Martha Mine Land Supply Assessment

August 2022

Prepared for Oceana Gold (New Zealand) Ltd

DISCLAIMER

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DOCUMENT CONTROL

Document ID: 004-2022-21024

Code	Date	Version	Author
04	August 2022	Final	John Polkinghorne **Consultant**

WAI-986-000-REP-LC-0006_A.1
TECHNICAL REPORT
MARTHA MINE LAND SUPPLY ASSESSMENT – AUGUST 2022
GENERAL AREA 000

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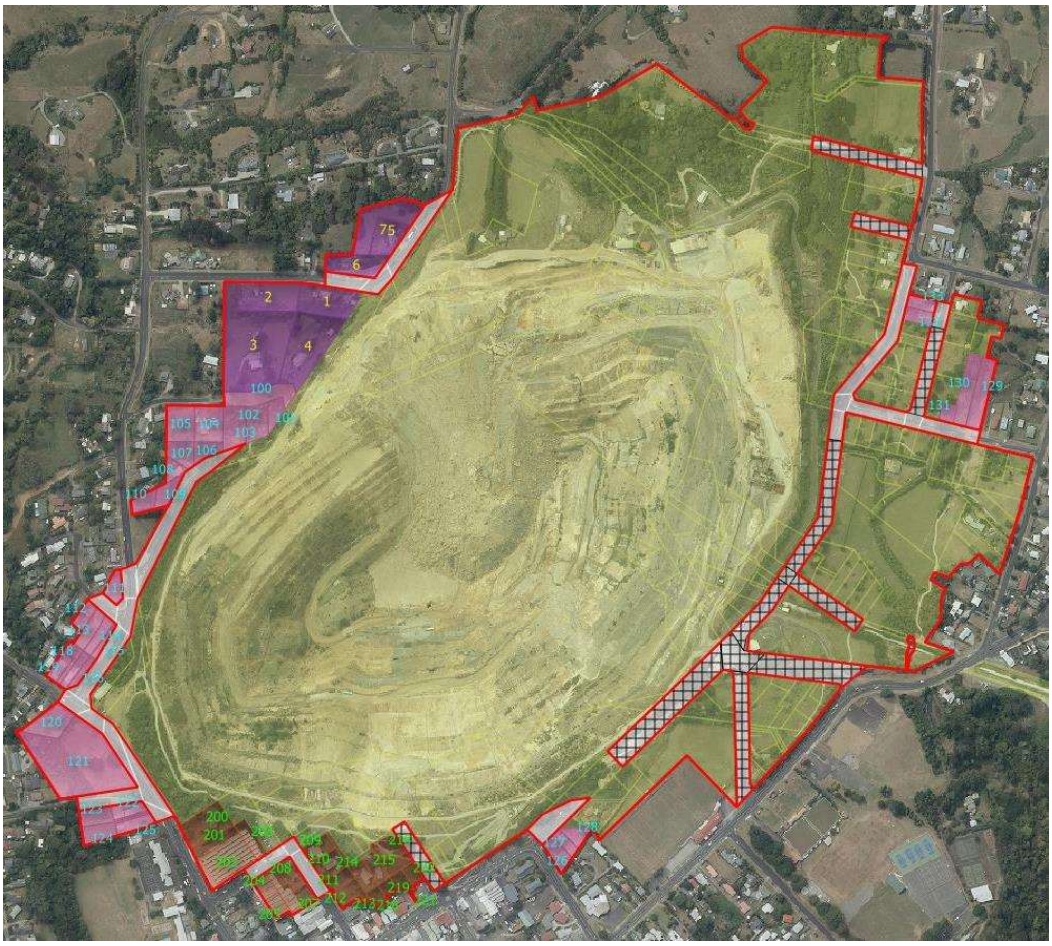
1 Introduction

Oceana Gold (New Zealand) Limited (OGNZ) is lodging a private plan change to the Hauraki District Plan that primarily seeks to rezone a number of sites around its Martha Mine to 'Martha Mineral Zone', in order to provide for the potential future expansion of the mine. RCG has been engaged to assess land supply effects, considering the loss of Residential, Low-Density Residential and Town Centre-zoned land resulting from the proposed zone change.

The areas proposed for rezoning are shown in Figure 1:1 below. Purple areas are currently zoned 'Low-Density Residential'; pink areas are currently zoned 'Residential'; and brown areas are currently zoned 'Town Centre'. The numbers in these areas refer to individual properties/ lots, with OGNZ having prepared a numbered list of the properties affected.

Figure 1:1: Land Parcels to be Rezoned



Source: OceanaGold (New Zealand) Limited

The total areas shown in Figure 1:1 above are 2.95 hectares of Low Density Residential land; 4.63 hectares of 'Residential' land; and 2.39 hectares of 'Town Centre' land.

Conceptually, any plan change can be thought of as having potential costs and benefits. In terms of economic costs and benefits, these include:

- Private economic benefits – OGNZ's benefits from being able to use the land for mining purposes, or wages paid to workers
- Private economic costs – OGNZ's 'opportunity cost' of not being able to use the land for its currently zoned purposes
- Public economic benefits/ positive externalities – 'multiplier effects' resulting in indirect and induced economic activity as a result of the additional mining operations
- Public economic costs/ negative externalities – impacts on Waihi land supply, e.g. where this interferes with competitive markets, the level of amenity provided by the town centre, or an efficient urban form.

The private economic benefits exceed the private economic costs, or OGNZ would not want to undertake the plan change. However, other costs and benefits still need to be considered. Our report focuses on the land supply impacts, feeding into the overall economic assessment being carried out by Sense Partners, and considering the development capacity requirements of the National Policy Statement on Urban Development 2020.

Our report works through the following process:

- Define Waihi as an 'urban area' and define its retail catchments. This is informed by the site visit and overview of the properties affected by the plan change;
- Population and housing trends – historic and projected growth, discussion of projections by Stats NZ and others. This section analyses Waihi's 'demand' for housing, including the potential effects of the Waihi North mining project. Waihi North is a different project to the current plan change application, and it is likely to be progressed through a resource consent process;
- Retail market analysis – analysis of trends in retail employment in Waihi, estimated sales, and where Waihi residents shop. Modelling of 'retail spending power' and 'floor space demand', commenting on what this means. Implications for future Town Centre land requirements;
- Comparing Waihi's provision of commercial land and floor space with that of other comparable towns;
- Reviewing the legislative and planning context, including national policy documents and the Hauraki Growth Strategy 2050. This section analyses Waihi's 'supply' or capacity for housing and business land;
- Employment and industrial trends, including some comments on potential future trends and land uptake;
- Comments on peer review memos by Market Economics;
- Conclusions on land supply impacts.

2 Waihi Catchments and Site Visit

Defining Waihi

The Hauraki District has an estimated population of 21,800 people as at June 2021. Its population is spread across three towns (Waihi, Paeroa and Ngatea), as well as smaller settlements and rural areas. Waihi is the largest town with 5,790 people, with Paeroa a little smaller at 4,600 people and Ngatea much smaller with 1,580 people.[1]

Stats NZ defines Waihi as a 'small urban area', consisting of three SA2s (Statistical Area 2) named Waihi North, Waihi South and Waihi East. This definition is largely similar to the urban-zoned area of Waihi in the Hauraki District Plan, although it does include some rural land (especially in the northeast, a planned growth area). The statistical definition of Waihi is shaded in green in Figure 2:1 below:

Figure 2:1: Waihi Urban Area (Statistical Definition)

Source: RCG, Stats NZ

Most New Zealand towns have strong connections with their surrounding rural areas – people may live in the town and work in the rural areas or vice versa, and rural residents will travel to

[1] Stats NZ urban area population estimates, as at 30 June 2021

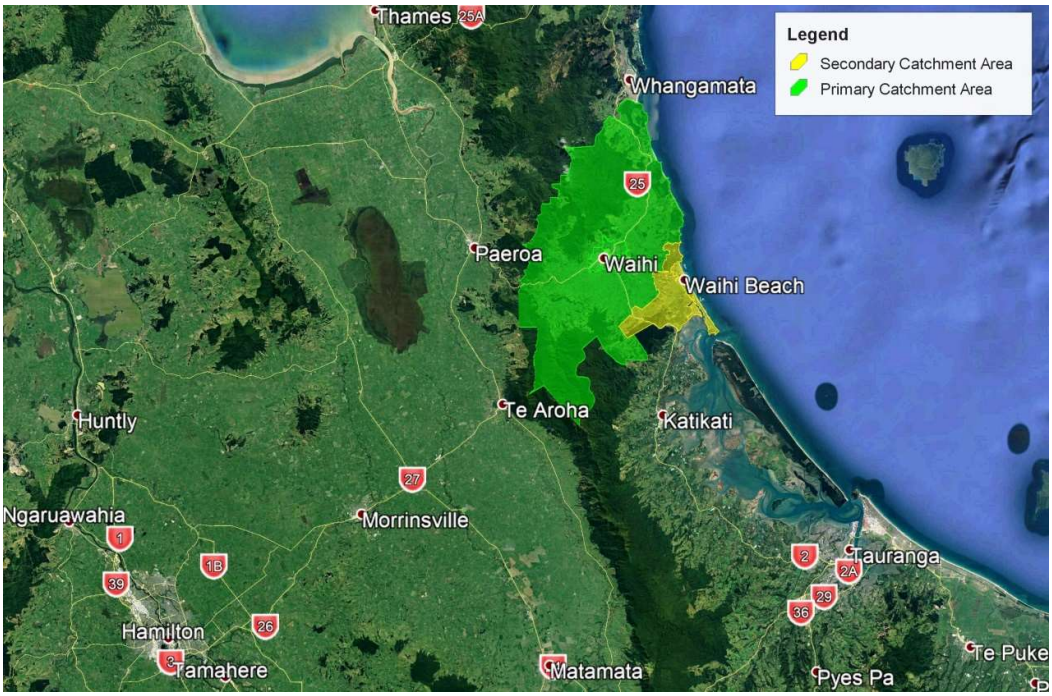
the town to access services. These relationships are recognised in Objective (1) of Section 5.6.4 of the Hauraki District Plan. We consider this below.

Retail Catchments for Waihi

The "retail catchments" for a town are the areas that most customers are likely to come from. The sizes of these catchments depend on the size and attractiveness of the retail offering; the other complementary services available; the locations of competing centres; transport connections; geographic barriers like the Coromandel and Kaimai ranges (these hills and mountains, with the Karangahake gorge in between, define most edges of Waihi's primary catchment); and so on.

The map below highlights Waihi and other nearby towns and cities, many of which we use as 'comparator towns' later in this report. Waihi's primary catchment area (PCA) is shaded in green and its secondary catchment area (SCA) in yellow:

Figure 2:2: Primary and Secondary Catchments for Waihi's Retailers



Source: RCG

Our PCA definition includes the Waihi North, South and East SA2s from Figure 2:1, as well as the Waihi Rural SA2. The SCA includes the Waihi Beach-Bowentown, Waiau and Athenree SA2s. These are the catchments we use in our retail modelling in section 4. According to Stats NZ population estimates, the PCA has a 2021 population of 8,240 (5,790 in Waihi itself and 2,450 in the rural area), and the SCA has a population of 3,980 people.

Waihi is the closest town for almost all PCA residents, and we expect that they would do much of their day-to-day shopping (and access many services) there. SCA residents only have a very limited retail offering locally but might travel either to Waihi or Katikati for shopping, or travel a

bit further to access Tauranga's very wide range. We do not include Paeroa in Waihi's catchments, because Waihi's retail offering is only a little larger than that of Paeroa: both towns have one supermarket, no department store, and a local convenience offering. However, Waihi does have some stores that Paeroa residents might travel to, especially Mitre 10 which provides a local hardware/ building supplies offering.

Waihi is reasonably remote being 65 km/ 60 minutes' drive from Tauranga (or a little closer from Bethlehem), and 96 km/ 80 minutes' drive from Hamilton.

The closest towns to Waihi all have a similar or narrower retail offering: Waihi, Paeroa, Te Aroha, Katikati and Whangamata each have one of the major supermarket brands and no department store. Further away, Morrinsville, Matamata and Thames have slightly larger offerings but Waihi residents can travel to Tauranga in almost the same time.

As such, we see Tauranga as being the most relevant retail destination beyond Waihi itself: Waihi residents would generally travel there to access a wider retail offering, with Bethlehem the closest shopping destination and the CBD, Tauranga Crossing or Bayfair all a little further.

Site Visit

We visited Waihi on Tuesday 15th June 2021 to look at the various sites proposed for rezoning, as well as to explore the town centre and current/ potential growth areas in the town. Although there was quite heavy rain on the day, the town centre was still well patronised with reasonable foot traffic and most parking spaces on Seddon St full.

The current extent of the Town Centre zone in the District Plan is outlined in green in Figure 2:3 below, with red-shaded areas potentially being rezoned as Martha Mineral Zone. Blue-shaded areas represent our opinion of what constitutes 'walkable retail areas' on and around Seddon Street:

Figure 2:3: Waihi Town Centre Aerial Photo

Source: RCG

Waihi's town centre is reasonably flat and very walkable. The Ministry of Social Development office and the Gold Discovery Centre bookend the Seddon St retail strip, with just over 400 metres between them. Some retail activity also takes place along Rosemont Road (State Highway 2) and Haszard Street. There is parking along the main street as well as an open-air carpark off Silverton Road.

Outside of this 'walkable retail area', there is a range of uses within the Town Centre zone, including community, retail, industrial and residential uses.

Waihi is too small to have much of a large format retail (LFR) offering, but the more land-intensive uses are mainly on the fringe of the town centre, e.g. Mitre 10, New World, Supervalue, and several petrol stations. Most of these have frontage to State Highway 2.

Grocery shopping is by far the most frequent purchase for households (at least weekly), so New World is an important anchor for the town. Waihi had a Countdown supermarket until May 2016,

when it was closed due to issues with the building.[2] The building has now been upgraded and it reopened as Supervalue (another Woolworths-owned grocery brand) in December 2020.

Other retailers like Mitre 10 and 100% Appliances ensure that Waihi residents can access many types of consumer goods locally, although residents would often travel to Tauranga to access a wider range and most national retail brands. FarmSource services the rural and agricultural catchment.

Civic and community uses in the town centre include Waihi Events Centre, Waihi Arts Centre and Museum, Waihi Library, the police station and District Court, several churches, and clubs like the Returned Services Association.

Industrial uses in the town centre include auto servicing and repair, farm supply, wholesaling, electrical supplies etc. Note that what we consider to be 'industrial uses' may differ from what the District Plan defines as 'industrial activities'! Generally, we take a broad view of industrial uses to include most businesses that don't clearly fall into retail, office, certain services or business-to-consumer categories. There is also an Industrial zone (as per the District Plan) southwest of the town centre, which includes part of the Mitre 10 property.

Residential uses are relatively uncommon in Waihi's Town Centre zone, but some of OGNZ's Town Centre-zoned properties affected by the plan change have residential uses (a total of six dwellings as per Figure 2:5 below).

Two of the properties affected by the plan change have industrial-style buildings on them: the Pye building (home to OGNZ's Waihi offices, Health Plus Gym, Waihi Goldfoods training commercial kitchen and the Waihi Toy Library), and the Hub Building at 4 Martha Street (home to a range of smaller tenants).

Waihi's Main Street

Most of the retailers along the Seddon Street retail strip are independent stores, with few national brands – exceptions being Paper Plus/ Toy World and Subway. The types of businesses are typical for a town the size of Waihi, with an emphasis on regular needs i.e. food, healthcare, hairdressers, and some commercial services like accountants or lawyers. Most of these businesses are resistant to trends towards Internet shopping.

There were few vacancies along the Seddon Street retail strip, with most of those due to recent bank branch closures. Westpac, BNZ and Kiwibank have all closed their branches recently, with only ANZ remaining in Waihi (and only open two days a week). These were prominent retail spaces, mainly on street corners, and they are likely to be re-tenanted or potentially redeveloped in the years to come. We also noticed a vacancy resulting from the closure of the local NZME office (ex Waihi Leader), and another vacancy on the eastern corner of Seddon Street and Mueller Street.

[2] https://www.stuff.co.nz/business/82460951/countdown-pulls-out-of-waihi

Most buildings in the town centre are one-storey, with some two-storey buildings on or around the main street. The permitted height limit in the District Plan is 10 m (which generally equates to buildings that are two storeys).

Waihi is a relatively small town on a busy highway, and as such passing traffic is an important source of customers for many businesses. Most of these out-of-town customers would be classified as 'domestic tourists'. In stark contrast to international tourism, domestic tourism has only seen limited impacts from Covid (mainly during lockdowns and other periods of heightened alert), and domestic spending has increased significantly in most parts of New Zealand since the start of 2020.[3]

Overall, the Waihi town centre's retail offering seems to be in good health, without substantial vacancy and most shops in reasonable condition. It is likely to adapt well to changing future environments.

HDC has recently consulted on streetscape upgrades along Seddon Street and Rosemont Road (SH2), with part of the funding for Rosemont Road to come from Waka Kotahi who administer the highway. This will "make the area look more attractive and create a more inviting area for visitors and residents to shop locally", reinforcing these two streets as key areas for pedestrians.

Figure 2:4: Proposed Streetscape Upgrade Area

Source: https://weneedtotalk.hauraki-dc.govt.nz/street-revitalisations/

Waihi's Neighbourhoods

We drove around the outside of the Martha Pit to look at the residential/ rural residential properties proposed for rezoning. We did not enter any properties. We also drove around several newer subdivisions and areas of new housing, including Thorn Road, Waitete Road, Riverlea Estate, and Parry Palms.

[3] See https://teic.mbie.govt.nz/teiccategories/resources/2022/03/03/mbie-tect-for-january-2022-released/. Domestic tourism spending in the Waikato Region has grown less than the national average, probably due to its proximity to Auckland, but was still up 7% for the year ended January 2022 vs the year ended January 2020.

Summary of the Properties Affected by the Plan Change

The properties affected by the plan change can be summarised as follows:

Figure 2:5: Summary of Properties Affected by the Plan Change

Current Zoning	Land Area (sqm)	Dwellings	Commercial or Industrial Floor Space (sqm)
Town Centre	23,900	6	7,200
Residential	46,300	12	0
Low Density Residential	29,500	6	0
Total	**99,700**	**24**	**7,200**

Many of the properties affected by the plan change are underdeveloped at present, and some of them are completely vacant. A total of 99,700 sqm of land is affected by the plan change, almost 10 hectares, but the only buildings are approximately 24 dwellings (we are advised by OGNZ that some are quite dated and can't currently be rented out under Healthy Homes standards) and two commercial/ industrial buildings totalling 7,200 sqm of floor space.

As a very simple exercise, we have estimated the maximum number of homes which could be accommodated on the affected properties. Based on a minimum section size of 450 sqm for residential as per the District Plan, 46,300 sqm of land could accommodate 103 homes compared with the current 12. Not all of the sites in question are contiguous (so they can't necessarily be divided down to 450 sqm) or easily developable (due to topography etc). On the other hand, there are areas of contiguous land and there is potential to develop at a greater density (down to 350 sqm) if some sites can be developed as a "comprehensive residential development".

Based on a minimum section size of 1,000 sqm for low density residential as per the District Plan, 29,500 sqm of land could accommodate 29 homes compared with the current 6. The same provisos apply as for the residential-zoned sites.

Overall, a rough estimate is that the affected properties could accommodate perhaps 100-150 homes rather than the current 20-25 if redeveloped more intensively, although it is uncertain that this would be economic.

Infometrics' 'medium' dwelling projection, discussed later in this report, shows Waihi as having 2,760 dwellings in 2021. Counts from the 2018 census (more than three years earlier) were for 2,223 households and 2,460 dwellings. As such, less than 1% of Waihi's existing housing stock will be rezoned (and potentially lost) as a result of the plan change.

According to a search using CoreLogic's PropertyGuru software, Waihi currently has 40,100 sqm of commercial floor space (including retail, office, education tourism and mixed/ other), and 41,500 sqm of industrial floor space. This floor space data was retrieved via PropertyGuru, but the probable source is HDC's Rating Information Database. The software/ database categorises properties as either commercial or industrial based on their predominant use, rather than their zoning. As such, it is entirely possible to have industrial properties within the Town Centre zone, or commercial properties within an industrial zone.

However, the distinction between commercial and industrial is not always clear-cut: 43 Moresby Avenue (the Pye building) and 4 Martha Street are both shown as 'industrial' in the search results, whereas it could be argued that the Pye building uses are more 'commercial'.

Based on the PropertyGuru search, 43 Moresby Avenue and 4 Martha Street are the two largest industrial properties in Waihi by floor area (we note that Mitre 10 is categorised as commercial rather than industrial).

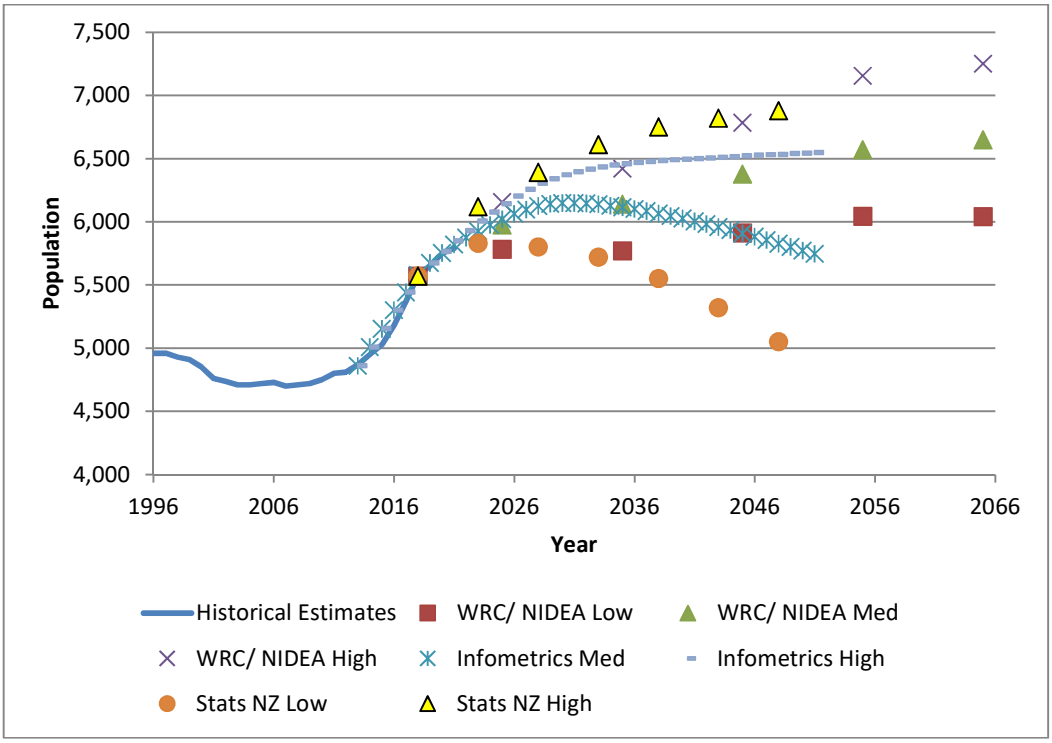
43 Moresby Avenue is shown as having 5,260 sqm of floor space and 4 Martha Street as having 3,478 sqm, but part of the property consolidated in the '4 Martha Street' area is outside the plan change boundary (6-12 Haszard Street). We also understand that part of the Pye building will be retained. We conservatively estimate that 7,200 sqm of industrial/ commercial floorspace could be lost, although 5,000-6,000 sqm is probably more likely.

Based on the PropertyGuru categorisations, no commercial floorspace will be lost as a result of the plan change. However, a reasonable percentage of Waihi's industrial floorspace (up to 17%, but probably less) could be lost as a result of the plan change. The percentage of industrial land lost is much smaller – up to 6% but probably less. Of course, the underlying land zone is a commercial one, Town Centre, but the land use (and floor space) is industrial rather than commercial.

3 Population and Housing Trends

"Population estimates" show how an area's population changed in the past. "Population projections" show how it could change in the future. Figure 3:1 below shows the estimates and projections for the Waihi urban area, from Stats NZ and various other sources:

Figure 3:1: Population Estimates and Projections for the Waihi Urban Area



Source: Stats NZ, Infometrics Ltd, Waikato Regional Council/ NIDEA, RCG

The 'Waihi urban area' is based on the statistical definition from Stats NZ, consisting of the Waihi North, East and South SA2s. We also talk about Waihi's 'rural surrounds' in this section, which we define as the Waihi Rural SA2 – this is especially important when discussing the Infometrics projections. We refer to the combined area as 'Waihi Urban + Rural'.

Population projections are usually based on an extrapolation of past trends, rather than considering how changes to Waihi's economic structure (e.g. new or expanded mining activities vs the cessation of mining) might affect population growth.

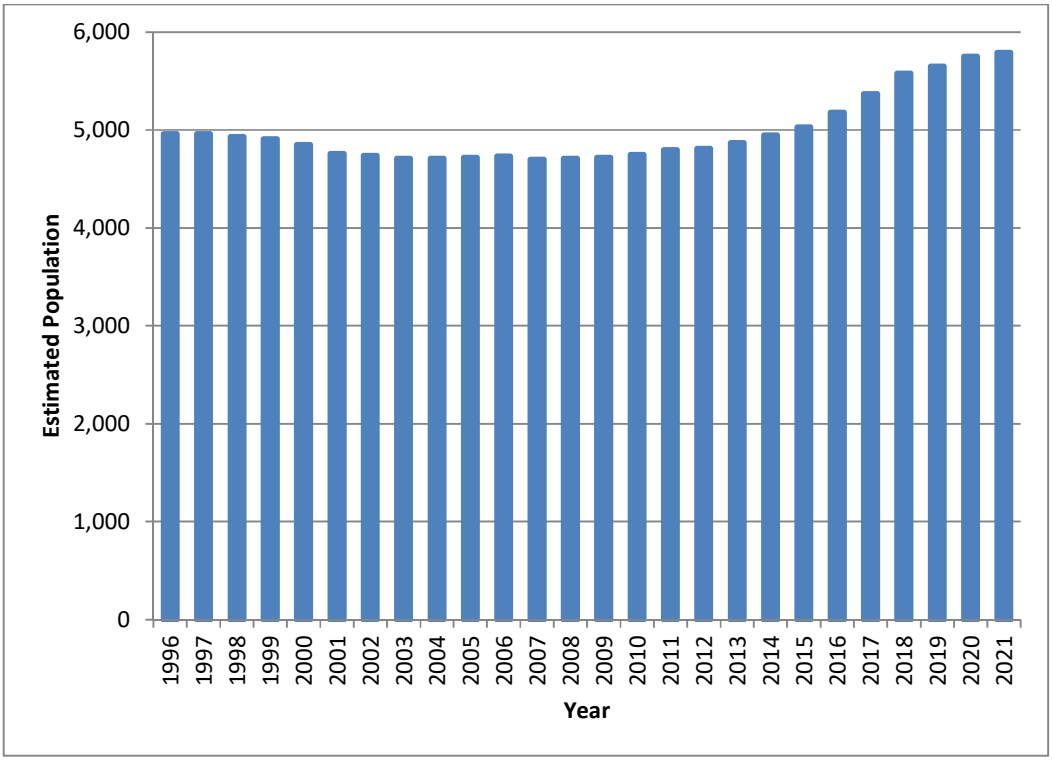
We go into more detail on the population estimates and projections below. However, the key point is that Waihi's population was effectively flat from 1996 through 2013 and has grown consistently since then. The growth is generally tracking in line with 'medium' population projections, as discussed below.

Population Estimates

Waihi's population was effectively flat from 1996 through 2013, but it has begun to grow at a much higher pace in the last few years. This recent growth is due to continued 'natural increase' (births minus deaths) and higher net immigration, mainly from other parts of New Zealand.

The latest population estimates from Stats NZ suggest that the Waihi urban area has a population of 5,790 as at June 2021. The trends over 1996-2021 are shown in Figure 3:2 below:

Figure 3:2: Population Estimates for the Waihi Urban Area, 1996-2021



Source: Stats NZ

Overall, the Waihi urban area grew by 16.7% over 1996-2021, compared with the NZ average of 37.3%. It ranked 115th out of 188 urban areas. Hauraki District is also relatively low growth, having grown by 17.5% over 1996-2021 which puts it at 38th out of 67 territorial authorities.

New Zealand had a record-breaking immigration boom which began in 2013/14 and continued until early 2020 when Covid-19 and border closures brought it to a sudden halt. Immigration accounted for 65% of New Zealand's population growth in the five years to 2019. New Zealand still has significant border restrictions in place as at April 2022, and it seems unlikely that immigration will return to pre-Covid levels in the short term.

International immigrants typically settle in cities, but there is a flow-on effect as people relocate from those cities to smaller towns like Waihi. All else being equal, it is likely that Waihi's growth will be lower in the next few years than over the 2013-2020 period, as a result of there being much less immigration into New Zealand.

Population and Household Projections

Stats NZ Projections

The most widely used population projections are those published by Stats NZ. These projections are 'top down' ones made initially at a national level, with the results then used to calibrate subnational (council-level) projections, and finally local (SA2-level) projections. Low, medium and high projections are published for each area and are generally updated every 2-3 years.

The number of households (or dwellings, or rateable units) in an area will usually grow faster than its population. This is because the average number of people per household is falling across most parts of NZ and the developed world – a result of an ageing population, and families having fewer children.

Stats NZ use their population projections (and varying assumptions around household composition) to produce household projections, although they only go down to the council level, not the SA2 level. Over 2018-2043, the number of households in the Hauraki District is projected to grow by -1.2%, 10.6% and 22.3% under the low, medium and high projections respectively. Over 2018-2043, the population in the Hauraki District is projected to grow by -6.3%, 6.8% and 20.3% under the low, medium and high projections respectively. As noted above, household growth typically outpaces population growth.

Our analysis in this report focuses on households more than population, because they are more immediately relevant for housing demand and for this plan change. However, we do consider both metrics.

In the latest update cycle, Stats NZ released 2020-base national population projections in December 2020, 2018-base subnational population projections in March 2021 and 2018-base SA2 population projections for the Hauraki District in August 2021. The 'medium' series of all these projections are consistent with each other. [4] They include estimated impacts from Covid, assuming that net migration into New Zealand is 10,000 in 2021, 20,000 in 2022, and 25,000 on average for all subsequent years.[5] This compares with figures of 60,000 a year in the previous boom, but is consistent with longer-term averages since the late 1980s.

We summarise Stats NZ's projections for the Waihi urban area below:

- Under the Stats NZ low projection, Waihi's population peaks in around 2023, and the town shrinks from 5,570 people in 2018 to 5,050 people in 2048;
- Under the Stats NZ medium projection, Waihi's population peaks in around 2033 at 6,140 people, but it would still be a little larger than today in 2048 with to 5,910 people;
- Under the Stats NZ high projection, Waihi's population does not reach a peak before 2048, by which time it will have grown to 6,880 people.

[4] https://www.stats.govt.nz/information-releases/subnational-population-projections-2018base2048
[5] https://www.stats.govt.nz/information-releases/national-population-projections-2020base2073

Stats NZ project the rural surrounds ('Waihi Rural' SA2) to have very similar population trends to the Waihi urban area, so the rural area reaches a peak at around the same time or grows at roughly the same rate as the town itself.

Stats NZ's medium population projection is very similar to Infometrics' medium projection. To avoid visual clutter, we leave the Stats NZ medium population projection out of Figure 3:1 above.

Based on the Stats NZ medium population projections, Hauraki District will grow by 5.3% over 2018-2048, compared with the NZ average of 26.8%. It ranks 52nd out of 67 territorial authorities for projected growth over 2018-2048. Hauraki has a relatively old population, which is a key factor in its lower projected growth.

WRC/ NIDEA Projections

Waikato Regional Council commissioned projections from National Institute of Demographic and Economic Analysis (NIDEA) at the University of Waikato, which cover all territorial authorities and SA2s in the Waikato region.[6] They have a 2018 base year and account for estimated Covid impacts.

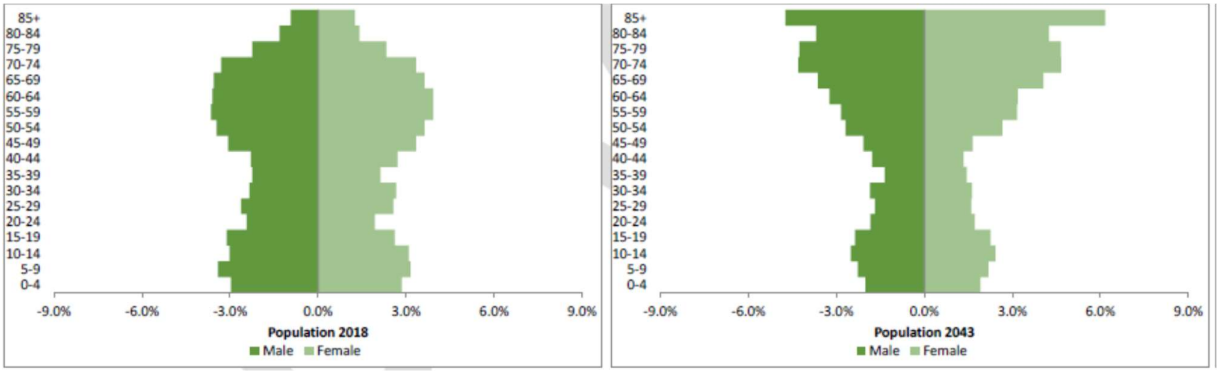
These projections are underpinned by a range of Stats NZ data but are produced independently. They aim to "provide a regionally consistent set of future population and economic projections for the Waikato based on the 2018 census so that they meet the needs of individual councils for their work in preparing their next LTP (2021-2031) and other planning/strategies".

Under the WRC/ NIDEA medium projection, the Waihi urban area is expected to grow from 2,285 households in 2018 to 2,900 in 2055. Growth slows in later years but there is no 'peak' in household numbers before the end of the modelled timeframe in 2065.

As with all parts of New Zealand, Waihi and the Hauraki District is expected to have an ageing population into the future. This has various implications, including households becoming predominantly 'couples without children' or 'one-person households' which reflects empty nesters and retirees etc. This demographic drives growing demand for the retirement village sector, greater needs for accessibility, and potentially greater pressure on the ratings base (as more people move into retirement age groups and their incomes drop). The ageing population is well illustrated in the 'age pyramid' below, based on the WRC/ NIDEA medium projection:

[6] Projections available at http://www.creatingfutures.org.nz/waikato-projections-demographic-and-economic/2018-projections-outputs/

Figure 3:3: Age-Sex Structure for Hauraki District, 2018 and 2043



Source: WRC/ NIDEA medium population projection

Infometrics Projections, Used in HDC Planning

HDC has recently finalised its 2021-31 Long Term Plan. The Long Term Plan uses projections from Infometrics Ltd which were made in March 2020 and do not consider Covid impacts. Infometrics provided low, medium and high projections, for population/ households/ dwellings. HDC chose to use the medium projection for the next 10 years (to allow for Covid impacts) and the high projection thereafter.

HDC also considers downside risk i.e. that population growth is lower than projected, especially in the longer term beyond 2031. In our view, it is prudent to consider this risk and it is also appropriate for HDC to plan for continued growth as "We do not want to underinvest in our infrastructure. We need to be able to readily cater for [potential] growth". Similar sentiments are expressed for both population and dwelling projections.

The Long Term Plan notes that:

> *"While the recent growth and that forecast is not high when compared to some other areas of New Zealand, it will impact our infrastructure as the network capacity has already been, or will soon be reached. In addition, we need to plan for our communities to be future proofed and accessible for an increasing aged population.*
>
> *We adopted the medium growth projections scenario provided by [Infometrics], as opposed to the high scenario, because of the expected impacts of COVID-19, such as minimal national net migration and limited economic growth. However, if we experience higher net migration than forecast over the next 10 years the district population may not decline in the future. The high growth scenario, based on higher net migration figures, projects the district population to be approximately 24,200 in 2051. That is why, in years 10-30 of our strategy we are also planning with the high growth projections in mind because we do not want to underinvest in our infrastructure. We believe there is no risk of overinvesting if we base our planning on the medium and high projections, given the two scenarios are not significantly different".*

Using a simple reading of the Infometrics medium projection, the Waihi urban area and Hauraki District see a population and household peak in 2031, with a slow decline thereafter. Under the high projection, the population and number of households continues to grow.

However, this simple reading is misleading, at least for the Waihi area. A closer look at the Infometrics projections shows that they allocate a high share of growth to the rural areas of the Hauraki District, in contrast to the Stats NZ and WRC/ NIDEA projections. For example, the Waihi urban area is projected to grow by 70 people over 2019-2051 (from 5,675 to 5,745) in Infometrics' medium projection, but Waihi's rural surrounds are projected to grow by 882 people (from (2,292 to 3,174).

Likewise, the Waihi urban area is projected to add 118 dwellings over 2019-2051 in the Infometrics medium projection, whereas the Waihi rural surrounds adds 406 dwellings. Infometrics say that "beyond 2030, the majority of dwelling growth [in the Hauraki District] takes place in Paeroa and Waihi Rural, as an extension of the Waihi urban area".[7] This effectively means Waihi's urban footprint expanding beyond the statistically defined urban area. Infometrics actually project that Waihi continues to grow, but that it does so in greenfields areas which are outside the urban SA2 boundaries.

Summary of Projections

Infometrics have quite a different approach to the one used by Stats NZ and WRC/ NIDEA, so to better compare the predictions, we need to compare the entirety of Waihi plus its rural surrounds (Waihi Rural SA2), a combined area which we call 'Waihi Urban + Rural'. Even so, there are some difficulties in comparing predictions because Stats NZ have not released household projections, and the various predictions don't necessarily model the same years.

We compare the various projections in our graphs over the next couple of pages, all of which are 'zoomed in' to better show the differences in projections:

- Figure 3:4 shows population projections for the Waihi Urban Area, essentially a zoomed-in version of Figure 3:1 except that we also add the Stats NZ Medium projection in since there is more room to display it;
- Figure 3:5 shows population projections for the Waihi Urban + Rural area;
- Figure 3:6 shows household projections for the Waihi Urban Area;
- Figure 3:7 shows household projections for the Waihi Urban + Rural area.

We note that there are several population projections which have a similar or higher growth track than the 'Stats NZ High' projection: Infometrics High and WRC/ NIDEA High (in the long term).

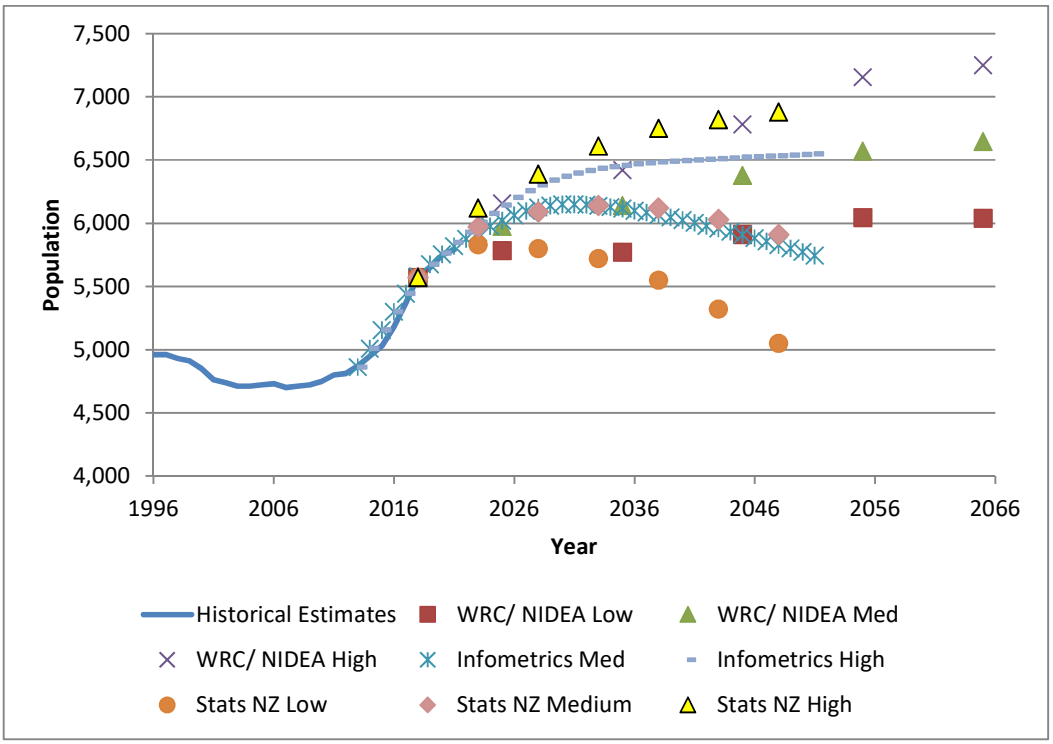
Stats NZ do not publish household projections at the SA2 level, but we have created three projection series which we call "Stats NZ-Derived", based on Stats NZ's household projections for the overall Hauraki District. We simply assume the same percentage growth in Waihi as for the district overall. For example, Stats NZ project that the number of households in the Hauraki

[7] "Population projections 2018-2051 for Hauraki District Council", Infometrics, March 2020

District will grow by 10.6% over 2018-2043. Our 'derived' medium projection applies this percentage growth to the number of households in Waihi starting in 2018.

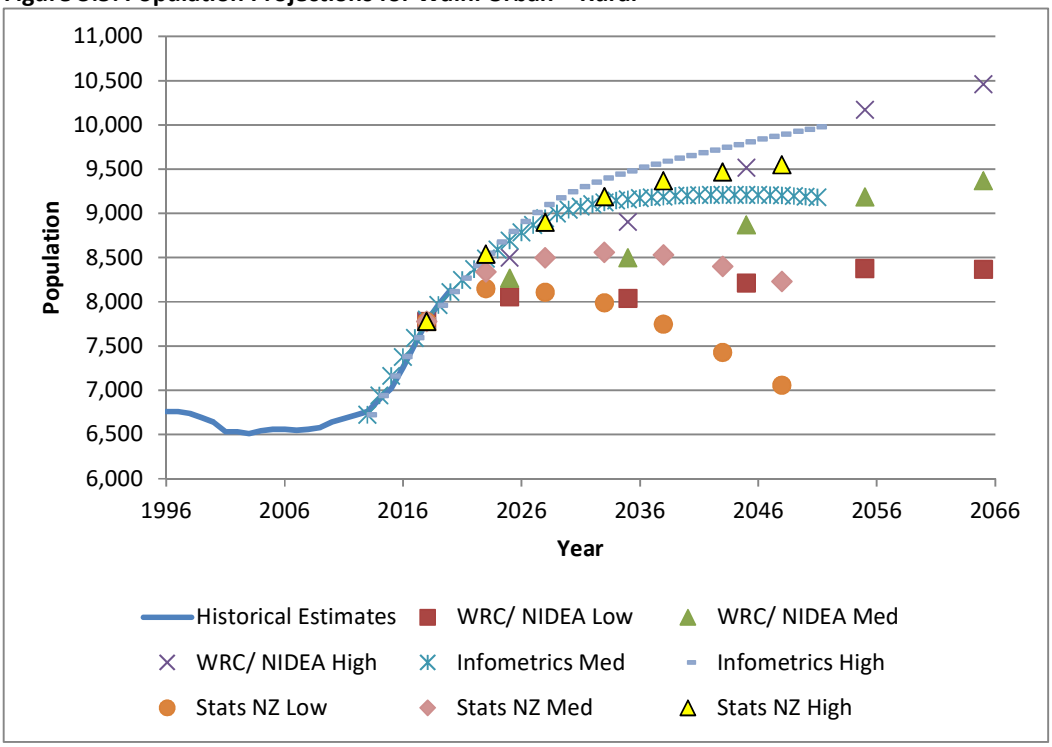
This is likely to be a reasonable approximation of the level of household growth Stats NZ would project for Waihi if they did create these projections at the SA2 level. We note that Waihi's population growth is expected to be similar (or actually very slightly higher) to the district-wide average under all three of Stats NZ's population projections. Waihi also makes up a substantial share of the district's overall household numbers (28% looking at the Waihi urban area only, or 39% looking at Waihi urban + rural).

Figure 3:4: Population Projections for Waihi Urban Area



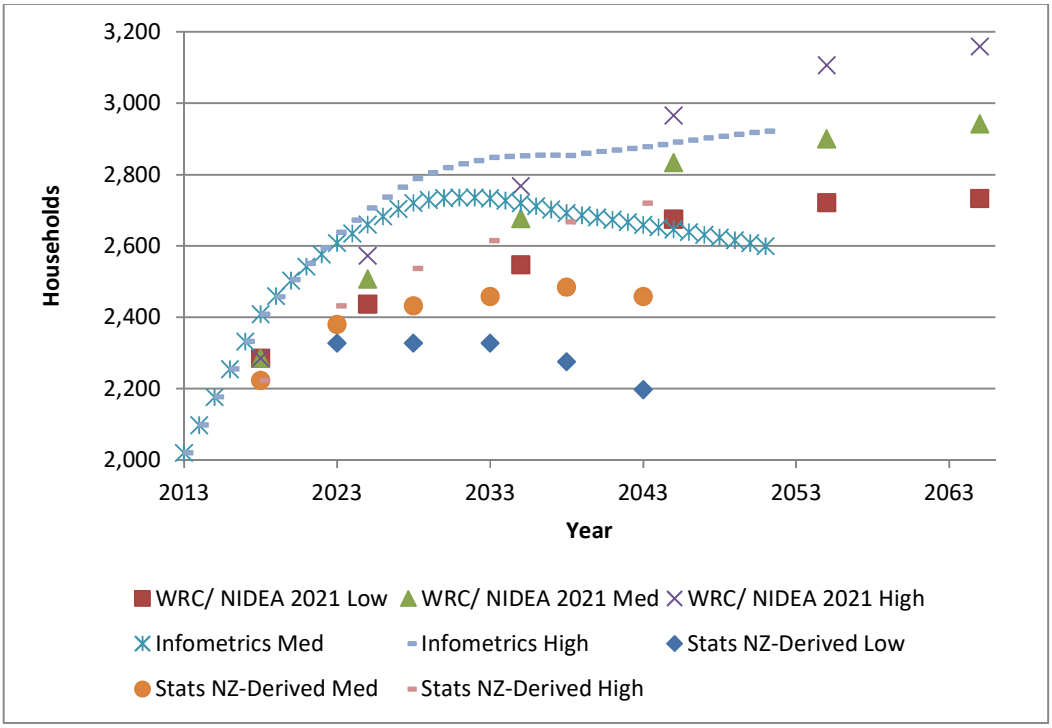
Source: Stats NZ, Infometrics Ltd, Waikato Regional Council/ NIDEA

Figure 3:5: Population Projections for Waihi Urban + Rural



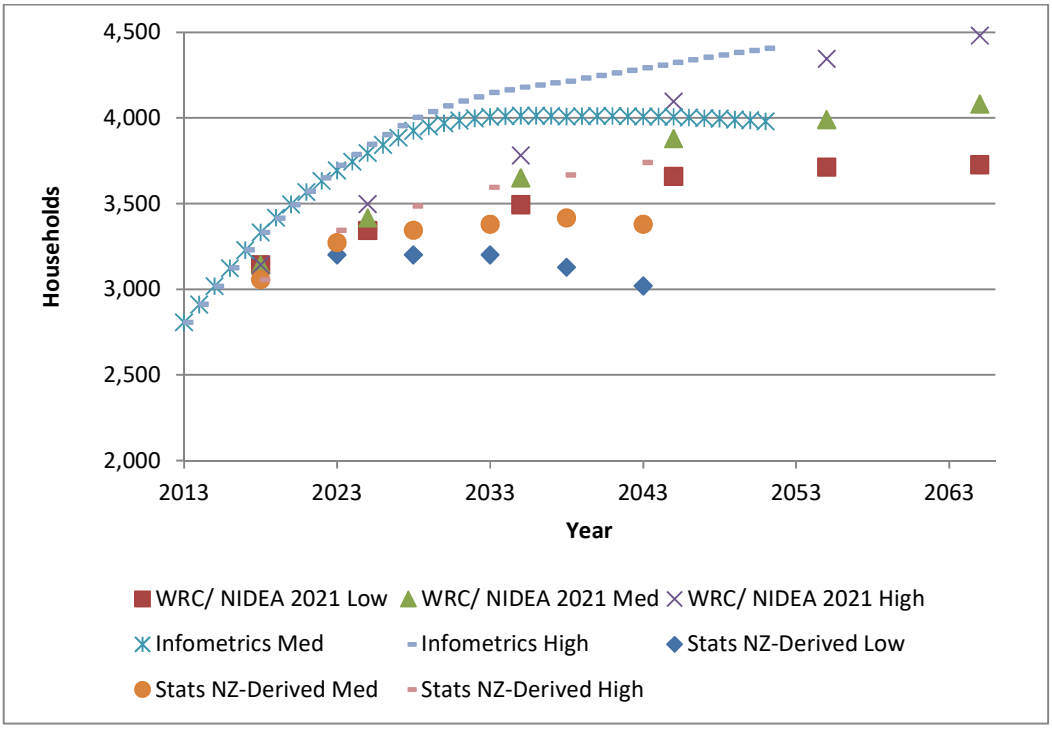
Source: Stats NZ, Infometrics Ltd, Waikato Regional Council/ NIDEA

Figure 3:6: Household Projections for Waihi Urban Area



Source: Infometrics Ltd, Waikato Regional Council/ NIDEA, Stats NZ, RCG

Figure 3:7: Household Projections for Waihi Urban + Rural



Source: Infometrics Ltd, Waikato Regional Council/ NIDEA, Stats NZ, RCG

Comparing the two graphs for population projections (with and without Waihi Rural), and the two graphs for household projections, it is quite clear how a 'simple' comparison of the Infometrics projections to the other projections can be misleading:

- Figure 3:4 makes it appear that the Infometrics Medium projection for Waihi is very similar to the Stats NZ Medium projection, but Figure 3:5 shows that Infometrics Medium is actually closer to the Stats NZ High projection, due to Infometrics showing growth primarily in 'Waihi Rural' rather than in the SA2s;
- Figure 3:6 makes it appear that WRC/ NIDEA are more optimistic than Infometrics beyond the 2030s (i.e. projecting higher rates of growth), and that the Infometrics medium projection shows household numbers peaking in 2031. Figure 3:7 shows that Infometrics are generally more optimistic and the 'peak' for the medium projection is actually a plateau.

We note again that this is because Infometrics allocate much of Waihi's greenfields growth to the Waihi Rural SA2, although they consider it to be an extension of the Waihi urban footprint.

The household projections are arguably more relevant for our report. We make the following comments on these projections:

- HDC's Long Term Plan covers the 2021-2031 period;

- The Infometrics projections show the results for each year so it is possible to isolate this period exactly. The WRC/ NIDEA projections only show the results for 2018, 2025, 2035 etc so it is not possible to isolate the Long Term Plan period;
- The WRC/ NIDEA medium projection assumes that 169 new households will be added to the Waihi Urban Area in the decade to 2035. With growth in 'Waihi Rural' included as well, a total of 232 new households will be added in the decade to 2035. However, the WRC/ NIDEA approach means that the 'rural' households aren't necessarily on the urban fringe of Waihi – they may be further away e.g. in smaller coastal communities like Whiritoa;
- The Infometrics medium projection assumes that 194 new households will be added to the Waihi Urban Area in the Long Term Plan period. With growth in 'Waihi Rural' included as well, a total of 419 new households will be added in this period. The Infometrics approach means that most of the 'rural' households are likely to be on the urban fringe of Waihi;
- Infometrics also make projections for dwelling numbers. The Infometrics medium projection assumes that 178 new dwellings will be added to the Waihi Urban Area in the Long Term Plan period. With growth in 'Waihi Rural' included as well, a total of 393 new dwellings will be added in this period.
- Our "Stats NZ-Derived" projections illustrate that Stats NZ take a more conservative view of growth in the district (and by extension, Waihi) than either Infometrics or WRC/ NIDEA: even the derived 'high' projection shows a level of growth only equivalent to the WRC/ NIDEA 'medium' projection, and well below the Infometrics 'medium' projection.

The text of the Long Term Plan focuses on the numbers for the Waihi urban area only: pages 11 and 12 say that Waihi's estimated growth in the decade to 2031 is 330 people or 178 dwellings.[8] However, this gives a misleading impression in our view, given the way in which Infometrics have constructed their projections. The risk is that if HDC takes these figures at face value, they will be underestimating the potential growth in Waihi.

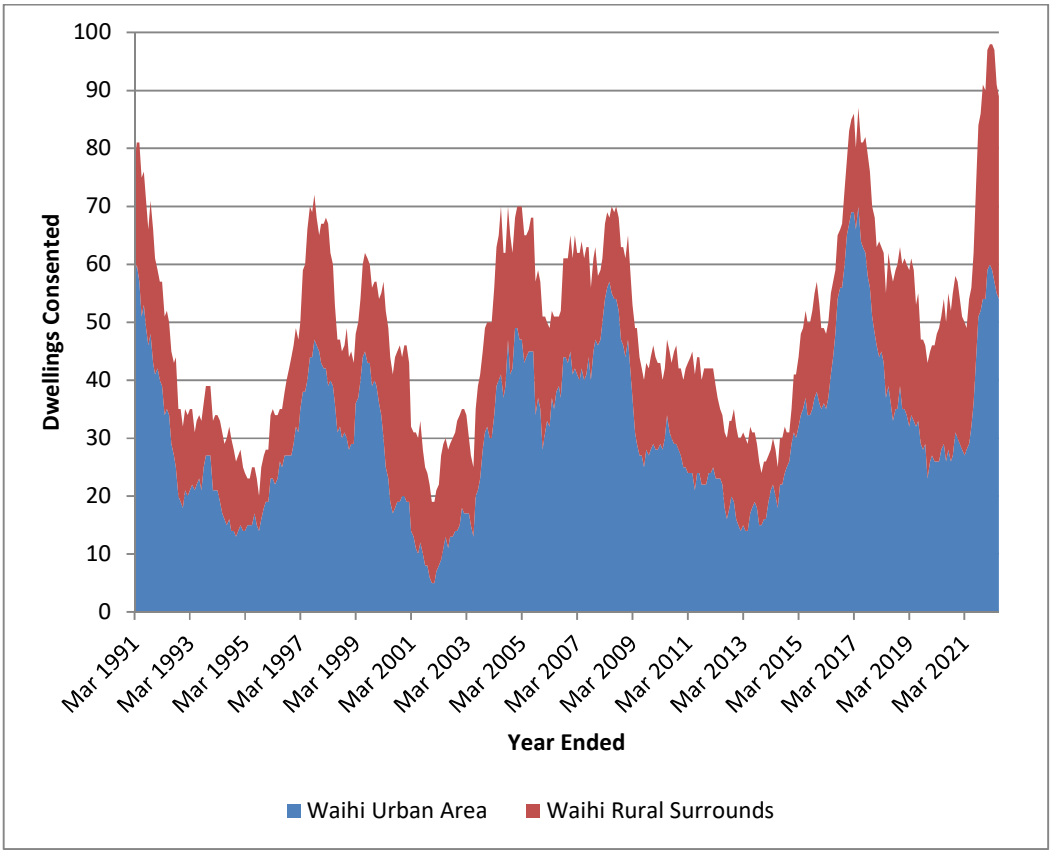
With growth in 'Waihi Rural' included as well, there are a total of 393 new dwellings required in the decade to 2031 under the Infometrics medium projection, and we believe this is a better representation of what the projections mean for Waihi.

Housing Supply and Building Consent Data

Housing supply is often measured with 'building consent' data. The number of homes consented fluctuates over time, but over the last 31 years, the Waihi urban area has averaged 32 homes per year, with another 18 in the rural surrounds (Whiritoa seems to have accounted for much of this growth in the last decade with 80+ homes built since 2010).

[8] Long Term Plan 2021-2031, HDC

Figure 3:8: Dwellings Consented in the Waihi Urban Area and Rural Surrounds, 1991-2022



Source: Stats NZ. Data covers the period up to June 2022

Consents reached record levels in early 2022 and are still at near-record levels for the year to June 2022 (the latest data available at time of writing), with 89 homes consented. There is significant year-on-year variation due to Waihi being a relatively small market – the year ended February 2017 is the only other year in the last decade where consents were significantly above average – but taken as a whole, the last 5-7 years have been strong for Waihi home building. This also reflects strong construction activity across New Zealand.

Using our interpretation, the Infometrics medium projection should be applied to the Waihi urban area plus its rural surrounds. Their figure of 393 dwellings in the next decade or 39 dwellings per year implies a slight reduction from the historical average, or from recent trends.

In our view, this is a reasonable (or perhaps conservative) level of growth to plan for the next decade.

Conclusions

- Waihi had a flat population until around 2013/14, and has experienced growth since then. Some of the recent growth is due to flow-on effects from NZ's migration boom over this time, which was suddenly brought to an end by the onset of Covid. Waihi is relatively low growth by 'urban area' standards.

- Waihi is a little larger than Paeroa, and has a slightly larger employment base, but the differences are not substantial.
- Waihi is one of many similarly sized towns (population 1,500-10,000) in the Waikato and Bay of Plenty. We have reviewed some of these as comparators.
- We compare various projections for population/ households/ dwellings in Waihi and the overall Hauraki District. These show a range of growth trajectories. Some show Waihi's population declining from around 2031 onwards, but that is conservative in our view.
- Covid and post-Covid impacts may well mean that growth will slow again in the next few years, but overall it is likely to continue for at least the next 10-20 years. This is the position adopted by Council in its long term planning, and it is also implied in projections by Waikato Regional Council/ NIDEA and Stats New Zealand.
- The Council notes that it needs to consider the needs of its aging population with a growing number of residents aged 65+, as well as the possibility that growth will actually start to decline in the 2030s or soon after. These considerations are prudent in our view, but the most likely scenario is that growth will continue at modest levels.
- The number of households (and dwellings) in Waihi will increase faster than its population, due to well-established trends towards fewer people per household.
- We believe HDC may be misinterpreting the projections used in its Long Term Plan: Infometrics state that only 178 dwellings will be needed in the 'Waihi urban area', but a total of 393 will be needed across Waihi Urban + Rural and the vast majority of those are likely to occur within Waihi or as greenfields expansion on its urban fringe. HDC may be focusing on the 178 whereas they should be focusing on the 393.
- Building consent data also supports using a higher figure. Over the last 31 years, the Waihi urban area has averaged 32 homes per year, with another 18 in the rural surrounds. Consents have been in line with or higher with this average for the last 5-7 years, with the latest data available (for the year to June 2022) at near-record levels.
- Even under the most optimistic scenarios, Waihi's growth is only moderate by NZ standards – 1,034 dwellings between 2018 and 2055 in the Infometrics High projection for Waihi Urban + Rural, with some of that growth already having taken place over 2018-2021.
- For demographic reasons, population (and housing) growth is likely to be fastest in the next decade and slower beyond that. This is true of most places in New Zealand.
- Although not taken into account in the projections, potential mining expansions will also support growth in the next decade or so, whereas the long-term wind-down of mining activity will reduce growth in the more distant future.
- Waihi North, being advanced through a separate process, could have an especially large effect on employment – adding circa 250 jobs on average and sustaining them over 2024-2032, potentially needing 57 extra homes.

In our view, the Infometrics Medium projections give a reasonable basis for growth over the 2021-2031 Long Term Plan period if they are interpreted correctly (393 dwellings in/ around Waihi). Proposed mining expansions, including Waihi North, can likely be accommodated within this level of growth. Conversely, if the expansions do not proceed then growth may be lower than suggested by the Infometrics Medium projections.

4 The Waihi Retail Market

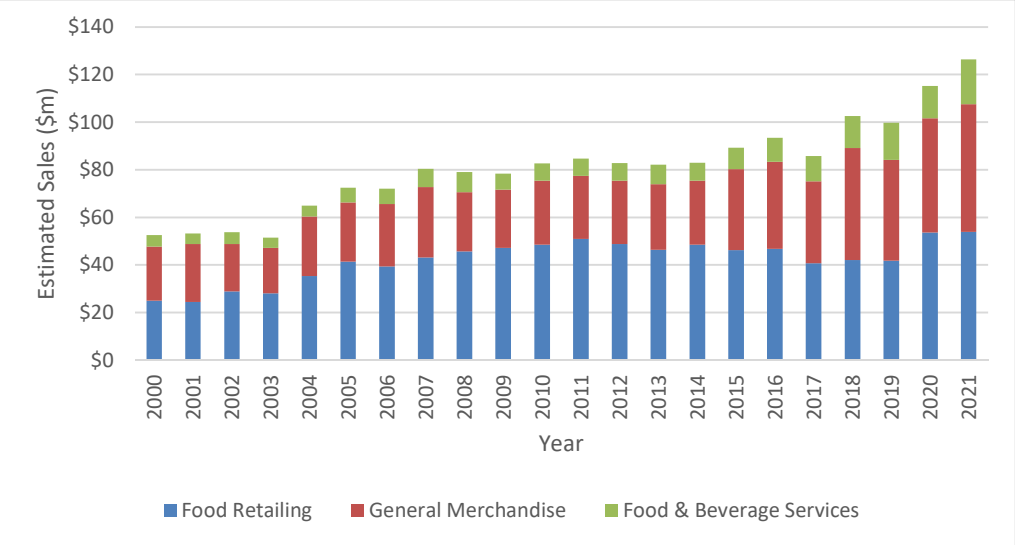
Estimating Retail Sales in Waihi

RCG uses business demography data and Retail Trade Survey data from Stats NZ to estimate retail sales for local areas such as Waihi.

- We calculate national average 'sales per employee' for each store type, by dividing Retail Trade Survey-measured sales by the nationwide number of employees for that store type.
- For the local area, we then multiply the employee count for each store type by the national average 'sales per employee'.
- The estimates should be taken with a grain of salt. Snapshots of employee numbers taken in February each year can only ever be a tentative estimate of sales trends. More definitive estimates can be made by using EFTPOS data, but this does not cover as long a timeframe.
- There is more uncertainty for smaller areas, such as Waihi. Some 'outliers', confidential/ rounded figures or unusual employers can influence the estimates.
- Data for 2020 and 2021 are especially uncertain due to the varying impacts of Covid around New Zealand.
- Even so, we have found this method of estimating retail sales to be helpful and reasonably accurate for comparing retail markets in different towns or cities.

We group these sales into three main categories: Food Retailing, General Merchandise, and Food & Beverage Services. Our sales estimates for the years ended December 2000-2021 are shown below:

Figure 4:1: Estimated Retail Sales for Waihi, 2000-2021



Source: RCG

We estimate that Waihi's retail market has grown from around $53 million in 2000 to $126 million in 2021. This increase includes price inflation for retail goods (especially food/ food & beverage services). In 'real' terms, we estimate that sales have grown by 72% rather than the 'nominal' 140%. This is significant growth, but well below the New Zealand average which is 'real' 116% or 'nominal' 170%.

General Merchandise sales are relatively high in Figure 4:1 above, mainly due to a large number of employees in the "Hardware, Building and Garden Supplies Retailing" store type. This probably reflects a large and successful Mitre 10 store, which would service customers across the Hauraki District.

We estimate Waihi's retail market to be slightly larger than Paeroa's retail market. Retail employment, and therefore estimated sales, is higher across most store types. Waihi's retail market seems to be quite healthy and very much in keeping with what we would expect in a town of its size.

Our modelling above can be thought of as a retail 'supply' measure for Waihi, and we also have our RCG Retail Sales Model which looks at retail 'demand' i.e. the retail spending power generated by households, businesses and visitors in an area. We present results from that model below.

It is important to note the store types that our modelling covers (for both retail sales or 'supply', and retail spending power or 'demand'). We exclude "non-store and commission based retailing", which refers to retailers that make most/ all of their sales online. We also exclude visitor accommodation and automotive-related retailing. Food & beverage services are included as per above, whereas other types of services (e.g. hairdressers, banks, DVD rental, clothing alterations, real estate or other businesses which may occupy retail space) are excluded.

Estimating 2021 Retail Spending Power in Waihi

The RCG Retail Sales Model estimates the 'retail spending power' of the combined Waihi catchments as follows:

- Nationwide retail sales figures for the year to December 2021 are taken from Stats NZ's Retail Trade Survey.
- Nationwide tourism spending was separated out based on Tourism Electronic Card Transactions data from MBIE.
- Other spending was allocated to either 'households' or 'businesses', based on the latest available Household Economic Survey data from Stats NZ (all spending not allocated to households was attributed to businesses instead).
- We estimated an average per-capita figure for household spending, based on each area's share of New Zealand's estimated 2021 population (for the Waihi PCA, this is 8,250 out of 5,122,600 people. For the SCA it is 3,980 people). We further adjusted household spending linearly based on the median 2018 household income for the area, compared with the New Zealand median (the Waihi PCA has median income of $46,100 or 61% of the nationwide median of $75,700, so we assumed that each Waihi household only spent 61% as much as an average household. For the SCA, the median income was $62,900).

- We estimated an average per-employee figure for business spending, based on each area's share of New Zealand's 2021 employee count (for the Waihi PCA, this is 2,180 out of 2,313,400 employees. For the SCA it is 815 employees). No further adjustments were made.
- We estimated local tourism spending. Waihi is part of the Destination Coromandel area, and has between 10%-15% of the area's accommodation and F&B employees, sectors which are highly correlated with tourism spending. We therefore assumed that Waihi captured 10% of tourism spending in the area, and ignored tourism spending in the SCA.
- We assumed that SCA residents and employees were 75% as likely to shop in Waihi as PCA residents.

The following three tables show our modelled results for 2021. They show just 75% of the total spending power from the SCA for households and businesses, and exclude tourism spending in the SCA since tourism money spent in the SCA itself is not part of the 'retail spending power' available to Waihi:

Figure 4:2: 2021 Retail Spending Power for the Waihi PCA ($m)

Retail Store Type	Households	Businesses	Tourists	Total
Food Retailing	$20.3	$3.8	$11.3	$35.5
Department stores	$3.6	$2.2	$0.0	$5.7
Furniture, floor coverings, houseware, textiles	$1.4	$1.7	$0.0	$3.1
Hardware, building and garden supplies	$2.7	$7.8	$0.0	$10.5
Recreational goods	$1.8	$1.1	$0.9	$3.7
Clothing, footwear and personal accessories	$2.4	$0.1	$4.8	$7.2
Electrical and electronic goods	$2.0	$2.9	$0.0	$4.9
Pharmaceutical and other	$2.2	$3.4	$1.9	$7.5
Food and beverage services	$9.7	$0.5	$6.3	$16.5
Total	**$46.0**	**$23.4**	**$25.2**	**$94.6**

Figure 4:3: 2021 Retail Spending Power for the Waihi SCA ($m)

Retail Store Type	Households	Businesses	Tourists	Total
Food Retailing	$10.0	$1.1	$0.0	$11.1
Department stores	$1.8	$0.6	$0.0	$2.4
Furniture, floor coverings, houseware, textiles	$0.7	$0.5	$0.0	$1.2
Hardware, building and garden supplies	$1.3	$2.2	$0.0	$3.5
Recreational goods	$0.9	$0.3	$0.0	$1.2
Clothing, footwear and personal accessories	$1.2	$0.0	$0.0	$1.2
Electrical and electronic goods	$1.0	$0.8	$0.0	$1.8
Pharmaceutical and other	$1.1	$0.9	$0.0	$2.0
Food and beverage services	$4.8	$0.1	$0.0	$4.9
Total	**$22.7**	**$6.6**	**$0.0**	**$29.3**

Figure 4:4: 2021 Retail Spending Power for Waihi's Combined Catchments ($m)

Retail Store Type	Households	Businesses	Tourists	Total
Food Retailing	$30.4	$4.9	$11.3	$46.6
Department stores	$5.3	$2.8	$0.0	$8.1
Furniture, floor coverings, houseware, textiles	$2.0	$2.2	$0.0	$4.2
Hardware, building and garden supplies	$4.0	$10.0	$0.0	$14.1
Recreational goods	$2.6	$1.4	$0.9	$4.9
Clothing, footwear and personal accessories	$3.5	$0.1	$4.8	$8.4
Electrical and electronic goods	$3.1	$3.7	$0.0	$6.7
Pharmaceutical and other	$3.2	$4.3	$1.9	$9.5
Food and beverage services	$14.5	$0.6	$6.3	$21.5
Total	**$68.7**	**$30.0**	**$25.2**	**$123.9**

Lastly, we compare our retail spending power modelling for Waihi to our retail sales modelling in Figure 4:5 below. This gives an estimate of 'demand' vs 'supply'.

Figure 4:5: 2021 Retail 'Demand' vs 'Supply' (Spending Power vs Sales) ($m)

Retail Store Type	Modelled Demand	Modelled Sales	Difference ($)	Difference (%)
Food Retailing	$46.6	$53.9	-$7.3	-16%
Department stores	$8.1	$0.0	$8.1	100%
Furniture, floor coverings, houseware, textiles	$4.2	$2.1	$2.1	50%
Hardware, building and garden supplies	$14.1	$37.0	-$23.0	-163%
Recreational goods	$4.9	$2.9	$2.0	41%
Clothing, footwear and personal accessories	$8.4	$1.9	$6.5	78%
Electrical and electronic goods	$6.7	$3.5	$3.2	48%
Pharmaceutical and other	$9.5	$6.3	$3.2	34%
Food and beverage services	$21.5	$18.8	$2.7	12%
Total	**$123.9**	**$126.3**	**-$2.4**	**-2%**

This table suggests that overall, Waihi's retail market is roughly in balance i.e. actual sales ('supply') are in line with retail spending power ('demand'). However, the picture varies significantly by store type:

- "Food retailing" sales in Waihi are estimated to be higher than demand arising from the PCA and SCA. We believe our Retail Sales Model probably understates the true demand for food retailing in Waihi, because it applied such a large income adjustment (-39% for the PCA and -17% for the SCA). Conversely, supermarket operators often use a flat 'sales per capita' as a benchmark for estimating sales, with no income adjustment at all. As such, demand is probably in balance with supply.
- "Hardware, building and garden supplies" sales in Waihi are estimated to be much higher than demand, which suggests that Mitre 10 Waihi does indeed serve a larger catchment than other stores in the town – likely to include the rest of the Hauraki District, and perhaps beyond.

- For all other store types, estimated sales in Waihi are lower than demand, suggesting that Waihi consumers travel elsewhere to satisfy their demand.
- Waihi has no department stores and very limited offerings across clothing, furniture, electronics, recreational goods etc. Employee counts (and therefore estimated sales) are very low for these store types. Waihi residents would normally travel to Tauranga to access a wider range, or to shop in national retail chains like The Warehouse or Harvey Norman.
- This result is known as 'retail leakage' and the percentages in the table above illustrate how much spend or demand leaks out – a full 100% for department stores, and 34-78% for other store types (although a lower 12% for food & beverage).

Projecting Future Retail Spending Power in Waihi

The RCG Retail Sales Model can also be used to project how retail spending power will change in future. We use a very simple method to do this:

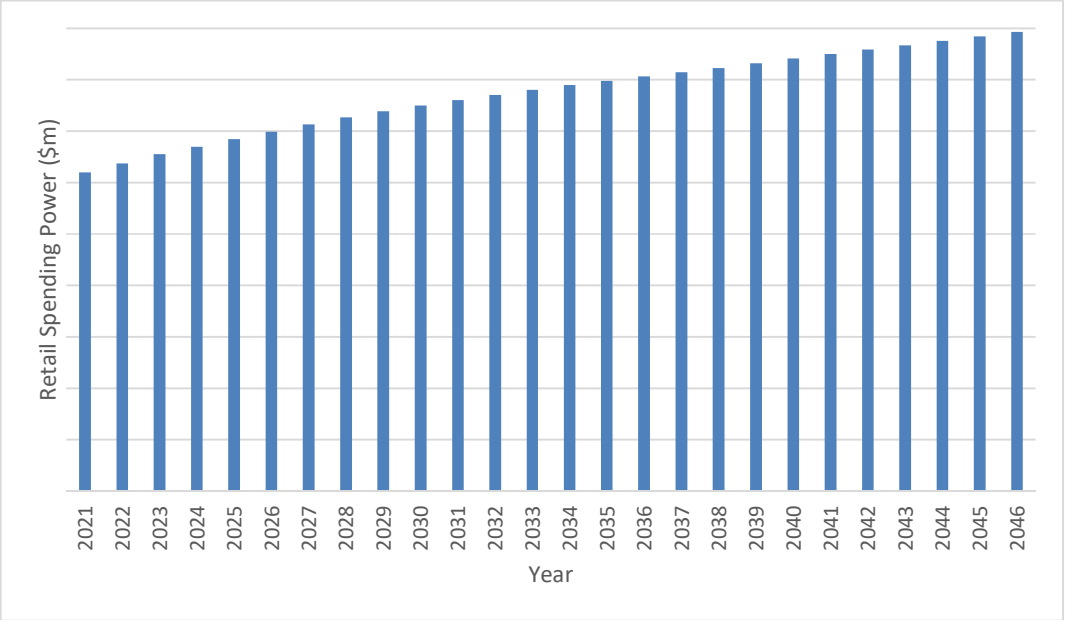
- Household numbers in the PCA are assumed to grow in line with the Infometrics medium projection (see section 3 below). Since we do not have an equivalent projection for the SCA, we assume household numbers grow in line with the Stats NZ medium population projection.
- We assume that employee numbers and visitor numbers grow at the same rate as household numbers.
- We assume that retail spending power per household, per employee, and per visitor all increases by 1% per year (in real terms).

The results of our projections are shown in the table and graph below, with retail spending power growing by 44% over the next 25 years due to a combination of household growth (contributing 16%) and per-household spending growth (contributing 28%):

Figure 4:6: 2021 Retail Spending Power Projections for Waihi ($m)

Retail Store Type	2021	2026	2031	2036	2041	2046
Food Retailing	$46.6	$52.5	$57.1	$60.6	$63.9	$67.1
Department stores	$8.1	$9.1	$9.9	$10.6	$11.1	$11.7
Furniture, floor coverings, houseware, textiles	$4.2	$4.8	$5.2	$5.5	$5.8	$6.1
Hardware, building and garden supplies	$14.1	$15.8	$17.2	$18.3	$19.3	$20.3
Recreational goods	$4.9	$5.5	$6.0	$6.4	$6.7	$7.1
Clothing, footwear and personal accessories	$8.4	$9.5	$10.3	$10.9	$11.5	$12.1
Electrical and electronic goods	$6.7	$7.6	$8.2	$8.7	$9.2	$9.7
Pharmaceutical and other	$9.5	$10.7	$11.6	$12.3	$13.0	$13.6
Food and beverage services	$21.5	$24.2	$26.3	$27.9	$29.4	$30.9
Total	**$123.9**	**$139.8**	**$152.0**	**$161.3**	**$169.9**	**$178.6**

Figure 4:7: 2021 Retail Spending Power Projections for Waihi ($m)



Future growth is always uncertain, and the assumptions we use to project retail demand growth could certainly be debated. Although retail spending per household has historically grown faster than 1% per annum (averaging 2% over the last 25 years), future growth is likely to be lower due to changing demographics and retail market structure. Our 2021 'base year' reflected a strong trading period for retail, buoyed by New Zealanders spending at home rather than travelling overseas, and strong house price rises leading to a 'wealth effect'. With rising inflation and house prices falling in 2022, the near-term outlook is negative and may result in the largest falls in real retail spending since the GFC.

Regardless of cyclical factors, we expect some factors to be structural and long-term. The growth of online shopping has been reshaping retail for a number of years, and Covid is likely to have ongoing impacts on how much retail development occurs. Retail properties are now thought of as relatively higher-risk, reflected in diverging yields from other property asset classes. This has the effect of depressing retail property values and making new development less likely to be viable. For example, Scentre Group's portfolio of Westfield-branded shopping centres, arguably the top shopping centres in New Zealand, have fallen in value by 9% on average from the end of 2019 to the end of 2021. There is some evidence that values have fallen further for secondary assets and for ones in lower-growth regional locations.

Many retailers have also slowed their rate of physical expansion, with some even reducing their store numbers or footprints – this reflects the continuation of a trend which started before Covid, largely driven by online shopping. Brands like The Warehouse and other large retailers discuss 'peak footprint', and while some retailers continue to expand (e.g. Kmart and the occasional new entry like Baby Bunting) most were slowing down even before Covid.

As such, we expect the rate of sales/ demand growth, and the rate of floor space growth, to be lower in the future than it was in the past.

RCG's Retail Sales Model also projects 'floor space demand', based on retail spending power, divided by an assumed level of sales per square metre (depending on store type and specialty vs large format space). Prior to Covid, we assumed that floor space demand would grow at the same rate as retail spending power. This assumption no longer seems appropriate, and we now assume that floor space becomes 0.5% more productive each year – i.e. floor space demand grows more slowly than retail spending power.

For completeness, we present our modelling results for Waihi below, but they do need to be treated with caution.

Figure 4:8: 2021 Floor Space Demand Projections for Waihi (square metres Gross Floor Area)

Retail Store Type	2021	2026	2031	2036	2041	2046
Food Retailing	3,361	3,697	3,922	4,059	4,170	4,276
Department stores	2,319	2,548	2,702	2,797	2,876	2,950
Furniture, floor coverings, houseware, textiles	1,075	1,181	1,253	1,297	1,333	1,367
Hardware, building and garden supplies	4,472	4,918	5,217	5,399	5,549	5,690
Recreational goods	1,096	1,206	1,279	1,324	1,360	1,395
Clothing, footwear and personal accessories	1,616	1,780	1,890	1,954	2,005	2,054
Electrical and electronic goods	671	738	783	810	833	854
Pharmaceutical and other	1,435	1,579	1,676	1,734	1,781	1,826
Food and beverage services	2,196	2,416	2,563	2,652	2,724	2,793
Total	**18,241**	**20,064**	**21,284**	**22,026**	**22,632**	**23,206**

Like our retail spending power projections, these tables don't indicate where the demand will be satisfied. For some store types (notably department stores, clothing, electronics etc) demand is likely to be met in Tauranga rather than Waihi; we expect that any growth in demand will also be focused in Tauranga, rather than new large format stores opening in Waihi. The modelling also excludes non-retail users of retail space (banks, hairdressers, real estate, etc) and these can typically account for at least 10% of total retail space.

We do not have a detailed survey of how much retail floor space there is in Waihi, but CoreLogic data identifies a total of 15,832 sqm of Commercial Retail buildings plus 2,420 sqm of Commercial Liquor buildings. It is likely that Waihi has a mix of 'oversupplied' and 'undersupplied' store types in terms of floor space – e.g. 2,420 sqm of liquor stores could reflect older, oversized stores rather than smaller modern stores, whereas of course there are no department stores in Waihi.

In our view, it is unlikely that much extra retail space will be required in the future for a relatively low-growth town like Waihi. Most growth that does occur is likely to be in the major, high-growth cities like Tauranga (with examples including Tauranga Crossing, expansions at Bethlehem, Bayfair and Papamoa, future centres like The Sands etc). Large format retail is a key contributor to floor space growth, and this is heavily weighted towards the cities as well. Waihi is much too small to be on the radar for most national brands, aside from food & beverage franchises. As such, the Hauraki Growth Strategy 2050 uses an appropriate approach in not expecting to zone any new commercial land.

5 Commercial Activity in Small Towns

Waihi is one of many towns in the Waikato and Western Bay of Plenty areas – each with their own centres of population and key industries, serving as 'local service centres' for people living in the towns themselves and in surrounding rural areas. We have looked at 16 of these towns including Waihi, each of which is defined as a 'small urban area' by Stats NZ and has an urban population of 1,500-10,000 people.

Towns can have varying levels of retail and service provision – and commercial land provision more generally – depending on their history, the size of the rural area they cater to, and how close they are to the nearest major city. Masterton and Cambridge are similarly sized, but Masterton has a larger retail offering because it is more than an hour's drive from the Hutt Valley, whereas Cambridge is less than half an hour from Hamilton.

We have also analysed the commercial land areas, and floor areas, across each town using CoreLogic data. The results are shown in Figure 5:1 below:

Figure 5:1: Comparing Populations and Commercial Activity Across Towns

Town	Land Area (ha)	Floor Area (sqm)	2020 Urban Population
Matamata	30.5	104,081	8,460
Te Puke	18.8	73,228	9,560
Morrinsville	18.8	71,782	8,320
Huntly	46.6	55,511	8,730
Paeroa	20.8	48,739	4,510
Te Aroha	12.3	45,661	4,670
Waihi	17.5	40,129	5,740
Te Kauwhata	21.8	29,931	2,310
Katikati	11.0	29,066	5,420
Waihi Beach	18.1	23,930	2,720
Raglan	37.8	20,206	3,590
Tuakau	7.1	19,446	5,390
Ngaruawahia	6.5	18,984	7,740
Ngatea	7.0	12,328	1,550
Pokeno	6.8	9,656	4,020
Omokoroa	0.2	227	3,780

Source: RCG, CoreLogic PropertyGuru

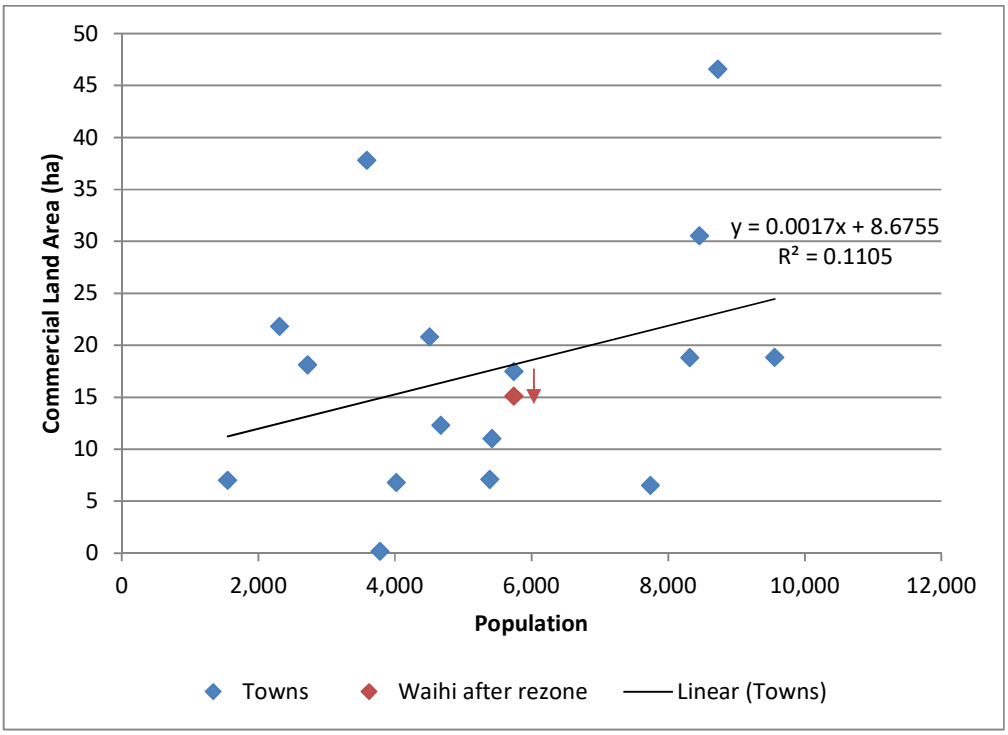
Most of these towns are long-established, whereas Pokeno and Omokoroa are in a development stage – for example, Omokoroa is expected to grow from 3,780 people in 2020 to at least 10,000 once complete, and a town centre of roughly 5 hectares has been consented but not yet developed. As such, CoreLogic currently classifies the town centre site as agricultural (based on its current use) rather than commercial.

Some properties categorised as commercial will be outside of Town Centre zones, and not all Town Centre properties will be commercial. Even so, Figure 5:1 should be a reasonable basis for comparison. A simple regression analysis shows that larger towns tend to have more commercial land area. However, the relationship is quite weak. Population size only explains 11% of the difference in commercial land area between towns ($R^2 = 0.11$).

Larger towns also tend to have more commercial floor area, and the relationship here is stronger. Population size explains 52% of the difference in commercial floor area between towns ($R^2 = 0.52$). This suggests that towns can develop their land more intensely if required, in order to supply the required floor space for their needs.

Waihi is close to the trend line for both regressions, which is to say that its supply of commercial land and floorspace is typical for its size.

Figure 5:2: Commercial Land Area vs Population, Before and After Rezoning



Source: RCG, CoreLogic PropertyGuru

Even assuming the entire 2.39 hectares of Town Centre-zoned land subject to the plan change is 'lost' – overly conservative since parts of the Pye building will be retained – Waihi is still very much within a normal range for these towns. Floor space provision is likely to be more important, and the town will adapt to any change. This may create new redevelopment opportunities.

Commercial Factors for the Town Centre

Town centres have important roles in their communities – they are "community focal points" for shopping, services, leisure, civic life etc. This is recognised in the Hauraki District Plan via a

specific zone, the Town Centre zone. Quotes in this section of our report are from section 5.11 of the District Plan and primarily from the objectives and policies there.

Councils often seek to avoid commercial activities in out-of-centre zones, or to avoid zoning too much commercial space within town centres. The District Plan seeks to avoid a "wasteful use of resources (especially land and infrastructure)", in part through "[consolidating] business, retail and community facilities and activities within the… town centre".

Waihi's current provision of Town Centre-zoned land and floor space is more than sufficient in our view. It seems to be about 'average' for a town of its size as per section 5 of our report, but substantial variation occurs around this average.

The Town Centre-zoned properties which are affected by this plan change are away from Waihi's main shopping strip/ pedestrian axis. They are 'fringe' properties in terms of:

- Their locations (off the main streets/ highways and with limited profile except for the Pye building);
- How they are developed (without strong pedestrian-generating activities, and most buildings not open to the public). Most of the land affected by the proposed plan change is used for non-commercial purposes: houses, vacant land or industrial purposes. Both the Pye building and 4 Martha Street are industrial-style buildings, although some of the occupants of the Pye building could be thought of as commercial rather than industrial.

The loss of these properties is very unlikely to have consequential effects on the town centre's form and function. We see Seddon Street as the key axis, with highway traffic also an important contributor to the town centre. Many Town Centre properties are not intensively developed, and could be redeveloped with more floor space if it is economically viable to do so.

There are few vacancies in the town centre, for either retail or office space. This suggests a healthy town centre environment. It does not mean that there is an 'undersupply' of retail or office space in our view; rather it means that there is no overhang of space. The market has found a balance where most existing spaces can find tenants, but generally the rents are probably too low to justify constructing new buildings. This is reflected in building consent data for the Hauraki District which shows a very small number of new retail/ office buildings consented in the last ten years or so.

Retail and Commercial Building Consent Data

Because Waihi (and the wider Hauraki District) is a small market, industrial building consents fluctuate significantly from year to year. On average over April 1990 – May 2022 inclusive, the Hauraki District consented 695 sqm of "shops, restaurants, and bars" and 247 sqm of "office, administration, and public transport buildings", for a total of 942 sqm of commercial floor space consented each year.

We have area unit-level consent data for Waihi itself for a slightly shorter period, from April 1990 to January 2020 inclusive. In total over this period (almost 30 years) there was an average of 469 sqm of "shops, restaurants, and bars" consented each year, and 73 sqm of "office,

administration, and public transport buildings", for a total of 542 sqm of commercial floor space consented each year.

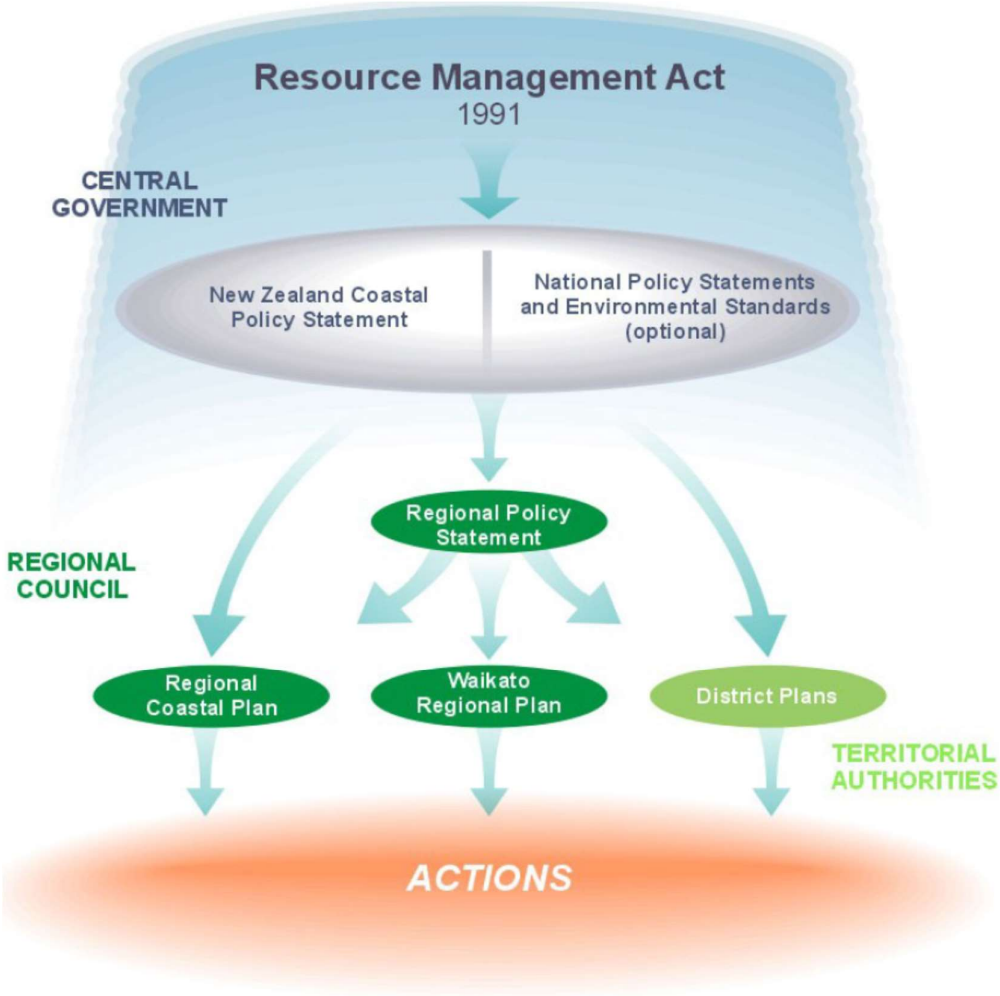
These figures are likely to include a reasonable share of 'demolish and redevelop' consents, so the net increase in floor space will be smaller. The largest retail consent at 4,160 sqm (in April 2005) is likely to have been the Mitre 10 store, which replaced several smaller buildings on the site.

As noted in section 2, CoreLogic's PropertyGuru data shows that Waihi currently has 40,100 sqm of commercial floor space (including retail, office, education, tourism and mixed/ other). If 542 sqm is consented each year, this is equivalent to 1.35% of the existing stock. If the average building has a 50-year lifetime before it becomes functionally or economically obsolete, this would imply that net commercial floor space is actually reducing, although this seems unlikely. It's more likely that buildings are being renovated and kept up to standard, but very little new development is occurring.

6 Legislative and Planning Context

This plan change application is being considered under the Resource Management Act (RMA) and various planning/ policy documents that are further down the hierarchy. The RMA hierarchy is shown in Figure 6:1 below:

Figure 6:1: Resource Management Act Hierarchy



Source: "Waikato Regional Policy Statement", Waikato Regional Council

National Policy Statement on Urban Development (NPS-UD)

The NPS-UD defines an "urban environment" as "predominantly urban in character; and… part of a housing and labour market of at least 10,000 people". Waihi is too small to meet this definition. However, we still find it useful to give some context on the NPS-UD, as things that are requirements for larger towns could still be considerations for smaller ones.

In our view, relevant directions from the NPS-UD include:

- Councils should enable various types of homes, in location, size and price, to help them meet the (changing) needs of different households (policy 1a(i))
- Councils should also provide flexibility and variety for commercial/ industrial needs
- Councils should "support… the competitive operation of land and development markets" to "improve housing affordability" (policy 1d and objective 2)
- Councils should take a long-term view, out to 30 years (policy 2)
- Councils must enable more development capacity, along with a buffer to recognise that not all growth opportunities will be taken up (policies 2 and 7)
- Councils should zone more land for greenfields or infill growth, and provide infrastructure to service the new growth
- Councils should consider feasibility and reasonableness, i.e. whether the capacity is likely to be taken up
- Councils should monitor housing and business trends – demand, supply, land uptake, pricing etc – on a regular basis
- Larger or faster-growing cities need the most policy focus, although smaller towns should still meet changing demands and growth needs
- Implementation of these national policy directions will take time, and councils have several years to comply with some requirements

The NPS defines three timeframes – short, medium and long term:

- Short term: 0-3 years
- Medium term: 3-10 years. Note that a 10-year timeframe is required for each Long Term Plan, with District Plan reviews also occurring at least every 10 years.
- Long term: 10-30 years

The level of uncertainty increases the further into the future we look, so the strictest requirements on urban councils relate to the short and medium term. For short- and medium-term needs, Tier 1 and 2 urban councils must have the land already zoned or serviced with infrastructure, or have funding in place for this.[10] For long-term needs, these councils only have to identify land for future rezoning in a Future Development Strategy and identify the required infrastructure within their infrastructure strategy.

It is important to note that only Tier 1 and Tier 2 councils are required to prepare a Future Development Strategy. Tier 3 councils which oversee smaller/ slower-growing urban environments are not required to follow this part of the NPS-UD (although they are "strongly encouraged" to do so), and councils which only include smaller towns of less than 10,000 people (like Hauraki/ Waihi) are not bound by the NPS-UD at all.

[10] Tier 1 and Tier 2 councils are defined in the appendix to the NPS-UD. They administer New Zealand's 12 largest urban environments, plus Queenstown which is smaller but fast-growing.

However, the Hauraki Growth Strategy 2050, which we detail below, meets some of the requirements of a Future Development Strategy, e.g. considering the development capacity which will be required over the next 30 years.

In our view, the approach HDC is taking to growth is entirely reasonable for a smaller council, although they may be underestimating the potential growth in Waihi as per our section 3. HDC is planning for future growth, both through identifying and rezoning new greenfields areas and taking a long-term approach to infrastructure planning.

Waikato Regional Policy Statement

Regional and district plans in the Waikato region must give effect to the Regional Policy Statement.

We have briefly reviewed the objectives and policies in the Regional Policy Statement and none of them seem overly influential for a 'land supply' assessment in Waihi. However, we note the policy 6.1 as having some relevance, with implementation methods 6.1.6 and 6.1.7. It is useful for councils to "develop and maintain growth strategies" whether high-growth or not, as HDC has done, and structure plans are useful to "facilitate proactive decisions about the future location of urban development". HDC is currently looking at several locations for potential future growth around Waihi.

Land Supply/ Capacity in Waihi

The Hauraki Growth Strategy 2050 was finalised in 2019. Table 6 of the Hauraki Growth Strategy 2050 looks at 'current' growth capacity within existing zones, although this work was carried out in late 2017 so some of the capacity will have been taken up since then:

Figure 6:2: Current Zoned Capacity in Waihi

Zones	Residential	Low density residential	Industrial	Commercial
Waihi				
Greenfield (lots)	150	50	70	67
Infil (lots)	546	117	-	-
Paeroa				
Greenfield (lots)	302	183	250	50
Infil (lots)	349	45	-	-
Ngatea				
Greenfield (lots)	414	-	10	6
Infil (lots)	43	-	-	-
Totals (lots)	**1,804**	**395**	**330**	**123**

Source: Hauraki Growth Strategy 2050

Based on this table, HDC estimates that Waihi had Residential-zoned capacity for 150 greenfields housing lots, as well as 546 infill lots. It also had Low Density Residential-zoned capacity for 50 greenfields housing lots, as well as 117 infill lots. There was capacity for 70 Industrial lots and 67 Commercial lots. Significant capacity also exists in Paeroa.

Comparing zoned capacity with growth projections, the Hauraki Growth Strategy 2050 finds that there is a "a shortfall in [live residential-zoned] land available for development by 2028", which worsens in the following decades. As such:

> *"Further land is required to be zoned within the next 20 years to meet this shortfall and more land will be required over the longer 30 year timeframe. More residential land may be required at Waihi which has the least land available for development" (HGS page 10).*

The Hauraki Growth Strategy 2050 was based on older population/ household projections which indicated a lower level of growth than the Infometrics projections which HDC now uses for their planning. As such, the 'shortfall' may well occur sooner than the strategy anticipated.

For business land, the Hauraki Growth Strategy 2050 expects that:

> *"Business development shows a surplus of land over the 30 year period, suggesting there is sufficient land available but the location of this land is a consideration. Most of the available land is within Paeroa, so more land may be required to be zoned at Waihi and Ngatea" (HGS page 10).*

Table 8 of the Hauraki Growth Strategy 2050 shows that there is significant future (potential) capacity for both residential and industrial lots, and does not anticipate zoning any new commercial lots. This table is reproduced below, with the first column showing live-zoned greenfield capacity (ignoring infill capacity) and the second column showing "new growth areas" that could be rezoned in future:

Figure 6:3: Current Zoned and Future Potential Capacity in Waihi

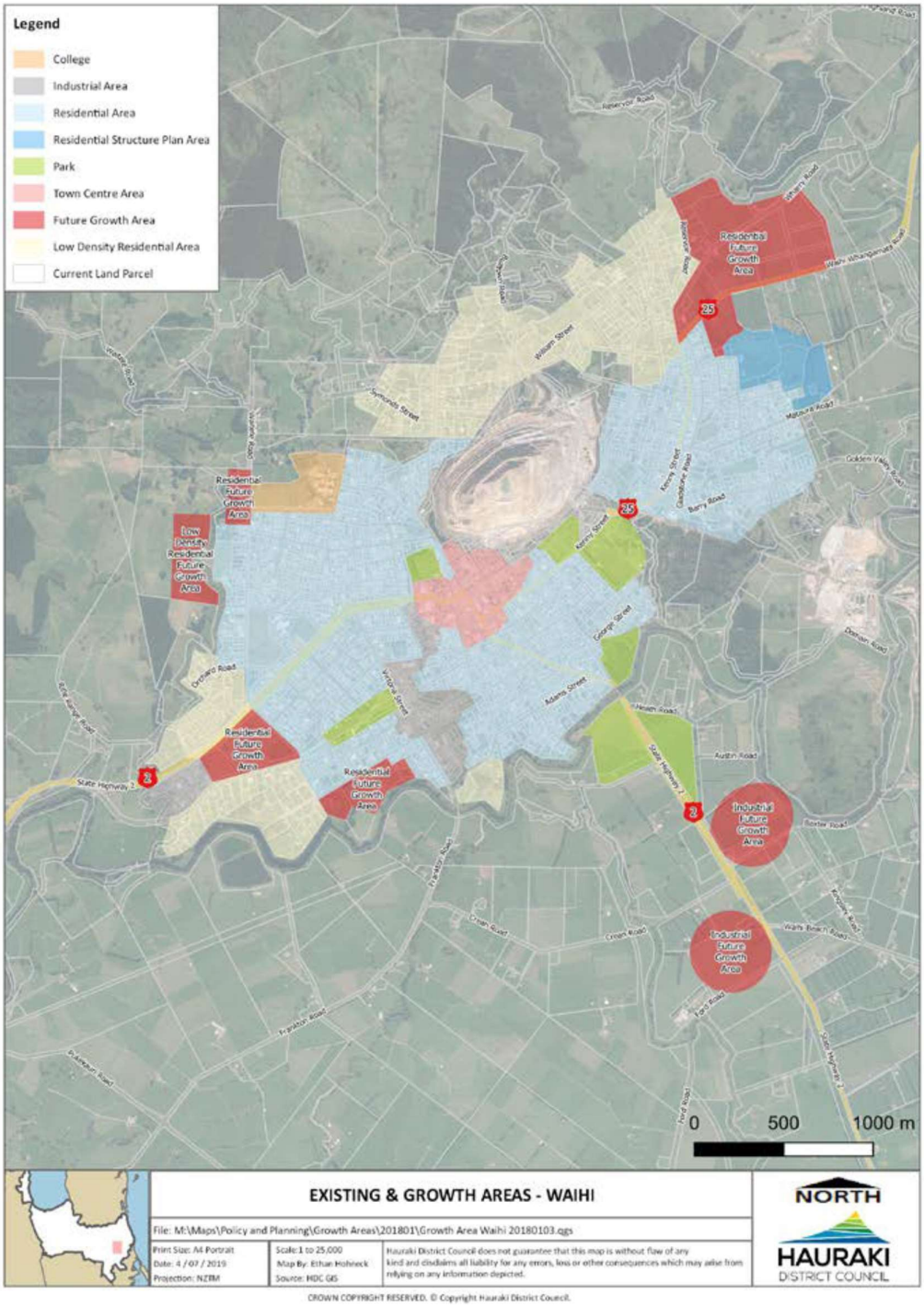
Area	Existing potential greenfield (lots)	New growth area (lots)	TOTAL (lots)
WAIHI			
Residential	150	1,307	**1,457**
Low density residential	50	70	**120**
Industrial	70	410	**480**
Commercial	67	0	**67**

Source: Hauraki Growth Strategy 2050

Comparing these numbers to the 'demand' projections earlier in our report, and considering the potential for infill as well, Waihi has more than enough land to accommodate all future housing growth. However, many of these areas are not yet zoned.

Figure 6:4 below shows existing and potential growth areas for Waihi, as identified in the Hauraki Growth Strategy 2050. It is highly likely that some (but not all) of these potential areas will need to be rezoned in the years to come:

Figure 6:4: Existing and Potential Growth Areas



Source: Hauraki Growth Strategy 2050

HDC has continued to investigate these potential growth areas since the Hauraki Growth Strategy 2050. As of July 2022, HDC intends to lodge one or more plan changes to provide more land for both residential and industrial needs. Once they are notified, heard and approved, the newly zoned lands will be able to be developed.

HDC has advised that the lot numbers shown above for industrial are based on the minimum lot size of 1,000 sqm in the industrial zone. The 70 "existing potential greenfield" lots in Figure 6:3 therefore represent a land area of 7 hectares (it appears this is based on land parcels which may be partly occupied at present, but which are 'underutilised').

The 410 'new growth area' lots are based on 41 hectares of land in two different areas, Ford/Crean Rd (28.3 ha) and at Baxter Rd (12.9 ha). However, "Council would not seek to rezone both areas at once – one area or the other would likely be adequate for many years". The actual number of lots would be much smaller than the numbers used in the Growth Strategy, since "no allowance has been made for roads, stormwater, etc. and that industrial businesses often need more than 1,000m2 on which to operate".[11] Ignoring the last factor since we are mainly concerned with land supply rather than the number of lots, we note that roads and stormwater (as well as reserves generally) are important and a key difference between 'gross' and 'net' land uptake. These items typically reduce the net developable land area by at least 20-30%.

[11] Both quotes here are from an email from HDC's Community Development Advisor (Economic), 27/7/2022

7 Employment and Industrial Trends

Our report is primarily concerned with the land supply impacts of the proposed plan change. To do that, we need to form a view on what land demand and supply will look like in the future, based on past trends and other available data. Industrial land demand/ supply can be estimated through looking at any of the following:

- Employment trends. Good-quality, consistent employment data is available back to 2000. However, converting employment data to industrial land requirements is an inaccurate method in our view. "Employee density" can vary greatly by industry and location, and indeed by how far advanced a development is – industrial occupiers will often start with a small building on a big piece of land, so they have room to expand in the future. Smaller towns typically have lower density, i.e. use more land for the same level of employment.
- Building consents (floor area consented for industrial buildings). A high-quality, consistent data source which is available back to April 1990, but not always the best indicator of land uptake.
- Population trends. Since high-quality, consistent population data is available back to 1996, and population projections are published by Stats NZ and others, some consultants assume that industrial growth will be in tandem with population growth.
- Actual data on land 'uptake' (how long it takes for zoned land to be developed), or data on the utilisation of existing industrial land. This is potentially the best data source, but little long-term data is available and it is not necessarily consistent between different council areas.

It is also worth explaining the terms 'demand' and 'supply' further. Economists usually visualise demand and supply as two different curves: consumers will want more of a product as its price declines, whereas producers will produce less as prices decline. These curves will meet at a certain equilibrium point, where 'quantity demanded' equals 'quantity supplied', although sometimes this point is just called 'demand' for simplicity.

Land markets are different, since supply is fixed in the short term and usually changes more slowly than demand, even in the longer term. Modern urban planning in New Zealand, e.g. as informed by the National Policy Statement on Urban Development (NPS-UD), gives councils the job of ensuring they have enough supply capacity (current or potential) to meet demand. For a well-functioning market, councils need to plan far enough ahead to cater for many years of potential demand growth.

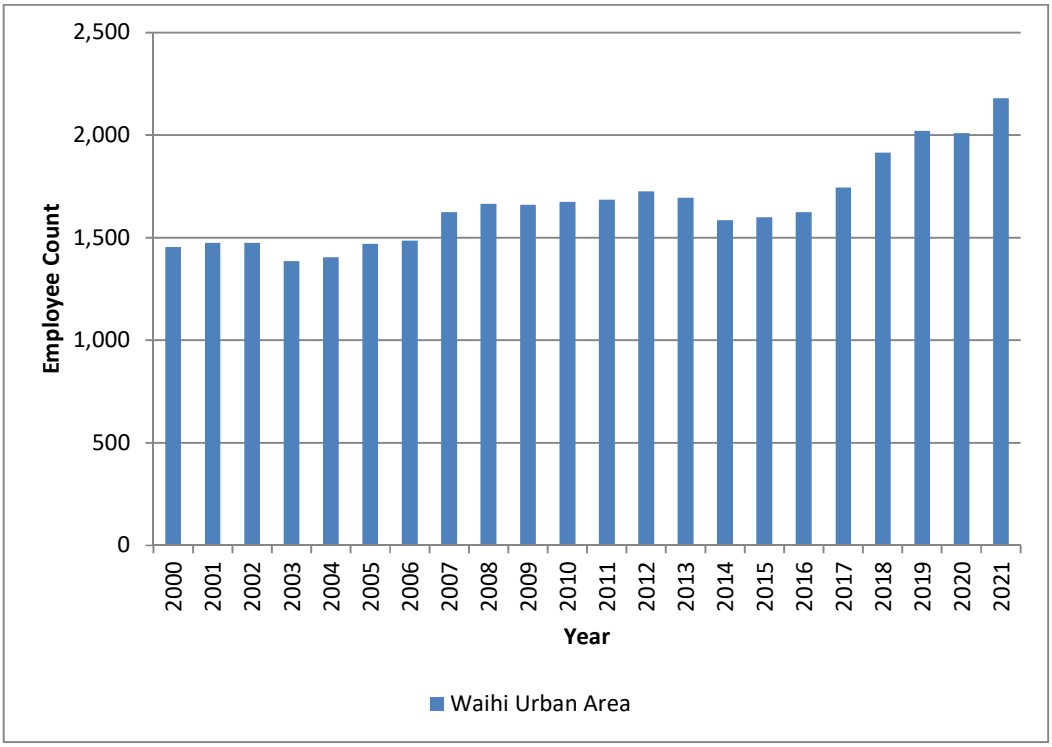
For this report, we see all of the above data sources – employment, building consents, population and land uptake – as being indicators of industrial land demand (technically, the changing equilibrium over time where quantity demanded equals quantity supplied).

We also note that HDC is currently preparing a plan change to rezone more land in Waihi for industrial purposes, as signalled in the Hauraki Growth Strategy 2050. HDC have commissioned a full report from Veros Property Services Ltd to analyse industrial demand in Waihi. A full industrial assessment is outside the scope of the Martha Mine plan change and our current report, but we do provide a range of comments.

Employment Trends

Business demography statistics from Stats NZ give the best indication as to where employment is located. The Waihi urban area was home to nearly 2,200 employees as at February 2021, having risen quite strongly since 2016. These annual 'employee counts' are shown in below:

Figure 7:1: Employee Counts in the Waihi Urban Area, 2000-2021



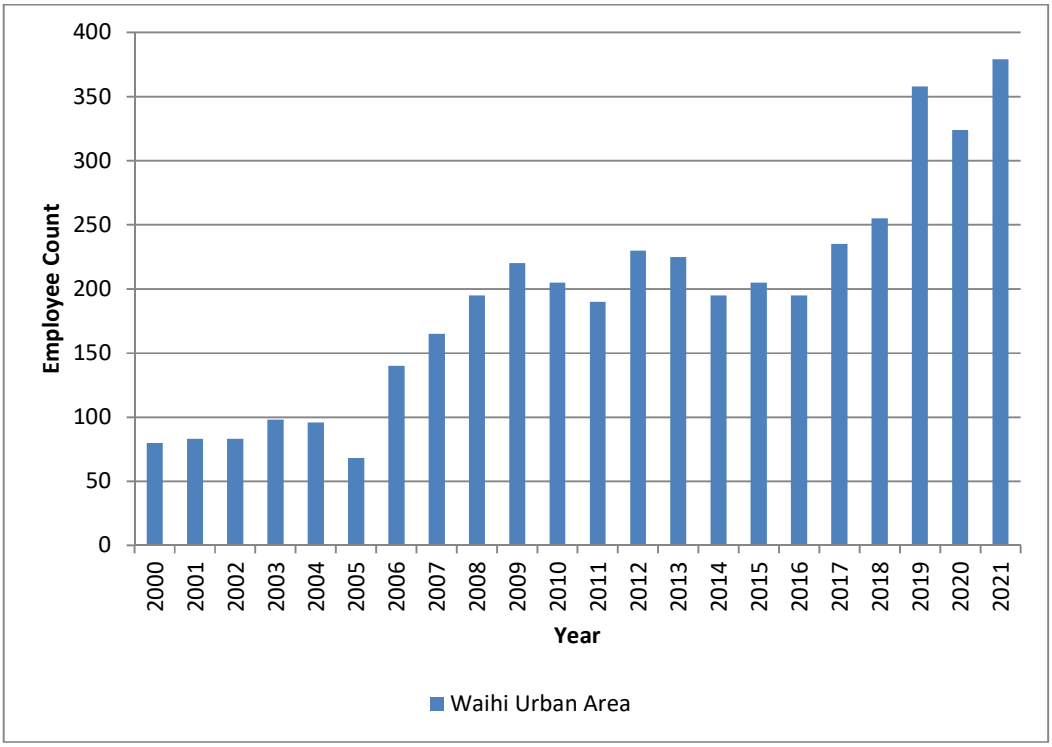
Source: Stats NZ

Employment was quite flat over 2000-2015, and has grown much more strongly from 2016-2021. This could reflect a range of factors: flat population growth in the earlier years followed by an increase in the later years (with spinoffs for employment that services the residential population, e.g. retail); general economic/ cyclical factors with a more buoyant economy in the later years; and growth in specific industries, e.g. mining which we consider below.

Mining Operations, and Implications for Employment/ Housing Demand

Business demography statistics from Stats NZ also give an indication of how many people are employed in each industry. overleaf shows the 'employee count' for the Mining industry as defined by ANZSIC 2006, for the combined Waihi urban area and rural surrounds (i.e. including the Waihi Rural SA2).

Figure 7:2: Mining Employee Counts in Waihi Urban/ Rural, 2000-2021

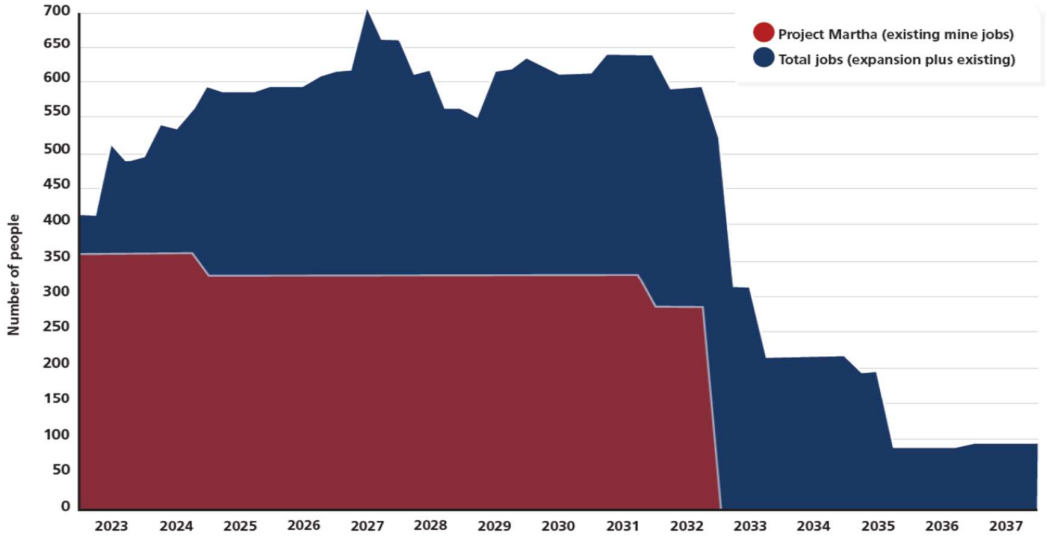


The current plan change application relates to an expansion of the Martha Pit. We understand from OGNZ that this expansion does not create much additional demand for workers; instead, it extends the lifetime of mining operations and the need for the existing workforce. OGNZ expects that most workers from the Gladstone Pit will transfer to the Martha Pit in around 2028-2029 with the potential for an additional 15-20 workers compared with the current number. The number of additional workers is fairly small compared to the current 300+ mining employees in and around Waihi.

However, OGNZ is also considering another mining project, known as 'Waihi North'. This project is likely to be progressed through a resource consent process, and consent has not yet been lodged at the time our report was prepared. If Waihi North proceeds, it will have a significant impact on OGNZ's workforce requirements in the next decade. A Beca report[12] shows employment climbing from the present 360 workers to roughly 600 in 2024-2032 before beginning to decline again, as shown in below:

[12] "OceanaGold Waihi North Project: OceanaGold Workforce Planning Pre-feasibility Report", Beca, Revision C dated 2 July 2021

Figure 7:3: Number of jobs generated by the Waihi North Project compared to the existing number of jobs



Source: Beca (appears in their report as 'Figure 1')

This additional employment would be a major boost for Waihi. As Beca note, the 'direct' mining and construction jobs in the figure above lead to an even larger number of support/ indirect jobs, although these are likely to be more dispersed geographically.

Beca assume that 84.4% of the additional mining/ construction workers will live 'locally' (which appears to mean within 30 km of Waihi, a fairly large area), the same percentage as the current workforce. They assume that these workers already have accommodation so do not add to housing demand. However, the remaining workers who either live 'regionally' or 'internationally' are assumed to relocate to Waihi or nearby, and in Beca's Scenario 1 they create demand for 57 new homes. In Scenario 2, they are assumed to live elsewhere and require organised transport to Waihi (e.g. shuttles/ vans) instead.

As noted above, Waihi North has a separate process to the current Martha Mine plan change. However, if Waihi North proceeds it will boost Waihi employment and its population growth trajectory, at least for the next decade or so. There is likely to be extra housing demand as a result. On the other hand, also makes it clear that the boost is temporary i.e. mining employment will drop below current levels from the 2030s onwards.

We also note the timeframes for these two separate mining projects: Waihi North could potentially give a boost to employment once construction begins circa 2023, and maintain employment at elevated levels over 2024-2032. The Martha Mine expansion, the focus of the current plan change, helps to support continued employment of the Gladstone Pit workforce from 2028-2029 onwards.

Industrial Building Consent Data

Because Waihi (and the wider Hauraki District) is a small market, industrial building consents fluctuate significantly from year to year. On average over April 1990 – May 2022 inclusive, the

Hauraki District consented 2,521 sqm of “factories, industrial, and storage buildings” per year. By comparison, Tauranga City consented 45,023 sqm per year.

We have area unit-level consent data for Waihi from April 1990 to January 2020 inclusive. In total over this period (almost 30 years) there was an average of 805 sqm of “factories, industrial, and storage buildings” per year, roughly a third of the district-wide total.

These figures are likely to include a reasonable share of 'demolish and redevelop' consents, so the net increase in floor space will be smaller. As noted in section 2, CoreLogic’s PropertyGuru data shows that Waihi currently has 41,500 sqm of industrial floor space. If 805 sqm is consented each year, this is equivalent to 1.9% of the existing stock. If the average building has a 50-year lifetime before it becomes functionally or economically obsolete, this would imply that net industrial floor space hasn’t increased at all.

However, information provided by HDC gives further context:

> *“In Waihi, since 1993 there have been around 30 building consents issued for new industrial buildings/extensions/additions on land zoned Industrial. Around half of these (14) have been on land at Dean Crescent that was owned and subdivided by Hauraki District Council in 2002”. [Email from HDC’s Community Development Advisor (Economic), 27/7/2022]*

Population Trends

According to the Infometrics Medium projections, the Waihi urban + rural area could grow from 7,800 people in 2018 to 9,200 in 2048. This is growth of 18.0%, with most of that growth (14.7%) coming in the first decade.

As a very simple exercise, an 18.0% increase on Waihi’s current industrial land supply of 21.5 hectares would be 25.4 hectares (an increase of 3.9 hectares), whereas a 14.7% increase would be 24.7 hectares (up 3.2 hectares). This could suggest a need for 0.3 hectares per year over the next decade, but not much more than 0.1 hectares per year over 30 years. Of course, the link between population and industrial land demand is a fairly weak one, so this is a very rough approximation.

Industrial Land Uptake

Like a number of other small councils, HDC is active in the land development market itself. In our view, councils typically get involved when the market is too small to sustain long-term local developers, or where demand is modest but can be stimulated through committed landowners that take a long-term view (councils can see this as an economic development opportunity for their districts).

Examples of HDC’s industrial land developments include Dean Crescent as per above, as well as industrial land at Kerepehi, close to Ngatea:

"In 2006 and 2007, Council developed an industrial park in Kerepehi. It took some time to build momentum in sales, as our district was not well known as a location for industrial development. This has changed in the past 10 years, with all 27 lots now sold. We continue to receive a number of enquiries about Kerepehi due to its location on State Highway 2". [Email from HDC's Community Development Advisor (Economic), 27/7/2022]

It seems that the Dean Crescent subdivision mentioned above included even numbers 8-14 and odd numbers 13-27, which total 2.66 hectares of land between them. Interestingly, the total floor area across all sites is shown as just 2,701 sqm, suggesting that the sites were in demand more for land rather than for large buildings. The average 'floor area to land area' ratio is around 10%, whereas 25%-50% is more typical in larger cities, and even Waihi averages a ratio of around 25%. It is difficult to extrapolate from this one subdivision, but if it represented ten years' growth say, that would imply annual land uptake of around 0.3 hectares per year.

Other than Dean Crescent, industrial land uptake appears to have been very limited in Waihi over the last 20 years, although some growth has taken place elsewhere in the Hauraki District (e.g. Kerepehi totals around 10 hectares). The various industrial areas in the district (Waihi, Paeroa, Ngatea and Kerepehi) are all fairly close substitutes from an occupier point of view – all on or alongside State Highway 2, and accessing the same labour market as people living in one town can easily commute to a different one. However, the towns will have their own unique factors e.g. a different mix of agricultural activities nearby, Waihi's mining industry, or Kerepehi/ Ngatea not being quite as convenient for an extended workforce.

There is still some Waihi industrial land seen as being underutilised (7 hectares/ 70 potential lots as per the Hauraki Growth Strategy 2050, but there will be a need for new zoned land.

As a more distant comparison, Tauranga City Council arguably has the best long-term data available on industrial land uptake of any city in the country, publishing the data annually. Their latest report finds that uptake has averaged 15 hectares per year over 1982-2021.[13] Tauranga City is 19 times the size of the Waihi urban + rural area (even excluding the Western Bay of Plenty District, parts of which are effectively satellites to Tauranga), and much faster growing.

Industrial Trends, Past and Future

In our view, based on the limited data available, long-term industrial land uptake in Waihi is likely to be less than 0.5 hectares per year although the next decade could be stronger – reflecting the last few years of positive population/ employment growth but limited new supply of industrial land. Future mining expansions could also give a boost in the short/ medium term.

Veros are currently preparing an industrial land demand report for HDC, which will give a more detailed analysis on industrial land demand and supply in Waihi. We will read their report once it is publicly available, and may update our conclusions as a result.

Land uptake in Waihi will be driven by a mix of factors – occupier demand, development economics, whether occupiers want a large site to allow for storage or future expansion, etc.

[13] See table 11 of https://www.tauranga.govt.nz/Portals/0/data/council/reports/industrial-land-survey-2021.pdf

With both Ford/Crean Rd and Baxter Rd having good access to State Highway 2, existing businesses may want to relocate there for better visibility and ease of access. The continuation and expansion of mining activity in Waihi will support the local economy, and support the demand for industrial land to some extent. Given that mining has a finite remaining life – with maybe ten years of elevated activity to come – it is unlikely to make a significant difference to long-term industrial land uptake.

As noted in section 6, either of the two options at Ford/Crean Rd (28.3 ha) or Baxter Rd (12.9 ha) "would likely be adequate for many years" and therefore HDC only expects to rezone one for industrial purposes in their upcoming plan change. If uptake is faster than expected, HDC will be able to bring forward a second option (as well as providing for industrial growth elsewhere in the district).

8 Response to Review Memos

Market Economics have prepared two Memos which review two previous versions of this report. In this current (July 2022) version of our report, we respond to Market Economics' latest (25/5/2022) memo. Our response to Market Economics' previous (15/10/2021) memo is included for posterity, although some parts of our response and the memo itself are now out-of-date due to our report revisions.

Market Economics Memo Dated 25/05/2022

A previous version of this report was issued in April 2022, and Greg Akehurst of Market Economics reviewed it in a memo dated 25/05/2022. The memo finds that the "RCG report [April 2022 version] is an adequate assessment of the land use implications of the proposed plan change". However, it stated that further information would be useful on two main areas:

- "Assessment of retail demand and supply based on actual demand and supply metrics – including the effects of township growth on demand for retail space – by retail category.
- Assessment of business land demand and supply based on future growth so that change can be viewed in the context of what is supplied currently and any future zoning. This is especially so in light of the indirect and induced economic growth likely to emerge from the mine expansion and the Waihi North mine project that is discussed".

The current July 2022 version of our report adds retail demand modelling in section 4, and a quantitative comparison of supply and demand. In our view, this should be sufficient information to address Market Economics' first point.

We have added a range of available information in order to address Market Economics' second point, and especially what future demand could look like. We have provided historical building consent data for commercial and industrial buildings; we have requested and received extra data/ commentary from HDC; and we have made reference to some extra reports and data sources which give further insight.

Market Economics Memo Dated 15/10/2021

A previous version of this report was issued in September 2021, and Greg Akehurst of Market Economics reviewed it in a memo dated 15/10/2021. We have now updated the report to address the issues they raised, and make the following points:

> *"RCG looked at the residential sites impacted by re-zoning. They concluded that many of these were underdeveloped, but did not state how they came to this conclusion (aside from obviously vacant sites)".*

We have clarified this with new text following figure 2.5. In brief, the residential sites would be able to accommodate a much larger number of homes than they currently do, based on the District Plan allowing a minimum site size of 450 sqm of land per dwelling.

> *"The 43 Moresby and 4 Martha Street properties are the largest industrial properties in Waihi… They estimate that 7,200 sqm of this will be lost (17% of total industrial*

floorspace [in Waihi]). There doesn't appear to be an assessment of whether this lost floorspace will need to be offset elsewhere, nor any identification of sites that could be suitable".

Our report focuses on 'land supply effects', more so than 'floorspace supply effects'. Councils and planning decision-makers have a role in determining how much land should be supplied, and it is then up to the private sector to choose how much floor space to supply. OGNZ occupies some of the floor space itself and leases some out to others, but (subject to any lease obligations) is free to choose whether to keep the buildings tenanted or to mothball them, or to demolish them and redevelop for some other use within the existing zoning. We have highlighted that the amount of floor space being lost could be quite substantial, but it is the rezoning, and the change in how the land is allowed to be used, that is relevant here.

Some of the current occupants may well want to relocate elsewhere in Waihi, into either industrial or commercial space – as noted earlier, not all of the activities carried out in the buildings are industrial in nature. Based on the HGS 2050, there is a significant amount of land in Waihi which is either currently zoned for industrial or could be rezoned within 'new growth areas'. Should land demand prove stronger than forecast in the HGS 2050, the council may wish to bring forward plans to rezone.

"RCG… have not undertaken a quantitative assessment of "retail demand" arising from the Waihi catchment and surrounds. RCG has assumed that "it is unlikely that much extra retail space will be required in the future", and that growth in demand will likely go to Tauranga. Although this is a possibility, RCG provide no quantitative assessment to justify this".

As noted in section 4, we have modelled 'retail supply' but not 'retail demand' or spending power – for small towns, demand is typically much higher than supply, because shoppers go to larger towns and cities to meet many of their shopping needs ('retail leakage'). The same is true of Waihi.

However, we do wish to elaborate on our assertion that "it is unlikely that much extra retail space will be required in the future". Although quantitative data is limited, small towns were struggling to grow or maintain their retail offerings even in the pre-Covid era. Most new retail development took place in larger, faster-growing towns and cities – examples being Hamilton, Tauranga and even Queenstown, all of which have opened significant shopping centres in recent years.

In the post-Covid era, retail development has become even more challenging: retail properties have taken a substantial value hit in the last two years. Rents have dropped, but 'cap rates' or yields have been even more affected: retail property is now seen as a relatively higher-risk asset class, which makes it harder to meet financial thresholds for new development. There has been a 'flight to quality': properties which are seen as giving more stable cashflows, or more potential for rental growth. This change too is likely to favour larger, faster-growing towns and cities, places where retail demand has more chance of growing. Small, slower-growing towns are likely to see limited retail development.

"RCG concludes that the projected growth of 393 dwellings in Waihi Urban + Rural will more than likely accommodate the demand created by the proposed Waihi North expansion (57 dwellings). These are conflicting statements, assuming that the expansion both are and are not included in the dwelling projections".

To be clear, all the population and household projections produced by Stats NZ/ Infometrics/ WRC/ NIDEA are created independently based on various assumptions around demographic change, migration, economic prospects etc. None of them directly consider whether a specific economic change will occur (e.g. mining continuing/ expanding/ ceasing).

However, mining is a key part of the Waihi economy. If mining activities do expand, then this will support a higher population growth outlook, and vice versa. The Waihi North expansion would give a boost to employment for roughly eight years, but it would also extend mining employment out for longer. This would support housing growth in the town. Since the Infometrics projection is already reasonably bullish (roughly in line with the Stats NZ High projection, for example) we think that the level of growth implied by Waihi North could be accommodated within it.

By contrast, if the Waihi North expansion was rejected, then mining would stop far earlier, and this would create downside risk for population growth in the town. As such, Waihi might follow the pattern of many other small towns and revert to a flat or declining population, rather than growing by 393 dwellings in the next decade. This is a hypothetical scenario, as Waihi North is not part of this plan change application.

"RCG comments generally on the feasibility of development as related to the NPS-UD, noting that often actual development is lower than theoretical capacity1. They do not provide an assessment of the likelihood of feasible development in Waihi, i.e. how many of the 2,250 lots would actually be developed. If the true number that are feasible for development is lower than 2,250 lots, then the supply-demand relationship becomes more strained. In this context, the loss of 24 dwellings has an increasingly larger impact".

We agree with this point, but it is well outside the scope of this study to estimate how many of the 2,250 lots would be feasible for development. At any rate, even under the Infometrics high projection, only 1,034 would be required. The key point is that 24 dwellings is minor relative to Waihi's current size, or its potential future growth.

"RCG provides no comment on what overall impact the loss of 24 dwellings will have on the supply-demand relationship. In fact, they highlight that the HGS 2050 finds there will be a shortfall in land available for development by 2028 – this would imply that the loss of 24 dwellings could be an issue. However, it represents less than 1 years growth, so may speed up the need to provide more zoned land"

We agree with this point, i.e. the need to provide more zoned land which is likely to be sped up by the potential land loss.

"RCG states that Waihi's Town Centre-zoned land and floorspace is more than sufficient in its view. This is based on the amount of commercial space Waihi has as compared to towns of similar size. However, there is no assessment of how potential employment

growth or household growth would increase demand for commercial space. Nor does their assessment take into account existing retail demand to identify shortfalls in retail businesses".

We agree that employment growth/ household growth would increase demand for commercial space in Waihi. Again, we note the issue of higher demand with more mining activity, versus the risk of lower demand with less mining activity.

The shortfalls in retail businesses in Waihi are fairly clear – we note earlier in this report that "Waihi has no department stores and very limited offerings across clothing, furniture, electronics, recreational goods etc" – but even if Waihi does continue to grow at a slow/ moderate rate over the next decade or two, it will still be a small town by New Zealand standards. The ability to meet retail needs locally, or to feasibly develop new retail offerings, will still be a challenge. Should this be possible, though, there is development capacity within the existing town centre which could intensify and add more floor space.

"The RCG report also states that there are few vacancies in the town centre, for either retail or office space, and that this suggests a healthy town centre environment. We note that earlier in the report RCG indicates that three of the vacant spaces are large ex-bank spaces. No comment is made about the size of these, nor whether they are large enough to offset some of the loss that may occur from the proposed Plan Change".

Retail and office vacancies will come and go, and may well have changed again since our site visit in 2021. We would not want to suggest that space which was vacant in 2021 can offset space being lost in the plan change.

"RCG indicates that the lost industrial floorspace could highly likely be accommodated elsewhere in the Town Centre zone or Industrial zone, but no sites are identified".

We were talking about the occupants of the buildings rather than the floor space itself – noting that some of the occupants are more commercial in nature and there is an adequate supply of Town Centre-zoned land/ floor space, and that the HGS 2050 identifies some vacant zoned industrial land and more areas which could be rezoned in future. We do say in section 9 that the loss "will probably bring forward the need to rezone more industrial land".

Overall, the Market Economics memo found that the previous version of our report gave "an adequate assessment of the land use implications" but suggested we provide assessments of retail demand and supply, and 'business land' demand and supply. We have added extra information on these matters, albeit not a full assessment. We have also aimed to respond to/ clarify other points raised by Market Economics.

On the topic of 'business land' demand and supply, we note that the techniques used for these assessments are not as well-developed as for retail. There is a large degree of uncertainty, and they are hard to apply for small towns. Essentially, it is easy to calculate the area of current zoned land (supply) but there is usually very limited data to suggest what demand (or the speed of uptake) will be.

We do not believe a full quantitative assessment demand and supply for 'retail land' and 'business land' is required to support our overall conclusions. HDC have done some demand analysis as part of their Hauraki Growth Strategy 2050, and this is likely to be adequate for a small district with several towns and industrial areas. Waihi itself is not a land-constrained market, with significant areas of land available for future rezoning. Any land loss effects resulting from the plan change will be limited in scope and duration, and they will not be significant economically.

9 Conclusions on Land Supply Impacts

We have assessed the land supply impacts of the proposed plan change, for residential, commercial and industrial land. We find that Waihi will require additional residential and industrial land into the future irrespective of the proposal by OGNZ, whereas the town has an adequate supply of commercial (Town Centre-zoned) land. HDC is moving ahead with plans to rezone more land for residential and industrial purposes, and we do not anticipate any shortage arising either with or without the plan change.

Waihi's population is likely to keep growing at a modest rate into the future, with the exact rate uncertain. Growth is likely to be higher with the plan change than without it, since the plan change will enable a future mine expansion which supports employment in Waihi. Overall: this plan change will bring forward the need to rezone more residential and industrial land through other plan changes.

Preparing for future growth is often a balancing act for councils. Providing new infrastructure before it is needed can be very costly, and lead to a higher debt burden. In some cases, the growth may not eventuate at all which unfairly penalises existing ratepayers. We think HDC is striking an appropriate balance, although they may need to rezone more land around Waihi (or rezone land sooner) than they currently anticipate. According to our interpretation of the Infometrics projections used in HDC's Long Term Plan, future growth in the 'Waihi Rural' area primarily reflects new subdivisions on the fringe of Waihi. It is important that this growth is included in HDC's planning.

The 'loss' of residential and commercial land as a result of this plan change is not significant, relative to the economic opportunity afforded by the mining proposal.

- A little less than 1% of Waihi's housing stock could be lost – equivalent to perhaps one year's worth of growth, but with plenty of future housing capacity identified in both greenfields and infill locations.
- Some Town Centre-zoned land is lost, but none of this land is occupied by commercial buildings at present (using CoreLogic classifications), and few of the uses are commercial in nature.
- Some of the Town Centre-zoned land is used for industrial purposes, and this represents a reasonable share of Waihi's industrial floor space (up to 17%) but a smaller share of industrial land (up to 6%). This will probably bring forward the need to rezone more industrial land. This need was already well signalled by HDC and they are currently working towards another plan change to enable it. The other plan change would increase Waihi's live-zoned industrial land area by at least 50%.

It is important to remember that mining in Waihi will not last forever. The proposed plan change will extend the life of the Martha Mine, keeping people employed for longer rather than creating many new jobs (OGNZ expect a potential 15-20 extra workers, small compared to the 300+ mining employees in Waihi). A separate resource consent process for the 'Waihi North' mining project could grow employment significantly, to roughly 600 people, but this boost would only last for a decade or so.

As such, while mining is a huge part of the Waihi economy and the proposed plan change (and Waihi North) will add value, the economic benefits will come mainly in the next 10 years, compared with the 30-year planning horizon which HDC has considered in the Hauraki Growth Strategy 2050, and the 10+ year horizons likely to be considered by industrial developers and occupiers. The Martha Mine proposed plan change, and even the larger 'Waihi North' project, is unlikely to have a significant long-term effect on industrial land demand in Waihi.

Residential Supply/ Capacity

- The Hauraki Growth Strategy 2050 was finalised in 2019.
- It estimates that Waihi has existing (live-zoned) capacity for 150 dwellings on greenfields lots, and 546 dwellings on infill lots (i.e. subdivisions or minor dwellings on existing lots).
- These estimates were made in 2017 and the numbers will have reduced since then. They also include sites owned by OGNZ, some of which are likely to be 'lost' capacity as part of the plan change.
- There are a number of areas for potential growth/ rezoning, and they could accommodate an estimated 1,307 new dwellings. These estimates are very preliminary and subject to future work and planning processes, but they do take account of obvious constraints.
- Housing capacity assessments for larger urban environments (i.e. those subject to the NPS-UD) consider feasibility aspects as well, i.e. whether sites are profitable (and likely) to be redeveloped over a given timeframe. Typically, only a fraction of theoretical capacity will be developed. The fraction is often higher for greenfields capacity than for infill.
- The Hauraki Growth Strategy 2050 finds that there is a "a shortfall in [live residential-zoned] land available for development by 2028", i.e. more land will need to be rezoned. We certainly agree with this finding, with or without the plan change. Indeed, the shortfall is likely to occur earlier than anticipated by the strategy, since more recent projections show a higher rate of growth than was used in 2019. We are encouraged that the Council is moving forward with other potential structure plans and plan changes to unlock more land.

Residential Demand

- Waihi had a flat population until around 2013/14, and has experienced growth since then. Some of the recent growth is due to flow-on effects from NZ's migration boom over this time, which was suddenly brought to an end by the onset of Covid. Waihi is relatively low growth by 'urban area' standards.
- Waihi is a little larger than Paeroa, and has a slightly larger employment base, but the differences are not substantial.
- Waihi is one of many similarly sized towns (population 1,500-10,000) in the Waikato and Bay of Plenty. We have reviewed some of these as comparators.
- We compare various projections for population/ households/ dwellings in Waihi and the overall Hauraki District. These show a range of growth trajectories. Some show Waihi's population declining from around 2031 onwards, but that is conservative in our view.
- Covid and post-Covid impacts may well mean that growth will slow again in the next few years, but overall it is likely to continue for at least the next 10-20 years. This is the

position adopted by Council in its long term planning, and it is also implied in projections by Waikato Regional Council/ NIDEA and Stats New Zealand.

- The Council notes that it needs to consider the needs of its aging population with a growing number of residents aged 65+, as well as the possibility that growth will actually start to decline in the 2030s or soon after. These considerations are prudent in our view, but the most likely scenario is that growth will continue at modest levels.
- The number of households (and dwellings) in Waihi will increase faster than its population, due to well-established trends towards fewer people per household.
- We believe HDC may be misinterpreting the projections used in its Long Term Plan: Infometrics state that only 178 dwellings will be needed in the 'Waihi urban area', but a total of 393 will be needed across Waihi Urban + Rural and the vast majority of those are likely to occur within Waihi or as greenfields expansion on its urban fringe. HDC may be focusing on the 178 whereas they should be focusing on the 393.
- Building consent data also supports using a higher figure, at least in the order of 393 homes over 2021-2031/ 39 homes per year. Over the last 31 years, the Waihi urban area has averaged 32 homes per year, with another 18 in the rural surrounds.
- Even under the most high-growth scenarios, Waihi's growth is only moderate by NZ standards – 1,034 dwellings between 2018 and 2055 in the Infometrics High projection for Waihi Urban + Rural, with some of that growth already having taken place over 2018-2021.
- For demographic reasons, population (and housing) growth is likely to be fastest in the next decade and slower beyond that. This is true of most places in New Zealand.
- Although not taken into account in the projections, potential mining expansions will also support growth in the next decade or so, whereas the long-term wind-down of mining activity will reduce growth in the more distant future.
- Waihi North, being advanced through a separate process, could have an especially large effect on employment – adding circa 250 jobs on average and sustaining them over 2024-2032, potentially needing 57 extra homes.

In our view, the Infometrics Medium projections give a reasonable or perhaps conservative basis for growth over the 2021-2031 Long Term Plan period, if they are interpreted correctly (393 dwellings in/ around Waihi). Proposed mining expansions, including Waihi North, can likely be accommodated within this level of growth.

Retail and Commercial Supply/ Capacity vs Demand

- We have modelled estimated retail sales/ 'supply' in Waihi, as well as retail demand/ 'retail spending power'. We find that some of the demand from Waihi households/ businesses is instead satisfied in Tauranga, which is typical for small towns with a limited retail offering.
- Our projections suggest that retail spending power will grow into the future, but we argue that this is unlikely to result in much additional demand for retail floor space in Waihi itself.
- Demand for smaller street-front shops is likely to be flat or falling, a trend seen in many towns around New Zealand. Some types of business have reduced their footprints (most notably banks, but also retailers like The Warehouse) in smaller towns and there is often a struggle to retain a local service offering. The solution is often to shift more towards food & beverage or services which are not affected by the Internet, e.g. healthcare.

- The Town Centre-zoned land being lost through the proposed plan change is away from the main retail axis/ retail areas in Waihi, and therefore retail is largely unaffected.
- Commercial demand/ supply has not been modelled, but it takes up a much smaller floor area than retail.
- Over the last 30 years, there was an average of 469 sqm of "shops, restaurants, and bars" consented each year in Waihi, and 73 sqm of "office, administration, and public transport buildings". We expect that a reasonable share of these consents were 'demolish and replace', rather than net additional floor space.
- Based on trends in similar towns, i.e. small towns with limited growth, it is unlikely that Waihi will see growing demand for Town Centre-zoned land. Flat demand is more likely. The commercial economy will be able to adjust to any land availability changes, noting that this is a slow process which takes place over some years.
- Waihi has an adequate provision of Town Centre-zoned land and the loss of land is not a significant issue. Some redevelopment and intensification within the existing Town Centre zone may occur as a result.
- HDC does not anticipate zoning extra commercial-zoned land under the Hauraki Growth Strategy 2050, and this is appropriate in our view.

Industrial Supply/ Capacity vs Demand

- Waihi has seen very limited new industrial supply over the last 20 years, aside from a 2.7 hectare subdivision at Dean Crescent.
- Waihi has consented an average of 805 sqm of "factories, industrial, and storage buildings" per year, but this will include a reasonable share of 'demolish and redevelop' consents, so the net increase in floor space will be smaller.
- Indicatively, the rate of industrial land uptake in Waihi is likely to be less than 0.5 hectares per year on average.
- HDC is working on another plan change which will rezone at least 11 hectares of land for industrial purposes. This will provide for many years of growth. There is additional potential capacity beyond this.
- The Martha Mine proposed plan change could mean the loss of up to 17% of Waihi's industrial floor space (but probably less), but no more than 6% of its industrial land area. By comparison, HDC is planning to rezone at least another 50% additional land area.

Overall land loss effects:

- The rezoning means the loss of 2.95 hectares of low density residential land; 4.63 hectares of 'residential' land; and 2.39 hectares of 'town centre' land.
- In practical terms, the rezoning means the loss of 20-25 existing homes, potentially within the next 3 years ('short term' for NPS-UD planning).
- This is equivalent to 1% of housing stock within the Waihi urban area, or 0.7% of housing stock within the wider Waihi primary catchment which includes the rural surrounds.
- If redeveloped more intensively, the existing residential sites could accommodate perhaps 100-150 homes rather than the current 20-25, although it is uncertain that this would be economic and at any rate a private landowner could not be compelled to develop. If the plan change was declined, it is likely that OGNZ would continue to hold the sites and use them for their existing purpose rather than selling them, but it is at

least possible that they might be redeveloped and that this would take place within the next 10 years ('medium term' for NPS-UD planning).

- The rezoning means the (partial) loss of two industrial buildings. However, it is highly likely that the occupants could be accommodated elsewhere, either in the Town Centre zone or in Industrial zones (existing or future).
- None of the land loss effects are significant compared to the economic benefits of the proposed plan change, whether looking at residential, commercial or industrial effects. Waihi has plenty of potential growth capacity for all of these uses.