

# **GISBORNE DISTRICT GROWTH MODEL**

*March 2007*



## **EXECUTIVE SUMMARY**

This report is the basis for growth assumptions in the Long Term Council and Community Plan (Community Plan). Growth projections are subject to uncertainties as to the quantum, timing and location of growth and therefore regular reviews will be undertaken as a key component of planning future network and community infrastructure requirements. The growth model addresses three indicators of growth: resident population, households and gross floor area of non-residential activities.

The population component of the growth model provides projections of resident population for each census year. The projections are divided into two general areas: (1) An area encompassing the city and the surrounding fringe areas referred to as the "Gisborne Urban Area"; and (2) the remainder of the District.

### *Population*

The projections for the Gisborne Urban Area over the period 2006-2021 are the average of the "high" and "medium" series of Statistics New Zealand's population projections for the Gisborne Urban Area (2001 base). The projections over the remainder of the projection period to 2051 are based on a nominal small increase of 140 persons per census period.

The projections for the remainder of the District over the period 2006-2021 are taken from the medium series of Statistics New Zealand population projections and were calculated by subtracting the projections for the Gisborne Urban Area for the projections for the District as a whole. For the rest of the projection period it is assumed that population will remain constant.

### *Households*

This component of the growth model provides projections of households in the District for each census year, divided into 34 localities. The projections reflect the population component of the growth model, as well as Statistics New Zealand average household size projections (calculated by dividing the medium series population projections by household projections). Consideration was also given to trends indicated in subdivision consent data and staff knowledge of potential development areas.

### *Non-Residential Activities*

The third component of the growth model consists of projections for each census year for the period 2006-2051 of the gross floor area (in m<sup>2</sup>) for various types of non-residential activities. As with the household projections, the projections for non-residential activities are divided into 34 localities.

The starting point in producing the projections was to estimate the existing gross floor area dedicated non-residential activities within each growth model locality (calculated from the District Valuation Register records, aerial photographs, etc.). It was then assumed that the gross floor area for each type of non-residential activity in the Gisborne Urban Area would increase at the same rate as population. This growth is allocated into localities according to assumptions about the distribution of growth. The exception is heavy industry and light manufacturing/services, which is assumed to increase at a greater rate than population within the next few years.

For the remainder of the District it is assumed that non-residential activities within each locality will decline at the same rate as population, stabilising at around 2021.



## 1.0 Introduction

- 1.1 This report provides a model of growth in the Gisborne District for the period 2006-2051 and a summary of the methodology used to produce the model. The model is intended to provide a basis for projections of growth in the Long Term Council and Community Plan (Community Plan). In particular the model is intended to assist in infrastructural planning and the introduction of development contributions.
- 1.2 Projections are given for three broad indicators of growth: (1) resident population, (2) households and (3) gross floor area of non-residential activities.
- 1.3 The model refers to two general areas: the “Gisborne Urban Area” and the remainder of the District. The household projections, non-residential projections and HUE projections are also divided into 34 “localities” within the District, 24 of which are within the Gisborne Urban Area and 10 of which are within the remainder of the District.
- 1.4 It is intended that the household and non-residential components of the growth model will be converted into household-unit equivalents (HUEs), using assumed equivalence factors, to create projections of the growth in HUEs. These projections will then be used in the calculation of development contribution charges. Details of the equivalence factors used to produce the HUEs projections will be set out in the development contributions policy.

## 2.0 Growth Model Localities

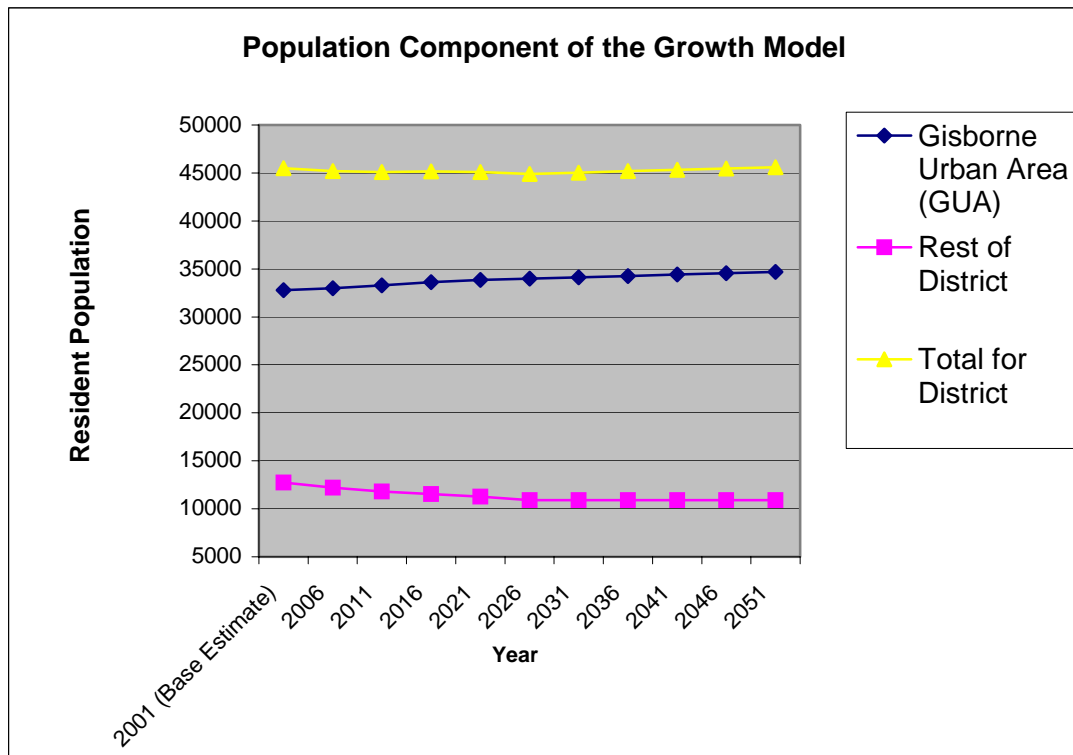
- 2.1 **Appendix One** contains maps of the 34 localities used in the growth projections. Most of the localities correspond to Statistics New Zealand area units. However in some cases area units have been divided into two or more localities to allow for different infrastructure catchments and/or different growth rates.
- 2.2 The area described in this report as the “Gisborne Urban Area” is intended to cover the reticulated parts of the city, as well as fringe lifestyle areas. The growth model localities that make up the Gisborne Urban Area are listed in the tables at the back of this report. It is noted that the area described as the Gisborne Urban Area is **not** equivalent to the area defined as the Gisborne Urban Area in the Combined Regional Land and District Plan. Rather it corresponds more closely to the area defined by Statistics New Zealand as the Gisborne Urban Area, but with the addition of Tiniroto (A) and Tiniroto (B) localities.

## 3.0 Projection Period

- 3.1 The projection period extends to 2051 with projections given for each census year. For the purpose of development contributions it will be assumed that the projected figures for any particular census year correspond to the beginning of 1<sup>st</sup> of July of that year (i.e. the beginning of the financial year).

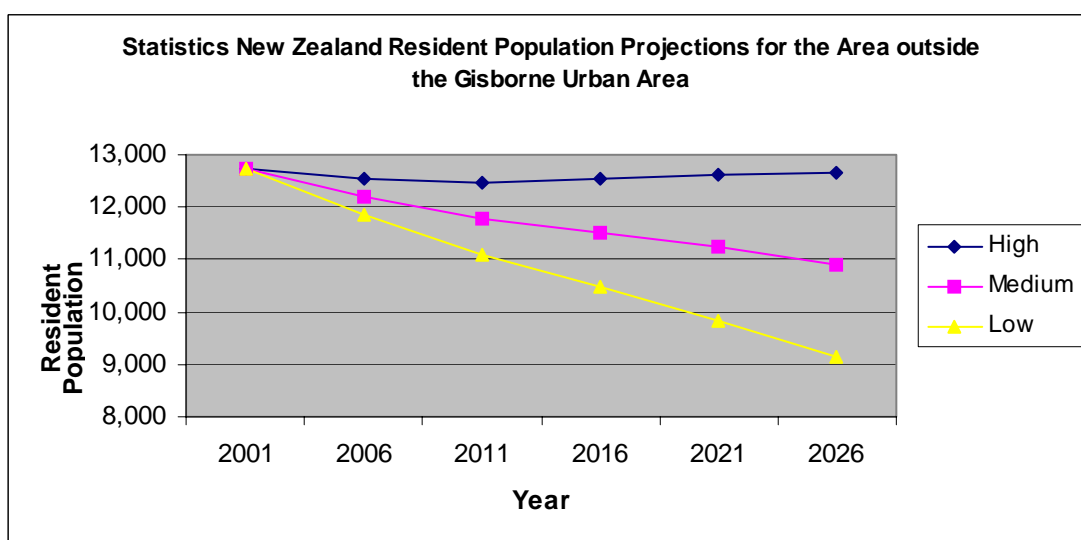
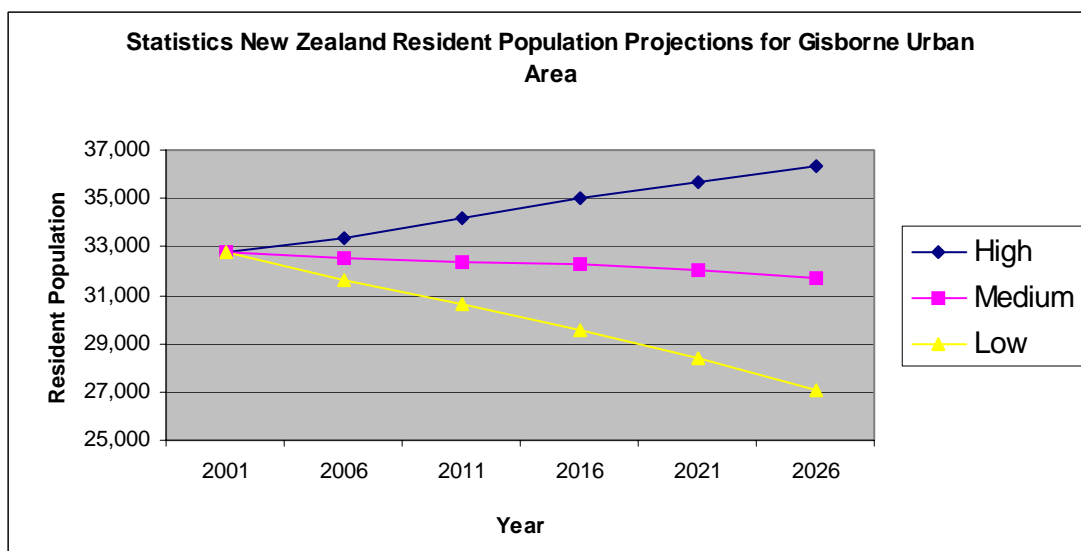
## 4.0 Population

- 4.1 The resident population component of the growth model (for the District as a whole and divided into two areas i.e. the Gisborne Urban Area and the remainder of the district) is illustrated by the following graph. The population is projected to increase in the Gisborne Urban Area from 32780 in 2001 to 34690 in 2051, while the population in the remainder of the district is projected to decrease from 12730 in 2001 to 10910 in 2026, after which it is projected to remain stable (refer to **Appendix Two** for the table of figures).



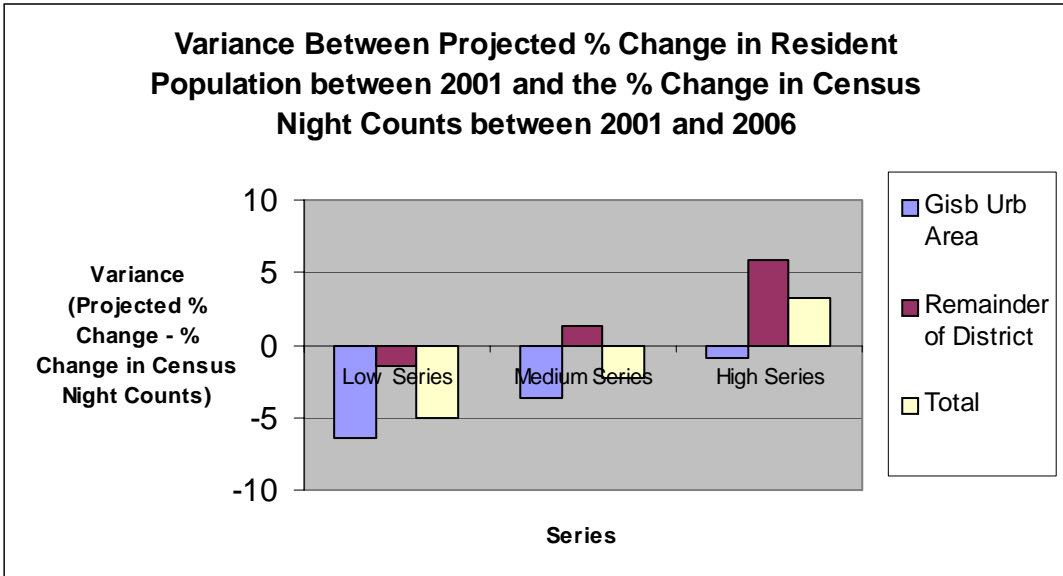
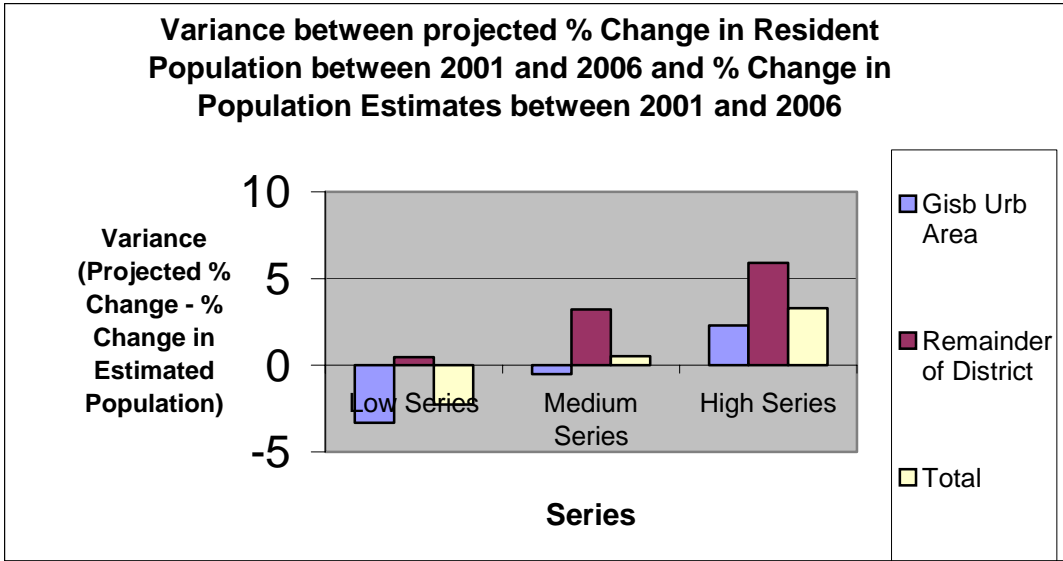
- 4.2 The first step in producing the population component of the growth model was to consider Statistics New Zealand's "high", "medium" and "low" resident population projections for Gisborne Urban Area and the whole District (2001 base), from which their projections for the part of the District outside the Gisborne Urban Area could also be deduced by subtracting the projections for the Gisborne Urban Area from the projections for the whole District.<sup>1</sup> The Statistics New Zealand projections are illustrated by the following graphs:

<sup>1</sup> The 2001 base projections were used because Statistics New Zealand's next set of population projections, based on the 2006 census data, are not due to be released until mid 2007.



4.3 Statistics New Zealand's projected change in population over the period 2001-2006 was then compared against Statistics New Zealand's estimate of the actual change in population for these areas (based on data collected on births, deaths, immigration etc.). This comparison indicates that the Gisborne Urban Area is growing at a rate somewhere between the medium and high series (but closer to the medium series), while the remainder of the District is declining faster than the low series. Secondly, the projected change in population between 2001 and 2006 for the Gisborne Urban Area and remainder of the District was compared to the actual change in census night counts between 2001 and 2006<sup>2</sup>. This second comparison indicates that the population in the Gisborne Urban Area may be growing faster than the high series, while the remainder of the District is declining at a rate somewhere between the medium and low projection. (Refer to **Appendix Five** for the Statistics New Zealand projections and estimates)

<sup>2</sup> The 2006 census night counts were provisional only. The 2006 provisional census night counts can not be compared directly against the 2006 population projections because the census counts are not adjusted to account for visitors, people out of the district, etc.



- 4.4 On the basis of the two comparisons it is considered appropriate to use a “hybrid” projection for the Gisborne Urban Area over the period 2001-2026, which consists of the average of the high and medium series.
- 4.5 For the remainder of the District the growth it is considered appropriate to retain the Statistics New Zealand’s medium projection for the period 2001-2026 which is used in the current Long Term Council and Community Plan. While the comparison of the high, medium and low projections against population estimates indicates that the population may be declining somewhat faster than the low projection, the population estimates indicate that the population may be declining only slightly faster than the medium projection.
- 4.6 For the period following 2026 it is assumed that the Gisborne Urban Area population would continue to increase at nominal small rate of 140 persons per census period. For the remainder of the District it was assumed that continued decline of the population would not be sustained and the population would stabilise at 2026 levels. There is a high level of uncertainty about

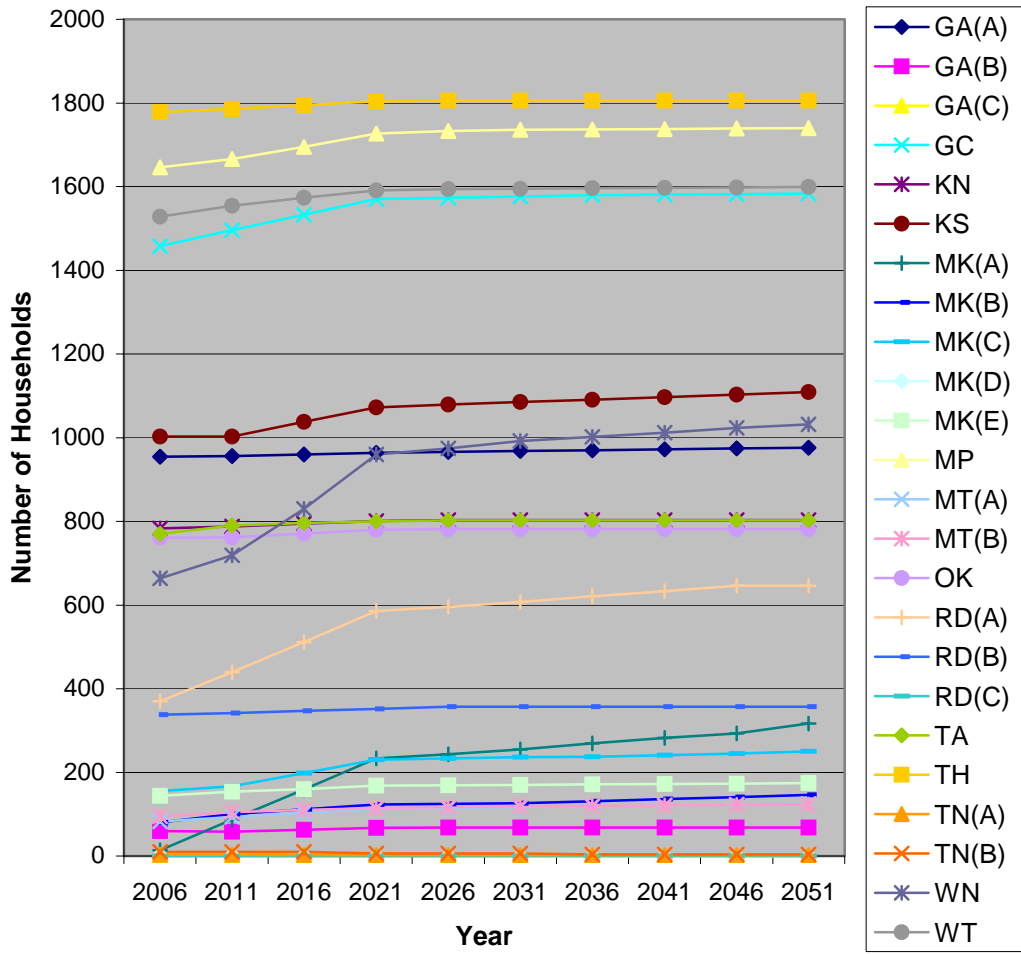


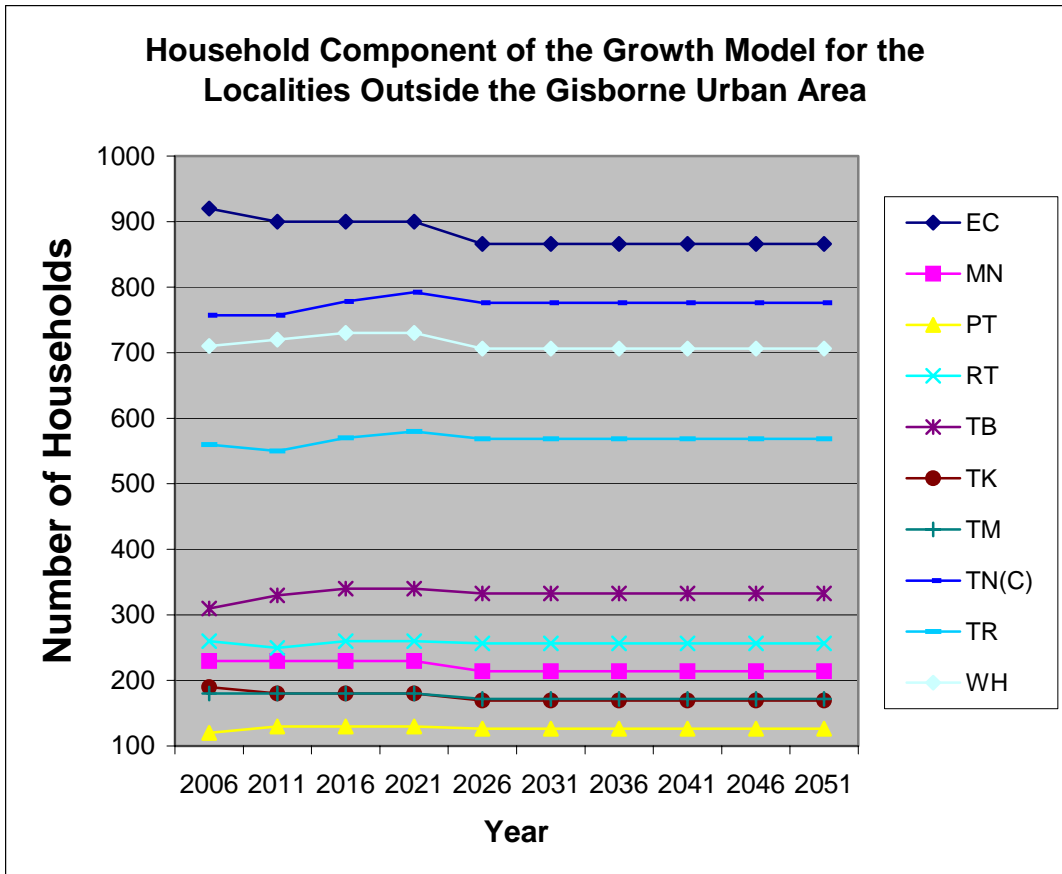
future population figures over this period and it is intended that the growth projections will be regularly reviewed.

## 5.0 Households

- 5.1 The household component of the growth model was developed in two groups: (1) localities within the Gisborne Urban Area and (2) localities outside the Gisborne Urban Area. Underlying the projections are the assumptions that the total number of households within each of the two general areas would reflect both the population component of the growth model, as well as the average household sizes indicated in the Statistics New Zealand projections.
- 5.2 The model projects an increase in the number of households in the Gisborne Urban Area from 12093 households in 2001 to 14444 households in 2051. This equates to a 19% increase over 50 years. The average projected increase is about 1% per annum for the first 20 years, after which the rate of increase is expected to be less. Much of the increase in the Gisborne Urban Area is driven by a projected decline in the average size of households, with the average size projected to reduce from 2.71 in 2001 to 2.38 by 2026. Some areas are projected to increase more quickly than others. It is projected that the fastest growing areas will be:
- Wainui (which includes Sponge Bay and Okitu), with an estimated increase of 226 households from 2006-2026 (34% over 20 years or 2.8% per annum)
  - Makaraka (A) and Taruheru (A), which together encompass the Taruheru Subdivision Block. An increase of about approximately 430 households is projected over the next 20 years (112% over 20 years or 4.1% per annum).
  - Matokitoki localities and Makaraka localities, which are expected to be subject to continued rural-residential development.
  - Mangapapa and Whataupoko, which are expected to be subject to further infill as well as greenfield development. An increase of about 160 households is projected in these two localities over the next 20 years (5% over 20 years).
- 5.3 A small decrease in the number of households is projected for the remainder of the district, from 4357 households in 2001 to 4187 households in 2151 (4% decrease over 50 years). The projections are illustrated by the following graphs. Refer to **Appendix Three** for the table of figures and the full locality name.

### Household Component of the Growth Model for Gisborne Urban Area





**Gisborne Urban Area**

- 5.4 The first step in producing the Gisborne Urban Area household projections was to calculate average household size over the period 2001-2026 within each area unit in the Gisborne Urban Area, according to the Statistics New Zealand medium series, by dividing the population figures by the household figures. The Statistics New Zealand figures indicate a decline in average household size is expected in all area units, for example from 3.342 to 2.974 persons/household in Outer Kaiti and from 2.572 to 2.252 persons/household in Whataupoko. (Only the medium series were used to provide projections about declining household sizes because information was available for the high and low series).
- 5.5 The next step was to take the “hybrid” population projection between the Statistics New Zealand “medium” and “high” series for the period 2001-2026 (which was adopted for the population component of the growth model) and distribute the households into Statistics New Zealand area units on the basis of the distribution pattern anticipated by Statistics New Zealand. The average household sizes at each five yearly interval were then applied to the “hybrid” population projections distributed into area units to calculate the number of households within each area unit over the period 2001 to 2026. The figures for each area unit were then collated to give an indication of the total number of households for Gisborne Urban Area over the period. It is noted that this approach relied on the household distribution pattern shown in the Statistics New Zealand projections to calculate the total number of households, while the growth model ultimately uses a different distribution pattern. However the

impact on the projection of the total population in the Gisborne Urban Area is not considered significant.

- 5.5 To “ground truth” the projected increase in households between 2001 and 2006 a comparison was made against subdivision data for this period. The comparison indicated that amount of consented development (which may or may not be occupied) was significantly more than the projected growth in households. Given that that the model is intended to be used for development contributions and development contributions are taken at the time of subdivision/building consent it was considered appropriate to increase the household figures for 2006 by about 250 households. Additional households were also added to subsequent years but the difference between the growth model and the initial projections was reduced over time.
- 5.5 The total household figures for the Gisborne Urban Area 2006-2026 were then distributed into growth model localities. The distribution pattern was based on a number of different factors, including:
- The 2001 figures in the Statistics New Zealand medium household projections, which were used to develop the base distribution pattern between the growth model localities for 2001.
  - Subdivision consent data, which was used to analyse trends in the distribution of development e.g. between infill, greenfield residential and rural residential development.
  - Council knowledge of potential development areas and developer aspirations e.g. potential availability of land in the Wainui locality and the impact of potential reticulation, availability of large greenfield areas in Taruheu localities and the potential for further infill as well as Greenfield development in Mangapapa.
- 5.6 To extend the Gisborne Urban Area household projections for the remainder of the projection period the projected increase in the population (140 persons per census period) was divided by the average household size for the Gisborne Urban Area as a whole at 2021 according to the Statistics New Zealand medium series (2.383) to give an increase of 59 households per year. The approach assumes that household sizes will remain constant after 2021. This was the last year for which Statistics New Zealand have provided household projections and it is considered that there is a lack of information upon which to project any further changes in household size. The projected growth was then distributed between the localities. Wainui and Taruheru localities are projected to receive the majority of the new households due to the attractiveness of coastal areas and the availability of Greenfield sites respectively.

### **Remainder of the District**

- 5.7 The household figures for the remainder of the District for the period 2006-2021 were taken from Statistics New Zealand medium population projections for each area unit. This approach is consistent with the population component of the growth model, which is also based on Statistics New Zealand medium series. For the remainder of the projection period it is projected that the number of households within each locality outside of the Gisborne Urban Area would remain constant. The underlying assumptions are that population will remain constant (which is consistent with the

population component of the growth model) and average house sizes will remain constant.

### **Service Connection Variation**

- 5.8 A variation on growth model localities Wainui (WN) and Makaraka (MK(C)) has also been produced in which the projected household figures are intended to reflect the number of households connected to wastewater and water supply services (with possible reticulation), rather than all households in the area. This projection is intended to be used for the purpose of calculating development contributions relating to these services.

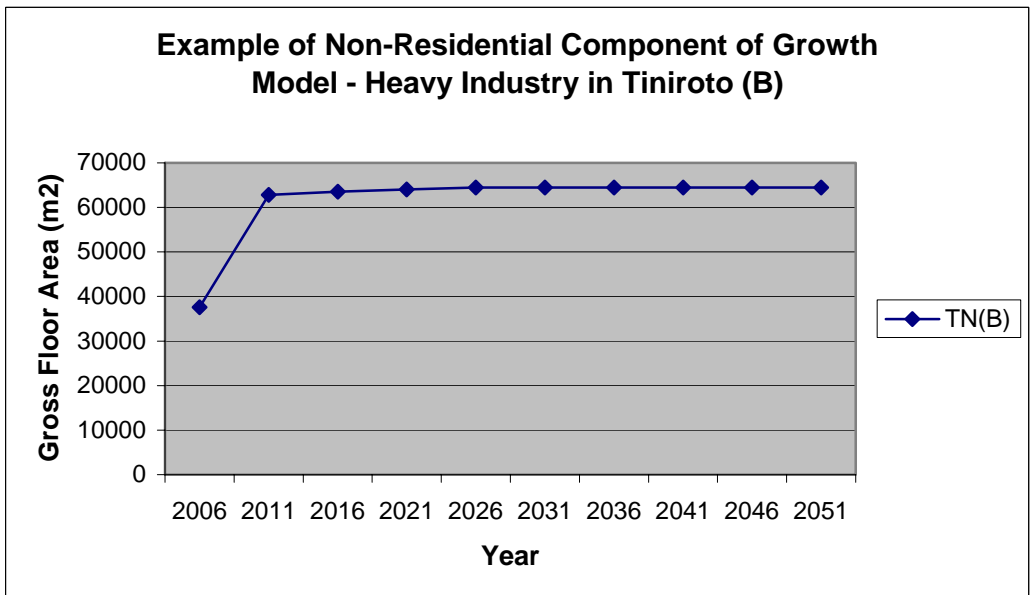
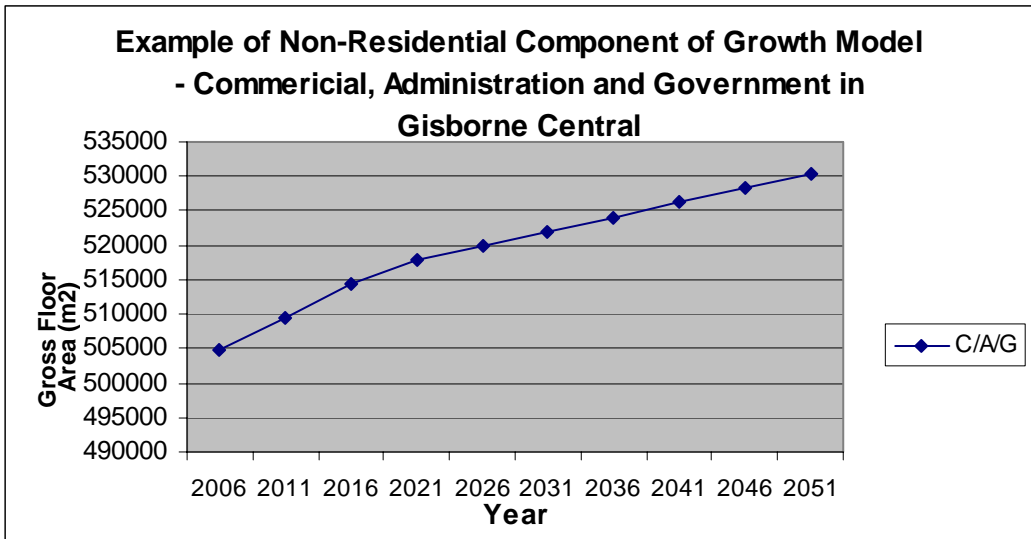
### **6.0 Non-Residential Activities**

- 6.1 The component of the growth model that addresses non-residential activities consists of projections, by locality, of the gross floor area for seven types of non-residential activities. The activity classifications used are:

- Commercial, Administration and Government (C/A/G), which is intended to cover offices, retail, restaurants and other food services, property and business services, finance and insurance services, personal services (e.g. beauticians), government administration (e.g. courts, local government), commercial cultural and recreational services (e.g. tourism operators, cinemas) and services stations.
- Health and Community Services (H&CS), which is intended to cover medical services (e.g. doctors, optometrists, hospitals), veterinary services, dental services, childcare services and community care services.
- Residential Services (RS) e.g. Aged Care facilities
- Visitor Accommodation (VA), which includes hotel conference facilities and associated offices, etc. but not public restaurants and retail associated with hotels.
- Industry – Heavy Manufacturing (IHM)
- Industry – Light Manufacturing/Serviceing (ILM/S), which includes associated retail e.g. timber yards.
- Industry – Warehousing.

Refer to **Appendix Four** for the tables of figures.

- 6.2 The following graphs illustrate examples of the projections for non-residential activities:



6.3 To develop the non-residential component of the growth model it was assumed that non-residential activities would generally increase or decrease at the same rate as the population component of the growth model. More specifically, it was assumed that non-residential activities in the Gisborne Urban Area would follow the same trend as population projections for the Gisborne Urban Area, while non-residential activities in the remainder of the District would follow the same trend as population in this area. This was considered a reasonable approach given the lack of information available. A project is currently being investigated which will provide growth estimates on an industry-by-industry basis and would assist in future reviews of the growth model. Exceptions from the general assumption that growth in non-residential activities would follow population trends were made for Light and Heavy Industry, which is explained further below.

6.4 The first step was to estimate the total amount of existing (and recently consented) floor area used for the various types of non-residential activities within each locality. The estimates were based on the gross floor area and

category classification data in the District Land Register records, which were collated by locality, re-categorised into the growth-model categories. Adjustments were made to reflect recent developments not yet shown on register records, multi use listings where it was assumed that only some of the floor area was used for non-residential purposes, etc.

- 6.5 The next step was to calculate the rates of increase in population for the Gisborne Urban Area (as a whole) and decrease in population for the remainder of the district (as a whole) between each census period from 2006-2051 according to the population component of the growth model. The rates were then applied to the base 2006 estimates of the gross floor area of non-residential activities in the Gisborne Urban Area and the remainder of the District to give projections of the total gross floor area, by activity-type, for the two general areas from 2006-2051.
- 6.6 Growth in the Gisborne Urban Area was then allocated to localities. The projected distribution of growth was based on a range information and assumptions, for example:
- Knowledge of potential developments e.g. expected retirement village expansion in Taruheru
  - Council promotion of the new industrial area for industry growth
  - The assumption that commercial activities will continue to locate primarily in the Gisborne Central locality
  - Perceived market gaps e.g. the potential for additional commercial activity in the Wainui locality to serve anticipated growth in population

The “first cut” at the growth in the Gisborne Urban Area was then amended to reflect additional anticipated growth in Heavy Industry and Light Industry/Service in Tiniroto/Makaraka localities.

- 6.7 For the remainder of the District it was assumed that non-residential activities within each locality would decline at the same rate as the population in the remainder of the District, stabilising at 2026.

## **7.0 Review**

It is intended that the growth projections will be continually reviewed against development trends and as further information is available. Previous consultation around general planning issues and potential developments has been taken into account in the preparation of this report but more targeted consultation would be considered for future reviews of the growth model. On review of the growth model Council will also consider developing projections of the growth in impervious surfaces as a fourth component of the growth model to assist in the calculation of development contribution charges for stormwater.

## Appendix Two – Population Component of Growth Model

	2001 (Base Estimate)	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
<b>Gisborne Urban Area (GUA)</b>	32780	32990	33,295	33,635	33,850	33,990	34,130	34,270	34,410	34,550	34,690
Incremental Increase from 2001		210	305	340	215	140	140	140	140	140	140
Increase from Base Year (2001)		210	515	855	1070	1210	1350	1490	1630	1770	1910
<b>Rest of District</b>	12,730	12,210	11,790	11,530	11,260	10,910	10910	10910	10910	10910	10910
Incremental Increase from 2001		-520	-420	-260	-270	-350	0	0	0	0	0
Increase from Base Year (2001)		-520	-940	-1,200	-1,470	-1,820	-1,820	-1,820	-1,820	-1,820	-1,820
<b>Total for District</b>	<b>45510</b>	<b>45200</b>	<b>45085</b>	<b>45165</b>	<b>45110</b>	<b>44900</b>	<b>45040</b>	<b>45180</b>	<b>45320</b>	<b>45460</b>	<b>45600</b>



### Appendix Three – Households Component of Growth Model

GISBORNE URBAN AREA												
Code	Full Locality Name	2001 (Base Estimate)	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
GA(A)	Gisborne Airport (A) (Residential)	950	954	956	960	964	966	968	970	972	974	976
GA(B)	Gisborne Airport (B) (Industrial/Rural)	60	60	58	63	67	68	68	68	68	68	68
GA(C)	Gisborne Airport (C) (Airport)	0	0	0	0	0	0	0	0	0	0	0
GC	Gisborne Central	1370	1458	1496	1533	1570	1573	1576	1579	1581	1582	1583
KN	Kaiti North	780	783	788	795	801	803	803	803	803	803	803
KS	Kaiti South	1010	1003	1003	1038	1072	1079	1085	1091	1097	1103	1109
MK(A)	Makaraka (A) (Taruhuru Block)	13	14	87	159	233	243	255	269	282	293	317
MK(B)	Makaraka (B) (Rural-Residential)	60	80	100	112	123	125	126	131	136	141	146
MK(C)	Makaraka (C) (Makaraka)	138	155	167	198	230	233	236	237	241	245	250
MK(D)	Makaraka (D) (Rural Industrial A)	2	2	2	1	1	1	0	0	0	0	0
MK(E)	Makaraka (E) (Remainder)	127	144	154	160	168	169	170	171	172	173	174
MP	Mangapapa	1620	1646	1666	1695	1727	1733	1736	1737	1738	1739	1740

MT(A)	Matokitoki (A) (small blocks)	72	83	93	103	113	115	117	119	121	123	125
MT(B)	Matokitoki (B) (remainder)	78	95	105	110	115	117	119	120	121	122	123
OK	Outer Kaiti	760	761	762	771	780	782	782	782	782	782	782
RD(A)	Riverdale (A) (Taruheru Block)	140	370	440	512	586	596	607	621	633	646	646
RD(B)	Riverdale (B) (Riverdale)	330	338	342	347	352	357	357	357	357	357	357
RD(C)	Riverdale (C) (Hospital & Adjacent Greenfields)	0	0	0	0	0	0	0	0	0	0	0
TA	Tamarau	760	770	790	796	800	802	802	802	802	802	802
TH	Te Hapara	1760	1778	1786	1795	1804	1806	1806	1806	1806	1806	1806
TN(A)	Tiniroto (A) (Rural Industrial A)	3	3	3	2	2	2	2	2	2	2	2
TN(B)	Tiniroto (B) (Rural Industrial B)	10	10	10	10	6	6	6	4	4	4	4
WN	Wainui	570	664	719	830	960	974	992	1002	1012	1023	1032
WT	Whataupoko	1480	1528	1554	1573	1591	1594	1595	1596	1597	1598	1599
<b>Total for GUA</b>		<b>12093</b>	<b>12699</b>	<b>13081</b>	<b>13563</b>	<b>14065</b>	<b>14144</b>	<b>14208</b>	<b>14267</b>	<b>14327</b>	<b>14386</b>	<b>14444</b>
Increase Incremental Each Year			<b>606</b>	<b>382</b>	<b>482</b>	<b>502</b>	<b>79</b>	<b>64</b>	<b>59</b>	<b>60</b>	<b>59</b>	<b>58</b>
Increase from Base 2001			<b>606</b>	<b>988</b>	<b>1470</b>	<b>1972</b>	<b>2051</b>	<b>2115</b>	<b>2174</b>	<b>2234</b>	<b>2293</b>	<b>2351</b>
<b>Service Connection Variation</b>												
MK(C)r	Makaraka (C) – Makaraka (Reticulation)	0	0	0	198	230	233	236	237	241	245	250
WNR	Wainui (Reticulation)	0	0	80	780	895	910	920	927	937	948	957



## Appendix Four – Non-Residential Activities Component of Growth Model

### 1. Commercial, Administration and Government (Gross Floor Area in m<sup>2</sup>)

GISBORNE URBAN AREA												
Code	Full Locality Name	Zone	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
GA(A)	Gisborne Airport (A) (Residential)	General Residential	230	251	275	290	299	309	319	328	338	348
GA(B)	Gisborne Airport (B) (Industrial/Rural)	General Industrial / Rural Res / Residential	0	0	0	0	0	0	0	0	0	0
GA(C)	Gisborne Airport (C) (Airport)	Rural Res / Rural P(with Airport Overlays)	50	50	51	51	52	52	52	52	52	53
GC	Gisborne Central	Inner Comm / Amenity Comm / Fringe Comm / Outer Comm / Inner Res / General Resl	504753	509370	514519	517765	519869	521972	524076	526180	528283	530387
KN	Kaiti North	General Residential	1110	1120	1132	1139	1143	1148	1153	1157	1162	1167
KS	Kaiti South	General Res/ Inner Res	4810	4843	4880	4904	4919	4934	4949	4965	4980	4995
MK(A)	Makaraka (A) (Taruhuru Block)	General Residential	0	0	0	0	0	0	0	0	0	0
MK(B)	Makaraka (B) (Rural-Resl)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MK(C)	Makaraka (C) (Makaraka)	General Residential	2940	2962	2987	3003	3013	3023	3033	3043	3053	3064

MK(D)	Makaraka (D) (Rural Ind A)	Rural Ind A	0	0	0	0	0	0	0	0	0	0
MK(E)	Makaraka (E) (Remainder)	Rural Res/ Rural P	0	19	40	54	62	71	80	89	97	106
MP	Mangapapa	General Res	1470	1484	1499	1508	1514	1520	1527	1533	1539	1545
MT(A)	Matokitoki (A) (small blocks)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MT(B)	Matokitoki (B) (remainder)	Rural Residential	150	151	153	154	155	155	156	156	157	158
OK	Outer Kaiti	General Res	70	71	71	72	72	72	73	73	73	74
RD(A)	Riverdale (A) (Taruhuru Block)	General Residential	2390	2412	2437	2452	2462	2472	2482	2492	2502	2512
RD(B)	Riverdale (B) (Riverdale)	General Residential	750	750	750	750	750	750	750	750	750	750
RD(C)	Riverdale (C) (Hospital & Adj Greenfields)	General Residential	0	0	0	0	0	0	0	0	0	0
TA	Tamarau	General Residential	7460	7529	7605	7653	7685	7716	7747	7778	7810	7841
TH	Te Hapara	General Residential	5900	5970	6047	6096	6128	6159	6191	6223	6255	6286
TN(A)	Tiniroto (A) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
TN(B)	Tiniroto (B) (Rural Industrial B)	Rural Ind B	0	0	0	0	0	0	0	0	0	0
WN	Wainui	General Res / Rural Res	190	220	250	280	310	340	370	400	430	460
WT	Whataupoko	Gen Resl	4210	4244	4283	4307	4323	4338	4354	4370	4385	4401
<b>Total for GUA</b>			<b>536483</b>	<b>541446</b>	<b>546978</b>	<b>550477</b>	<b>552755</b>	<b>555033</b>	<b>557311</b>	<b>559589</b>	<b>561867</b>	<b>564145</b>
Increase Incremental Each Year				<b>4963</b>	<b>5532</b>	<b>3498</b>	<b>2278</b>	<b>2278</b>	<b>2278</b>	<b>2278</b>	<b>2278</b>	<b>2278</b>
Increase from Base 2006				<b>4963</b>	<b>10495</b>	<b>13994</b>	<b>16272</b>	<b>18550</b>	<b>20828</b>	<b>23106</b>	<b>25384</b>	<b>27662</b>





MK(D)	Makaraka (D) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
MK(E)	Makaraka (E) (Remainder)	Rural Residential / Rural Production	0	0	0	0	0	0	0	0	0	0
MP	Mangapapa	General Residential	1570	1585	1601	1611	1618	1624	1631	1638	1644	1651
MT(A)	Matokitoki (A) (small blocks)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MT(B)	Matokitoki (B) (remainder)	Rural Residential	0	0	0	0	0	0	0	0	0	0
OK	Outer Kaiti	General Residential	0	0	0	0	0	0	0	0	0	0
RD(A)	Riverdale (A) (Tarheru Block)	General Residential	0	0	0	0	0	0	0	0	0	0
RD(B)	Riverdale (B) (Riverdale)	General Residential	0	0	0	0	0	0	0	0	0	0
RD(C)	Riverdale (C) (Hospital & Adjacent Greenfields)	General Residential	22070	22274	22501	22645	22739	22833	22926	23020	23114	23207
TA	Tamarau	General Res										
TH	Te Hapara	General Res	5800	5854	5913	5951	5976	6000	6025	6050	6074	6099
TN(A)	Tiniroto (A) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
TN(B)	Tiniroto (B) (Rural Industrial B)	Rural Industrial B	0	0	0	0	0	0	0	0	0	0
WN	Wainui	General Res / Rural Res	0	0	0	0	0	0	0	0	0	0
WT	Whataupoko	General Res	370	373	377	380	381	383	384	386	387	389
<b>Total for GUA</b>			<b>36750</b>	<b>37090</b>	<b>37469</b>	<b>37708</b>	<b>37864</b>	<b>38020</b>	<b>38176</b>	<b>38332</b>	<b>38488</b>	<b>38644</b>
Increase Incremental Each Year				<b>340</b>	<b>379</b>	<b>240</b>	<b>156</b>	<b>156</b>	<b>156</b>	<b>156</b>	<b>156</b>	<b>156</b>
Increase from Base 2006				<b>340</b>	<b>719</b>	<b>958</b>	<b>1114</b>	<b>1270</b>	<b>1426</b>	<b>1582</b>	<b>1738</b>	<b>1894</b>







MK(C)	Makaraka (C) (Makaraka)	General Residential	0	0	0	0	0	0	0	0	0	0
MK(D)	Makaraka (D) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
MK(E)	Makaraka (E) (Remainder)	Rural Residential / Rural Production	0	0	0	0	0	0	0	0	0	0
MP	Mangapapa	General Res	0	0	0	0	0	0	0	0	0	0
MT(A)	Matokitoki (A) (small blocks)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MT(B)	Matokitoki (B) (remainder)	Rural Residential	0	0	0	0	0	0	0	0	0	0
OK	Outer Kaiti	General Res	0	0	0	0	0	0	0	0	0	0
RD(A)	Riverdale (A) (Taruhuru Block)	General Res	0	44	92	123	143	163	183	204	224	244
RD(B)	Riverdale (B) (Riverdale)	General Res	0	0	0	0	0	0	0	0	0	0
RD(C)	Riverdale (C) (Hospital & Adj Greenfields)	General Res	0	0	0	0	0	0	0	0	0	0
TA	Tamarau	General Res	0	0	0	0	0	0	0	0	0	0
TH	Te Hapara	General Res	4730	4730	4730	4730	4730	4730	4730	4730	4730	4730
TN(A)	Tiniroto (A) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
TN(B)	Tiniroto (B) (Rural Industrial B)	Rural Industrial B	0	0	0	0	0	0	0	0	0	0
WN	Wainui	General Res / Rural Res	0	33	69	92	107	123	138	153	168	183
WT	Whataupoko	General Res										
<b>Total for GUA</b>			<b>11820</b>	<b>11929</b>	<b>12051</b>	<b>12128</b>	<b>12178</b>	<b>12228</b>	<b>12279</b>	<b>12329</b>	<b>12379</b>	<b>12429</b>
Increase Incremental Each Year				<b>109</b>	<b>122</b>	<b>77</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
Increase from Base 2006				<b>109</b>	<b>231</b>	<b>308</b>	<b>358</b>	<b>408</b>	<b>459</b>	<b>509</b>	<b>559</b>	<b>609</b>





MT(A)	Matokitoki (A) (small blocks)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MT(B)	Matokitoki (B) (remainder)	Rural Residential	740	740	740	740	740	740	740	740	740	740
OK	Outer Kaiti	General Residential	0	0	0	0	0	0	0	0	0	0
RD(A)	Riverdale (A) (Taruhuru Block)	General Residential	0	0	0	0	0	0	0	0	0	0
RD(B)	Riverdale (B) (Riverdale)	General Residential	0	0	0	0	0	0	0	0	0	0
RD(C)	Riverdale (C) (Hospital & Adjacent Greenfields)	General Residential	0	0	0	0	0	0	0	0	0	0
TA	Tamarau	General Resl	0	0	0	0	0	0	0	0	0	0
TH	Te Hapara	General Res	4530	4530	4530	4530	4530	4530	4530	4530	4530	4530
TN(A)	Tiniroto (A) (Rural Industrial A)	Rural Industrial A	0	0	0	0	0	0	0	0	0	0
TN(B)	Tiniroto (B) (Rural Industrial B)	Rural Industrial B	0	0	0	0	0	0	0	0	0	0
WN	Wainui	General Res / Rural Residential	1840	1891	1949	1985	2009	2032	2056	2080	2103	2127
WT	Whataupoko	General Residential	130	140	152	159	164	168	173	178	183	187
<b>Total for GUA</b>			<b>22275</b>	<b>22481</b>	<b>22711</b>	<b>22856</b>	<b>22950</b>	<b>23045</b>	<b>23139</b>	<b>23234</b>	<b>23328</b>	<b>23423</b>
Increase Incremental Each Year				<b>206</b>	<b>230</b>	<b>145</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>
Increase from Base 2006				<b>206</b>	<b>436</b>	<b>581</b>	<b>675</b>	<b>770</b>	<b>864</b>	<b>959</b>	<b>1053</b>	<b>1148</b>



















MK(B)	Makaraka (B) (Rural-Residential)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MK(C)	Makaraka (C) (Makaraka)	General Residential	1182	1193	1206	1213	1218	1223	1228	1233	1238	1243
MK(D)	Makaraka (D) (Rural Ind A)	Rural Ind A	0	0	0	0	0	0	0	0	0	0
MK(E)	Makaraka (E) (Remainder)	Rural Res / Rural P	0	0	0	0	0	0	0	0	0	0
MP	Mangapapa	General Res	0	0	0	0	0	0	0	0	0	0
MT(A)	Matokitoki (A) (small blocks)	Rural Residential	0	0	0	0	0	0	0	0	0	0
MT(B)	Matokitoki (B) (remainder)	Rural Residential	0	0	0	0	0	0	0	0	0	0
OK	Outer Kaiti	General Res	0	0	0	0	0	0	0	0	0	0
RD(A)	Riverdale (A) (Taruhuru Block)	General Residential	0	0	0	0	0	0	0	0	0	0
RD(B)	Riverdale (B) (Riverdale)	General Res	0	0	0	0	0	0	0	0	0	0
RD(C)	Riverdale (C) (Hospital & Adj Greenfields)	General Res	0	0	0	0	0	0	0	0	0	0
TA	Tamarau	General Res	0	0	0	0	0	0	0	0	0	0
TH	Te Hapara	General Res	5610	5662	5720	5756	5780	5804	5828	5851	5875	5899
TN(A)	Tiniroto (A) (Rural Ind A)	Rural Ind A	0	0	0	0	0	0	0	0	0	0
TN(B)	Tiniroto (B) (Rural Ind B)	Rural Ind B	0	0	0	0	0	0	0	0	0	0
WN	Wainui	Res / Rural Res	0	0	0	0	0	0	0	0	0	0
WT	Whataupoko	General Resl	0	0	0	0	0	0	0	0	0	0
<b>Total for GUA</b>			<b>25233</b>	<b>25466</b>	<b>25726</b>	<b>25891</b>	<b>25998</b>	<b>26105</b>	<b>26212</b>	<b>26319</b>	<b>26426</b>	<b>26533</b>
Increase Incremental Each Year			<b>233</b>	<b>260</b>	<b>164</b>	<b>107</b>	<b>107</b>	<b>107</b>	<b>107</b>	<b>107</b>	<b>107</b>	<b>107</b>
Increase from Base 2006			<b>233</b>	<b>-227961</b>	<b>-227796</b>	<b>-227689</b>	<b>-227582</b>	<b>-227475</b>	<b>-227368</b>	<b>-227261</b>	<b>-227154</b>	





***Appendix One***