

Annexure 1

Population and Employment Growth

POPULATION AND EMPLOYMENT
GROWTH
INFORMATION PAPER PREPARED FOR
MARSDEN POINT-RUAKAKA
STRUCTURE PLAN: 2008

Phil McDermott Consultants Ltd

June 2008

Population, Employment and Growth;

Information Paper Prepared for Marsden Point-Ruakaka Structure Plan:
2008

Phil McDermott Consultants Ltd, June 2008

The information in this report is presented in good faith using the best information available to us at the time of preparation. It is provided on the basis that Phil McDermott Consultants Ltd and its associates are not liable to any person or organisation for any damage or loss which may occur in relation to that person or organisation taking or not taking action (as the case may be) in respect of any statement, information, or advice conveyed within this report.

CONTENTS

1	Introduction	1
2	Population Growth.....	2
	Drivers of Population Growth	3
	<i>Lifestyle opportunities</i>	4
	<i>Employment opportunities:</i>	4
	<i>Housing Opportunities:</i>	6
	Residential Demand.....	8
3	Triggers for Growth.....	11
	Spill-Over from Auckland	11
	An Accelerating Sea Change Movement	12
	A Regional Centre for Bream Bay	13
	Industrial Development	13
	Port Development.....	14
4	Catering for Growth in the Marsden Point-Ruakaka Structure plan	15
	Residential Land Provision.....	16
	Labour Supply	16
	Employment Density Guidelines.....	17
	Business Land Provision	18
5	Conclusion:.....	20
	List of Tables	
Table 1	Estimated Components of Population Growth, Northland 2001-2006	2
Table 2	Statistics New Zealand and Whangarei District Council Population Projections	2
Table 3	Employment Change by Sector, Northland and Whangarei 2000-2007	5
Table 4	Residential Prices, December 2007	7
Table 5	New Dwelling Building Consents Issued, Ye March 2005-2008	8
Table 6	Examples of Industrial Employment Densities	17
Table 7	Employee/Gross Hectare – Representative Coefficients	18
Table 8	Employment Capacity at Full Development	19
Table 9	Potential Labour Force Projections	17
Figure 1	Employment Growth Rates, 2000-2007	5

1 INTRODUCTION

While growth at Marsden Point has been modest over the past ten years, the potential for substantial long term growth is substantial, as is the capacity to accommodate it. Constraints on sewage treatment and disposal have effectively stalled growth recently, but wider accelerating local development and marketing reveal a widely-held expectation that when this constraint is removed, growth will accelerate.

There are a number of growth precedents, and precedents in similar coastal environments, that support this expectation. In the case of Marsden Point-Ruakaka, the advantages of a coastal locality are supplemented by an existing employment base and good prospects for its expansion.

Growth will also be influenced by supply factors. For example, the rate of growth will depend on the capacity of infrastructure, the nature and cost of land, and the quality of the urban environment. These are the subject of the structure plan review under way.

This report provides information in support of the preparation of the Marsden Point-Ruakaka Structure Plan 2008 (MPRSP), dealing with population and employment prospects and growth. It also outlines how the resulting demand for housing and employment might be broadly translated into land use.

The report refers to and appraises existing growth projections and timelines which broadly confirm the potential identified here. However, the report also demonstrates the imprecision surrounding projections. Despite their appearance of accuracy, medium or long-term projections are useful mainly for scoping issues, determining broad allocations of land use, and resolving design and capacity issues that will affect the quality and sustainability of development overall. But quantitative projections provide no certainty with respect to precise outcomes around which detailed development programmes might be prepared.

The development will benefit from the overall guidance and coordination of land use, infrastructure and amenities provided by the reviewed MPRSP. However, this needs to be accompanied by flexibility of timing that will facilitate responding to the needs of the emerging community over time. Acknowledging the uncertainty around projections, the report therefore focuses on the drivers of growth and identifies the sorts of circumstances that might justify accelerating development.

2 POPULATION GROWTH

The components of recent population change in Northland have been analysed using the 2006 Census results, including the table indicating where people lived five years previously (Table 1). People moving within Northland favoured Whangarei District. Northland itself gained from the rest of New Zealand, Whangarei by around 1,180 people (the majority from Auckland). Whangarei also gained from overseas (an estimated net 2,176 surplus of arrivals over departures). Overall, migration accounted for around 4,940 new residents, or 78% of Whangarei District's growth.

Table 1 Estimated Components of Population Growth, Northland 2001-2006

	2001	2006	Natural Increase	Migration	Growth
Far North	54,580	55,850	1,160	110	1,270
Whangarei	68,090	74,460	1,430	4,940	6,370
Kaipara	17,460	18,130	420	250	670
Northland	140,130	148,440	3,010	5,307	8,310

Notes: Natural Increase based on "Not born five years ago" (Census) and Registered deaths; Migration includes movements into and out of District to other parts of New Zealand plus estimated net international migration, with emigration based on residual method (equivalent to inter-censal change less natural increase, net internal migration an overseas arrivals).

In December 2007 Statistics New Zealand (SNZ) issued a new subnational population projections based on the 2006 Census. These increased assumed migration gains to Whangarei following higher than expected growth between 2001 and 2006. The SNZ High Projection made in 2005 underestimated actual growth by 2,400 people (34%). The medium projection underestimated it by 3,700 people (57%).

In January 2008 Whangarei District council reviewed its Growth Model, described as "an evolving representation of the district ... continuously updated as new information is received" (p7). The first five years are projected from analysis of resource and building consents with subsequent periods reverting to SNZ growth increments applied to this adjusted base, through to 2026. The revised WDC projections are compared with the revised SNZ projections in Table 2.

Table 2 Statistics New Zealand and Whangarei District Council Population Projections

	2006	2016	2026	2031	2006-31	% SNZ Medium
SNZ 2007 Subnational Projections						
High	76,500	87,400	97,100	101,500	25,000	166%
Medium	76,500	83,600	89,300	91,600	15,100	100%
WDC 2008 Growth Model						
High	74,270	89,580	100,740	106,130	31,860	211%
Medium	74,270	76,870	79,670	93,500	19,230	127%

Note: SNZ projections based on revised June year 2006 figures; WDC based on Usually Resident Census Night Population

The range of uncertainty around growth projections is demonstrated by the difference between the medium and high projection within each set, and the differences between

the two sets of projections. Hence, the high gain projected to 2031 is 66% above the medium gain in each case. At the same time, the WDC projections are each 27% ahead of their SNZ equivalents. The uncertainty embodied in these figures is graphically illustrated by the fact that the high WDC is for a gain more than twice that of the medium SNZ projection (211%). A major driver of that difference is the continuing evidence of high short-term growth incorporated into the WDC projection.

In summary:

- Consideration of local activity in the new housing market leads to a much higher projection than the SNZ projections;
- There is substantial uncertainty over just how much growth there will be

The WDC projection goes forward a further ten years, with the prospect that the population would reach 115,120 people in 2041 under its high growth assumptions, and 99,190 under its low growth assumptions. These are gains of 40,850 (55%) and 24,920 (33%), respectively, over the 2006 base population.

The main source of both higher-than-expected growth and this uncertainty about the future is migration. The SNZ projections allow for annual net migration gains of 225 and 450 people respectively under the medium and high projections (zero under the low). This compares with an estimated net migration gain of 4,900 between 2001 and 2006 or 980 a year. In other words, the five years to April 2006 saw net migration gains at twice the level assumed for the SNZ high projection.¹ Maintaining recent levels of migration gains would see even the high WDC projection eclipsed.²

DRIVERS OF POPULATION GROWTH

The preceding review of projections indicates a general acceptance that growth will continue to be strong, but no clear picture of just how much and when. Indeed, it suggests that even the SNZ high forecasts are conservative relative to recent history and continuing activity.

However, the issue is not so much the precise numbers generated by projections, but the direction and broad magnitude of growth. Of particular interest is the possible behaviour of underlying drivers. In particular, migration can play a large part.

The determinants of migration are discussed in some detail in McDermott (2008a) and summarised below.

¹ The methodology applied to derive this estimate is discussed in McDermott P (2008) *Margins Matter: Revising New Zealand's population Map*, Occasional Paper, Institute of Public Policy, Auckland University of Technology

² Translating alternative migration assumptions into a new set of projections is beyond the current exercise as it requires re-running the core forecasting models with allowance made for the rates of natural increase applied to migrants.

LIFESTYLE OPPORTUNITIES

Lifestyle opportunities include the ability for ageing baby-boomers (pre- and post-retirement) to relocate in an area where access to amenities is as important, if not more so, than access to work opportunities.

Another form of lifestyle driven migration involves simply moving from large to small cities to improve the balance between work and recreation by cutting down on commuting and local travel time and locating closer to recreational amenities. This motivation is likely to become more significant in residential choices as the peak oil issue manifests itself in increasing real transport prices.

EMPLOYMENT OPPORTUNITIES:

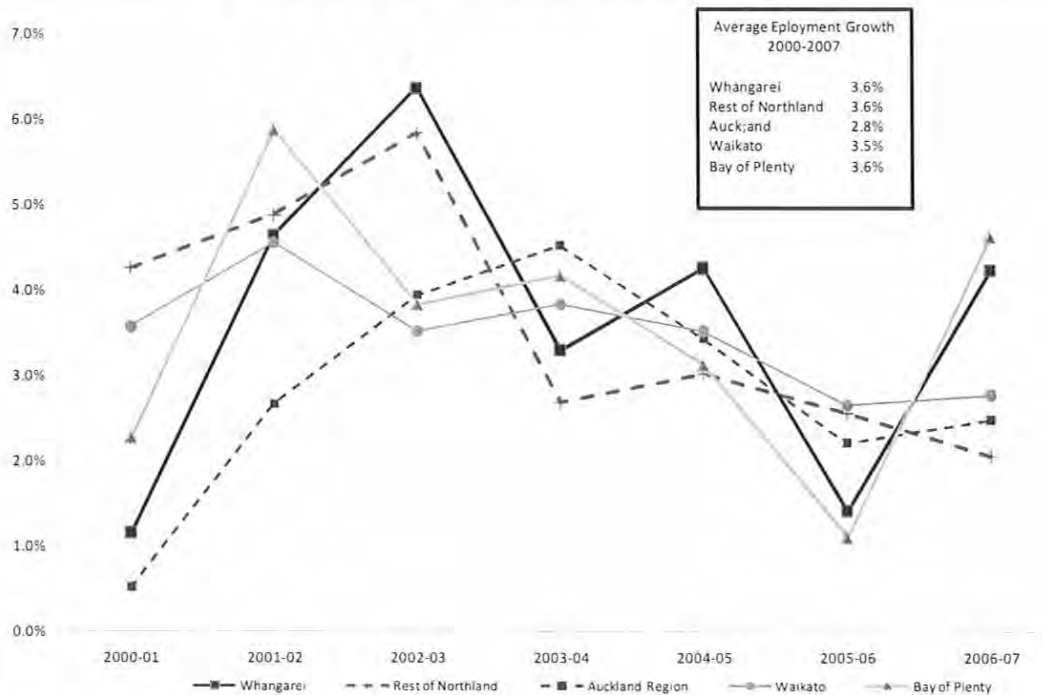
There is a tendency for employment to decentralise in response to enhanced transport linkages; land availability and competitive prices, labour availability and the cost of employment; the quality and resilience of infrastructure; risk and cost management; and new organisational models. The last-mentioned include the shift to offshore manufacturing and consequently growing reliance on logistics to integrate transport, customizing (e.g., local assembly, finishing or packaging - or all three), inventory management, and distribution. They also include a move to reduced head office organisations and flatter management structures, supported by satellite operations, telecommuting, the use of franchising, and increased outsourcing. These tendencies are boosted by improved information and communications technology. They offer opportunities for New Zealand in an international economic setting and for centres like Whangarei in a national one.

The role of employment growth in population expansion has been considered by analysis of trends from 2000 to 2007. These are based on Business Directory Statistics (Statistics New Zealand Table Builder web site). Annual employment growth in Whangarei and the rest of Northland has been compared with the other northern North Island regions, Auckland, Waikato and Bay of Plenty (Figure 1).

Northland and Bay of Plenty share the highest growth rates, and, together with the Waikato, are growing ahead of Auckland. Whangarei has been one of the more volatile performers in this picture, but with sufficiently strong performance in 2003 and again in 2007 to see it maintain average growth over the period ahead of the Northern North Island regions.

An analysis of sector shifts indicates where Northland and Whangarei's emerging strengths lie. In Table 3 shares of employment in 2000 are compared with shares of growth from 2000 to 2007. In the case of Northland, these shares are compared with the Northern North Island (Northland, Auckland, Waikato and Bay of Plenty). In the case of Whangarei, the comparison is with Northland.

Figure 1: Employment Growth Rates, 2000-2007



Source: Business Directory, Statistics New Zealand

Over the seven years, Northland added 11,970 positions, with Whangarei accounting for 55% of those. The main contributors in Whangarei's have been health, construction, property and business services, retailing and hospitality, and personal services.

Incidentally, Whangarei's employment increased by 5,110 (21%) between 2001 and 2006, during which time the Census population increased by 6,500 (9%). Hence, demand for labour ran well ahead of the supply, reducing unemployment, raising participation and presumably, sustaining strong inward migration.

Sectors in which Northland has grown ahead of the northern North Island as a whole are those in which the share of growth is significantly greater than the share of employment in year 2000. Construction, hospitality retailing, property and business, health services again stand out. It is also significant that Northland recorded a gain in manufacturing while the rest northern North Island as a whole recorded a fall.

Whangarei's growth has been ahead of Northland with respect to population-related service sectors, including utilities and hospitality, and education, health and recreation. It remains dominant in wholesaling, transport and storage, financial services, and government services.

Table 3 Employment Change by Sector, Northland and Whangarei 2000-2007

	Northland					Whangarei				
	Employment 2000		Growth 2000-2007			Employment 2000		Growth 2000-07		
	No.	Share NNI	No.	%	% NNI	No.	% Nthlnd	No.	%	% Nthlnd
AG, Forestry, Fishing	4,600	13%	230	5%	8%	1,360	30%	40	3%	17%
Mining	195	13%	15	8%	1%	55	28%	-5	-9%	NA
Manufacturing	5,720	4%	660	12%	NA	3,480	61%	340	10%	52%
Utilities	380	12%	70	18%	1%	230	61%	60	26%	86%
Construction	2,200	6%	1,880	85%	12%	1,340	61%	1,170	87%	62%
Wholesale	1,640	37%	450	27%	3%	1,170	71%	270	23%	60%
Retailing	6,350	6%	1,600	25%	8%	3,580	56%	870	24%	54%
Hospitality	2,780	6%	1,350	49%	11%	1,090	39%	580	53%	43%
Transport &Store	1,470	4%	300	20%	4%	910	62%	150	16%	50%
Communications	510	3%	-275	-54%	7%	420	82%	-310	-74%	NA
Finance etc	685	3%	215	31%	3%	490	72%	130	27%	60%
Prop & Business	2,920	3%	1,660	57%	4%	1,930	66%	960	50%	58%
Government	1,160	6%	380	33%	3%	790	68%	180	23%	47%
Education	4,590	7%	380	8%	2%	2,050	45%	340	17%	89%
Health etc	5,170	7%	1,940	38%	12%	3,270	63%	1,280	39%	66%
Recreation	945	5%	225	24%	2%	470	50%	140	30%	62%
Personal Services	1,305	5.	905	69%	5%	830	64%	400	48%	44%
TOTAL	42,620	6%	11,970	28%	9%	23,460	55%	6,600	28%	55%

Source: Business Directory, Statistics New Zealand

In conclusion, there is evidence of strong employment growth across the board in Northland, with Whangarei benefiting both as the main service centre for the region and as a result of the concentration of population. While the numbers may be smaller than in Auckland, the relative magnitude of this growth is such that its continuation will both rely on and create opportunities for inward migration.

HOUSING OPPORTUNITIES:

Affordability is growing issue in the New Zealand housing market, which could well lie behind, or at least reinforce, the growing net losses of population from Auckland to other parts of New Zealand.

A prime ministerial task force looking into affordability in 2007 could not pin the affordability problem to any one cause, but concluded that:

“Lower costs of sections and construction are the most likely way of achieving a long-term reduction in housing costs. A focus on streamlining regulatory systems, especially around the Resource Management Act and building consents processes may help. Increasing the amount of land available for housing would also help, either in the form of intensive housing developments or new

settlements built using sustainable methods and located outside cities" (Department of the Prime Minister and Cabinet, 2008, 5; emphasis added).

Provided there are associated incomes opportunities, the availability of affordable housing will play an important role in stimulating population growth in an area.

The recent contraction in credit has seen house prices fall. This could reduce the severity of the affordability issue. However, higher interest rates and more prudent lending mean affordability at the lower end of the market is unlikely to increase for some time. In any case, distressed sales by over-committed households are unlikely to find a ready market among those who cannot currently afford to enter the market. This is especially the case if metropolitan markets suffer supply shortages or distortions.

The latter occur when the stock of available housing does not match the nature of demand. The shift to apartment construction in Auckland, for example, may be sustained by the emergence of a transient, youthful migrant population, at one end of the market, and empty nesters either downsizing or looking for a second home, at the other. However, young couples looking to become established in their careers, young families and families with older children require different forms and functions of housing which may not be so readily met in Auckland in the future.

Whangarei's current position in the housing market can be considered with reference to sales and construction statistics.

The most recent figures from Quotable Value New Zealand (covering the six months to December 2007) indicate that house prices are 87% of the national average, flats 74%, and section prices more or less the same (Table 4). More to the point is the even greater price advantage compared with the urban areas and especially with Auckland Region where house prices are 42% above the national average and sections 51%.

Table 4 Residential Prices, December 2007

	Average Price (\$)			% New Zealand Average		
	Houses	Flats	Sections	Houses	Flats	Sections
Whangarei	359,886	243,570	204,387	87%	74%	99%
Rest of Northland	340,763	365,307	188,655	83%	112%	91%
Auckland	584,157	370,979	313,460	142%	113%	151%
North Island	445,917	340,282	224,984	108%	104%	108%
Main Urban Areas	466,953	341,295	235,954	113%	104%	114%
Rest of New Zealand	323,368	266,055	190,341	78%	81%	92%
New Zealand	412,019	327,509	207,387	100%	100%	100%

Source: Quotable Value New Zealand

Other comparisons might be made. Within the Auckland Region, for example, Rodney District probably offers lifestyle options most like those available in and around Whangarei. Here, house prices were 38% above the national average and section prices 71% higher; or 74% higher than in Whangarei. Houses in Thames-

Coromandel were 9% above the national average, with sections 74% higher (and 77% higher than in Whangarei).

Building consents issued have been used as an indication of the buoyancy of the new home sector. In the present case, consents issued for new dwellings between the year ending March 2005 and year ending March 2008 have been summed and expressed as a share of the total occupied dwellings identified in the 2006 Census. While the new consents will include second or unoccupied dwellings, the measure is a reasonable indicator of relative growth (Table 5). It indicates that Northland and the Waikato lead the rest of the North Island in the rate of new construction relative to existing stock, with Northland led, in turn, by Whangarei District. (The rate for Northland as a whole is 9.8%).

Table 5 New Dwelling Building Consents Issued, Ye March 2005-2008

	Consents	Growth
Whangarei	2,860	10.2%
Rest of Northland	2,637	9.5%
Auckland	31,958	7.3%
Waikato	13,673	9.7%
Bay of Plenty	8,136	8.4%
Northern North Island	59,264	8.1%
Rest of North Island	19,036	5.2%
South Island	30,024	7.9%
New Zealand	108,332	7.3%

Source: Statistics New Zealand

Hence, Whangarei has seen around 750 residential consents issued per year. If 85% of these consents were taken up this suggests an annual population gain of 1,590 per year at an average household occupancy of 2.5 people. This is well up on the 1,270 a year between the 2001 and 2006 (Table 1) and ahead of the projected annual growth rates in the high projections from 2006 to 2016 by SNZ (1,090 per year). It is more or less in line with the WDC projection through to 2016 (1,530 per year, Table 2). The figures confirm a buoyant housing market and sustained population growth

Inspection of figures for the rest of New Zealand indicates that Whangarei lies 11th among all cities and districts, behind Queenstown-Lakes, Selwyn, Waimakariri and Marlborough in the South Island, and Thames-Coromandel, Tauranga, Franklin, Rodney, Taupo and Waipa in the North Island. It is immediately ahead of Western Bay of Plenty, Hamilton, the Far North and central Otago. The implication is growth in new dwelling activity is strongest in relative terms among lifestyle localities, with Whangarei featuring among them.

RESIDENTIAL DEMAND

This section considers the impact of the long term population outlook on housing demand. The WDC Growth model projects household numbers, and thereby the expected increase in occupied dwellings, by applying an assumed average household size of 2.4 persons to population projections beyond 2011. This method projects a

high of 48,000 households in 2041 (19,900 more than in 2006) and a low of 39,500 (11,500 more).

The equivalent figures for 2031 are a high projection of 44,000 (up 16,000 households, or 640 a year) and a low of 37,000 (up 9,000 or 360 a year). These can be compared with household numbers projected off the Statistics New Zealand December 2007 subnational population projections. Because SNZ has not yet prepared its household projections, these have been estimated here using assumed occupancy by age band, so that the impacts of population ageing can be projected onto future household numbers.

This method gives rise to 14,700 additional households in Whangarei by 2031 (590 per year) at an average size of 2.37 persons per household under the high projection, and 11,100 (220 per year) at 2.3 persons under the medium. The smaller increment under the high projection compared with the WDC high projection reflects the more conservative nature of the SNZ projections compared with the model.

The lower household size relative to the WDC projections reflects the influence of population ageing allowed for here. The lower household size under the SNZ-based medium compared with the SNZ-based high projection reflects the effect of reduced migration. Migration gains tend to favour younger people and thereby increase average household size. Consequently, the reduction in population between the high and medium projections will not give rise to a directly proportional reduction in the number of new dwellings required as population ageing will be more pronounced in the lower total. As a result, households will be smaller on average, and therefore the number of dwellings required to house the population will increase. This explains the relatively higher increase anticipated in the SNZ-based medium projection compared with the WDC Growth Model.

These projected housing demand figures can be compared with recent history. Census data indicates growth of occupied dwellings at around 315 a year between 1996 and 2001, jumping to 500 a year between 2001 and 2006. If maintained at that level, the high Statistics New Zealand may be a reasonable projection on which to base planning. However, as the analysis of drivers and of the housing market indicates, there is considerable growth impetus developing. Consequently, the WDC Growth model high projection may be the most appropriate basis for thinking about the future impact of population and its housing requirements in and around Whangarei.

The reality is that there is considerable uncertainty. One of the keys to this will be the relative growth and performance of the Auckland market, which feeds the growth in lifestyle areas through a net loss of population to the rest of New Zealand, and itself depends on international migration to sustain relatively high growth rates.³

Analysis of the Statistics New Zealand medium, population projection for Auckland Region suggests that with moderate migration gains, there will be an expansion of around 269,000 households between 2006 and 2031, or close to 10,800 per year. The

³ This dynamic is explored in some detail in McDermott P (2008) *Margins Matter: Revising New Zealand's Population Map*, Discussion Paper, Institute of Public Policy, Auckland University of Technology

share of this population that might relocate to Whangarei District will have a major impact on future housing need. At the same time, reconciliation of the 2001 and 2006 census figures indicated an even larger net gain to the District from overseas, for an estimated 3,750 persons compared with around 1,600 from Auckland.

The actual outcome will depend, in large part, on how far the District maintains employment growth, accessible and affordable housing, and retains a quality of the living environment.

3 TRIGGERS FOR GROWTH

Population and employment prospects for Whangarei District appear buoyant. The MRSP will potentially play a large part in catering for this growth by providing capacity for housing, industry, business, community and recreational facilities.

However, the report has not tried to predict a particular growth path or trajectory that might be interpreted as a timetable for development. Rather, it presents information about prospects for decisions that might shape future development.

Too great a reliance on quantifying particular outcomes and specific timeframes for growth is likely to be misleading in terms of the certainty with which we can plan. Circumstances change, outcomes vary, and the unexpected happens. Flexibility and resilience rather than rigidity may be better for dealing with uncertainty than precise rules or timetables set in concrete.

Giving too much weight to the timing of projected growth also ignores the possibility of influencing actual outcomes, for better or worse, through the planning and development decisions made. For example, in the case of Marsden Point-Ruakaka, decisions around the capacity for wastewater treatment and disposal will determine short to medium term growth.

There are circumstances which could conceivably accelerate growth and justify bringing forward elements of the structure plan. Equally, there may be circumstances that forestall or delay growth. The need, then, is for a plan that provides for flexibility. Rather than predict and prescribe, the approach here has focused on potential, based on broad regional and district growth prospects on the one hand, and local capacity to accommodate housing and employment, on the other. This section considers the circumstances under which we might expect this potential to be realised and capacity to be taken up.

SPILL-OVER FROM AUCKLAND

A key driver for growth in Marsden Point-Ruakaka is potential spill over from Auckland. The Auckland Regional Growth Strategy encourages urban consolidation and housing intensification and policies that limit suburban expansion beyond the Metropolitan Urban Limit. A recent (2007) review of the Regional Growth Strategy raised some issues around the housing capacity under the current strategy:

- Under current District Plans, capacity will be exhausted around 2022 (16 years of growth)
- Under District Plan capacity plus remaining Sector Agreement Capacity, capacity will be exhausted around 2032 (26 years of growth) – this does not include capacity planned to be introduced after 2021
- Capacity from traditional sources, i.e. vacant land and infill, is continuing to decline
- Under current policy (District Plan) approximately one third of residential capacity is vacant land, one quarter of capacity is by way of infill (including some redevelopment potential)
- A large proportion of existing capacity is in commercial zones e.g. CBD, CBD fringe, sub-regional centres, town centres

- Current infill development within residential zoned parts of growth centres may compromise the capacity for higher densities in the future

(Page 7)

Estimates of years of capacity reflect assumptions about the ease of absorption of land that is becoming increasingly constrained. For example, just one third of the available land is actual vacant (existing or planned subdivisions and sections) while a large share is in located in non-residential (business) zones. The review also indicates increasing resistance to infill. Consequently, opportunities for new detached housing are severely constrained, with just five or six years capacity. This means that issues of poor housing affordability are increasingly overlaid by limited choice.

The notion that there is currently 15 years growth capacity simplifies the reality of market operations in a diverse community where many housing preference will still lean towards detached housing and housing outside town centres. As a result of these structural and behavioural matters, a failure to establish substantial new residential capacity within the next ten years is likely to see a growing exodus of people from the housing market who cannot meet their needs or satisfy their preferences in Auckland.

The relief of these constraints depends in large part on implementing sector agreements for new capacity and extending Metropolitan Urban Limits accordingly, a process that recent planning hearings and decisions suggest will take some time. The housing alternatives in Auckland tend to focus on relatively high value and high cost sites for intensification, often in the face of community resistance, or on commercial land. Under circumstances of undersupply, these options may have little impact on affordability. At best they will cater for limited market segments: small households, households with limited incomes (including state house tenants), students, households in transition (including migrants), and the like.

If the Auckland housing market continues to be constrained one result is likely to be strong growth into Whangarei District, among other destinations, especially if the housing and work choices are available there. The implementation of the MPRSP would ensure both the capacity and the choices to cater for some of this demand.

AN ACCELERATING SEA CHANGE MOVEMENT

The movement from cities to lifestyle environments has gained considerable momentum internationally, fed in part by the coincidence of several decades of prosperity and the movement into retirement of baby boomers. These trends have been complemented recently by a behavioural shift which favours restoring a greater balance between work and leisure time, something which can be achieved more readily outside major cities.

To date, this movement has been relatively restrained in New Zealand, most evident on the fringes of the cities and in the Tauranga/Western Bay of Plenty sub-region and, more recently, in the growth of lifestyle localities in the South Island. Enhanced communications, more flexible working conditions, and the development of erstwhile “urban” consumer services in smaller towns and cities (by way of entertainment and hospitality options and community services, for example) mean that this movement could well accelerate.

The projections of household growth in Auckland Region (above) suggest that the majority of expansion in numbers (perhaps 80% through to 2031) will be in households with residents predominantly over 40 years of age. These are the empty nester, pre-retirement and retirement cohorts. They comprise people in life-stages which are traditionally associated with increased financial security, trading down housing, and increased residential mobility.

Equally, the proliferation of satellite tertiary institutions and new web-based methods of learning and entertainment may reduce the capacity of large cities to attract people away from smaller centres. Add to this the prospect that peak oil conditions will reduce mobility and accessibility, while intensification of residential activity will increase congestion in large urban areas, and the appeal of living in smaller cities and towns, with shorter distances to most services and amenities, may be boosted.

The prospect is for a well designed community at Marsden Point Ruakaka to cater for a lift in sea change. In this case, the key may be sufficient early development to support the full range of facilities and services expected by people from urban areas without sacrificing the ambience and convenience of small city settlement.

Another key for Marsden Point-Ruakaka in particular will be the development of marine leisure facilities and ease of access to the maritime environment, catering directly for the lifestyle motivation of an increasing number of households. Hence, as amenities and services are introduced, growth is likely to accelerate as Marsden Point-Ruakaka becomes seen increasingly as a desirable place to live and play.

Acceleration of the sea change movement in New Zealand, then, is likely to be an important trigger to rapid growth. At the same time, reliance for this on the relocation of people currently resident in Auckland assumes that the housing market there remains sufficiently buoyant that people can effect the change. This, in turn, relies on Auckland continuing to experience significant net gains from international migration.

A REGIONAL CENTRE FOR BREAM BAY

The sea change movement is evident in pressure for coastal settlement elsewhere in Bream Bay. To some extent, existing subdivision rules and opportunities have seen this take the form of rural and coastal sprawl, with lifestyle housing scattered along the coast and hinterland from Ruakaka through to Pakiri. Such development is particularly concentrated between Waipu Cove and Mangawhai. Only in and around Mangawhai is this taking the form of a consolidated township, although there are limits to the size that Mangawhai might achieve.

Marsden Point-Ruakaka could easily act as a more acceptable lifestyle alternative, as comprehensively designed form, managing and containing any impacts. At the same time Marsden Point-Ruakaka would act as the commercial and service centre for this distinctive sub-region of scattered settlement. It would attract higher order shopping and personal service trips, and provide a more accessible commuting destination than Whangarei urban area.

INDUSTRIAL DEVELOPMENT

Another potential driver of growth is the severe shortage of industrial land in Auckland. The Regional Growth Strategy favours intensification to extend the

currently limited supply of vacant land available for industry. Currently, there appears to be less than 10 years supply in Auckland at historical rates of uptake. Current provision for greenfield sites will add about four years supply if the currently estimated pool can all be brought to market.

However, the issue is not simply one of matching supply and demand figures. It is more important to understand the impact of a highly constrained land market on investment. One effect is to force businesses to invest outside Auckland. This has, for example, boosted growth in manufacturing, transport and storage in Hamilton over the past decade. It could also precipitate substantial investment in and around Marsden Point.

Marsden Point has several advantages over alternative destinations for industrial investment. The coastal environment is already developed through the Port and the Oil Refinery and the presence of extensive occupied and unoccupied industrial sites. It has significant related employment, and substantial land capacity for development. It therefore can expand basic industrial employment and population hand in hand.

Macro-economic conditions that might precipitate development here include a fall in the value of the New Zealand dollar that encourages further value added processing of resource based products, prior to export. The local conditions likely to trigger this are confidence among investors that there will be a growing pool of local labour and an efficient and effective distribution system to Auckland and beyond.

The requirement for an expanding labour pool suggests that preliminary settlement could trigger the confidence required to lift manufacturing and related investment. The requirement for effective distribution is partially met by improvements in State Highway 1 as a key distributor between Auckland and Whangarei, and in the quality of the local road network. Planned investment in the newly nationalised rail system should also provide a significant boost in connectivity.

In summary, the continuing constraints on Auckland's business and especially industrial land market coupled with a return to conditions favouring processing and manufacturing and similar activity within New Zealand could see a surge in investment and employment in Marsden Point Ruakaka.

PORT DEVELOPMENT

Expansion of activities associated with Northland Port could be a development catalyst in its own right. This is a reasonable possibility if the planned railway extension from Oakleigh to Marsden Point and Main Trunk line improvements through to Auckland are made. A further fillip would result from rationalisation of international shipping, which could favour Marsden Point with its deep water capacity for larger vessels. This could come about, for example, through rationalisation of northern North Island port capacity (including Auckland and Tauranga), and especially with improved railway linkages with Auckland or a possible long-term return to coastal transport. Such possibilities would see an increase in storage, handling, and distribution functions in the area.

4 CATERING FOR GROWTH IN THE MARSDEN POINT- RUAKAKA STRUCTURE PLAN

The preparation of a long-term structure plan for Marsden Point Ruakaka provides an opportunity to ensure that the underlying infrastructure, land use arrangements, and amenities of this area bounded by ocean and harbour coastlines is retained in the face of potential long-term growth pressures.

The area is already committed to a future of heavy industry and transport by the long-standing presence of the port and the oil refinery as well as several other heavy industrial sites. There is an existing base population, and associated facilities and amenities. The availability of extensive developable land will facilitate commercial investment as well as a range of housing opportunities and options.

The first challenge facing structure planning is determining long-term land use allocation, distinguishing initially between residential and non-residential uses.

Within these two categories there are a range of use opportunities. Residential development may take the form of extensive lifestyle developments, traditional detached housing, semi-detached and terrace housing, apartments and various forms of residential institution. Residential areas require capacity to cater for schools, local shops, and some personal and professional services, including health facilities.

In a fuel-constrained future, a greater mix of non-residential uses might desirably exist among dwellings, enhancing the capacity to meet more household needs within an easy walk from home. In addition, an increasing level of home-based employment will provide variety and activity within areas which might formerly have been expected to act simply as dormitories for a commuting population.

Equally, structural changes within business add to the diversity of demands on employment land. Large sites and building footprints are not simply the preserve of heavy industry and processing. In a trading environment where manufacturing and fabrication are moving offshore, large footprint logistics operations require extensive sites, ideally in close proximity to sea (or air) ports and arterial land transport routes.

Smaller specialist industrial suppliers, business service premises, and light industrial activities serving local household demand may be found interspersed with larger operations. Diversity of uses adds to the strength of business land, both for the opportunities it offers for transactions among occupants and for the greater resilience associated with more diverse activity. This should reduce susceptibility to cyclical fluctuation in fortunes and to structural change that might otherwise affect a large share of local investment.

The balance of this section outlines the parameters used to estimate the indicative land use mix of the structure plan.

RESIDENTIAL LAND PROVISION

The plan assumes 14 units per gross hectare medium density and 28 units high density. This suggests capacity of around 14,300 households in total. This capacity would absorb most of the growth projected in the WDC high projection to 2031. The first implication is that full development at Marsden Point-Ruakaka will take more than the 25 year horizon underlying that projection. The second is that the scale of development envisaged is not unrealistic in the long term, and it could still be brought accelerated by one or more of the triggers discussed in Section 3, above.

A relatively high level of household occupancy can be expected at Marsden Point-Ruakaka based on employment opportunities and housing choice and affordability acting as important drivers of growth. Assuming a high share of families or relatively young households average long run occupancy of 2.5 persons can be assumed. This would see an estimated resident population of around 35,700 at full development.

Section 2 indicated a long-term tendency for household size to fall, particularly if migration falls significantly. In this event, the Marsden Point-Ruakaka area might take longer to reach capacity, at which time household sizes could be expected to have contracted further. Assuming average household occupancy of just 2.25, for example, would reduce our expectations for capacity population to 32,250.

(Second or holiday homes are assumed to continue to be established as a feature of the mid-North and Bream Bay, but not as a significant feature of the planned development of Marsden Point-Ruakaka. This will be more urban in form and urbanised in nature and so less appealing to second home buyers).

The plausibility of large scale development is confirmed by growth at Papamoa. Here there has been rapid growth in an environment similar to Marsden Point-Ruakaka (although Papamoa is a contiguous part of urban Tauranga). Between 1991 and 2006 Papamoa gained 11,000 people. Similar growth is evident elsewhere near the coast, albeit in smaller scale settlements. Mangawhai's population grew by 24% between 2001 and 2006 for example (30% in Mangawhai Village).

LABOUR SUPPLY

The labour force – people available for work – is a function of the age structure of the population and a capacity to work. A relatively large share of children (as has been the case in the past) or a large share of elderly people (as will be the case in the future) will reduce the share of the population available for work. This increases the number of “dependents”, people who on account of their age are unlikely to be in formal employment. The capacity and willingness to participate in the labour force may be determined by a number of matters. Physical incapacity, family duties, and lack of motivation can reduce participation. Lack of jobs or of jobs for which people in a particular catchment have the skills or experience also suppress participation.

The long-run tendency generally built into labour force projections is for participation to decline as populations age. For present purposes, we have adopted the assumptions about future participation used by SNZ in the national labour force projections for 2031. The result is potential for a resident labour force of between 15,000 and 17,400 based on the structure plan land use allocation and occupancy assumptions (Table 6).

Table 6 Potential Labour Force Projections

	Participation Rate	High	Low
Average Household Size		2.50	2.25
Population at Capacity		35,730	32,150
Labour Force High	48.6%	17,360	15,620
Labour Force Medium	46.9%	16,763	15,080

EMPLOYMENT DENSITY GUIDELINES

While plans traditionally discriminate between different intensities of activity, with zones distinguishing heavy, medium and light industry, offices, and retailing, there has been a recent tendency to favour broader divisions. While noxious, noisy or very large scale industries tend to continue to be “quarantined” by zoning, at the other end of the scale, mixed business precincts afford flexibility, and may include housing, in some cases in the form of flats above workshops, offices and small factory units.

Therefore density guidelines for business land should be treated as indicative only, especially for long-term structure planning. While they may inform broad planning needs, employment densities do not form a reliable basis for detailed zoning.

This can be illustrated using recently published data on industrial densities among established Auckland areas (Table 7). The more extensive areas are likely to be most relevant to Marsden Point-Ruakaka, although densities even among them vary widely, from 116 employees/hectare in Wiri through to 50 employees/hectare in the much more diversely used Carbine Rd. Taharoto Rd stands out with its large share of office activities and, quite possibly, inclusion of the North Shore hospital.

Table 7 Examples of Industrial Employment Densities

Large Area	TOTAL FTEs	Area (Ha)		FTE/Ha	
		Zoned	Vacant	Occupied	Zoned
Carbine RD	8,840	177	5	51	50
East Tamaki	9,849	436	186	39	23
Rosebank	6,175	156	22	46	40
Southdown	9,183	206	17	49	45
Te Papapa	6,436	204	13	34	32
Wiri	8,500	535	105	20	16
Glendene	459	30	2	16	15
Mangere East	519	34	10	22	15
Naval Base	260	8		33	33
Onewa Rd	229	7	0	33	33
Otara North	1473	101	9	16	15
Ports	588	37	7	20	16
Red Hill	2365	131	21	22	18
Taharoto Rd	1686	15	0	112	112
Vincent St	534	7	0	76	76
Wairau Valley	3478	71	2	50	49
Chelsea	149	13	0	11	11
Helensville	71	26	0	3	3
McLeod rd	185	22	4	10	8
Warkworth	208	23	0	9	9
Wolverton St	688	14	0	49	49

Source: Market Economics (May 2007) *Group One Additional Greenfield Land Requirements, 2001-2031, for ARC*

For present purposes, the assessment of future employment land needs and the employment capacity of land allocated to employment uses is based on a set of representative coefficients of employees per gross hectare derived from a review undertaken for SmartGrowth Bay of Plenty.⁴ These figures were, in turn, derived from a survey of New Zealand and overseas studies and conventions. The breadth of the resulting ranges from high to low confirms the caveat that these densities should not be treated as prescriptive (Table 8).

Table 8 Employee/Gross Hectare – Representative Coefficients

Style of Activity	Employees/Ha – Gross Land Area		
	High	Low	Mid-Point
Industry	40	20	30
Warehousing	40	20	30
Office	210	60	135
Retail	180	90	135

Source: Phil McDermott Consultants Ltd (2006) *Review of Business Land Requirements Report to SmartGrowth Bay of Plenty*

BUSINESS LAND PROVISION

Information on densities, together with assessment of site suitability, layout and design options, was used to help develop a land use allocation that would broadly balance future business development potential and the likely employment needs of the resident population.

Given the variability of employment densities, the starting point for such an exercise, if there is no additional information, is to adopt the mid-point of the range of employment densities (Table 8). The more we know about the likely character of future investment, the more we might depart from this starting point and the more refined our estimates can be.

An argument can be made to work at the lower levels of the ranges because Marsden Point offers an opportunity to provide large footprint industrial land, redressing a deficiency evident in Auckland Region⁵ On these grounds, the following assumptions for Marsden Point-Ruakaka (Table 2) are proposed:

- (1) Retailing will be relatively low density for the foreseeable future. This could reflect a combination of low impact design principles, the presence of big box style retailing, and a relatively high dependence on car-based trips (reflecting in turn a sub-regional role). In this environment, ground floor retailing and personal services are likely to dominate, with first floor professional offices and the like, above.

⁴ Review of Business Land Requirements (2006) for SmartGrowth Bay of Plenty, Phil McDermott Consultants

⁵ Market Economics (May 2007) *Group One Additional Greenfield Land Requirements, 2001-2031*, for ARC

- (2) Industrial activity will be divided between established heavy industry with very low employment densities, currently associated with the refinery (10 employees per hectare); intermediate density warehousing and manufacturing including, for example, sawmilling and timber processing (20 employees per hectare, at the lower end of the SmartGrowth guidelines, Table 7); and higher density, light manufacturing and associated service activities (30 employees per hectare, the mid-point of the SmartGrowth guidelines).

The implication of these assumptions is that Marsden Point-Ruakaka will continue to be a centre of low-density activity. This is consistent with the opportunity to establish space demanding businesses in a greenfield environment, where efficient movement patterns and connections can be established at the outset. It also reflects the character of most existing employment in the area, which tends to be very low density in nature. Indeed, the extent of heavy industrial land, the level of existing activity, and the expectation that this will increase in the future dominates the projected employment pattern, as illustrated in the low scenario, Table 9.

Under this scenario, the baseline density assumptions associated with retailing and light industry appear low. In particular, if the retail and commercial centre fulfils a regional function, it is likely to attract a significant share of office as well as retail activity into an area treated for current purposes as a single category ("Retail"). Apart from anything else, significant commercial activity will be required to serve the development process itself, to meet the ongoing needs of local households, and to provide technical, trades, and supply services to local business.

With more commercial activity, including office and retail space, densities will be higher. To illustrate this we assume a density of 100 persons per hectare under the high scenario (Table 9). Another potential source of growth is investment associated with a decentralised and entrepreneurial "lifestyle" labour force, which will require smaller, flexible premises. More generally, there could be more light industry, so that the employment density estimate for this activity is set at 40 employees per hectare. The result of these two adjustments is a significant increase in employment capacity.

Table 9 Employment Capacity at Full Development

	Area	EU/Gross Ha		Employment Capacity	
		Low	High	Low	High
Retail, Commercial	46	50	100	2,280	4,560
Light Industry	102	30	40	3,060	4,080
Medium Industry	98	20	20	1,960	1,960
Heavy Industry	629	10	10	6,290	6,290
Average/Total	874	16	19	13,590	16,890

5 CONCLUSION:

The estimates provided here are supply-based, reflecting land suitability aligned to be consistent with significant population growth and industrial expansion prospects.

Marsden Point-Ruakaka has substantial employment capacity that can accommodate a wide range of activity, including building and trades, logistics, storage and distribution; manufacturing, and primary product processing. At full development, such activities could collectively provide between 13,600 and 16,900 jobs. This corresponds broadly with the estimates of potential labour force at full development, between 15,100 and 17,400 people.

Within the bounds of the uncertainty that faces long term projections, the reviewed MPRSP will deliver a combination of residential and employment capacities that facilitate a high degree of employment self sufficiency. Potentially, development will provide access to affordable housing in a high amenity environment together with the opportunity to work locally, with minimal commuting requirements.

The nature of business and vocational specialisation and diverse residential preferences are such that a small amount of commuting between Whangarei and the proposed development and from smaller centres in the hinterland is inevitable. The critical conclusion, however, is that the structure plan provides the capacity for a sustainable balance to be struck between business and residential land uses and for future residents to make choices which enable the wider community to achieve this.

This prospect of sustainable urban development is offered in what has been demonstrated to be a long-term high growth setting. The analysis outlined in this report also suggests the conditions likely to encourage or accelerate development in the area. These include:

- Good connectivity internally and with Whangarei and with Auckland;
- Adequate availability of competitively priced, well serviced large footprint industrial sites, together with land suitable for diverse light industrial and commercial uses;
- Development of a centre for retail and personal services generally, which will help enhance the sub-regional role;
- A diversity of housing styles, including detached homes to meet the needs of a segment likely to be under-catered for or priced out of the market in Auckland;
- Quality public and community facilities and amenities for social and recreational purposes that reinforce the lifestyle advantages of the locality; and
- Design, infrastructure and amenity standards that provide the full range of “urban opportunities” in a provincial setting.

One aim of the Marsden Point-Ruakaka Structure Plan is to provide a framework within which these conditions can be met and growth opportunities maximised.