SmartGrowth Implementation Review

Population and Employment Projections Update

Prepared for

Smartgrowth

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1.0 PURPOSE

The purpose of the project is to update and enhance development projections provided in the SmartGrowth Strategy and Implementation Plan (SmartGrowth) to reflect implementation outcomes since its adoption in May 2004. This work forms part of a wider project being undertaken by the SmartGrowth Partners to update the SmartGrowth Strategy.

This project brings together information on the outcomes from Plan Changes and research work and adjusts the predicted location and timing of population and employment to align with these.

2.0 SMARTGROWTH STRATEGY AND IMPLEMENTATION PLAN MAY 2004

2.1   Residential Development

The University of Waikato provided population and household projections for the sub-region to SmartGrowth.

The projections for residential growth are set out in SmartGrowth Subregional Growth Issues Section 6, in a table and chart (Figures 9 and 10 on pages 23 and 24) showing the allocation of population by "Management Area" for 5 yearly intervals from 2001 to 2051. 13 Growth Management Areas are defined.

Members of the SmartGrowth Environment project team provided the initial allocations of residential development for three growth options. Allocations to 2021 were relatively well developed as a result of preliminary structure planning carried out by the District and City Councils. The main weakness in the allocations was an over-provision in the early period and under provision in the later period. This was reconciled to align with the overall sub-regional growth projection.

Projections were adjusted and refined as the SmartGrowth Strategy was developed and preferred strategy chosen. The evolution of the projections is explained in a report "SmartGrowth - Development of Draft Strategy and Implementation Plan - October 2003". This report tracks the decision making process from the inception of Smart Growth through to the October 2003. It should be noted that this report does not entirely reflect the final Strategy, with some minor adjustments having been made just prior to Strategy approval, mainly in the period after 2021.

2.2   Employment

NZIER provided employment projections to SmartGrowth. When the projections were prepared the base data used was from 1996. Due to timing issues with census data release these were never updated by NZIER. Instead a simple pro rata adjustment was made to align the figures to the population forecasts by the University of Waikato, and the projections were made from actual 2001 base year employment data from the Statistics NZ Business Demographic Survey.

No projections for employment growth within specific Growth Management Areas are included in the SmartGrowth Strategy.   Instead there is a "Business Land Staging Plan" in the Implementation Methods section of SmartGrowth (p74). The Staging Plan addresses industrial land locations and rough order timing. There are no equivalent allocations of commercial land.

It should however be noted that employment growth spatial allocations were carried as part of SmartGrowth strategy development as an input to the strategic level traffic modelling used to assess growth alternatives. The spreadsheet model for this is archived on the SmartGrowth database CDs.

The employment projections divide employment into categories of "retail" and "non-retail" that were required to run the traffic model. These categories have non-conventional definitions,

with the characterisation of activities based on traffic generation rates rather than the nature of the activities themselves.

For non-retail land use, planned new employment areas were used as a factor in apportioning employment growth to a particular growth management area. There are limited choices for this type of land use to locate into the future. Indicative timing was put to the uptake of each development area and an assumption made that this will draw a proportionate share of total employment. This approach sets an aggregate target level of employment for each GMA for distribution to individual mesh blocks/traffic zones.

For retail land use, population growth was used as a factor in apportioning employment to each growth management area. This assumes that this type of activity will be strongly influenced by the location of future residential development/retail catchments. Adjustment factors have been applied to this distribution to reflect the policy emphasis on maintaining the dominant commercial role of Central Tauranga and other centres. This approach set an aggregate target level of employment for each GMA for distribution to individual mesh blocks/traffic zones.

2.3   Tauranga Traffic Model

SmartGrowth projections were used as a framework for reviewing and updating land use projections for the Tauranga Traffic Model in 2004. The review project is documented in a report "Tauranga Traffic Model - Review of Land Use Projections – Boffa Miskell - June 2004".

In the review, Smartgrowth projections were first taken down to mesh block level to enable aggregation of the data into Traffic Zones. This was done for both population and employment (retail and non-retail) at five yearly intervals to 2021.

The report noted specific difficulties with employment data for farming and agriculture, with the datasets at that time not updated since 1998. This has subsequently been addressed by SNZ.

A further issue with employment allocation is that a substantial amount (approximately 25%) of employment occurs outside areas that are specifically zoned for business use (i.e. Commercial and Industrial). This includes work from home, farming, residential zoned businesses, schools, hospitals and institutions. A proportional share of employment growth was allocated to non-business zone locations to address this.

The mesh block data used for the traffic model is also used for other services modelling and planning by the Council, so it is a significant resource that needs to be carefully maintained.

3.0   SCOPE

The scope of work for this review is set out in the following table:

3.1   Residential

Component	Output	Inputs
Residential Development Timing Chart (Figure 9, p23)	Revise table to include actual figures for 2006 census period Revise allocations to Management Areas to align with Implementation	SNZ 2006 population and household figures. Updated information from implementation

Component	Output	Inputs
	Outcomes since May 2004: • RPS Plan Change • Omokoroa Structure Plan • Pyes Pa West Plan Change • Wairakei Plan Change • Te Tumu planning • Smart Living Places Split out additional Management Areas for: • Bethlehem (from Tauranga West) • Pyes Pa and Te Papa (from Tauranga Central), • Papamoa, Wairakei and Te Tumu (from Papamoa)	projects.
Residential Development Timing Diagram (Figure 10, p24)	Update diagram to reflect changes in Figure 9 as above.	
Update text in Section 6.6 of "Subregional Growth Issues to reconcile with amended projections.	Updated text for Section 6.6	

3.2 Business

Component	Output	Inputs
Business Land Staging Plan (Action 3, p74)	Revise allocations to Growth Management Areas to align with Implementation Outcomes since May 2004: • RPS Plan Change • Omokoroa Structure Plan • Rangiuru Plan Change • Tauriko Plan Change • Wairakei Plan Change • Te Puna Plan Change	2006 SNZ Employment data. Updated information from implementation projects.

Component	Output	Inputs
	• Regional Airport Study • Review of Business Land Requirements	
Develop new Business Land Development timing chart and diagrams.	Timing chart and diagrams consistent with those for residential development.	
Update text in Section 6.9 of "Subregional Growth Issues to reconcile with amended projections.	Updated text for Section 6.9	

The allocations are to be made at SmartGrowth Management Area level. It is recognised that this information will dictate allocations for future modelling work carried out at a finer level of detail (mesh block, area unit or traffic zone, etc), and in particular the Tauranga Traffic Model.

4.0   METHODOLOGY

The key steps in the update are:

• Retrieve SmartGrowth residential and employment allocation model from SmartGrowth archive CDs (Excel spreadsheets)

• Source information on implementation outcomes.

• Determine assumptions for revising growth allocations

• Amend allocation model.

• Provide amended assumptions and allocations for review.

• Finalise allocations and document assumptions and amendments.

5.0   POPULATION AND EMPLOYMENT DATA

5.1   Sub regional Population Data

The non-availability of up-to-date data from the 2006 Census is an issue for this project. Final figures for both population/households and employment will not be available until April 2007.

Provisional data assessed by Tauranga City Council staff (Tauranga City Council - New Dwelling Trends – January 2001 to June 2006) shows that the growth in dwellings in Tauranga was greater than the SmartGrowth projection from July 2001 to July 2003. Since that time, growth rates have been at the projected levels. Growth in dwelling numbers is 769 ahead of forecast. The staff report concludes that the need for any changes to projections and their distribution needs to occur once the final 2006 Census results are available.

As the New Dwelling Trends report uses the November 2004 Review figures as its base it may be better to use provisional Census results. Provisional Census results are much closer to the projections than the results from Dwelling Trends Report suggesting that the weakness

noted in the dwelling trends report about the impact of lag time in development may be quite significant (which will need to be looked at once final results are released).

A further update of this work will need to be carried out once the final data is available and before the information is used to update land use projections for any infrastructure modelling work e.g. the Tauranga Traffic Model.

It is essential that any review work occur at subregional level, rather than separately by each Council to ensure that outcomes are aligned and distribution reconciled.

If actual growth rates are significantly different to the SmartGrowth forecasts an analysis needs to occur to determine whether the differences are structural or cyclical in nature. It needs to be borne in mind that growth in population in the sub region is the net result of a surge of people both arriving and leaving. For example, the higher than anticipated growth may be the product of less people leaving as opposed to more people arriving, driven by improved employment opportunities that are evident in a period of economic growth.

If a structural change rather than a cyclical trend is identified, it would be appropriate to carry out a review of the forecasts provide in 2003 by the University of Waikato. The composition of the population gain will assist in determining the implications, including the shape and nature of demand for new housing.

Given these considerations, base year and total growth forecasts have not been amended.

5.2   Growth Management Area Population and Household Projections

At Growth Management Area level the Provisional Census results show changes in population distribution between 2001 and 2006 show some significant variances from the SmartGrowth projections.

The most significant of these are:

GMA	Projected Population Gain Share	Actual Population Gain Share	Variance	Projected Household Gain Share	Actual Household Gain Share	Variance
Papamoa	14%	27%	13%	15%	26%	11%
Mount Maunganui	16%	10%	-6%	16%	8%	-8%
Tauranga Central	16%	12%	-4%	15%	13%	-2%
Kaimai	8%	6%	-2%	7%	7%	
Waihi Beach	3%	0%	-3%	5%	0%	5%

These variances are significant and the influences that have caused these results need to be investigated and considered in detail once the final census results are available. It will be important to determine whether the variances reflect long term or short term influences, and the extent to which the projections will need to be adjusted.

5.3   Sub regional Employment Data

SmartGrowth projected FTE employee numbers in 2006 to be 57, 200. This compares well with the actual figure for 2006 of 55,065 employees.

SNZ Employment data collection has changed from Full time Equivalent Employees (FTE) to "Employee Count". The implications for previous work for SmartGrowth and the TTM are understood to be minor, but this needs to be checked.

5.4   Growth Management Area Employment Projections

An assessment of actual distribution against projections will need to be carried out when the data is available at mesh block level.

6.0   RESIDENTIAL

6.1   Implementation Outcomes and Planning Assumptions

6.1.1   Waihi Beach Urban Growth Strategy

No changes are required in relation to Waihi Beach.

6.1.2   Katikati Urban Growth Strategy and Omokoroa Urban Growth Strategy

Development of structure plans for Omokoroa has identified capacity constraints that require reallocation of future population (3,000 people) to other locations the Katikati, Kaimai and Te Puna growth management areas in the period beyond 2021. WBOPDC have supplied time-based projections for this shift.

These reallocations are generalised across each area, rather than targeted to specific locations. They will require more refined assessment at a future review of the Strategy. In the Kaimai Growth Management area an increase of 2000 people in the rural area has been provided to balance the reduction in capacity at Omokoroa. This may not be realistic.

6.1.3   Pye's Pa West

The Pye's Pa West Plan Change became operative shortly after the approval of the SmartGrowth Strategy in May 2004, achieving the target capacity for SmartGrowth.

Because this is the main growth node within the Tauranga Central Growth Management Area, and given the scale of growth relative to other areas, Pye's Pa West should be separately identified as a growth management area.

The projection for Pye's Pa West adopts the same general assumptions as the SmartGrowth Strategy, but has been adjusted to reflect the fact that the predicted population of 500 was not achieved by 2006. This population is assumed to have been be accommodated by infill within Tauranga Central and development within the existing Pye's Pa Urban growth Area.

6.1.4   Wairakei Plan Change

A proposed Plan Change for Wairakei Urban Development has reached the stage of hearing submissions.

The overall yield of development from Wairakei exceeds the expectations set out in SmartGrowth. The population yield has increased from the SmartGrowth targeted 9,200 to 12,500.

This is a result of two factors. Firstly, the design has enabled a higher density to be achieved. The net yield (excluding roads and reserves) ranges from 15.6 dwellings for the lowest density suburban areas, to more than 100 dwellings per hectare in the town centre. Secondly, the calculation of residential yield used for SmartGrowth assumed that there would be no residential units within the proposed town centre. The proposed town centre is the most intensely populated area within the development with multi floor residential apartments. Providing a significant population in the town centre is a deliberate strategy aimed at ensuring the town centre has a high level of activity and viability.

The developers of Wairakei have provided a projection of the likely uptake of development at Wairakei based around the staging of the development of four neighbourhood centres and the Modena Town Centre to 2021 as an input to traffic modelling. (Wairakei Development Projections – Boffa Miskell - July 2005). These assumptions have been generally adopted for this update project, but have been extrapolated to the point where full capacity is reached (in the period leading up to 2031).

6.1.5 Te Tumu Structure Planning

A consortium of landowners has carried out initial structure planning work. This was partly driven by the need to determine appropriate long term planning assumptions for traffic and stormwater modelling. This work has enabled indicative population capacity to be assessed for the Te Tumu area.

The date for commencement of development at Papamoa East Te Tumu is a critical issue for landowners and also for Council in planning the provision of infrastructure. The Council's have proposed a general criterion that development at Te Tumu should not commence until 80% uptake of sections (224 certificate issued) is achieved at Wairakei.

The chart below shows the cumulative uptake for Wairakei with population reaching 80% of target by mid 2024. This assumes that large share of growth (90-95%) at Papamoa occurs in Wairakei. On this basis, the 80% threshold for section uptake is likely to be reached by 2021. This assumes a degree of lag (3 years) between the creation of a new section and the physical occupation of a dwelling by a new resident.

Population Capacity Uptake at Wairakei
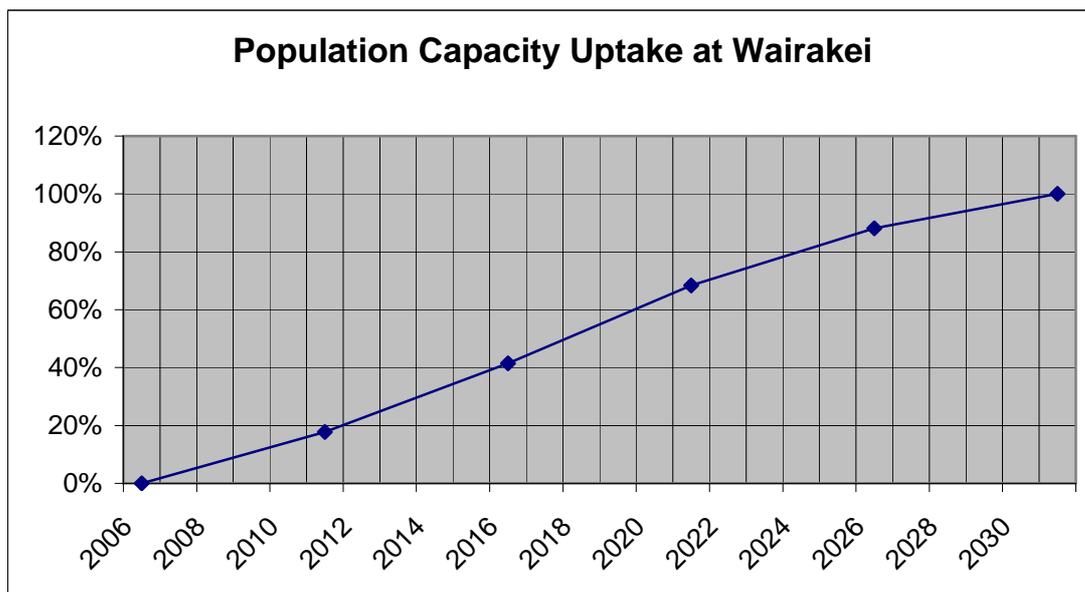
This timeframe estimate will be affected by any significant change in growth rate and allocation.

Potential factors that may bring forward the timing for Te Tumu include:

❑ Increased overall residential growth in the sub region

❑ A greater share of sub regional residential growth taking place at Papamoa;

❑ Development occurring at densities less than those assumed for the yield targets;

❑ Non-residential activities such as schools, churches, and hospitals taking up land now assumed as being used for residential development.

Potential factors that could push out the timing for Te Tumu include:

❑ Lower overall growth in the sub region;

❑ A reduced share of sub regional residential growth taking place at Papamoa;

❑ Development occurring at densities higher than yield targets;

❑ Increased intensification of existing areas of Papamoa such as at the Domain Road and Parton Road neighbourhood nodes.

Each of these factors will need to be monitored closely.

6.1.6 Smart Living Places

The Smart Living Places Strategy work has included planning studies to assess the feasibility of the planned urban intensification assumed by SmartGrowth. To date 3 of seven intensification management areas identified in SmartGrowth have been assessed to determine potential increased capacity beyond that enabled by the current Residential A zone policy framework.

The Tauranga CBD has been identified as a topic for consideration outside the Smart Living Places project. This area has significant potential long-term capacity for residential development.

The work has not advanced to the point where any specific conclusions have been reached about the achievability of SmartGrowth projections for urban consolidation. In these circumstances no changes to projections have been proposed.

6.2 Revised Residential Staging

Amendments have been made to the Residential Development Timing Chart and Diagram to reflect the implementation outcomes discussed above, with amendments to text in the relevant section of the sub regional growth issues section of the strategy. Consequential amendments are also required to Actions 2 and 3 for Residential Development Implementation Methods. (See Strategy Track Changes).

Urban Growth Areas (UGAs) in Tauranga City have been identified separately, with the effect of increasing the number of Growth Management Areas from 13 to20. Where these have been identified, projections developed by Tauranga City staff have been adopted with the

balance remaining within the remaining SmartGrowth GMA. This created several anomalies that have been corrected by minor reallocations.

In summary, the main changes are:

- Reducing population at Omokoroa by 3000 people in the period after 2021.

- Increasing population at Katikati, Kaimai and Te Puna by 3000 people in the period after 2021.

- Splitting Pye's Pa West UGA from Tauranga Central and incorporating TCC projections for the UGA

- Splitting Pyes Pa East from Tauranga Central and incorporating TCC projections for the UGA.

- Splitting Pukemapu-Neewood from Tauranga Central and incorporating TCC projections for the UGA.

- Splitting Welcome Bay UGA from Tauranga South and incorporating TCC projections for the UGA.

- Splitting Wairakei UGA and Te Tumu UGA from Papamoa.

A further review of the timing chart and diagrams will be needed once the final census results are known and adjustments are made to the 2006 base year and growth management area uptake assumptions.

7.0   BUSINESS

7.1   Implementation Outcomes and Planning Assumptions–

7.1.1   Review of Business Land Requirements

A report by Phil McDermott Consultants (Review of Business Land Requirements Western Bay of Plenty June 2006) examines the way ahead in the provision of business land including:

- Projecting business land needs

- Staging implications

- Changes in the nature of business growth and land requirements

- Type of business

- Monitoring requirements

The report identifies that economic forecasting and density assumptions will have significant impacts on the projected business land requirements.

The report reviews recent work on industrial land supply. The overall conclusion reached is that projected land supply needs are likely to have been underestimated, rather than overestimated.

The report identifies that under-provision of land in the short term, and attempts to fine tune supply to a particular projected demand path, risks damaging the prospects for medium or long-term growth. Periods of apparent "over-supply" are seen as essential in a cyclical economy to enable resources to be readily available so that capacity can recover quickly in periods of higher demand.

The report suggests that provision be made for around 800ha of business land for the next 25 years (to 2031) as a starting point. By comparison, the SmartGrowth Strategy as approved assumed a supply of new-zoned business (industrial) land capacity of around 650ha to 2031.

The report concludes that the ideal response may be one that favours generous long term targets for land supply, identifying likely and favoured localities, clarifies environmental and infrastructure needs, and establishes criteria to encourage investors to bring land onto the market in an efficient manner.

The implications of identifying a potentially much larger (200 additional ha to 2051) and more open business land supply in the sub region are significant for the SmartGrowth strategy. Identification of large sites for business development is constrained by topography and access corridors. Resistance from established land uses, particular rural lifestyle living, is likely to be significant. If the suggested approach is adopted, identification of potential sites needs to be initiated as matter of considerable urgency. This is not a matter than can be left to private interests to address.

A more expansive approach to land supply will also need to address the placing of projected employment growth to locations and timing as these are vital assumptions for sound infrastructure planning and funding, particularly for large capital investments in the transport network. The sensitivity of infrastructure to potentially more variable location and timing scenarios would need to be tested as part of the formulation of policy. Criteria for bringing land onto the market would need to address these issues.

The SmartGrowth Action Review identifies the need to further investigate future business land needs. This investigation should adopt the land supply targets identified in the McDermott Report. It is not appropriate to make adjustments to the SmartGrowth business land staging plan until this investigation is carried out. The appropriate response is to at least hold the position established by SmartGrowth for long-term business land supply, but identify that there is likely to be the need to identify additional areas for business in the long term.

7.1.2 Northern Corridor

Waihi Beach - A small area of land (around 4ha) is planned for local service industry in a low impact business park. The scale of this is not regarded as significant, and this should not be included in the business land staging plan.

Katikati Plan Change - n area of 40 ha has been rezoned at Katikati, 25ha less than the SmartGrowth target.

Omokoroa Structure Plan - As an outcome of the Omokoroa Structure Plan, business land provision has been established at 45ha, 25ha less than the SmartGrowth target.

Te Puna Plan Change - An area of 29 ha is now available at Te Puna. SmartGrowth assumed that no business land would be provided at Te Puna. The zoning is a rural Te Puna Industrial Business Park. Building height is limited to 9 metres with stringent noise controls that will limit the versatility of the land for some larger scale activities. The extent of development is capped to around half of the area (depending on traffic generation) until such time as the Northern Arterial is operational.

7.1.3 Western Corridor

Tauriko Plan Change - Tauriko falls within the Tauranga West Growth Management area.

The Tauriko area has been the subject of a private plan change that now provides for approximately 130 ha of developable land for industrial activities. This is 5ha in excess of the targeted 125ha identified by SmartGrowth.

Pyes Pa West Plan Change - Pyes Pa West falls within the Tauranga Central Growth Management Area.

15 ha of business land was provided as part of the Grasshopper private plan change, 5ha less than the SmartGrowth target.

Tauriko Business Estate now incorporates the Pyes Pa West Structure Plan business land allocation.

7.1.4 Eastern Corridor

Rangiuru Plan Change - Rangiuru falls within the Paengaroa Growth Management Area.

The Rangiuru area has been the subject of a private plan change that provides for approximately 150 ha of developable land for industrial activities. This is the same area identified by SmartGrowth.

Wairakei Plan Change and Te Tumu Structure Planning - Wairakei Plan change provides for approximately 120 of industrial land. SmartGrowth identifies the need for 180 ha of industrial land at Papamoa. The shortfall of 60 ha will need to be provided within the Te Tumu area when it is developed.

Te Puke Plan Change - Although not yet confirmed, a Plan Change at Te Puke will realise a maximum of 50 ha of business land, 25 ha less than the SmartGrowth Target.

Regional Airport Study - The Regional Airport Study was completed in July 2006. The Study concluded that the regional airport concept was not financially feasible as a result of the high costs of establishment. The report was followed by a decision by the Regional Council to take no further action on the regional airport work.

SmartGrowth identifies development of 200 ha of land at Paengaroa, that was intended to e developed in conjunction with he development of a Regional Airport. SmartGrowth also identifies development of 100ha of land at Mount Maunganui that would have been made available for development following the relocation of Tauranga Airport.

Neither of these industrial land options is now considered feasible and alternative locations are now required for the assumed development.

7.2   Revised Business Land Staging Plan

In the short to medium term (to 2021) business land supply will be adequate to meet expected demand.   231 ha is expected to be occupied by 2021, well within the zoned capacity of 550 ha likely at that time.   The market should be able to operate freely under these assumptions.

In the long-term (to 2051) land supply will not be sufficient without changes being made to the Strategy to address known shortfalls. 630 ha are expected to be occupied by 2051, close to the now-reduced zoned capacity of 670ha. The market will not operate freely in such a constrained supply situation.

Principles for identifying business land are set out in SmartGrowth.   The ability to graft additional land onto currently identified sites offers potential for more efficient servicing and staging.

Possible additional land zoned at Tauriko above the SmartGrowth target is insignificant (5ha), and does not address the under-provision at Omokoroa (20ha), and Mount Maunganui (100ha). and Katikati (25ha).

In the short term, the currently tight land supply situation will be resolved. However, the long-term outlook for the Northern and Eastern Corridors is a tight land supply given the difficulty in finding suitable large sites for comprehensive development.

An amended text for Business Land is required in the Sub regional Growth Issues section of the Strategy.   The Business Land Staging Plan also requires an update to reflect these amendments.

8.0   REGIONAL POLICY STATEMENT PLAN CHANGE

Plan Change No 2 to the RPS implements key components of SmartGrowth.

The Plan Change includes information on the timing and sequencing of urban development that will require updating to align with the conclusions and recommendations of this review.

- Figure 1 – Approximate Business Land Staging requires updating to align with the amended Business Land Staging Plan in Appendix 4.

- Figure 2 – Growth timing table requires dates for development commencement and 80% capacity threshold to be updated for Wairakei and Te Tumu.

- Diagram 1 – Growth Sequencing requires amendment to show the timing of Wairakei extending to 2031 and Te Tumu commencing after 2021.

9.0   RECOMMENDATIONS

Adopt the appended amendments to the SmartGrowth Strategy.

Adopt the base year data for 2006 and adjust projections when final results for 2006 are available for population and employment.