing a higher increase in land value are those in close proximity to specific amenities, such as those near the city centre or coastal properties with sea views. Figure 4.11 shows the value of land increasing significantly the closer it is to the beach or city centre.

Our ageing population

Overall, the district's population is expected to continue ageing, with the greatest increase occurring in the 65 and over age group. By 2048, nearly 30 per cent of the total population will be aged over 65. An increased ageing population has resulted in greater demand for rest homes and retirement villages. We also expect changes to the District Plan will result in increased availability of small, multi-unit dwellings to meet an ageing population's housing needs.
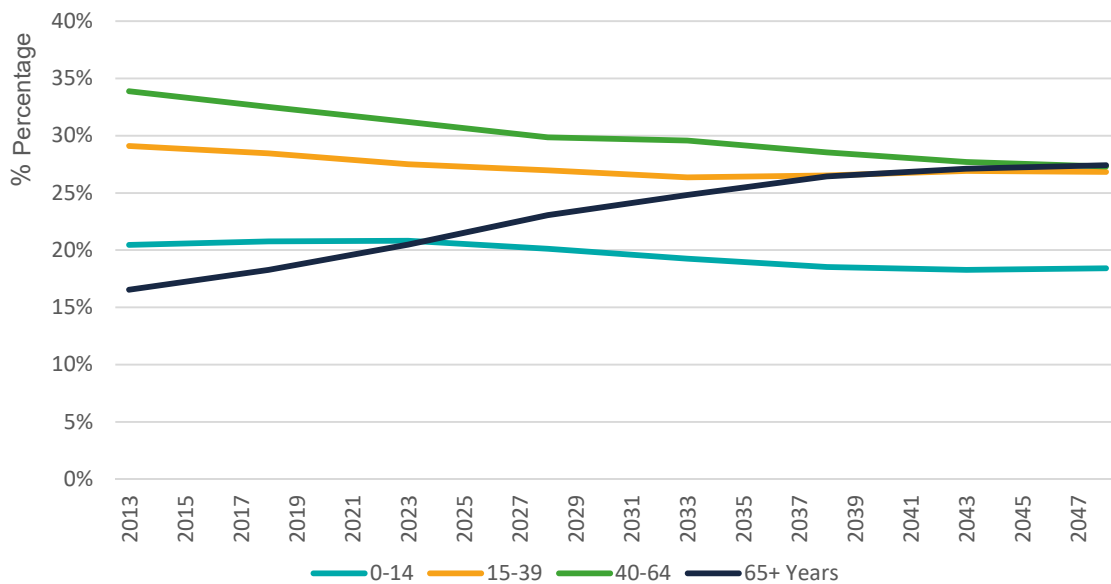
Figure 4.12: New Plymouth District Age as a percentage of population projection

Other influences on housing demand

Ethnicity
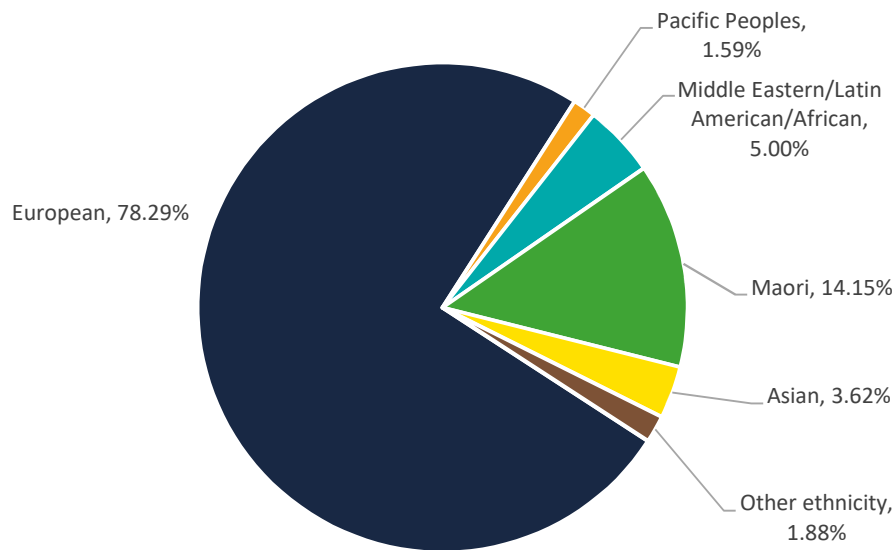
Figure 4.13: New Plymouth Ethnicity 2013 census

The district's population is predominantly New Zealand European (78 per cent) with the second highest proportion identifying as Māori (14 per cent). People from different ethnicities may require different types of housing.

Residential Overcrowding

Data from the 2013 census shows the number of usual residents for each dwelling in New Plymouth by number of bedrooms.
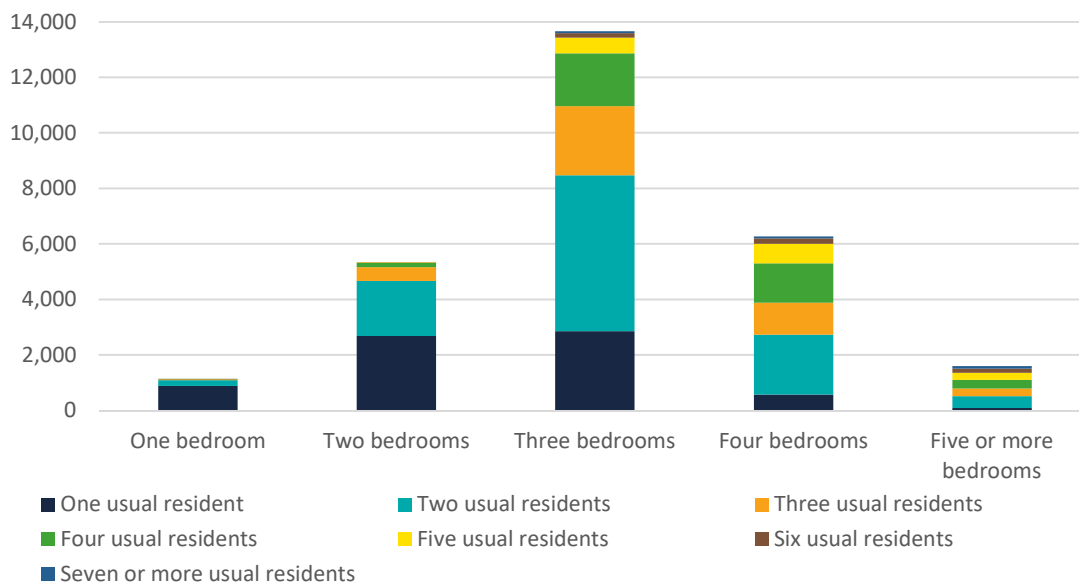
Figure 4.14: Usual Residents by number of bedrooms (2013 Census data)

In the following graph this data is categorised by approximate use:

• A dwelling is considered within capacity if it holds plus or minus one person than the number of bedrooms.

• A dwelling with two or more people fewer than the number of bedrooms is considered underutilised.

• A dwelling with two or more people greater than the number of bedrooms, is considered overcrowded.

The data shows that a significant proportion of three, four and five bedroom dwellings are under-utilised (23 per cent), while a much smaller proportion of dwellings are over-crowded (5 per cent). Despite this, there are a number of three to four-bedrooms houses being built in New Plymouth. It is important to note that this assessment does not make allowances for factors such as the size of existing housing stock, children boarding away from home, or residents who work offshore for long periods.
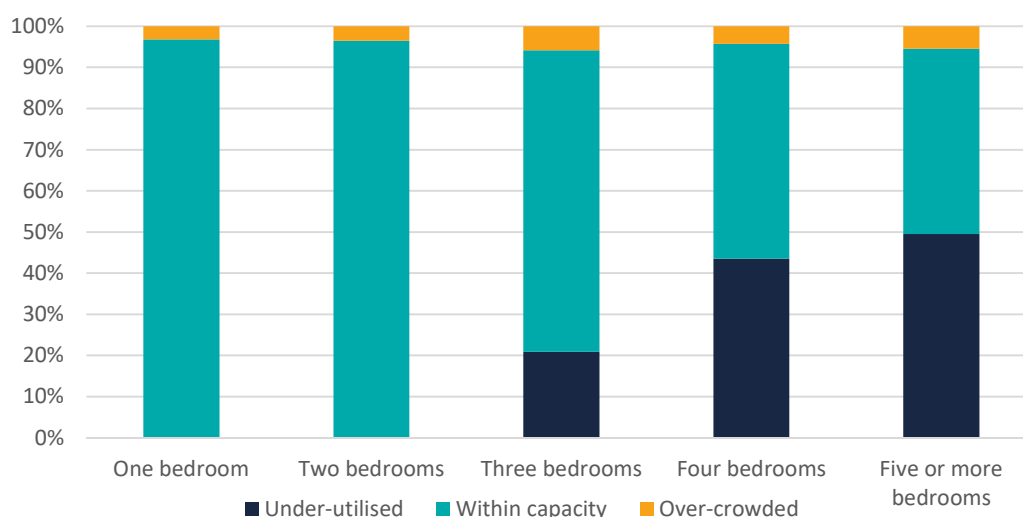
Figure 4.15: Usual Residents by number of bedrooms, percentage used within capacity

2013 Census Data

Tourist Accommodation

To understand whether visitor demand is numerically and/or proportionally significant in the district we followed NPS-UDC *Guide on Evidence and Monitoring[10]* to assess tourist accommodation. This entailed comparing counts of New Plymouth district's dwellings and households, and the proportion of dwellings unoccupied on census night, with national averages.

	Census count of dwellings and households (Ratio)	Proportion of dwellings unoccupied on Census night (%)
New Plymouth	1.09	7.6%
New Zealand	1.13	11%

Table 4.3: Dwellings and Household Analysis

Source: Statistics New Zealand

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[10]http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-guide-evidence

Housing and Business Development Capacity Assessment

Overall, results showed New Plymouth's visitor demand to be consistently below the national average with no numerical and/or proportional significance that would justify an increase in household projections.

MBIE forecasts national tourism rates to increase between 2017 and 2023. This amounts to a 4.8 per cent growth in visitor numbers per annum and 4.9 per cent in visitor days. NPDC assumes tourism in the district will grow at the same rate as the national average for the life of the Long-Term Plan.
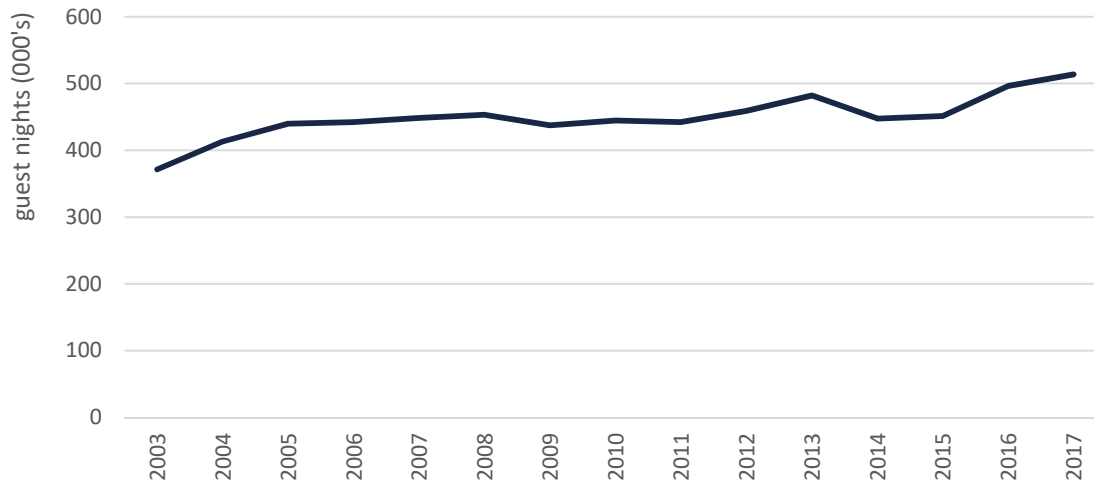
Figure 4.16: Number of guest nights in New Plymouth

Social Housing

Current demand for social housing in New Plymouth district is projected to increase. This is driven by demographic, tenure, employment and welfare trends, as well as an ageing population. It is also due to decreasing levels of home ownership, less secure employment and restricted access to welfare.

A 2017 Salvation Army report assessing future requirements for social housing in New Zealand states that the current capacity of Social Housing in New Zealand is just over 82,000 units, the majority of which (62,500 units) is owned by Housing New Zealand (HNZ). New Plymouth has 1,103 social housing units, of which 87 per cent are owned by HNZ and 13 per cent by NPDC. Other non-government organisations provide some additional social housing. The 2017 Salvation Army report identifies two groups of growing need for social housing: people with ill-health or disabilities, and older people who do not own a home and who rely on superannuation.

The district's current supply of 1,103 social housing appears to be insufficient. This is indicated by an increase in the number of applicants for HNZ social housing and the number of applicants on the waiting list for NPDC owned social housing, which was 40 in 2018.

Sources[11] have estimated demand for social housing over the next twenty to thirty years, based on current demand and levels of provision. These analyses converge on a figure of approximately 170 units per annum of additional social housing being required to meet expected demand. In March 2018, HNZ released plans to build up to 155 new state houses in a range of locations, including New Plymouth.

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11 A Stocktake of New Zealand's Housing (Johnson, Howden-Chapman and Eaqub, 2018) ISBN 978-1-98-853554-8 (online)
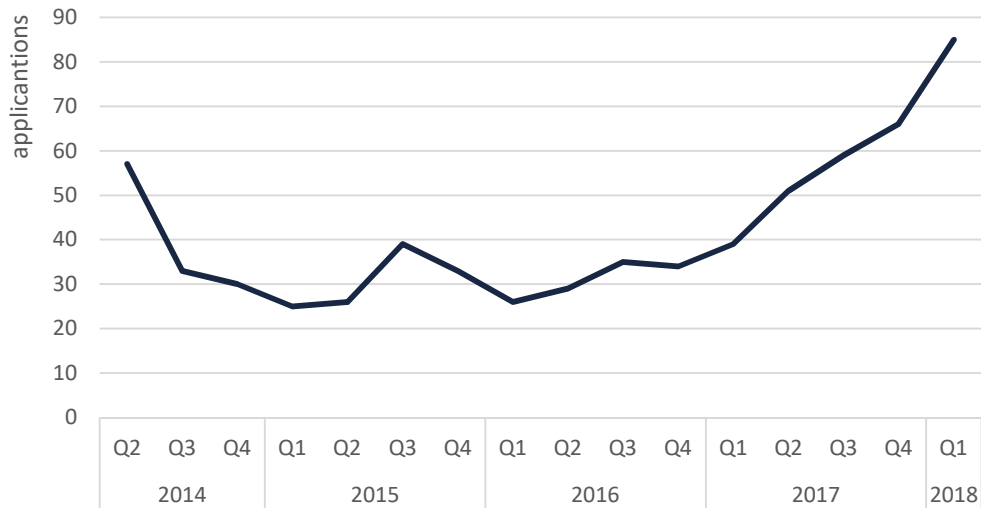
Figure 4.17: Housing New Zealand (HNZ) Register for New Plymouth

Source: Housing Register by Territorial Authority[12]

International Migrant Demand

The net migration for New Plymouth is included in Statistics NZ projections. International migration from the United Kingdom has remained high over the past ten years. There has also been an increase in 'other' migration since 2013. Any changes in the type of migrants to the district could change and influence future housing demand, with changes in the ethnic makeup of New Plymouth resulting in changes to future housing preference. For example people arriving from Asia may have a different housing preference to people coming from Europe. Arrivals from Asia and Europe/UK made up 39 and 29 per cent respectively of non-New Zealand citizen arrivals into New Plymouth in 2013.
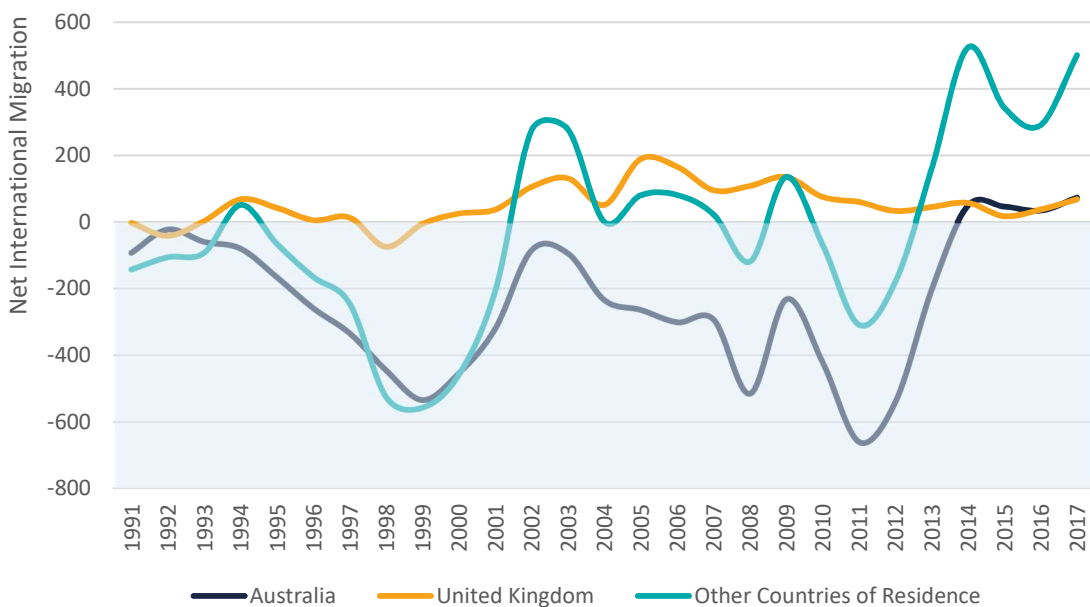
Figure 4.18: Net International Migration into New Plymouth

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[12] Data provided by Ministry of Social Development at 31 March 2018

4.2 Housing Capacity

There is enough feasible capacity to meet the district's housing demands in the short, medium and long term. This is provided for and enabled through NPDC's Operative District Plan, Draft District Plan, and existing infrastructure, and through future infrastructure identified in the LTP and Infrastructure Strategy. Currently the type of housing being provided is not of a concern but in the long term the Draft District Plan will encourage a wider range of housing typography including smaller houses to accommodate the ageing population.

The Operative District Plan provides enough plan-enabled and feasible capacity in the district in the short and medium term. Without the inclusion of the Future Growth Areas there is not sufficient capacity for the long term. Further refinement is being undertaken on the growth areas through the District Plan Review.

Demand (dwellings)	Projected dwelling Growth	Growth + NPS margin	Operative District Plan		Draft District Plan	
			Plan-enabled capacity	Feasible capacity	Plan-enabled capacity	Feasible capacity
Short Term 2018-21	1,159	1,391	✓	✓	✓	✓
Medium Term 2021-28	2,541	3,050	✓	✓	✓	✓
Long Term 2028-48	5,634	6,479	✓	✗	✓	✓
Total	**9,334**	**10,919**	**12,388**	**6,719**	**20,951**	**12,991**

Table 4.4: Sufficiency of Housing Capacity to meet demand

Capacity by growth

Projected long-term future capacity for housing in the district is split across the following areas:
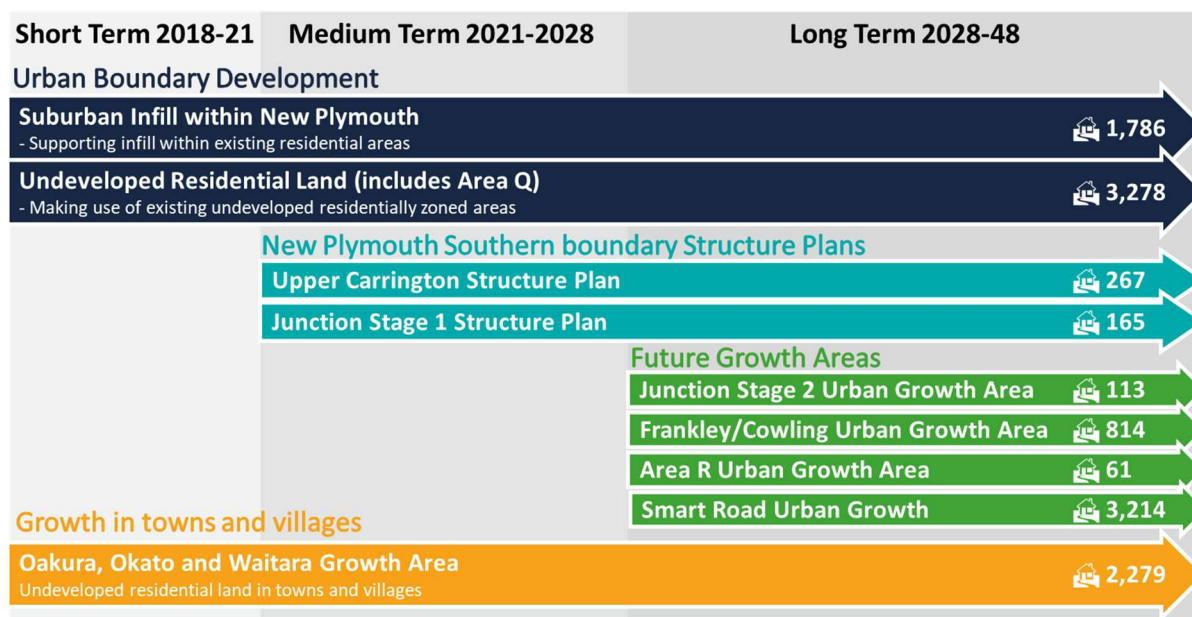
Additional capacity is currently provided in 'other' environment areas of New Plymouth. However, changes to the District Plan aim to slow the number of applications in the rural environment (short to medium term).

The majority of NPDC's feasible development capacity for housing is in undeveloped residential locations (as provided for in the Proposed District Plan and urban growth areas) and is consistent with the current high demand for stand-alone housing. The feasibility of land development is high, at around 90 per cent. Around one-third of the total capacity in the short and medium term is provided through suburban infill development, but feasibility for this kind of development is much lower, at around 20 per cent in current market conditions.

Capacity by location

The majority of the district's future housing capacity is within the urban environment (around 90 per cent) with the remaining percentage in 'other' environment areas. In the short to medium term, the majority of capacity will be provided in New Plymouth City:

- Short term - capacity will provided by undeveloped residential land and infill development, including the plan-enabled growth of Bell Block Area Q.

- Medium term - Capacity will occur in the same location as in the short term with the addition of the two southern growth areas.

- In the long term, capacity will extend out to include all the future growth areas identified in the Proposed District Plan.

Around 25 per cent of new dwellings built under the Operative District Plan are located outside of residential zones. The Proposed District Plan framework is an activities-based plan based on clear zones. Therefore, we do not expect this trend to continue to same extent when the Proposed District Plan is adopted.
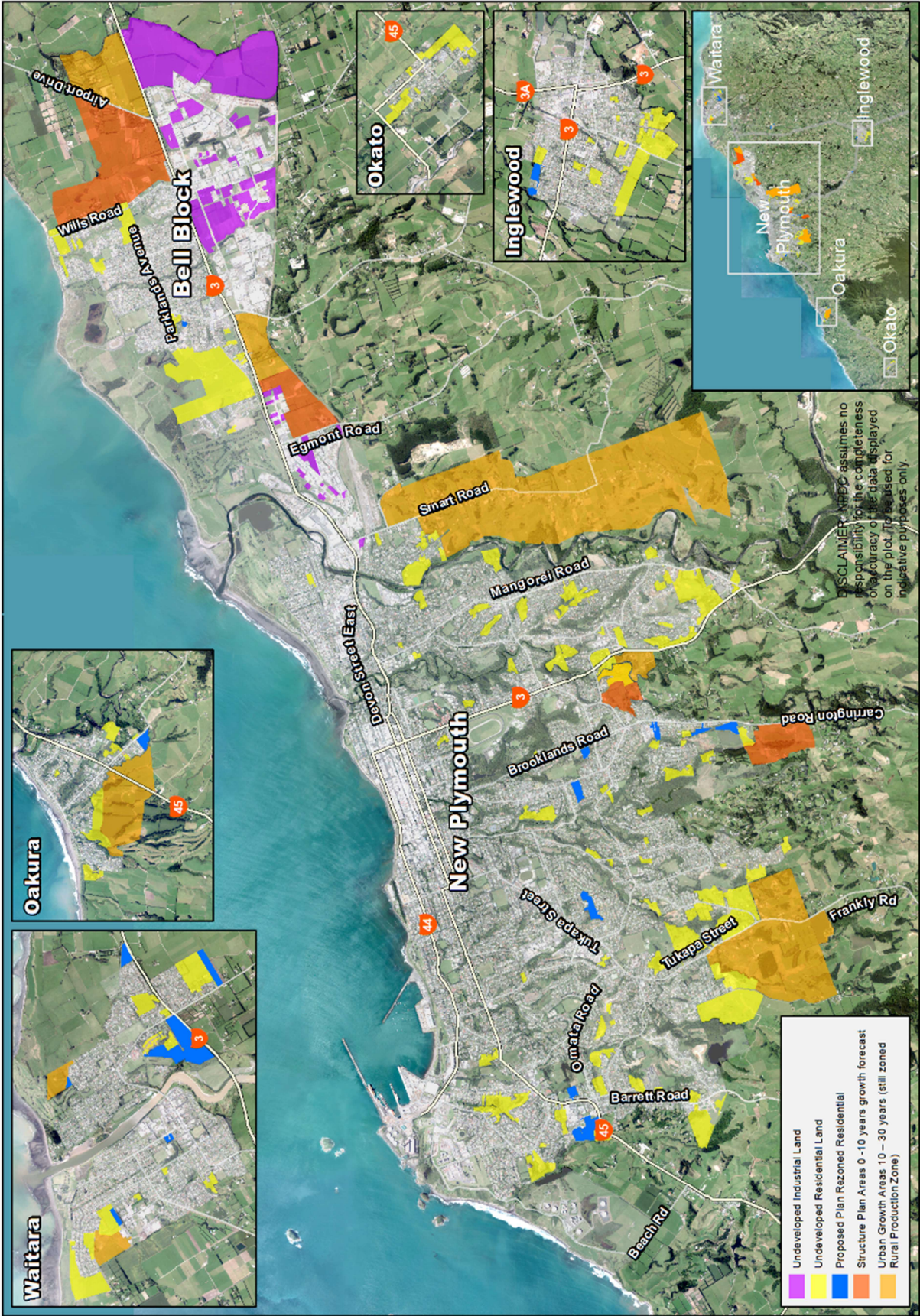
Figure 4.19: New Plymouth's Growth Map

Development capacity within existing urban boundaries

There are two types of potential development within existing urban boundaries: suburban infill development, and undeveloped residential zoned land. A combination of these types of development will provide the majority of short term housing capacity over the next 1 to 3 years.

Suburban Infill

Infill housing is a general term that refers to new housing within existing areas. It includes 'backyard' infill which comprises new dwellings built within an existing suburb of older houses. It also covers more intensive housing such as apartments and townhouses that increase residential density. It is common for existing dwellings to be demolished in the process of infill development. However, our analysis focuses on development occurring where the existing dwelling remains on the property, and where the total property area is 0.3 hectares or less, but large enough to accommodate more than one dwelling[13].

In the short term, the infill[14] development rate within the existing urban area of New Plymouth is expected to remain the same, at approximately one third of all dwellings built. Of this, only around 7 per cent of new dwellings per annum are deemed medium or high density. Approximately 1 per cent of these are apartments and 6 per cent are townhouses, flats and housing units.

Figure 4.20 – Snapshot of potential infill development within the District

The demand assessment does not show intensification of housing, although there has been an increase in retirement villages. As elsewhere in the country, the challenge for the district is to identify effective measures to promote increased intensification/infill development.

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[13] Only sections smaller than 0.3ha (3,000 m^2) in size have been included when calculating infill. Anything larger than this has been categorised as undeveloped residential zoned land.
[14] For the purpose of this analysis we assumed infill to be development that does not require the removal of an existing dwelling.

Of note, the availability of vacant residential sites in the district has not been assessed and could add additional capacity. It is difficult to measure the current vacancy rate of residential lots as the speed of development means data becomes out of date very quickly.

	Operative DP Zone	Future Yield (lots)	Feasibility	Feasible future yield	Infrastructure Capacity
Infill	Res	6,498	20%	1,286	1,286

Table 4.5 – New Plymouth Feasible Infill Development Infill

The methodology used to identify infill potential within the district can be found in **Appendix 4**. This assessment focuses on land within the New Plymouth urban area and urban areas within surrounding townships.

Feasibility of infill development

To understand commercially feasible infill residential capacity (supply) in the New Plymouth District, NPDC engaged Property Economics to assess the variables of the New Plymouth market. The results of feasible capacity modelling across a range of locations, land values, improvement values, and land value changes are attached as **Appendix 5.**

A key factor in the market's willingness to develop infill housing is the relationship between the land value of a site, fixed subdivision costs and the identifiable 'uptake' in value (sqm) achieved through subdivision.

Area Unit	Feasible Capacity	Feasibility Rate
Barrett	-	-
Bell Block	10	2%
Bowden	1	7%
Carrington	15	50%
Fernleigh	71	47%
Fitzroy	216	59%
Frankleigh	11	2%
Glen Avon	6	4%
Highlands Park	151	42%
Kawaroa	121	34%
Lynmouth	55	15%
Marfell	1	0%
Marsland Hill	109	40%
Merrilands	55	19%
Moturoa	96	19%
Mount Bryan	21	20%
New Plymouth Central	7	19%
Paraite	27	100%
Spotswood	23	9%
Struan Park	173	21%
Upper Westown	49	17%
Welbourn	25	12%
Westown	43	15%
	1,286	**20%**

Table 4.6 – Area Unit Infill Feasibility

There is potential to build 1,285 standalone infill houses within the New Plymouth market. All sites that return a profit from an owner/occupier also return a profit for a developer. Therefore, the table above represents the total feasible capacity in the market, where both scenarios are tested.

However the levels of actual infill are much higher than the suggested results from the modelled feasibility. This suggest that actual infill developments have a different cost and profit structure to the modelled assumptions and therefore deemed by developers to be more feasible than the model used.

Within the District a proportion of our infill is being developed by the owner of the property rather than a professional developer. Currently they sell of the original house while construction a new dwellings on the remaining available land.

Capacity in undeveloped residential land

The district does have some large land parcels of undeveloped residential land enabled for development in the Operative District Plan that are currently available for residential development. These are both located in the New Plymouth residential area and include Area Q, located adjacent to Bell Block, Area E and Junction Stage 1. There are also additional smaller[15] land parcels enabled under the Operative District Plan, but not all of these will be developed.

To help predict the possible future housing yield for the district, each area of undeveloped residential land has been given a density grade[16]. Grades are based on the land typography and an estimate of the average number of dwellings that can be built per hectare. The total future yield of undeveloped residential land for the district is 3,022 potential dwellings. The location of this residential land in New Plymouth and Bell Block is shown in the coloured block areas on the map below. For undeveloped residential land in the smaller townships, see the 'Growth in towns and villages' section that follows. Given the rapid rate of development in the district, it is possible that some areas identified on the map below have been subdivided since the 2018 Property Economics analysis.

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[15] Only sections smaller than 0.3ha in size have been included when calculating infill. Anything larger than this has been categorised as undeveloped residential zoned land.

[16] More on grading can be found in the feasibility section 4.4
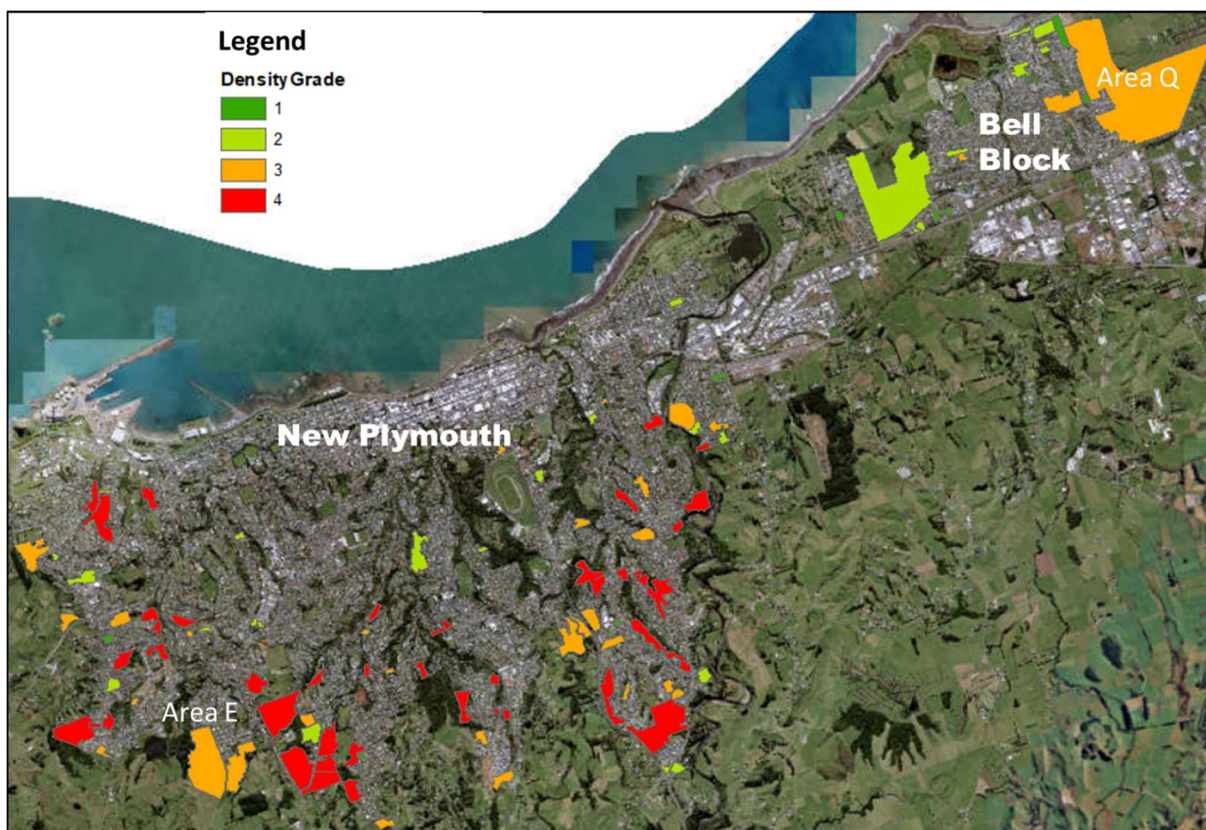
Figure 4.21 – New Plymouth Undeveloped Residential Land and associated grading

	Operative DP Zone	Total Area (ha)	Future Yield (lots)	Feasibility %	Feasible future yield	Infrastructure Capacity
New Plymouth	Res	195.9	1,414	93%	1,308	1,308
Area Q Stage 1	Res	40	278	100%	278	278
Area Q Stage 2	Res	45	316	100%	316	316
Area Q Stage 3	Res	22	155	100%	155	155
Area E	Res	48.5	374	100%	374	187
Bell Block	Res	74.2	874	89%	778	778
Total		**425.3**	**3,411**	**94%**	**3,209**	**3,022**

Table 4.7 – New Plymouth Undeveloped Residential Land Feasible Yield

To support intensification, especially around the Central City, we need to better understand the capacity of our reticulation and transportation networks to ensure we can provide capacity and accommodate future growth. NPDC has allocated over $3m for infrastructure network modelling which will help to better understand the district's reticulation networks and identify where system upgrades are required.

Area Q

Area Q is part of Plan Change 20 which became operative on 17 August 2015. This plan change allowed rezoning of Bell Block Area Q Rural Environment Area to a Residential A Environment Area and application of a future urban development overlay to Area R.
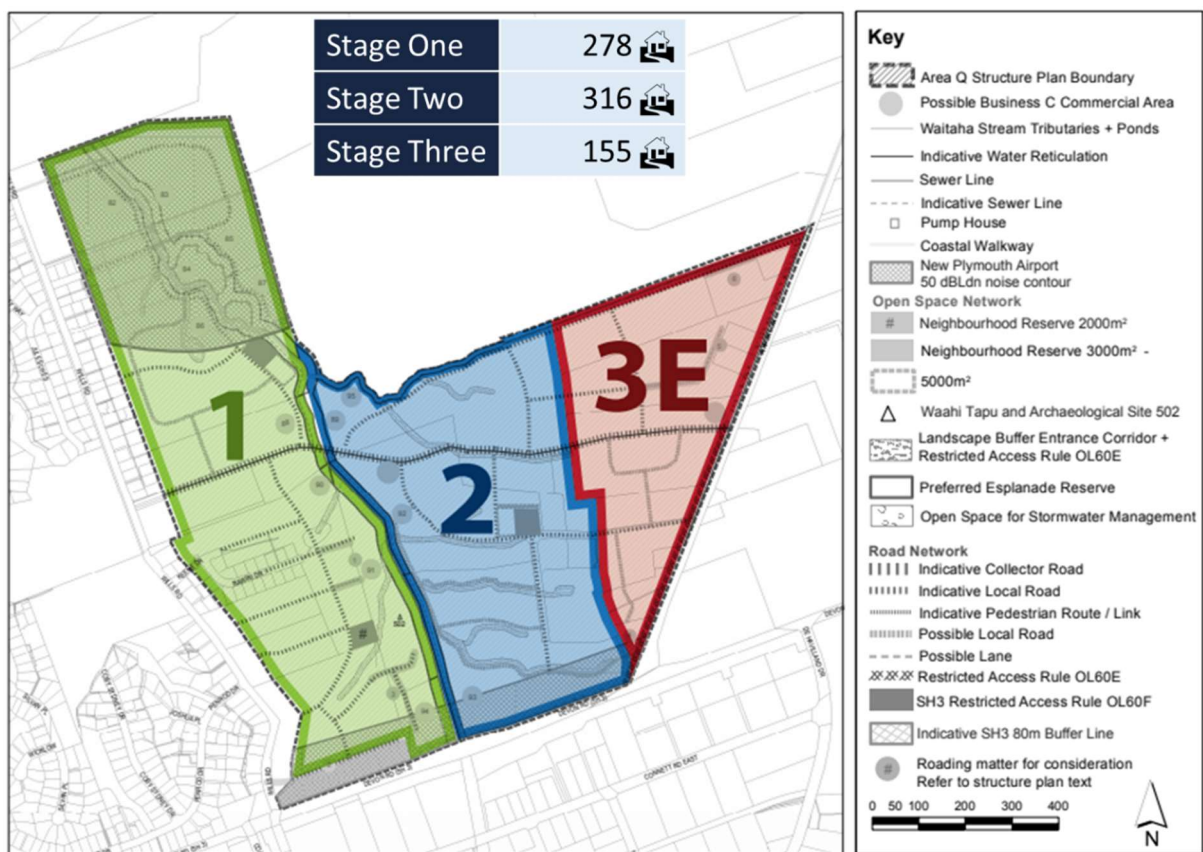
Figure 4.22 – Area Q Structure Plan Staging from Plan Change 20 of the Operative District Plan

The Area Q Structure Plan Area located between Wills Road and Airport Drive in Bell Block has three stages of development. The first two stages, comprising 594 potential feasible lots totalling 85 hectares, are currently available. There is currently insufficient infrastructure in place to support residential development of Stage 3. Once roading access and upgrades occur, an additional 155 potential lots total 22 hectares will become available.

Area E

Located on the south/west fringe of New Plymouth in the vicinity of Cowling and Frankly road, Area E was rezoned from rural to residential land in 2011. The area has 374 potential feasible lots that total 48.5 hectares of moderately steep to steep land. Due to wastewater and water supply infrastructure constraints, only around 50 per cent of Area E is currently feasible for development in the short to medium term. To realise its full potential, NPDC will extend the wastewater system in 2029. This has been factored into the capacity assessment. Development in these areas will not occur until the long term, when all infrastructure services are available.

Feasibility of development

Overall, around 92 per cent per cent of all available residential zoned land is commercially feasible for development, which is higher than for infill housing. Similar to infill development, profits generally increase with land size and smaller sections have much lower profit margins.

Capacity in New Plymouth City southern boundary structure plans

There are two growth areas located on the southern fringes of New Plymouth – the Upper Carrington Structure Plan and Junction Stage 1 Structure Plan.

Figure 4.23 – Southern Growth Areas Map

	Zone under current DP	Total Area (ha)	Start Year	Future Yield (lots)	Grade	Feasibility	Feasible future yield	Infrastructure Capacity
Upper Carrington	Rural	29.7	2022	267	3	100%	267	134
Junction Stage 1	Res	7.3	2018	65	3	95%	62	31
Junction Stage 1	Rural	12.1	2028	109	3	95%	103	52
Total		**49.1**		**441**	**3**	**98%**	**432**	**217**

Figure 4.24 – Southern Growth Areas Yield

Neither is identified as a growth area in the Operative District Plan, but both are identified as growth areas in the Proposed District Plan and proposed for rezoning as residential land. These areas were selected as growth areas for the following reasons:

- They sites are small southern pockets of land on the urban periphery of the New Plymouth urban boundary;

- The sites are close to the New Plymouth CBD and a number of amenities like schools, supermarkets, retail areas and neighbourhood reserve areas;

- The sites can be serviced by the Council's existing infrastructure capacity;

- Both sites contain site specific recreational/ecological values which will enhance residential living; and

- The areas are both located close to the New Plymouth urban area where residential land demand has been high.

Upper Carrington Structure Plan

The Upper Carrington Structure Plan is located on the southern boundary of New Plymouth residential zone and can be accessed off Carrington Road. The area can provide 267 feasible lots, totalling 29.7 hectares of moderately steep to sloping land. The site can be serviced by the Council's existing infrastructure capacity.

Junction Stage 1 Structure Plan

Junction Stage 1 is located between Junction Street and Junction Road (SH3) and already includes a portion of residential zoned land. The total area has potential for 165 feasible lots, totalling 19.4 hectares. The 7.3 hectares already zoned residential have not been developed as there is limited road access. Rezoning this entire 12.1 hectares as a growth area should result in a feasible road connection, which will facilitate residential development.

There are some restrictions with Council infrastructure capacity in the short and medium term. Part of Junction Stage 1 will be not be developed until 2022, when wastewater services will be upgraded as part of the LTP.

Capacity in future growth areas

Future Growth Areas comprise land earmarked for future growth in the long term. There are four Growth Areas identified in the district. Two of these, Area R and Smart Road, are included in the Operative District Plan. Two new areas, Frankley/Cowling and Junction Stage 2 have been identified through the District Plan review and are included in the Draft District Plan.
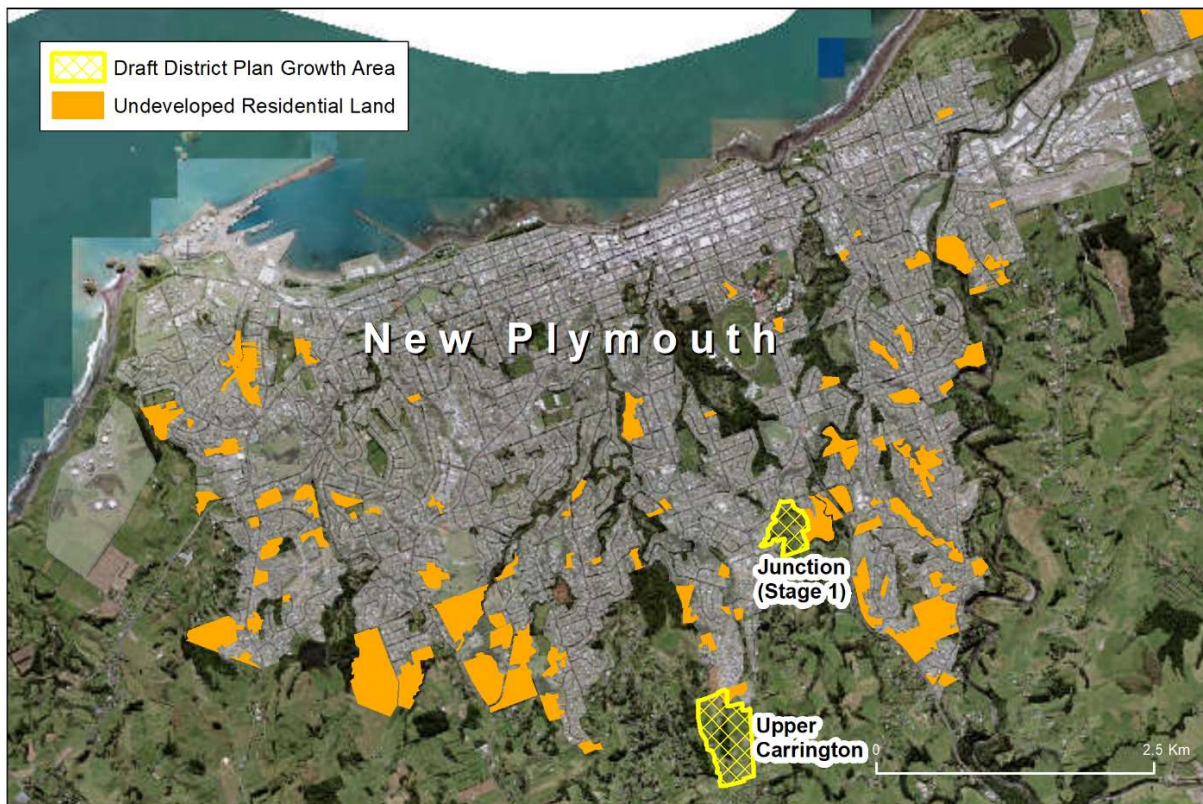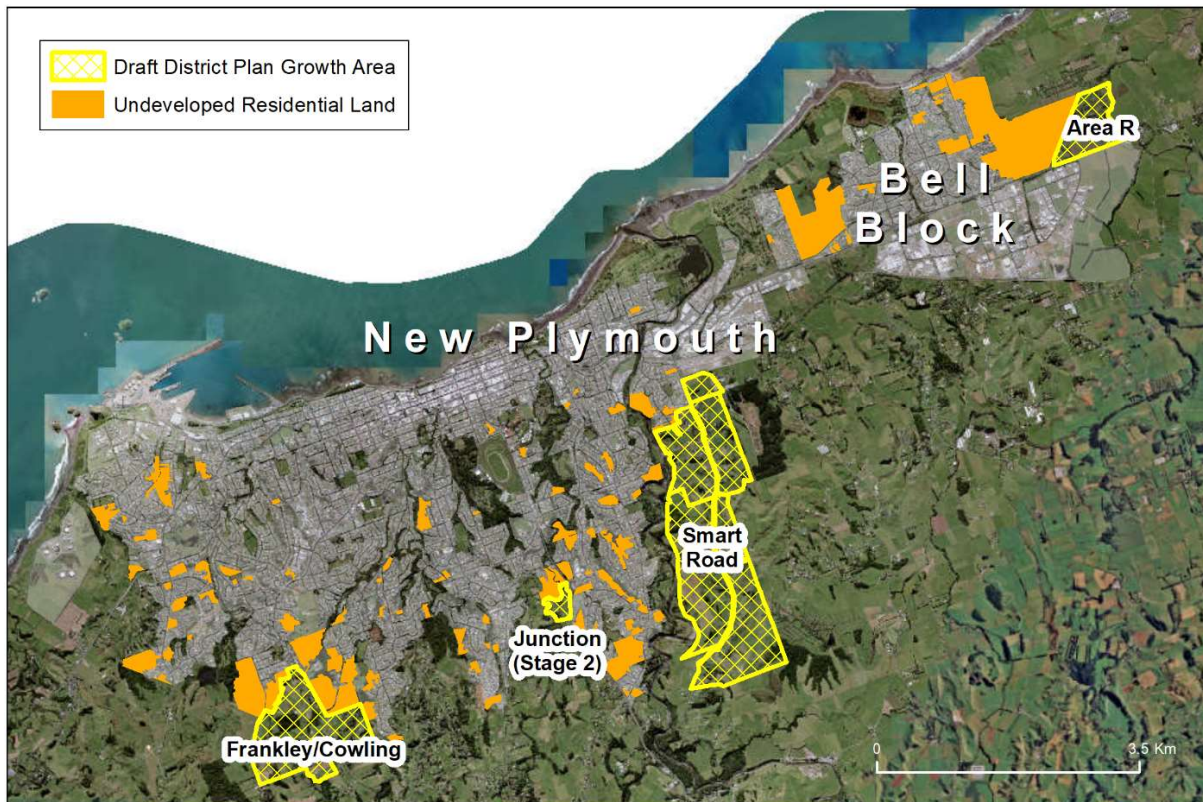
Figure 4.25 – Future Growth Areas Map

	Zone under current DP	Total Area (ha)	Start Year	Future Yield (lots)	Grade	Feasibility	Feasible future yield	Infrastructure Capacity
Junction Stage 2	Rural	9.9	2028	119	2	95%	113	113
Frankley/Cowling	Rural	138.5	2028	831	3	98%	814	814
Smart Road	FUD	372.1	2028	3,349	2	96%	3,214	3,214
Area R	FUD	7.4	2028	63	3	97%	61	61
Total		**527.9**		**4,362**	**2.5**	**96%**	**4,202**	**4,202**

Figure 4.26 – Future Growth Areas Yield

Junction Stage 2 growth area

Junction Stage 2 was identified as part of the cohesive growth strategy, which focuses on managed greenfield land on the city outskirts, balanced with opportunities for intensifying existing urban areas. The total area has the potential for 113 feasible lots that total 9.9 hectares.

There are some infrastructure capacity requirements in this area that also relate to Junction Stage 1. Additional wastewater services included in the LTP and the Infrastructure Strategy will enable development in the long term.

Frankley/Cowling growth area

The Frankley/Cowling urban growth area is located in the south western pocket of the New Plymouth urban boundary. It is a large areas totalling 138.5 hectares, with potential for 814 feasible lots. This area has some infrastructure constraints that are identified in the LTP and IS. Similar to the Junction and Carrington Structure Plan areas, this area is a logical growth area as it sits on the southern boundary of the New Plymouth urban boundary and is close to amenities.

Smart Road

Originally, Smart road was identified as a Future Urban Development (FUD) area in the Operative District Plan. It is included in the Draft District Plan as an Urban Growth Area (UGA). The area totals 372.1 hectares with the potential for 3,214 feasible lots in the long term.

Accessible and affordable infrastructure is a key consideration for this area. Development of the Smart Road UGA would require a second bridge crossing across Waiwhakaiho River to meet increased traffic demand. The infrastructure investment required means that development will be focused into the other areas of the district first.

Area R

Under the Operative District Plan, Area R is a rural zone with an FUD overlay for a mixture of residential and employment land. In the Draft District Plan, Area R is identified as a Future Urban Zone for a mixture of residential and employment (Area R East).

The area identified for residential growth to the west of the proposed Airport Drive realignment is 7.4 hectares, with potential for 61 feasible lots. The significant growth to the east of New Plymouth City that includes development of Area Q may result in additional business land requirements. As part of the HBA, we estimate that around 14 per cent of the area will be zoned residential and 86 per cent commercial. If in the future, Area R was to be fully commercial with no residential development, there would still be sufficient long term residential capacity in the district.

Capacity in towns and villages

In the district's smaller urban communities, housing capacity has been assessed in relation to the predicted growth of each area, the associated community needs, and infrastructure capacity. The majority of these towns have areas of undeveloped residential zoned land.

Oakura

Oakura has capacity for 629 feasible lots, totalling 70.6 hectares of land. This is a mixture of undeveloped residential land (18.1 hectares) plus two growth areas totalling 52.5 hectares. Land in the Oakura (South) growth area that would be challenging to develop for residential use has been removed under the Draft District Plan.

Figure 4.27 – Oakura Growth Area Map

	Zone under current DP	Total Area (ha)	Future Yield (lots)	Proposed Start Year	Grade	Feasibility	Feasible future yield
Undeveloped Residential Land Oakura	Res	18.1	158	2018	2	99%	157
Oakura South	Rural/FUD	13.0	117	2020	3	100%	117
Oakura West	Rural/FUD	39.5	355	2032	3	100%	355
Total		**70.6**	**630**		**2.5**	**100%**	**629**

Table 4.8 – Oakura Growth Area Yield

Identified growth areas in Oakura are currently zoned rural, but are enabled by the Operative District Plan as FUD overlays and are adequately serviced by infrastructure. The Draft District Plan will classify these as UGAs, but they will not be zoned as residential in the short to medium term.

An application for a Private Plan Change to the Operative District Plan was lodged in 2018. This application seeks to rezone approximately 58 hectares of Rural Environment Area land to mainly residential land just south of Oakura (part of Oakura South Growth Area). The submissions for this application closed on Monday 15 October 2018.

Okato

Okato has capacity for 258 feasible lots totalling 23.1 hectares of land. This is a mixture of undeveloped residential land (17.4 hectares) and one growth area of 5.8 hectares. Okato is a small settlement town with no Council sewer-reticulated services and little urban growth demand. The urban growth area identified in the Operative District Plan is large in relation to the township. The

current zoned residential urban boundary provides ample opportunity for infill subdivision and development. Therefore, to more accurately reflect the growth requirements in Okato, the identified growth area has been reduced in size in the Proposed District Plan.
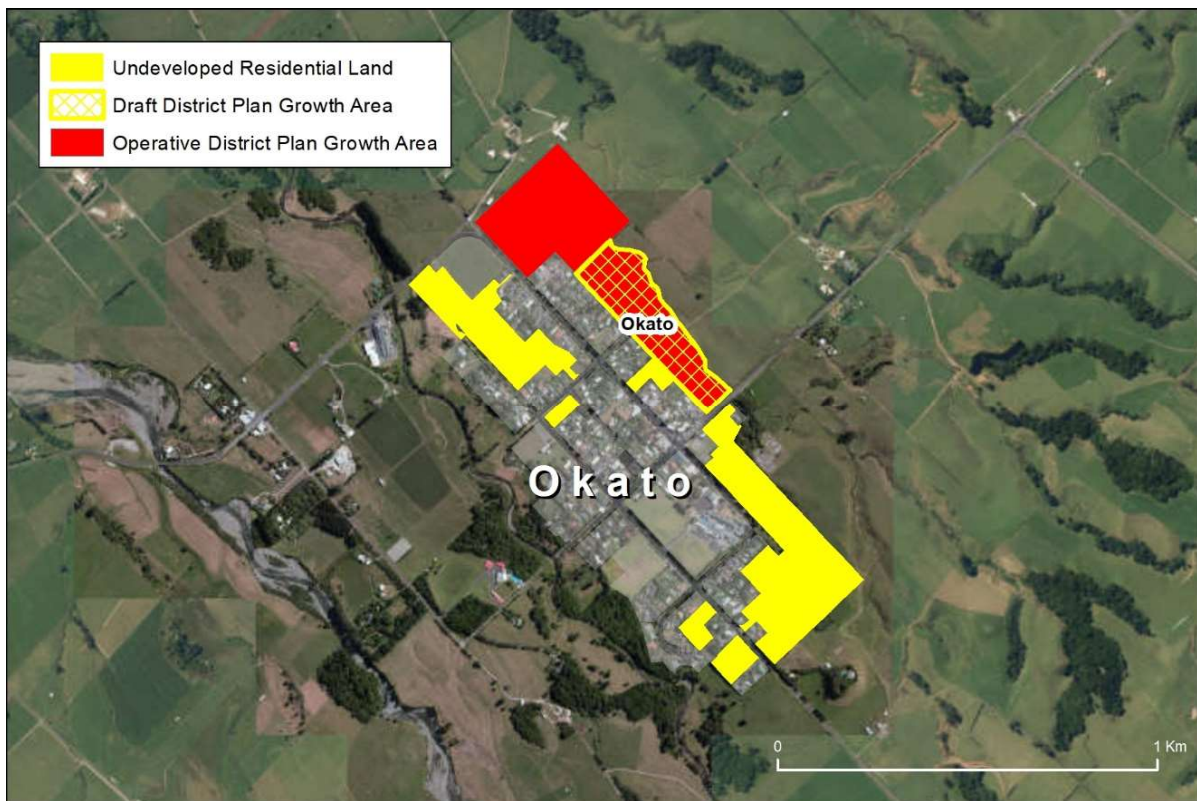
Figure 4.28 – Okato Growth Area Map

	Zone under current DP	Total Area (ha)	Future Yield (lots)	Proposed Start Year	Grade	Feasibility	Feasible future yield
Undeveloped Residential Land Okato	Res	17.4	214	2018	1.5	88%	189
Okato Growth Area	Rural/FUD	5.8	69	2028	1	100%	69
Total		**23.1**	**283**		**1.25**		**258**

Table 4.9 – Okato Growth Area Yield

Waitara

Waitara has capacity for 675 feasible lots, totalling 68.3 hectares. It has is a mixture of undeveloped residential land (49.1 hectares) plus two growth areas totalling, 19.2 hectares.

In developing the Draft District Plan, existing identified growth areas have been modified. The Waitara East urban growth area has been reduced in size, and two other areas within Waitara have been identified as more appropriate for residential development, given their location to existing amenities and infrastructure. These include land along Armstrong Avenue which has been zoned as residential, and a new urban growth area identified on Ranfurly Street.
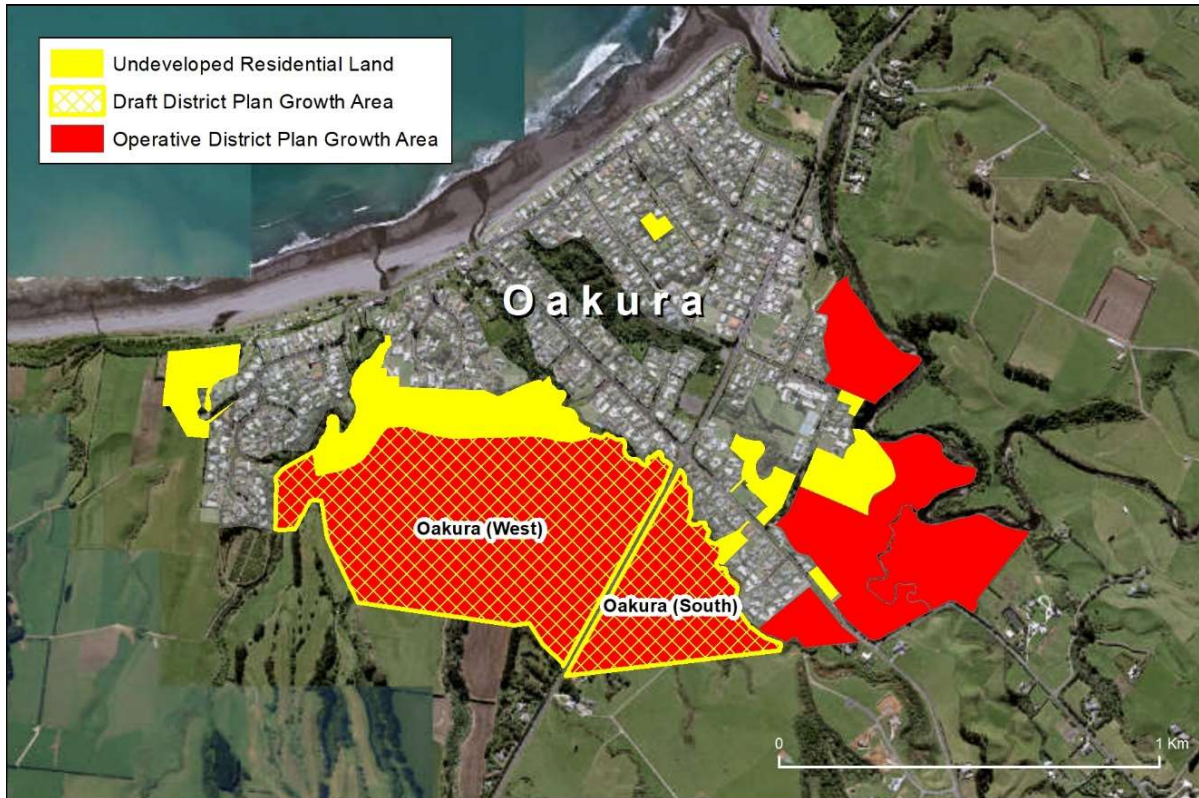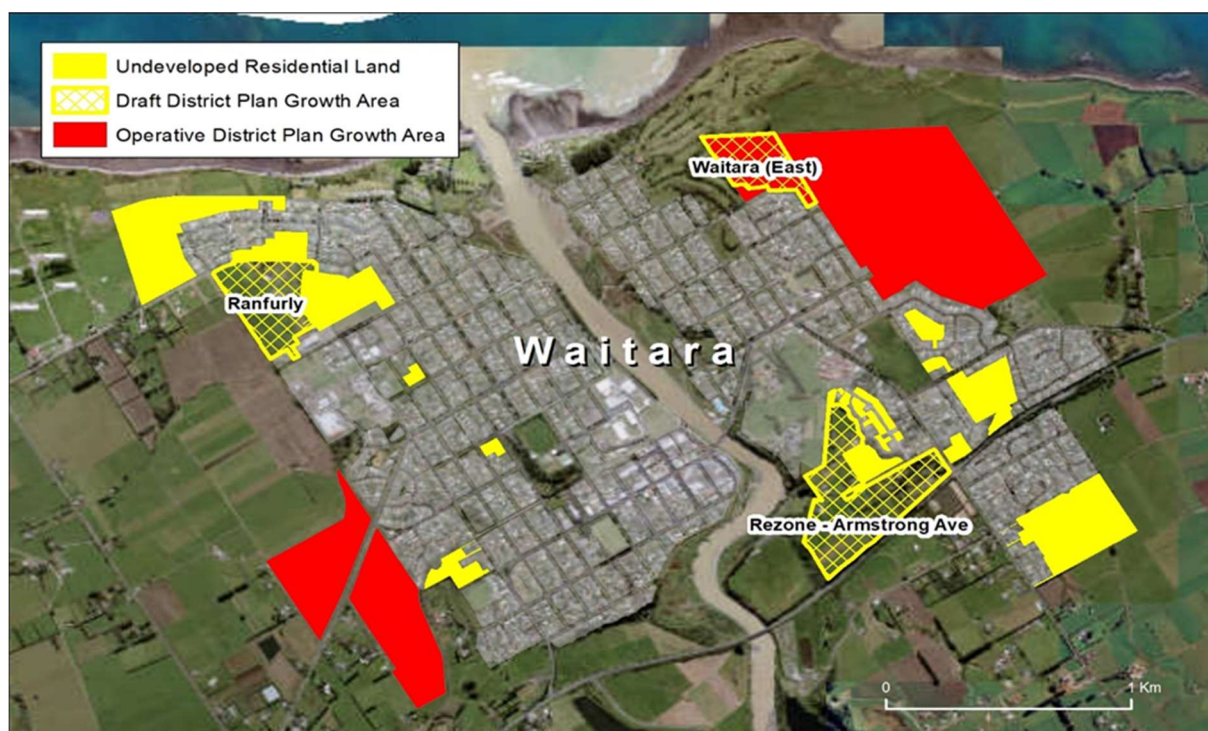

Figure 4.29 – Waitara Growth Area Map

	Zone under current DP	Total Area (ha)	Future Yield (lots)	Proposed Start Year	Grade	Feasibility	Feasible future yield
Undeveloped Res Land Waitara	Res	49.1	577	2018	1.0	77%	444
Waitara Growth Area	Rural/FUD	19.2	231	2028	1.5	100%	231
Total		**68.3**	**808**		**1.25**	**84%**	**675**

Table 4.10 – Waitara Growth Area Yield

A private plan change for Waitara has been received but has not been assessed in this section.

Inglewood

Inglewood has capacity for 341 feasible lots totalling 39.9 hectares of land. As shown on the map, Figure 4.30, this is largely undeveloped residential land.

Figure 4.30 – Inglewood Growth Area Map

	Zone under current DP	Total Area (ha)	Future Yield (lots)	Proposed Start Year	Grade	Feasibility	Feasible future yield
Undeveloped Res Land Inglewood	Res	39.9	437	2018	2.0	79%	341

Table 4.11 – Inglewood Growth Area Yield

Housing and Business Development Capacity Assessment

Urenui, Egmont Village, Onaero and Lepperton

The Operative District Plan identifies FUD growth areas for Urenui, Egmont village and Onaero. In the Draft District Plan, these FUDs have been modified (either refined or removed) to accurately reflect the growth needs of these areas.
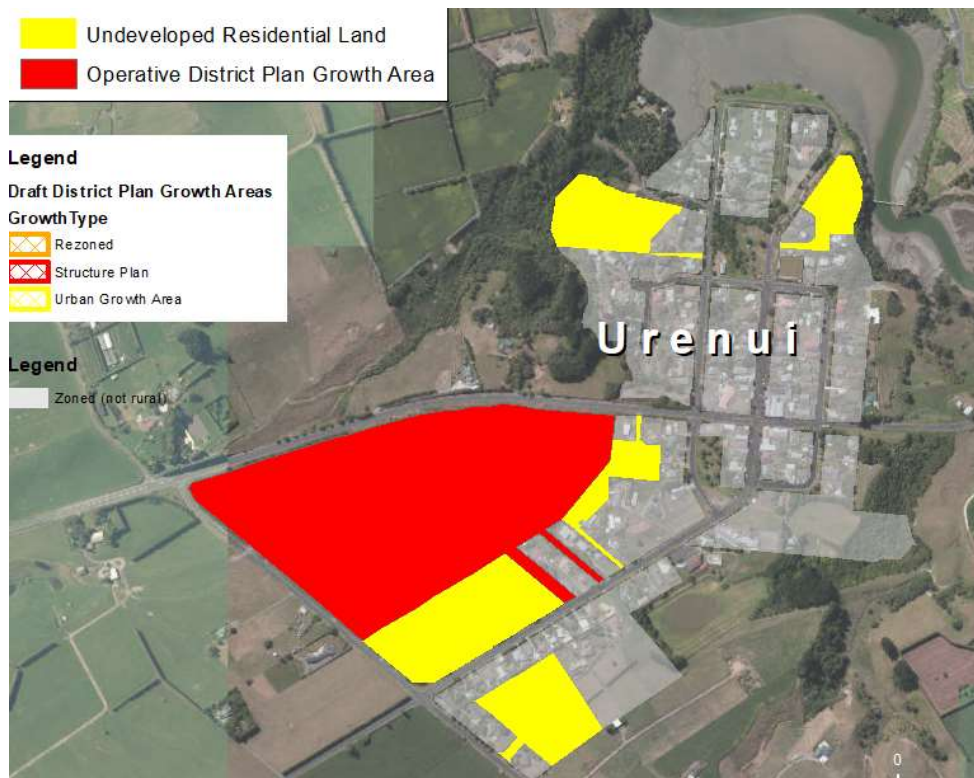
Figure 4.31 – Urenui Growth Area Map
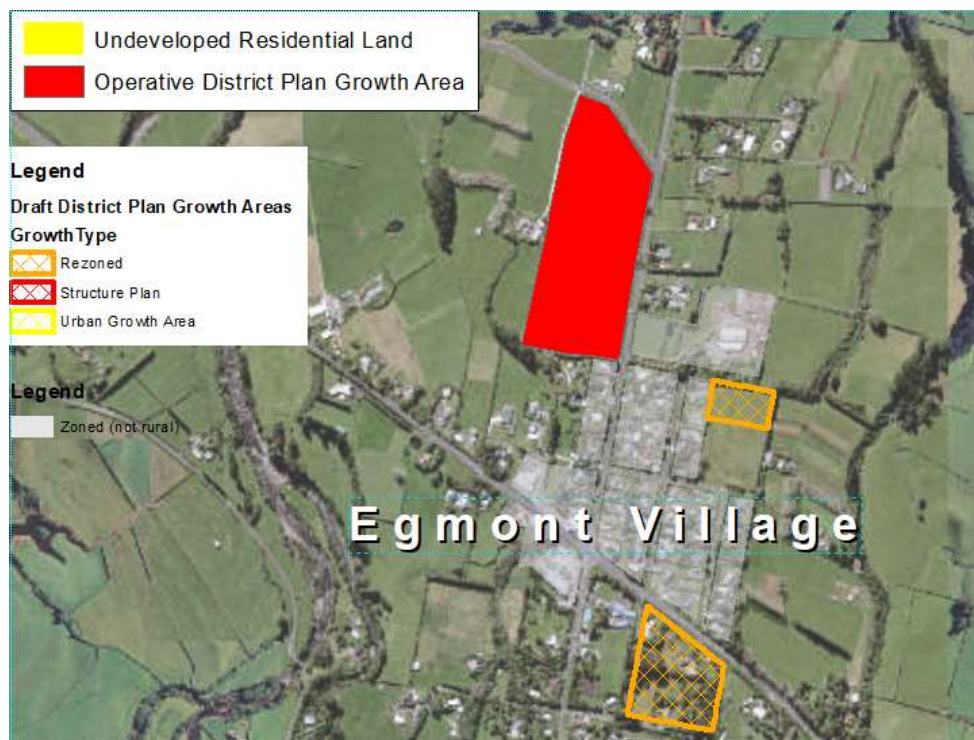
Figure 4.32 – Egmont Village Growth Area Map
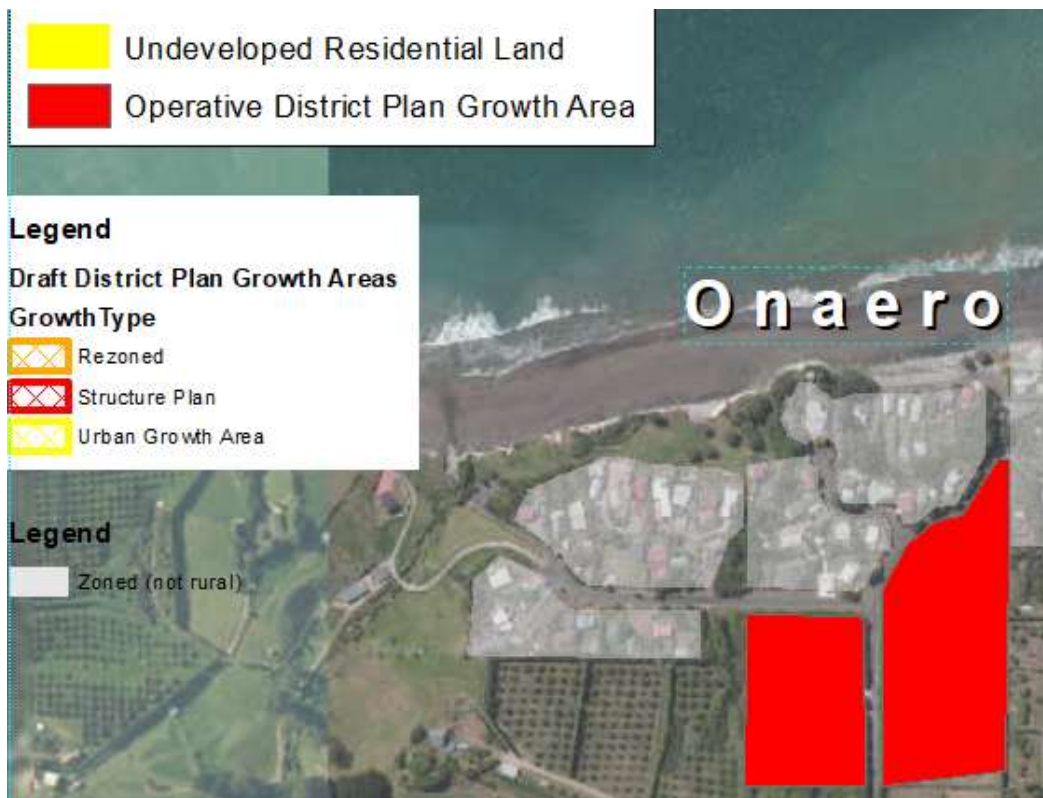
Figure 4.33 – Onaero Growth Area Map

Figure 4.34 – Lepperton Growth Area Map

Housing and Business Development Capacity Assessment

	Zone under current DP	Total Area (ha)	Future Yield (lots)	Proposed Start Year	Grade	Feasibility	Feasible future yield
Undeveloped Res Land Urenui	Res	9.0	80	2018	2	100%	80
Rezoned Land Egmont Village	Rural	3.22	25	2028	3	0%	0
Rezoned Lepperton	Rural	5.62	49	2028	2	59%	29
		17.8	**154**		**2.5**	**71%**	**109**

Table 4.12 – Smaller townships Area Yield

The Draft District Plan includes increases in the amount of residential zoned land for both Egmont Village and Lepperton to accommodate local needs.

Capacity in other environment zones

Currently, around 25 per cent of all new building consents granted are for areas outside of identified residential zones. Uncontrolled urban expansion in the rural environment is likely to adversely affect rural land as it limits options for future rural production and increases the potential for conflict between incompatible activities. It can also result in disconnected neighbourhoods and place pressure on existing infrastructure, compromising both residential and rural amenity values. Uncontrolled residential development has also been occurring in industrial zones.

The need to consolidate urban boundaries and shift to an activities-based plan based on clear zones has become increasingly evident. The new policy approach of the Draft District Plan should see this development trend decrease significantly.

4.3   Uptake of Feasible Development capacity

Under the NPS-UDC, the Council is also required to assess the up-take of feasible development capacity in the district. Not all enabled and feasible development capacity will be taken up in the life of a District Plan. What is planned for and what actually gets developed can be different. It depends on the intentions of land owners and developers, population growth, the dynamics of the property cycle, as well as how the District Plan is implemented. For example, uptake could be very low in situations where a major landowner does not wish to see their land developed or would prefer to release the land slowly over time. Low plan-enabled uptake can often be offset by development that is not plan-enabled, either through private plan changes, or non-complying/discretionary resource consents.

To estimate future uptake of development capacity in the district, we reviewed historical subdivisions and building consent data. As mentioned, around 25 per cent of historical building consents were granted outside of residential environments. The provisions of the Draft District Plan will discourage unplanned development in the future. On the graph below, the projected future up-take of land shown is for areas of the district with plan-enabled feasible capacity.
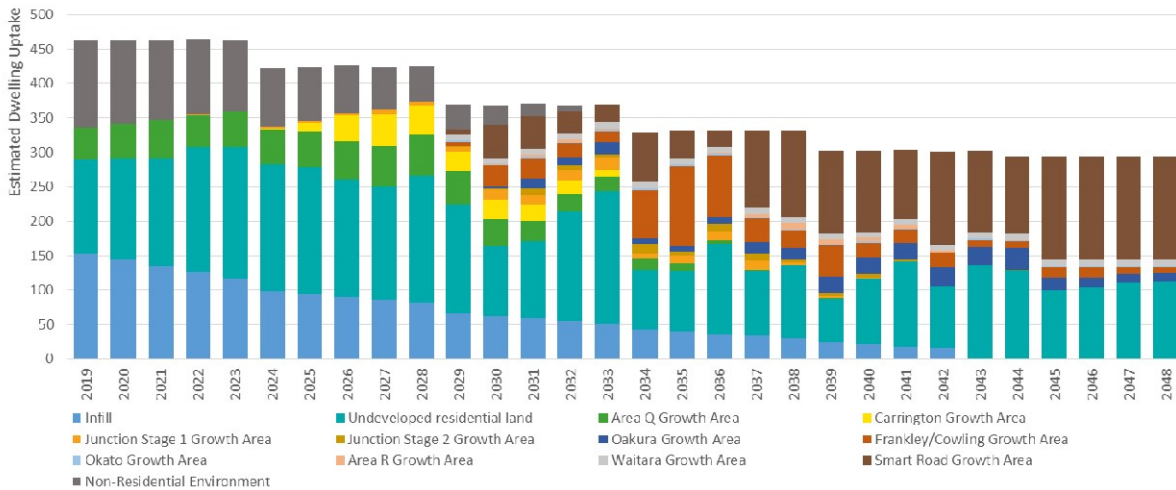
Figure 4.35 – Projected Take Up of New Plymouth District Capacity

This report assumes a short term projected uptake that includes an additional 15-20 per cent capacity margin as required under the NPS-UDC. This ensures that additional capacity is not carried forward into medium and long term planning, given there is a chance that spare housing capacity will be consumed in the short term. However, based on historic consent application figures in the district, NPDC anticipates that actual uptake will be at the levels shown.

Short term

Projections of short term capacity up-take are based entirely on the Operative District Plan with feasibility results around 74 per cent of all plan enabled capacity. Over the past ten years, around three quarters of new dwellings were located within existing urban boundaries. The remaining quarter was in either the rural or other environmental zones. We expect this trend to continue into the short term. The development within the residential boundaries will be split between infill development (31 per cent), undeveloped residential land (32 per cent) and the remaining development in Bell Block growth Area Q (11 per cent).

Medium term

Projections of medium term capacity uptake are based on the Operative District Plan and the additional capacity in Upper Carrington Growth area. The capacity is all plan-enabled with the exception of Upper Carrington. The Upper Carrington growth area is included in the medium term as its infrastructure provision and development is certain and planned for in the LTP. Although there is enough feasible capacity without this growth area, this area provides for more opportunities close to existing facilities in New Plymouth area. The development within the residential boundary will increase in the medium term to account for around 82 per cent of all development. This development will be split between infill development (23 per cent), undeveloped residential land (41 per cent) and the remaining two growths areas Bell Block (12 per cent) and Upper Carrington (5 per cent).

SHORT TERM

Operative District Plan	Plan-Enabled Capacity	Feasible Capacity	Feasibility	Infrastructure Capacity	Projected uptake	Remaining feasible capacity at 2021	Percentage Uptake
						Demand + 20% Margin =	1,391
Other Environment Areas	1,287	N/A	N/A	N/A	367	920	29%
Future Infill (New Plymouth only)	6,498	1,286	20%	1,286	432	854	34%
Undeveloped Residential Zoned Land	4,128	3,671	89%	3,484	439	3,045	13%
Area Q Undeveloped Residential Land	749	749	100%	749	153	596	20%
Total	**12,662**	**5,706**	**45%**	**5,519**	**1,391**	**5,415**	**25%**

MEDIUM TERM

Operative & *Draft District Plan	Plan-Enabled Capacity	Feasible Capacity	Feasibility	Infrastructure Capacity	Projected uptake	Estimated remaining capacity at 2021	Percentage Uptake
						Demand + 20% Margin =	3,050
Other Environment Areas	920	N/A	N/A	N/A	558	363	61%
Future Infill (New Plymouth only)	6,066	854	14%	854	690	164	81%
Undeveloped Residential Zoned Land	3,689	3,232	88%	3,045	1,262	1,783	41%
Area Q Undeveloped Residential Land	596	596	100%	596	374	222	63%
Junction Stage 1 Growth Area	174	165	95%	83	26	57	32%
Upper Carrington Growth Area	267	267	100%	267	140	127	52%
Total	**10,792**	**5,114**	**47%**	**4,845**	**3,050**	**2,353**	**63%**

LONG TERM

Proposed District Plan	Plan-Enabled Capacity	Feasible Capacity	Feasibility	Infrastructure Capacity	Projected uptake	Estimated remaining capacity at 2048	Percentage Uptake
						Demand + 15% Margin =	6,479
Other Environment Areas	540	N/A	N/A	N/A	89	451	16%
Future Infill (New Plymouth only)	7,904	664	8%	664	554	111	83%
Undeveloped Residential Zoned Land	2,886	2,335	81%	2,335	2,290	45	98%
Area Q Undeveloped Residential Land	222	222	100%	222	205	17	92%
Junction Stage 1 Growth Area	148	139	94%	139	118	21	85%
Carrington Growth Area	127	127	100%	127	110	17	87%
Junction Stage 2 Growth Area	119	113	95%	113	80	33	71%
Frankley/Cowling Growth Area	831	814	98%	814	608	206	75%
Area R Growth Area	63	61	97%	61	45	16	74%
Oakura Growth Areas	472	472	100%	472	327	145	69%
Okato Growth Area	69	69	100%	69	40	29	58%
Waitara Growth Area	231	231	100%	231	177	54	77%
Smart Road Growth Area	3,349	3,214	96%	3,214	1,836	1,378	57%
Total	**16,421**	**8,462**	**52%**	**8,462**	**6,479**	**2,072**	**32%**

Table 4.13 – Projected Take Up of New Plymouth District Capacity

Long term

Projections of long term capacity take-up are based entirely on the Draft District Plan, with the addition of all the UGA, and additional re-zoned residential land. This capacity is all plan-enabled in the Draft District Plan. Development outside the residential boundary is projected to drop down to as low as one percent with the implementation of the Draft District Plan and stronger restrictions on uncontrolled rural expansion. This leaves 99 per cent of development within the residential boundary

remaining, split between infill development (9 per cent), undeveloped residential land (35 per cent) and the remaining growth areas (55 per cent).

Beyond the long term period, there is a potential additional capacity of 2,072. Whilst this may seem like a capacity yield excess, a large proportion of this is Smart Road Growth Area. Smart Road requires a large amount of infrastructure spend to go ahead, which is why additional urban growth areas are preferred in the short to medium term.

Implications of high versus low projections

A divergence from the medium-high population scenario risks either an over or under-supply of land and an over or under-investment in infrastructure.

This report's forecast for the low scenario (5,900) is based on Statistics NZ's medium population. While capacity will be met, we run the risk of investing too much into infrastructure growth. This may have the adverse effects of encouraging construction of more standalone houses and an oversupply of land, and will not support planned development of the housing market.

The high population projection from Statistics NZ is the basis for our forecast for the high growth scenario (13,750). If this growth forecast is met, the New Plymouth District would have just enough capacity to meet long term housing demands. However, an increased rate of development risks an undersupply of available land in the future and insufficient infrastructure capacity.

4.4   Residential Feasibility Assessments

The NPS-UDC defines feasible development as "commercially viable, taking into account the current likely costs, revenue and yield of developing". This is essentially a calculation of likely profit margin and risk. There is no definition of 'commercially viable'. However, guidance material suggests a 20 per cent profit margin should be applied when assessing the feasibility of sites for both infill redevelopment, and newly zoned areas. This 20 per cent profit margin remains untested within New Plymouth's local development community but anecdotally, profit margins appear to fluctuate widely. Given the NPS-UDC criteria for commercial viability, a single figure for newly zoned and redevelopment feasibility may be too simplistic.

Significant work has gone into developing feasibility models tailored to New Plymouth's local housing market conditions. NPDC has adapted an MBIE spreadsheet to calculate total costs and the expected revenue from section or redevelopment sales. Local developers and builders provided total costs relevant to the Council (in broad terms), and expected revenue was based on recent sales and current listings.

In running feasibility models, including various assumptions, we found that the estimated rate and the actual rate of development are not aligned in some areas. The models often identified properties as infeasible when in reality, dwellings of a similar typology and location had already been built and on-sold. Refining feasibility modelling and ground-truthing in the local market are necessary for results to be considered reliable assessments of feasible commercial dwelling capacity in the district.

Land development model

To better estimate the development yield of our future growth areas, we have applied a grading system based on typography, section size and open space requirements.

To estimate the number of dwellings and section sizes, including the number of dwellings per hectare and the percentage of land allocated to road, ROW reserve and public reserve, we reviewed historical subdivision[17] data.

| GRADE | Typography | Net density (dwellings/ha) | | | Section Size (m2) | | Percentage of Subdivision | |
		Min	Average	Max	Min	Max	Road Reserve	Landscape Reserve
1	Flat to gently undulating with little to no reserve	8	18	25	400	800	18%	0%
2	Rolling to strongly rolling with small reserve	6	14	20	450	1,200	18%	10%
3	Moderately steep too steep with large reserve land	4	10	15	500	1,600	18%	15%
4	Steep land and lots of reserve	2	6	10	550	2,000	18%	20%
	Average	5	11	20	500	1,500	18%	12.5%

Table 4.14: Subdivision Feasibility Grading System

Building development model

The building development feasibility capacity model calculates the number of plan-enabled dwellings that are commercially feasible by calculating the total cost of each development option, and comparing it to an estimated sale price by suburb. If the sales price exceeds the costs by a sufficient margin, the development is deemed commercially feasible.

The model operates at a property parcel level and tests the commercial feasibility of a range of different plan-enabled development configurations on each site (under the Operative District Plan). Assessment of existing levels of infill development is based on sample testing.

NB: For the purpose of this exercise, infill development refers to subdivision of a small site, redevelopment of a site to create space for addition dwellings, and the addition of a duplex to a site with an existing dwelling on it. The model tests a range of different dwelling sizes within each possible configuration (rather than averages) to reflect the development types that are suitable within each site.

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[17] We assessed 10 major different historical subdivisions to help calculate the assumptions for future development

5 Business Assessment

The NPS-UDC also requires councils in high-growth districts to estimate the supply and development capacity of business land and floor area across different locations in their districts over the short, medium and long term.

To compare business land demands against the supply of business land enabled by our District Plans, we undertook detailed modelling to determine projected employment growth projections to 2048. We then translated the employment growth data into floor space and land requirements by location. The following section details the results of this modelling.

5.1 Demand for Business Land

Future demand for business land in the New Plymouth District is driven by growth in the district economy. However, different types of business activities (or 'sectors') have very different land requirements, including the total area requirements and the location, physical attributes and tenure of land. Different business activities also impact or support each other differently. For example, retail activities seek proximity to their customers, and are best located in shopping areas that are close to where people live. Meanwhile, office-based activities often require leased buildings in town centres, with good access to skilled workers and supporting retail activities. Industrial activities such as heavy manufacturing businesses tend to seek large sites that they can own, located near motorways and ports. Because they may negatively affect amenity values and create traffic and noise they tend to be away from residential neighbourhoods.

Demand	Retail	Commercial	Industrial	Total Change
Employment Growth by sector				
2018	5,940	7,920	10,750	24,610
Short Term (2018-21)	9,320	9,090	12,430	30,840
Medium Term (2021-28)	11,130	10,000	13,780	35,660
Long Term (2028-48)	15,070	11,230	15,210	41,510
Gross Floor Area Floor Space Growth by sector (ha)				
Short Term (2018-21)	2.1	1.5	32.2	35.8
Medium Term (2021-28)	4.6	5.5	115.1	125.2
Long Term (2028-48)	10.0	9.3	193.0	212.3

Table 5.1: Business Demand Projections for New Plymouth District

Employment growth in different economic activities drives different demands for business land. By far, activities that use industrial land (such as manufacturing, construction services and warehousing and storage) have greater impact on demand for business land. Growth in office, retail and community services activities creates less significant demand. However, each of these activities has their own locational and other demands.

Retail demand

The New Plymouth District currently generates around $825m per annum in retail expenditure. Annual retail expenditure is projected to grow by 67 per cent, rising to an estimated $1.3 by 2048. Demand for different types of retail activity has also been assessed.

$000	Specialty Retailing	Large Format Stores	Supermarket Retailing	Total
2018	$413	$155	$256	$825
Short Term (2018-21)	$453	$170	$280	$903
Medium Term (2021-28)	$489	$182	$302	$973
Long Term (2028-48)	$695	$256	$426	$1,377

Table 5.2 New Plymouth Annual Retail Expenditure Forecast by Store Type ($M)

In this report net retail trading floor space is translated to Gross Floor Area (GFA). This is because net retail trading floor space excludes floor area in retail areas that is used for storage warehousing, staff facilities, office or toilets etc. These activities typically occupy around 25-30 per cent of a store's GFA. For the purpose of this analysis a 30 per cent ratio has been applied.

The New Plymouth District currently generates enough annual retail expenditure to sustain an estimated 150,900 sqm of retail GFA. Based on projected net growth, annual expenditure is forecast to grow to just over 251,300 by 2048. This is a useful benchmark from which to undertake any retail market assessment. The table below shows that the district requires 100,400 sqm (10 ha) retail space to meet business growth projections.

Retail Sector Requirements	Short Term 2021	Medium Term 2028	Long Term 2048
Retail Employment Growth	9,320	11,130	15,070
Cumulative Floor Space Requirements (SQM)	21,000	46,000	100,400
Land Requirements (ha)	2.1	4.6	10.0

Table 5.3 – Retail Floor space requirements in New Plymouth (2018-2048)

Commercial demand

The demand assessment for commercial land in New Plymouth is based on high level projections of commercial employment, by sector. The projections used are based on Statistics New Zealand Employment Counts (EC) for the New Plymouth District.

We understand that up to 30 per cent of employees in any given sector do not register the location of their job and are not included in statistics. The ratios applied within this report are based on that shortfall and compensate for it in terms of relevant commercial demand.

Commercial Employment	2018	Short Term 2021	Medium Term 2028	Long Term 2048	% Growth
Accommodation and Food Services	413	462	509	570	38%
Information Media and Telecommunications	400	437	480	500	25%
Financial and Insurance Services	500	524	576	600	20%
Rental, Hiring and Real Estate Services	590	690	758	870	47%
Professional, Scientific and Technical Services	2,100	2,357	2,592	2,950	40%
Administrative and Support Services	1,900	2,445	2,688	3,210	69%
Public Administration and Safety	368	393	433	450	22%
Education and Training	368	393	433	450	22%
Health Care and Social Assistance	1,125	1,223	1,344	1,410	25%
Arts and Recreation Services	158	174	192	220	39%
Total All Industries	7,922	9,098	10,005	11,230	42%

Table 5.4 – New Plymouth Commercial sector Growth Projections to 2048

Total employment figures are then translated into floorspace requirements in the New Plymouth City Centre as shown in the table below:

Commercial Sector Requirements	Short Term 2021	Medium Term 2028	Long Term 2048
Commercial Employment Growth	9,098	10,005	11,230
Cumulative Floor Space Requirements (SQM)	15,450	55,280	92,600
Land Requirements (ha)	1.5	5.5	9.3

Table 5.5 – Commercial Floor space requirements in New Plymouth (2018-2048)

Net commercial land requirements are forecast to increase. An estimated 92,600 sqm of additional commercial floor space is required from 2018 to 2048 to accommodate this projected demand.

A portion of office space will provided through 2nd and 3rd level floor space in the Central City and town centres. Accommodating growth in three storey developments is an economically efficient and productive use of the district's land resources as it requires a third less land, significantly reducing demand.

Industrial demand

Industrial land demand assessments in New Plymouth are based on high level projections of industrial employment by sector.

Industrial Employment	2018	Short Term 2021	Medium Term 2028	Long Term 2048	% Growth
Industrial Employment Growth	10,756	12,430	13,780	15,210	39%

Total employment figures are then translated into floor space requirements.

Industrial Sector Requirements	Short Term 2021	Medium Term 2028	Long Term 2048
Industrial Employment Growth	12,430	13,780	15,210
Cumulative Floor Space Requirements (SQM)	321,600	1,151,000	1,930,000
Land Requirements (ha)	32	115	193

Table 5.6 – New Plymouth Industrial Employment Forecast 2018-2048

Housing and Business Development Capacity Assessment

New Plymouth's net industrial employment base is forecast to increase at a steady net growth rate over the forecast period, by just over 4,400 employees from the 2018 base figure. Average growth projections are for 140 new industrial employees per annum, bringing the total district industrial employment base to nearly 15,210 by 2048.

Given trends of population growth, growth in industrial employment is also expected to continue in the foreseeable future. However, it is important to note that within relatively small provincial districts such as New Plymouth, each individual business represents a relatively larger portion of the market. A large business restructure, or entry or exit of a large firm can change the overall structure of New Plymouth's employment base commensurately.

Demand by employment

Economies reflect the established investment patterns and the structures of their populations and institutions. Many characteristics or drivers of growth and change typically evolve slowly over time. Therefore, existing structures can play an important role in projecting short to medium term employment land demands. Different levels of net migration can also drive faster growth than anticipated in high growth areas of New Zealand.

Demand by employment rates

Analysis of demand for floor space and land in an urban economy commonly focuses on the relationship between workers and their space requirements. For the NPS-UDC, the employment metric is important from a planning perspective because growth in employment in an urban economy commonly manifests as demand for floor space and/or land: i.e. existing businesses expand and new businesses commence operation.

Similarly, employment growth in office-based sectors is generally related to the demand for office floor space: i.e. increases/decreases in employment results in increased/decreased demand for office space. However, there are instances where growth can be accommodated in the existing space (productivity improvement) and/or located in non-business zones (e.g. home offices).

Employment data can also be used to understand trends in both industrial and retail activity. However, these two sectors can also be assessed in terms of value of goods (GDP – Industrial) and expenditure (sales – retail).

Figures 5.1 and 5.2 show the total employee counts and the number of business within New Plymouth City over the past 17 years. These graphs show that total employment grew by 39 per cent between 2000 and 2017, from 6,800 to 9,500.

The number of business units increased by a similar rate over this time (35 per cent), up from 25,800 in 2000 to 34,800 in 2017. The increases and decreases in employment activity in New Plymouth are consistent with regional and national trends.
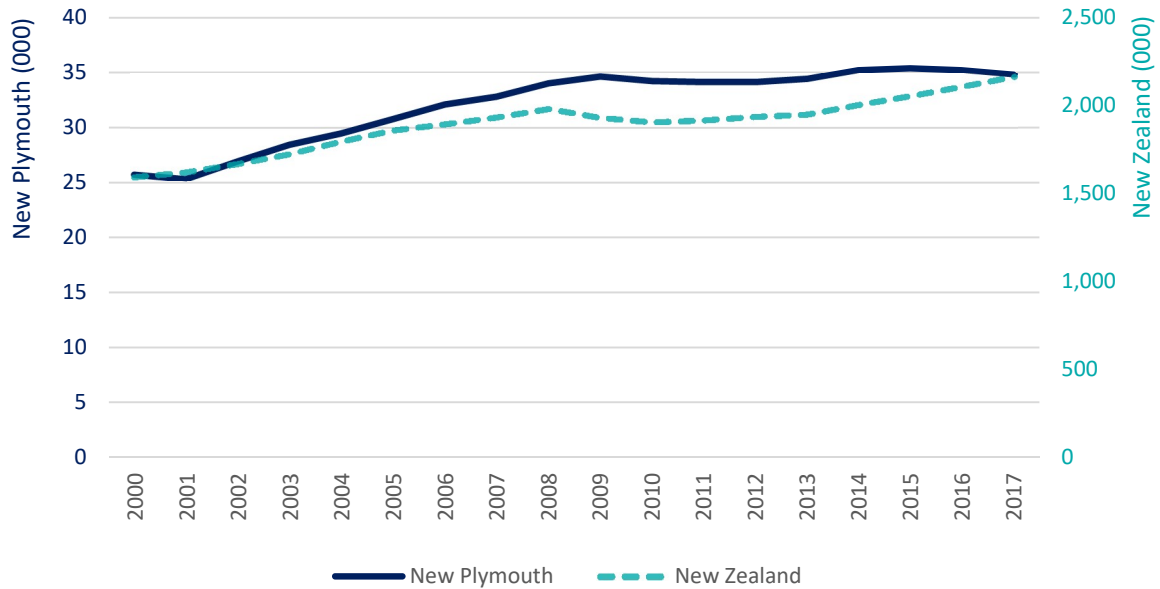
Figure 5.1 - Total Employees in New Plymouth 2000-2017
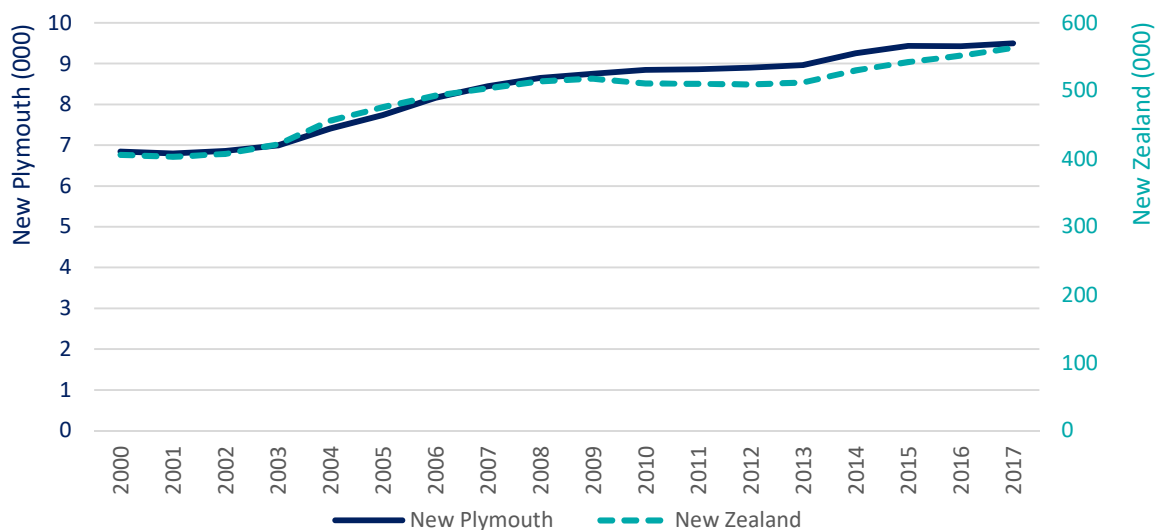
Figure 5.2: Number of Business Units in New Plymouth 2000-2017

Demand by employment sector

The composition of sector employment has important implications for the floor space and land requirements. Different sectors can have different requirements for premises (demand for floor space and/or land). For example, office based industries typically have a higher intensity of employment relative to other industries, reflected in higher employee to floor space ratios. Therefore, office based industries require less land compared with more space extensive industries such as manufacturing and other industrial activities. The latter also typically occupy single-level buildings such as warehouses, as opposed to office activities which can occupy multiple storeys. Changes in the composition of an economy can greatly impact the nature and quantum of floor space and land demand.

Housing and Business Development Capacity Assessment

Table 5.7 identifies the employment composition of New Plymouth between 2000 and 2017 using the one digit ANZSIC classifications of activities (as per the Statistics NZ Business Frame). The table shows that while New Plymouth experienced overall net employee growth of approximately 9,000 over this period, all industries, excluding information media and telecommunication, experienced individual employment growth.

By Classification	2000	2006	2011	2017	Net Growth %	Net Growth #
Health Care and Social Assistance	3,350	4,000	4,350	4,500	34%	1,150
Manufacturing	3,600	3,750	3,900	4,150	15%	550
Retail Trade	3,150	3,850	3,950	3,600	14%	450
Construction	1,400	2,700	3,100	3,150	125%	1,750
Accommodation and Food Services	1,650	2,500	2,500	2,750	67%	1,100
Education and Training	2,400	2,600	2,750	2,450	2%	50
Professional, Scientific and Technical Services	1,350	1,800	2,050	2,100	56%	750
Transport, Postal and Warehousing	1,200	1,400	1,550	1,950	63%	750
Administrative and Support Services	820	1,150	1,750	1,900	132%	1,080
Other Services	860	1,200	1,200	1,400	63%	540
Agriculture, Forestry and Fishing	1,100	1,350	1,150	1,250	14%	150
Wholesale Trade	1,150	1,250	1,250	1,200	4%	50
Public Administration and Safety	920	1,150	1,250	1,050	14%	130
Mining	430	900	790	910	112%	480
Arts and Recreation Services	410	500	680	630	54%	220
Rental, Hiring and Real Estate Services	320	520	460	590	84%	270
Financial and Insurance Services	380	420	490	500	32%	120
Information Media and Telecommunications	940	830	500	400	-57%	-540
Electricity, Gas, Water and Waste Services	300	280	380	300	0%	0

Table 5.7: Employees by sector in New Plymouth 2000-2017

Source: Statistics New Zealand, Geographic units by industry and area unit 2000-17

The biggest driver of employment growth is in the construction sector, particularly following a period of high population growth and increased demand for new dwellings. Apart from the construction industry, most employment growth is associated with population-driven sectors e.g. health care, social assistance and service industries.

The following sectors generated most employment growth in the district (80 per cent) in the past 17 years:

- **Construction –** experienced the highest percentage of growth, from 1,400 in 2000 to 3,150 in 2017, equivalent to 19 per cent. This industry is the fourth largest employment sector in New Plymouth.

- **Health Care and Social Assistance** – contributed to 13 per cent of the employment growth. This industry is now the biggest employment sector in New Plymouth with around 4,500 employees in 2017.

- **Accommodation and Food Services** – contributed to 12 per cent of the employment growth in New Plymouth.

- **Administrative and Support Services–** contributed to 12 per cent of the employment growth in New Plymouth

- **Transport, Postal and Warehousing –** contributed to 8 per cent of the employment growth in New Plymouth

- **Professional, Scientific and Technical Services –** contributed to 8 per cent of the employment growth in New Plymouth

- **Manufacturing –** contributed to 6 per cent of the employment growth. This industry is the second largest employment sector in New Plymouth.

The growth in these sectors (excluding construction) reflects a trend towards service-oriented or support sectors, which are mainly driven by the growing population in the district.

The largest employment sector in New Plymouth is Heath Care and Social Assistance. This is consistent with the district's ageing population and the growing number of retirement village units. We expect this trend to continue, with the proportion of the population aged 65 and over estimated to increase from 17 to 27 per cent over the next 30 years. This will put more pressure on the health care industry, but it will also contribute to employment growth in the construction industry. Retirement villages are part of the reason the Taranaki building scene is booming. The creation of a new retirement village in the district could create up to 50 full-time equivalent jobs in the region, keeping tradespeople busy[18].

The second largest employment sector in the district is the Manufacturing industry, which held the top position 17 years ago but was overtaken by the healthcare industry in 2008. Despite the change, the manufacturing industry continues to drive a lot of employment opportunities, with around 12 per cent (4,150) of total employees in the region engaged in this sector.

Understandably, construction closely follows market trends, with employment levels rising and falling depending on the performance of the wider economy, and the economy's position in the property cycle at any point in time. The construction sector accounted for around 18 per cent of New Plymouth's industrial employment in 2000 but has increased in significance and importance over the past 17 years. It now accounts for nearly 30 per cent of all district's industrial employment. The Construction sector's employment base directly correlates to property market cycles and boom/bust periods and the sector has reflected these cycles over the past 17 years.

The Information Media and Telecommunication sector is the only industry that has seen a downward trend in employment growth. Figures dropped by 57 per cent – from 940 in 2000 to 400 in 2017. Changes in technology have impacted these sectors in recent times. For example, people generally keep up with news media electronically and production of the local newspaper (Taranaki Daily News) has been moved out of the region. This change has had a large effect on this employment sector.

In terms of the NPD-UDC, it is important to understand that population-driven sectors generally have a different demand for floor space and land. The graph below also shows the sectors with the most significant growth from 2000 to 2017.

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[18]https://www.stuff.co.nz/taranaki-daily-news/news/106069468/new-retirement-villages-keeping-tradies-busy-builder-says
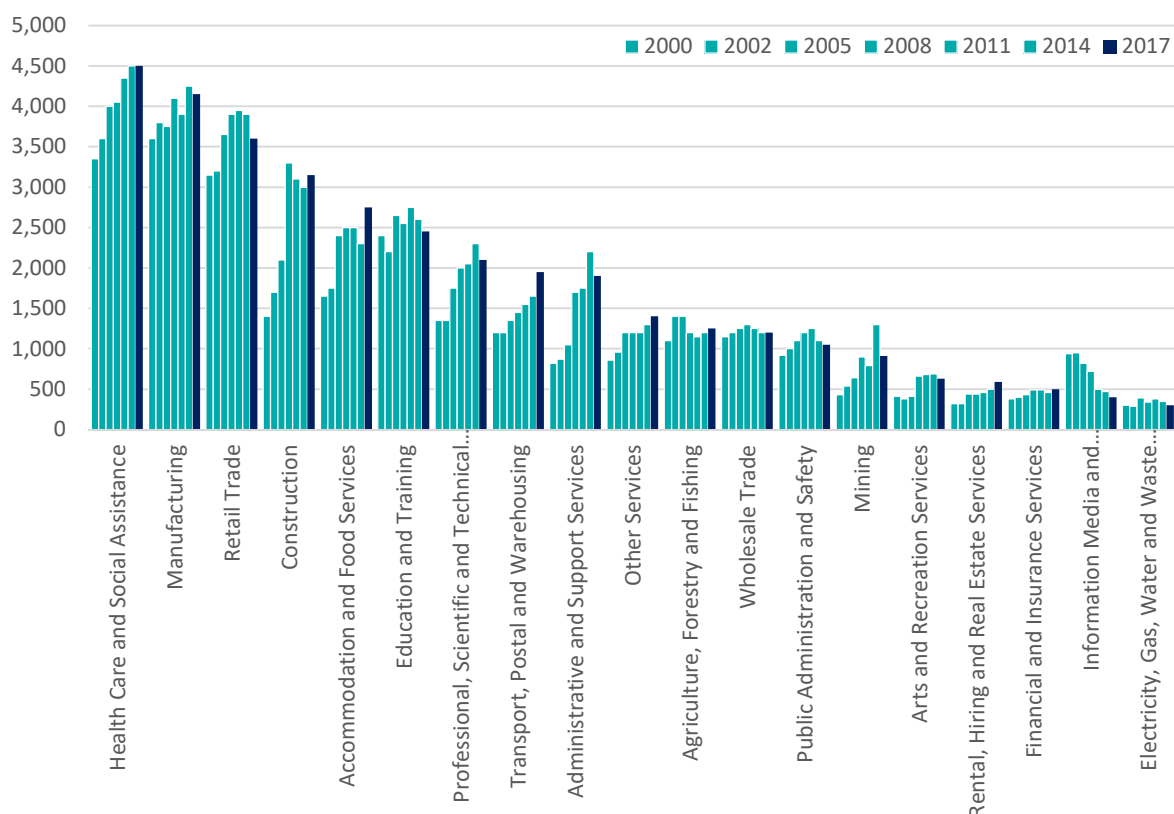
Figure 5.3: Employees by sector in New Plymouth 2000-2017

In summary, growth in the different sector employment groupings has been driven by the following:

- **Population demand**
  The district's population is expected to grow from 83,400 in 2018 to 92,400 by 2028 and to 106,100 by 2048. More about our population growth can be found in Section 4.1.

- **Labour force**
  The employment rate (total employed as a proportion of the working-age population) for 2017 sits at 66.5 per cent for New Plymouth District and 65.6 per cent for Taranaki region. An increase in employment is likely to positively benefit the district's population and the local economy. High employment results in higher household incomes and increases in discretionary incomes. If lower employment rates eventuated then we would likely to see a drop in demand in business floor space.

- **Tourism demand**
  Ministry of Business, Innovation and Employment forecasts for national tourism growth between 2017 and 2023 are for a 4.8 per cent increase in visitor numbers and a 4.9 per cent increase in visitor days per annum. The Council assumes that the district's tourism rates will grow at the same rate as national averages for the next ten years. Total guest nights will grow from 497,360 in 2016/17 to 841,785 by 2027/28. There is a high level of uncertainty. Uncertainty arises from national and global economies and the ability to attract tourists to New Plymouth District. If these factors change formed projections, then the assumption will not be borne out.

- **Central Business District breakdown**
  New Plymouth's CBD core is experiencing negative growth in retail activity, with an employment loss of 24 per cent since 2000 – equivalent to around 350 fewer retail employees. This signals lower efficiency and productivity in the CBD's retail provision.

However, the CBD fringe and other centres in the district have seen positive growth. This trend is of real concern as it lowers New Plymouth's competitiveness. From an economic perspective this trend needs to be reversed. Both retail and commercial activity is drifting or 'bleeding' away from the CBD core, spreading into the CBD fringe or dispersing into other district centres such as Fitzroy. This comes at an economic cost to the wellbeing of wider communities and social amenity values. Addressing this trend requires a Council policy response.

- **Internet retailing**
  Internet retailing (sometimes referred to as E-tailing) is anticipated to have an increasing influence on future retail requirements and shopping patterns. It is now at a point where it should be considered in forward planning. For the 12 months ending February 2016, New Zealanders spent $3.3 billion online (excl. GST), which accounted for 8 per cent of New Zealand's total retail expenditure of $44 billion across the core retail sectors. Growth in domestic online spending in New Zealand is outpacing growth in spending at physical stores, with January 2016 growth up 11 per cent on January last year. International retailers continue to gain market share from local retailers in New Zealand, with spending at offshore sites in January 2016 up to 21 per cent on January 2015.
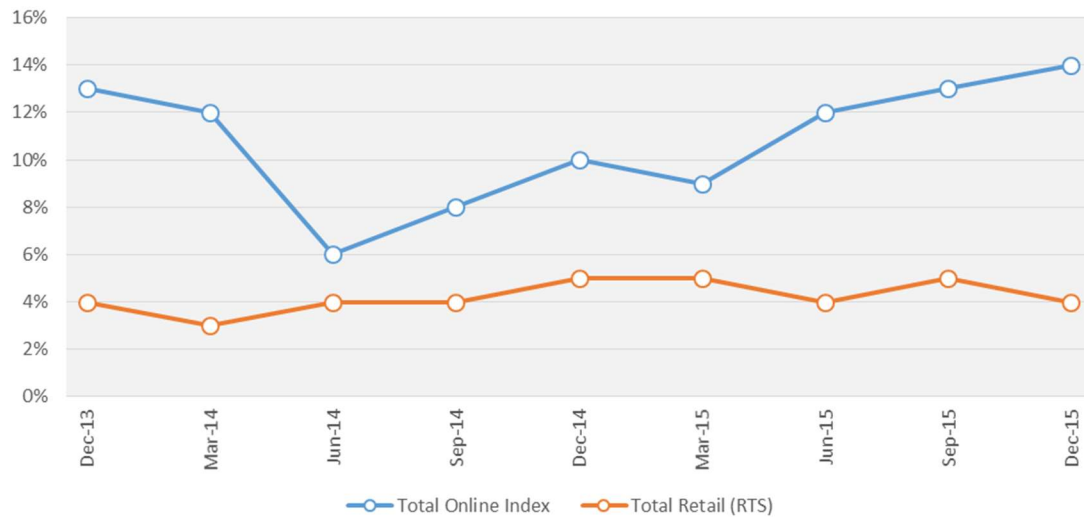
Figure 5.4 – Online Retail Sales Vs Total Retail Sales Growth

- **Technology Change**
  Technology has impacted most sectors in the economy. Broadly, there has been a slow but consistent shift towards automation and the use of personal computers. These changes have increased productivity per worker. This has implications for the quantum of employment required to deliver the same level of output and the associated land/floor space required.

  Technology can have a wide range of implications for each sector. There is an apparent increase in office based employment associated with technological change, and a decline in manufacturing employment. The impact of technology is also evident in the shift towards more service intensive industries and the movement of manufacturing out of developed economies as discussed earlier. New technology has also generated new sub-sectors (e.g. mobile phone stores) and some older sub-sectors have become obsolete (e.g. video stores).

- **Economies of Agglomeration**

  This concept is similar to that of economies of scale. However, economies of agglomeration involve multiple businesses and the concept relates to the benefits they obtain by locating near to each other. The aggregation of activity in an urban economy can have several positive effects, including greater specialisation (i.e. new activities becoming viable) and/or productivity. There may also be efficiencies in the use of space with agglomeration, which can manifest in the use of shared space or shared services across organisations. However, it is difficult to quantify this.

- **Global and National Crises**

  Global or national crises can have significant short term effects on employment. The recent Global Financial Crisis is an example of a world event that impacted the scale of economic activity and employment across the regional economy. While these impacts can be significant, they are not possible to predict in terms of nature or timing. Although it is valuable to understand their impact, neither NPS-UDC or Council reporting can plan for these short term fluctuations.

The Australian and New Zealand Standard Industrial Classification (ANZSIC) employment sectors have been grouped into more generic employment groups (retail, commercial, industry and other[19]) whereby businesses are categorised according to their predominant economic activity.

Figure 5.5 – Employees by Sector Groups New Plymouth
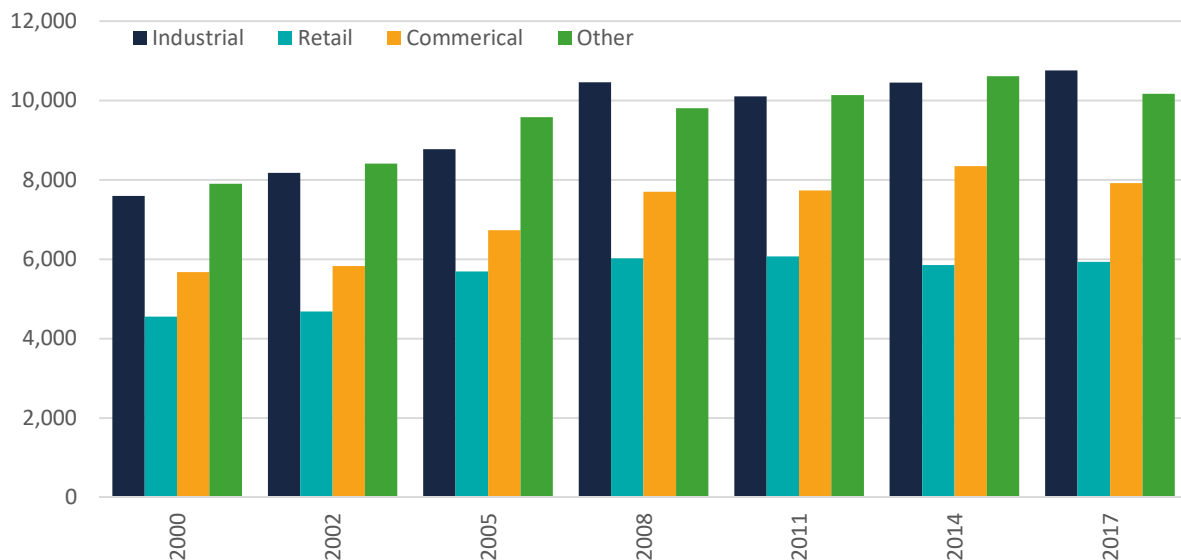
All sector groupings experienced strong overall net growth. However, growth in the industrial sector is proportionally higher at 42 per cent. The industrial sector employment base rose from 7,593 in 2000 to around 10,455 in 2017. A further breakdown of these sectors can be found in **Appendix 7**

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[19] See **Appendix 6** for more details on how sectors have been classified

5.2   Demand by Business Growth

Retail and commercial sectors

This section of the report assesses the new retail building consent activity that occurred within the New Plymouth District over the 17 years from 2000-2017. Over the past 17 years, the number of new retail building consents totalled 263. They had a cumulative value of $128m, equating to a total GFA of just over 134,000 sqm. This works out to an average annual number of consents totalling 15, with an average consent value of $7.6m and average GFA of 7,907 sqm.

During 2011 to 2014, likely the result of the global financial crisis, the number of new retail consents dropped to an annual average of 7. By 2017, this had recovered.
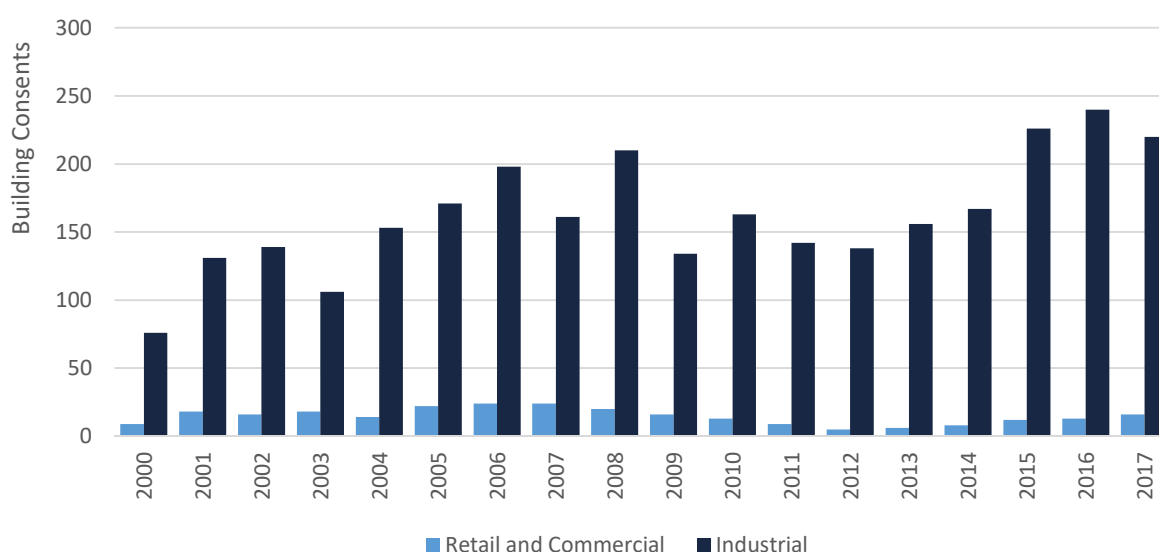
Figure 5.6 – New Plymouth Building Consents 2000-2017

Industrial sector

This section of the report assesses new industrial building consent activity that has occurred within the New Plymouth District over the 17 years from 2000-2017. Over this period, the number of new industrial building consents totalled just over 2,930. They had a cumulative value of around $325m equating to a total GFA of just over 855,000 sqm. This equates to a total land consumption of around 213ha (if all developments were on vacant land).

The average annual statistics for the same period equate to 162 consents, an average consent value totalling around $18m (rounded), and around 47,500sqm industrial GFA. This indicates an annual average land consumption rate of around 12ha.

Over the assessed period, the value and size of industrial consents increased until the GFC economic correction period (2009-2011), which saw the average value of an industrial consent drop to $78,300 (down from $105,300 in the preceding 3-year period). It also saw the average industrial consent floor area drop to 215sqm (down from 265sqm in the preceding period). This is not unexpected in times of market corrections where a fall in investor confidence and market activity means developers/investors and business owners are more sensitive to risk. This typically results in a reduction of the value and size of new industrial activity. It also reflects tighter lending controls from financial institutions, less liquidity/capital available in the market, and decreased appetite for investment risk.

However, over the 2012-2014 period (the start of the recovery period) the average industrial consent value increased markedly to $147,200, and the average industrial consent size increased to 407sqm. This highlights the contrasting fortunes that can occur in a market based on investor confidence and the 'state' of the local economy. This recovery phase has continued over the 2015 – 2017 period, with the average value of industrial consents equating to $141,600.

5.3   Business Land Capacity

This section assesses the sufficiency of land supply for the district's retail, commercial and industrial sectors.

Business	Retail	Commercial	Industrial	Total	Operative District Plan	Draft District Plan
Short Term 2018-21	2.1	1.5	32.2	35.8	✓	✓
Medium Term 2021-28	2.5	4.0	82.9	89.4	✓	✓
Long Term 2028-48	5.4	3.7	77.9	87.0	✗	✓
Total	**10.0**	**9.3**	**193.0**	**212.3**	**221.5**	**339.4**

Table 5.8: Sufficiency of business land capacity to meet demand

The potential capacity of industrial land in the district is provided by the vacant industrial land (191.8 ha) included in the Operative District Plan. Ensuring sufficient capacity to meet long term demands of 193 ha, will require release of additional industrial land labelled as Area N (59.3 ha).

In the Draft District Plan, this land is divided into two parts with a portion of land allocated as the Oropuriri Structure Plan (33.5 ha) planned for industrial rezoning, and a portion allocated as a future urban growth called Area N (25.8 ha).

In both the Operative and Draft District plans, a majority of the retail and commercial land capacity is located within the Central City, within the potential future development of the vacant building envelope identified using City Centre zone and height management rules. Within the Operative Plan there is an estimated total 363,000 sqm of floorspace available for development, with an additional 312,000 sqm available in the Draft District Plan. This total space has been divided between the various sectors, with a portion allocated for inner central city residential development that may occur.

Within the Central City there are also vacant buildings available that can provide capacity for both retail and commercial demand in the short term, without major development. To support residential growth in the Bell Block we have identified two business growth areas. These include an extension of the Parklands retail centre (0.55 ha) and Area R, which will be a mixture business growth zone (37.4 ha).

Retail and commercial capacity

This section assesses the provision and distribution of retail and commercial land in the New Plymouth District. Within the District we have identified two main areas of future capacity: already vacant business land currently listed for rent or purchase, and future potential land which would require construction of new premises.

Area (ha)	Operative District Plan	Draft District Plan	Total
Vacant Commercial Land	4.4		4.4
Potential Commercial Land	13.1	11.3	24.4
Vacant Retail Land	1.2		1.2
Potential Retail Land	10.9	9.4	20.3
Parklands Avenue Rezoned		0.5	0.5
Area R (Mixed Zone)		37.4	47.4
Total	**29.7**	**58.6**	**88.3**

Table 5.9 – Business Capacity for New Plymouth District

Vacant capacity

To determine the quantity of vacant business land available, we utilised the real estate NZ website[20], identifying all the current vacant business floor space available for rent or purchase as either potential commercial or retail space. This is a new data set and will be incorporated into future quarterly reporting to monitor trends and vacant floor space. In total, there is potential for 1,235 sqm of floor space for retail opportunities and 4,438 sqm of floor space for commercial opportunities.

Future capacity

Recent NPDC reports show that both retail and commercial activity is 'bleeding' away from the CBD core, either spreading into its fringe locations or dispersing into other centres within the district. As discussed, this is a concerning trend that lowers New Plymouth's competitiveness and comes at an economic cost to the community's economic wellbeing and social amenity values. To help combat this trend, the majority of the future capacity for both retail and commercial demand in the medium and long term is located in the City Centre.

Capacity in the Central City

In both the Operative and Draft District Plan the capacity for retail and commercial land is largely located within the Central City. Capacity is in the development potential of the vacant building envelope identified using the City Centre zone and height management rules, which has potential capacity for an additional 363,000-675,000m2 of developable space for a variety of uses.

Figure 5.7 – Central City Zones

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[20] www.realestate.co.nz

Housing and Business Development Capacity Assessment

To assess the developable space with the Central City, we calculated the total available potential capacity of the Central City zone in conjunction with both the Operative and Draft District Plan height management rules. To ascertain the existing capacity already occupied in the Central City, we used current Lidar data to subtract existing capacity from the total available potential.
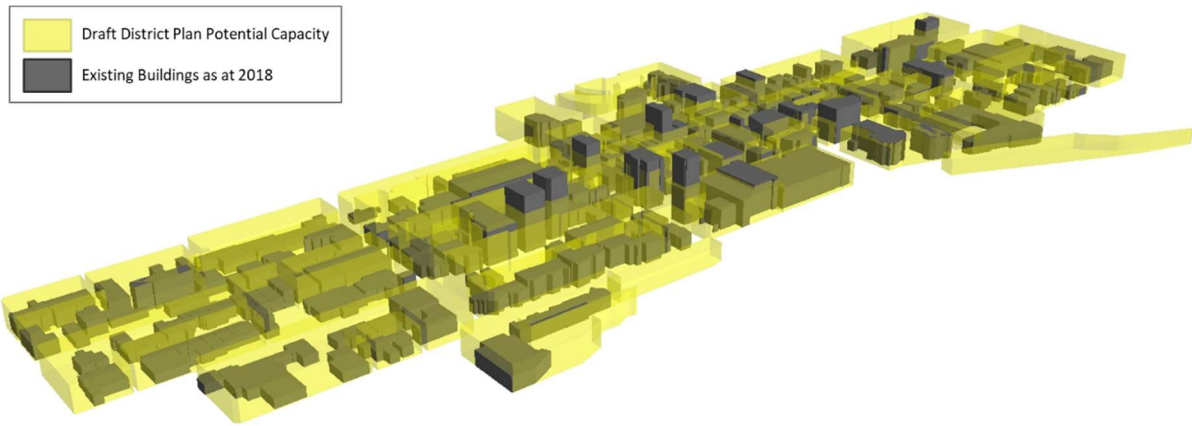
Figure 5.8 – Draft District Plan Potential Central City Capacity

Within the Operative District Plan height management rules, there is a total of 363,000 m^2 of potential developable space. In the Draft District Plan there is 675,000 m^2 of potential developable space. This total space has been proportioned across the various sectors. A portion has also been allocated for inner city residential development that may occur. To understand how the height management rules have changed, see **Appendix 8**.

Capacity in Bell Block
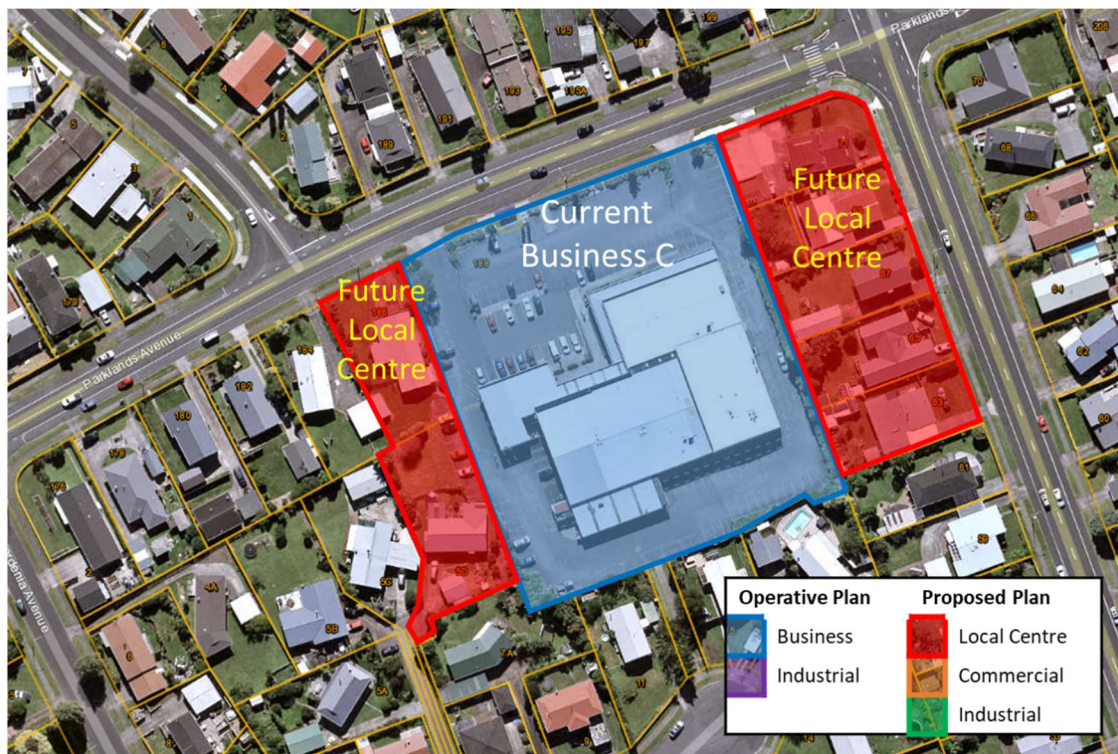
Figure 5.9 – Bell Block Centre

The demand for future business land in Bell Block is related to the short to medium term residential growth potential in Area Q as outlined in the section above. The Draft District Plan proposes rezoning 500 sqm of residential land to a local centre for retail and commercial purposes.

In the Operative District Plan, Area R is currently zoned Rural, with an FUD overlay for a mixture of residential and employment land. Area R is identified in the Draft District Plan as a Future Urban Zone for a mixture of residential and employment (Area R East).

Area R is a triangular 55.5 ha block east of the Bell Block Township. It is bordered by Airport Drive to the west, Devon Road to the south and Mangaoraka Stream to the east. The 37.8 ha of land to the east of the proposed Airport Drive realignment is estimated to accommodate around 68 per cent of the growth area, and has been allocated as future employment land.

Industrial land capacity

This section assesses the amount and distribution of industrial land in the New Plymouth District. The majority of industrial zoned land is concentrated within New Plymouth's main urban area. Smaller urban settlements such as Inglewood, Egmont Village and Waitara provide an additional industrial supply for both their localised market and part of the wider district provision.

Figure 5.10 – Industrial Land Supply in New Plymouth District

There is a large proportion of already vacant industrial land zoned in the Operative District Plan and planning for future industrial land is included in the Draft District Plan. The map above provides some understanding of the location of future capacity.

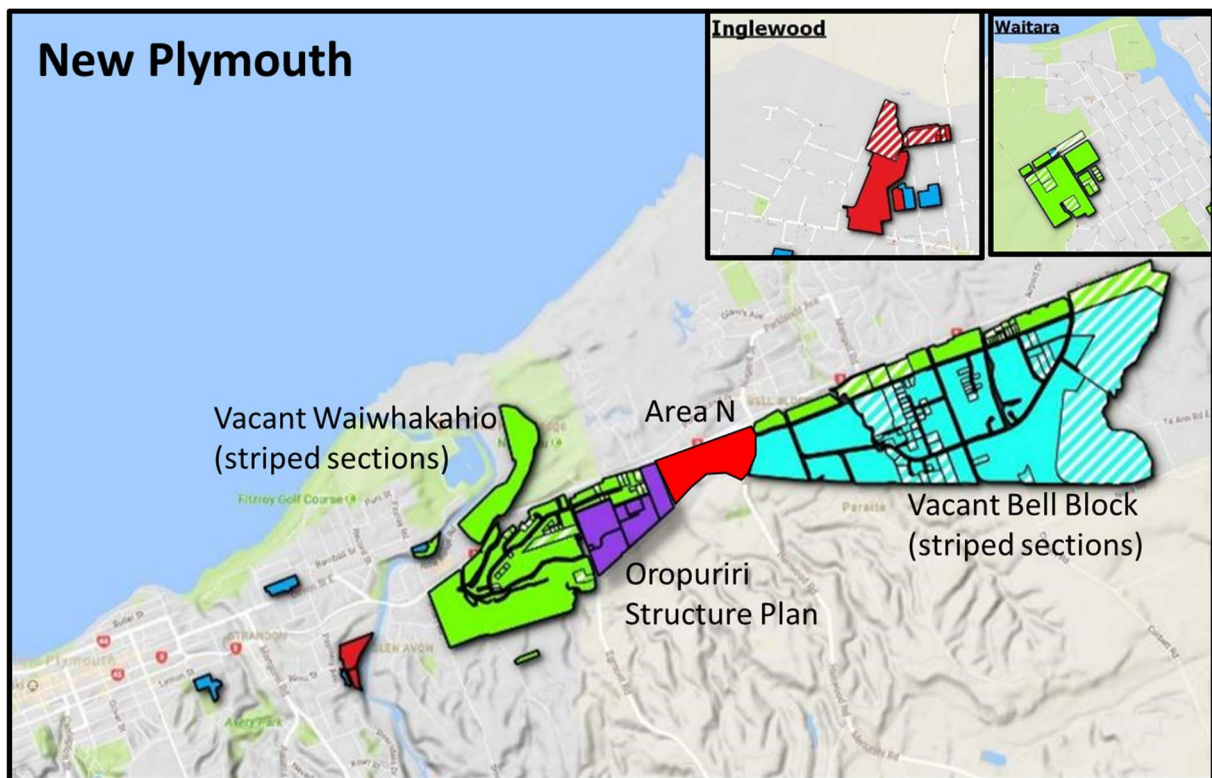| Area (ha)	Operative District Plan	Draft District Plan	Total
Vacant Land Bell Block	170.8		170.8
Vacant Land Inglewood	3.8		3.8
Vacant Land Waitara	4.4		4.4
Vacant Land Waiwhakaiho	12.7		12.7
Oropuriri Structure Plan		33.5	33.5
Urban Growth Area N		25.8	25.8
Total	**191.8**	**59.3**	**251.1**

Table 5.10 – Industrial Land Sufficiency

Current vacant land capacity

The district has a portion of industrial zoned land currently vacant. The majority of this land is in the Bell Block/Waiwhakaiho area (184 ha), with the remaining amount in Inglewood (3.8 ha) and Waitara (4.4 ha). This land is under threat from non-industrial uses; however, the activities-based framework of the Draft District Plan aims to ensure industrial land is used for industrial activities only.

Future Industrial Capacity

Under the Operative District Plan, the Area N Oropuriri Structure Plan is zoned as a rural zone. A Proposed change to the Operative District Plan considered rezoning Area N. This Plan Change (21) requested Area N, an area identified through the Land Supply Review and Framework for Growth, to be rezoned from a Rural Zone to an Industrial C Environment Area. Area N was to run from Smart Road east towards Henwood Road, with State Highway 3 located along the northern boundary of the site. However, this area was subject to extensive archaeological investigation during the construction of the State Highway upgrade and Bell Block bypass leading to the discovery of Oropuriri Pa. The middle of Area N has been identified as being of high cultural importance to Ngati Tawhirikura Hapū and Puketapu Hapū. The Plan Change did not proceed.
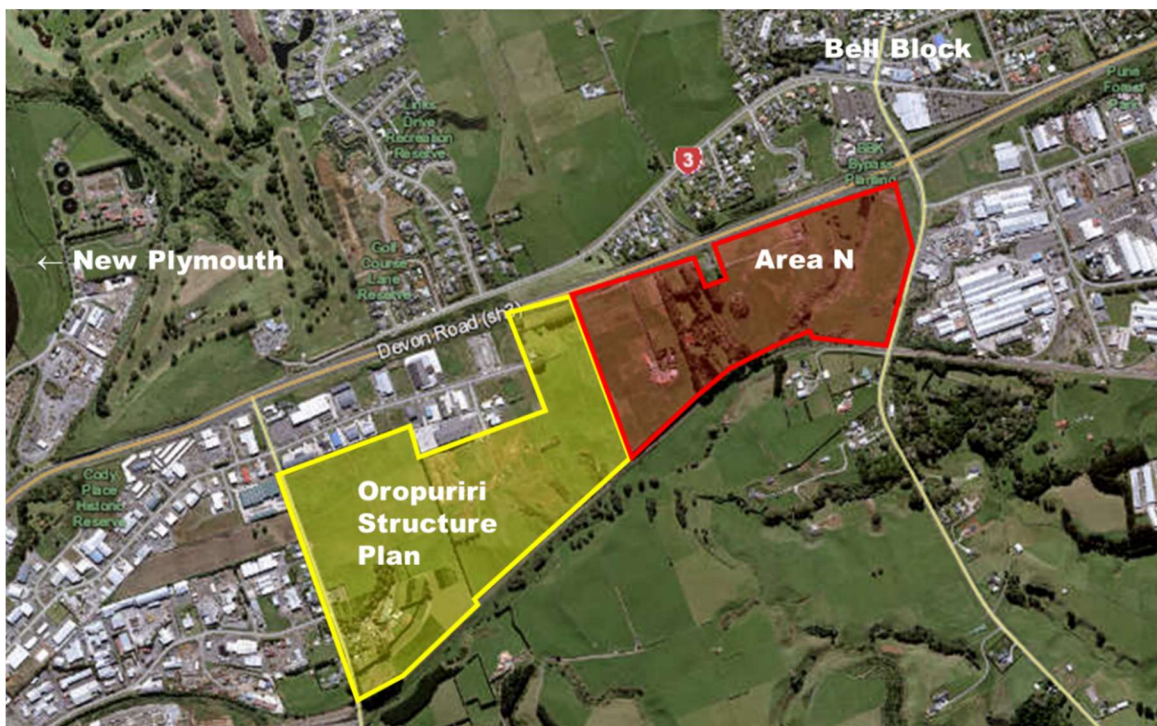

Figure 5.11 – Industrial Area N Future Growth

The Draft District Plan has rezoned a western portion of Area N Oropuriri Structure Plan (33.5 ha) from rural to industrial land. It is intended that the remainder of Area N (25.8 ha) be retained as an urban growth area so further investigation on the cultural, roading and stormwater issues can be addressed.

The Oropuriri Structure Plan is an extension of Plan Change 2, which in 2009 rezoned land to Industrial C in the Operative Plan and created Oropuriri Road and Parakau Road. The Structure Plan is intended to provide a roading extension off Parakau Road and to provide a new road access onto Smart Road. This structure plan area is considered to be consistent with the investigations into the rezoning of Area N that have occurred to date, and a logical extension to the existing and adjacent Bell Block industry land.

5.4   Feasibility of Development

The feasibility of developing vacant land zoned for business in the both the Operative and Draft District Plans depends on how well this land meets the locational and other requirements of different business types.

Feasibility assessment

To assess feasibility, we undertook a multi-criteria analysis (MCA) of the attributes of the vacant land available for new industrial and business activities. We did not distinguish between the Operative and Draft District Plan in undertaking this review.

To understand the relative attractiveness of different sites for new business uses we reviewed other business land studies and considered the local context to identify eleven key criteria. We assigned scores to each criteria for both the industrial and business sectors, reflecting the likely relative importance of each factor for business in those broad sectors. These scores vary from 0 to 20 depending on the relevance to the criteria. The criteria do not include information on either the availability of infrastructure or land prices, although these are important factors of business location decisions. We excluded these measures because:

- The NPS-UDC directs councils to assess the availability of developed infrastructure as a constraint on capacity, rather than as a factor that affects feasibility. With identified exceptions, vacant business-zoned land is expected to be serviced by developed infrastructure. Where businesses have additional requirements, e.g. for telecommunications infrastructure or private wastewater solutions, it is expected that they will be able to work with private infrastructure suppliers or self-service.

- Land prices reflect the attractiveness of different sites for development, and as a result including them would 'double count' the measurable criteria we have identified below. We consider business land prices when discussing housing-business interactions.

Criteria	Description	Scores	
		Industrial	Business
Access to Labour	Proximity to current and future workers	10	5
Exposure and visibility	Promotion to customers	5	10
Accessibility	Proximity to state highway network	20	10
Topography	Flat land, large land parcels for Industrial. Road frontage for businesses	20	5
Ownership	Single land ownership and potential for large sites	10	5
Reverse sensitivities	Close proximity to residential activities within 1km	20	N/A
Traffic	Low level of traffic congestion	5	5
Location to Central City	Location to Central City and other associated businesses	N/A	10
Proximity to households	Households within 5km	N/A	20
Tourism	Tourist Accommodation within 1km	N/A	10
Parking availability	Public car parking available	N/A	15
Total		**90**	**90**

Table 5.11: MCA criteria and weightings for business land feasibility

The review of feasibility criteria of vacant land identified for industrial and business capacity was for the long term.

Feasibility results

The MCA suggests that overall, most of the land available for industrial and retail use scores very well against the criteria that are likely to matter most to these businesses.

	Retail/Commercial				Industrial					
	Vacant Central City	Potential Central City	Potential Parklands Avenue	Urban Growth Area R	Vacant Waiwhakahio	Vacant Bell Block	Vacant Waitara	Vacant Inglewood	Oropuriri Structure Plan	Urban Growth Area N
Operative District Plan	5.6	24			12.7	170.8	4.4	3.8		
Draft District Plan		20.7	0.6	37.4					33.5	25.8
Labour	4	4	3	2	8	7	7	6	8	8
Exposure and Visibility	8	5	7	5	4	3	2	2	3	3
Accessibility	7	6	5	7	17	17	10	10	17	17
Topography	3	0	2	3	18	18	18	18	18	18
Ownership	4	3	4	4	2	1	1	2	2	2
Reverse sensitivities					12	15	10	9	12	12
Traffic	3	3	4	4	3	4	4	4	3	3
Location	10	9	5	2						
Proximity	12	12	12	8						
Tourism	7	7	1	0						
Parking availability	10	10	12	0						
MCA Score (max 90)	**68**	**59**	**55**	**35**	**64**	**65**	**52**	**51**	**63**	**63**

Table 5.12: Multiple Criteria Analysis of the potential Industrial and Business land

In the business sector, the 5.7 ha of current vacant business floor space located in the Central City scored the highest MCA score (68 out of a maximum of 90). This score reflects:

- Extremely good location in the Central City.

- Close proximity to households and customers.

- High visibility with a large proportion of vacant space located on the ground floor.

- Currently vacant sites that are listed to rent or own.

The largest portion of potential business floor space identified for retail and commercial growth (44.7 ha) is located in the Central City. Utilising maximum airspace (i.e. 2 to 3 storey development) has greater construction costs associated. However, it is a great location with close proximity to households and customers.

Potential industrial land is present in five units. Bell Block and Waiwhakahio contain the majority (96 percent of the district-wide total). These two locations score the highest MCA score (65 and 63 respectively out of a maximum of 90). This score reflects:

- Very low level geographic constraints – all sites are flat with easy access.

- Easy access to the State highway (SH3) network.

- Close proximity to current and future workers, especially with the future residential growth in Bell Block (Area Q).

It is important to note that a large majority of the land identified for industrial zoning is in large land parcels with single ownership. A significant portion of land identified in Bell Block is Treaty Settlement Land. This may be a limiting factor for potential future development of industrial land.

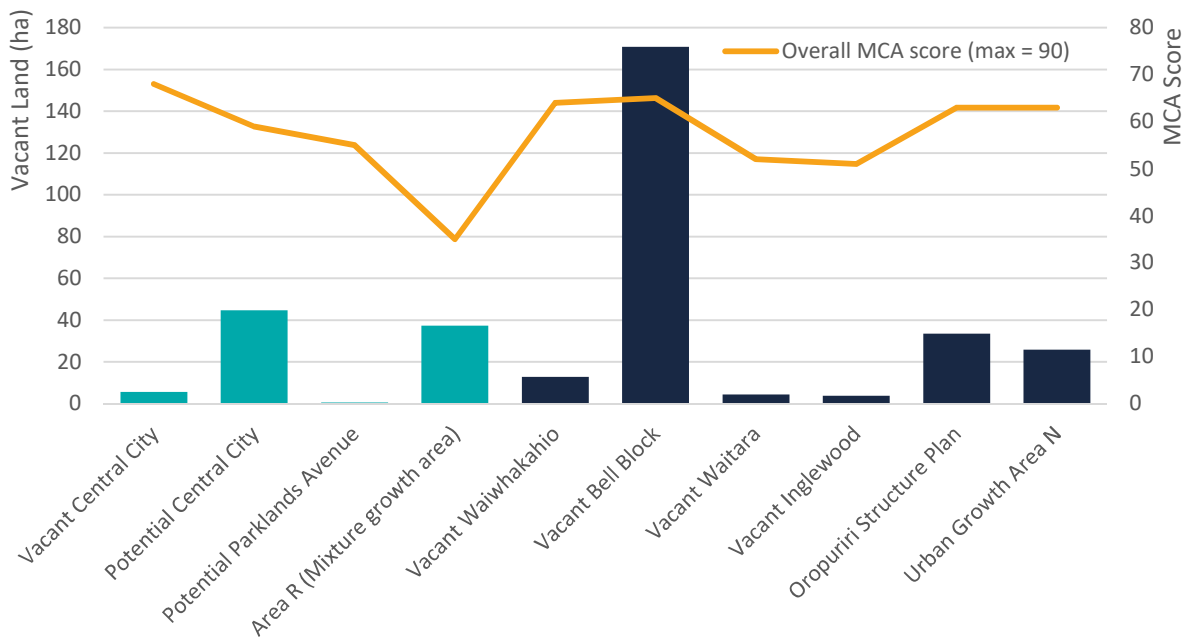The results of the MCA of industrial land are shown in the graph below.

Figure 5.12: Vacant Industrial and Business zoned land and MCA feasibility scores

6   Housing and Business Capacity Interactions

This section considers potential interaction between housing and business capacity. This includes:

- Addressing the potential for out of zone development.

- Developing a vibrant Central City with mixed zone use (Commercial, Retail and Residential).

- Demand for different activities.

6.1   Residential Activities in Business Zones

A number of business zones enable residential activities i.e the Central City environment. The Draft District Plan will control out of zone development so that land is used for its zoned purpose. It is noted that residential and short term accommodation will continue to be enabled in the Central City. To ensure we have sufficient supply for both commercial and retail capacity, we have allocated a portion of the potential floor space to each activity.

Industry	Operative District Plan	Draft District Plan
Industrial	3.7	6.9
Retail	10.9	20.3
Commercial	13.1	24.4
Other (Including Residential and Accommodation)	8.5	15.9
Total	**36.3**	**67.5**

Table 6.1 – Potential capacity in the Central City by Industry

The distribution of floor space is based on the current occupancy of New Plymouth Central City by type, with around five percent of the total space being utilised for accommodation. This potential residential land within the Central City has not been incorporated into the capacity assessment, as we are yet to understand the commercial feasibility of this land.

Having residential development within the City Centre and in the more traditional fringe locations outside of the City's core, is an important catalyst for improved vibrancy, vitality and amenity value. Residential development within the CBD will help to expand the life and hours of operation of the central area. A greater number of people living and working in New Plymouth's central area will likely result in a greater number of benefits, such as more shops and services, a greater number of exciting and innovative companies, enhanced recreational opportunities and of course, more buildings to accommodate the increase in employment. NPDC will consider City Centre land in future revisions of the HBA. The Draft District Plan aims to limit residential activities within industrial zones.

6.2   Business Activities in Residential Zones

To understand the degree to which business activities could locate in residential zones, we analysed Census data on the proportion of people employed in each industry working from home. This data captures people with home offices or construction/trades businesses based at home. Analysis of this data suggests that, although some business activities are likely to locate in residential zones, the scale of these activities is not large enough to fundamentally alter the HBA conclusions on the sufficiency of business or housing capacity.

Industry sector	Total People	Worked from home	Percentage
Agriculture, forestry and fishing	2,325	1,023	44.0%
Mining	1,098	24	2.2%
Manufacturing	4,158	114	2.7%
Electricity, gas, water and waste services	495	12	2.4%
Construction	3,129	192	6.1%
Wholesale trade	1,278	63	4.9%
Retail trade	3,480	141	4.1%
Accommodation and food services	1,860	111	6.0%
Transport, postal and warehousing	1,455	51	3.5%
Information media and telecommunications	438	30	6.8%
Financial and insurance services	768	36	4.7%
Rental, hiring and real estate services	840	144	17.1%
Professional, scientific and technical services	2,472	276	11.2%
Administrative and support services	1,035	78	7.5%
Public administration and safety	1,095	21	1.9%
Education and training	2,580	120	4.7%
Health care and social assistance	3,984	135	3.4%
Arts and recreation services	519	54	10.4%
Other services	1,458	165	11.3%
Not elsewhere included	1,344	159	11.8%
	35,811	**2,949**	**8.2%**

Table 6.2: Share of people who reported working from home in New Plymouth District, 2013Source: Statistics New Zealand Census 2013

As at 2013, 8.2 per cent of employed people work from home. One quarter of these workers are in the agriculture, forestry and fishing industries. Within urban industries, the highest shares in home employment are:

- Rental, hiring and real estate services (17.1 per cent).

- Professional, scientific and technical services (11.2 per cent).

- Arts and recreation services (10.4 per cent).

- Administration and support services (7.5 per cent).

- Information media and telecommunications (6.8 per cent).

This data suggest that office based industries are more commonly home-based than other sectors. This has two potential impacts:

- Home based employment will reduce the demand for construction of new offices. However, given that the land required per worker for office based industries is relatively small compared to land demand for other business activities, it is unlikely to have any change on projected demand or affect results.

- It will increase the demand for larger houses that include a spare room or office. This has been factored into the housing demand assessment, where the current residential development building trend is for four bedroom homes with a total house size of around 200m2.

Housing and Business Development Capacity Assessment

Overall, the demand to build larger standalone dwellings in New Plymouth means a majority of new homes already have floor space capacity to set up a small at-home businesses. Given the percentage of employees working from home, it is unlikely to affect results.

6.3   Demand for Different Activities

To assess the relative levels of demand for different business and residential activities in certain locations, we used MBIE's NPS-UDC market indicators on land price differentials across zoning boundaries.

This data shows that there is currently higher demand for residential land than for both rural and commercial/ industrial land. Also, residential land that borders on other zone boundaries has a higher land value.
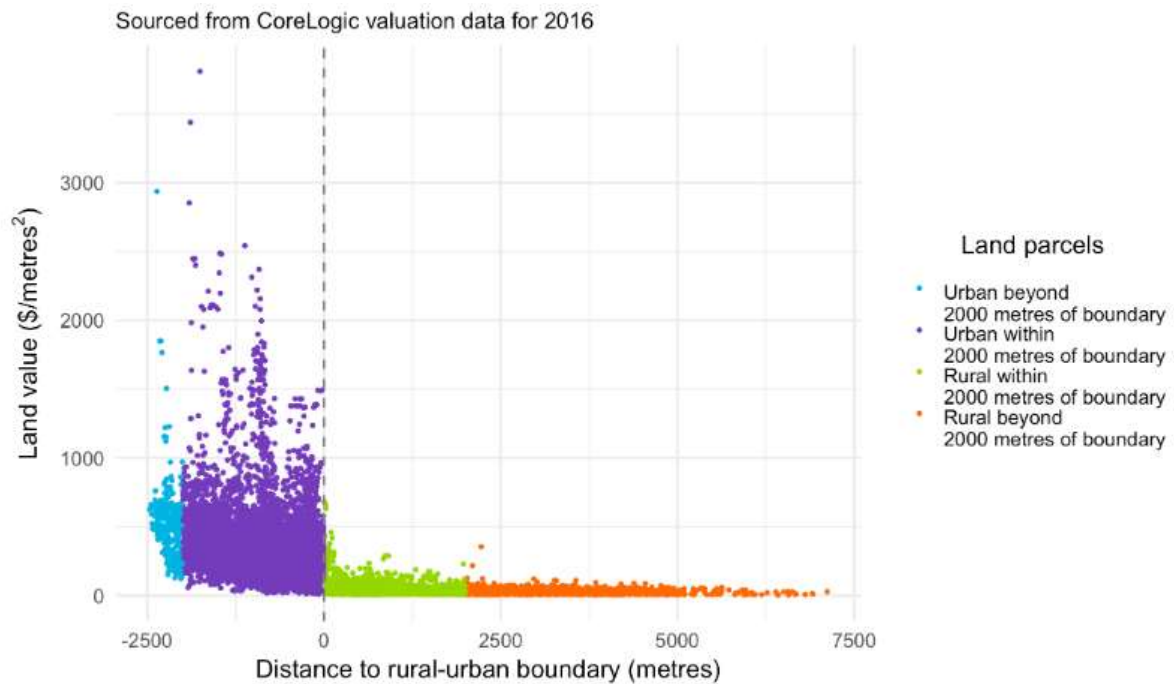

Figure 6.1 – New Plymouth: Parcel land values near rural-urban boundary

Source: MBIE Urban Development Capacity Dashboard, January 2019

The rural-urban value differential is a key indicator of whether the District Plan provides sufficient development capacity. Rural-urban value differentials have been calculated for the New Plymouth District by comparing the value of residential land 2km either side of the boundary between urban and non-urban zones, after removing non-regulatory factors affecting land values. A jump in land value where the zone changes may indicate that various land-use regulations are constraining urban development capacity.

Following removal of major non-regulatory factors affecting land values, calculations showed urban residential land close to the rural-urban boundary to be worth just over 1.61 times the value of adjoining rural land, or $92 more valuable per square meter. A rural-urban differential greater than 1 signals that zoning and/or other regulations are constraining development capacity enough to increase urban land values.

The same calculation was performed to compare the value of land situated 250m either side of the boundary between the industrial zone and 'other' zones. This data indicates an increase in land value where the residential land borders the industrial boundary.

Both of these figures indicate a higher demand for residential zoned land in the District. The District Plan review aims to address this.
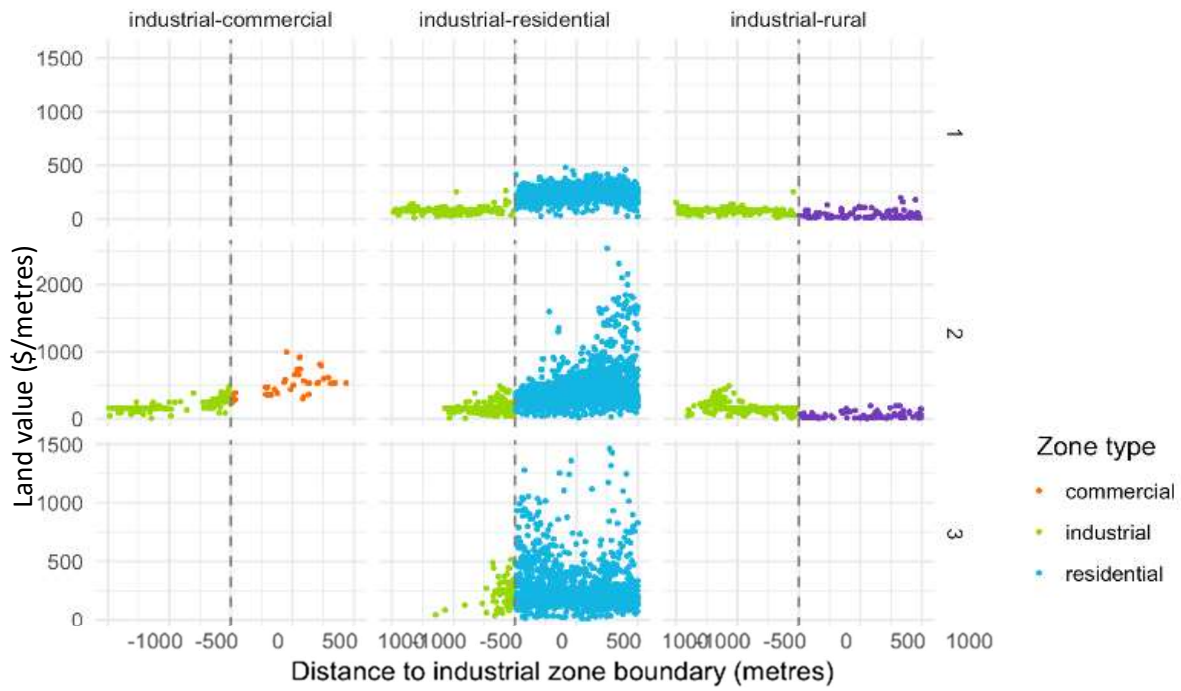

Figure 6.2 – New Plymouth: Parcel land values near selected industrial zone boundaries

Source: MBIE Urban Development Capacity Dashboard, January 2019

7 Conclusions and Policy Implications

This section outlines the key results of this assessment and highlights the potential policy implications of these findings.

7.1 Housing Capacity

There is enough plan-enabled and feasible capacity in the district to meet demand for housing in the short, medium and long term. This is provided by the Operative District Plan, the provisions in the Draft District Plan, and by infrastructure existing or identified in its LTP and IS.

The Operative District Plan does not provide enough capacity for the long term, but the Draft District Plan will. Combined, the Operative and Draft District Plans will provide a maximum capacity for between 12,400 and 21,000 new dwellings. Slightly more than half of these dwellings are feasible to build in the current market conditions. When the 15-20 per cent margin required by the NPS-UDC is included, the capacity provided in the Operative District Plan falls short by 3,900 dwellings. However the Draft District Plan provides sufficient long term capacity, with an excess capacity of 2,000 dwellings.

Demand (dwellings)	Projected dwelling Growth	Growth + NPS margin	Operative District Plan		Draft District Plan	
			Plan-enabled capacity	Feasible capacity	Plan-enabled capacity	Feasible capacity
Short Term 2018-21	1,159	1,391	✓	✓	✓	✓
Medium Term 2021-28	2,541	3,050	✓	✓	✓	✓
Long Term 2028-48	5,634	6,479	✓	✗	✓	✓
Total	**9,334**	**10,919**	**12,388**	**6,719**	**20,951**	**12,991**

Figure 7.1 – Sufficiency of housing capacity to meet demand

7.2 Business Capacity

There is sufficient plan-enabled capacity to meet demand for business land in the short, medium and long term as provided for in the Operative and Draft District Plan.

Business	Retail	Commercial	Industrial	Total	Operative District Plan	Draft District Plan
Short Term 2018-21	2.1	1.5	32.2	35.8	✓	✓
Medium Term 2021-28	2.5	4.0	82.9	89.4	✓	✓
Long Term 2028-48	5.4	3.7	77.9	87.0	✗	✓
Total	10.0	9.3	193.0	212.3	221.5	301.5

The Operative District Plan provides sufficient vacant business zoned land to meet economy-wide demands. There is sufficient vacant business zoned land at an aggregate level to meet the retail and commercial demand. There is a shortfall of plan-enabled capacity within the industrial sector in the long term. However, this is provided for in the Draft District Plan.

There are potential issues with the concentration of available industrial land located in the Bell Block/Waiwhakahio area to the east of New Plymouth. In the next review of the HBA, NPDC will consider providing additional industrial land for general industrial market use on the western side of the city to provide a more balanced industrial land network.

7.3   Policy Implications

This report highlights some issues and opportunities for consideration when developing planning responses.

The above analysis suggests that both the Operative and Draft District Plans are likely to provide sufficient capacity to meet short, medium and long term demand for housing in the New Plymouth District. The Draft District Plan introduces some increased growth in the residential boundary with future urban growth areas.

It is important to review this assessment incrementally and to take into account ongoing changes to growth (which may result in upwards or downwards revisions of housing demand estimates), and changes to housing prices and new housing development costs. Monitoring the uptake of development capacity and price changes over time will be a part of future quarterly reports.

While the district has sufficient housing capacity, the analysis is an opportunity to investigate potential future infill development and the need for intensification. Current commercial feasibility rates are fairly low and we have not assessed the potential for development in the smaller townships outside of urban New Plymouth. Future investigations will be complete before the next review of the housing and business capacity assessment in 2022.

Analysis of business demand and capacity suggests that there is sufficient zoned vacant land in both the Operative and Draft District Plans to meet economy-wide demands in the short, medium and long term.

Monitoring the uptake of industrial land will be important in identifying emerging issues such as sufficiency over the long term, or the location of most vacant industrial land capacity on the eastern side of the city. In the next HBA review, NPDC will consider providing additional industrial land for general industrial market use on the western side of the city to provide a more balanced industrial land network.

Development of the Proposed District Plan is currently underway. To successfully provide sufficient capacity to meet demand for new development and manage environmental and urban effects arising from this demand, this Plan must be implemented well. Monitoring of all demand and capacity factors will be important. It is noted that we will consider developing a Future Development Strategy following the development of the new District Plan.

8 Glossary

Term	Definition
EC	Employment Count
FDS	Future Development Strategy
HBA	Housing and Business Capacity Assessment
IS	Infrastructure Strategy
LA	Local Authority (city, district and regional councils)
LTP	Long Term Plan
GFA	Gross Floor Area
NPDC	New Plymouth District Council
NPS	National Policy Statement
NPS-UDC	National Policy Statement on Urban Development Capacity
PFI	Potential Future Industrial
RMA	Resource Management Act
RPS	Regional Policy Statement
SNZ	Statistics New Zealand
SQM	Square meters
TA	Territorial Authority (city and district councils)
TRC	Taranaki Regional Council
UDS	Urban Development Strategy

Acronyms

Acronym	Definition
CBD	Central Business District
EC	Employee Count
FDS	Future Development Strategy
FUD	Future Urban Development
GDP	Gross Domestic Product
GFA	Gross Floor Area
HAM	Housing Affordability Measure
HBA	Housing and Business Capacity Assessment
HNZ	Housing New Zealand
IS	Infrastructure Strategy
LTP	Long Term Plan
MBIE	Ministry Business Innovation and Employment
MCA	Multiple Criteria Analysis
NPDC	New Plymouth District Council
NPS-UDC	National Policy Statement – Urban Development Capacity
SQM	Square meter
TRC	Taranaki Regional Council
UGA	Urban Growth Area

Appendix 1

NPS-UDC Purpose and Requirements

The NPS-UDC comprises national direction under the Resource Management Act, Introduced at the end of 2016, to recognise the national significance of:
   a) Urban environments and the need to enable such environments to develop and change
   b) Providing sufficient development capacity to meet the needs of people and communities and future generations in urban environments.

Requirements

OB1: A robustly developed, comprehensive and frequently updated evidence base to inform planning decisions in urban environments.

PB1: Local authorities shall, on at least a three-yearly basis, carry out a housing and business development capacity assessment that:
   a) Estimates the demand for dwellings, including the demand for different types of dwellings, locations and price points, and the supply of development capacity to meet that demand, in the short, medium and long-terms; and
   b) Estimates the demand for the different types and locations of business land and floor area for businesses, and the supply of development capacity to meet that demand, in the short, medium and long-terms; and
   c) Assesses interactions between housing and business activities, and their impacts on each other.

Local authorities are encouraged to publish the assessment under policy PB1.

PB2: The assessment under policy PB1 shall use information about demand including:
   a) Demographic change using, as a starting point, the most recent Statistics New Zealand population projections;
   b) Future changes in the business activities of the local economy and the impacts that this might have on demand for housing and business land; and
   c) Market indicators monitored under PB6 and PB7.

PB3: The assessment under policy PB1 shall estimate the sufficiency of development capacity provided by the relevant local authority plans and proposed and operative regional policy statements, and Long Term Plans and Infrastructure Strategies prepared under the Local Government Act 2002, including:
   a) 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;
   b) The actual and likely availability of development infrastructure and other infrastructure in the short, medium and long term as set out under PA1;
   c) The current feasibility of development capacity;
   d) The rate of take up of development capacity, observed over the past 10 years and estimated for the future; and
   e) The market's response to planning decisions, obtained through monitoring under policies PB6 and PB7.

PB4: The assessment under policy PB1 shall estimate the additional development capacity needed if any of the factors in PB3 indicate that the supply of development capacity is not likely to meet demand in the short, medium or long term.

PB5: In carrying out the assessment under policy PB1, local authorities shall seek and use the input of iwi authorities, the property development sector, significant land owners, social housing providers, requiring authorities, and the providers of development infrastructure and other infrastructure.

PB6: To ensure that local authorities are well-informed about demand for housing and business development capacity, urban development activity and outcomes, local authorities shall monitor a range of indicators on a quarterly basis including:

a) Prices and rents for housing, residential land and business land by location and type; and changes in these prices and rents over time;
b) The number of resource consents and building consents granted for urban development relative to the growth in population; and
c) Indicators of housing affordability.

PB7: Local authorities shall use information provided by indicators of price efficiency in their land and development market, such as price differentials between zones, to understand how well the market is functioning and how planning may affect this, and when additional development capacity might be needed. Local authorities are encouraged to publish the results of their monitoring under policies PB6 and PB7.

Appendix 2

Retail Expenditure Methodology

This overview outlines the methodology that has been used to estimate retail expenditure generated at Census Area Unit (CAU) level for the identified catchment out to 2038.

CAU 2013 Boundaries
All analysis has been based on Census Area Unit 2013 boundaries, the most recent available.

Permanent Private Households (PPH) 2013
There are the total Occupied Households as determined by the Census 2013. PPHs are the primary basis of retail spend generation and account for approximately 71% of all retail sales. PPHs have regard for (exclude) the proportion of dwellings that are vacant at any one time in a locality, which can vary significantly, and in this respect account for the movement of some domestic tourist.

Permanent Private Household Forecast 2006-2038
These are based on Statistics NZ Census Area Unit (CAU) Medium-high Series Population Growth Projections and have been adjusted to account for residential building consent activity occurring between 2006 and 2018, with this extrapolated to the year of concern. This account for the movement of some domestic tourists.

International Tourist Spend
The total international tourism retail spend had been derived from the Ministry of Economic Development Tourism Strategy Group (MEDTSG) estimates nationally. This has been distributed regionally on a 'spend per employee' basis, using regional spend estimates prepared by the MEDTSG. Domestic and business based tourism spend is incorporated in the employee and PPH estimates. Employee are the preferred basis for distributing regional spend geo-spatially as tourists tend to gravitate towards areas of commercial activity, however they are very mobile.

Total Tourist Spend Forecast
Growth is conservatively forecast in the model at 2% per annum for the 2015-2038 period.

2013-2038 PPH Average Household Retail Spend
This has been determined by analysing the national relationship between PPH average household incomes (by income bracket) as determined by the 2013 Census, and the average PPH expenditure of retail goods (by income bracket) as determined by the Household Economic Survey (HES) prepared by Statistics NZ.

While there are variables other than household income that will affect retail spending levels, such as wealth, access to retail, population age, household types and cultural preferences, the effects of these are not able to be assessed given data limitations and have been excluded from these estimates.

Real Retail Spend Growth (excl. trade-based retailing)
Real retail spend growth has been factored in at 1% per annum. This accounts for the increasing wealth of the population and the subsequent increase in retail spend. The following explanation has been provided.

Retail spend is an important factor in determining the level of retail activity and hence the 'sustainable amount' of retail floorspace for a given catchment. For the purposes of this outline 'retail' is defined by the following categories:

- Food Retailing
- Footwear
- Clothing and Softgoods
- Furniture and Floor coverings
- Appliance Retailing
- Chemist
- Department Stores
- Recreational Goods
- Cafes, Restaurants and Takeaways
- Personal and Household Services
- Other Stores

These are the retail categories as currently defined by the ANZSIC codes (Australia New Zealand Standard Industry Classification).

Assessing the level and growth of retail spend is fundamental in planning for retail networking and land use within a regional network.

Internet Retail Spend Growth
Internet retailing within New Zealand has seen significant growth over the last few decades. This growth has led to an increasing variety of business structures and retailing methods including: internet auctions, just-in-time retailing, online ordering, virtual stores, etc.

As some of internet spend is being made to on-the-ground stores, a proportion of internet expenditure is being represented in the Statistics NZ Retail Trade Survey (RTS) while a large majority remains unrecorded. At the same time this expenditure is being recorded under the Household Economic Survey (HES) as a part of household retail spending, making the two datasets incompatible. For this reason, Property Economics has assumed a flat 5% adjustment percentage on HES retail expenditure, representing internet retailing that was never recorded within the RTS.

Additionally, growth of internet retailing for virtual stores, auctions and overseas stores is leading to a decrease in on-the-ground spend and floor space demand. In order to account for this, a non-linear percentage decrease of 2.5% in 2018 growing to 10% by 2038 has been applied to retail expenditure encompassing all retail categories in our retail model. These losses represent the retail diversion from on-the-ground stores to internet-based retailing that will no longer contribute to retail floor space demand.

Retail Spend Determinants
Retail Spend for a given area is determined by: the population, number of households, size and composition of households, income levels, available retail offer and real retail growth. Changes in any of these factors can have a significant impact on the available amount of retail spend generated by the area. The coefficient that determines that level of 'retail spend' that eventuates from these factors is the MPC (Marginal Propensity to Consume). This is how much people will spend of their income on retail items. The MPC is influenced by the amount of disposable and discretionary income people are able to access.

Retail Spend Economic Variables
Income levels and household MPC are directly influenced by several macroeconomic variables that will alter the amount of spend. Real retail growth does not rely on the base determinants changing but a change in the financial and economic environment under which these determinants operate. These variables include:

Interest Rates: Changing interest rates has a direct impact upon households' discretionary income as a greater proportion of income is needed to finance debt and typically lowers general domestic business activity. Higher interest rates typically lower real retail growth.

Government Policy (Spending): Both Monetary and Fiscal Policy play a part in domestic retail spending. Fiscal policy, regarding government spending, has played a big part recently with government policy being blamed for inflationary spending. Higher government spending (targeting on consumer goods, direct and indirectly) typically increases the amount of nominal retail spend. Much of this spend does not, however, translate into floor space since it is inflationary and only serves to drive up prices.

Wealth/Equity/Debt: In the early-mid 2000s this had a dramatic impact ohe level of retail spending nationally. The increase in property prices has increased home owners' unrealised equity in their properties. This has led to a significant increase in debt-funded spending, with residents borrowing against this equity to fund consumable spending. This debt spending is a growth facet of New Zealand retail. In 1960 households saved 14.6% of their income, while households currently spend 14% more than their household income.

Inflation: As discussed above, this factor may increase the amount spent by consumers but typically does not dramatically influence the level of sustainable retail floor space. This is the reason that productivity levels are not adjusted but similarly inflation is factored out of retail spend assessments.

Exchange Rate: Apart from having a general influence over the national balance of payments accounts, the exchange rate directly influences retail spending. A change in the $NZ influences the price of imports and therefore their quantity and the level of spend.

Mandatory Expenses: The cost of goods and services that are necessary has an impact on the level of discretionary income that is available from a household's disposal income. Important factors include housing costs and oil prices. As these increase the level of household discretionary income drops reducing the likely real retail growth rate.

Current and Future Conditions

Retail spend has experienced a significant real increase in the early-mid 2000s. This was due in large part to the increasing housing market. Although retail growth is tempered or crowded out in some part by the increased cost of housing it showed massive gains as home owners, prematurely, accessed their potential equity gains. This resulted in strong growth in debt / equity spending as residents borrow against capital gains to fund retail spending on consumption goods. A seemingly strong economy also influenced these recent spending trends, with decreased employment and greater job security producing an environment where households were more willing to accept debt.

In 2008 this reversed when the worldwide GFC recession took hold, while over recent years an economic recovery has emerged. As such, the economic environment has undergone rapid transformation. The national market is currently experiencing low interest rates (although expected to increase over the short term) and an inflated $NZ (increasing importing however disproportionately). The recent rebound in the property market and an increase in general business confidence as the economy starts to recover from the post -GFC hangover. These factors will continue to influence retail spending throughout the next 5 or so years. Given the previous years (pre-2008) substantial growth and high levels of debt repayment likely to be experienced by New Zealand households it is expected that real retail growth rates will continue to be subdued for the short term.

Impacts of Changing Retail Spend

At this point in time a 1% real retail growth rate is being applied by Property Economics over the longer term 20-year period. This rate can be highly volatile however and generally falls within the range of 0.5%-2.0%. It is considered prudent in the shorter term to be conservative with regard to the level of sustainable retail floor space within given centres and as the economy stabilises and experiences cyclical growth longer term rates might be slightly higher.

Business Spend 2013

This is the total retail spend generated by businesses. This has been determined by subtracting PPH retail spend and Tourist retail spend from the Total Retail Sales as determined by the Retail Trade Survey (RTS) which is prepared by Statistics NZ. All categories are included with the exception of accommodation and automotive related spend. In total, Business Spend accounts for 26% of all retail sales in NZ. Business spend is distributed based on the location of employees in each Census Area Unit and the national average retail spend per employee.

Business Spend Forecast 2013-2038

Business spend has been forecasted at the same rate of growth estimated to be achieved by PPH retail sales in the absence of reliable information on business retail spend trends. It is noted that while working age population may be decreasing as a proportion of total population, employees are likely to become more productive over time and therefore offset the relative decrease in the size of the total workforce.

Appendix 3

Growth Projects

Growth Project Description	Value $000	Area	Year Planned
Waiwhakaiho Bridge	$16,000	Smart Road	2029-37
Universal Water Metering	$15,189	District Wide	2022-24
Smart Road Trunk Main	$12,500	Smart Road	2032-33
Eastern Sewer Network Realignment	$8,599	Area Q and N	2021
Mountain Rd & Henwood Rd Reservoirs	$7,434	District Wide	2018-19
Subsidised Augmentation and Renewals	$6,218	District Wide	2018-28
Let's Go Model Communities	$5,192	District Wide	2018-28
Roads Land purchase as per District Plan and rural widening	$5,024	District Wide	2018-28
Smart Road Trunk Main	$5,000	Smart Road	2028-30
Duplicate WTP Outlet and Central Feeder	$4,184	District Wide	2020
Smart Road Reservoir	$4,000	Smart Road	2028
Mangatoku Stormwater Upgrades	$3,576	District Wide	2020
Smart Road/SH3 Intersection Upgrade	$3,535	Smart Road	2025
Eastern Feeder Stage 2	$3,526	District Wide	2023-24
Eastern Feeder Stage 1	$3,474	District Wide	2021
Airport Drive Realignment and Intersections	$3,429	Area Q	2021
Waimea Valley Sewer Extension	$3,000	Frankley/Cowling	2028-29
Provision of Transport Services For Subdivisions In Unservie	$2,344	District Wide	2018-28
Park Development - Area Q Growth Area	$2,067	Area Q	2019-26
Wastewater Network Modelling	$1,514	District Wide	2018
Land Purchase - Area Q	$1,486	Area Q	2019-25
Stormwater Master Plan	$1,473	District Wide	2020
Esplanade & Local Reserve Land Purchase as per DP	$1,340	District Wide	2018-28
Parks Development in Smart Rd Area	$1,300	Smart Road	2030-31
Upper Carrington Road Widening	$1,255	Upper Carrington	2020-27
Infulent Buffer Lagoon	$772	District Wide	2019
Wairau/South Road Roundabout - Oakura	$645	Oakura	2021
Provision of Stormwater Services For Subdivisions In Unservie	$558	District Wide	2018-28
Provision of Sewer Services For Subdivisions In Un-Serviced	$558	District Wide	2018-28
Provision of Water Services For Subdivisions In Un-Serviced	$558	District Wide	2018-28
Waitaha Stream Underpass Area Q	$430	Area Q	2021
Land Purchase - Upper Carrington Growth Area	$365	Upper Carrington	2020-28
Water Pump Station - Upper Carrington Growth Area	$309	Upper Carrington	2019
Junction Growth Area Sewer Upgrade Thames	$275	Junction Stage 1	2022
Wastewater Model Build and Update	$254	District Wide	2019-28
Land Purchase - Junction Growth Area	$236	Junction Stage 1	2023-28
Upgrading of Huatoki Valley Sewer Main	$206	Upper Carrington	2019
Contribution Area Q - excludes the Waitaha Underpass	$182	Area Q	2018
Water Model Build and Update	$168	District Wide	2018-28
Stormwater Model Updates	$161	District Wide	2021-28
Future Growth Inglewood - Pathway Developments	$128	Inglewood	2021-28
Esplanade Reserve Land Purchase - Inglewood	$110	Inglewood	2021-28
Te Henui Fibre Connection	$103	District Wide	2019
	$128,674		

Appendix 4

Residential Feasible Capacity Modelling

A high-level overview of the model utilised in determining the feasible residential capacity for New Plymouth is outlined in the flow chart in the Figure below, with detailed descriptions of each stage of the process given following.

Property Economics Residential Feasibility Model Overview
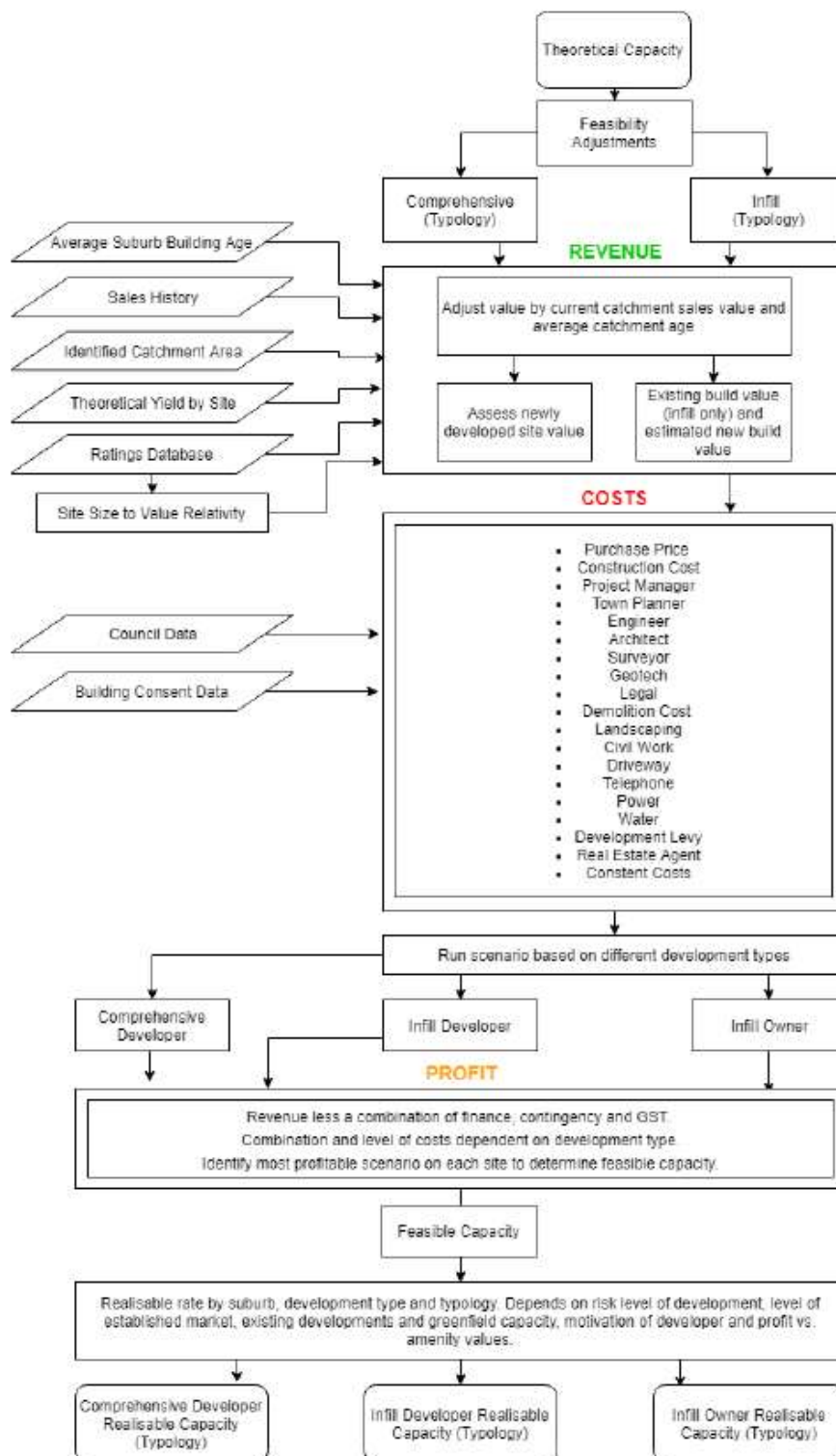
Land and Improvement Value per SQM

Using the ratings database provided by New Plymouth District Council, the land value per sqm and improvement value per sqm is calculated. This is then summarised by CAU, size and typology to give the average per sqm value for various types of dwellings.

By splitting the valuation in to land and improvement value, it accounts for variations of both sizes e.g. a large dwelling on a small piece of land compared to the same size dwelling on a larger piece of land.

Values are not the same across each CAU, and thus it is required to give the per sqm value for each CAU individually. Also, the per sqm rate for land and improvement value are shown not to be consistent across all sizes. For example, a larger dwelling has on average a lower per sqm improvement value than a smaller one. This inverse relationship between size and per sqm value is the same for both land value per sqm and building value per sqm.

Average CAU Age

Using the same ratings database, the average age of dwellings is determined for each CAU. This is undertaken in order to adjust the building value for each CAU based on values of houses from each decade. The data shows that there is a relationship between the age of a building and its per sqm improvement value. Therefore, finding the average age in a CAU allows the building values to be appropriately adjusted. Note, this adjustment was performed in 'bands', with decades updated accordingly, rather than applying an average across the CAU.

Sales vs Capital Value (CV)

A statistically significant sample dataset of recent sales in New Plymouth was used to find the difference between the average sales price and the most recent valuation. This is to ensure the capacity modelling utilises the most up to date values data critical to the determination of current day feasible capacity.

Given the nominal level of sales over this period of time in New Plymouth, it was deemed appropriate to supplement this dataset with site-specific updated valuation samples for each CAU. Based on a representative sample from each CAU in New Plymouth, the average increase of sales price over the recent valuation is then determined. There exists a relationship between the CAU and this average increase, and thus the percentage increase is expressed per CAU. This average increase of sales over CV is then applied in the model to update the valuations to reflect current market value.

Construction Costs

Constructions costs for new dwellings were found by analysing the value of recent building consents granted within New Plymouth. The historical building consent data shows that the average value of building consents varies across CAU within New Plymouth, indicating the variety of product quality that is built.
Because of this, a table of average building consent per sqm by CAU was extracted from the building consent data in order to represent the average construction costs in a CAU. This is then used in the model as the construction costs of building a new dwelling.

Appendix 5

Residential Feasible Capacity Outputs

Property Economics has assessed the variables outlined above in the New Plymouth market and run feasible capacity models across the range of locations, land values, improvement values, and land value changes. A key component of the market's willingness to develop infill is the relationship between a site's land value, fixed subdivision costs and the identifiable 'uptake' in value (sqm) through subdivision.

The tables below outline a summary of the number of potential sections on sites where the ratios meet a profit level suitable to meet market expectations (20% for the purpose of this analysis).

The first table shows the feasible capacity assuming the subdivision is undertaken by a developer, with profits calculated accordingly, whereas next Table represents the subdivision undertaken by an owner occupier. This is an important difference as motivations and capital outlay are often different. Both tables have removed all 'double ups' i.e. where multiple instances were tested on a specific site and represent the most profitable scenario for that site.

Area Unit	Developer Feasible Capacity	Feasibility Rate
Barrett	-	0%
Bell Block	-	0%
Bowden	-	0%
Carrington	-	0%
Fernleigh	-	0%
Fitzroy	68	19%
Frankleigh	-	0%
Glen Avon	-	0%
Highlands Park	19	5%
Kawaroa	49	14%
Lynmouth	12	3%
Marfell	-	0%
Marsland Hill	35	13%
Merrilands	15	5%
Moturoa	35	7%
Mount Bryan	8	8%
New Plymouth Central	6	17%
Paraite	21	78%
Spotswood	2	1%
Struan Park	36	4%
Upper Westown	-	0%
Welbourn	2	1%
Westown	7	2%
Grand Total	**315**	**5%**

Based on the feasibility modelling outlined above, there is feasible capacity for 315 infill standalone units within the New Plymouth market if the developments were to be undertaken by developers, representing a 5% feasibility rate on the theoretical infill capacity.

Area Unit	Owner Feasible Capacity	Feasibility Rate
Barrett	-	0%
Bell Block	10	2%
Bowden	-	0%
Carrington	15	50%
Fernleigh	71	47%
Fitzroy	216	59%
Frankleigh	11	2%
Glen Avon	6	4%
Highlands Park	151	42%
Kawaroa	121	34%
Lynmouth	55	15%
Marfell	1	0%
Marsland Hill	109	40%
Merrilands	55	19%
Moturoa	96	19%
Mount Bryan	21	20%
New Plymouth Central	7	19%
Paraite	27	100%
Spotswood	23	9%
Struan Park	173	21%
Upper Westown	49	17%
Welbourn	25	12%
Westown	43	15%
Grand Total	1,285	20%

If developments were to be undertaken by owner occupiers, there is then potential for 1,285 infill standalone units within the New Plymouth market. All sites that return a profit from an owner occupier also return a profit for a developer, and therefore the second table represents the total feasible capacity in the market – where both scenarios are tested. This level of feasible capacity represents a 20% feasibility rate on the theoretical infill capacity, 15% above the capacity by developers alone.

Housing and Business Development Capacity Assessment

Appendix 6

Business Classifications

Property Economics utilises the 2006 Australian and New Zealand Standard Industrial Classifications (ANZSIC) as guidance, whereby businesses are assigned an industry according to their predominant economic activity.

A proportion of employees coded within industrial categories can work within other more commercial (office) arms of a business in other locations, i.e. employees in the sales branch of electoral companies are coded in the electricity, gas, water and waste services. Despite being in the industrial industry, these employees are technically not industrial employees, and as such[JR1].

For planning purposes commercial and industrial employees are those working on zoned business land corresponding to their respective sector. Often this is not the case, whereby activities such as hospitals, schools, police services , etc. are classified under commercial services focussed sectors but are typically not zoned as such. For this reason Property Economics has divided these classifications into industrial, commercial, retail and special land zonings by the local authorities.

Industrial activities in general refer to land-*extensive* activities. It includes part of the primary sector, largely raw material extraction industries such as mining and farming: the secondary sector, involving refining, construction, and manufacturing: and part of the tertiary sector, which involves distribution of manufactured goods. The employees working for the following sectors are considered an industrial sector employee:

- 10% of Agriculture, Forestry and Fishing
- 10% of Mining
- Transport, Postal and Warehousing
- Manufacturing
- 30% Electricity, Gas, Water and Waste Services
- Construction
- Wholesale Trade

Commercial activities generally refer to land-*intensive* activities. It includes a large proportion of the tertiary sector of an economy, which deals with services: and the quaternary sector, focusing on technological research, design and development. The employees working for the following sectors are considered a commercial sector employee:

- 15% of Accommodation and Food Services
- Information Media and Telecommunications
- Financial and Insurance Services
- Rental, Hiring and Real Estate Services
- Professional, Scientific and Technical Services
- Administrative and Support Services
- 35% Public Administration and Safety
- 15% Education and Training
- 25% Health Care and Social Assistance
- 25% Arts and Recreation Services

Retail Activities generally refer to units mainly engaged in the purchase and on-selling of goods, without significant transformation, to the general public. Retail units generally operate from premises located and designed to attract a high volume of walk-in customers, have an extensive display of goods, and/or uses mass media advertising designed to attract customers.

Cafes, bars and restaurants have also been included as part of Retail Activities and include units mainly engaged in providing food and beverage-servicing services for consumption on the premises. Customers generally order and are served while seated (i.e. waiter/waitress service) and pay after eating. The employees working for the following sectors are considered a commercial sector employee:

- 85% of Accommodation and Food Services
- Retail Trade

Other Activities constitutes the balance of total employment within an area, and is not defined by any particular business sector. It encompasses community activities such as Museum Operations, Universities, Hospitals, Schools, Sports grounds and other activities not typically located on commercial or industrial land.

Appendix 7

Business Employment Growth Breakdown
A further breakdown of business employment growth.

Retail Employment Growth
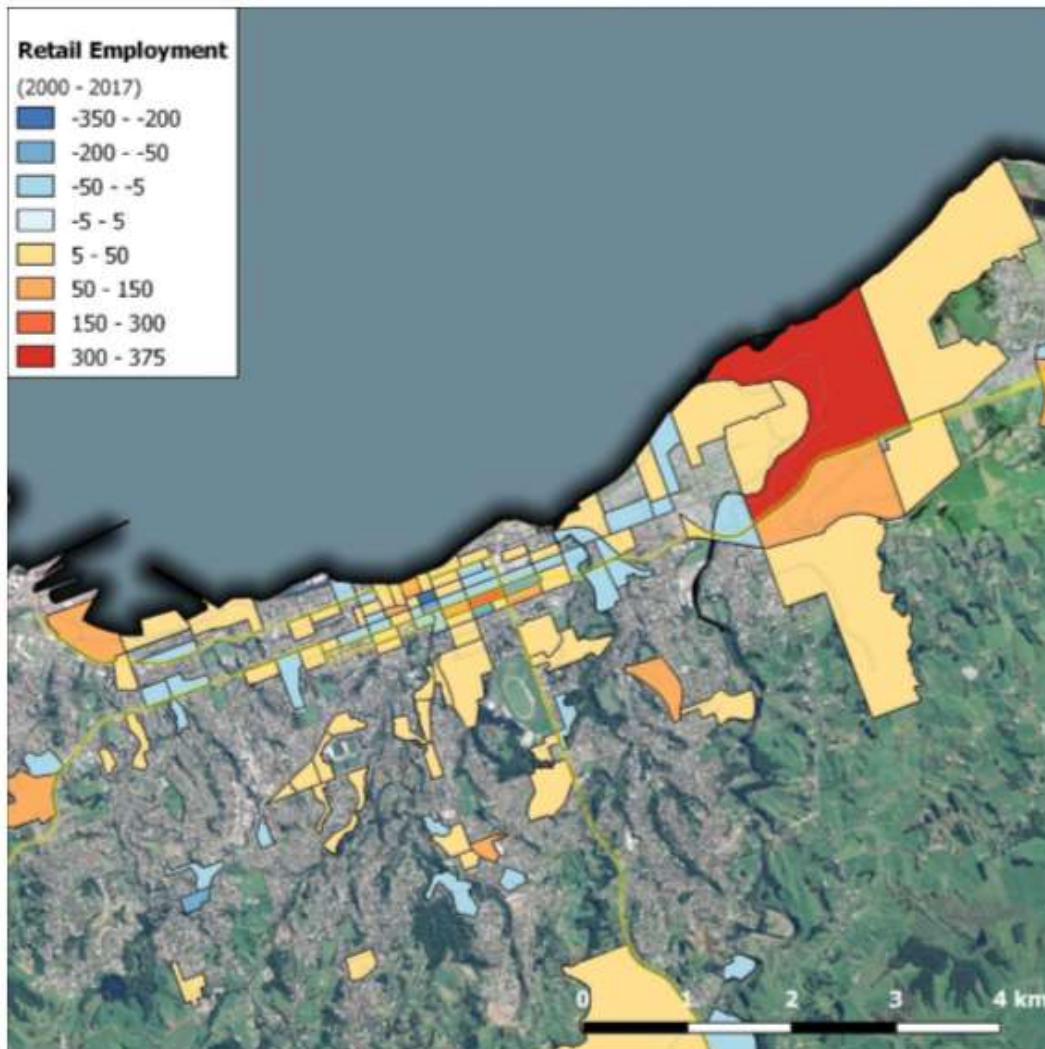
New Plymouth CBD Retail Employment Growth (2000-2017)

As illustrated above, the CBD core is experiencing net retail employment leakage with negative growth of nearly 25% (340 people nominally) from 2000 – 2017 to a total employment count of fewer than 1,100 people.

The CBD fringe has seen an increase in retail employment of almost 0.4 per cent, 490 people nominally) over the assessed period, and surpassed total CBD core employment with a total of 1,770 people as at 2017.

Most centres outside of the CBD (with the exception of Hurdon and Fitzroy) have seen an increase in retail activity from 2000-2017. This indicates that there is a trend of retail activity locating in centres outside of the CBD and spreading out over the District.

Outside of the city centre retail employment has also experienced growth with retail employment increasing by around 60% (or almost 700 people nominally) from 2000-2017. This suggests that, not

only is retail activity leaking from the CBD core and spreading to other centres in the District, it is also spreading to areas outside of these centres. This is a key issue the District plans to address with a policy response in the Draft District Plan.

Commercial Employment Growth

At a District level, it is clear that changes in commercial employment are concentrated in the CBD and in surrounding centres, however there is also a trend of growth in commercial employment spreading away from the CBD and into surrounding centres such as Oakura and Inglewood.
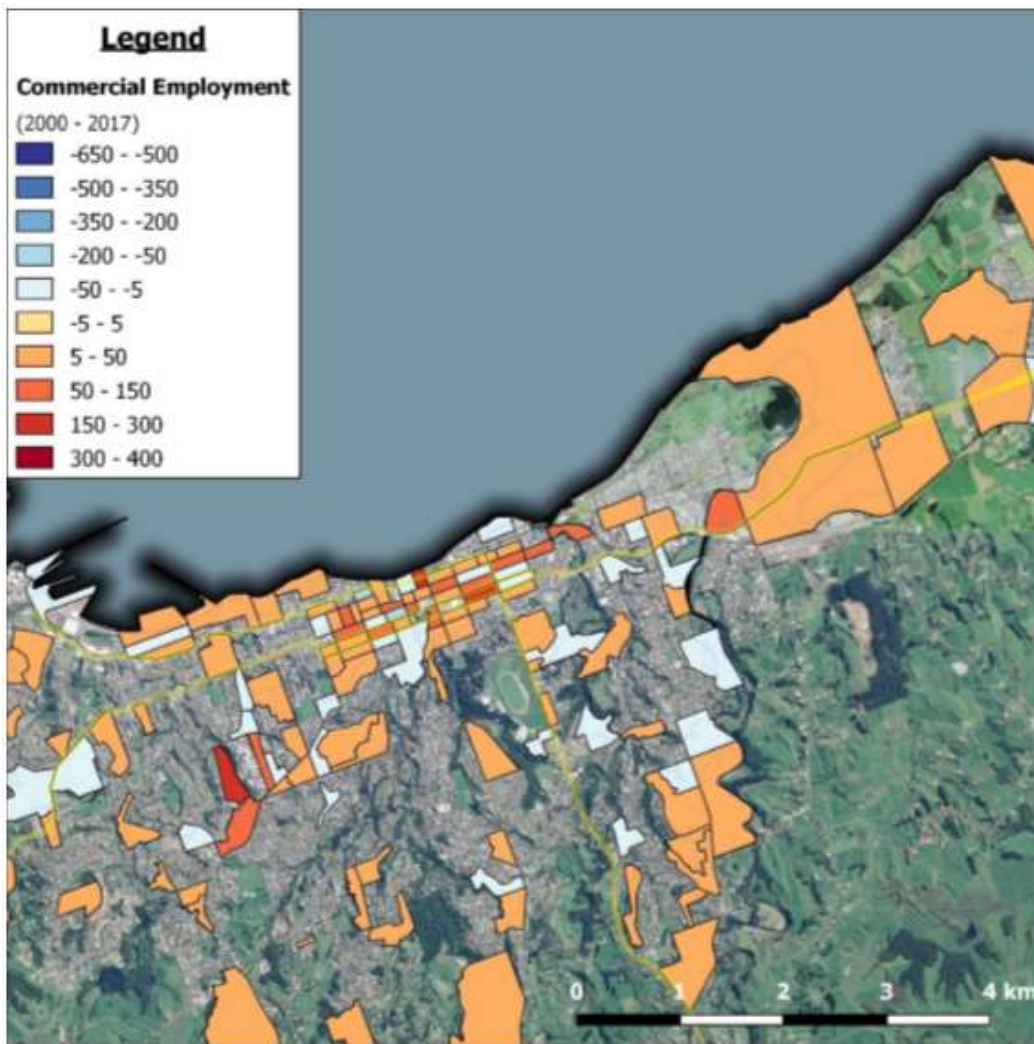
New Plymouth CBD Commercial Employment Growth (2000-2017)

New Plymouth CBD core has experienced negative growth of than -24% in commercial office employment (equating to around 460 people nominally net) over the assessed period. This CBD core totalled close to 1,500 people employed in 2017.

The CBD fringe on the other hand has experienced high growth of over 60% (or almost 900 people nominally) in commercial sector employment over the forecast period. Employment numbers in the CBD fringe surpassed employment numbers in the CBD core equating to a total of nearly 2,400 in 2017. This indicates that commercial office activity is increasingly being located outside of the CBD core (i.e. dispersing to the wider Central City area).

Housing and Business Development Capacity Assessment

Over two thirds of the centres located outside of the CBD have seen positive growth in commercial employment and 40% of total centres outside of the CBD have experienced growth rates over 80%. This is significantly higher than CBD core negative growth or the CBD fringe with a growth rate of around 60%. This highlights a trend in commercial activity increasingly moving away from the CBD towards surrounding centres.

It is also important to note that out of surrounding centres commercial activity has also seen significant growth over the period of nearly 80%, indicating that commercial activity is not only spreading out into centres outside of the CBD, but also to areas located outside of commercial centres altogether. For economic reasons this is a key issue to address in the District Plan.

Industrial Employment Growth
The industrial employment trends for the New Plymouth market cover the 2000-2017 period. These figures have been based on Statistics New Zealand Business Demographic data and have been distributed according to ANZSIC[21] industrial employment categories.
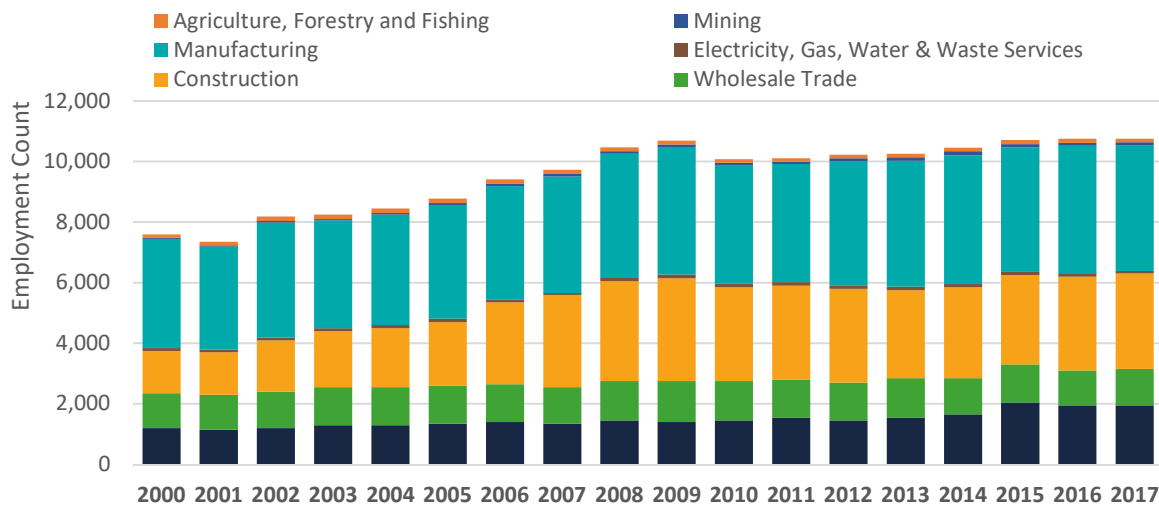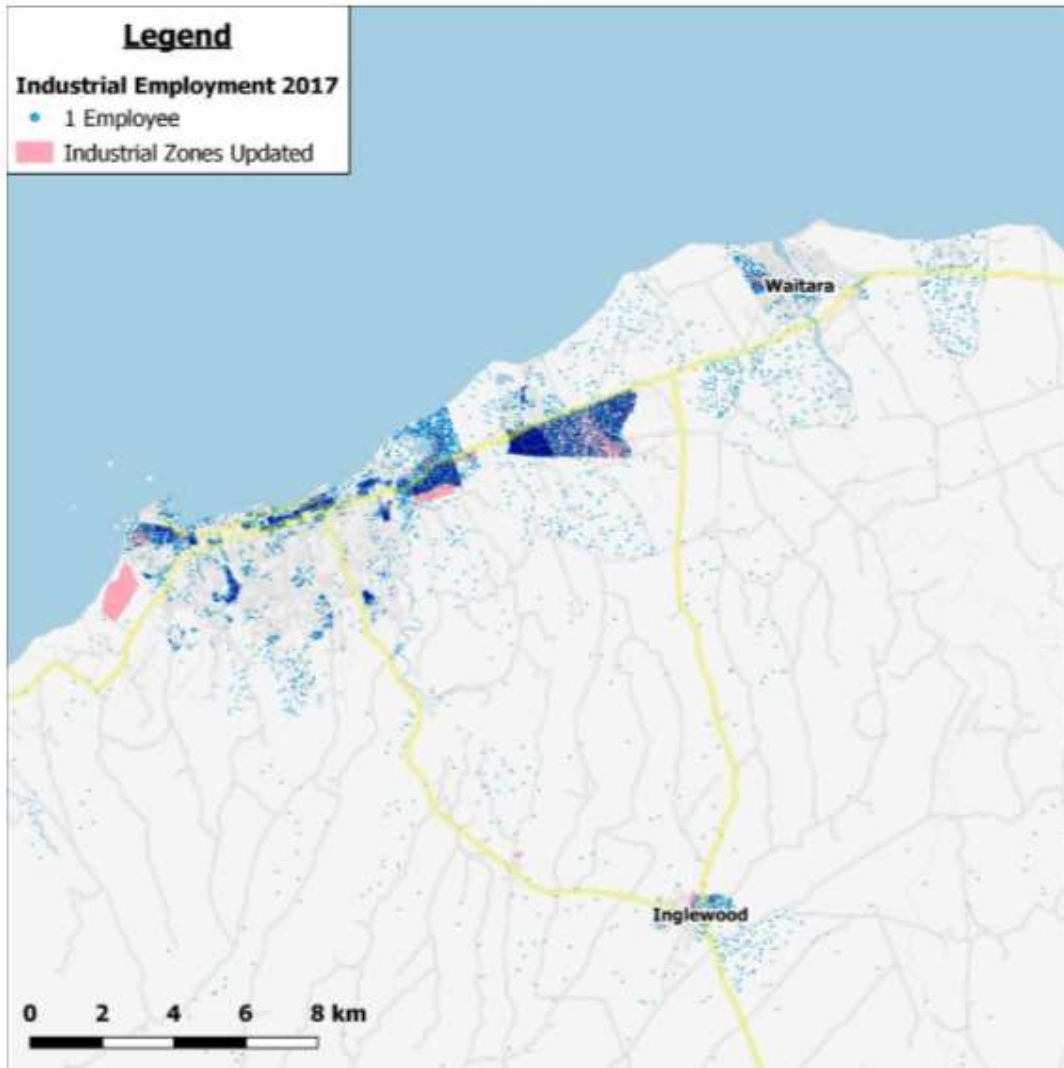

Industrial Employment Trends

Nationally and globally, the years between 2000 to 2008 represented a period of strong economic growth and performance (a 'boom' period), while the period 2008-2010 represents the early years of market correction due to the fallout from the Global Financial Crisis (GFC), and is a period of sustained growth slow down (a 'bust' period). The 2011-2017 period is a reflection of the business markets readjusting to the 'new post-GFC normal' with employment movements being relatively stagnant in the beginning of this period before trending upwards during the recovery phase from the GFC with net employment trending upwards near the tail end of this period.

Over the 2000-2017 period, the New Plymouth industrial employment base has experienced a net employment increase of around 3,160 industrial employees since the 2000 base year. In general, New Plymouth's net industrial employment base has experienced a trend of steady albeit comparatively low growth over the 2000-2017 period. It is only in the last three years that the District's industrial employment base has returned to 2009 peak levels.

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[21] Australia New Zealand Standard Industrial Classification

Industrial Employment Distribution

The following diagram represents the current distribution of industrial employment within the New Plymouth market as at 2017. This helps to establish a geospatial baseline of industrial composition in New Plymouth, and identify areas or 'nodes' of concentrated industrial employment. Each blue dot represents an industrial employee with overlapping points (higher employment density) intensifying in colour. It provides a high-level view of the industrial employment clustering occurring within the district and areas where industrial activity is most prevalent.

Industrial Employment Distribution – New Plymouth District

The District's industrial activity has higher concentrations of employment in the central city (generally for historic reasons with many businesses operating from industrial premises for many years and also as a reflection of older District Plan zonings), and the eastern side of the city.

There are some smaller industrial employment areas scattered around suburban New Plymouth, while the western half of the city is dominated by Port employment and associated industrial activities.

Waitara and Inglewood both have a robust industrial employment base given the smaller size (comparably) of their communities.

Appendix 8

Height Management Areas

Analysis of Draft Height Management Areas
VS
Operative Environmental Areas Building Heights