Mildura Rural City Council

Review of the Mildura & Irymple Residential Land Strategies

NOVEMBER 2003

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Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
A	26/09/03	Draft Report	Lester Trickey Project Manager	Original signed
B	5/11/03	Final Report	Lester Trickey Project Manager	Original signed
C	18/11/03	Final Report	Lester Trickey Project Manager	

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Executive Summary

Executive Summary

The aim of this study is to review the existing residential strategies for the townships of Mildura and Irymple as articulated in the Local Planning Policy Framework to determine if and what modifications are required to provide for the residential needs of the townships to the year 2030.

The key elements of the process undertaken include:

- A residential demand forecast analysing residential subdivision and housing development trends together with population projections.
- An analysis of existing residential land supply through an audit of existing Residential 1 zoned land.
- Determining future land requirements based on those projections.
- Identifying opportunities and constraints with respect to the residential land use in the study area.
- Developing short, medium and long term strategies to ensure a sufficient supply of land to satisfy the projected demand for residential land to 2030.

The key findings from the demand/supply analysis were:

- The baseline resident population estimate for the Rural City of Mildura of 51,320 was adopted for the Residential framework.
- The population of the Municipality at 2030 will be between 65,800 (conservative estimate) and 86,000 people (ambitious estimate). The ambitious projection has been adopted for the residential framework (average annual growth rate of 1.9%).
- Up to 496 new dwellings must be constructed annually in the study area to achieve the ambitious projection.
- There is approximately 362 hectares of vacant Residential 1 Zoned land in the study area currently available to accommodate future residential demand representing a notional land supply of between 10 – 15 years at ambitious development rates.
- Approximately 85 percent of the new housing construction is anticipated within the study area.
- An additional 395 hectares of land needs to be identified to accommodate an additional 11,800 residential lots in the study area.

The further development of existing Residential 1 zoned land is currently severely constrained by the deficiency of reticulated infrastructure for drainage in particular. It is estimated that only 30 hectares of Residential 1 land is currently available for subdivision that is able to serviced by existing stormwater infrastructure (1 year notional supply). An additional 100 hectares of existing Residential 1 land will become available in mid 2004 following the completion of Stage 1 the Sixteenth Street drainage works. That will provide a further 4 year notional supply.

Unless additional Residential 1 rezonings were to occur in areas that could tap into existing storm water infrastructure at the land developers expense and or capital works for main stormwater infrastructure provision are planned, financed and constructed by Council in the short term, Mildura's residential development growth will continue to be significantly restricted.

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Key Recommendations:

- Encourage infill development of residential areas within township boundaries to facilitate the efficient and effective utilisation of existing reticulated infrastructure.

- Rezone 108 hectares of land to the south of Sixteenth Street adjoining the Stage 1 drainage works and a further 16 hectares of land to the north of Fifteenth Street between Riverside and Ontario Avenues to Residential 1. These areas have the capacity to be connected to existing or currently planned stormwater drainage infrastructure.

- As a matter of priority, two additional residential development fronts should be created in the study area through the construction of reticulated infrastructure. Those proposed include land north of Fifteenth Street between San Mateo and Etiwanda Avenues and all land zoned for Residential in Irymple. Stormwater infrastructure works in these areas should precede Stage 2 development on Sixteenth Street. Should Council commit to the provision of stormwater infrastructure works in the vicinity of Etiwanda Avenue in the short term an additional 32 hectares of land on the east side of Etiwanda Avenue is also recommended for short term rezoning to R1Z.

- All residential rezonings to be conditional on the following:
  - Land owners / developers agreeing to pay Council the proportional costs associated with the connection to, and maintenance of infrastructure works undertaken by and at the cost to Council via a future development contributions levy;
  - Further investigation to confirm that the land areas nominated:
    - are not contaminated;
    - are able to be connected to existing or planned stormwater infrastructure at the land developers cost without requiring augmentation of the capacity of the main drains that will service the potential development areas; and
    - are not currently impacted by the effects of salinity, and that their development for housing at conventional lot densities would not increase the salt loads in the Murray River or other negative environmental outcomes

- Prepare a Development Contribution Plan (DCP) for all existing undeveloped zoned Residential 1 Land in the study area, and for those areas that are proposed to be rezoned within the study area in the short term, in order to provide the mechanism to recover costs associated with future provision of essential infrastructure, social services and facilities. (Note: This should be achieved by extending the scope of the DCP that is currently being prepared for Mildura South). This 2030 Residential Strategy should be used as a key reference document in the preparation of the existing and or extended DCP.

- Identify the need for and location of community facilities in the proposed urban growth areas of Mildura City, Mildura South and Irymple and include these projects in the current DCP structure planning process.

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- Undertake further salinity investigations in order to determine the location and amount of Residential 1 Zoned land that is affected by salinity and what remedial works or actions required to address them (eg development and application of Overlay Controls and the like).

- Council to develop, implement and maintain a robust and accurate integrated subdivision and building register in order to monitor the certification and take up of new residential allotments and dwelling commencements in the study area in order to determine the need for rezoning of land nominated as long term residential.

1 Introduction

1 Introduction

1.1 Background

In August 2003 Mildura Rural City Council (MRCC) commenced its 3 year review of its Local Planning Policy Framework (LPPF). Through consultation with the development community the review process identified, amongst other things, that residential subdivision and housing commencements over the last 3-5 years may have significantly exceeded projections and as a consequence, the residential staging sequence for Mildura and Irymple articulated in the planning scheme may no longer accurately reflect Mildura's short, medium and long term residential development needs.

More specifically, the particular residential development issues identified in the 3 year review process included the following:

- The short, medium and long term residential staging sequence articulated in the planning scheme as reflected in the Town Structure Plans for Mildura, Irymple and Merbein may be out-of-date due to a more rapid than projected subdivision and take-up of residential land in these townships.
- The medium and long term residential development strategies for the Mildura and Irymple townships need to more accurately reflect infrastructure servicing realities (particularly the provision of water, sewer and drainage services). In particular, the Urban Growth Boundary identified on the Mildura Town Structure Plan, particularly in relation to Mildura South, needs to be reviewed in light of new and proposed infrastructure works in the vicinity of Sixteenth Street.
- New strategic land use planning directions may be available for residential development in Mildura in response to the recently completed master plan and the attended planning controls for the Mildura Airport.
- Due to servicing opportunities some areas currently zoned for Low Density Residential Development (such as Flora Avenue) may have conventional residential development futures. In order to justify such rezonings, the short, medium and long term strategic directions for residential development at conventional housing densities needs to be reviewed.
- Issues relating to the inter-urban break between Mildura and Irymple need to be resolved and adequately reflected in the Planning Scheme.

In response to these issues in late August 2003 Council commissioned Maunsell Australia Pty Ltd in association with O'Neil Pollock & Associates Pty Ltd to undertake a comprehensive review of the residential land strategies for the townships of Mildura and Irymple. It is understood that outcomes of the residential land review will inform and be incorporated into the preparation of a whole of scheme amendment to be initiated by Council by end of 2003.

1 Introduction

1.2 Study Aim and Required Project Output

The specified **aim** of the Residential Land Strategy project is as follows:

- To review the existing residential land strategies for the townships of Mildura and Irymple as articulated in the Local Planning Policy Framework, in order determine if, and what, modifications are required to provide for the residential needs of these townships to the year 2030 in a staged and co-ordinated manner.

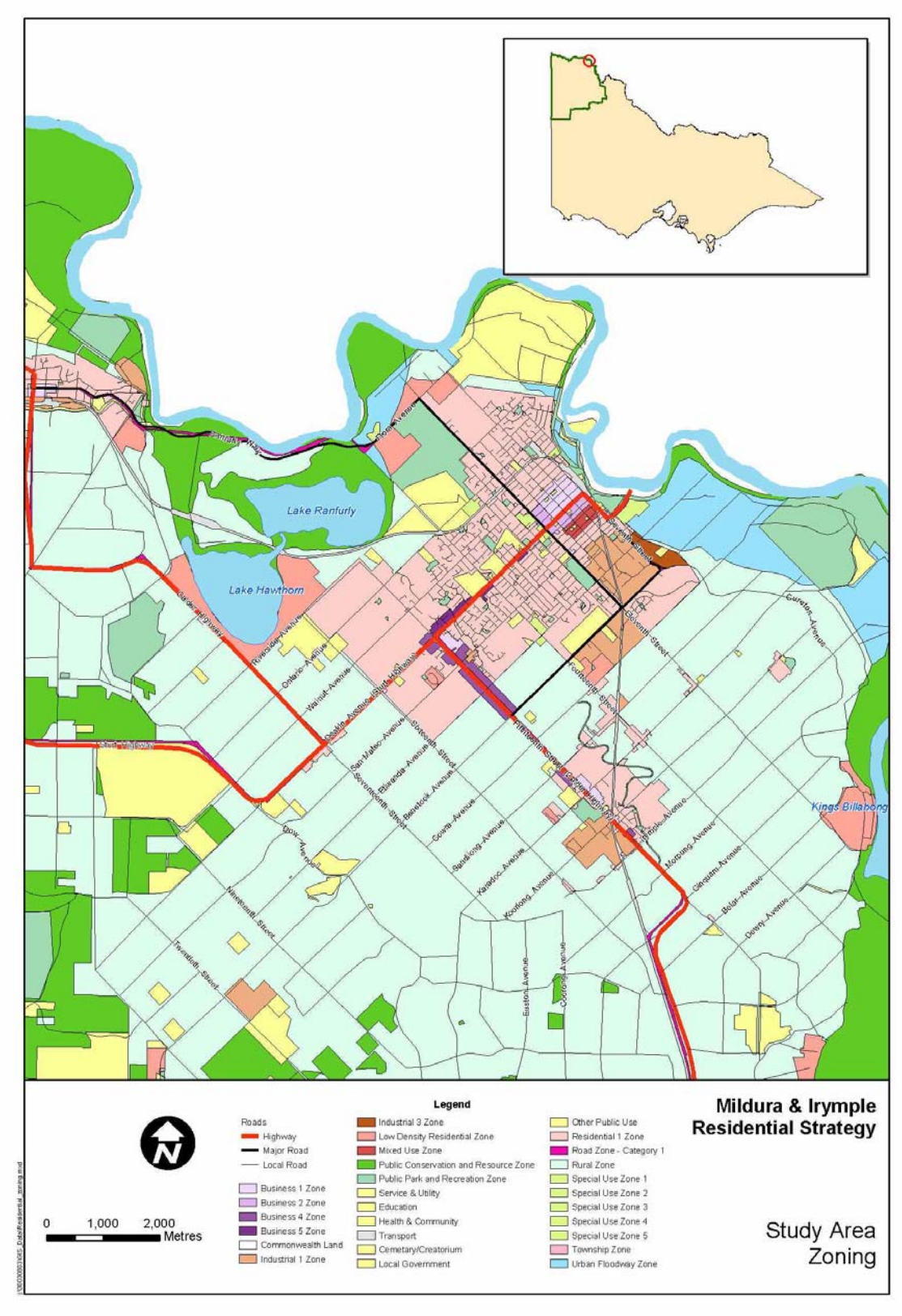
The key **outputs** of the project are to include:

- A report that documents the findings of the residential supply and demand assessment of the townships of Mildura and Irymple which provides the rationale and strategic justification for:
  - Modifications, as required, to the Mildura and Irymple Town Structure Plans (including identification of urban growth boundaries and current and future residential areas and accompanying short, medium and long term land release staging sequence);
  - Modifications, as required, to the LPPF text; and
  - Identification and rationale for rezonings and overlay controls as required.

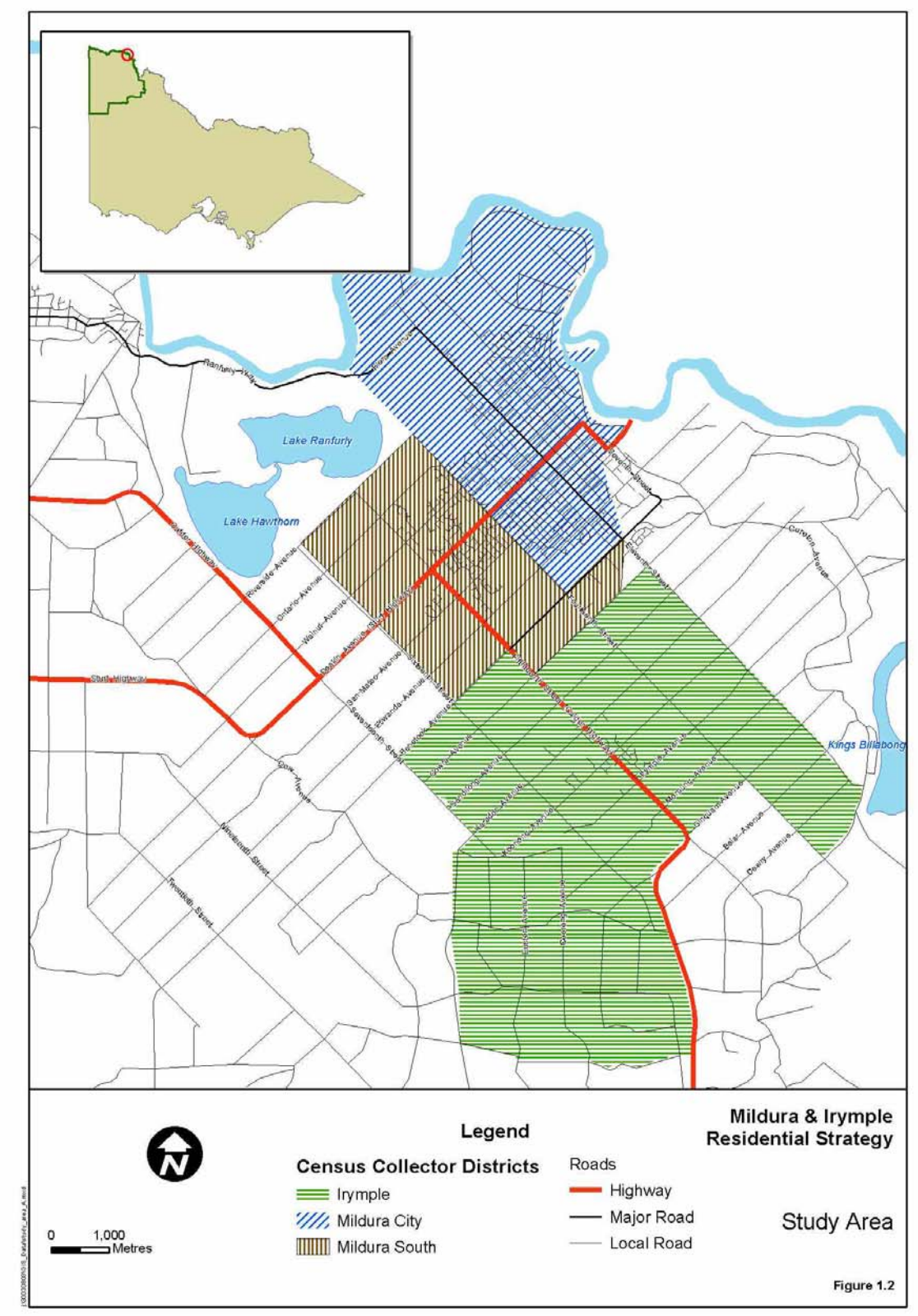
1.3 Study Area

Mildura and Irymple are located within Mildura Rural City Council situated in northwest Victoria close to the boundary with New South Wales (Figure 1.1). The focus of this study is the townships of Mildura (including Mildura City and Mildura South) and Irymple (Figure 1.2).

1 Introduction



1 Introduction



1 Introduction

1.4 Project Methodology / Report Structure

In order to address the objectives of the study the project team has adopted the following project methodology:

2030 Residential Demand Forecast (Refer Section 2)

An analysis of dwelling commencements and residential lot subdivision activity has been undertaken in order to identify past residential development trends. This analysis provides a valuable insight into how residential development demand has been accommodated in the municipality and at what rate.

An analysis of Mildura Rural City Council's population growth from 1991 is then documented and projections made to the year 2031.

The output of the historical dwelling commencement and residential lot subdivision analysis together with the findings of the population analysis have then been utilised to estimate projections of future residential demand for Mildura Rural City and more specifically the number of dwellings required in the townships of Mildura and Irymple to the year 2031.

Analysis of Existing Residential Supply (Refer Section 3)

An audit of land currently zoned Residential 1 within the townships of Mildura and Irymple has been undertaken in order to quantify:

- The area that has been developed, including recently approved subdivisions;
- The amount of land that remains zoned for residential development purposes but is not yet subdivided;
- The notional residential lot yield from land zoned but yet subdivided for conventional residential development;
- The quantum of undeveloped land identified for residential purposes that have identified constraints which will delay such land being subdivided in the short or medium term; and
- The number of lots that realistically can be created on available Residential 1 zoned land that may contribute and satisfy future residential demand needs.

Identification of Additional Residential 1 Land Requirements within the Townships of Mildura and Irymple (Refer Section 4)

Based on the collective output of the previous analysis undertaken, an estimate of the amount of land required to be rezoned for residential development at conventional lot densities (Residential 1 Zone) within the timeframe of the project has been determined.

Identification of Key Strategic Planning Implications for the Residential Strategy and Output of Stakeholder Consultation (Refer Section 5)

This section of the report summarises the key strategic planning issues that must be considered and addressed in preparing the 2030 Residential Strategy for the study area.

1 Introduction

The issues and considerations are grouped under following four topic headings:

- State Planning Policy Framework Considerations (Refer Section 5.2)
- Local Planning Policy Framework and other Planning Scheme Considerations (Refer Section 5.3);
- Key Findings from Demand / Supply Analysis (Refer Section 5.4); and
- Issues and Constraints Affecting Future Residential Development in Mildura and Irymple (Refer Section 5.5).

It is noted that the key issues and considerations that are documented in sections 5.4 and 5.5 were the subject of discussion at three stakeholder forums that were held in Mildura on the Sixteenth October 2003. The forums, which were facilitated by members of the project team, were held with:

- Representatives of key agencies and government departments including Council Staff;
- The elected Councillors of the Municipality; and
- Representatives of Mildura's development community including land surveyors, real estate agents, town planning consultants, and local land developers.

Under each subsection of this chapter key strategic planning issues are identified. Outcomes of stakeholder forums are then also documented (for issues that are presented in sections 5.3 and 5.4). Following this the key implications / assumptions that will be utilised in preparing the 2030 Residential Framework are stated.

The sum of the issues and assumptions are then utilised in the preparation of the 2030 Residential Development Framework for Mildura and Irymple. (Refer Section 6.0 of this report).

2030 Residential Strategy for Mildura City, Mildura South and Irymple (Refer Section 6)

This section of the report documents the recommended 2030 Residential Strategy for the Mildura City, Mildura South and Irymple. The residential framework is based on the results of the analysis and investigations that have been documented in Sections 2 – 5 of this report.

The Strategy is presented in 4 parts as highlighted below:

1 Introduction;
2 Key Findings of the 2030 Residential Demand – Supply Analysis;
3 Objectives and Strategies to Guide the Future Development of the Study Area; and
4 Recommended Actions and Residential Staging Sequence to Guide the Residential Development of the Study Area to the Year 2030.

This section of the report represents a discreet and consolidated 2030 Residential Development Strategy Mildura City, Mildura South and Irymple. Upon its endorsement / modification by Council it should be used to form the basis of subsequent modifications to the Planning Scheme.

2 2030 Residential Demand Forecast

2 2030 Residential Demand Forecast

2.1 Introduction

Forecasting future residential demand over a 30 year time frame is a challenging task as there are many factors (global, national and local) that will influence residential development activity into the future. In forecasting an estimate of residential demand for Mildura and Irymple to the year 2031 a number of factors need to be considered and a number of assumptions made.

The 2031 residential demand forecast for the study area documented in Section 2.5 of this section of the report draws upon:

- the findings of the historical trend analysis of dwelling approvals and residential subdivision activity within Mildura City Council dating back to 1991 (Refer Section 2.2);
- current and forecast population projections to the year 2031 (Refer Section 2.3); and
- comparative analysis of net population projections (Refer Section 2.4).

2.2 Historical Trend Analysis (Dwelling Approvals and Residential Subdivision Activity)

2.2.1 Dwelling Approvals (Total MRCC 1991 – 2003)

The number of residential dwelling approvals issued by Council on an annual basis provides a valuable insight into past demand for housing in the municipality. This data can also be utilised (as one of many elements) in preparing estimates of forward projections for housing demand. This section of the report contains an analysis of dwelling approvals issued by Council dating back to 1991.

For the 10 year period 1991 – 2000, a total of 2,774 dwelling approvals were issued for the area that now comprises Mildura Rural City Council, at an average of 277 dwelling approvals per annum (Table 2.1).

Table 2.1: Dwelling Approvals Total MRCC (1991 – 2000)

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	TOTAL	Average Per Annum
Total	275	309	274	266	251	219	245	249	378	308	**2,774**	**277**

Source: Mildura Rural City Council Planning Department Records

An analysis of 5 year trends reveals that the number of dwellings approved per annum rose slightly for the period 1996 – 2000 (an average of 280 per annum) compared to the previous 5 year period between 1991 and 1996 (an average of 275 per annum).

Table 2.2 highlights that dwelling approvals peaked in the 12 month period from 1 July 2000 – 30 June 2001. During this period a total of 415 new dwelling approvals were issued. While the rate of dwelling approvals has steadily declined from this peak (353 for 2001 – 2002 and 327 for 2002 – 2003) approvals have still averaged approximately 365 per year over the last 3 years (Table 2.2). This represents

approximately a 32% increase in the average number of annual approvals issued for the 10 year period 1991 – 2000 (an average of 277 per annum).

Table 2.2: Dwelling Approvals Total MRCC (2000 – 2003)

Year	2000 –2001 (July – June)	2001 – 2002 (July – June)	2002 – 2003 (July – June)	TOTAL	Average Per Annum
Total Mildura Rural City Council	415	353	327	**1059**	**365**

Source: Mildura Rural City Council Planning Department Records

For the entire analysis period (1991 – 2003), dwelling approvals within Mildura RCC have averaged 298 per annum

It is important to note that the Regional Land Use Strategy (Volume 2 Background Report) prepared by PPK Environment and Infrastructure Pty Ltd in 1997/98 projected that dwelling approvals in the municipality would occur at a rate of approximately 160 - 250 dwellings per annum for each of the 10 years 1998 – 2007. Council's current land use strategies for Mildura and Irymple, as articulated in its Planning Scheme, are based on these figures. It is clear from the above analysis that the actual rate of dwelling construction in the municipality (an average of 298 new houses per annum for the period 1991 – 2003, and 365 per annum over the last 3 years) has occurred at a significantly faster rate than that projected. A review of the earlier projection is therefore justified on this basis at least.

2.2.2 Residential Subdivision (Total MRCC 1996 – 2003)

In addition to the analysis of dwelling approval data, the examination of residential subdivision / lot creation data also provides valuable insights into the demand for housing in the municipality.

For the purpose of this analysis, *residential* lots are defined as lots created via the subdivision plans certified by Council on land included in the Residential 1, Township and Low Density Residential zones. In addition, certified plans of subdivision for lots that are less than 2 hectares in size on land zoned Rural, have also been included as these lots are considered to be primarily for residential, not horticultural / agriculture use.

This section of the report provides an analysis of *residential* subdivision activity in the municipality since 1996.

Table 2.3 shows that a total of 1,414 new *residential* lots were created via certified subdivision plans for the 5 year period 1996 – 2000, at an average rate of approximately 283 lots per year.

Within this 5 year period approximately 82% of new residential lots were created through the subdivision of land zoned Residential 1, 15% through the subdivision of land zoned Rural (through the excision of lots equal to 2 ha or less in size) and 3% through the subdivision of land zoned Low Density Residential.

2 2030 Residential Demand Forecast

Table 2.3: Lots Created by Zone (1996 – 2000)

	1996	1997	1998	1999	2000	TOTAL	Average Per Annum
Residential 1 and Township Zone	116	230	316	318	180	1160	232
Low Density Residential Zone	6	10	15	3	2	36	7
Rural Zone (Lots Equal to or less than 2ha)	32	51	67	54	14	218	44
Total "Residential" Lots Certified	**154**	**291**	**398**	**375**	**196**	**1414**	**283**
Other Rural Lots Created (Greater than 2 ha)	51	148	67	74	91	431	86
Total Lots Certified	**205**	**439**	**465**	**449**	**287**	**1845**	**369**

Source: Mildura Rural City Council Planning Department Records

Through the extrapolation of subdivision approval data for the first 8 months of 2003, it is projected that approximately 500 residential lots will be created in the Municipality in 2003 (Table 2.4). Having projected the number of residential lots that will be created in 2003, a 3 year trend for the period 2001 – 2003 is able to be calculated.

Table 2.4: Lots Created by Zone (2001 – 2003)

Zone/Year	2001	2002	2003 (Forecast)	TOTAL	Average Per Annum
Residential 1 and Township Zone	357	539	438 (Based on 292 actual approvals to 30/8)	1334	445
Low Density Residential Zone	8	44	11 (Based on 7 actual approvals to 30/8)	63	21
Rural Zone (Lots Equal to or Less than 2ha)	85	28	54 (Based on 36 actual approvals to 30/8)	167	56
Total "Residential" Lots Certified	**450**	**611**	**503** (Based on 335 actual approvals to 30/8)	**1564**	**521**
Other Rural Lots Created (Greater than 2 ha)	92	77	69 (Based on 46 actual approvals to 30/8)	238	79
Total Lots Certified	**542**	**688**	**572** (Based on 381 actual approvals to 30/8)	**1802**	**600**

Source: Mildura Rural City Council Planning Department Records

The analysis for 2000 – 2003 highlights that residential lot creation during this period was an average of 521 new lots per annum. This represents an 84% increase over that achieved each year between 1996 and 2000 (an average of 283 new lots per annum). The quantum increase in subdivision activity is significant and again justifies this review of residential strategies for the key growth area of the municipality.

Based on the analysis for the 3 year period 2000 – 2003 (Table 2.4) it is estimated that approximately 85% of new residential lots will be created through the subdivision of land zoned Residential 1, 11% through the subdivision of land zoned Rural (through the excision of lots equal to 2 ha or less in size) and 4% through the subdivision of land zoned Low Density Residential.

It is interesting to note that the average number of new lots created on land zoned Residential 1 over the last 3 years (445 per annum) is significantly higher than that experienced over the period between 1996 and 2000 (232 lots per annum). As a percentage of total residential lots created, the proportion of lots developed on Residential 1 zoned land has increased from 83% during 1996 – 2000 to 85% for the period 2001 – 2003. This increase could be attributed to a number of factors including:

- An increase in consumer preference for urban living;
- Possible limited supply of Low Density Residential opportunities; and / or
- An increased demand for town based living generated by retiring horticulturalists.

The average annual number of lots created through the subdivision / excision of land zoned rural (less than 2 ha in size) increased for the period 2000 – 2003 (56 per annum) compared with the trend over the previous 5 year period (44 per annum). This is despite the introduction of a tighter policy position being introduced into the Planning Scheme which aims to discourage ad-hoc small lot subdivision of rural land. This observation is tempered by the corresponding finding from the analysis that the percentage of new lots created in the rural zone over the last 3 years as a percentage of total residential lots created has declined compared with the period 1996 – 2000 (from 15% down to 11% during 2001 - 2003).

Over the 8 year period of analysis (1996 – 2003) residential lot creation via subdivision of land zoned Residential 1, Low Density Residential and land zoned Rural (equal to or less than 2 ha in size) averaged 372 lots per annum.

Within this same period, approximately 84% of new residential lots will have been created through the subdivision of land zoned Residential 1, 13% through the subdivision of land zoned Rural (through the excision of lots equal to 2 ha or less in size) and 3% through the subdivision of land zoned Low Density Residential.

The observations have relevance in forecasting of the amount, and location of future residential re-zoning in the municipality. (This matter is further discussed in Section 2.5.2 of this report).

2.2.3 Comparative Analysis – Historical Dwelling Approvals vs Lot Created

Based on the findings of Sections 2.2 and 2.3, the following observations are noted:

- For the five-year period 1996 - 2000 total dwelling approvals averaged 277 per annum. This compares with the number of new residential lots created over the same period of 283 per year. These figures highlight an approximate 100% take-up rate of residential lots created in the municipality over the five year period to 2000.

- The approximate 100% take-up rate of residential lots created may also indicate that during the five-year period 1996 – 2000, supply was matching demand. In a healthy market, the rate of dwelling commencements commonly matches available supply (taking account of lead times) as it assumed that developers are reluctant to have an excessive supply of serviced allotments on the market so as to minimize holding costs.
- Over the last three years the rate of residential subdivision has increased to 521 lots per annum (compared with 283 per annum between 1996 and 2000). Housing commencements have also risen during this 3 year period to an average of 365 new dwellings per annum (compared with 280 per annum between 1996 and 2000). It can be reasonably expected that building approvals over the next 2 years will increase at a rate similar to that of the previous 2 years subdivision activity in recognition of lag time between subdivision and housing construction. It is highlighted that the rate of residential activity (dwelling commitments and subdivisions) experienced by the Municipality over the last 3 years has been extremely high (which in part reflects State and National trends). It is considered highly unlikely that this rate of growth will be able to be sustained in the long term.

2.2.4 Base Line Projections of Housing Demand Based on Historical Dwelling Commencement and Residential Subdivision Records (Total MRCC 2004 - 2031)

Various projections of future housing demand can be made based on the historical dwelling and subdivision approvals information contained in the preceding sections of this report.

It is contended that the historical sub-division data set is more relevant in this regard as it considered that this information is the most accurate reflection of long term demand. As noted previously, it is assumed that land developers are unlikely to subdivide land ahead of demonstrated demand in the market place due to the costs incurred during subdivision process that will not be recouped until lots are sold. Holding a significant quantum of un-purchased developed lots for lengthy periods is costly and not desirable.

The following findings of the analysis documented in section 2.2.2 of this report have been utilized for this estimate of future *supply led* housing demand in the municipality:

- For the 5 year period 1996 – 2000 an average of 283 lots were created per annum within Mildura RCC. This value has been used to estimate a moderate future projection of *supply lead* housing growth in Mildura RCC.
- The number of subdivision lots within Mildura Rural City Council for the 8 year analysis period (1996 – 2003) (at an average 372 per annum) has been used to estimate a high future projection of *supply lead* housing growth for Mildura Rural City Council.
- For the 3 year period 2001 –2003, an average of 521 subdivision lots were created. This value has been used to estimate a very high future projection of supply lead housing growth in Mildura RCC.

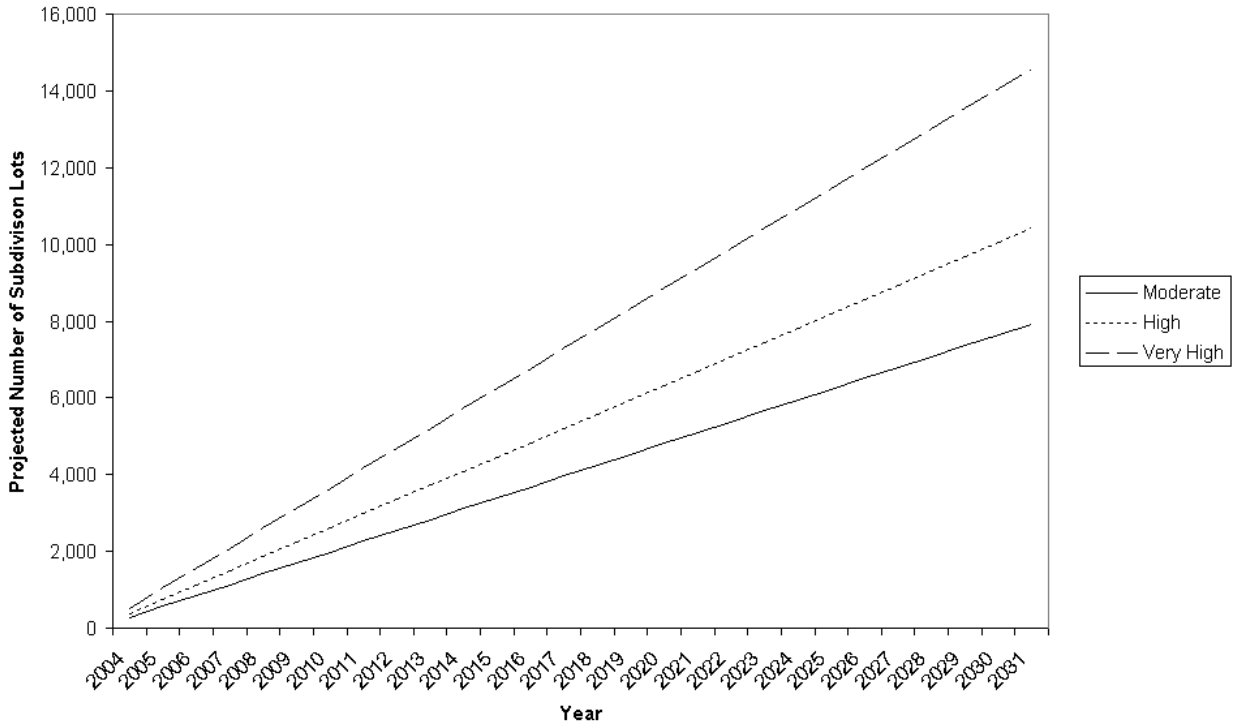
Based on these assumptions, moderate, high and very high estimates of projected supply led housing demand at 5 year intervals for the period 2004 – 2031 have been calculated (Refer Table 2.5 and Figure 2.1).

2 2030 Residential Demand Forecast

Table 2.5: Projections of Housing Demand (Supply Led) based on Historical Residential Subdivision Records (Total MRCC)

Cumulative Totals at 5 Year Increments	Moderate Projection (Based on 283 lots per annum)	High Projection (Based on 372 lots per annum)	Very High Projection (Based on 521 lots per annum)
2006	849	1,116	1,563
2011	2,264	2,976	4,168
2016	3,679	4,836	6,773
2021	5,094	6,696	9,378
2026	6,509	8,556	11,983
2031	7,924	10,416	14,588

Figure 2.1: Forecast of Housing Demand based on Historical Residential Subdivision Activity (Total MRCC)



The projections indicate that based on historical subdivision trends in the municipality, *supply lead growth* of between 7,900 lots (conservative estimate) and 14,500 lots (high growth estimate) could be expected in the municipality for the period extending from 2004 to 2031.

2.2.5 Notional Population Increase Based on Supply Led Projections (Total MRCC 2004 – 2031)

Using the findings of the output of Section 2.5.1 together with projections of average house size, it is possible to estimate the number of additional people that will be accommodated in the municipality via the estimates of supply lead growth.

2 2030 Residential Demand Forecast

As is discussed further in Section 2.4.1 of this report, in 2001 Mildura RCC had a mean household size of 2.6 persons per household (pph). This figure is projected to decrease future in the coming years as a result of increasing divorce rates, aging population, changing lifestyles and a variety of other factors.

Application of the estimated current average household size of 2.6 pph suggests that if the dwelling supply increases by 7,924 by 2031 (the moderate supply lead subdivision estimate), the municipality's population may grow by approximately 20,602 persons in this time. If the average household size in the municipality drops to 2.5 pph, an additional 19,810 persons could be expected to be living in MRCC utilising this estimate.

If a high or very high rate of subdivision activity is sustained, supply lead population growth to the year 2030 could result in the population of MRCC increasing by anywhere from approximately 26,000 people (10,416 households x 2.5 pph) up to 37,900 people (14,588 x 2.6 pph).

2.2.6 Summary and Conclusions of Historical Trend Analysis

Historical dwelling approvals and subdivision approvals information has been reviewed with a view to calculating projections for future housing demand.

Subdivision data has been identified as being the more relevant dataset to calculate future housing demand as it provides the most accurate reflection of long-term demand. This data has been used to calculate Moderate, High and Very High projections of future housing demand and notional population increase using an average of 2.5 persons per household as summarised below.

	1996-2000	2000-2003	1991-2003	Current PS
Dwelling Approvals				
Average	280	365	298	160-250
Total	1,399	1,059	3,833	
Subdivision Lots				
Average	283	521	372	
Total	1,414	1,564	2,978	
	↓	↓	↓	
	MODERATE	**VERY HIGH**	**HIGH**	
2031 Projection	7,924	14,588	10,416	
Net Pop Increase (2003-2031)	19,810	37,470	26,040	

Having undertaken the above analysis, the project team reiterates that the above projections are based on historical subdivision activity for the whole of the municipality and reflect *supply lead propositions*.

2 2030 Residential Demand Forecast

Prior to extrapolating these projections, in order to estimate the total number of lots / dwellings required in the study area (Mildura and Irymple), further analysis of available information sources is required in order to test these findings. In this regard an analysis of the municipality's population growth trends and projections is now documented.

2.3 Current and Forecast Population Projections (Total MRCC – 2030)

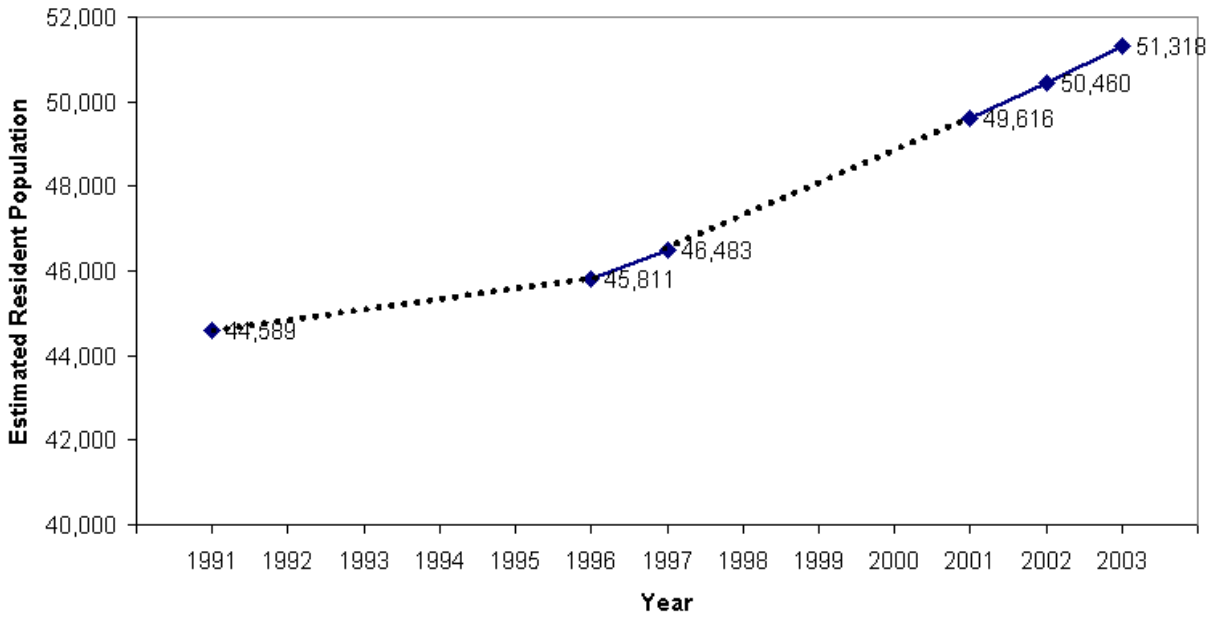
2.3.1 Population Growth (Total MRCC 1991-2003)

ABS census data indicates that the total population of Mildura Rural City Council was 49,616 in the year 2001. The Department of Infrastructure publication titled *Know Your Area* estimated that Council's population grew at a rate of 1.7% during 2002. Applying this growth rate for 2003, it is estimated that the total population of Mildura Rural City Council in 2003 is now 51,318. (Refer Figure 2.2).

An analysis of the extrapolated raw data indicates that for the 12 year period 1991 to 2003, the municipality's population has grown by approximately 6,729 people, with an average growth rate of 1.26% per annum (Refer Table 2.6).

The analysis also reveals that between 1997 and 2003 the population increased at an average rate of 1.73% per annum (805 persons per year). This average growth rate is significantly higher the 0.70% per annum rate (316 persons per year) experienced between 1991 – 1997. (Refer Table 2.7).

Figure 2.2: Estimated Resident Population Growth (Total MRCC 1991- 2003)



Source: Extrapolated figures from Data Contained in Department of Infrastructure, Know Your Area, publication 2003

Table 2.6: Average Annual Population Growth Rates (MRCC) 1991 – 2003

1991 Pop	2003 Pop	Difference	Average Annual Growth Rate (1991-2003)
44,589	51,318	6,729	**1.26%**

Source: Extrapolated figures from Data Contained in Department of Infrastructure, Know Your Area, publication 2003

Table 2.7: Comparative Analysis of Average Annual Population Growth Rates (MRCC) 1991 – 1997 vs 1997 – 2003

1991 Pop	1997 Pop	Difference	Average Annual Growth Rate (1991-1997)	1997 Pop	2003 Pop	Difference	Average Annual Growth Rate (1997-2003)
44,589	46,483	1,894	**0.70%**	46,483	51,318	4835	**1.73%**

Source: Extrapolated figures from Data Contained in Department of Infrastructure, Know Your Area, publication 2003

2.3.2 2031 Population Forecasts for Total MRCC Based on Application of Historical Population Growth Rates

From the analysis undertaken in Section 2.3.1, low, medium and high population forecasts for the municipality can be estimated by projecting past average annual growth rates identified (eg 0.70% = low projection, 1.23% = medium projection and 1.73% = high projection).

The results of this analysis projected to the year 2031 (Refer Table 2.8 and Figure 2.3) indicate the following:

- Application of the average annual growth rate experienced within the municipality from 1991 – 1997 (0.70%) results in an estimated total MRCC population of 62,387 in the year 2031 reflecting a net increase from 2003 of 11,069 people.
- Application of the annual growth rate experienced within the municipality over the last 12 years (1.23%) results in an estimated total MRCC population of 72,862 people in the year 2031 reflecting a net increase from 2003 of 21,544 people.
- Application of the annual growth rate experienced within the municipality over the last 6 years (1.73%) results in an estimated total MRCC population of 82,955 in the year 2031 reflecting a net increase from 2003 of 31,637 people.

It is noted that the 2003 Department of Infrastructure Projection of the total population of MRCC in 2031 is 63,329. This represents a net population increase for the municipality for the period 2003 – 2031 of 12,011 people.

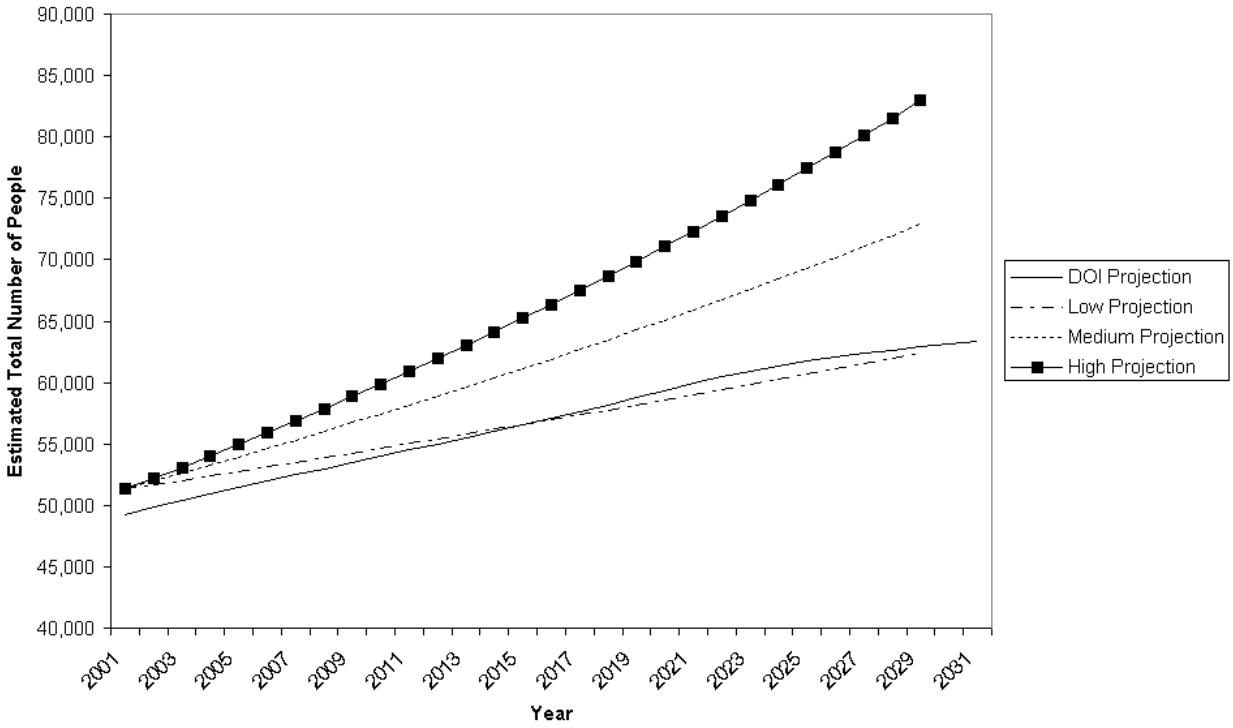
2 2030 Residential Demand Forecast

Table 2.8: Population Projections (Total MRCC 2006 – 2031)

Forecast Year	Low Projection 0.7% Average Annual Growth Rate Applied	Medium Projection 1.26% Average Annual Growth Rate Applied	High Projection 1.73% Average Annual Growth Rate Applied	DOI Projection (Vic Govt DOI, 2003)
2006	52,403	53,282	54,028	51,948
2011	54,263	56,725	58,866	54,491
2016	56,189	60,390	64,137	57,088
2021	58,184	64,291	69,880	59,932
2026	60,249	68,445	76,137	62,079
2031	62,387	72,862	82,955	63,329

Source: Extrapolated Projections from Data Documented in Section 2.3.1

Figure 2.3: Population Projections for Mildura RCC (2003 to 2031)



Source: Extrapolated Projections from Data Documented in Section 2.3.1
Source: DOI Projection from - Victorian Government Department of Infrastructure, 2003

2 2030 Residential Demand Forecast

2.3.3 Summary and Conclusions of Current and Forecast Population Projections

Current and future projection population data has been reviewed and analysed to determine low, medium and high population forecasts for 2031 as summarised below.

	1991-1997	1997-2003	1991-2003	
Population Difference				
Ann Ave Growth Rate	0.7%	1.73%	1.26%	
Difference	1,894	4,835	6,729	
	↓	↓	↓	
	LOW	**HIGH**	**MEDIUM**	DOI Projection
2031 Projection	62,387	82,955	72,862	63,329
Net Increase (2003-2031)	11,069	31,637	21,544	12,011

2.4 Population Growth Projections (Total MRCC 2031)

2.4.1 Comparative Analysis of Net Population Growth Projections (Total MRCC 2003 - 2031)

Having estimated the net population growth of the municipality in the above analysis using historical population growth rates, it is possible to compare these findings with the projections derived from the analysis of dwelling and subdivision activity – *the supply led projections*. (Refer Section 2.2.5). The key comparable figures are those that estimate the municipality's net population increase for the period 2003 – 2031.

Based on the comparative analysis (documented in Table 2.9) the project team make the following observations:

- The 2003 Department of Infrastructure projection of MRCC's net population increase to the year 2031 is in line with the low estimate derived from the project team's population growth rate analysis (12,011 vs 11,069). The DOI estimate is however significantly lower than the moderate growth projection derived from the project team estimate based on supply led / subdivision activity forecasts (19,750).
- The medium projection derived from the supply led / subdivision activity forecasts is generally in line with the high forecasts derived from the project team's population growth rate analysis (26,000 net population increase compared to an increase of 21,544).
- The very high projection derived from the supply led / subdivision activity forecasts is also generally in line with the high forecasts derived from the project team's population growth rate analysis, although it is acknowledged that the variance is slighter greater than that for the medium / high projections (37,900 net population increase compared to an increase of 31,677).

Table 2.9: Comparative Analysis of Projections of Net Population Increase in MRCC 2003– 2031)

	Moderate / Low Projections	High / Medium Projections	Very High / High Projections
Projections of Net Population Increase (2003 – 2031) Based on Supply Lead Growth Projections (Refer Section 2.2.5)	19,810	26,040	37,470
Projections of Net Population Increase (2003 – 2031) Based on Application of Historical Population Growth Rates (Refer Section 2.3.2)	11,069	21,544	31,637
DOI Projection of Net Population Increase (2003 – 2031) (Refer Section 2.3.2)	12,011		

2.4.2 Recommended Population Growth Projections (Total MRCC 2031)

Based on the sum of the previous analysis undertaken in this section of the report, the project team recommends the adoption of the following low, medium and high projections of population for the municipality at the year 2031.

Conservative / Low Projection (2031)

The approximate total estimated population, net population increase (2003-2031) and annual average population growth for the Conservative / Low Projection (2031) is based on the moderate/low projections from Sections 2.2 and 2.3, as well as DOI projections.

- Total Estimated Population MRCC at 2031 = Approximately 65,800
- Net Population Increase (2003 – 2031) = Approximately 14,500
- Annual Average Population Growth Rate = Approximately 0.9%

The Conservative/Low population projection for the Municipality in the year 2031 is approximately 65,800 people. It is acknowledged that this estimate is slightly higher than that projected by the Department of Infrastructure in early 2003 (63,329).

Even though the average annual growth rate allocated to the low projection (1.0%) is higher than that projected by DOI, it is noted that it is in fact less than the municipality has been averaging for the 12 year period 1991 - 2003 (1.26%).

The projected low population figure of 65,850 for 2031 represents a net increase in population of approximately 14,500 people over the current 2003 population level (51,318). This represents a conservative annual average increase of approximately 520 persons per annum (1.6%).

The conservative nature of this low projection is highlighted when this projection is compared with average population increase that has been experienced by the municipality for the 12 year period 1997 – 2003 of 560 persons per annum, and that experienced for the 6 year period 1997 – 2003 of 805 persons per annum.

2 2030 Residential Demand Forecast

While the project team anticipate that population growth will occur at a faster rate than this projection provides, it is recommended that these population forecast indicators be utilised in future strategic planning studies as the conservative / low case scenario.

Medium / Likely Projection (2031)

The approximate total estimated population, net population increase (2003-2031) and annual average population growth for the Medium / Likely Projection (2031) is based on the high/medium projections from Sections 2.2 and 2.3.

- Total Estimated Population MRCC at 2031 = Approximately 74,300
- Net Population Increase (2003 – 2031) = Approximately 23,300
- Annual Average Population Growth Rate = Approximately 1.3%

The Medium / Likely population projection for the municipality in 2031 is approximately 74,300 people. This represents a net increase in population of approximately 23,300 people over the current 2003 population level (51,318), or an annual average increase of approximately 830 (1.6%).

It is acknowledged that this projected rate of growth is slightly higher than that experienced by the municipality for the 6 year period 1997 – 2003 (805 persons per annum). However, the medium projection is considered an appropriate base line projection given the emerging economic development initiatives that are currently in their planning stages in the municipality and are expected to come on line within the forecast period (eg Mildura Marina, Mineral Sands Projects, The Freight Gate Initiative, continued increased horticultural output, increase in tourism visitations).

It is noted that the Medium / Likely projections are less than the medium range projections that emerged from the supply led forecasts (based on historical subdivision and dwelling commencement records) that are documented in Section 2 of this report.

It is strongly recommended that these suite of projections for the year 2031 be utilised in current planning studies as the medium / likely case scenario. The project team highlights that even if the projections in time prove to have been slightly ambitious, this is considered to be a better outcome than the forecasts becoming outdated in the short term.

High / Ambitious Projection (2031)

The approximate total estimated population, net population increase (2003-2031) and annual average population growth for the Very High / High Projection (2031) is based on the high/ambitious projections from Sections 2.2 and 2.3.

2 2030 Residential Demand Forecast

- Total Estimated Population MRCC at 2031 = Approximately 86,000
- Net Population Increase (2003 – 2031) = Approximately 34,750
- Annual Average Population Growth Rate = Approximately 1.9%

The High / Ambitious population projection for the municipality in the year 2031 is approximately 86,000 people. This represents an approximate increase of 34,750 people over the current (2003) estimated population of the municipality, or an average population increase of approximately 1,240 persons per annum (2.4%).

It is acknowledged that this projected rate of growth is higher than that experienced by the municipality for the 6 year period 1997 – 2003 (805 persons per annum). However, it is considered an appropriate ambitious / high projection given the emerging economic development initiatives described in the rationale for the Moderate / Anticipated projections above.

The High/ Ambitious projections are less than the high range projections that emerged from the supply led forecasts (based on historical subdivision and dwelling commencement records) that are documented in Section 2 of this report.

While some caution should be used in the utilisation / application of this suite of projections they are considered appropriate for the use in forecasting very high/ambitious growth development scenarios.

2.5 Residential Demand Forecast (2004 – 2031)

2.5.1 Estimate of Total MRCC Housing Demand Based on Established Population Projections (2031)

Based on the established conservative, likely and ambitious population projections for Mildura Rural City Council (documented in Section 2.3.4 of this report) to the year 2031, an estimate of total new dwellings required in the municipality can be made.

The ultimate number of new dwellings required in the municipality by the year 2031 will be influenced not only by the projected net population increase that the municipality will experience up to that year, but also by a range of factors which will govern household structure. Three key influences are discussed below that are considered important in this regard.

Household Size

In Mildura RCC in 2001 the mean household size was 2.6 persons and 9% of persons in occupied dwellings lived alone (Clark Phillips, 2003). The 2001 census figures showed that in Mildura RCC the average household sizes varied from 1.64 to 2.78 people (DSE, 2003) depending on the type of house. The average household size in a ‘separate house’ during 2001 was 2.78, in a ‘semi-detached’ dwelling the average was 1.7 and in a ‘flat, unit or apartment’ the average household size was 1.64. The final category, ‘other’, found that there were 1.79 people per average household size.

2 2030 Residential Demand Forecast

In regional Victoria there is a continuing trend towards smaller household size consisting of one or two people, which reflects changing lifestyle choices (*Information Victoria, 2003*). The trend towards smaller households also follows the trend towards older households resulting from 'empty-nester' couples whose children have left home, and widowed or elderly people.

Age Profile

In 20 years time regional Victoria is likely to contain fewer children but more elderly people (*Information Victoria, 2003*). The number of people aged 70 years and over in regional Victoria is predicted to rise from the 1996 figure of 123,000 to approximately 229,700 in 2021.

This is due to a number of factors recently affecting population decline. Lower fertility rates (women having fewer children or none at all), and changing age structures (fewer women of child-bearing age in the population) has contributed to lower numbers of babies being born. Out-migration of young adults from regional Victoria is one contributor to the stronger trend of ageing in regional areas. In addition, many parts of regional Victoria attract retirees. This is particularly the case for areas along the Murray River, the coast and some alpine areas.

In Mildura RCC the proportion of the population aged 70 years and over in 1996 was less than 10%. By 2021 the proportion of people aged 70 years and over in Mildura RCC is likely to be over 15%.

In 2001 the median age in Mildura RCC was 35.6 years compared with the Victorian average of 35.8 years.

Housing Choice (type of dwelling)

In 1996, 80.1% of Mildura RCC residents lived in a separate house and 12.4% of residents in the same area lived in medium and high density housing. The remaining residents lived in other dwellings (5.4%) or did not state where they lived (2.1%).

Based on the above discussion it is considered valid to assume that the average number of persons per household will likely decline over the forecast period from the current rate of 2.6 per household to 2.5 per household. Adoption of this assumption together with the estimates of net population increase in the municipality, enable the following estimates to be made of the total and average annual number of new dwellings that will be required over the forecast period.

2 2030 Residential Demand Forecast

Table 2.10: Estimate of New Dwelling Required by 2031 (Total MRCC)

	Conservative Projection	Likely Projection	Ambitious Projection
Projection of Net Population Increase (2003 – 2031)	14,500	23,300	34,750
New Dwellings Required by 2030 @ 2.5 Persons Per Household	5,800	9,320	13,900
Average Number of New Dwellings Required per Annum	**207**	**332**	**496**

It is noted that the average number of new dwellings required per annum under the likely / anticipated forecast is above the rate of growth experienced between 1996 and 2000 (283 dwelling permits issued per annum) but below the 8 year average experienced between 1996 and 2003 (372 lots per annum).

In order to achieve the ambitious projection of 496 lots per annum, dwelling commencements will need to average moderately below the annual rate achieved over the last 3 year period (521 per annum).

3 Existing Residential Supply Analysis

3 Existing Residential Supply Analysis

3.1 Estimated Total Residential Lots (2003)

An analysis of cadastral information provided by Council has revealed that the total area of land currently zoned Residential 1 (R1Z) in the townships of Mildura and Irymple is approximately 1289 hectares (ha). This area has been subdivided into a total of 12,203 lots. A breakdown of the number of lots by area is provided in Table 3.1.

Table 3.1: Number and Size of Lots in Land Zoned R1 in Mildura and Irymple

Lot Size (m^2)	Number of Lots	Proportion of Total Lots	Proportion of Total Lots less than 0-1000 m^2
0 - 500	3624	29.70%	33.72%
500 - 750	4477	36.69%	41.66%
750 – 1000	2646	21.68%	24.62%
1000 - 1500	763	6.25%	
> 15000	693	5.68%	
Total	**12,203**	**100%**	**100%**

3.2 Land Area of Undeveloped Residential 1 land

Further analysis of the cadastral of base information provided by Council has determined that approximately 362 ha of land currently zoned R1Z within Mildura and Irymple remains undeveloped and is therefore notionally available for residential purposes. This includes all land that has not yet been issued a planning or subdivision permit. (Refer Table 3.2)

Table 3.2: Vacant/Undeveloped Land Area Zoned R1

Mildura and Irymple	Hectares
Total R1Z	1289
Total Developed	927
Total Vacant/Undeveloped R1Z land	362
Area required for Open Space and Roads within R1Z	90.5
Total Vacant/Undeveloped Area	**271.5**

Of this, it is assumed that approximately 25 percent or 90.5 ha will be required for the provision of public open space and road reserves (according to estimates provided by local land surveyors). Taking this into account, it is estimated that approximately 271.5 ha of zoned Residential 1 land remains notionally available to accommodate future residential development needs in Mildura and Irymple (see Table 3.1). Figure 3.1 shows the area of land zoned as R1Z, with developed land and vacant/undeveloped land highlighted.

3 Existing Residential Supply Analysis

Figure 3.1 Development Status of R1Z land in Study area

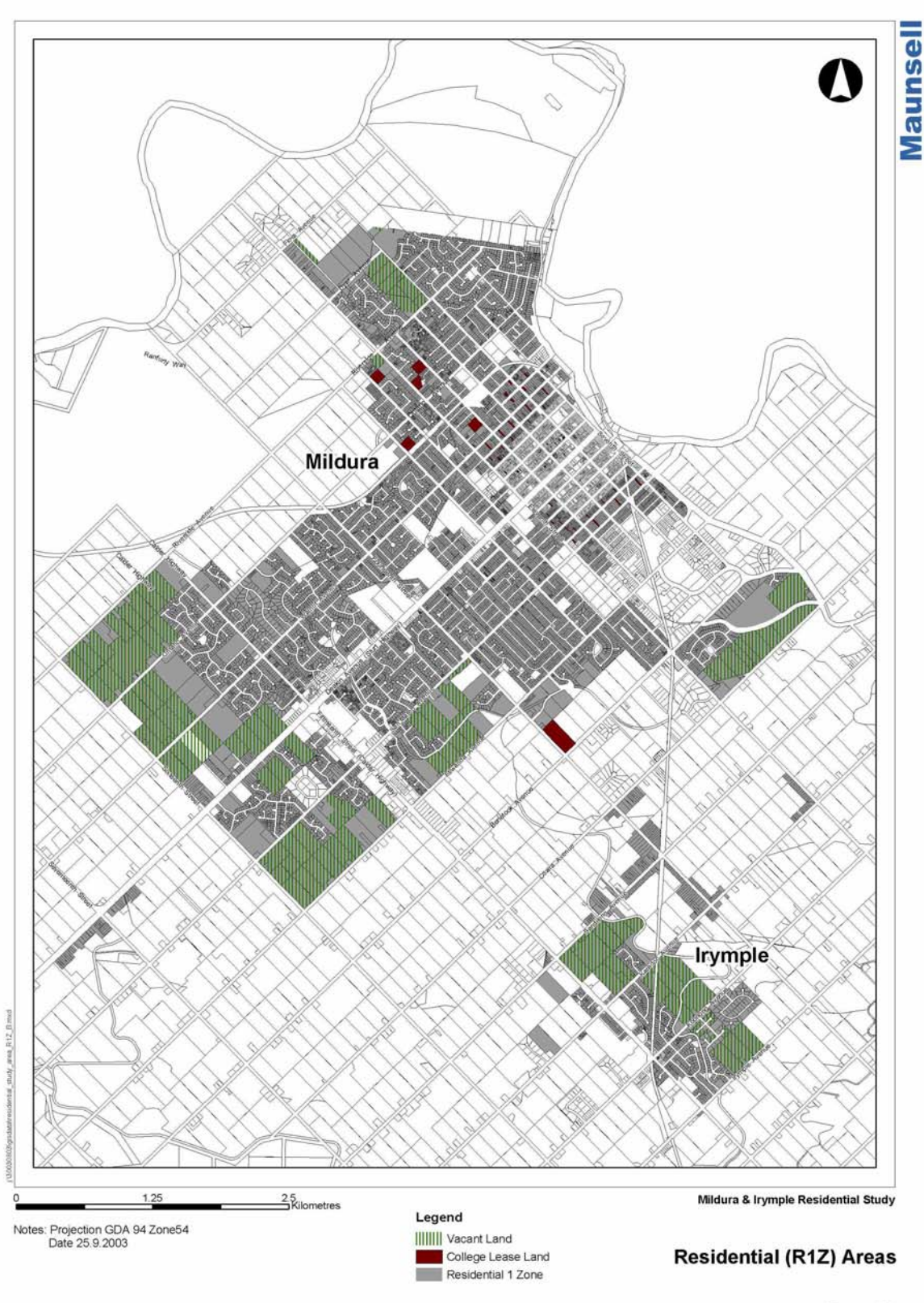


Figure 3.1

3 Existing Residential Supply Analysis

In addition to the areas of vacant land taken by open space, roads, services etc, it is acknowledged that there may be a number of other constraints (eg salinity) that may influence or impact the total area of existing vacant land within Residential 1 Zone available for future residential development. These constraints are discussed further in Section 5.5.

3.3 Notional Lot Yield for Future Residential 1 Zoned Land

Based on the analysis documented in Section 3.2 above, the notional lot yield from land currently zoned R1Z is shown in Table 3.3. Two options have been used to determine notional lot yield from the available Residential 1 land. For the purposes of this exercise, it has been assumed that all new lots created in the Residential 1 Zone will be less than 1000 square metres in area.

Option 1 applies the existing proportions of subdivided land in the Residential 1 zones at 0 – 500, 500 – 750 and 750 – 1, 000 square metre range of lot sizes. Application of this mix results in a notional lot yield of 6,187 lots that may be created within the existing 271.5 hectares of Residential 1 zoned land in the two towns.

Option 2 applies the average lot size of 650 square metres to the available area of vacant land giving a notional lot yield of 4,177 lots.

Table 3.3: Notional Lot Yield for Mildura and Irymple

Option 1 (based on Range of Lot Sizes 0 - 1000 m^2)			
Total Vacant Area (ha)	271.5		
Lot Size (m^2)	Proportion of total area	Area (ha)	No. dwelling lots
250	33.70%	91.49	3,659.60
650	41.70%	113.22	1,741.85
850	24.60%	66.79	785.76
Total dwelling lots			**6,187.21**

Option 2 (based on 650 m^2 average lot size)			
Total Vacant Area (ha)	271.5		
Lot Size (m^2)	Proportion of total area	Area (ha)	No. dwelling lots
650	100.00%	271.5	4,176.92
Total dwelling lots			**4,176.92**

4 Identification of Additional Residential 1 Land Requirements within the Townships of Mildura and Irymple

4 Identification of Additional Residential 1 Land Requirements within the Townships of Mildura and Irymple

4.1 Estimated New Dwellings Required by 2030 within Study Area

4.1.1 Population Distribution and Trends (1996 – 2001)

Having projected the number of new dwellings required per annum over the forecast period, in order to address the key objective of this particular study, it is necessary to estimate what proportion of these new houses will be constructed in the Mildura and Irymple townships.

The following analysis of population growth within the municipality over the inter census period 1996 – 2001 is informative in this regard.

The total population in the Study Area (Mildura City, Mildura South and Irymple Catchments) grew by 2,576 people between 1996 and 2001 (see Table 4.1). This represents average annual growth within the study area of approximately 515 people.

The data presented in Table 4.1 also highlights that as at 2001 the total resident population within the study area represents approximately 60% of the total resident population in the Mildura RCC.

Table 4.1: Population Distribution and Trends (1996 – 2001)

Area	Population 1996[1]	% of Resident Population (MRCC - 1996)	Population 2001[1]	% of Resident Population (MRCC - 2001)	Net Population Growth (1996-2001)	Catchment Contribution to Net Population Growth (%)
Study Area						
Mildura City	14,775	32%	15,523	32%	748	28.1%
Mildura South	7,424	16%	9,006	19%	1,582	59.5%
Irymple	4,214	9%	4,460	9%	246	9.2%
Sub Total	**26,413**	**58%**	**28,989**	**60%**	**2,576**	**96.8%**
Other Areas (MRCC)						
Merbein/Carabita	4,511	10%	4,702	10%	191	7.2%
Red Cliffs	5,399	12%	5,458	11%	59	2.2%
Nichols Point / Kings Billabong	2,305	5%	2,562	5%	257	9.7%
Other	6921	15%	6,497	13%	- 424	-15.9%
Sub Total	**19,136**	**42%**	**19,219**	**40%**	**83**	**3.2%**
TOTAL	**45,549**	**100%**	**48,208**	**100%**	**2,659**	**100%**

Note 1: Source: ABS Census of Population and Housing, 1996 & 2001

The table also reveals that in the 5 year period 1996 – 2001 approximately 97% of Mildura Rural City Council's net population growth occurred within the study area (Mildura City, Mildura South and Irymple catchments). (Refer Figure 1.2).

This finding clearly demonstrates that Mildura City, Mildura South and Irymple (the study area) collectively represent the dominant residential growth nodes in the municipality. This trend is likely to continue in the foreseeable future.

Table 4.1 also highlights that the Nichols Point / Kings Billabong and to a lesser extent Merbein/Carabita catchments are experiencing relatively high levels of population growth. It is also noted that the rural areas of MRCC are experiencing steady population decline, a trend that is occurring throughout Australia.

The observations have relevance in forecasting of the amount, and location of future residential re-zoning in the municipality.

Having considered the trends relating to net population growth in the municipality, for the purpose of this planning study it is assumed that approximately 85% of new dwellings in the municipality will be built within the study area. This figure is considered realistic in light of the dominance of the study area in recent years in relation to accommodating the population growth in the municipality.

4.2 Estimate of Number of Years Supply in the Study Area

The output of the future housing demand analysis (refer Section 2.5) together with the notional lot yield estimates determined in section 3.3 of this report, enable projections to be made of the number of years supply that the existing residential zoned land will accommodate in the Study Area.

The analysis in Section 2.5 projected 3 rates of housing development for the municipality to the year 2030:

- Conservative Projection: 207 new dwellings required per annum
- Likely Projection: 332 new dwellings required per annum
- Ambitious Projection: 496 dwellings required per annum

As concluded in Section 4.1 of report, for the purposes of this analysis it is assumed that approximately 85% of new dwellings in the municipality will be constructed within the Mildura and Irymple study area.

Based on these assumptions it is estimated that the notional lot yield for Option 1 (based on an allocation of lot sizes of between 0 – 1000 m^2) would provide between 14.7 to 35.1 years supply (Refer Table 4.2).

Similarly, it is estimated that the notional lot yield for Option 2 (based on an average lot size of 650 m^2) would provide between 9.9 and 23.7 years supply (Refer Table 4.2).

4 Identification of Additional Residential 1 Land Requirements within the Townships of Mildura and Irymple

Table 4.2: Estimate of Number of Years Supply within the Study Area

	Conservative	Likely	Ambitious
Estimated number lots developed per year[1]	207	332	496
Number of lots in developed in Study Area (Assume 85% of total dwellings built in Municipality)	176	282	422
Option 1			
Notional Lot Yield	6,187	6,187	6,187
Number years supply	35.1	21.9	14.7
Option 2			
Notional Lot Yield	4,176	4,176	4,176
Number years supply	23.7	14.8	9.9

Note 1: Refer to Section 2.5.1

4.3 Estimate of Additional Lots Required in Study Area

Table 4.3 presents the average annual number of new dwellings required over the forecast period for the study area (based on 85% of dwellings occurring within the study area) for the Conservative, Likely and Ambitious Projections. This information, together with the notional lot yield for the study area (Options 1 and 2) allows an estimation of the total number of additional new lots required within the study area to the year 2030 to be calculated.

Table 4.3: Estimate of Additional Lots Required

	Conservative Projection	Likely Projection	Ambitious Projection
Estimated New Dwellings Required by 2030 (Municipality)	5,800	9,320	13,900
Estimated New Dwellings Required in the Study Area by 2030[1]	4,930	7,922	11,815
Option 1 (based on 0 – 1000 m^2 lot size)			
Notional Lot Yield (Study Area)	6,187	6,187	6,187
Additional Lots Required (Study Area)	**(1,257)**	**1,735**	**5,628**
Option 2 (based on 650 m^2 average lot size)			
Notional Lot Yield (Study Area)	4,176	4,176	4,176
Additional Lots Required (Study Area)	**754**	**3,746**	**7,639**

Note 1: Assumes that 85% of new dwellings forecast to be required in Municipality by 2030 will be built in the Study Area

4 Identification of Additional Residential 1 Land Requirements within the Townships of Mildura and Irymple

The results indicate that the existing undeveloped R1Z land (that is available for future subdivision / development) within Mildura and Irymple is sufficient to provide for the required number of new dwellings to the year 2030 for only one scenario; the Conservative Projection of lot numbers based on an allocation of lot sizes of between 0 – 1000 m^2 (Option 1).

All remaining scenarios require additional land outside the existing available undeveloped RZ1 land. A shortfall of 754 lots would occur for the Conservative Projection based on an average lot size of 650 m^2 (Option 2). For the Likely Projection, a shortfall of 1,735 lots (Option 1), or 3,746 lots (Option 2) would occur, whereas for the Ambitious Projection a shortfall of 5,628 lots (Option 1), or 7,639 lots (Option 2) would occur.

An estimate of the total area of additional land required to meet these shortfalls is discussed in Section 4.4.

4.4 Estimate of Additional Land Required

An estimate of the total area of additional land that is required outside the existing available vacant land zoned as RZ1 has been made based on the number of additional lots required. Table 4.4 indicates that between 122 ha and 395 ha of additional land would be required for future residential development (based on Option 1), with the existing zoned vacant land meeting the requirements for the Conservative Projection (Option 1) only. Between 61 ha and 620 ha of additional land would be required based on Option 2.

Table 4.4: Estimate of Additional Land Required

	Conservative Projection	Likely Projection	Ambitious Projection
Option 1 (based on mix of 0 – 1000 m^2 lot sizes)			
Additional Lots Required	-	1,735	5,628
Area of Land Required for Lots (ha)	-	97.92	316.64
Plus 25% for Open Space, Roads, Services etc	**-**	**24.46**	**78.66**
Net Area of Land Required (ha)	**-**	**122.38**	**395.30**
Option 2 (based on 650 m^2 average lot size)			
Additional Lots Required	754	3,746	7,639
Area of Land Required for Lots(ha)	49.0	243.49	496.53
Plus 25% for Open Space, Roads, Services etc	**12.25**	**60.87**	**124.13**
Net Area of Land Required (ha)	**61.25**	**304.36**	**620.66**

There are a number of issues that need to be considered in determining the location for additional land for future residential development. These issues are discussed in Section 5 of this report.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5.1 Aim of this Section of the Report

This section of the report aims to summarise the key strategic planning issues that must be considered and addressed in preparing the 2030 Residential Strategy for the Townships of Mildura and Irymple.

The issues and considerations are grouped under the following four topic headings:

- State Planning Policy Framework Considerations (Refer Section 5.2)
- Local Planning Policy Framework and other Planning Scheme Considerations (Refer Section 5.3);
- Key Findings from Demand / Supply Analysis (Refer Section 5.4); and
- Issues and Constraints Affecting Future Residential Development in Mildura and Irymple (Refer Section 5.5).

The key issues and considerations documented in sections 5.4 and 5.5 were subject of discussion at three stakeholder forums that were held in Mildura on the Sixteenth October 2003. The forums, which were facilitated by members of the project team, were held with:

- Representatives of key agencies and government departments including Council Staff;
- The elected Councillors of the Municipality; and
- Representatives of Mildura's development community including land surveyors, real estate agents, town planning consultants, and local land developers.

Under each subsection of this chapter key strategic planning issues are identified. Outcomes of stakeholder forums are then also documented (for issues that are presented in sections 5.3 and 5.4). Following this the key implications / assumptions that will be utilised in preparing the Mildura and Irymple 2030 Residential Framework are stated.

The sum of the issues and assumptions are then utilised in the preparation of the 2030 Residential Development Framework for Mildura and Irymple and the accompanying recommendations for modifications to the Planning Scheme (Refer Section 6.0 of this report).

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5.2 State Planning Policy Framework Considerations

The State Planning Policy Framework contains a number of key planning objectives that must be taken into account when preparing the residential planning frameworks for the municipality. The key planning policy statements that are considered relevant to this study are discussed in this subsection of the report.

Issue 1 SPPF Clause 14 – Settlement

Clause 14.01-1 *Objective: To ensure a sufficient supply of land is available for residential, commercial, industrial, recreational, institutional and other public uses.*

Clause 14.01-2 *General Implementation: Planning authorities should plan to accommodate projected population growth over at least a 10 year period, taking account of opportunities for redevelopment and intensification of existing urban areas as well as the limits of land capability and natural hazards, environmental quality and the cost of providing infrastructure.*

In planning for urban growth, planning authorities should encourage consolidation of existing urban areas and especially higher density and mixed use developments near public transport routes.

Clause 14.01-3 *Geographic Strategies: In planning for urban growth, planning authorities should have particular regard to Victoria in Future and the annual land Release Forecasts published by the Department of Infrastructure.*

Implications for Mildura and Irymple 2030 Residential Framework

In accordance with Clauses 14.01-1 and 14.01-2 of the SPPF, the 2030 Residential Framework for Mildura and Irymple should ensure that there is an available supply pool of zoned residential land within the study area to meet a at least a 10 year demand. The residential framework should also encourage the consolidation of existing urban areas.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 2 **SPPF Clause 15.01 – Protection of catchments, waterways and groundwater**

Clause 15.01-1 *Objective: To assist the protection and, where possible, restoration of catchments, waterways, water bodies, groundwater, and the marine environment..*

Clause 15.01-2 *General Implementation: Decision making by planning and responsible authorities must be consistent with any relevant requirements of State environmental protection policies as varied from time to time (Waters of Victoria and specific catchment policies).*

Planning authorities must have regard to relevant aspects of any regional catchment strategies…and any special area plans approved under the Catchment and Land Protection Act 1994.

Planning and responsible authorities should consider the impacts the impacts of catchment management on downstream water quality and freshwater,…and where possible should encourage:

- *The retention of natural drainage corridors…*
- *Measures to minimise the quantity and retard the flow of stormwater runoff from developed areas.*
- *Measures, including the preservation of floodplain or other land for wetlands and retention basins, to filter sediment and wastes from stormwater prior to discharge into waterways.*

Implications for Mildura and Irymple 2030 Residential Framework

In accordance with Clauses 15.01-1 and 15.01-2 of the SPPF, the 2030 Residential Framework for Mildura and Irymple should ensure the protection and, where possible, restoration of catchments, waterways, water bodies, and groundwater. The 2030 Residential Framework should therefore ensure that existing and future areas proposed for residential development have adequate stormwater infrastructure in place as a precursor to development proceeding.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 3 SPPF Clause 15.03 – Salinity

Clause 15.03 -1 *Objective: To minimise the impact of salinity and rising water tables on land uses, buildings and infrastructure in rural and urban areas of environmental significance and reduce salt loads in rivers.*

Clause 15.03 -2 *General Implementation: Planning and responsible authorities should use zoning, overlay controls and permit conditions to:*

- *…*
- *Prevent inappropriate development in areas affected by groundwater salinity.*

Implications for Mildura and Irymple 2030 Residential Framework

In accordance with Clauses 15.03-1 and 15.03-2 of the SPPF, the 2030 Residential Framework for Mildura and Irymple should ensure that the impacts of salinity are minimised and salt loads in rivers are not increased as a result of residential development taking place.
The Mallee Urban Salinity Scoping Study (2003) identifies the following locations that are within the study area as being affected by salinity;

- Parks and recreation reserves in Mildura;
  - South west region of urban Mildura:
  - Walnut Park,
  - North of Walnut Avenue,
  - Ontario Avenue, and
  - Eleventh Street.
- South east region of urban Mildura:
  - Stirling Drive (Sandilong Park)
  - Sunraysia TAFE College
  - Irymple valley.

The exact extent of the salinity within the study area is unknown however it is acknowledged that salinity may place a constraint on future residential development.
The 2030 Residential Framework should therefore indicate that as a high priority task, further investigations are carried out within the study area to determine the extent of the salinity issues in Mildura and Irymple and the planning responses to address them as required (eg development and application of Overlay Controls and the like). In light of the Clause 15.03-1 and 15.03-2 it is suggested that any residential rezonings that may be recommended by the 2030 Framework in the Mildura South area in particular, should be deferred until such time as these investigations are carried out.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 4 **SPPF Clause 16.01 (Residential Development for Single Dwellings) and 16.02 (Medium Density Housing)**

Clause 16.01 -1 *Objective: To encourage:*

- *Subdivisions in location with access to physical and community infrastructure and providing a range of lot sizes, a convenient and safe road network, appropriate pedestrian and cycle paths, sufficient useable open space and low vulnerability to fire.*
- *Residential development that is cost effective in infrastructure provision and use, energy efficient, incorporates water-sensitive design principles and encourages public transport use.*
- *Opportunities for increased residential densities to help consolidate urban areas.*

Clause 16.01 -2 *General Implementation: Maximum use should be made of Clause 56 to plan subdivisions for development of single houses.*

Clause 16.02 -1 *Objective: To encourage the development of well-designed medium density housing which:*

- *respects the neighbourhood character*
- *to improve housing choice,*
- *make better use of existing infrastructure and improve energy efficiency of housing.*

Clause 16.02 -2 *General Implementation: Responsible authorities should use Clause 54 and Clause 55 in considering applications for medium-density housing.*

Implications for Mildura and Irymple 2030 Residential Framework

In accordance with Clauses 16.01 and 16.02 of the SPPF, the 2030 Residential Framework for Mildura and Irymple should encourage future development at a range of lots sizes and densities (including medium density development) and in locations that are contiguous with the existing townships of Mildura and Irymple. The 2030 Residential Framework should therefore also encourage infill development as a matter of priority.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5.3 Local Planning Policy Framework and Other Planning Scheme Considerations

Council's Local Planning Policy Framework is also a key planning consideration that must be taken into account when preparing the residential planning frameworks for the municipality. While it is acknowledged that part of the brief for this project is to update this aspect of Mildura's planning scheme, the current strategic directions, objectives, strategies and implementation measures documented in Council's current planning scheme must be had regard to. In this regard, relevant extracts of the Mildura LPPF are highlighted below under the heading of Issue 5.

Note: The following LPPF text has been annotated where modifications are considered required as result of the findings of the supply demand analysis that has been undertaken in Sections 2 – 4 of this report. (Refer text in bold).

It is also noted that the current overlay regime must also be considered in preparing future planning strategies. These are discussed under the heading of Issue 6.

Issue 5 Clause 21.04-2 Settlement

The overview to Clause 21.04-2 includes the following statements of relevance:

- *The population of the Mallee Region of Victoria is forecast to grow by approximately 16,000 in the next two decades.* ***(The 2030 Residential Framework for Mildura and Irymple needs to update this figure)***
- *The majority of this growth is expected to occur in Mildura, which is one of the fastest growing regional centres in Victoria.*
- *Mildura Rural City recognises and supports the continue development of Mildura as the region's main centre.*
- *It also supports growth in the townships of Merbein, Red Cliffs, Irymple, Ouyen and smaller communities throughout the municipality in order to facilitate the development of sustainable communities.*
- *It is projected that an additional 160 - 250 dwellings per annum will be built in the region over the next 10 years to accommodate the projected population growth.* ***(The 2030 Residential Framework for Mildura and Irymple needs to update this figure)***
- *Approximately 20 ha of serviced residential land will need to be developed each year to accommodate this development.* ***(The 2030 Residential Framework for Mildura and Irymple needs to update this figure)***

- *The Mildura urban area has in excess of 20 years supply of residential land based on these projections, as there are currently extensive areas of vacant land either zoned for residential development or nominated for future residential development but zoned rural in and around urban Mildura. Such land includes:*
  - Approximately 80 hectares of vacant land zoned Residential 1 that has immediate access to all services. (Stage 1)
  - Approximately 400 hectares of vacant land zoned Residential 1 that has some but not all services (Stage 2).
  - Approximately 150 hectares of land zoned Rural that has been nominated for future residential development (Stage 3).

  (The 2030 Residential Framework for Mildura and Irymple needs to update these figures)
- *Staging the release of this land to control the number of development fronts is of critical importance to the Rural City in order to ensure that infrastructure is maximised and to protect the integrity and functioning of rural activities.*
- *Also considered important is retaining the framing of the Rural City's towns by agricultural activity. The adoption of urban growth boundaries to clearly define the limits of urban growth is considered important to achieve these outcomes.*
- *There is demand for a variety of housing opportunities and styles throughout the municipality and surrounding region, including: units and smaller forms of housing especially adjacent to Mildura City Heart; single houses on conventional lots generally of 400 to 1000 sq.m.; rural residential and low density development; and rural housing. Provision is required for both private and public housing.*
- *Importantly, the provision of a diversity of housing alternatives for ageing on-farm families will in turn assist in the continued use and development of productive agricultural and horticultural land.*

The Key Strategic Issues relating to Settlement in the municipality as contained in the current planning scheme include:

- *Facilitating the staged and orderly development of the Rural City's urban communities in order to maximise infrastructure utilisation, appropriately manage the rural urban interface and protect the integrity and functioning of agricultural activity on the edge of townships.*
- *Accommodating the diverse housing and lifestyles preferences of a large and expanding population in an economic, environmental and socially responsible manner.*
- *Managing potentially conflicting land uses.*
- *Maintaining the provision of community facilities throughout the municipality's urban and rural communities.*
- *Maintaining the positive characteristics that make the Rural City of Mildura unique.*

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

There are six Settlement Objectives contained in the current planning scheme at Clause 21.04-2. Each of the Objectives is supported by a number of strategies. They include.

The Settlement Objectives and supporting Strategies documented in the LPPF include:

Objective 1: Facilitate the orderly development of the Rural City and its townships.

Strategies:

- *Encourage and facilitate the development of the following urban hierarchy:*
  - Reinforce and promote the development of Mildura as the key service centre of the Region providing a wide range of community and commercial services along with residential, industrial, commercial and community development opportunities aimed at promoting the sustainable development of not only the town, but the region as a whole.
  - Retain Merbein as a viable town based on anticipated growth and the provision of support services to the local community.
  - Retain Irymple as an identifiable town in its own right, acting as a service centre to the surrounding horticultural area accommodating modest urban growth.
  - Retain Red Cliffs as a viable town and service centre for the surrounding horticultural industry accommodating anticipated residential growth.
  - Retain Ouyen as a viable town and service centre providing important support services for the communities in the southern areas of the municipality.
  - Acknowledge and support the role of the other local centres throughout the municipality in providing adequate residential land, convenience shopping and community services for their surrounding areas and as gateways to public land assets.
- *Adopt and implement urban growth boundaries to clearly define the limits of urban growth in the municipality's major townships, utilising soil capability, roads, natural features and the efficient provision of infrastructure to define such areas.*
- *Develop new housing estates in accordance with a Development Plan that identifies layout, staging and provision of services.*
- *Promote infill residential development in appropriate areas.*

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Objective 2: *Provide for the staged release of land for urban development by implementing a clearly defined residential development staging plan to provide for a minimum five year supply of residentially zoned and serviced land in a limited number of development fronts.*

Strategies:

- *All land zoned Residential 1 (RZ1) and located north, north-west and west of Deakin Avenue and Fifteenth Street is to be released for residential development as Stage 1 of the municipality's future residential development strategy. When this land has reached approximately 50 percent capacity then the Stage 2 land is to be released for residential purposes and based on development plans;*
- *The Stage 2 land is all other land zoned Residential 1 (RZ1). When these areas have reached 50 percent capacity, then the third and final stage of the strategy is to be released for residential subdivision and development, subject to development plans; and*
- *The Stage 3 land located on the southern side of Etiwanda Avenue between Fourteenth and Fifteenth Streets is to remain available for rural production until Stage 2 has reached approximately 50% capacity.*
  (The 2030 Residential Framework for Mildura and Irymple needs to update this figure)

Objective 3: *Provide a diversity of housing styles and living opportunities throughout the municipality to ensure the attractiveness of the municipality as a place to live, work, and invest is maintained.*

Strategies:

- *Encourage a diversity of housing styles and densities reflecting changing market demands and recent trends such as the development of units and smaller housing lots.*
- *Accommodate the demand for low density allotments in planned estates rather than the ad hoc subdivision of, and excision from, rural land holdings.*
- *Encourage innovative forms of residential development such as those based on recreation and open space areas in suitable locations, particularly in the vicinity of Lake Ranfurly, Lake Hawthorn and Kings Billabong.*

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Objective 4: Minimise the potential for future land use conflicts.

Strategies

- *Limit the location of sensitive land uses in the vicinity of industries or other activities with significant off site effects including noise, traffic and residual air emissions so as to minimise the potential for future land use conflicts.*
- *Limit the establishment of housing in locations where amenity may be negatively impacted on by farming and related activities, or where the location of housing may inhibit rural activities.*

Objective 5: Facilitate the development and maintenance of community facilities throughout the municipality's urban and rural communities.

Strategies:

- *Prepare Outline Development Plans to identify the need for and location of community facilities in growth areas.*
- *Focus development around existing community infrastructure and services to maximise the efficient use of community services in the municipality and surrounding region.*
- *Undertake social planning and community consultation in determining the provision of services and facilities.*
- *Prepare and apply development contributions plans to determine and fund the future provision of services and facilities.*

Objective 6: Protect the integrity, function and appearance of existing natural and built features that provide Mildura with a sense of identity and unique character.

Strategies:

- *Encourage the maintenance of Deakin Avenue as a grand boulevard and gateway to Mildura.*
- *Encourage the framing of the Rural City's towns by productive agricultural and horticultural activities.*
- *Maintain the separation of Mildura from Irymple and Merbein*
- *Encourage improved access to the Murray River foreshore from Mildura City Heart.*

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Implications for Mildura and Irymple 2030 Residential Framework

The 2030 Mildura and Irymple Residential Framework must have regard to the overview statements, objectives and strategies documented in Council's Local Planning Policy Framework as highlighted above.

Having reviewed Clause 21.04 of the LPPF, the project team considered that the general thrust of the Clause remains valid today as a sound planning framework for the development of the municipality's urban areas. As such, the Objectives and Strategies contained in Clause 21.04-2 will be used as the basis for the 2030 Residential Framework, with additional statements and modifications included as required based on the other findings of this investigation.

Having noted this, the project team is also cognizant of the comments regarding the suggested modifications to the LPPF structure recommended by Keaney Planning Research and KPlan in their October 2003 report titled *A guide to restructuring and updating the Mildura LPPF*.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 6 Planning Scheme Overlays

There are four overlays that effect parts of the study area. They include:

Land Subject to Inundation Overlay

There is a Land Subject to Inundation Overlay (LSIO) in the north west of the study area occupying 14.10 ha.

Floodway Overlay

The Floodway Overlay (FO) occupies a total area of 2.23 ha dotted along the east of the study area.

Environmental Significance Overlay 1

The Environmental Significance Overlay 1 (ESO 1) focuses on watercourses and wetlands, including the Murray River. The total number of hectares in the study area covered by ESO 1 is 25.43 ha.

Environmental Significance Overlay 2

The Environmental Significance Overlay 2 (ESO 2) pertains to the Mildura Waste Water Treatment Plant and Reuse Centre, occupying 25.30 ha in the north of the study area.

Implications for Mildura and Irymple 2030 Residential Framework

- The Mildura and Irymple 2030 Residential Framework for Mildura and Irymple needs to ensure that residential development is not proposed in areas constrained by overlay controls.
- Subject to the findings of further salinity investigations, some of the area proposed for future urban use may in fact be salinity impacted requiring additional overlay controls to be applied. (Refer discussion relating to Issues 3 – Salinity)

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5.4 Key Findings from Demand / Supply Analysis (Sections 2 – 4 of this Report)

Sections 2 – 4 of this report documents a detailed residential demand / supply analysis for the municipality and the study area. The nature of such assessments requires the application of a number of assumptions. Being assumption based, the ultimate projections that emerge from the analysis will be significantly influenced by the selections of assumptions that are ultimately adopted. A number of development scenarios are presented in the analysis. The development scenarios and assumptions were discussed at 3 stakeholder forums in the municipality in order for the project team to be guided in the preparation of the Residential Framework for Mildura and Irymple. This sub section of the report presents the findings of this process.

Issue 7 2003 Population Estimate for the Municipality

The analysis documented in Section 2 of this report identified that the 2003 population of the municipality is approximately 51,320.

Output of Stakeholder Forums

There was general agreement at all 3 stakeholder forums that the above 2003 population estimate for the municipality is reasonable / accurate.

Implications for Mildura and Irymple 2030 Residential Framework

A base line (2003) resident population estimate for the Rural City of Mildura of 51,320 will be adopted for the 2030 Residential Framework.

Issue 8 Growth Rate Projections

The analysis undertaken in Section 2 of this report contains a set of conservative, likely and ambitious projections of the following:

- annual rate of population growth;
- estimate of the municipalities population in the year 2030;
- estimate of net population increase to the year 2030; and
- an estimate of the number of new dwellings that would be required in the municipality by the year 2030.

Output of Stakeholder Forums

There was general census at all three stake holder forums that the suite of ***ambitious*** growth rate projections should be utilised for the purposes of future strategic planning within the municipality and the study area. While the project team highlighted that they considered the ambitious projections were just that (ambitious) Councillors and other stakeholders indicated their preference for their use in the study due significantly to

their desire to ensure that future land use planning does not suffer the historical problems that have arisen from the conservative approaches that have been adopted in the past.

Implications for Mildura and Irymple 2030 Residential Framework

Based on the feedback from the stakeholder forums, and more specifically the direction specified to be adopted by Mildura Rural City Councillors, the following growth rate projections will be adopted for the preparation of the Mildura and Irymple 2030 Residential Framework:

Factor	Projections to be Adopted for Future Planning Purposes
Annual rate of population growth rate	1.9% per annum
Estimate of the municipality's population in the year 2030	86,000
Estimate of net population increase in the municipality to the year 2030	34,750 @ 1,286 persons per annum
Estimate of the number of new dwellings that would be required in the municipality by the year 2030	13,900 new dwellings required @ 496 per year

Issue 9 Total Area of Vacant / Undeveloped Residential 1 Zoned Land in Mildura City, Mildura South and Irymple (Study Area)

The analysis undertaken in Section 3 of this report determined that as at the Oct 2003 there was approximately 362 ha of R1Z land in the Study Area that had not yet been developed nor had subdivision permit issued.

Output of Stakeholder Forums

There was general census that the above calculation was reasonable / accurate however it was reiterated that the significant majority of this land is currently not able to be subdivided / developed as required stormwater infrastructure is not in place. It is noted that the 362 ha may be reduced as some of the land may need to be taken out of the supply pool as it may be affected by salinity. Council have formally resolved (24th October 2002) that residential land which is not provided with adequate stormwater infrastructure not be approved for further development. Due to the limitations of the districts stormwater infrastructure, it is anticipated that all existing opportunities for residential

sub-division will be taken up by early 2004. It was also agreed that the present Residential 1 Zonings were appropriate.

Implications for Mildura and Irymple 2030 Residential Framework

- While there is a significant pool of undeveloped zoned Residential 1 land within the study area (362 ha), the residential framework for Mildura City, Mildura South and Irymple needs to acknowledge that there is an urgent need to undertake capital works (storm water infrastructure) to enable this land to be developed.
- Further salinity investigations need to be undertaken in order to determine the amount of Residential 1 Zoned land that is affected by salinity and what remedial works are required.
- The residential framework needs to recommend a course of action to systematically provide a number of development fronts. If this does not occur, land prices will become artificially inflated and the limited opportunities for residential development will stifle growth. Additional pressure will also emerge for residential development in the Rural Zone.
- The framework needs to acknowledge that while the development of the Sixteenth Street Drain at a cost of $2.5 million dollars will provide one such development front by July 2004 for land bounded by Riverside and Walnut Avenues and Fifteenth and Sixteenth Street, additional drainage basins and associated connections to the Calder Drain works are required as a matter of priority in Mildura City (behind Bunnings) and Irymple (Karadoc Avenue).
- Work is currently being undertaken to prepare a Development Contribution Plan for Mildura South in order to provide the mechanism to recover costs associated with the development of this area.
- In October 2002 Council resolved to prepare a *Stormwater Drainage Infrastructure Provision Strategy and a consequential Financial Strategy* to address the significant stormwater infrastructure constraints that are affecting residential development in the municipality. This work has yet to be undertaken.
- The Mildura and Irymple 2030 Residential Framework should be used to guide the above mentioned study.
- It would appear logical to extend the scope of the Development Contributions Plan to all undeveloped residential land in Mildura, Mildura South and Irymple take account of the findings of the Stormwater Infrastructure Provision Strategy and associated Financial Strategy.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 10 Lot Yield from Existing Land Zoned Residential 1

The analysis undertaken in Section 3 of this report determined that the likely lot yield from the undeveloped zoned Residential 1 land in the study area will be approximately 6,187 lots if development was to mirror the lot size mix currently exhibited in the study area or approximately 4176 lots if future subdivision was to occur at an average lot size of 650 sq metres.

Output of Stakeholder Forums

The developer forum agreed that lot sizes were getting smaller due to a range of factors including price of land increasing, household size decreasing and the aging population. There was general consensus that future projections should be based on the development of a mix of lot size, similar to that which is currently on ground. Utilising this projection the lot yield to be realised from existing zoned Residential 1 land in the study area will be approximately 6,187 lots.

Implications for Mildura and Irymple 2030 Residential Framework

- For the purpose of this study it is estimated that approximately 6,187 lots will be created on land currently zoned Residential 1 in the study area.

Issue 11 Number of Years Supply Remaining on Land Currently Zoned Residential 1

The analysis undertaken in Section 4 of this report concluded that approximately 85% of new houses built in the municipality over the forecast period will be constructed in the study area. If the ambitious growth projection for the municipality is realised (496 new dwellings in the municipality per annum) it is projected that the existing supply of Residential 1 zoned land in the study area (if provided with Stormwater infrastructure) will be fully developed within approximately 14.7 years, assuming that new subdivision occurs at a mix of lot sizes that generally reflects on ground conditions in the rest of the study area.

Output of Stakeholder Forums

The developer forums generally agreed that the existing pool of residential land within the study area will notionally be fully developed within approximately 15 years based on the above assumptions which they generally consider to be accurate. However it was also reiterated that this timeline is likely to pushed out due to the rate of development

being constrained, at least in the short term, due to inadequate stormwater being in place.

Implications for Mildura and Irymple 2030 Residential Framework

- For the purpose of this study it is acknowledged that the existing supply of Residential 1 land in the study area will fully developed within approximately 15 years if development continues in line with the ambitious rate of development forecast, at a range of lot sizes generally in line with current on ground conditions, and if storm water infrastructure issues are addressed in the short term.
- The project team considers it unlikely that all these assumptions will be realised and considers its likely projection of there being approximately 22 years supply is more realistic. Having noted this, based on Council's desire to plan for an ambitious rate of development the 2030 Residential Framework will be based on the assumption that the existing pool of zoned residential land in the study area will be fully developed within approximately 15 years.
- Based purely on the consideration of this issue it is considered that there is not a pressing demand to rezone additional Residential 1 land in the study area in the short term (as notionally there exists a 15 odd year supply). However, due to the prospect of their only being 1 realistic development option within the study area by mid 2004 (Mildura South) due to storm water servicing constraints (refer issue 3 above) some limited short term Residential 1 rezonings are considered justified in the short term (refer Section 6 of this report).

Issue 12 Estimate of additional residential lots required in the study area by the year 2030 and associated projection of long term Residential 1 rezonings required to accommodate long term forecast demand.

The analysis also undertaken in Section 4 of this report concluded that if approximately 85% of future housing activity in the municipality was to occur in the study area, based on an ambitious growth projection, approximately 11,815 new residential dwellings will be required in the study area by the year 2030. Given the previous findings / assumptions determined in relation to Issue 4, (future lot yield from the current zoned land in the study area will be approximately 6,187 lots) rezonings will need to occur in the medium to longer term to accommodate approximately an additional 5,628 lots. Under this development scenario it is estimated that an additional 395 hectares of land will need to be rezoned to Residential 1 to meet the 2030 residential demand forecast.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Output of Stakeholder Forums

The stakeholder forums generally agreed that based on the findings of the analysis it would be appropriate to nominate at this time where such development (an additional 395 ha of residential development) is to occur.

Implications for Mildura and Irymple 2030 Residential Framework

- The Mildura and Irymple 2030 Residential Framework needs to identify the preferred locations, and accompanying staging sequence to accommodate an additional 11,815 new residential lots within the study area. This will require an additional 395 ha of land to be identified for future residential development in the study area.
- It is again stressed that the project team consider that it is unlikely that such quantum of land will be required for residential development by the year 2030. Having stated this, the project team acknowledges that for the purpose of sound strategic planning within the study area, it is not inappropriate to consider very long development strategies. In effect, the project team considers that as long as rezonings are appropriately staged there is no harm in indicatively nominating a long term preferred development scenario based on the need for an additional 11,815 lots in the study area.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

5.5 Identified Issues and Constraints Affecting Development of Land Currently Zoned or Nominated for Future Residential Development

A number of potential issues and constraints have been identified that need to be considered when identifying the preferred location of future residential rezoning / development to accommodate the long term residential needs within the study area. As identified above an additional 415 ha may be required for residential development by the year 2030 if the ambitious growth projections for the municipality are realised. The issues and planning considerations to be taken into account in this 2030 residential framework are now discussed. It is also noted that the issues identified may also have implications for the development of land currently zoned Residential 1 in the study area.

Issue 13 Infill Development

Prior to additional land being rezoned for further residential development outside the current boundaries of the Residential 1 zone land within Mildura and Irymple it is recommended that in-fill development on serviced residential land be encouraged. This will lead to the efficient use of existing services before new services need to be developed. In-fill development in the towns will create an opportunity to develop a range of housing types including medium density housing, which is likely to appeal to the smaller household uses including the aging population.

Output of Stakeholder Forums

The stakeholder forums generally agreed that the promotion of infill development was a sound planning strategy.

Implications for Mildura and Irymple 2030 Residential Framework

- In line with the implications highlighted in relation to Issue 4, the 2030 Residential Framework for Mildura and Irymple should encourage future development at a range of lots sizes and densities (including medium density development) and in locations that are contiguous with the existing townships of Mildura and Irymple. The 2030 Residential Framework should therefore also encourage infill development as a matter of priority.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 14 Infrastructure

Infrastructure provision is presently one of the most significant constraints on further residential development in Mildura and Irymple. (Also refer to discussion contained in relation to Issue 9)

Each potential development front in the study area (Mildura City - between San Mateo and Etiwanda Ave; Mildura South – South between Fifteenth and Sixteenth Streets; and all land zoned R1 at Irymple) requires the installation of major stormwater infrastructure prior to subdivision approval being granted.

The only planned major stormwater infrastructure works currently being pursued in the municipality is the construction of the Sixteenth Street Drain which is anticipated to be completed for the section between Lake Hawthorn to Walnut Ave by Mid 2004. Until this time, there remains only very limited pockets of land available for subdivision.

Lower Murray Water, the local provider of urban water and sewerage services, indicate that there is little constraint on them providing these services in line with development needs.

Output of Stakeholder Forums

The stakeholder forums generally agreed that stormwater Infrastructure capital works represented the urban development priority for the municipality. The developer forum in particular stressed the need for infrastructure works to be carried out in a number of areas to enable a number of development fronts (say 3) to be available to the market.

Implications for Mildura and Irymple 2030 Residential Framework

- Refer Implications Documented in Issue 9

Issue 15 Mildura and Irymple Boundary

Mildura's LPPF clearly highlights that it is planning policy to maintain the identities of the two towns. The LPPF contains the following reference to Irymple:

- *Retain Irymple as an identifiable town in its own right, acting as a service centre to the surrounding horticultural area accommodating modest urban growth.*

In relation to maximising the efficient use of infrastructure there are also a number of issues that support the retention of the non-urban break between Irymple and Mildura.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

No issues have been identified in this investigation that would justify the linking of these two townships nor that would justify a modification to Council's current policy position on the matter (Also refer to comments documented in relation to Issue 16).

Output of Stakeholder Forums

While a number of Councillors expressed views that the continuation of retail activity along Fifteenth Street would be desirable, no firm Council position has be made on the matter in relation to residential development. It is also understood that the current retail strategy recommends restricting the outward expansion of retail activity to Benetook Avenue.

Implications for Mildura and Irymple 2030 Residential Framework

- In relation to the non-urban break between Mildura and Irymple, the Mildura and Irymple 2030 Residential Framework encourages its maintenance at this time. The strategic position contained in the Gazetted LPPF for the municipality should be reiterated in the 2030 Framework as follows:
    - *Retain Irymple as an identifiable town in its own right, acting as a service centre to the surrounding horticultural area accommodating modest urban growth.*

Issue 16 Sturt Highway truck route re-alignment

A study conducted in 2002 investigated the relocation of the Sturt Highway through Mildura. The study findings concluded that Deakin Avenue and Seventh Street be retained as the Sturt Highway at that stage however in future it was recommended that a heavy vehicle by pass be development from on the Bridge along 7th Street and down Benetook Avenue to 17th Street. It is understood that this is a seriously entertained proposal. If the heavy vehicle by pass was to be implemented, the development of land abutting Benetook Avenue for sensitive land uses such as Residential development should be discouraged.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Output of Stakeholder Forums

The Councillor forum indicated that signage was about to be erected encouraging heavy vehicle traffic to utilise Benetook as a Mildura City By-Pass.

Implications for Mildura and Irymple 2030 Residential Framework

- Due to the likelihood of Benetook Avenue becoming a designated heavy vehicle by-pass (from 7th Street to 17th Street), the 2030 Residential Framework for Mildura and Irymple should avoid the siting of sensitive land uses such as residential development along either side of this road. (Also Refer to discussion on the Retail Strategy documented under Issue 20)

Issue 17 Mildura Airport

The Mildura Airport is considered a vital asset of the Municipality. It is imperative that the future functioning of the airport is not compromised by urban encroachment.

It is understood that a recently completed Airport Master has recommended the modification (extension) of the ANEF Noise Corridors associated with the continued operation of the airport and that the recommendations of the Master Plan are currently being incorporated into a Planning Scheme Amendment.

Output of Stakeholder Forums

The stakeholder forums unanimously agreed that any future development within the municipality must not compromise the continued operation of Mildura Airport.

Implications for Mildura and Irymple 2030 Residential Framework

The 2030 Residential Framework for Mildura and Irymple must be consistent with the recommendations of the Mildura Airport Master Plan, and specifically, it is important that any proposed future expansion of urban development in Mildura South does not encroach on the proposed ANEF Noise Contour or other recommendations of the Master Plan.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 18 Mildura Industrial Land Use Strategy

The Mildura and Irymple 2030 Residential Strategy needs to take account of the short and long term recommendations contained within the 2030 Industrial Land Study. Some of these recommendations relate to rezoning and the discouragement of small lot excisions.

The Mildura Industrial Land Use Strategy recommends that only part of the Stage 3 residential development area adjoining the northern and southern sides of Benetook Avenue north of Fifteenth Street be rezoned in the medium to long term for future residential use. It proposes that the land fronting Benetook Avenue be encouraged for peripheral sales and commercial uses subject to such rezonings being strategically justified. The key advantages of clustering these type of uses along the northern and southern side of Benetook Avenue include utilisation of existing infrastructure, development of a clear strategic role for this section of Benetook Avenue, prevention of further fragmentation of the non-urban corridor between Mildura and Irymple, prevention of further sensitive uses being developed either side of the proposed heavy vehicle by-pass and consistency with orderly and proper planning.

The report also recommends that a Council resolution to rezone land in Irymple adjoining the industrial area to Residential 1 be rescinded.

Council has adopted the Strategy and is preparing to implement its recommendations.

Output of Stakeholder Forums

The stakeholder forums supported the development of land adjoining Benetook Avenue for commercial or light industrial purposes. Its development for residential use was inappropriate given the likely re-routing of the heavy vehicle by-pass.

Implications for Mildura and Irymple 2030 Residential Framework

The 2030 Residential Framework for Mildura and Irymple must be consistent with the recommendations of the Mildura Industrial Land Use Strategy.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 19 2003 Retail Strategy Review

The review was commissioned in June 2003 and its key purposes were to complete an up to date audit of the commercial centres in Mildura, determine their future roles and opportunities, determine the amount of retail floor space required to satisfy notional demand to 2021 and to make consequential policy changes. The review determined that the Mildura Trade Area may support up to 24 hectares of additional land in a Business 1 Zone and an additional 5 hectares of land in a Business 4 Zone. It is recommended that retail activities be consolidated in the City Heart with additional land being rezoned for Business 1 and 4 within and adjoining the Central Plaza and Fifteenth Street precincts.

Output of Stakeholder Forums

Stakeholders expressed support for rezoning of land to Business 4 along Benetook Avenue to the north of Fifteenth Street as per the Industrial Strategy recommendation. There was general support for the consolidation of commercial activities adjoining the Fifteenth Street precinct.

Implications for Mildura and Irymple 2030 Residential Framework

- That the staging plans identifying likely future residential development areas in Mildura City and Mildura South have regard to the likely expansion of the Central Plaza and Fifteenth Street commercial areas.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 20 2003 Rural Residential Review

A rural residential review has recently been submitted to Council for consideration. The review, prepared by O'Neil Pollock & Associates as a follow up to work undertaken in 2001 with Keaney Planning & Research, includes a rural residential demand supply assessment in order to identify if additional LDR rezonings are required in the municipality. The review recommends the rezoning of 2 additional parcels of land to the LDR zone, 29.2 ha abutting Lake Hawthorn (the old Mildura Feed Lot site) and 63.1 ha of land at Nichols Point.

Longer term rezonings (upon the significant take up of this and other areas currently zoned for LDR development in the Municipality) are recommended at Sandilong Ave, Irymple (35.7 ha) and an additional 40 ha at Nichols Point.

The strategic justification for both rezonings is contingent upon Council maintaining its rural policy position that discourages lot excisions on properties less than 10 ha in size but allows the creation of some vacant small lots in the Rural Zone as a trade off for farm consolidation. Council has yet to formally resolve its position on this issue.

Output of Stakeholder Forums

The findings of the Rural Residential Review were not discussed at the Stake holder forums held mid Oct 2003 as the report had yet to be finalised. Having noted this, individual discussions were held with land surveyors in Mildura, and representatives of Council, Lower Murray Water and the Mallee Catchment Management Authority. The output of these discussions confirmed the need for additional LDR rezonings and the appropriateness of the locations identified for rezoning. (It is also noted that the recommended rezonings were nominated as high priority candidates for LDR rezoning by attendees of a Developer Forum held in July 2002.)

Implications for Mildura and Irymple 2030 Residential Framework

- The Mildura and Irymple 2030 residential framework should have regard to the existing and proposed future areas that have been nominated for rural residential development as follows:
  - Short Term Recommended Rezonings to LDRZ
    - 29.2 ha abutting Lake Hawthorn (the old Mildura Feed Lot site) and
    - 63.1 ha of land at Nichols Point.
  - Long Term Recommended Rezonings to LDRZ
    - Sandilong Ave, Irymple (35.7 ha) and
    - An additional 40 ha at Nichols Point.

5 Key Strategic Planning Considerations and Output of Stakeholder Consultation

Issue 21 Rural Policy Review

As highlighted in commentary in relation to Issue 20 above, Council has recently received a report regarding modifications to its Rural Policy.

The Policy before Council basically maintains the status quo in relation to the operation of its current policy. The policy position advocated discourages lot excisions on properties less than 10 ha in size but allows the creation of some vacant small lots in the Rural Zone as a trade off for farm consolidation. Council has yet to formally resolve its position on this issue.

Should Council adopt the recommended Rural Policy position, and adopt the LDR study as drafted, it is contended that the pressure for rural residential development in the municipality's rural zone will be deflated and the long term viability and productivity of the horticultural sector will be enhanced.

Output of Stakeholder Forums

It is understood that the Rural Policy has been subject of 2 rounds of discussion with Councillors and at least 1 meeting of Council's developer forum. It is understood that the developer forum generally agreed with the content and proposed application and administration of the Policy.

Implications for Mildura and Irymple 2030 Residential Framework

- The 2030 Residential Framework for Mildura and Irymple should have regard to Council's position on its Rural Policy.
- Should Council adopt the redrafted Policy before it that discourages lot excisions on properties less than 10 ha in size but allows the creation of some vacant small lots in the Rural Zone as a trade off for farm consolidation it is estimated that new housing opportunities in the Rural zone will occur at the rate of approximately 15 per year (150 over a 10 year period). (It is noted that this rate of development is within that forecast in the demand supply analysis undertaken in Sections 2 -4 of this report).
- Should Council adopt a modified Rural Policy Position that in effect increases the opportunity for housing in the rural zone through lot excisions and boundary realignment, the 2030 Residential Framework will need to take into consideration that 450 plus rural residential dwellings may be created in the study area.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

6.1 Aim of this Section of the Report

This section of the report documents the recommended 2030 Residential Strategy for the Mildura City, Mildura South and Irymple. The residential framework is based on the results of the analysis and investigations that have been documented in Sections 2 – 5 of this report.

The Strategy is presented in 4 parts as highlighted below:

1. Introduction
2. Key Findings of the 2030 Residential Demand – Supply Analysis
3. Objectives and Strategies to Guide the Future Development of the Study Area
4. Recommended Actions and Residential Staging Sequence to Guide the Residential Development of the Study Area to the Year 2030

This section of the report represents a discreet and consolidated 2030 Residential Development Strategy Mildura City, Mildura South and Irymple. Upon its endorsement / modification by Council it should be used to form the basis of subsequent modifications to the Planning Scheme.

6.2 2030 Residential Strategy for Mildura City, Mildura South and Irymple

The 2030 Residential Strategy for Mildura City, Mildura South and Irymple is presented as a discreet report in the following pages.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

1 Introduction

The 2003 population of Mildura Rural City is approximately 51,320. The municipality has averaged an annual population growth rate of approximately 1.73% over the 6 year period 1997 - 2003 (a growth rate of some 805 persons per year).

The Townships of Mildura and Irymple accommodated approximately 98% of the municipality's net population growth in the last inter-census period. (Refer Existing Zoning Regime - Figure 1)

By the year 2030 these two townships are forecast to experience a net population growth of between 14,500 people (conservative projection) and 34,750 (ambitious projection).

In order to appropriately plan for the co-ordinated development of these two townships, Mildura Rural City Council has commissioned the preparation of this 2030 Residential Strategy for Mildura and Irymple. The strategy takes into account the recommendations of a number of other strategic planning investigations being concurrently undertaken in the municipality, namely a Retail Study, an Industrial Strategy, a Rural Living Strategy and a review of Council's Rural Zone Policy.

The specific need for the study became apparent in August 2003 when Council commenced its 3 year review of its Local Planning Policy Framework (LPPF). Through consultation with the development community the review process identified, amongst other things, that residential subdivision and housing commencements over the last 3-5 years may have significantly exceeded projections and as a consequence, the residential staging sequence for Mildura and Irymple articulated in the planning scheme may no longer accurately reflect Mildura's short, medium and long term residential development needs.

The findings of the investigations that have been undertaken as part of this project have confirmed that the projections that were utilised as the basis of Council's current planning scheme were indeed clearly underestimated. Another significant finding of the background investigations was that while there is a significant pool of land zoned for conventional residential development in the townships of Mildura and Irymple, at present there are extremely limited new subdivision development opportunities in the study area due to significant stormwater servicing constraints.

As a consequence Mildura Rural City is committed to putting in place, via the implementation of this 2030 Residential Strategy, a long term planning framework that is unashamedly ambitious with the aim of providing a residential land bank that will accommodate the foreseeable housing needs of current and future residents of Mildura City, Mildura South and Irymple.

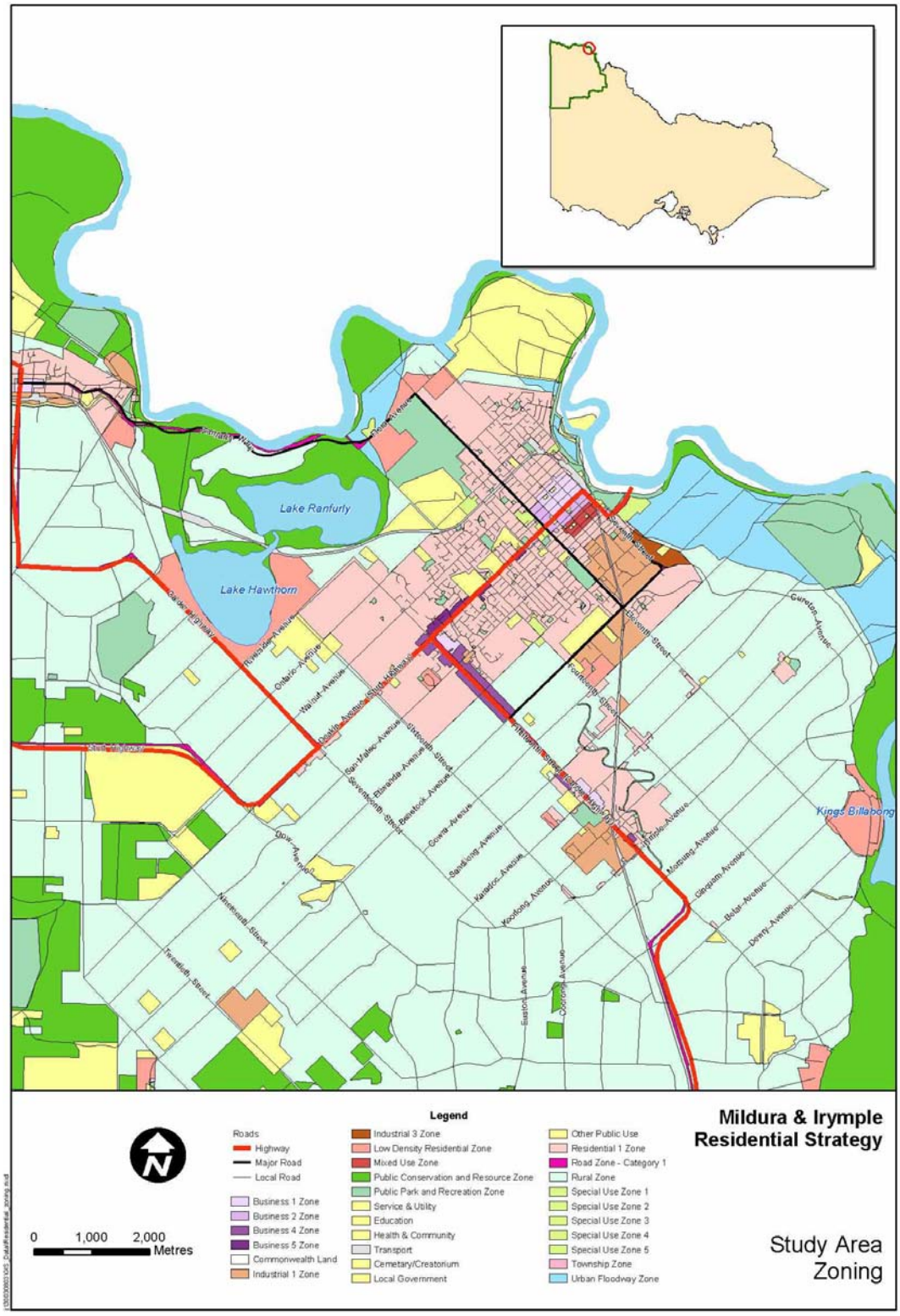
The 2030 strategy recognises and supports the continued development of Mildura as the region's main centre while also supporting the development of the Irymple Township.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

The strategic framework also acknowledges and supports growth in the townships of Merbein, Red Cliffs, Irymple, Ouyen and smaller communities throughout the municipality in order to facilitate the development of sustainable communities.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

Figure 1 Existing Zoning Regime



6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

2. Key Findings of the 2030 Residential Demand / Supply Analysis

This section of the report documents the key projections and findings of the 2030 Residential Demand / Supply Analysis that have been adopted for the development of the 2030 Residential Strategy for Mildura City, Mildura South and Irymple. (Refer Sections 2 – 4 of the main body of the report).

2.1 Growth Rate Projections

Current Population of the Rural City of Mildura

- The base line (2003) resident population estimate for the Rural City of Mildura is 51,320.

Growth Rate Projections

- Annual Rate of Population Growth rate of the municipality will be 1.9% per annum.
- The municipality's population in the year 2030 will be approximately 86,000.
- The net population increase in the municipality for the period 2003 to 2030 will be approximately 34,750 people (at a rate of approximately 1,290 per year)
- The number of new dwellings that will be required in the municipality by the year 2030 will total approximately 13,900 (at a rate of 496 new dwellings per year).
- Based on past and forecast growth rates, it is assumed that approximately 85% of the new housing construction will occur within the study area. Based on this assumption the study area share of new housing activity to the year 2030 will be approximately 11,815 (at a rate of 422 new dwellings per year).

2.2 Notional Capacity of Residential 1 Zoned Land

Total Area of Vacant / Undeveloped Residential 1 Zoned Land

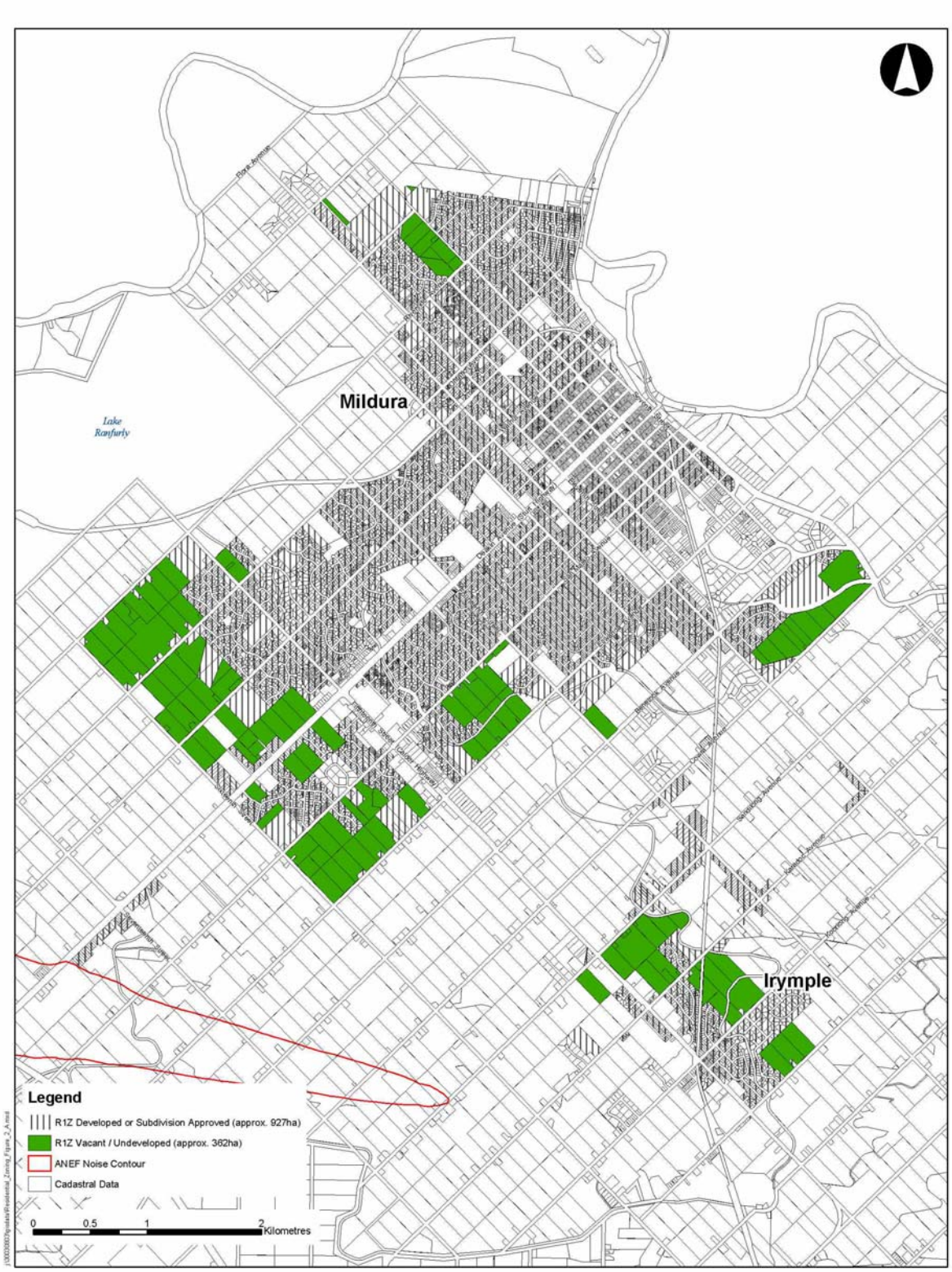
- There is approximately 362 ha of R1Z land within Mildura City, Mildura South and Irymple which has not been developed / not been issued a planning or subdivision permit for residential development at conventional lot densities. (*Refer Area Shaded Yellow in Figure 2*)

Notional Lot Yield from Existing Land Zoned Residential 1

- It is estimated that approximately 6,187 lots can be developed on the vacant 362 ha of R1Z land in the study area. This lot yield represents a mixture of lot sizes generally reflecting on ground conditions in the study area.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

Figure 2 Development status of R1Z land in study area



Notional Number of Years Supply (Land Currently Zoned R1Z in Study Area)

- Notionally the undeveloped R1Z land in the study area represents a 14.7 year supply (based at development occurring at the ambitious projection of 422 lots per year). It is noted that the construction of significant drainage infrastructure capital works will be required throughout the study area in order for this development to occur. [1]

2.3 Future Residential 1 Land Requirements

Additional Residential Land / Lots Required in Study Area to Accommodate Ambitious Growth Rate Projection

- In order to accommodate the ambitious residential demand forecast, it is estimated that an additional 395 ha of residential land needs to be identified and nominated for future residential development in the study area. This quantum of land is required to accommodate the short fall of 5,628 lots that have been identified as needed in the study area by the year 2030 (11,815 – 6,187 = 5,628 additional lots required). The land area is based on the assumption that future development will generally occur in line with the mix of lot sizes that is currently on ground. [2]

2.4 Actual Capacity of Residential 1 Zoned Land (Mid 2004)

Current Actual Available Supply of Residential 1 Zoned Land in Study Area

- Of the 362 ha of land zoned for residential development in Mildura, Mildura South and Irymple, it is estimated that there is only approximately 30 ha of undeveloped vacant land that is actually currently available for subdivision (eg land that is able to serviced by existing storm water infrastructure) excluding infill development on serviced residential land. The remaining 332 ha of undeveloped R1Z land in the study area requires significant stormwater infrastructure capital works to be put in place as a procurer to development being able to take place. *(Refer Area Shaded Blue in Figure 3).*

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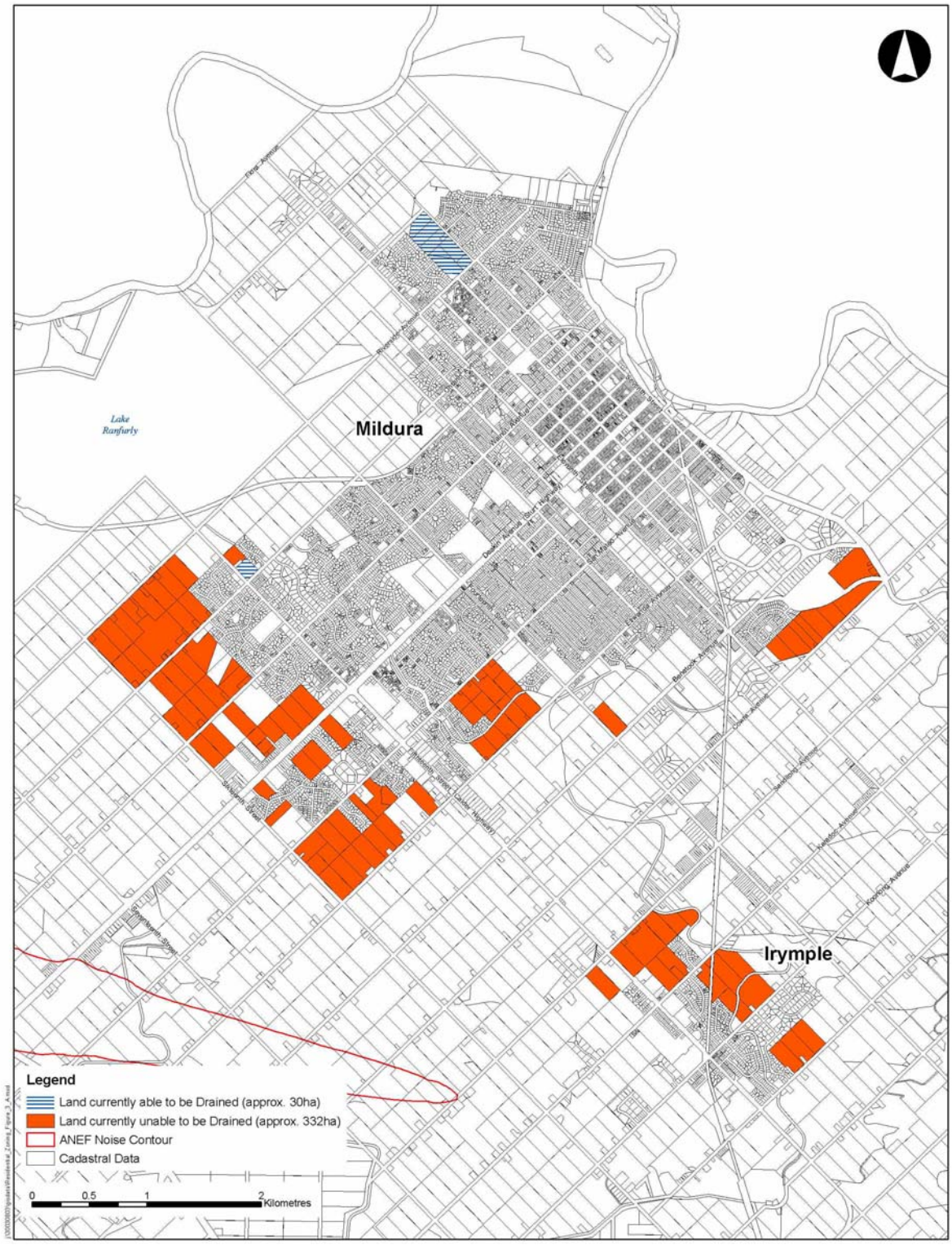
1 *The project team considers it unlikely that all these assumptions will be realised. Having noted this, based on Council's desire to plan for an ambitious rate of development the 2030 Residential Framework will be based on the assumption that the existing pool of zoned residential land in the study area will be fully developed within 14 years.*

2 *The project team responsible for the preparing of this Planning Framework considers that it is unlikely that 395 ha of land will be developed for residential use within the study area by the year 2030. Having stated this, the project team acknowledges that for the purpose of sound strategic planning within the study area, it is not inappropriate to adopt ambitious and long term development frameworks. As such the project team considers that as long as future rezonings (land release) are appropriately staged it is appropriate to nominate a long term preferred residential development scenario such as this which is based on ambitious projections.*

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

Figure 3 Existing stormwater servicing capacity of R1Z land in study area



Projected Lot Yield from Land Currently Able to be Developed

- The lot yield from the land currently able to be developed in the study area is approximately 512 lots. This represents just over 1 year notional supply. *(Note these figures relate to the lot yield anticipated from land that is currently undeveloped. Additional new housing opportunities can also currently be created from the redevelopment of historical subdivisions throughout the study area).*

Additional Residential 1 Zoned Land to Be Serviced by Sixteenth Street Drain (Mid 2004)

- An additional 100 ha of zoned land will become available for subdivision and development following the installation of Stage 1 of the Sixteenth Street Drain which is due to be completed by the mid 2004.

Projected Lot Yield from R1Z Land to be serviced by Sage 1 of the Sixteenth Street Drain

- The lot yield from land currently zoned R1Z that will come on line for development by Mid 2003 through the construction of the Sixteenth Street Drain will be approximately 1709 lots if developed generally in line with the mix of lot sizes that is reflected by the current on ground subdivision pattern within the study area.
- This lot yield notionally represents a 4 year supply if development occurs at the ambitious projection of 422 lots per year.

2.5 Summary and Conclusions

- Based on the above analysis, it is projected that following the construction of Stage 1 of the Sixteenth Street Drain by mid 2004 there will be a pool of approximately 130 ha of zoned and serviced land that will be available for new residential development in the Study Area.
- The remaining 232 ha of land currently zoned R1Z in the study area that does not have access to stormwater infrastructure will continue to remain unavailable for development until such time as these capital works are put in the ground.
- The potential lot yield from the 130 ha land of zoned R1Z that will be available for development by mid 2004 is estimated to be approximately 2221 lots.
- It is noted that the total available supply pool by mid 2004 will be likely to be limited to one single development front (Mildura South between Fifteenth & 16 Streets, between Riverside Drive and Walnut Avenue). This is not considered a healthy nor desirable outcome.
- Assuming the ambitious growth rate projections for the study area are realised, the mid 2004 available pool of zoned R1 land represents approximately 5.2 years supply.
- Based on this analysis unless additional Residential 1 rezonings are to occur in areas that could tap into existing storm water infrastructure at the land developers expense and or capital works for main stormwater infrastructure provision are planned, financed and constructed by Council in the short term, Mildura's residential development growth will continue to be significantly restricted.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

3. Objectives and Strategies to Guide the Future Development of the Mildura City, Mildura South and Irymple to the Year 2030

The following Objectives and Strategies are recommended to guide the residential development of Mildura City, Mildura South and Irymple to the year 2030. As such they have been utilised as guidelines to assist in the development of recommendations relating to future actions required to facilitate the growth of the study area as well as in the development of recommendations regarding residential staging and service provision (Refer Section 4 of this Strategy).

Objective 1: Facilitate orderly development of Mildura and Irymple.

Strategies:

- Encourage and facilitate the orderly development of Mildura and Irymple and other towns and centres throughout the municipality through the implementation of the following urban hierarchy:
  - Reinforce and promote the development of Mildura as the key service centre of the Region providing a wide range of community and commercial services along with residential, industrial, commercial and community development opportunities aimed at promoting the sustainable development of not only the town, but the region as a whole.
  - Retain Irymple as an identifiable town in its own right, acting as a service centre to the surrounding horticultural area accommodating modest urban growth.
  - Acknowledge and support the continued growth and role of the other towns, service and local centres throughout the municipality in providing adequate residential land, convenience shopping and community services for their surrounding areas and as gateways to public land assets.
- Through the development of a Town Structure Plan nominate areas that are anticipated to be required for future residential development within Mildura City, Mildura South and Irymple to the year 2030.
- At any one time ensure that there is an available supply of residential land (eg land that is zoned R1Z and is readily able to be serviced) within Mildura City, Mildura South and Irymple to meet at least a 10 year demand.
- Initiate future residential rezonings in a timely manner and in accordance with an endorsed residential staging plan which has regard to infrastructure servicing requirements (Also Refer Strategies accompanying Objective 2)
- Adopt and implement 2030 urban growth boundaries for Mildura and Irymple to clearly define the limits of urban growth.
- Require the preparation and lodgement of Development Plans that identify subdivision layout, staging and provision of services as a precursor to subdivision of land zoned for residential use and development within the study area.
- Promote infill residential development / urban consolidation in areas within the existing residential areas of Mildura City and Irymple.

- Ensure that additional areas required for future housing demand in the Mildura City, Mildura South and Irymple are provided in locations that are contiguous with the existing residential estates and are in locations that reflect logical and cost effective infrastructure servicing options.

Objective 2: Provide for the cost effective staged release of residential land in Mildura City, Mildura South and Irymple.

Strategies:

- Encourage the staged subdivision and development of land parcels in Mildura City, Mildura South and Irymple that maximise the cost effective utilisation of required new stormwater infrastructure provision.
- Undertake additional Residential 1 rezonings within the study area in the short – medium term if such rezonings are justified on the basis of their short term capacity to be connected to existing or currently planned stormwater drainage infrastructure at no cost to Council.
- Encourage the timely provision of necessary infrastructure in order to provide for a collective minimum ten year supply of residentially zoned and serviced land, with such provision being split between two or ideally three development fronts.

Objective 3: Facilitate the development and maintenance of essential infrastructure (such as Stormwater Drainage Systems) and community facilities within the Study Area.

Strategies:

- Ensure that Council's capital works budget allocations are sufficient to enable the continued development of core infrastructure projects that are required as a precursor to residential development taking place (such as construction / development and ongoing maintenance of main stormwater drains and basins)
- Ensure that Council's upfront construction costs associated with the development of core infrastructure are recovered on a staged basis via the levying of Development Contributions in accordance with and though the inclusion of an approved Development Contribution Plan in the Planning Scheme.

Objective 4: Provide a diversity of housing styles and living opportunities in Mildura City, Mildura South and Irymple to ensure the attractiveness of these urban centres as places to live, work, and invest.

Strategies:

- Encourage future development at a range of lots sizes and densities (including medium density development) and in locations that are contiguous with the existing urban areas of Mildura City, Mildura South and Irymple. The 2030 Residential Framework should therefore also encourage infill development as a matter of priority.
- Encourage a diversity of housing styles and densities reflecting changing market demands and recent trends such as the development of units and smaller housing lots.

- Accommodate the majority of demand for rural residential development in planned LDR estates in accordance with the recommendations of the Oct 2003 Rural Residential Review Study.

Objective 5: Minimise the potential for future land use conflicts.

Strategies:

- Limit the location of sensitive land uses in the vicinity of industries or other activities with significant off site effects including noise, traffic and residual air emissions so as to minimise the potential for future land use conflicts.
- Discourage the establishment of housing in locations where amenity may be negatively impacted on by farming and related activities, or where the location of housing may inhibit rural activities.
- Due to the likelihood of Benetook Avenue becoming a designated heavy vehicle by-pass (from 7th street to 17th Street), actively discourage the siting of sensitive land uses such as residential development along either side of this road.
- Ensure that any proposed future expansion of urban / residential development in Mildura South does not encroach on the proposed ANEF Noise Contour or compromise other recommendations of the recently prepared Airport Master Plan.

Objective 6: Protect the integrity, function and appearance of existing natural and built features within the Study Area.

Strategies:

- Encourage the protection and, where possible, restoration of catchments, waterways, water bodies, and groundwater by ensuring that existing and future areas proposed for residential development have adequate stormwater infrastructure in place as a precursor to development proceeding.
- Minimise the impacts of salinity and not increase the salt loads in the Murray River as a result of residential development taking place.
- It is recommended that any Residential 1 rezonings in the vicinity of Mildura South in particular, should be deferred until such time as these investigations are completed.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

4. Recommended Actions and Residential Staging Sequence to Guide the Residential Development of the Study Area to the Year 2030

The residential supply – demand assessment undertaken concluded that if the ambitious growth rate projections for the study area are realised, the mid 2004 available pool of zoned R1 land represents approximately 5.2 years supply. Based on this conclusion it was identified that unless additional Residential 1 rezonings were to occur in areas that could tap into existing storm water infrastructure at the land developers expense and or capital works for main stormwater infrastructure provision are planned, financed and constructed by Council in the short term, Mildura's residential development growth will continue to be significantly restricted.

4.1 Short – Medium Term Priority Actions

In order to provide an adequate short - medium term available supply pool of land that is able to be developed for residential purposes throughout the study area the following recommendations and associated actions should be pursued by Council in the short to medium term. It is noted that the recommendations and actions have been influenced by the series of objectives and strategies listed in the previous section of this report.

4.1.1 Rezone Land Capable of Connecting to Existing or Currently Planned Storm Water Infrastructure at the Cost of the Land Developer

The investigations of the project team have identified two discreet opportunities that notionally have short term capacity to be connected to existing or currently planned stormwater drainage infrastructure at no cost to Council. They include:

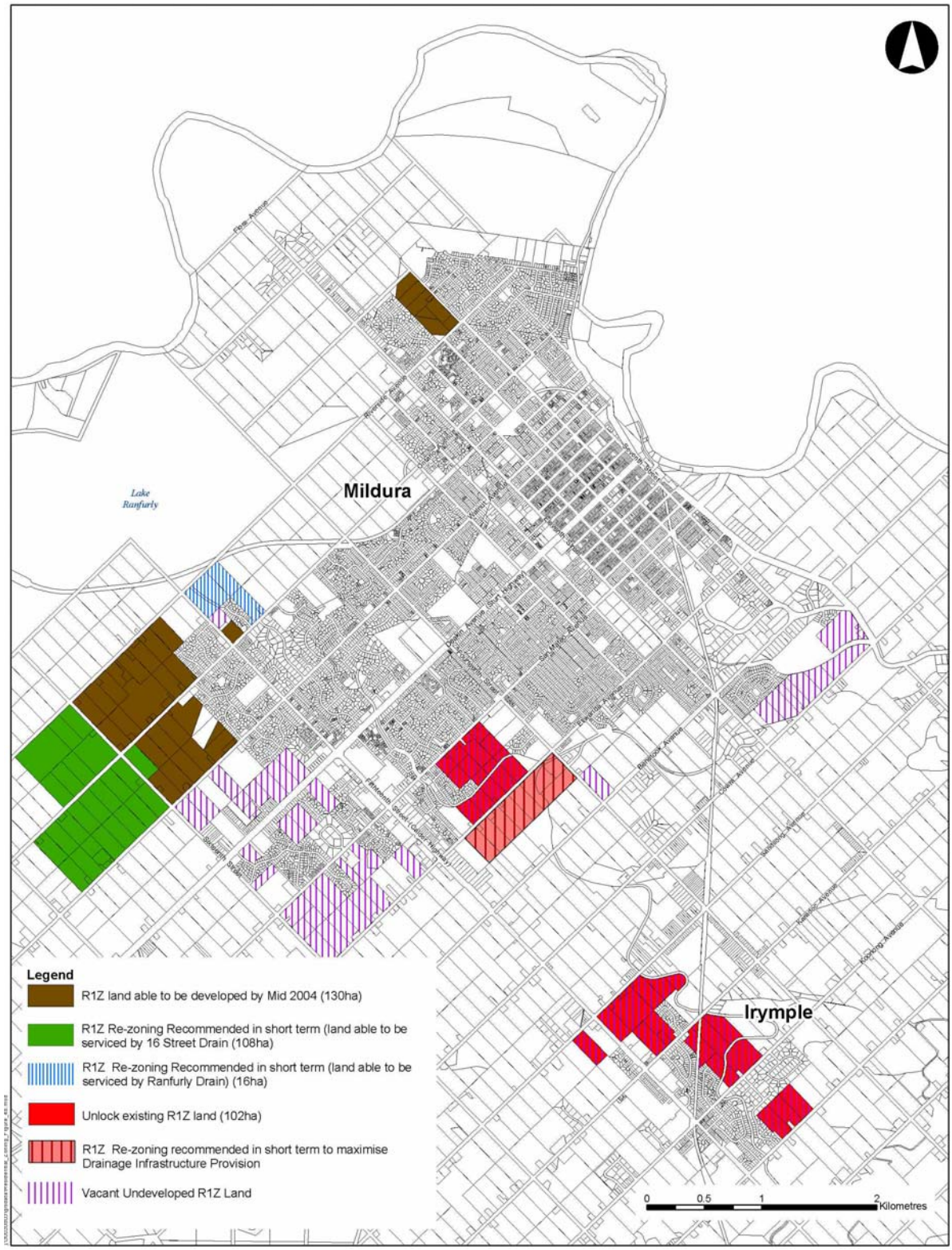
- Approximately 108 ha of land to the South of Sixteenth Street that will notionally have the capacity to feed into the Sixteenth Street drain once it is developed by Mid 2004(Refer Area Shaded Green on Figure 4); and
- Approximately 16 ha of land to the North of Fifteenth Street abutting Riverside Avenue and Ontario Avenue (Refer Area Shaded Blue on Figure 4).

Key Recommendations

- The two locations identified above are recommended for short term rezoning to the Residential 1 Zone.
- The rezonings are conditional on the following:
  - Land owners / developers agreeing to pay Council the proportional costs associated with the connection to, and maintenance of infrastructure works undertaken by and at the cost to Council via a future development contributions levy;

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

Figure 4 Locations requiring short term action



- Further investigation to confirm that the land areas nominated:
  - are not contaminated;
  - are able to be connected to existing or planned stormwater infrastructure at the land developers cost without requiring augmentation of the capacity of the main drains that will service the potential development areas; and
  - are not currently impacted by the effects of salinity, and that their development for housing at conventional lot densities would not increase the salt loads in the Murray River or other negative environmental outcomes.

4.1.2 Unlocking Existing Zoned Areas Constrained by Lack of Stormwater Infrastructure

Key Recommendations

- While the development of the Sixteenth Street Drain at a cost of $2.5 million dollars will provide one development front by July 2004 for land bounded by Riverside and Walnut Avenues and Fifteenth and Sixteenth Street, it is recommended that as a matter of short-medium priority additional development fronts be created within the study area.
- Two priority development fronts that are recommended to be made available for development in the short to medium term include land currently zoned for residential development in Mildura City (from San Mateo to Etiwanda Avenues) and land zoned for residential development in Irymple. *(Refer Areas Highlighted Pink in Figure 4)*
- It is recommended that the stormwater infrastructure works in these two locations precedes Stage 2 storm water infrastructure works of the Sixteenth Street Drain.
- It is understood both these areas require the acquisition of land for development of drainage basins and connection to the Calder Drain.
- In association with the development of the Drainage Basin behind Fifteenth Street (mid block between Etiwanda and Benetook Avenues), it is recommended that the 32 ha land parcel shown as pink with hatching be rezoned to Residential 1 in order to capitalise on the stormwater infrastructure provision in this location. (Note: The mid block fronting Benatook Avenue in this location is not recommended for residential rezoning due to its interface with the proposed heavy vehicle bypass and possible long term potential of this land being required for either commercial or light industrial use).

Associated Actions

- Determine the cost implications on Council in undertaking the storm water infrastructure work in these two locations, secure finance and undertake works as a matter of priority. (Note: Council resolved to undertake a Stormwater Drainage Infrastructure Provision Strategy and the consequential Financial Strategy at its Ordinary Council Meeting held on 24th October 2002. It is understood that this work has yet to be undertaken).

- If Council is committed to undertaking the necessary storm water infrastructure works to unlock the development potential of current residential zoned land between San Mateo and Etiwanda Avenues in the short term, it should facilitate the short term rezoning of the southern block of land fronting Etiwanda Avenue (from RUZ to R1Z). (Refer land shaded pink with hatching on Figure 4).

4.1.3 Other Short – Medium Term Actions

In order to provide an adequate short - medium term available supply pool of land that is able to be developed for residential purposes throughout the study area the following additional actions are also recommended in the short – medium term:

- Prepare a Development Contribution Plan (DCP) for all existing undeveloped zoned Residential 1 Land in the study area, and for those areas that are proposed to be rezoned within the study are in the short term, in order to provide the mechanism to recover costs associated with future provision of essential infrastructure, social services and facilities. (Note: This should be achieved by extending the scope of the DCP that is currently being prepared for Mildura South). This 2030 Residential Strategy should be used as a key reference document in the preparation of the existing and or extended DCP.
- Identify the need for and location of community facilities in the proposed urban growth areas of Mildura City, Mildura South and Irymple and include these projects in the current DCP structure planning process.
- Undertake further salinity investigations in order to determine the location and amount of Residential 1 Zoned land that is affected by salinity and what remedial works or actions required to address them (eg development and application of Overlay Controls and the like).
- Council should also develop, implement and maintain a robust and accurate integrated subdivision and building register in order to monitor the certification and take up of new residential allotments and dwelling commencements in the study area in order to determine the need for rezoning of land nominated as long term residential.

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4.2 Residential Development Outcomes Achieved if Short – Medium Term Recommendations are Adopted and Implemented

The following table highlights the locations and corresponding size land areas that will become available for residential development in the short to medium term if the recommendations and accompanying actions identified in this strategy are adopted and implemented by Council.

Action / Location	Approximate Land Area Available for Development
Land Able to be Developed by Mid 2004 ▪ Approx 30 ha of land currently available for development ▪ Approx 100 ha of land that is zoned R1Z that will have capacity to connect to the new Sixteenth Street Drain by mid 2004	130 ha
Rezone Land Capable of Connecting to Existing or Currently Planned Storm Water Infrastructure at the Cost of the Land Developer ▪ Approx 108 ha South of Sixteenth Street ▪ Approx 16 ha at Cnr of Fifteenth Street and Riverside Drive	124 ha
Unlocking Existing Residential Areas Constrained by Lack of Stormwater Infrastructure ▪ Approx 68 ha of land within Mildura City located between San Mateo to Etiwanda (Note: this figure incorporates the recommended rezoning of land on the south side of Etiwanda Ave) ▪ Approx 68 ha of zoned R1 land at Irymple	136 ha
Total Area	**390 ha**

The potential lot yield from the above identified 390 ha land of is estimated to be approximately 6660 lots. This lot yield reflects a mixture of lot sizes generally reflecting on ground conditions in the study area.

Assuming the ambitious growth rate projections for the study area are realised (422 new dwellings per annum) it is estimated that land area will accommodate approximately 15.8 years of residential demand. This quantum of supply is considered appropriate to satisfy the short – medium residential needs within the study area.

On this basis it is recommended that the above short to medium term actions specified in the previous section of the report be adopted and implemented by Council and that the land areas specified above be nominated as the **Stage 1 Development Priorities (Short – Medium Term)** in the residential staging sequence plan contained in the following sub-section of this report.

6 2030 Residential Strategy for Mildura City, Mildura South and Irymple – Key Findings, Recommendations and Actions

4.3 2030 Residential Development Staging Sequence / Structure Plan

The demand supply analysis identified that the location of an additional 395 ha would be required to be identified to accommodate the projected housing demand in the Study Area to the year 2030.

The recommendations of the previous section of the report incorporate the following rezonings, which in total amount to 156 ha of land, as part of the **Stage 1 Development Priorities (Short – Medium Term)**:

- Approx 108 ha South of Sixteenth Street
- Approx 16 ha at Cnr of Fifteenth Street and Riverside Drive; and
- Approx 32 ha on the South Side of Etiwanda Avenue

Therefore approximately 295 ha of additional land is required to be identified and nominated in the Planning Scheme to meet the medium – long term housing needs within the study area.

Figure 5 presented overleaf recommends where the short, medium and long term residential development future of the study area should occur. It is noted that the plan includes areas already zoned R1. It is also noted that the locations for future residential expansion have been influenced directly by the Objectives and Strategies documented in Section 3 of this paper.

The new areas nominated for medium and long term residential expansion within the study area include:

- Land south of Sixteenth Street from Riverside Avenue to the south of Etiwanda Avenue;
- Land between Fifteenth and Sixteenth Street south of Etiwanda Avenue; and
- Land south Cowra Avenue, north of 11th Street.

All of these areas have been nominated as they are contiguous with the existing township boundaries and reflect a logical medium and long term servicing sequence.

Adoption of this Residential Development Sequence Plan is recommended in order to meet the ambitious growth development scenario contained in this report. Once adopted by council the sequencing plan should be reflected in a modified town structure plan for Mildura and Irymple and the Planning Scheme amended accordingly.

It is important to note that all land nominated above that is not currently zoned Residential 1 and is within the 2030 Urban Growth Boundary but outside the Stage 1 Development Priority areas should remain in their current zone at this time.

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Figure 5 Residential staging sequence plan (2030)