

WARCKWORTH NORTH PROPOSED PLAN CHANGE ECONOMIC ASSESSMENT

REPORT PREPARED FOR

TURNSTONE CAPITAL LTD

MCDERMOTT CONSULTANTS

January 2019

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Economic Assessment

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SUMMARY

Purpose

This report describes economic growth expectations for Warkworth North and implications of the land use provisions in the Warkworth North Proposed Plan Change (PPC).

Section 1 outlines the background to the assessment (Section 1). Subsequent sections address the following objectives:

- Assess the additional population and labour supply associated with the PPC (Section 2);
- Identify commercial and business development prospects in Warkworth to inform the zoning of business land (Section 3);
- Identify appropriate land uses for the PPC area (Section 4);
- Assess the possible impact of proposed land use in the PPC on existing and future investment and employment in other centres in Warkworth (Section 5).

Findings

The policy setting for this exercise include the provisions of the Auckland Unitary Plan (Operative in Part) ("**Unitary Plan**") and the underlying Future Urban Land Supply Strategy adopted in July 2017 ("**FULSS**"); the response by Council officers to a draft of the economic assessment (11 May 2017); and the written response by Council consultants, Market Economics Ltd (report dated 16 June 2017).

This material and additional reports dealing with Warkworth (and Hibiscus Coast) business land needs suggest that the policy context at the time of preparation was partial and fluid, but has firmed up through the period of report drafting and completion.

Dwellings, Population, and Labour Supply

Section 2 identifies potential Warkworth population and workforce numbers and estimates the contribution that the Warkworth North Proposed Plan Change (**PPC**) will make to them. Warkworth North (2,300) and Northeast (1,600) districts have joint capacity for around 3,900 dwellings, a population of around 10,600, and a labour force that could reach 5,000 people.

Analysis of dwelling consents issued over the recent past demonstrates the practical challenges of achieving these figures within the Unitary Plan timeframe. Water supply constraints cited in the 2015 FULSS have been resolved with the commissioning of the new Sanderson Rd treatment plant. Watercare also has the consents in place for a sewage line to an upgraded Snells Beach treatment plant any wastewater constraints will resolved in if not before 2022. Finally, the Northern Motorway extension will be completed in 2022. These developments ensure alignment of the PPC with the necessary infrastructure investment.

Consequently, the Warkworth North Proposed Plan Change can be seen as making an early and significant start towards the Unitary Plan development targets target, helping the Council to achieve its housing objectives for Warkworth. At capacity it could add between 1,000 and 1,100 dwellings (45% or thereabouts of the total for Warkworth North), increase the local population by over 3,000 and labour supply by 1,300 people.

Labour Demand

Section 3 reviews recent trends to inform expectations for the quantum and nature of future employment. It emphasises the likelihood of significant change and uncertainty over future sectors and work practices. Heavy reliance on industry in Warkworth relative to services is a notable feature of the town's economy. Specialist manufacturing, construction, population-related services, and logistics activity are likely to sustain reasonable demand for industrial land and labour, although it is unrealistic to attempt to quantify future employment growth.

At the same time, there is considerable uncertainty over the character of future work. The disruptions associated with the application of new technologies for production, distribution, and fulfilment of final demand goods raise questions over the rate and character of growth in traditional retailing, the prospects for significant logistics investment, and the likelihood of decentralisation of personal services.

These uncertainties and the changing nature of work and workplaces call for a degree of flexibility in employment-related land use.

So, too, does the evidence of some imbalance in the Warkworth economy, with its emphasis on manufacturing, and limited (and declining) public service employment (including health, social care, and education). The vocational mix of residents also shows a bias away from managerial and professional employment, reflected in the dearth of business services.

While these structural attributes may be typical of a rural service centre, the Unitary Plan is based on transformation of Warkworth to a significant satellite town. The PPC is a significant step in this transformation. Ideally, land zoned for employment in the vicinity will be able to accommodate the greater diversity of investment and occupations locally that this implies.

Business Land

Section 4 outlines the areas in the PPC set aside for employment activity. These are the outcomes of consultation with the Auckland Council Policy Team and its preference for the Light Industry Zone for employment over the General Business Zone proposed initially. The inference is that the team favours an emphasis on secondary (quasi-industrial) rather than tertiary (quasi-commercial) services as the basis for new employment. The 13ha Light Industrial Zone in the PPC will accommodate additional manufacturing, yard-based activities, logistics (storage, warehousing, and fulfilment), trade supplies, and ancillary office and retail activity. It will also allow a limited set of consumer and community activities (as discretionary uses). It should cater for 400 jobs (or thereabouts) when developed.

Provision is also made for a 3,000m² Neighbourhood Centre to meet local household needs for convenience and community goods and services. This could cater for the bulk of convenience needs of residents of the PPC area, depending on site coverage (40% appears appropriate in the first instance). It would accommodate perhaps 20 jobs.

Given the growth of local specialty shops, neighbourhood child care centres, and increased hospitality (both eat-in food facilities and motel-style accommodation) in suburban areas there is likely to be a need for additional neighbourhood activities in the surrounding Residential – Mixed Housing Urban Zone. These would be subject to discretionary planning requirements. This could account for another 20 or so jobs in the future.

The employment capacity of the two PPC zones, the adjoining General Business Zone (held by Foodstuffs NZ), and the 64ha Light Industrial Zone east of the Great North Road/SH1 and north of the Showgrounds (Warkworth Northeast) is around 2,600 jobs jobs. This is more than enough for the PPC development (which would increase labour supply by around 1,300 jobs), but insufficient for Warkworth North (around 2,900 in total), assuming that the Council favours at least nominal self-sufficiency of employment. Council officers suggested a ratio of 1:1 (capacity for one more job for every additional worker) in discussion (11 May 2017).

However, these provisions for future employment do not address the issue of “fit”, They cater primarily for industrial employment and for limited retail jobs whereas much future investment and consequently many future jobs will be in a variety of service sectors. Not only does it make sense to provide adequate land for a variety of non-industrial activities but large share of the future labour supply in Warkworth North (and Northeast with perhaps 1,900 additional resident workers in due course) can be expected to be better suited or qualified to non-industrial employment. It is assumed that the additional capacity required and the imbalance in the current zoning of employment land will be addressed elsewhere in the Auckland Council's Structure Plan for Warkworth.

Impacts on Other Centres

Section 5 considers the impacts on other centres of the land use provisions of the PPC. It concludes that the Town Centre is likely to benefit from the additional household and personal demand for goods and services associated with the increase in population with no adverse impacts.

The employment land provided for in the Warkworth North PPC simply increases Light Industrial Zone capacity. Hopefully, it will contribute to employment growth and diversification based on its location. It is not expected to adversely impact on business zones further to the south – Woodcocks-Mansel Drive and The Grange. Indeed, the demand associated with the implementation of the PPC area may provide the certainty needed for the Kowhai Falls centre to progress, while development of the area will increase demand for the goods and services currently provided in and around Woodcocks Rd.

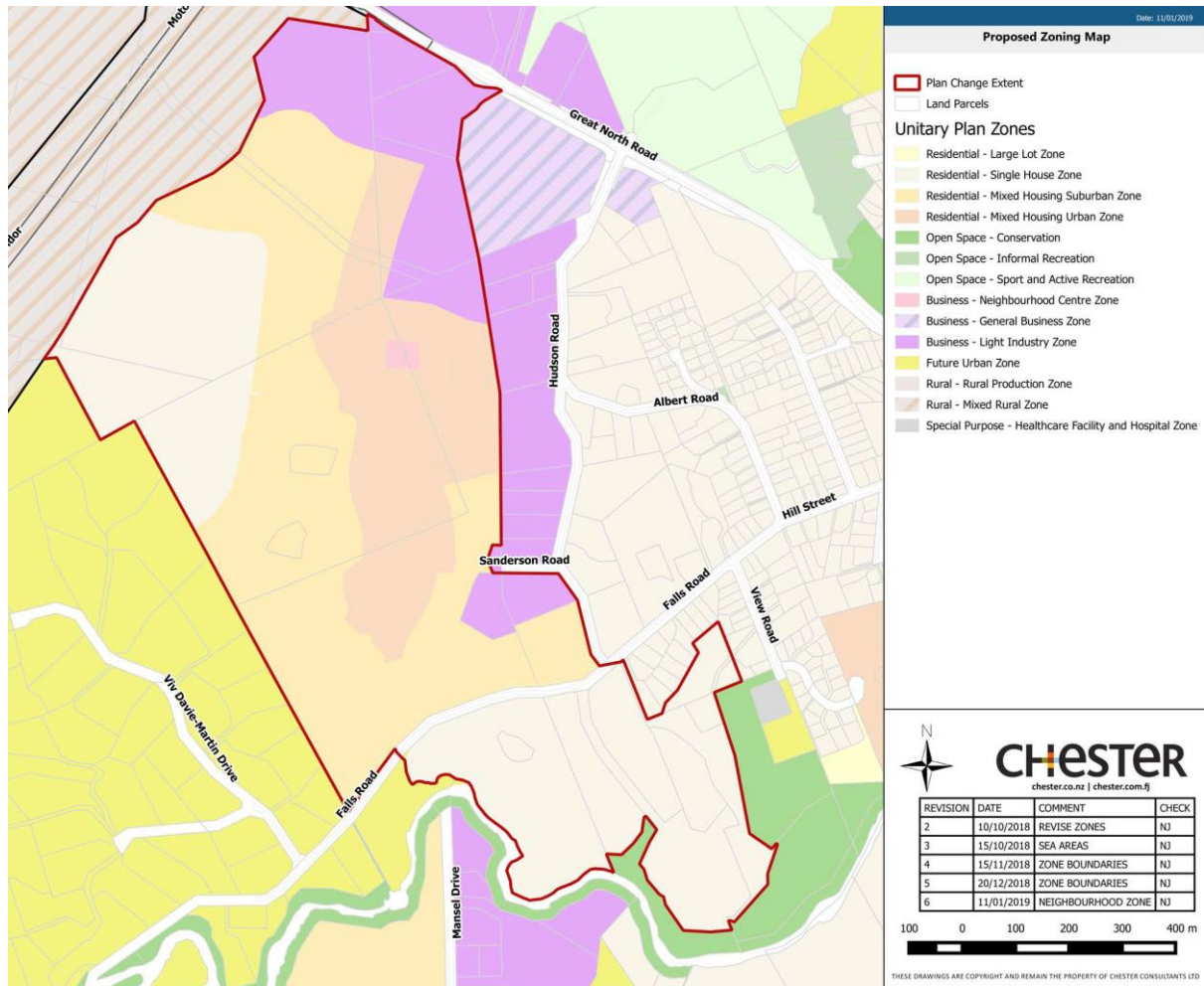
In conclusion, the PPC offers the opportunity to take a significant step forward towards the housing aspirations contained in the FULSS and facilitated by the Unitary Plan. Through its focus on housing and a range of housing types, it will increase demand for local businesses in existing centres. It should boost the development of the existing light industrial land in Warkworth North while requiring that the forthcoming Council initiated Warkworth structure plan allows for the need for further business-zoned land that facilitates diverse investment and employment.

1. INTRODUCTION

1.1 The Proposal

The Warkworth North Proposed Plan Change (PPC) aims to zone 99ha lying east to west between State Highway 1 and Falls Rd and north to south between the Northern Motorway extension and Hudson Rd for residential (Single House, Mixed Housing Suburban, and Mixed Housing Urban) and business use (a Neighbourhood Centre and an extension of the existing Hudson Road Light Industry Zone).

Figure 1 Warkworth North, Proposed Plan Change Zones



This configuration has been determined through several iterations of technical reports, public consultation, including with affected land owners (including two earlier versions of this assessment); and consultation with the Council's Policy Team.

1.2 Policy Guidance

The original Future Urban Land Supply Strategy (FULSS, Auckland Council, 2015) provided for 3,200-3,800 dwellings and 3,270 jobs, including a Local Centre, on 432ha to be rezoned in Warkworth North and Northeast (p.20). The PPC accounts for 23% of the combined Warkworth North and North East Future Urban Zone (FUZ). Warkworth North is scheduled to be "development ready" by 2022, the completion year for the Northern Motorway extension.

Following the adoption by Auckland Council of the Independent Hearings Panel's Recommendations on the Proposed Auckland Unitary Plan, 64ha of land identified as Future Urban in the notified Plan was zoned to Light Industry. This lies east of SH1 and north of the existing built-up area, between the Warkworth Showgrounds and Goatley Rd

The *Auckland Future Urban Land Supply Strategy* revision (July 2017) confirmed the provisions for Warkworth in the original 2015 FULSS document. However, unlike that version and the draft "refresh" placed before the Auckland Council Planning Committee in March 2017, the July 2017 version stated that there would be no centres in Warkworth North or North East (Table 1). Subsequent officer correspondence allowed that this did not rule out the prospect for neighbourhood centres in greenfield sites.

The major changes made after consideration of the Draft Refresh by the Planning Committee were (1) settling on population projections towards the higher end of the range in the earlier document; (2) the elimination of commercial centres and associated employment from the North and North East; and (3) a delay in developing the North East until later in the period.

Table 1. Changing Expectations – Future Urban Land Supply Strategy, 2015 & 2017

Document	Area	Timing	Area (ha)	Dwellings	Centres	Jobs
Future Urban Land Supply Strategy, Adopted 12 November 2015*	Warkworth North & Northeast	2022-2026		3,200-3,800	Local	3,270
	Warkworth South	2027-2031		3,500-4,100	Neighbourhood	770
Auckland Future Urban Land Supply Strategy, July 2017	Warkworth North	2012-2017	69 (Business)		None	Share of 15,000 over 14 Auckland localities
	Warkworth North	2018-2022	324	2,300		Share of 29,000 over 5 Auckland localities
	Warkworth South	2028-2031	493	3,700	Local	Share of 32,000 over 10 Auckland localities
	Warkworth North East	2033-2037	192	1,600	None	

* Also Draft Refresh, Agenda Item 11, Auckland Council Planning Committee, 7 March 2017

Nevertheless, the 2015 FULSS states that:

"Employment is a key consideration for Warkworth given its distance from Auckland. It is anticipated that Warkworth will need around 115 hectares of additional business land to provide for local employment opportunities. Small local and neighbourhood centres will also be required in the newly established greenfield areas but should be of a scale that retains the integrity and character of the current Warkworth centre" (p.21).

Supporting Growth: Delivering Transport Networks (Auckland Council, Auckland Transport, and NZTA, 2017) suggested Potential Business as the indicative use for all the land covered by the Warkworth North PPC. A new Local Centre is flagged as a possibility for a site 4km south of the town centre, towards the edge of the proposed southern expansion. This expansion was originally scheduled to be ready by 2032 but this was revised in 2017 to 2028.

The view that much of the area of the PPC should be committed to Industrial zoning was advanced by Council officers at a workshop meeting in May 2017 to discuss a draft structure plan document for Warkworth North. The implications of that commitment and the removal of centres in the July 2017 FULSS Refresh was that the existing industrial land (zoned and occupied) in the area might be complemented by additional Light Industry zoning. However, here are several arguments for limiting the amount required:

- How will the proposed dwelling numbers be achieved if much of Warkworth North is committed to long-term industrial use, reducing the capacity for housing?
- Where will most of the industrial labour force live if much more of the Warkworth North FUZ is zoned for light industry?
- How much industrial land and employment might Warkworth realistically support in the foreseeable future?
- How competitive might additional light industrial land in the PPC area be compared with other parts of Warkworth or the Hibiscus Coast given its contour, physical character, drainage needs, and the engineering and mitigation costs of developing and servicing large building platforms?¹
- What would be the effect on housing affordability and urban form of effectively freezing the use of much of Warkworth North for an indefinite period by zoning more of it for industrial use and reducing what is available for residential use?²
- How will an expanding commercial sector associated with proposed household and business growth be accommodated if no provision is made for a local centre?

OVERS AND UNDERS

The Policy Team's initial expectation of extensive additional industrial land has been tempered through discussion with the Turnstone Capital planners. Given the limited physical suitability of the PPC area for industrial uses, the need to provide for the ambitious new dwelling targets in the FUZ, and the extensive area already available for light industry in the wider Warkworth area, it was agreed that a further 13ha of Business-Light Industry should be provided under the PPC, rather than an extended general business zone as first mooted.

The additional land lies between the existing industry on Hudson Rd and the Great North Road (existing SH1). The latter frontage abuts the Business-General Business Zone held by Foodstuffs Ltd in the south and the new motorway corridor in the north. The northern sector lies across the Great North Rd from the Business – Light Industry Zone established on the recommendation of the Unitary Plan Hearings Panel.

At the same time, the Council Policy Team required that provision in an earlier version of the PPC for a Local Centre was inappropriate, and that alternative areas have been identified outside the PPC area to be notified for public input when the Draft Structure Plan is opened for consultation in February 2019. As a result, the provision of 3.7ha for commercial employment suggested for PPC area in a draft of this assessment has been replaced with a 0.3m site for a Neighbourhood Centre. This increases the PPC area available for dwellings.

¹ Auckland Council has since issued background documents (December 2017) as a first step in rezoning 607ha for industry in Silverdale-Dairy Flat (<https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/structure-planning-silverdale-west-dairy-flat-business-area/Pages/structure-planning-documents.aspx>). The website states that "business land" refers to an "area that generally needs large flat sites, is not able to locate in centres, includes light industry(sic)". Much of the PPC area is moderate to steep hill country.

² Given that according to the 2013 Census around 10% of Warkworth's resident workforce already commutes to the Hibiscus Coast (and 11% to points beyond) and given the reduced commuting time associated with the pending motorway extension, it is likely that this land will accommodate a significant share of the town's labour force growth, reducing local demand for industrial land in Warkworth.

EMPHASIS ON HOUSING

As a result of these adjustments, the PPC provides capacity for between 1,000 and 1,100 dwellings, or around 45% of the total targeted for Warkworth North and 22% of the total targeted for Warkworth North and Northeast.

While bound in the south and east by light industrial land the PPC area has been designed as, a substantial, coherent residential neighbourhood. The bulk of the employment needs of its households will be met off-site, ideally elsewhere in the north of Warkworth.

Given this character, it can be seen as satisfying the key requirements outlined in of the June 2017 *Mayoral Housing Task Force Report* (Auckland Council), advocating a commitment to “*building new housing at a faster pace and larger scale, providing a wider choice of affordable homes, ranging from traditional standalone homes to terraced homes and midrise apartments, and ensuring a quality built environment*”.

The rest of this report outlines some of the demographic and economic considerations brought to bear in the preparation of the PPC, and the consequences of the decisions reached.

1.3 Draft Report Review

A draft economic assessment was reviewed by Market Economics Consulting (“**M. E Consulting**”) in June 2017.³ The main issue raised was lack of consideration of the timing of development and potential over-commitment of land to employment activity. This contradicted Council officers’ concerns about whether a large part of the area should be committed to additional industrial land.⁴

MORE INDUSTRIAL LAND?

The M.E. Consulting position was reversed in a subsequent draft report to Auckland Council. While acknowledging that currently zoned capacity will be enough to meet demand “*for many years*” it argues that it would be prudent to introduce another 55ha “*given the difficulties with finding more industrial land once other activities are in place*”. This would see around 30% of the Warkworth North FULSS area committed to industrial activity.

The lack of alignment in these reports left the issue of likely or preferred outcomes for the Warkworth North FUZ unresolved, reinforcing the conclusion of the June review report for the Warkworth North PPC, that *it is important to consider the development timeframe to avoid over-committing land to uses which are subject to considerable uncertainty*.

As it is, analysis of slope and drainage constraints shows that most of the land subject to the Warkworth North PPC is unsuitable for business development, having slopes exceeding 12.5%. The exceptions are the existing Light Industry and surrounding areas adjacent to Hudson Rd and the area adjacent to the Great North Rd. Development of the rest of the area would encounter significant site preparation constraints and costs, including the extensive cut and fill operations necessary to accommodate industrial and medium or large-scale commercial users, and the requisite infrastructure. The latter includes roads to enable significant commercial vehicle movements. Issues of access also largely rule out the ridges and

³ M.E. Consulting (16 June 2017) “Stubbs Farm Estate Plan Change: Economic Review”, Auckland Council

⁴ M.E. Consulting (16 October 2017) “Warkworth Business Land Assessment”, prepared for Auckland Council

terraces for employment activity within areas where there are more modest slopes. This is quite apart from the negative impact on design and character that their development for employment would have.

The costs of preparing and servicing these areas would act against their development. Zoning them for Light Industry, then, would potentially suppress investment better located elsewhere and effectively "quarantine" the land in question. Suppressed development would incur significant opportunity costs by way of deferred use. If industry was to go ahead on this land, the productivity of investment would be reduced by higher development costs.

THE NEED FOR A LOCAL CENTRE

Questions were also raised in the M.E. Consultants review over whether Warkworth North is an appropriate location for a new local centre, the potential impacts on other centres, and inadequate assessment of the demand for and supply of land for light industry.

The response in the current report is to highlight the importance of achieving a balance between residential and employment development as the most appropriate way to address issues of timing and scale. This also calls for balance in the growth of employment types. A proposal in the original assessment for a Local Centre in the PPC area and extension of the General Business zone adjacent to State Highway 1 (SH1) has been rejected by the Council's Policy Team. It is assumed here that the need for a centre providing local services to the additional households that will not be provided in a Light Industry Zone and that offers the opportunity for diversification of local employment opportunities will be pursued elsewhere in Warkworth North.

1.4 Objectives and Outline

Given this fluid and contradictory policy background, the matters used to inform the allocation and development of land proposed in Warkworth North PPC include achieving an appropriate scale, mix, and location of residential and business land; aligning the rate of residential and employment land development; and establishing a probable mix of business and community investment within the physical constraints associated with the area.

The objectives of this economic assessment are to:

- Assess the additional labour supply likely to be associated with residential development in Warkworth North (see Section 2);
- Consider likely future commercial and business development trends in Warkworth and the types of activity that can be expected to locate on business land in this locality (Section 3);
- Assist in identifying land uses for the PPC area in accord with the Unitary Plan (Section 4);
- Assess the possible impact of proposed land use in the PPC on existing and future investment and employment in other centres in Warkworth (Section 5).

2. POPULATION AND LABOUR FORCE PROSPECTS

Section 3.1 outlines the approaches used to establish employment land requirements, one based on first estimating the supply of labour and the other on estimating labour demand.

Section 3.2 takes the FULSS dwelling capacity estimates and uses these to calculate indicative population and workforce figures when Warkworth is fully developed (i.e., when the FUZ is completely settled). No attempt is made to establish the likely timing, although the schedule of “development-ready” districts provides some indication of sequencing.

Warkworth North is intended to be “first off the blocks”, with capacity for 2,300 dwellings scheduled to be development-ready by 2022. The Warkworth North PPC will account for a substantial share of this and offers the opportunity to initiate the development. Section 3.3 provides range estimates of the potential resident population and workforce for the area.

2.1 Methodology

RESIDENTIAL LAND

The requirement for residential land arises from increased household numbers, with their character influencing housing preferences (dwelling type and size, preferred locality, proximity to employment and schools, etc), job and service needs. The extent to which these needs are met will be influenced by the location, character, and cost of available capacity, and associated services and amenities. Even with knowledge of these things forecasts of housing demand are inevitably approximate, especially given that household numbers are influenced by often-unpredictable migration movements and cyclical economic conditions. In recent times, excessive land and housing costs have suppressed demand. The Unitary Plan provisions for Warkworth and the Warkworth North Proposed Plan Changes are part of a wider commitment to increasing the availability of housing to help meet this suppressed demand.

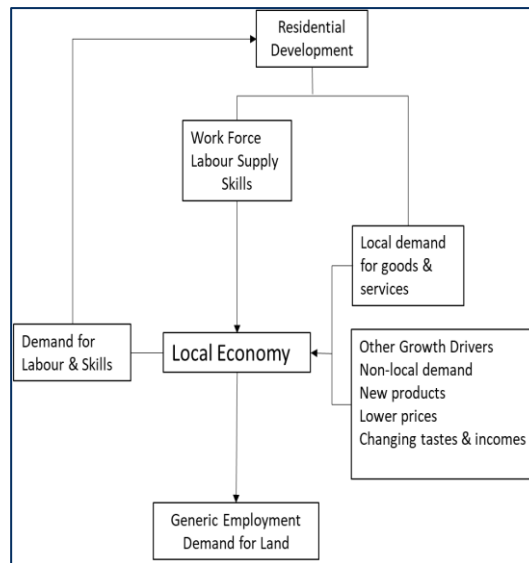
Acknowledging the uncertainty around the timing of demand, we adopt Auckland Council estimates of the capacity of the FUZ as a reference point for residential population growth in Warkworth and its districts (North, South, and North East).

EMPLOYMENT LAND

Two approaches may be taken to estimating reemployment land requirements. The first approach assumes that it is appropriate to plan sufficient land to employ the labour supply resulting from population growth (Figure 2). Auckland Council officers endorsed this approach in discussions, favouring a 1:1 ratio in the growth of local jobs to local workers to guide business land capacity. (The ratio for Warkworth is already 1;1.6, given its role as a sub-regional employment centre).

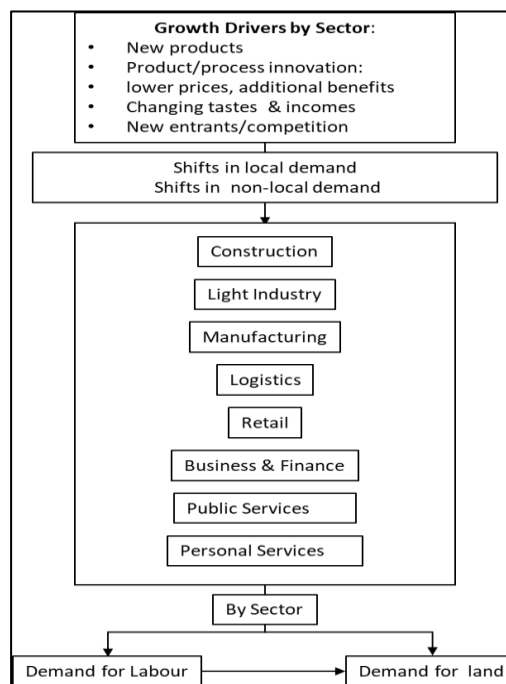
The labour supply approach is adopted for assessment of future business land needs here. We apply the 1:1 ratio to the additional labour supply associated with population growth, assuming non-residents travelling into Warkworth for work balance residents travelling out.

Figure 2 Labour Supply Based Employment Land Need Estimation



The second approach draws on a knowledge of markets, competition, and productivity movements to project labour demand by sector (Figure 3). The resulting employment figures are used to estimate the land required based on representative employment densities for different sectors.

Figure 3 Labour Demand Based Employment Land Estimation



The demand-led approach results in zoning based on a projected mix of production, distribution, and consumption activities. This report examines the structure of the Warkworth economy without seeking to quantify the potential demand for labour which would be speculative at best. Instead, the broad activity mix that might be expected in Warkworth is considered in Section 3 and used to inform the identification of the business zones appropriate to accommodate employment growth in Warkworth North.

2.2 Development Potential and Prospects

POPULATION AND WORKFORCE POTENTIAL

Unitary Plan expectations for Warkworth are set out in Table 15 of the 2013 *Capacity for Growth Study (Proposed Auckland Unitary Plan)*, confirmed in the *Future Land Supply Strategy* (2015 and 2017). Sequencing is set out in the Attachment F of the 2017 FULSS Refresh, which proposes 7,500 additional dwellings, with preparation times as follows:

North	2018 - 2022,	2,300 dwellings;
South	2028 – 2032,	3,700 dwellings
North East	2033 - 2037	1,600 dwellings

Average dwelling occupancy of 2.4 to 2.8 persons (which will vary depending on household composition) suggests 18,000 to 21,000 more residents if the projected construction and uptake of dwellings is achieved. This would lift the 2018 population of 4,900 five-fold, to 25,000, depending on the average household size (Table 1).⁵

Assuming a participation rate of around 40% among new residents, between 6,500 and 8,400 people will be added to Warkworth's workforce at full development, with 2,100 to 2,700 potentially resident in Warkworth North. As the first area proposed for development and located close to the new motorway intersection and between the western and eastern collector roads, capacity in Warkworth North could be fully absorbed within 20 years of the commencement of development.

Table 2. Development Potential of the Future Urban Zone

Sector	Timing	Dwellings	People		Labour Force		Land Required	
			Low	High	Low	High	Low	High
North	2018-2022	2,300	5,500	6,400	2,300	2,900	70	90
South	2028-2032	3,700	8,900	10,400	3,700	4,600	110	140
North East	2033-2037	1,500	3,600	4,200	1,500	1,900	40	60
TOTAL		7,500	18,000	21,000	7,500	9,400	220	290

HOUSING

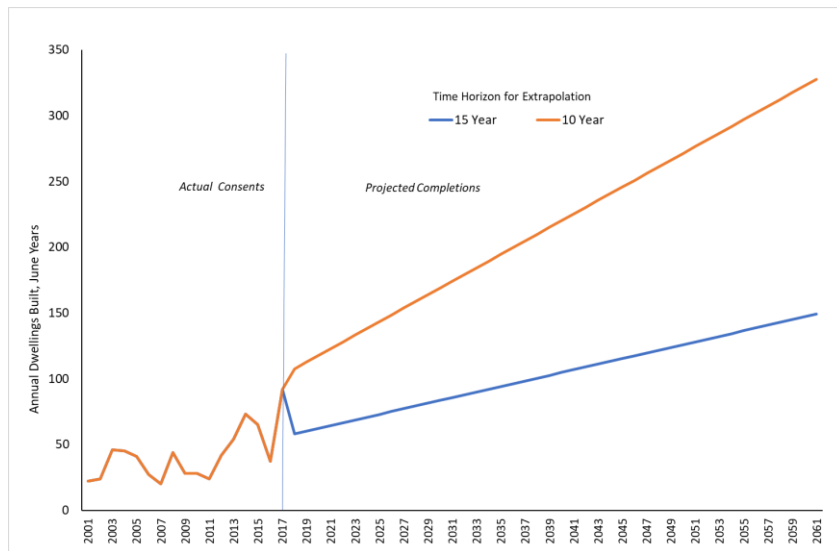
Total residential capacity as estimated in Table 2 will not be absorbed in the planning timeframe without a major boost to construction capacity. While gains are likely to be lumpy as the industry upscales, we have explored trends based on past annual dwelling consent figures.

Two rates of expansion have been extrapolated, the first based on the 16-year trend from 2001 to 2017 (June years). This was a period of steady growth, subject to cyclical downturns, and so projects modest gains (Figure 4). The second, based on the ten years 2008 to 2017 incorporates recovery from the Global Financial Crisis. Despite a 2013 downturn, it supports the prospect of a boost in capacity (to around 160 units a year by 2027 and 210 by 2037).

If instead growth in output continues at the long-term rate (16 year) rate, the 2027 figure would be 85 dwellings a year and around 110 by 2037. In fact, the higher projection appears credible, given that consent numbers jumped from 24 in 2011 to 92 in 2017 (June years).

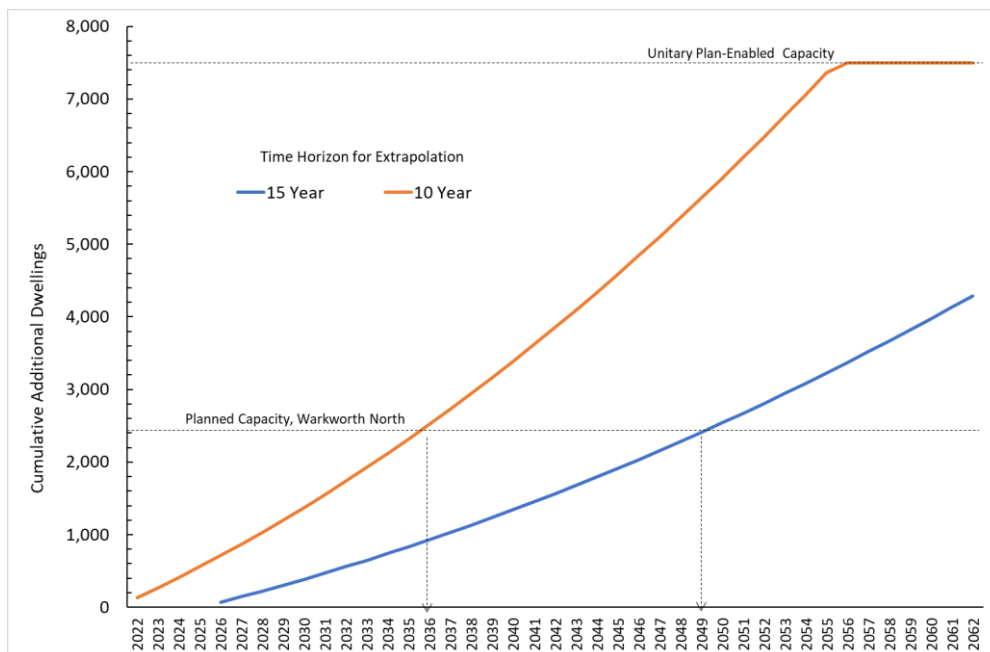
⁵ The grounds for the demographic assumptions adopted in this report are outlined in Attachment

Figure 4: Projected Annual Dwelling Completions Based on Past Consents



If the rate of capacity growth returns to the long-term average, an additional 2,300 dwellings (the number scheduled for Warkworth North) would not be completed until around 2045, 30 years from commencement (Figure 5). The planned addition to Warkworth housing would not occur in full within forty years. However, if capacity increases in line with the last ten-years growth trends, the 2,300 dwelling target for Warkworth North could be completed by 2035 and the capacity for the entire FUZ by 2058 (35 years). Of course, completion of development in Warkworth North would be longer than suggested as some of the house building will continue to take place elsewhere in Warkworth⁶.

Figure 5: Alternative Projections of New Dwelling Completions



⁶ In addition, new houses will continue to be built between the base year for comparisons (2018) and the base year for projections (2022), when the first tranche of development-ready land is anticipated.

Given the lumpy nature of capacity changes in the building sector more rapid acceleration may be possible. In Pokeno, for example, consents increased four-fold over five years to June 2017 following the 2010 Plan Change. This sort of lift would see -planned capacity is to in Warkworth developed within forty-years. The Warkworth North PPC would ensure the first tranche of development-ready sections is in place for a 2022 commencement.

2.3 The Contribution of the Proposed Plan Change

Indicative household numbers in the PPC area based on estimated development capacity within have been estimated as follows (all figures are approximate):

Single Housing: 35ha gross; 23.4ha net (developable); 8 dwellings/ha; 190 dwellings,
Mixed Suburban: 33ha gross; 21ha net (developable); 25 dwellings/ha; 525 dwellings,
Mixed Urban: 17ha gross; 11.4 net (developable); 30 dwellings/ha; 340 dwellings

These figures suggest 1,055 dwellings in total. While only indicative, a range between 1,000 and 1,100 is a reasonable working estimate of the potential the PPC offers, accounting for around 45% of total dwellings targeted for Warkworth North (Table 2, above).

In order to estimate the number of residents associated with this capacity, it is assumed that

- Dwellings in the Single Housing Zone will provide three or four bedrooms, catering for families, with average occupancy of 3.5 persons;
- Average occupancy in the Mixed Housing Zone will be 3 persons;
- Average occupancy in the more intensive Mixed Urban Zone will be 2.5 persons.

Participation rates are similarly aligned with dwelling types. Smaller households in smaller dwellings are generally held to have higher participation rates than those in larger houses where there are more likely to be children and more adults not in formal employment.

The result is an average household size of 2.9 persons across the development and a participation rate of 42%. The participation rate is below the 45% recorded in the 2013 Census (Attachment 1) but consistent with the likely demographic profile associated with the planned housing types in the PPC.

Applying these assumptions to the 1,055 dwelling estimate suggests a resident population in excess of 3,000 and growth in the labour supply of 1,300 or so workforce in the PPC area (Table 3). The former figure provides a basis for estimating demand for resident services and amenities. The latter figure provides grounds for estimating local employment (and thus investment) requirements if a substantial share of the workforce is to be employed locally.

Table 3. Population and Workforce Prospects, Warkworth North PPC Area

	Single House	Mixed Suburban	Mixed Urban	Total
Dwellings	190	525	340	1,055
Population	670	1,580	850	3,100
Workforce	270	660	380	1,310
Assumptions				
Occupancy	3.5	3	2.5	2.9
Participation	40%	42%	45%	42%

3. EMPLOYMENT PERFORMANCE AND PROSPECTS

This section explores the prospects for growth in labour demand (the second approach, Figure 3 above). The aim is to identify the sorts of activities that will occupy business land in Warkworth generally, and in Warkworth North, in and around the PPC area. It

Section 4.1 describes the approach adopted, based on the analysis of a range of sectors defined mainly in terms of their land use requirements.⁷ Section 4.2 examines the recent (post-2000) performance of these sectors and the structure of the economy using employment data as an economic indicator.

Section 4.3 examines them more closely (by sub-sector) to consider their prospects in Warkworth. This section highlights considerable uncertainty among some sectors, offset by the likely positive impact of population growth and the continuing positive performance of some of the established medium-sized manufacturing businesses.

Sections 4.4, 4.5, and 4.6 consider other non-structural factors likely to influence job prospects: the changing nature of work, the tendency towards decentralisation around major cities, and the occupational mix of Warkworth residents and the issue of shifting the balance towards more managerial and especially professional workers to sustain growth.⁸

3.1 Approach and Data

The focus is on employment as an indicator of activity and as a target outcome. Recent development has been reviewed using Business Demography data. Job counts (which do not distinguish between part-time and full-time employment) are approximate only. For present purposes they are rounded to the nearest 10 (or 100). Also, analysing employment by sector or subsector in a small urban centre within a single Census Area Unit means totals do not always correspond due to confidentiality requirements and the rounding conventions.

Analysis is conducted in terms of functional sectors derived from aggregating 2006 ANZSIC categories related broadly to their land use requirements. The sectors are defined as follows:

- *Industry* includes manufacturing, construction, utilities, and logistics, activities that favour access to key transport and service infrastructure and separation from housing;
- *Logistics*: includes transport, storage, warehousing, and wholesaling, activities that access key transport networks and nodes and have relatively extensive land requirements;
- *Retailing*; favours locations accessible to households;
- *Hospitality*; includes accommodation and food and beverage services, and favours higher order commercial centres, proximity to visitor attractions, and transport nodes although with a growing presence in suburban locations;
- *Business services* are primarily office-based functions: finance and insurance, rental, hiring and real estate services, professional, scientific and technical services, and business administration). They may serve final (household and government) or intermediate (business) demand and favour commercial centres which offer access to both local demand and the local labour market, industrial areas (when they are closely associated with production and distribution functions), and suburban office parks and precincts;

⁷ The data has been updated from earlier versions of this assessment, from 2016 to 2018

⁸ These sections are general in nature, pointing to the need for a progressive approach to future employment opportunities. While an earlier version of this assessment proposed a Local Centre in the PPC to contribute to this need, it is accepted that such a centre may be located elsewhere.

- *Public services* include public administration, public order and safety and regulation, education, health and medical, social and care services. They favour a variety of locations in centres as well as suburban sites (including schools);
- *Personal services* include arts, recreation, and the diverse “Other Services” category, again favouring a range of centres and suburban locations.

3.2 Employment Performance

CAVEAT

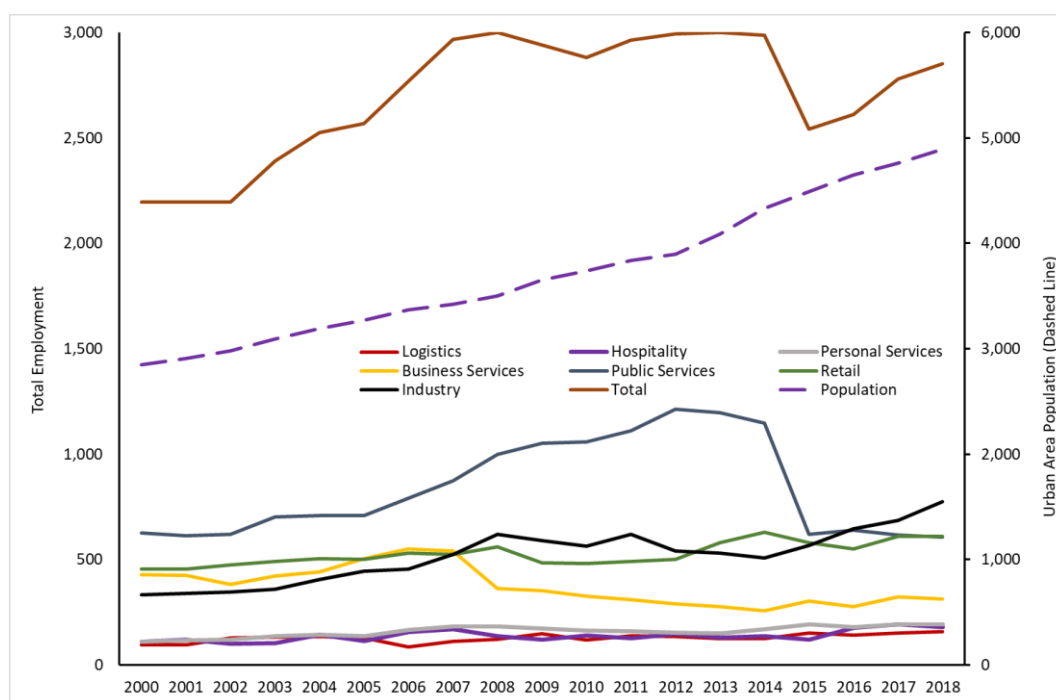
Recent developments in Warkworth underscore the difficulty of forecasting the labour market by methods that rely on extrapolating past change by sector. Cyclical fluctuations and unanticipated changes, as well as the small scale of the local economy, make meaningful extrapolation problematic. This is especially so in a setting that will be transformed demographically and economically as the FUZ is developed.

Four- to five-fold population growth will have a far-reaching impact on demand for goods, services, and labour supply. Strong hinterland growth will add to that as nearby settlements intensify and populations expand (Matakana, Algies Bay, Leigh, Snells Beach, Omaha) and as Intensification and lifestyle settlement will expand in rural areas. Given the potential for transformation, extrapolating trends from existing activity is a potentially misleading way of describing the possible structure, character and volume of future jobs.

THE LABOUR MARKET, 2001-2018

Job numbers between February 2000 and 2009 grew by 3.8% a year. However, from 2009 to 2015 they fell by 1.9% per year. Recovery since has restored jobs to 2010 levels, although still short of the 2009 figure (Figure 6). The overall result is a 34% gain (650 jobs) over 18 years.

Figure 6: Employment Trends, Principal Sectors Warkworth 2001-2018

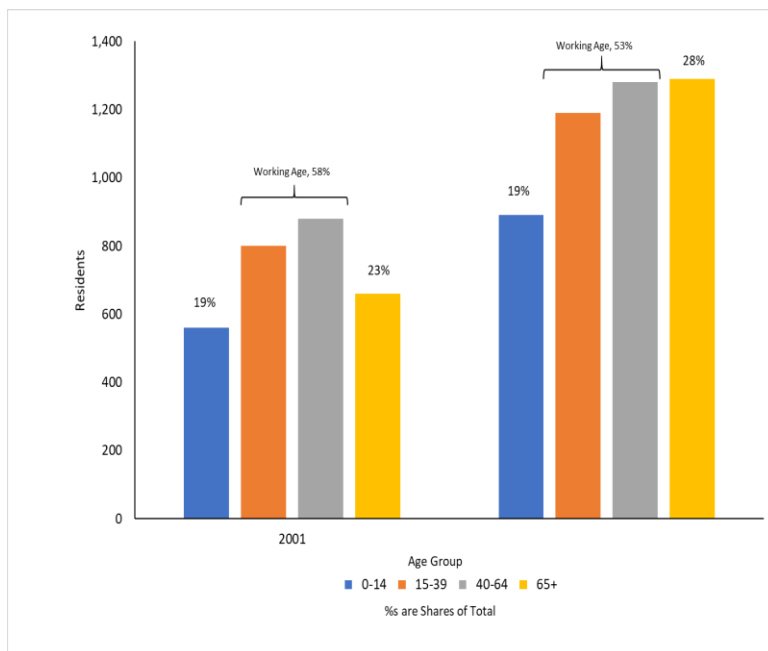


Source: Business Demography, Statistics NZ (sourced January 2018)

This compares with 72% population growth in Warkworth Urban Area, from 2,850 (in June 2000) to an estimated 4,890 in 2018 (Statistics NZ).⁹

Strong population growth and stalled employment suggest lower participation or increased outbound commuting, or both. The former might reflect a bias towards older people among arrivals. The latter suggests that investment has been constrained in Warkworth.

Figure 7 Changing Age Distribution of Residents, 2001-2016



From 2001 to 2016 the over-64 age group increased by 95% compared with the working age's 47% (Figure 7). This suggests that retirement settlement has played a significant part in population growth. However, a 59% lift in child numbers indicates strong family-age growth. Within the workforce, the under 40s grew by 49%, the over 40s' by 45%, suggesting a more youthful workforce.

It can be concluded that while ageing may have lowered average participation, recent growth must have boosted

outbound commuting among working residents.

Incidentally, the Census indicates consistently low unemployment in Warkworth. This suggests that local investment may have been constrained, in part, by a tight labour market.

Unemployment Rates at Census

	2001	2006	2013
Warkworth	2.5%	2.0%	3.1%
Auckland	5.3%	3.8%	5.4%

Finally, the employment slowdown may reflect limited land availability. Evidence to the Unitary Plan Independent Hearings Panel indicated only 14ha vacant industrial land and 7ha vacant commercial land in 2016.¹⁰ Limited areas mean limited options for new investment, something that the Hearings Panel for the Unitary Plan responded to. The Council subsequently zoned 64ha of land light industry in northeast Warkworth.

⁹ It is notable that the Warkworth workforce is substantial relative to resident population, indicating the reach of its labour catchment into the surrounding rural areas and small towns.

¹⁰ Statement by Philip McDermott to Auckland Unitary Plan Independent Hearings Panel, 10 February 2016, Attachment "Assessment of Warkworth's Industrial Land Requirements", Attachment

EMPLOYMENT STRUCTURE

Figure 8 compares shifts in sectors' individual shares of employment resulting from their different rates of growth compared with equivalent shifts across Auckland.

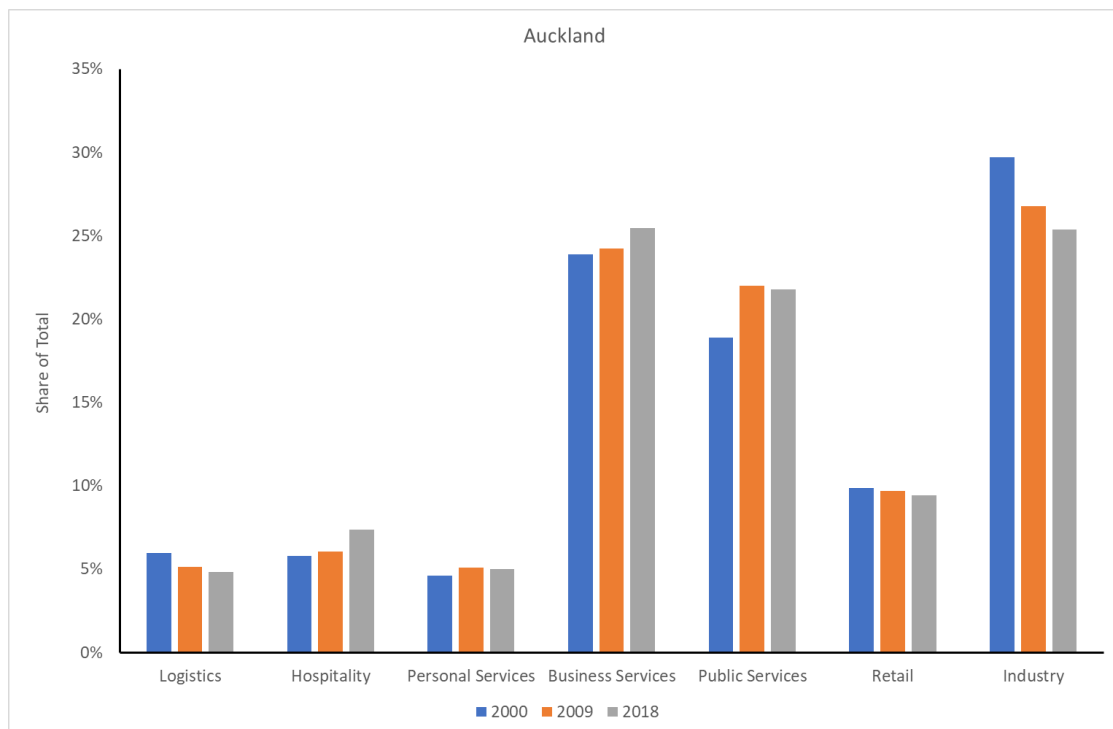
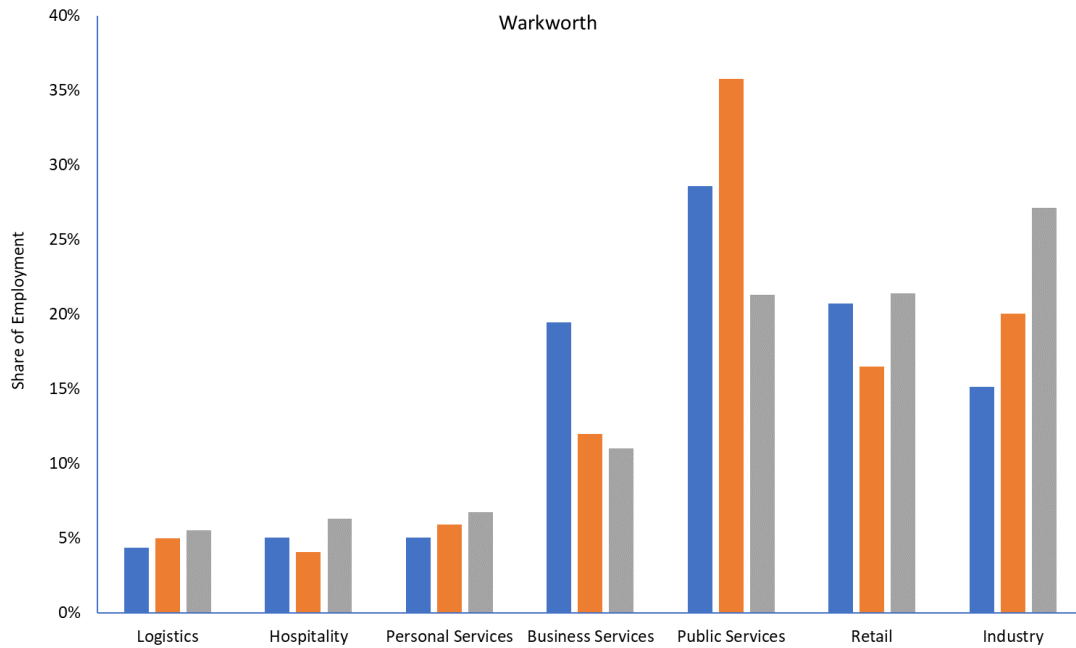
This shows that the Warkworth slowdown was largely a function of the fall in public sector jobs and a dip in retail employment. Growth was modest in other sectors, while industry has become more important since 2014, both as a result of a recovery in the sector (Figure 7) and because of the failure of other sectors to expand in keeping with population growth or with expansion of those sectors elsewhere in Auckland.

The changes taking place in Warkworth generally differ from Auckland-wide changes, albeit from a much smaller employment base. Industrial growth, for example, contrasts with a fall across Auckland. On the other hand, business services shrank in Warkworth despite their growth across the city. And while the public sector was a significant driver of growth for Auckland, it grew very little in Warkworth (although it still accounts for a significant share of the town's total employment).

One implication of this structure is that with a much larger population base there is likely to be renewed growth in public services (which include education, health, and social services) and in personal services.

If industrial growth is sustained at recent levels, there should also be a recovery and expansion of business services. Indeed, if the Council's expectations for Warkworth growth are fulfilled the employment profile is likely shift towards that of Auckland as a whole, with significantly increased service activity.

**Figure 8 Employment Shares, Principal Sectors, Warkworth & Auckland
2001 and 2018**



Source: Business Demography, Statistics NZ (January 2018)

3.3 Employment Prospects

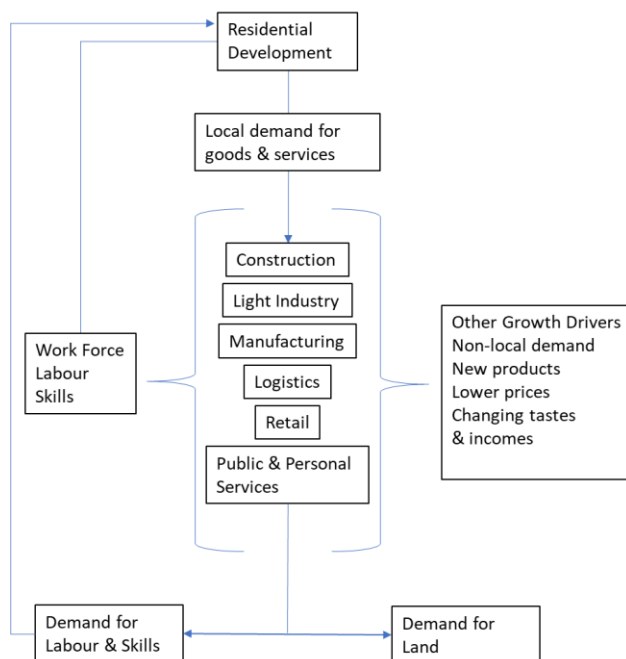
Employment shifts over the past 15 years offer few clues about what may happen in the next 10 years, let alone over a planning horizon of 30 or 40 years. This is especially true in a small, local economy facing substantial growth. Recent reversals in service sectors make forecasting difficult, while changes in the prevailing business models in others, like retailing and logistics, lead to speculation more than projection. In addition, the scale of the lift in residential and industrial land planned will alter the local investment dynamic.

Given these realities, the outlook is discussed below in terms of prospects and possibilities rather than projections and probabilities.

POPULATION DRIVEN GROWTH

One near-certainty is that future employment will be heavily influenced by population growth, highlighting the importance of integrated planning (Figure 9). Residential zoning is a prerequisite to employment growth. As new housing is occupied, so the attractiveness of Warkworth for investment will increase. With investment come more jobs, in turn lifting the town's appeal to households.

Figure 9 Population and Employment Growth Cycle



The process is cumulative: as an area grows, a bigger workforce should see more diverse economic activity. Businesses expand to meet additional demand while new investment can take place to utilise a growing range and depth of resident skills.

Determining land requirements for employment, then, is not a matter of simply extrapolating jobs in existing sectors, but requires an understanding of their individual prospects, and their consequent quantitative and qualitative workforce and site needs. It should also provide for the emergence of totally new activities.

These matters are addressed by sector below.

INDUSTRY

Industrial employment includes construction activity, manufacturing, logistics (transport, storage, and warehousing), and utility services.

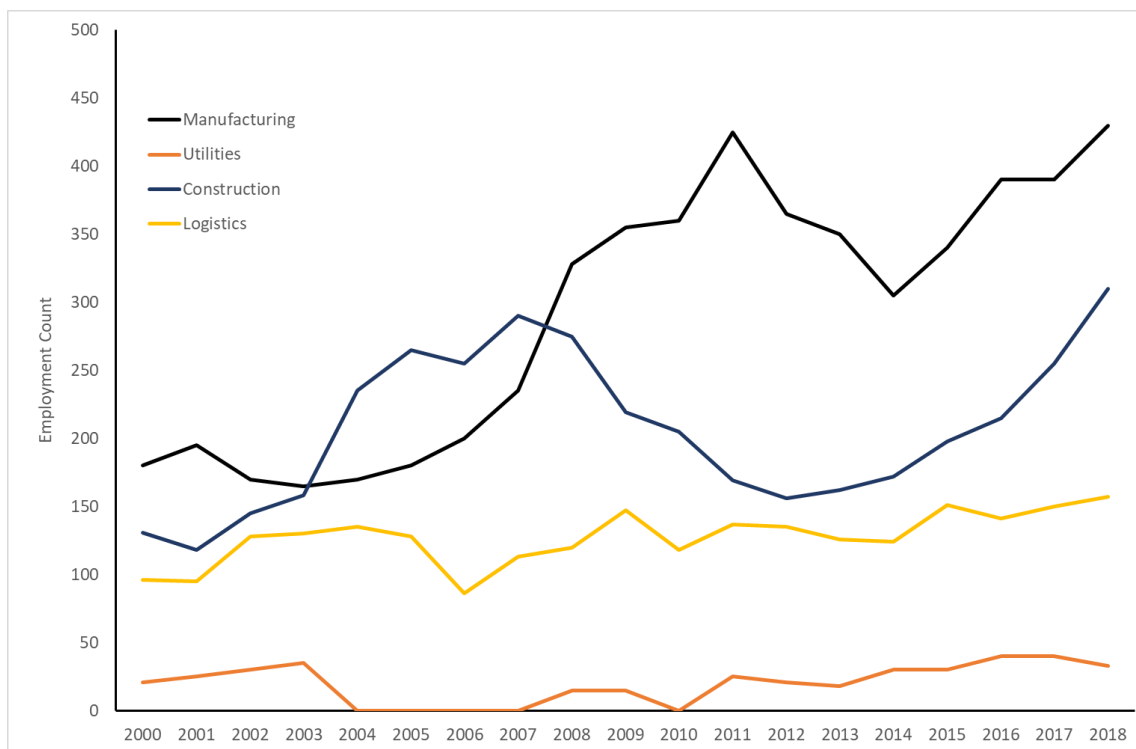
Construction employment was cyclical between 2000 and 2018. A strong post 2014 upturn has seen it contribute 27% to net employment growth over the period (Figure 10). By 2018 it matched the previous cyclical peak (2007). Construction and civil engineering can be expected to continue to grow in response to planned residential expansion, a prospect

reinforced by Warkworth's role as a service centre for a growing hinterland and the potential for continued industrial growth.

Typically, construction and related civil engineering growth demands yard space, workshop, and shed accommodation on minimum contour sites. Investors may, however, undertake on-site earthworks to accommodate current and growing operational needs with an eye to eventual sale to more intensive uses. Such activities already occupy parts of the existing Hudson Rd Light Industry Zone.

A strong construction sector will boost **light industry** prospects, reflected in the manufacture of building components (steel fabrication, timber and concrete products, joinery, framing and the like) and trade services. These activities typically occupy small to medium industrial units or sites, often with moderate storage requirements. They add to the intensity of development although much of their activity takes place off-site.

Figure 10 Industrial Employment, 2001-2018



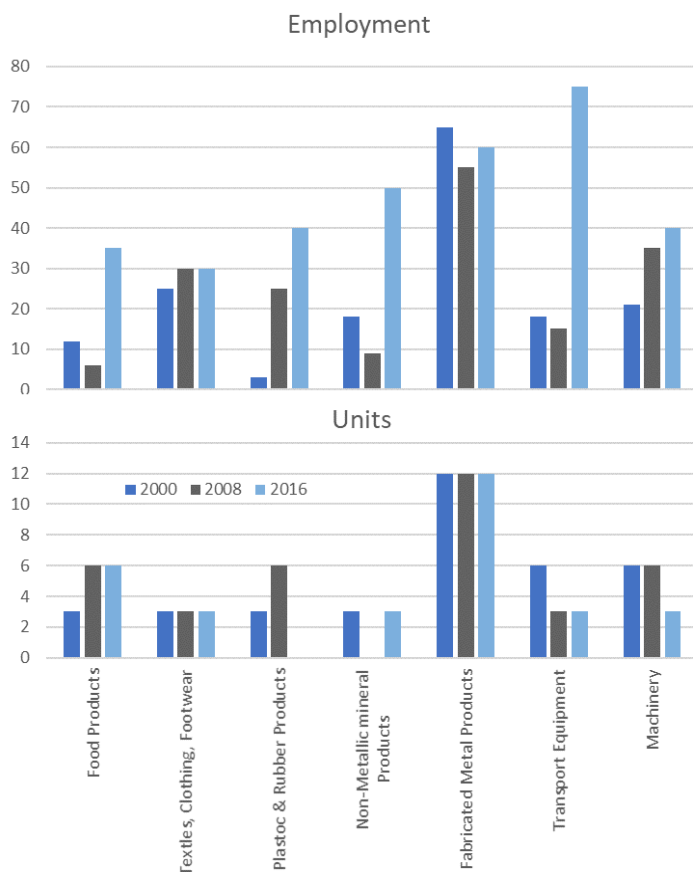
Other small scale, light industrial activities meet household as well as business demand. They include automotive services (panel beating, repairs), boat building, appliance and machinery repairs, small engineering shops and fabricators, plastic moulding, and aluminium fabrication. Showrooms and trade suppliers provide for public as well as business demand.

The self-storage sector has grown to be a significant occupier of light industrial space over the past 30 years, catering for trade and final demand. Substantial household growth will boost the space requirements of services, while buoyant construction and industry together with the completion of the Northern Motorway extension should see some further growth in logistics generally.

Small and medium-sized industrial enterprises generally expand locally, ideally *in situ*, close to their markets and staff. Their growth generally is cost sensitive so that high costs resulting from a limited choice of sites or premises can curtail growth.

Complementing light service-oriented activities in industrial zones are **manufacturing** activities serving regional, national or international markets. While their investments are generally much greater, they still depend on local population growth for labour supply and often to provide base demand.

Figure 11 Significant Manufacturing Activities, 2000-2016



Several such activities have long provided sustained industrial employment in Warkworth (Figure 11). However, a small local economy is always at risk from the possible failure, retrenchment, or relocation of its major employers. A liberal land use policy which can accommodate their growth cost-effectively will improve prospects for retention and expansion.

In Warkworth there are signs of an incipient specialisation emerging among medium-sized firms based on marine demand and fabrication skills. Engineering and metal fabricating have also established a strong capacity in several privately-owned companies, supporting commercial and residential construction as well as manufacturing marine products.

Note: Due to confidentiality requirements, small numbers are rounded to the nearest multiple of 3

Source: Business Demography, Statistics NZ (sourced January 2018)

Outside this group, Koru Knitwear provides a national presence in the clothing sector. It has been in Warkworth for 30 years and, like most long-standing manufacturers there, remains privately owned. Similarly, Glass Shapes was established in 1986 and is today “*the largest specialist curved glass manufacturer in Australasia*”.¹¹

The manufacturing picture, then, is one of a small number of well-established, privately-owned companies with a market presence well beyond the local area, built upon skills and organisation that have evolved *in situ*. A notable exception is Core Building Composites Ltd, builder of high-tech yacht hulls among other things. It was established in 2010 and selected a

¹¹ <http://glasshape.com/about-us/>

Warkworth location largely because of the availability of suitable premises.¹² With the central role it is playing and testing the new F50 GP racing catamaran class and circuit and the forthcoming America's Cup challenge its future in Warkworth should be assured provided the staff and land are available to support any further development.

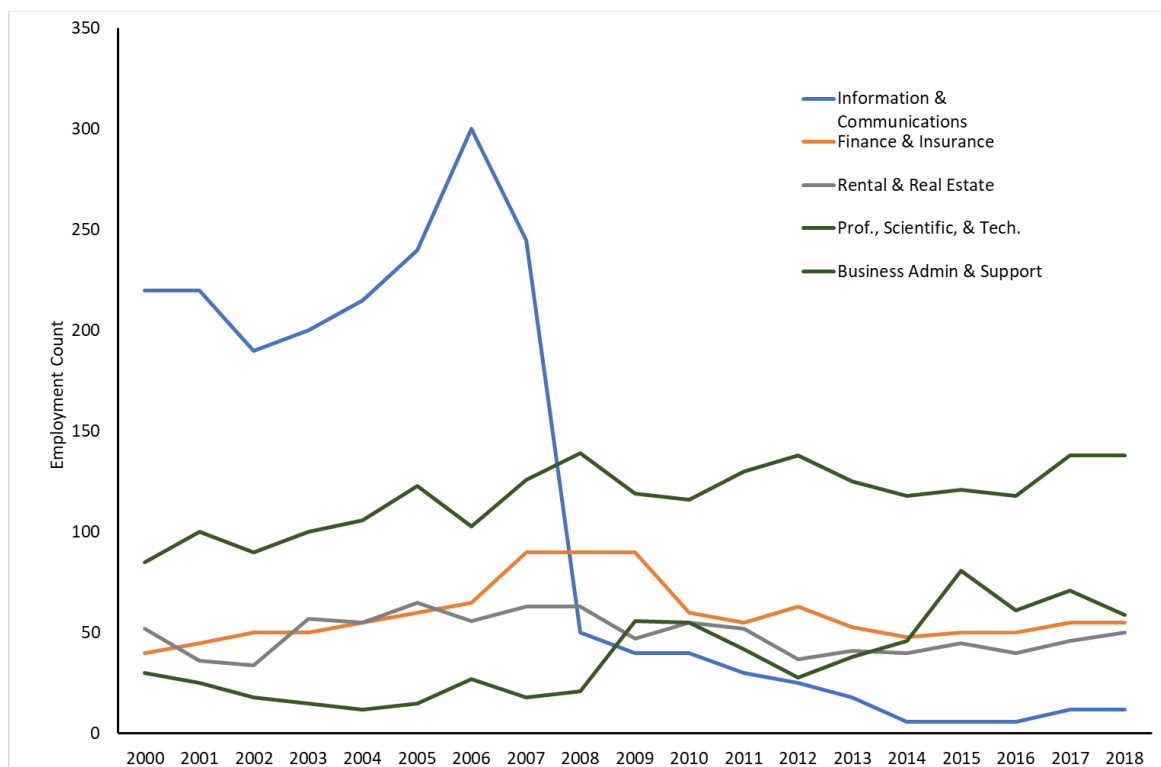
INDUSTRY OVERVIEW

Beyond these few specialist firms, the manufacturing base is limited. However, growth in the demand for industrial land in response to accelerated residential expansion and the incremental growth of existing enterprise will be satisfied in large part through the 69ha or so of light industrial land Northeast Warkworth as well as the 9ha of additional Light Industry zoned land on Morrison Drive on the recommendations of the Independent Hearings Panel.

BUSINESS SERVICES

Business services in Warkworth are limited. The “thin” nature of the sector is illustrated by the fact that the substantial fall in service jobs over the past 18 years (Figure 12) reflects mainly the relocation of the *Rodney Times* to Orewa in 2008.

Figure 12 Employment Shifts, Business Sub-sectors Warkworth 2001-2018



Financial and related services have declined since 2001, although employment numbers have steadied since 2014. Other subsectors have been largely static, with the only signs of growth (albeit limited – 50 more jobs in 2018 than in 2000) in the scientific and technical field. While the small number of people involved may be sufficient to service small businesses and households, the small scale of the sector generally suggests that currently there is only limited local capacity to offer services to an expanding business community and population.

¹² <http://www.stuff.co.nz/auckland/93892644/Tim-Smyth-muses-on-Oracle-and-small-town-life?cid=app-iPad>

If the expectations informing the FULSS are to be achieved (Table 2 and **Error! Reference s** **ource not found.**, above), provision needs to be made for more commercial (office) space. While some intensification may occur in the Town Centre, there is still a need for low- to medium-rise, large footprint, modern office space elsewhere.

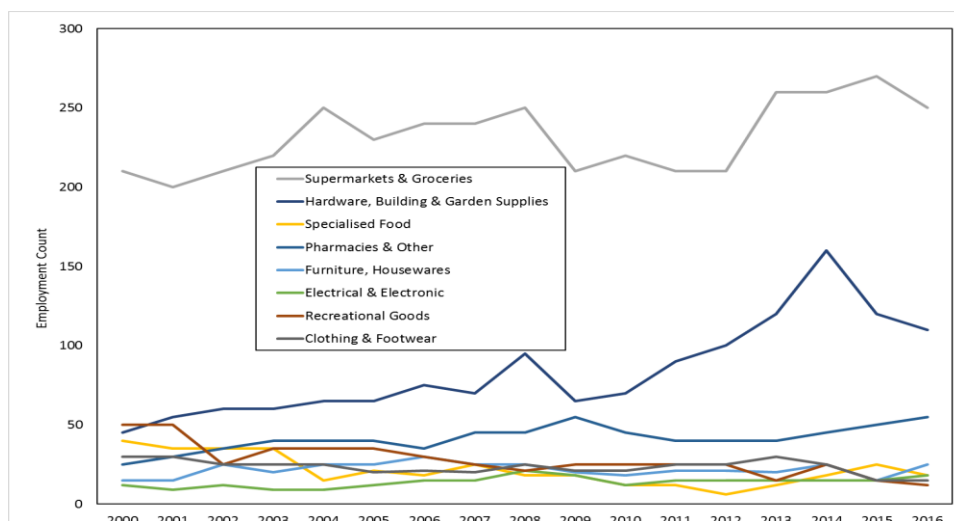
The limited capacity for small, local professional and technical service businesses to meet the overheads associated with high rise office space, especially given the planning, land area, and physical constraints in the town centre, should also be considered in any consideration of future business and employment space requirements.

RETAILING

Modest retail growth took place between 2000 and 2016 in the hardware, building supplies, and garden centre sub-sector (Figure 13), reflecting a buoyant home care segment and consolidation and reinvestment with the opening of the Mitre 10 Mega store in Mansel Drive.

Grocery and supermarket retailing lifted late in the period with the establishment of Countdown, although overall growth was modest. A new Pak n Save in the General Business Zone (Warkworth North) should sustain this growth. However, significant expansion in supermarkets and grocery stores, rather than simply labour switching among competitors, will reflect the increased local spending driven by the planned boost to housing and population.

Figure 13 Employment Shifts, Retail Sub-sectors Warkworth 2001-2018



Source: Business Demography, Statistics NZ (sourced January 2018)

A slight lift in “pharmacy and other stores” late in the period is presumably a response to population expansion and should be sustained with planned growth.

RETAIL PROSPECTS

Overall, retail growth has been limited¹³. There were 16 retail employees in Warkworth for every 100 residents in 2001; a figure that fell to 12 by 2016. This may reflect rationalisation and the increasing influence of large format stores (including supermarkets). It can be expected that ongoing gains in productivity from automation and increasing web-based sales will also

¹³ Detailed data has not been sourced for 2017 and 2018. Figure 7 indicates little change in retail employment in these years, and there is little reason to expect a significant shift from the mix of activity in 2016.

continue to offset in part the effect of increased household demand on job growth. The result is likely to be ongoing modest growth as Warkworth expands.

Warkworth has lagged in specialist food and food services. These should make some significant gains with population growth, alongside personal and convenience stores.

More generally, a revival in small, specialist, local stores may result from a consumer reaction against large format stores, the growing role of supermarkets, and web-based shopping. The emergence of local niche stores providing specialist lines and retailers focusing on customer service and experience could offer impetus for employment otherwise threatened by changes in the core retail business model.

The impacts of the next generation of web-based and automated stores and decentralised goods distribution are unknown but could impact most on the employment in large stores¹⁴ and leave the way open for specialist or niche neighbourhood stores, and health, education, social, and professional service organisation in local centres. Another obvious driver of local "retail centres" is the burgeoning hospitality sector, with the range of small bars and taverns, cafes, and restaurants complementing traditional suburban takeaway outlets.

These contrasting movements hold out the prospect that retail employment growth will continue to favour local more than central stores.¹⁵

The changing character of retailing promises to disrupt the structure, distribution, and land needs of the sector even more than the advent of large format stores did 30 years ago, or shopping malls two decades earlier. Consequently, there is no clear path for predicting the nature and location of the additional retail land required. The most appropriate planning response may be to retain as much flexibility as possible and to recognise likely gains in smaller centres offering a wide array of personal service, recreational, and hospitality activities as well as specialist retailing.¹⁶

THE IMPACT OF MODERN LOGISTICS

Ongoing advances in information, communications, and transport technologies raise further uncertainty for retail as the boundaries between manufacturing, logistics, and retailing become blurred. A web-based business model means that semi- or fully-automated facilities market and distribute directly to consumers, streamlining the distribution chain by combining warehouse, wholesale, sales, and fulfilment functions at the cost of traditional retailing.

At the same time as the logistics (transport-warehousing-distribution) revolution disrupts distribution to final demand, it is also penetrating manufacturing through integrating assembly, re-specification (by way of adapting global products to meet local specifications and standards for example), and packaging functions.

The new role of logistics in industry and retailing is obvious in the proliferation of facilities in and around Auckland Airport. It does not stop there, however. For example, there may be prospects for logistics investments to take advantage of the link between the Auckland and

¹⁴ See, for example, [Amazon-Go](#)

¹⁵ It is significant that retail growth in the outer suburbs and peri-urban areas of Auckland between 2008 and 2016 ran at 3.3% and 2.1% per annum compared with 0.3% in the Inner City and 2% in the inner suburbs.

¹⁶ Regional and sub-regional centres themselves are diversifying in the face of change, with many more service offerings. In addition, they are today dominated by national and increasingly international retail chains.

Northland markets offered by the Northern Motorway extension.¹⁷ Such operations might be encouraged to locate in Warkworth, providing employment and deepening the industrial infrastructure, by zoning suitable land close to the motorway intersection.

PUBLIC AND PERSONAL SERVICES

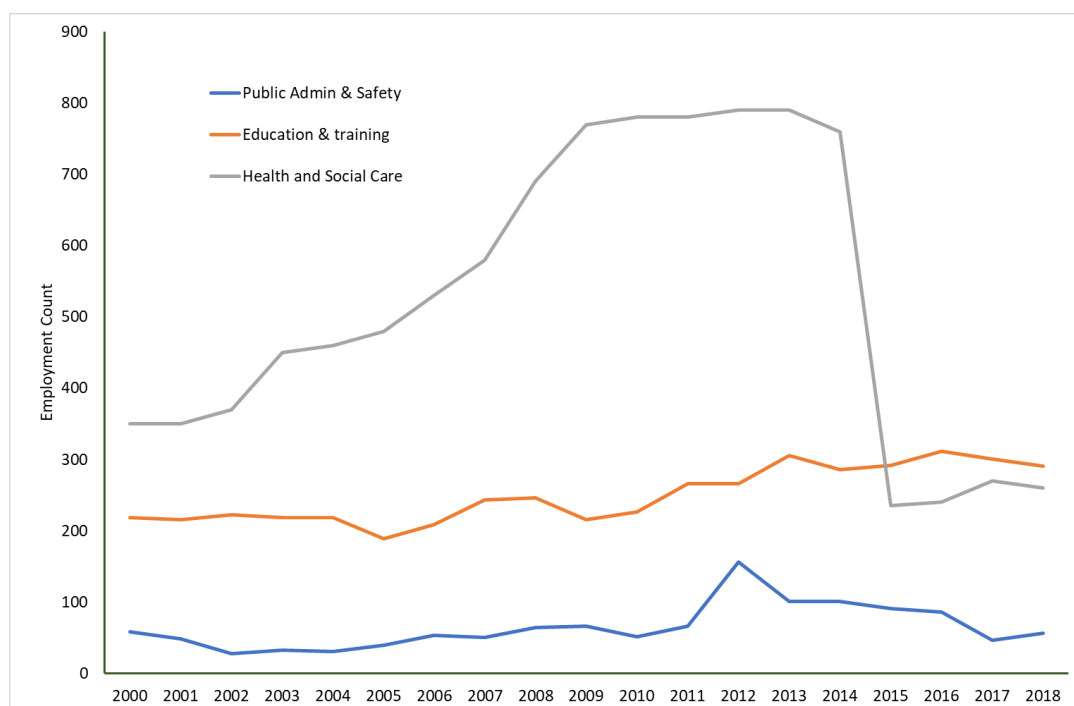
Social services in Warkworth apparently experienced a dramatic employment decline in 2014 (Figure 14), although in the absence of detailed evidence this, like the apparent spike in medical care, raises questions over the stability of the data.

Overall, the public sector has been a steady employer at best, with a slight increase in education offsetting a decline in health services and social care numbers. As the population grows such services should recover and expand once more, particularly in health and education. A recovery in social care can also be anticipated, with recent investment in the retirement sector a sign of things to come.

The land use requirements for public and personal service employment are mixed: individual service delivery agencies tend to favour centralised and accessible locations. Schools, medical treatment, and care facilities favour suburban localities because of space requirements, costs, and access to labour and client catchments.

Similarly, recreational and cultural activities benefit from both centrality (movie theatres and the like) and suburban locations (schools, community facilities) to cater for local populations.

Figure 14 Employment Shifts, Public Services Sub-sectors Warkworth 2001-2018



Source: Business Demography, Statistics NZ (sourced March 2017)

¹⁷ The new 5,500sqm warehouse for Mighty Ape located in the Light Industrial Zone alongside the motorway at the edge of Millwater on the Hibiscus Coast is one such example.

3.4 The Future of Work

Retailing is not the only sector facing disruption to established business practices, structures, and land use requirements. It is important to consider the future of work generally when thinking about land needs for production, distribution, and consumption. The future of work is drawing increasing policy attention internationally and locally.¹⁸

Key themes include:

- Increasing disruption to established sectors, businesses, and commercial relationships;
- Despite diverse views (and unequal impacts), globalisation is likely to continue, perhaps in a modified form (based once more on strategic or political blocs), sustaining the long-term increase in international goods, people, capital, and information movements;
- The automation and deskilling of high order services (supporting service decentralisation);
- The increasing use of robots for both repetitive and skilled work;
- The footloose nature of work from enhanced communications and IT, and changes in what needs to be done, where (breaking from fixed tasks in fixed places); and
- The likelihood and impact of a widening material gap between highly educated people with the necessary skills to adapt and the balance of the workforce (and community) committed largely to low skill, low wage service employment.

The studies highlight the inability to predict outcomes too far into the future. Extrapolating increases the potential for disruption by reinforcing unfounded expectations that the old ways of doing things will persist.

The responses and opportunities arising from anticipating a complex, dynamic, and unpredictable employment environment include:

- Encouraging greater workforce flexibility with emphasis on generic skills training and retraining, and measures to enhance mobility;
- Flexibility among the public institutions in the labour market and the welfare sector;
- Support innovation and investment in new products, processes, and services;
- Conditions that encourage entrepreneurship in services;
- Facilitating business start-up, growth, and collaboration;
- Supporting established and middle-sized firms to explore new investment opportunities; and
- Creating a supportive environment for diverse investment.

These measures advance focus on

- The quality of human resources,
- Flexible investment paths;
- New forms of organisation; and
- The efficient and cost-effective delivery of infrastructure and services.

¹⁸ For local commentary see *The New Zealand Herald* "Infrastructure report: What the future of work will look like" (Thursday Oct 20, 2016); and "The future of work is over, and it's not good news" (Tuesday Jan 3, 2017) Tom Peters "[How can we rescue meaningful work?](#)" University of Auckland Business School, 21 March 2017; [The Future of Work Commission](#), NZ Labour Part See also, *The Future of Work in the USA*, The Shift Commission, May 2017, <https://shiftcommission.work/full-text-of-shift-commission-findings-on-the-future-of-work-in-the-u-s-f3f67a318376>

Of most significance here, they call for a liberal approach to zoning land to cater for diverse business needs, including the ability to respond to activities that might not yet exist.

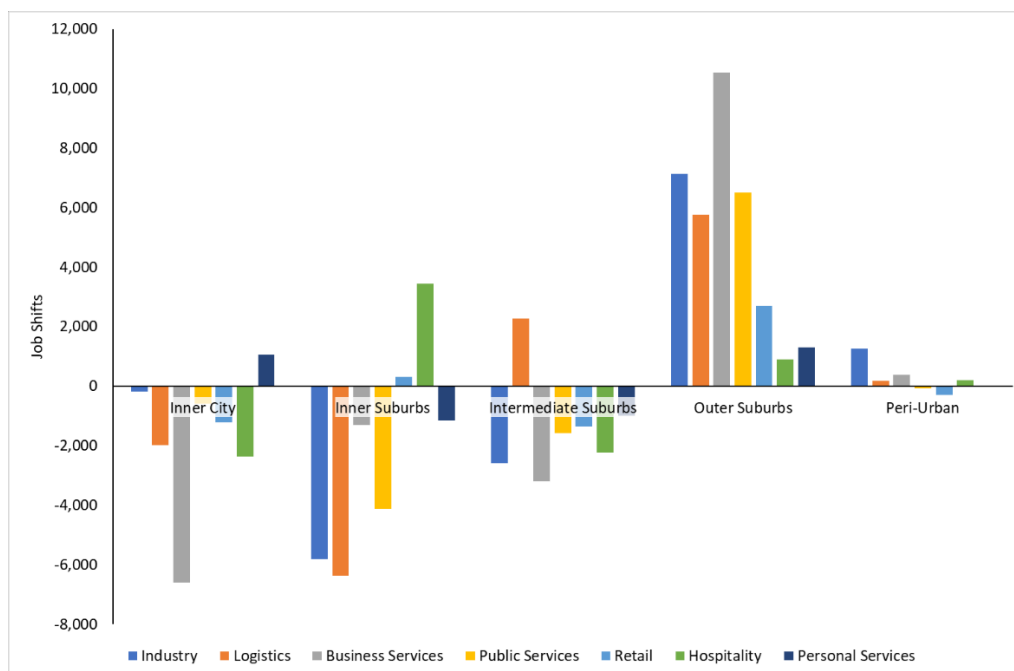
In the face of disruptive technologies and new forms of organisation the pace of growth and range of employment categories should increase in Warkworth, although the precise form that growth takes is not predictable. In addition, inward migration should reverse the impact of workforce ageing, increase the depth of local experience and upskill the workforce, a process with the potential to support new streams of investment and employment as well as sustaining and expanding existing activities.

3.5 The Significance of Decentralisation

The changing nature of work was expected to enable more people to work from home. While the evidence for this is mixed, many sectors show signs of progressing more in decentralised locations rather than in central areas. If the former are well connected and serviced, costs associated with a non-central location are reduced and likely to be more than offset by enhanced labour market accessibility and lower site occupancy and operating costs. More local employment opportunities resulting from decentralised investment reduce the costs of commuting.

Most Auckland sectors experienced decentralisation between 2001 and 2016. This is demonstrated by the difference between actual employment changes in jobs in the inner and outer parts of the city compared with the changes that would have occurred if each sector had retained its original share of regional employment. Employment growth in all sectors other than hospitality favoured outer suburbs. Only the growth in personal services favoured the inner city (Figure 15). Business services gained in the outer rather than inner suburbs, along with industry, logistics and public services.

Figure 15 Charting Decentralisation in Auckland, 2001-2016



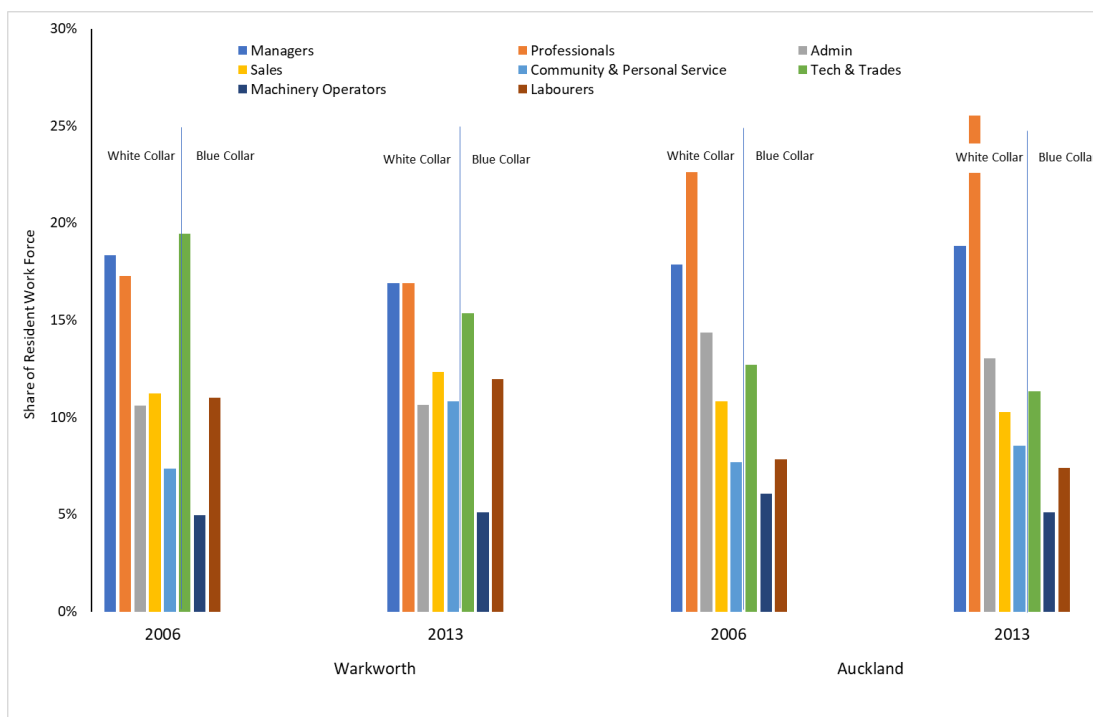
A boost in the resident population and workforce in Warkworth can both build on and reinforce the positive impact of decentralising employment.

3.6 Occupations

The current structure of Warkworth employment does not favour inward movement by households across the board because it is oriented to blue rather than white collar work. While 44% of Auckland employees were classified to managerial or professional occupations in the 2013 Census, the figure was only 34% in Warkworth. The difference was accounted for mainly by the larger share of professionals in the city-wide workforce (Figure 16).

The distinctive occupational structure of the Warkworth workforce raises several questions. The first is whether local economic growth can be sustained without an infusion of professionally and managerially skilled people into the local community. The second qualifies the first: what will people be producing by way of goods and services, and what tasks they will they be performing to do so? And will the resident workforce have the skills, adaptability, and managerial capacity to take advantage of them?

Figure 16 Comparing Residents' Occupations, Auckland & Warkworth, 2006 & 2013



If under-representation of the growing management and professional occupations continues, Warkworth may miss out on some of the important regional growth drivers and be also be poorly placed for the adoption of new technologies and practices and lack the workplace flexibility necessary to respond to future challenges.

One conclusion that can be drawn from this is a need for attractive living environments that will attract people with the necessary skills, qualifications, and experience to justify and underpin local business investment, to exploit advances in logistics, and develop modern service businesses.

4. PROPOSED ZONES

4.1 Overview

The preceding analysis of employment prospects for Warkworth North suggests:

- Much of the early growth will be driven by the civil engineering and construction works activities which traditionally operate from industrial sites on the edge of the urban area;
- This will support investment in associated trades, materials, and componentry supplies which can be expected to favour Light Industry zoning;
- These will be complemented by maintenance, and light manufacturing activities associated with demand from increasing household numbers;
- A modest number of medium-sized industrial activities, including locally-owned, private ventures, will continue to require industrial land, favouring larger, easily developed sites;
- Land will be required to support demand from aggregation, distribution, and fulfilment facilities (logistics) at sites close to the motorway intersection, as well as providing additional capacity for large format retailing;
- However, a large share of employment growth will be associated with non- industrial uses, including personal, household, business, and community services;
- Disruptive technologies, volatile domestic and international markets, and new business models make it difficult to forecast in detail the nature and needs of medium- (five to ten years) and long-term (ten years plus) investment and employment; and
- Flexibility of land use will enable the community to respond effectively to and initiate new investment and employment opportunities despite this uncertainty.

In preparing for future employment, it is important that industry can expand readily, and that inward investment can build on the local manufacturing culture.

However, the orientation of employment capacity towards light industry raises other issues:

- A dearth of local business and professional services acts against growth in sectors that use such services, including industry;
- Much of Warkworth's industry (and employment in it) is vulnerable to [a] the cyclical nature of construction; and [b] the fortunes of a few significant local employers, reinforcing the need to allow the economy to diversify;
- Retailing faces transformational challenges, the nature of which is not yet clear, but which raise questions over the capacity of traditional stores to sustain job growth;
- Service investment is likely to be the major driver of new jobs for some time to come, including services to households and families, to business and employment, to the community, and to individuals; and
- Entrepreneurship and innovation can play a significant part in shaping new jobs, many of which may fall between production, logistics, and service delivery, making it difficult to determine with any precision future land use needs;

4.2 Employment Zones in the Proposed Warkworth North PPC

In the interests of broadening the range of employment opportunities available in Warkworth it was recommended in the draft of this assessment that provision be made for a Local Centre with the capacity to accommodate a range of commercial investment while meeting neighbourhood and local retail needs. It was also suggested that an area of

General Business zoned land be provided alongside the Great North Rd, extending that already in place on the corner of Hudson Rd.

These recommendations were not acceptable to council officers, with a Neighbourhood Centre of around 3,000m² (land area) preferred simply to meet local retail and personal service needs. In addition, a 13ha extension of Light Industrial Land adjacent to the Great North Rd and extending back to light industry zoning on Hudson Rd was preferred to the originally proposed General Business Zone.

Analysis of potential local and (within that category) neighbourhood retail demand associated with 1,300 households suggests a need for between 1,100 and 1,300sqm of retail and service floorspace (Attachment One). This can be accommodated on 3,000m² at 40% site coverage, leaving 60% for roads, services and common space. This does not necessarily include capacity for hospitality – restaurants, cafes, taverns, and visitor accommodation, increasingly a feature of neighbourhood and local centres. It would also limit the capacity to provide for child-care services.

Such requirements shortcomings can be addressed, however, through the discretionary provisions in the Mixed Housing Urban Zone, including provision for care centres (permitted with under 10 clients; restricted discretionary above that), tertiary and healthcare facilities.

It is accepted for the purpose of this PPC that the prospects for more outward-looking commercial, and office investment activities offering more diverse investment and work opportunities for residents (and addressing structural deficiencies in the Warkworth economy) can be catered for on suitable land elsewhere in Warkworth North or Northeast.

THE LIGHT INDUSTRY ZONE

The preceding analysis promotes a flexible approach to increasingly diverse employment and a shift from over-reliance on traditional small business and manufacturing industry to fuel the sort of growth required to match residential expansion plans for Warkworth. A General Business zone would accommodate a shift towards the commercial interface of production. The preferred Light Industrial Zone on the PPC can nevertheless accommodate a widening range of activity, including logistics facilities at a key nodal location between Auckland and Northland.

4.3 Employment Capacity

Auckland Council's 2015 *Future Urban Land Supply Strategy* anticipated "that Warkworth will need around 115 hectares of additional business land" to accommodate another 4,040 jobs (pp.20-22), at an average gross density of 35 jobs/ha. If we apply the employment density assumed by the Council to our range of 7,500 to 9,400 people in the Warkworth labour force at "full" development (Table 2, above), the area required to employ them would be between 210 and 270ha.

The M.E. Consultants review suggests that the 35/ha ratio is high and only achieved in long established industrial areas. While this may be achieved eventually in Warkworth North, earlier development naturally occurs at a lower density.

Based on these assumptions, an estimate of employment capacity in Warkworth North with the PPC in place and including the currently zoned light industrial land indicates sufficient to support close to 2,600 jobs (Table 4). This compares with an estimated gain in labour force (if

the Council target's household numbers for the area are achieved) of up to 2,900 (Table 2), with 1,300 associated with the Warkworth North PPC (Table 3). However, it falls well short of the total workforce north of the centre when Warkworth Northeast is brought into the picture (with capacity for between of up to 1,900 additional resident workers).

Table 4. Indicative Employment Capacity, Warkworth North Business Land

	Employment		
	Ha	Per Ha	Total
Light Industry			
Existing	64.0	30	1,920
PPC Addition	13.1	30	390
General Business	6.1	40	240
Neighbourhood Centre	0.3	60	20
TOTAL	83.5	160	2,570

Note: General Business already zoned for supermarket

In any case, numerical equivalence is a crude measure. It is to be expected that there will be increasing need for local employment from increasing resident numbers in the Warkworth hinterland and from elsewhere in the town.

In addition, a substantial influx of residents will bring with them a greater variety of qualifications, skills and experience than currently associated with Warkworth employment, calling for a greater diversity of work opportunities than offered by light industrial activities.

For this reason, it is anticipated that the Council's forthcoming structure plan for the Warkworth Future Urban Zone will allow for significant additional employment in commercial and service activities in the vicinity, and that the discretionary use provisions associated with the Residential- Mixed Housing Urban and Business – Light Industrial zones, will come into play.

5. THE IMPACT ON OTHER CENTRES

Section 5.1 identifies as far as practical (without a detailed on-the-ground survey) the areas of existing employment-related zoned land. Subsequent sections discuss the impacts of the proposed additions in the PPC on the town centre (5.2), the Woodcocks Rd area, including Mansel Drive (5.3), and The Grange (5.4). Section 5.5 provides a summary and 5.6 the conclusion regarding impacts.

5.1 Zoned Business Land

The areas of occupied and unoccupied zoned business land, including the PPC proposal, were estimated in 2017 by Buckton Consulting Surveyors and through reference to property records (Table 5). The extension of the General Business zone on the SH1 corner of Hudson Rd and additional Light Industrial land proposed in the Warkworth North PPC brings the total to close to an estimated 173ha with well over half of that in Warkworth North, dominated by the recent live zoning of 64ha of light industrial land.

While currently the principal employment centre, the capacity for significant growth in the town centre is limited to what can be achieved with consolidation, infill, and intensification within a constrained physical setting. Beyond that, Warkworth North will be a major centre of employment over the next 20 years.

Table 5. Warkworth Business Land by Area

Centre	Hectares
Business Town Centre	15.5
Business Mixed use - Lilburn/Percy	6.5
Business Mixed Use- Pound St	2.6
Business General - Whitaker rd	1.1
Total Centre	25.7
Light Industry Boat Yard	6.5
Light Industry -Woodcocks Rd	28.8
Light Industry - Mansel Drive	8.9
Business Local Centre - Grange	2.6
Morrison Rd - Light Industry	8
Total South West	48.3
Goatley- Light Industry	64
Hudson Rd - Light Industry*	9.3
General Business - SH1 North	6.1
Proposed Changes:	
Light Industry	13.1
Hudson Rd - Local Centre	0.3
Total North	92.8
Proposed	173.3

Under current and proposed zoning, employment land will continue to be weighted heavily towards light industry. It is assumed that additional commercial general business capacity will be provided in the pending structure plan.

5.2 Warkworth Town Centre

The Town Centre is unlikely to suffer adverse effects from the business zones introduced by the PPC on the following grounds:

- It is already relatively intensively developed and physically constrained. The development of the 83-unit Oak on Neville retirement village and associated care facility and plans for two additional retirement and care facilities (one on an adjacent Neville St site and the other on the corner of Mill Lane and Whitaker Rd) commit over 1.1ha of the Town Centre to multi-storey residential facilities.
- The Town Centre Zone has two large format anchor stores by way of the Countdown and New World supermarkets, which will maintain its appeal as a retail destination.
- The Town Centre also offers diverse “fine-grained” retailing, various household services, and bars and cafes in an attractive local environment, all within reasonable walking distance. Given an attractive centre, these activities will thrive with population growth, reflecting among other things the region-wide growth of hospitality employment.
- Significant recent investments are unlikely to justify replacement and thereby limiting opportunities for further intensification. Apart from the supermarkets, they include the medical precinct on Alwick and Percy Streets, small low-rise offices on the southern side of Neville St, and retail and office premises on Queen and Baxter Streets.
- The Town Centre will remain the administrative and community heart of Warkworth, including a council service centre, the recently restored Town Hall, the old Masonic Hall, the waterfront wharf and boardwalk, and adjacent Lucy Moore Park.
- There are strong urban design arguments for protecting the generally small scale and intimate character of the town centre, with its easy walking access to the riverside, views of the eastern bush escarpment, and a combination of late colonial and street-level quasi-colonial architecture. There is likely to be resistance to further large-scale development or intensification.
- Given the containment of the centre between river and highway vehicle access and parking are constrained and will become much more so with current developments.

Some \$22m was estimated as the possible local expenditure by resident of the PPC are. Some \$14m of this is likely to be available for spending within Warkworth outside the proposed neighbourhood centre. Clearly, the town centre is one of the localities like to benefit from this.

5.3 Woodcocks Rd and Surrounds

This is an established, extensive, and growing employment precinct, marked by diverse investment in light industrial, distribution, and service activities. Current density is estimated at around 27 employees/ha (including the secondary school).

Among the industrial uses are building component manufacturers and trade suppliers, light engineering, storage, and automotive services. There is some limited specialty retailing, generally in association with warehouse, light manufacturing, or trade activities. The additional 8ha in Morrison Rd zoned Light Industry under the Unitary Plan will help to sustain this dynamism.

Even though there will be an abundance of light industrial land in the north of Warkworth which will offer alternative sites to investors, this is unlikely to undermine this existing area or even prejudice greenfield sales there given the density and momentum of development. In any case, price competition arising from releasing a substantial tranche of light industrial land elsewhere in Warkworth should benefit investors in new or expanding enterprise and potentially accelerate the growth of employment in the town.

The large retail format development adjacent to Mansel Drive (previously the Perendale development site), currently contains a Mega Mitre 10 store. It has been rebooted with the consenting of the neighbouring Kowhai Falls retail centre. This is likely to take some time to develop fully, especially given its focus on prepared foods and the proximity to The Grange, also dominated by convenience food outlets.

Nevertheless, Kowhai Falls can be expected to eventually develop as Warkworth North proceeds. The progressing of the current PPC should give this prospect a boost.

Also significant in the wider Woodcocks area is the role of personal services: the day-stay surgical centre, the college, and on the edge of the area, the 150-dwelling Summerset Falls Retirement Village, currently undergoing a substantial expansion. These are all likely to benefit from the PPC area progressing.

5.4 The Grange

The Grange is ostensibly a local centre, but through positioning, presentation, and tenancies it is currently acting in large part as a highway service centre. Its access is dominated by a large service station while most occupied premises are committed to takeaway and casual food sales. This should change, though, as the Grange acts increasingly as a local neighbourhood centre with the completed linkage of the 120 lot John Andrew Park housing development. It may well assume the role of local centre as Warkworth South is progressively developed (currently scheduled to begin after 2028).

5.5 Conclusion

It is difficult to see the employment land zoned for development in the Warkworth North PPC having an adverse impact on existing centres and business activity. Instead, it will initiate a round of development that generates significant growth in demand for goods and services beyond its boundaries and boosts local labour supply.

In summary:

Much of the **Town Centre** is already committed to redevelopment. The balance of the built environment is sound and accommodates buoyant business activities in an attractive pedestrian environment. It acts as a commercial, administrative, and community centre for the wider area. This will not be affected by the PPC except to the extent that demand for its services will increase from the associated population growth.

The Grange is recently established as an automobile-dependent centre, one which will link closely, however, with population expansion in Warkworth South to provide a neighbourhood and ultimately a local centre.

The **Woodcocks** area is a diverse and dynamic centre of industry, services, and warehouse and factory-based wholesaling and retailing. It has capacity for industrial and retail expansion.

Through the development of **Kowhai Falls** the Mansel Drive area north of Woodcocks Rd looks set to combine food outlets with large format retailing and some office and distribution activities.

The Warkworth North PPC provides the opportunity to initiate the development set out in the Unitary Plan and FULSS in a coherent and integrated fashion, some distance from the town

centre but with easy access to a new neighbourhood centre and, in due course, a supermarket, close to a substantial area of vacant industrial land, and close to the new motorway intersection.

Attachment 1: Demographic Assumptions

The following tables inform the assumptions made for this report.

Table 1.1: Warkworth Dwellings, Population, 2001-2016

	Dwellings		Unoccupied		Residents		Occupancy		Labour Force		Participation	
	No.	Gain	No.	Share	Total	Gain	Census	Marginal	No.	Gain	Census	Marginal
2001	1,170		108	8.5%	2,826		2.4		1,296		46%	
2006	1,332	162	96	6.7%	3,270	444	2.5	2.7	1,509	213	46%	48%
2013	1,581	249	150	8.7%	3,909	639	2.5	2.6	1,746	237	45%	37%
2016	1,750	169	Average:	7.9%	4,650	741	2.7	4.4	2,080	334	(45%)	NA

Source: 2001 to 2013 Census figures;

2016 Population Statistics NZ estimate; dwellings increase by total consents issued over the previous three calendar years, less 5% to allow for non-completion. No provision is made for non-occupancy.

2016 estimate of labour force gain is based on the 2013 Participation Rate

Housing and Population: As the level of population growth increased so average occupancy has increased, although the high marginal rate of 4.4 (additional residents divided by additional dwellings) in the last three years may be in part a statistical aberration.

Nevertheless, this suggests increasing demographic diversity with larger average household size confirming that growth is no longer dependent on retirees or empty nesters.

Growth in occupancy is expected to continue because of the additional capacity, including single dwelling lots, provided for in the Unitary Plan, structure planning for the Warkworth North PPC, and the likelihood of more young couples and families as a result.

Workforce: Despite the implicit assumption in FULSS and Unitary Plan expectations of rapidly falling participation, this is unlikely to be the case despite the lower marginal rate (additional resident workforce divided by additional residents). A changing retirement age, increasing dependence on two income households, more local work opportunities, growth based on inward migration of young, economically active, and skilled people, and flexible working all favour an increase rather than a reduction in participation.

A rate of 40% nevertheless suggests that a sizeable proportion of new arrivals will comprise non-working households. The inference of a low assumption is that our estimates of land needed for the future workforce are more likely to be on the low than high side.

Attachment 2: Retail Spending and Floorspace

Expenditure-based Source and Method:

Statistics New Zealand's 2016 Household Expenditure Survey (HES) was used to estimate annual retail spending per household in Warkworth.

Relevant retail and retail service sectors (including health) were first identified. Through reference to detailed HES those sub-categories unlikely to be purchased in a retail environment or unlikely to be associated with local centres were deducted from category totals.

An estimate of the potential share of a household's spending going to local centres was then made by category, giving some consideration to the distance to a significant sub-regional centre (Albany) is likely to boost local spending. A share of that spending likely to occur in a neighbourhood centre was also estimated and deducted from the local total.

It was estimated that retail goods and service likely to be delivered through centres accounts for around 48% of gross household expenditure, with 48% of this spent in local centres (23% of gross household expenditure) within Warkworth. Continuing down this path, adjustments to reflect neighbourhood spending suggest that 37% of "local spending" (or 18% of all retail spending) by households in the PPC would take place in the PPC Neighbourhood Centres. ¹⁹

Table 2.1: Estimating Annual Retail Spend Available for Local Centres

Category	Weekly Household (New Zealand)	Adjustments			Estimated Annual Spend/Household		
		Factor out Non-Retail	Local Share	Neighbourhood Share	Local	Neighbourhood	Total
Food	\$218	100%	80%	30%	\$5,678	\$3,407	\$9,085
Alcoholic beverages, tobacco, and	\$31	100%	60%	30%	\$484	\$484	\$967
Clothing and footwear	\$38	100%	60%	20%	\$788	\$394	\$1,182
Household contents and services	\$49	28%	60%	15%	\$320	\$107	\$426
Recreation and culture	\$119	52%	50%	15%	\$1,121	\$480	\$1,602
Miscellaneous goods and services	\$115	46%	50%	20%	\$825	\$550	\$1,375
Health	\$39	87%	80%	30%	\$874	\$524	\$1,398
Communication	\$36	12%	40%	0%	\$92	\$0	\$92
Retail Categories Spending	\$571				\$10,182	\$5,946	\$16,128

Annual household expenditure in local and neighbourhood centres derived in this way has been multiplied through by new dwelling estimates to indicate the retail demand associated with increased residential capacity. No allowance has been made for growth in average household expenditure, so the estimates can be considered conservative.

The turnover required to support a square metre of retail floorspace ranges between \$5,000 and \$10,000, depending on store type, location, and overheads. Local stores tend to be owner-operated and service oriented and survive on turnover towards the lower end of the scale, supported in part by the greater margins associated with the convenience they provide. For present purposes, it is assumed that a neighbourhood centre will require average sales of between \$6,000/m² and \$7,000/m². ON this basis it can be concluded that a

¹⁹ This compares with 14% of floorspace in Auckland allocated to local and neighbourhood centres in Auckland Retail Economic Base, Auckland Council Technical Report 2013/046, p.58

neighbourhood centre within the PPC will support between 1,100m² and 1,300m² of conventional retail floorspace.

Floorspace and Land Area

Converting the resulting floor space estimates to land area assumes that building covers around 40% of the land, allowing for parking, roads, reserves, services, and any outdoor community spaces. This suggests that a little over 3,000m² required to meet neighbourhood shopping needs. A slightly smaller area can be adopted if use is made of on-road or road-side (corridor) parking.

These figures may be conservative on several grounds as planning for sustainability and changing consumer behaviour, coupled with advances in distribution and the decentralisation of higher order services facilitate local retailing.