



Agenda for Workshop No. SG17/03

SmartGrowth Leadership Group

**The SmartGrowth Leadership Group will meet in the
Bay of Plenty Regional Council, Mauao Room
1st Ave, Tauranga
on
Wednesday, 15 March 2017
at 9.00am**

**G Poole
Chief Executive
Tauranga City Council – Administering Authority**



SmartGrowth Leadership Group

Committee Members

Independent Chairperson:	Bill Wasley
Bay of Plenty Regional Council:	Chair Cr Doug Leeder Cr Jane Nees Cr Paula Thompson Cr Stuart Crosby
Tauranga City Council:	Mayor Greg Brownless Cr Larry Baldock Cr Leanne Brown Cr Terry Molloy
Western Bay of Plenty District Council:	Mayor Garry Webber Cr Mike Williams Cr Don Thwaites Cr John Scrimgeour
Tangata Whenua Representatives:	Maru Tapsell Irene Walker Buddy Mikaere Puhirake Ihaka
NZ Transport Agency	Parekawhia McLean
Quorum:	9
Meeting Frequency:	At least bi-monthly

Role

Pursuant to Clause 30 Schedule 7 of Government Act 2002, a joint Committee of Tauranga City Council, Western Bay of Plenty District Council and Bay of Plenty Regional Council shall be retained to implement the SmartGrowth Strategy and Implementation Plan.

Membership

- That representation be comprised of four elected member representatives as appointed by the contributing authorities, including the Mayors and Regional Council Chairperson, and four representatives be nominated by tangata whenua.
- That an Independent Chairperson, to be appointed by the Committee, chairs the Committee; and the appointment of a Deputy Chair from the committee membership.
- That the standing membership is limited to seventeen members, but with the power to co-opt up to a maximum of three additional non-voting members, where required, to ensure the effective implementation of any part, or parts, of the Strategy.

- That NZTA be represented through its Regional Director as an observer with speaking rights but in a non-voting capacity.

Purpose

That the joint SmartGrowth Implementation Committee be the delegated authority to implement the SmartGrowth Strategy and Implementation Plan in accordance with the following functions:

Implementation

- Overseeing the implementation of the 2013 SmartGrowth Strategy updates, in particular the strategic actions.
- Ensuring organisation systems and resources support the strategy implementation.
- Taking responsibility for progress of those actions specifically allocated to the “SmartGrowth Implementation Committee” in the strategy, and making sure the implementation does occur.
- Monitoring and reporting progress against milestones and budget.
- Overseeing the management of the risks identified in implementation.
- Approving an annual implementation plan with a 3 year horizon.

Ongoing Tasks

- Champion integration and implementation through partner strategies, programmes, plans and policy instruments (including the Regional Policy Statement, Regional and District Plans, Long Term Plans (LTP’s), Annual Plans, transport plans and triennial agreements), and through partnerships with other sectors such as health, education and business.
- Approving submissions to Local Authorities, Central Government, and other agencies on SmartGrowth related matters.
- Reviewing and recommending adjustments to the strategy if circumstances change.
- Identifying and resolving any consultation inconsistencies between the SmartGrowth strategies and subsequent public consultation processes of the partner councils.

Consultation / Partner Forums

- Facilitating consultation with the community.
- Establishing and maintaining the SmartGrowth Partner Forums.
- Agreeing any memorandum of agreements between SGIC and any forums.

Committee Operations

- Selecting and appointing an Independent Chairperson and a Deputy Chairperson.
- Implementing a Memorandum of Agreement, as adopted by the Committee for each triennial period, to provide and maintain partnerships and provide for the resolution of any conflict.
- Establish protocols to ensure that implementation, where necessary, is consistent, collaborative, and / or coordinated to achieve optimal outcomes



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Wednesday 15 March 2017

9.00am

Bay of Plenty Regional Council, Mauao Room

1st Ave, Tauranga

Apologies

Business

1. Employment Projections – presentation by Lawrence McIlraith, Associate Director, Market Economics Ltd.

Presentation on the employment projections work and discussion to follow.

Papers A & B



Committee Name	SmartGrowth Leadership Group (SLG)
Committee Meeting Date	15 March 2017
Author (s)	Bernie Walsh, Implementation Manager
Purpose	Employment projections – updating the data – workshop discussion of Employment Projections report from Market Economics

Planning ahead – employment, transport and future land use assumptions

The SmartGrowth Partnership has helped fund an assessment of Employment Predictions for 30 and 50 year timeframes for input into the Tauranga Transport Model (TTM).

The project, led and managed by Tauranga City Council, through its Growth and Infrastructure Group, has involved staff from across the sub-region's councils including those dealing with transport, resource management, strategic planning and growth monitoring and strategic finance and growth.

This assessment work for employment projections is now complete, and the consultants, Market Economics, are ready to discuss its draft final report with the SmartGrowth Leadership Group (SLG).

The aim of the workshop discussion on March 15 is to enable feedback on the Market Economics report so it can be finalised for formally reporting to SLG on April 19. There will also be a 'Smart Talk. Future Thinking' event on April 11, discussing the predictions alongside various other industry speakers on the future of work. All this feedback will be incorporated into SLG's April 19 discussion of a final report from Market Economics, and deciding next steps and actions on planning for employment, transport and land use.

Cross-boundary focus

SmartGrowth has funded the Market Economics work as this is a cross boundary study and includes development trends within both Tauranga City and Western Bay of Plenty growth areas.

A key component of the Tauranga Transport Model (TTM) is the future land use assumptions, ie the type, density and location of residential and non-residential growth. The TTM is being updated so that it is fit for purpose for the Tauranga Programme Business Case work.

One part of that update is amending the land use assumptions to reflect current knowledge of likely future growth and to extend the life of the model to 30 and 50 years (the current final horizon year is 2031).

This is necessary to ensure that transport modelling for projects such as the Tauranga Programme Business Case and the Central Business District infrastructure capacity assessment can be undertaken in a robust manner to inform the upcoming council Long Term Plan, Regional Transport Plan and National Land Transport Planning processes.

Tauranga Transport Model (TTM) data

The TTM data is currently out of date, as it does not include many of the new growth areas. The employment predictions, in particular, were last updated in July 2007 (Boffa Miskell: Employment Predictions 2006-31) and this was an update of a previous report (NZIER: WBOP SmartGrowth study; Economic Drivers and determinants December 2002).

Both residential and employment figures needed to be updated. While the residential data is already available from the National Institute of Demographic and Economic Analysis (NIDEA) model and can be broken down using internal Council staff resources, an external provider was required for the employment predictions.

Tauranga Transport Model (TTM) inputs

The TTM models vehicle movements throughout the region by mapping vehicle movements. In order to do this, the model needs to know the origin of the trips and the destination, broken down into geographic Transport Analysis Zones (TAZs).

SmartGrowth opportunities from this work

- Obtain detailed (mesh-block) data for population, households and employment for 2043 for the wider Tauranga City Council/ Western Bay of Plenty District Council area that can be used for other SmartGrowth work.
- Obtain high level breakdown of data for population, households and employment for 2063 for the wider sub-regional western Bay of Plenty area that can be used for other SmartGrowth work.
- Useful employment data can be given to other SmartGrowth strategic partners for their planning, such as PriorityOne. The chairs of the SmartGrowth Forums have been invited to the workshop on March 15, along with the chief executives of PriorityOne and the Tauranga Chamber of Commerce.
- Through SmartGrowth and NIDEA, we already have population projections for the region out to 2063. However, these have not been broken down on a detailed basis past 2028 for Tauranga City. Western Bay District have allocated these projections at Census Area Unit level to 2063. However, these along with the Tauranga City allocations, require review. For the TTM, they need to be broken down into the 338 zones established within the model.
- There is an existing process that can map population and housing information from a mesh-block basis (detailed census information geographic block) to the TAZs used in the TTM.
- Provide input into the 30 year business land demand calculations for compliance with the National Policy Statement on Urban Development Capacity.



Smart Growth – Leadership Group

Employment Projections

Process Summary

Date: February 2017

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Date	Version	Changes
23/02/2017	First draft	n/a
27/02/2017	Final	Paper updated to reflect comments from the wider project team.

Disclaimer

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- *Readers and users of this document are cautioned that any such forward looking statements are not guarantees of future performance and involve risks and uncertainties. Actual results may differ materially from those projected forward looking statements as a result of various factors. In formulating the assessment a number of assumptions were used. There can be no assurance that these assumptions are accurate or that the assumptions can be realised.*

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1 Purpose

The purpose of this paper is twofold:

- Firstly, to summarise the methodology used to estimate the employment projections (including the spatial allocation process), and
- Secondly, to highlight the key considerations and the next steps.

This paper does not provide a detailed account of the actual results. Spreadsheets with the draft results have been provided to Council staff separately. These draft results are being reviewed by Council staff.

2 Methodology and Assumptions

The employment projections and the spatial allocation process were delivered using a number of steps. At the high level, we used the following steps:

- Reviewed the existing employment projections and existing commercial studies,
- Reviewed the existing information about the land supply capacity in the area (Western Bay of Plenty - WBoP and Tauranga),
- Developed the employment projections for the overall area. The employment projections were informed by sector interviews during which industry stakeholders were questioned about the growth outlook. Where appropriate, the growth outlook was adjusted. In most instances, the adjustments were upward over the short term.
- Allocated the employment projections spatially, and
- Performed cross checks to verify that all employment is allocated and that the allocations align (broadly) with known development trends.

The above steps relate to the overall study. Below, the logic used in developing the actual model is summarised.

The modelling was undertaken by using a combination of 'R' and Excel. Conceptually, the main steps are described below. Note that the steps were not undertaken in a linear, sequential manner. Figure 1 shows the relationships and flows between the steps and each step's key points are discussed below.

2.1 Macro level employment projections

The first step entailed estimating the high level employment projections. This was done using M.E's Economic Futures Model (EFM). The model uses three drivers to project growth: population, gross fixed capital formation and exports. These rates are first set, using the historic trends (20 years or so) for each sector in the model. The model covers 48 sectors. The model is then matched to the most recent Business Demography Survey (BDS) information from Statistics NZ. The most recent BDS information is for 2016 with the 2017 information expected at the end of October (2017).

With reference to population, we relied on the 2014 projections produced by the National Institute of Demographic and Economic Analysis for SmartGrowth (the NIDEA projections). This was a requirement mentioned in the RfP. It should be noted that the NIDEA projections are marginally lower in the short and medium terms than the recently released Statistics New Zealand (SNZ) population projections (in the long term, the NIDEA figures overtake the SNZ figures). Importantly, the employment information is for 2016 (going back to 2000) so the recent employment growth is taken into account. This suggests that the recent population growth is reflected in the employment numbers.

The interplay between employment and population is important because the size of the population (specifically the working age population) reflects the economic resource that is available. The 'Participation Rate' is a ratio that expresses the labour force as a portion of the working age population. Based on the NIDEA projections and the employment projections, the participation rate is expected to

increase from around 70% (2016) to 78% (by 2063)¹. The current level is already high (by historic comparison) and the increase suggests that the labour force will need to undergo a number of structural shifts to provide the labour (employment) needed to deliver the potential level of economic activity.

Figure 1: Key steps



¹ This rate is based on employee counts (excluding Working Proprietors) and is relative to the working aged population (15-65 years).

Two key shifts are expected:

- Firstly, together with the aging population we expect an increase in the number of people working past pension age to increase – an increase in the number of employees aged 65-69 years (and 70-74 years) to increase. The effect of this is to lift the effective size of the labour force. For example, if a quarter (1 in 4) of the 65-69 year cohort remains active in the labour force (by 2063), then this add 4,190 workers to the labour pool – 3% of the labour force.
- Secondly, the number of workers commuting into the area for work is expected to increase. For example, the recent Census (2013) suggests that around 1.7% of the area's labour force travels into it from areas such as Waihi, Paeroa, Rotorua, Hamilton and Whakatane.

Combined, these two shifts suggest that while the participation rate is expected to increase to high levels, it should be used with caution. The high ratio simply suggests that a larger share of the potentially active labour force would need to work. Nevertheless, business should be able to get workers to undertake work. From an economic development perspective (not the focus of this work), the key challenge of finding *suitable* (quality and quantity) labour is likely to intensify, and competition for talent is expected to remain a core business issue.

2.2 Business locations – historic trends and features

The study area was reviewed and a number of business locations were identified using the current business zones (including commercial and industrial land uses). Based on the zones, fifty two business locations were defined – these locations were not meant to reflect 'centres' of 'growth management areas'. Instead, they were simply used to make the dataset more manageable.

The historic employment trends for the each business location (and by Meshblock) were reviewed and we identified the following key features:

- The historic maximum employment in each location,
- The historic growth rates (compound and percentage shift), and
- The share of the City's (or District's) employment that is based at each business location (by sector and total).

Spatial information (specifically area, m²) about each business location was extracted using GIS, and related to employment. This provided a basic understanding of employment densities across the different business locations, and compared them with available information around densities² (This information was used during later steps to triangulate our results). Next, the distribution of employment across business zones was reviewed, distinguishing between 'within' and 'out of zone' locations. The review suggests that around a third of total employment is located in 'out of zone' locations – this includes employment in some sectors such as:

- A (Agriculture),
- B (Mining),
- E (Construction),
- P (Education and training),

² Specifically the 2006 study by Phil McDermott Consultants titled: Business Land Requirements Review

-
- M (Professional, scientific and technical services),
 - N (Administration and support services), and
 - Q (Health care and social assistance).

We used the shares of employment that is located 'out of zone' to estimate the share of total employment to allocate to 'within' zones, as part of the initial allocation process (this condition is relaxed during later stages).

2.3 Schools and retirement villages

Council staff provided a list of expected developments and their locations (and timing) for inclusion. Using the available SNZ data (business demography), the average size and trend (employment) of Tauranga's schools and retirement villages were estimated. Employment was then allocated to the relevant meshblocks at the relevant points in time (i.e. when they are expected to open).

In terms of the future outlook of employment in schools, the size of the population in the immediate surrounds of the schools was used as the main driver to inform the employment estimates. The meshblock level population projections (estimated by Council based on the NIDEA projections) were used to inform the growth rate³.

With reference to the retirement villages, the base assumption for these businesses is that they will seek to minimise costs while maintaining service levels. This suggests that their employment levels will remain relatively stable i.e. they have sufficient employees to meet demand. Similarly, they have a set level capacity (i.e. rooms, units or beds). Therefore, no 'extra growth' is allocated to the retirement villages based on the features of the neighbourhood. However, a portion of overall growth in Health Care and Social Assistance (Sector Q) is allocated to retirement villages, to account for growth opportunities arising from the aging population. Headline growth is allocated based in the relative share of sector Q (%-share of employment relative to total employment in sector Q).

2.4 Business locations - growth

For the first round of the business area employment estimates, the historic growth rates were projected forward on a 'per sector' and 'per location' basis. Of course, this is unconstrained and is used as a 'starting' point with a number of adjustments. For the industrial locations, the following key points applied:

- Restrict the growth of some sectors (i.e. apply a capacity limit, and exclude/limit the growth of some activities in specific locations⁴)
- Adjust some sectors to reflect sector level growth in different locations (for example, ensuring that industrial employment growth is allocated to industrial areas),

³ We did not have a breakdown of age structure within each meshblock and therefore an implied assumption is that neighbourhoods will retain the current mix (age structure) as they grow.

⁴ Such as retail in industrial areas.

-
- Distribute the growth across different locations to reflect different uptake rates, when business locations come on-line and the relative attractiveness of locations. With reference to attractiveness, we used a simple approach that assumed there is an ‘establishment premium’ in existing (partially developed) locations over new (and vacant) locations. This premium diminishes as space is taken up.

With reference to the more retail-focus (commercial) business locations, the projected growth in the surrounding population is used to inform the growth. The expected growth is then netted off the business location growth to identify any residual employment. In other words, macro level growth in retail and commercial (used loosely) employment is used to estimate the balance between the business location level growth and the sum of total growth (by sector across the city and district). The total growth that is allocated to the different business locations is limited to a maximum percentage change for three of the Smart Growth sectors⁵. Agriculture and education are excluded from this step because agriculture is not present in business locations and if agriculture businesses or activities were in the locations, then they tended to be small. The education services are grown using macro level growth projections and this is allocated to different business locations based on a *pro rata* basis.

After applying the high level growth, the quantum of potential change (at a business location and sector level) was reviewed. In some instances, the total growth greatly exceeded the potential capacity. Therefore, the growth was capped at a maximum percentage change (e.g. retail can grow by 30% and services by 50%). These limits provide a basis to restrict growth in the business areas. For example Council’s information suggests that in the Mount Manganui industrial area, vacant land is around 3.7% of the available space). The model is structured in a way that allows for both vacant land and redevelopment capacity, to be included.

With the capacity limits in place, growth is allowed to occur until it reaches the limit. Once capacity is reached, no further growth is allocated to that business location (and the relevant sector). Importantly, in applying the capacity constraints, the industrial locations are easier to deal with because more information about the vacant (available) land is available. However, this is not the case with the retail/commercial business locations (or centres). To overcome this limitation, we made an important assumption: *that the retail/commercial business locations would be able to accommodate the employment growth that would be needed to service the population shifts and growth*. This implies, indirectly, that we assume that Council(s) would permit development in existing commercial areas to accommodate the growth⁶.

2.5 ‘Out of zone’ activities and Reconciliation

In this step, the ‘within zone’ employment and the macro level employment projections are compared to identify the balance, i.e. if any employment has not been allocated. During the initial project stages, we compared the location of employment with zoned business areas (by overlaying Council’s (Tauranga and WBoP) land-use zones with Meshblock level employment - as prepared by SNZ). Around a third of employment is located in ‘out of zone’ locations. This excludes working proprietors but includes service-

⁵ The Smart Growth sectors include: agriculture, industry, retail, services and education.

⁶ This does not suggest that retail or office type developments should be specifically enabled in industrial locations *per se* but relates more to changing development rules to enable more intensive use of the existing resource.

type business and some trades (e.g. construction). It also includes schools, retirement villages and the like because these activities are not necessarily in their own, dedicated zone. The Tauranga Hospital is another example where a large number of people are employed in an 'out of zone' location.

The difference between the macro level employment projections and the projected employment in all the zoned business locations, is allocated to out of zone locations based on the relative share of each sector that falls in each MB. Care was taken to avoid allocating growth to sectors to which growth has already been allocated (e.g. retirement villages and schools) as this would overstate employment growth.

After allocating the out of zone employment, the total employment (by sector and business location) was summed up and compared with the macro level estimates. In some cases, the total employment was under-allocated, there was a surplus (i.e. some employment was not allocated). This was mostly due to capacity limits being encountered in the business (specifically industrial) locations. The net surplus was identified and the employment was then allocated to the remaining business (industrial) locations that have capacity. A share of the surplus growth is allocated to the different greenfield business areas (e.g. Te Maunga, Papamoa East Employment area and Omokoroa) as they come on-line. However, given the overall size, availability and overall level of development of the Tauriko industrial area (in the context of overall development), most of the extra growth is allocated to this location.

With reference to Retail (sector G), the surplus employment was allocated to the largest retail centres, specifically, the CBD area, Bayfair and Tauranga Crossing.

The above adjustments and reconciliations ensures that the spatially allocated employment sums to the macro level projections while taking into account:

- The growth drivers at a local level (e.g. population),
- The local capacity (especially for industrial type activities), and
- Overall expected growth.

At this point, the results of the analysis and modelling provides an indication of the 'greenfield outlook' or scenario. This is referred to as the greenfield scenario because the growth is allocated to greenfield areas.

2.6 Intensification scenario

As part of our analysis and projections, we used an alternative set of population projections prepared by Council. This alternative set varies the spatial distribution of the population and intensifies the growth within existing areas in the form of infill development and redevelopment that increases densities. For our assessment, we used the difference between the greenfield and intensification scenarios to identify the potential shift in population, and reallocated the employment accordingly. The spatial shift in population patterns applies to the Tauranga City area only so the intensification scenario does not apply to the WBoP. Most of the intensification is expected (assumed) to occur around the CBD, Mount Manganui area as well as the established infill areas of the coastal strip.

The intensification would affect different sectors' employment in different ways. Some sectors have a direct link to local population numbers while for other sectors, the link is not as strong. We reviewed the different economic sectors and identified three, high level, linkages:

- **No direct** or immediate influence (e.g. manufacturing activities),

- Influenced by the changes occurring within the **catchment** of the business (e.g. a retailer or a school),
- Indirectly influenced by the shift in the **meshblock** level changes. These changes are more likely to affect the location of the employment than it is to affect the overall demand for the services delivered by the businesses (e.g. where a tradesperson lives).

The following table shows the identified linkages.

Table 2.1: Intensification's spatial links to sectors

<i>Sector</i>		Linkages
<i>A</i>	Agriculture, Forestry and Fishing	Limited direct links
<i>B</i>	Mining	Limited direct links
<i>C</i>	Manufacturing	Limited direct links
<i>D</i>	Electricity, Gas, Water and Waste Services	Limited direct links
<i>E</i>	Construction	Meshblock level effects
<i>F</i>	Wholesale Trade	Limited direct links
<i>G</i>	Retail Trade	Catchment level relationships
<i>H</i>	Accommodation and Food Services	Catchment level relationships
<i>I</i>	Transport, Postal and Warehousing	Limited direct links
<i>J</i>	Information Media and Telecommunications	Limited direct links
<i>K</i>	Financial and Insurance Services	Meshblock level effects
<i>L</i>	Rental, Hiring and Real Estate Services	Catchment level relationships
<i>M</i>	Professional, Scientific and Technical Services	Meshblock level effects
<i>N</i>	Administrative and Support Services	Limited direct links
<i>O</i>	Public Administration and Safety	Catchment level relationships
<i>P</i>	Education and Training	Catchment level relationships
<i>Q</i>	Health Care and Social Assistance	Limited direct links
<i>R</i>	Arts and Recreation Services	Catchment level relationships
<i>S</i>	Other Services	Catchment level relationships

The change in the spatial patterns is expected to affect the employment patterns in several ways, such as altering the demand for retail activity (and employment) at a neighbourhood and sub-regional level. Similarly, the demand for personal services will also change with different population projections. In addition to the direct demand for retail amenity and personal services, the shift in where people (and households) live, will also impact on the distribution of other sectors and employment. As mentioned earlier, some employment is located in out of zone locations, for example, construction workers (Sector E) often have a residential location as the registered business address (of course they work at construction sites).

For some businesses, the change in population within their catchments will change business activity (and employment). We identified the population shifts at a meshblock level (across all meshblocks) relative to the greenfield scenario. Next we identified the meshblocks associated with each business location (and other 'out of zone' businesses/activities) and estimated the change in population in the immediate vicinity (using 3km and 5km thresholds). We used the change in population (relative to the greenfield scenario) and adjusted the employment estimates (for the relevant sectors) accordingly.

In addition to the above, where intensification takes place can also impact the demand for industrial land. In Tauranga's case, the industrial land is well earmarked and being developed. In addition, most of the existing industrial locations are near (or at) capacity with limited vacancy. Therefore the effects on these locations are likely to be marginal.

The final step related to re-balancing the employment totals to match the macro level estimates. Given that the population totals for the greenfield and intensification scenarios are similar, the effect is that employment is reallocated between locations but it does not imply large, structural shifts in the spatial employment patterns.

3 Key points and next steps

3.1 Key points

A number of key points were identified during the process and it is important to be aware of these points. They include:

- **Uncertainty:**
 - This assessment covers a long timeframe with considerable uncertainty. We used assumptions around the rates of growth, the spatial patterns of employment (i.e. urban structures and form) and population growth rates. While historic patterns, ratios and trends were used and informed our projections, they do not necessarily explain future development pathways. As with all modelling, there is a real probability that the modelled results will diverge from the actual, on the ground outcomes.
- **Centres based approach:**
 - In allocating employment to the existing business locations, we assumed that the Councils would enable additional development to accommodate the growth. An important underlying assumption is that the growth would be focused in the centres. This will need to take place in a way that supports the effective and efficient function of the market.
 - As the population surrounding centres and business locations grow, there is likely to be productivity improvements at a centre level. These productivity gains are likely to manifest in ratios such as sales per area. These gains are less likely to be as pronounced for employee-related ratios (but there will still be employment gains at the centre level). Given the complexity and difficulty in estimating such productivity gains, our analysis does not include such adjustments.
- **Recent growth:**
 - During the initial stages of our project, we faced a number of data issues. The most important being accessing the latest Business Demography Survey data (which shows employment, by sector by meshblock and is for the year ending February⁷). This suggests that the starting point in our model is already out of date by one year. In light of the strong growth in employment over the past 2 years or so⁸, the difference in employment could be material, specifically in some of the area's growth areas (e.g. Tauriko as well as the WBoP). We used the NIDEA projections to inform our growth outlook for 2016 to 2017 and increased employment accordingly. Using a lower starting point could lead to understating the actual (current) employment, in turn, this also means that the business locations could be at capacity, sooner⁹.
- **Population figures:**
 - The projections rely heavily on NIDEA's population projections as it informs the economic model and it is also used as a cross check. Population is a source of labour and people also consume (demand) goods and services. Statistics New Zealand recently released a

⁷ Released around October/November of the same year.

⁸ Both years, employment grew in excess of 5% (per year).

⁹ Indicatively, this could be by around between 1 and 5 years sooner (depending on the location).

new set of population projections. These projections are higher than NIDEA's, with the population growing stronger out to 2033 at which point the NIDEA projections overtake SNZ's figures. This implies that the population growth could be higher than anticipated. The higher growth will have two important effects:

- Firstly, a larger population will require more goods and services (i.e. stimulating demand),
- Secondly, provide access to a larger labour force¹⁰.

The last two bullet points serve to highlight the uncertainties associated with this type of projection. These two uncertainties both suggest that over the short term, strong growth is expected (stronger than currently modelled) and this will bring the development pressures forward.

3.2 Next steps

The project team (M.E) has already submitted the draft employment projections to Council staff for an initial review and feedback. Similarly, the draft employment projections for the intensification scenario is being finalised by M.E and will also be circulated to Council staff for review and comment before the workshop.

As part of finalising the projections, M.E will work with council staff to explore the potential implications of applying SNZ's population projections instead of NIDEA's projections.

It is our intention to present more detail about the key findings to the SG Leadership Group (15 March 2017) before finalising the report and projections for the SG Leadership Group (19 April 2017).

¹⁰ Subject to the age profile associated with the population growth.