CONNOR HOLMES

BUCKLAND PARK URBAN AREA

LAND SUPPLY AND DEMAND ANALYSIS

Prepared for
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& DAYCORP

March 2009

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CONTENTS

FIGURES

TABLES

1. INTRODUCTION

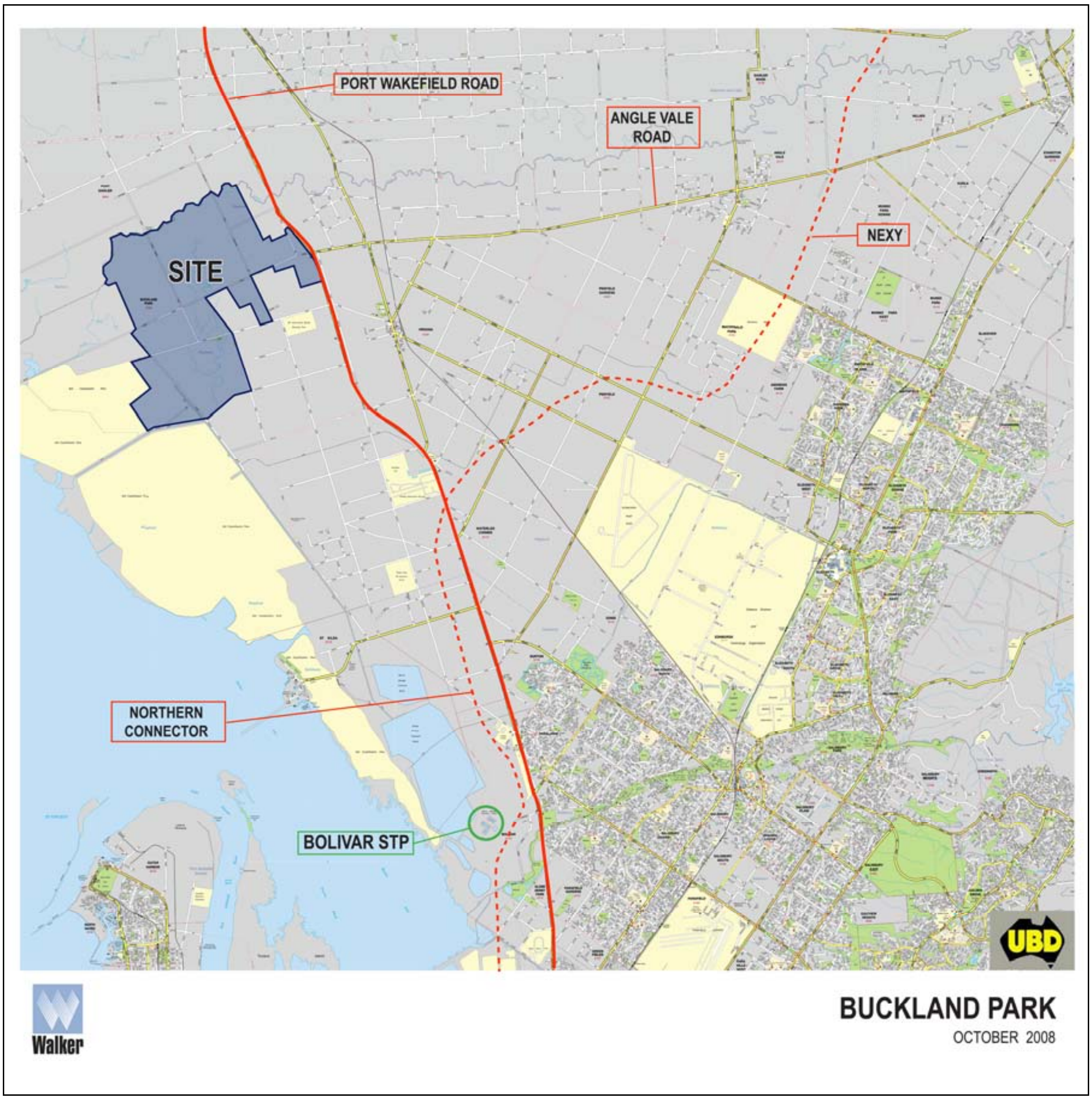
1.1 The Site

This report considers the demand for housing in Adelaide, and the way Buckland Park will supply that housing.

The proposal is a joint venture of Walker Corporation and Daycorp.

Buckland Park is located on Port Wakefield Road within the City of Playford, west of Virginia. It is around 32 kilometres north of the Adelaide CBD and 14 kilometres west of Elizabeth.

Figure 1.1: Buckland Park Locality Map



Buckland Park is located within Metropolitan Adelaide's northern region, as defined in the Planning Strategy (SA Government 2007).

Figure 1.2: Buckland Park in Metropolitan Adelaide

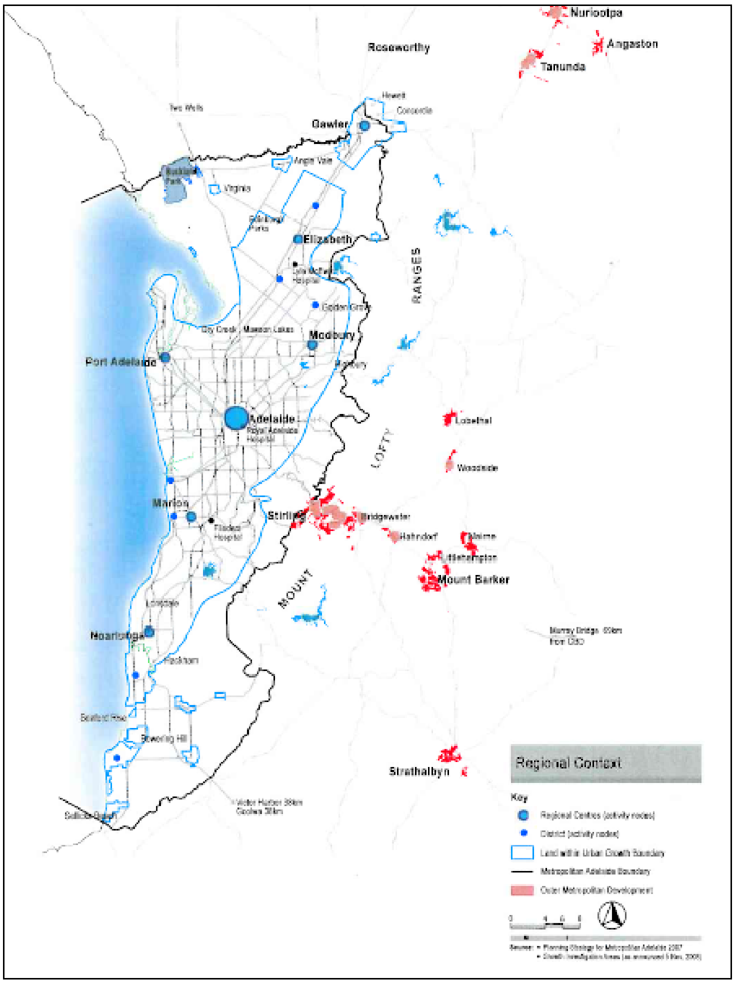
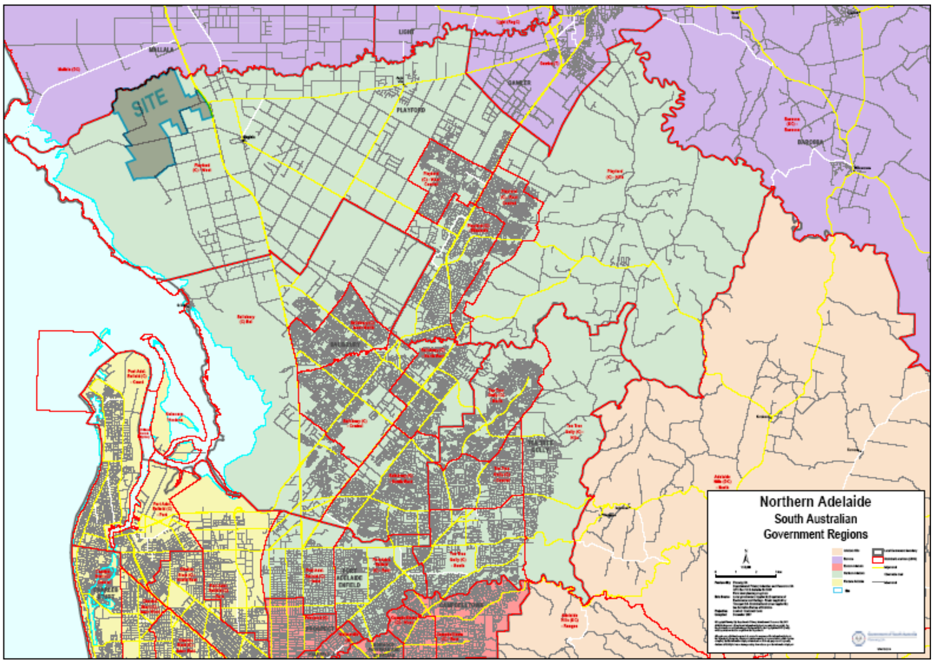
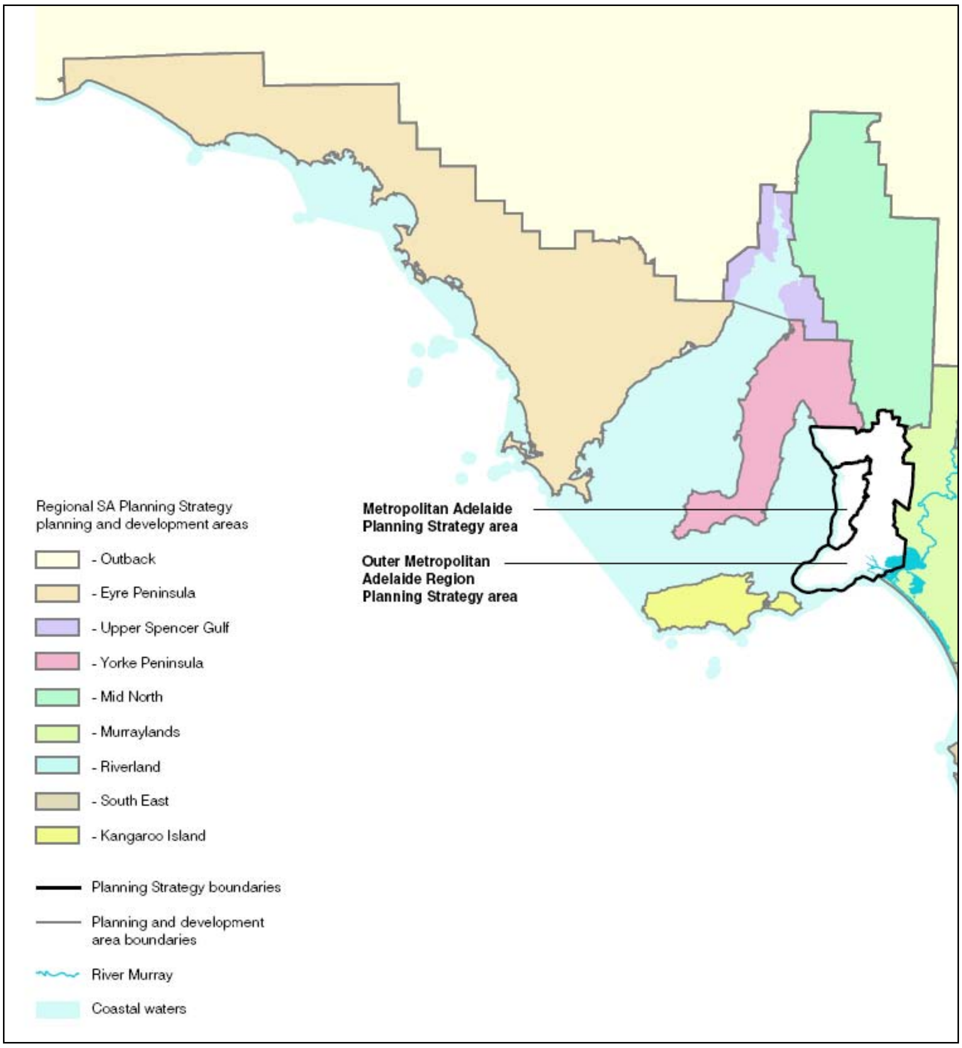


Figure 1.3: Buckland Park in Metropolitan Adelaide's Northern Region



Greater Metropolitan Adelaide includes Metropolitan Adelaide, and Outer Metropolitan Adelaide.

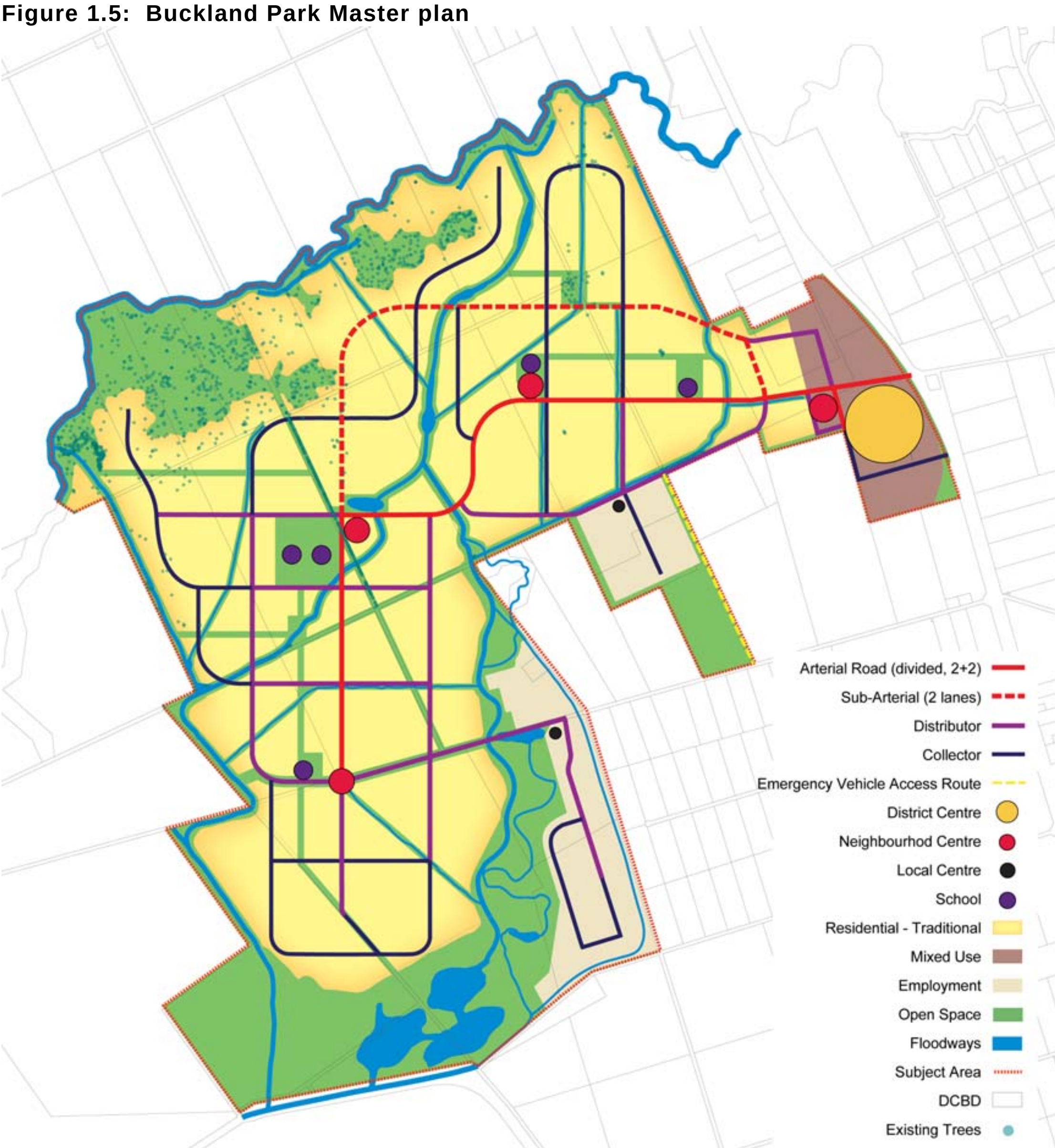
Figure 1.4: The Greater Metropolitan Area



1.2 The Proposal

Buckland Park is planned to accommodate residential areas, supported by open space, recreation and biodiversity areas, employment precincts and centres. The arrangement of land uses is described in the Masterplan.

Figure 1.5: Buckland Park Master plan

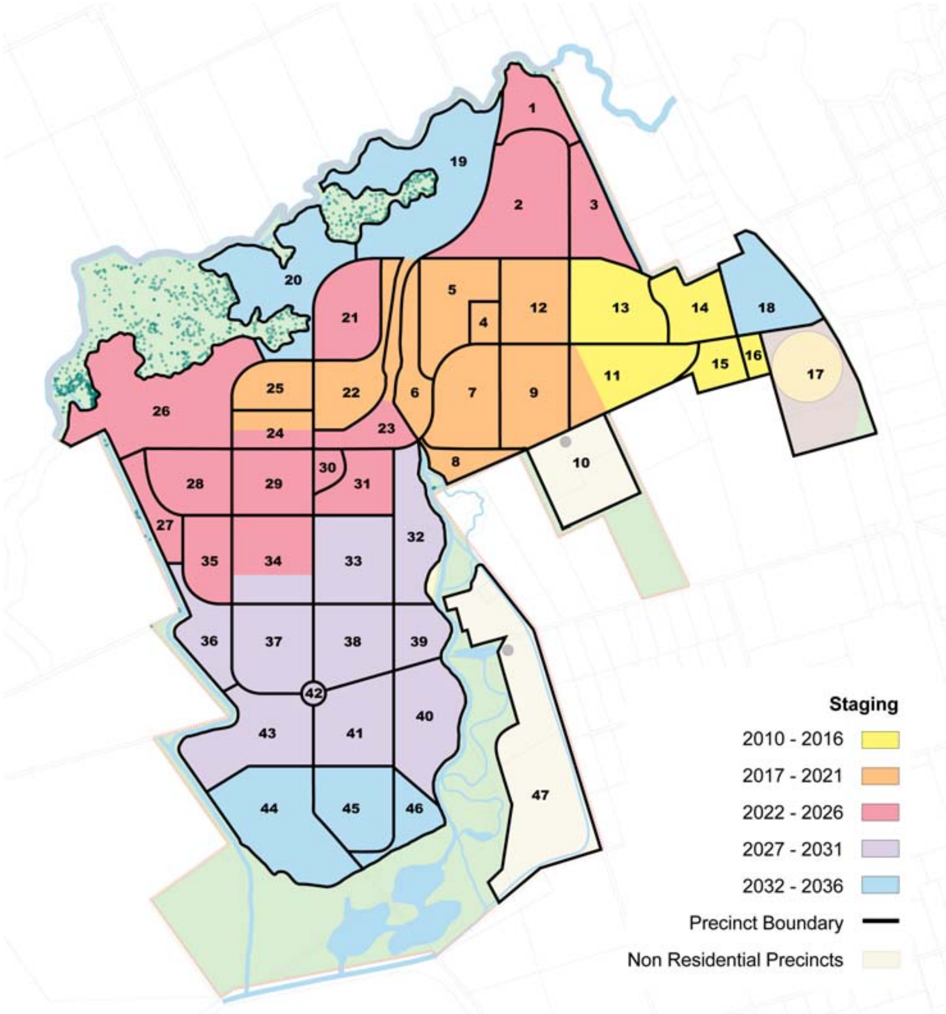


The proposal will be implemented in stages over a period of 25 years, Stage 1 is planned for 2010 to 2016, as illustrated in the staging plan. The first residents are expected in 2013.

It is anticipated Buckland Park will be fully constructed and occupied by 2036, when it will accommodate 12,000 residential allotments, with an average size of 500m^2, supported with multiple purpose open space, and commercial, retail, community and employment uses.

By 2036, a total population of 33,000 is anticipated, with a workforce of 10,687 people. (Connor Holmes, 2008).

Figure 1.6: Proposal Staging



1.3 The Study Purpose

This report addresses the guidelines for Buckland Park's Environmental Impact Statement (EIS) issued by the Development Assessment Commission in August 2008.

In particular, guideline 4.1.2 is addressed:

Outline current and predicted supply and demand for a range of residential development in the region; including affordable housing, aged housing and high needs housing.

2. SUPPLY AND DEMAND ANALYSIS

2.1 State, Metropolitan and Regional Growth Context

Since emerging from the early-mid 1990s' recession, demand for housing in Adelaide has steadily increased. Today, demand has reached a point where it cannot be met by the development industry, which is limited by a lack of available, suitably zoned land, and limits on the ability to construct housing.

Some short term relief to land supply is expected from Land Management Corporation (LMC) releases, and in the medium term from the recent inclusion of an additional 2,000 hectares within the Urban Growth Boundary (UGB), which will, over time, be rezoned and developed for urban purposes.

However, the process of creating new suburbs on this land will be complicated, and for some areas, appears highly problematic. For example, some areas are highly fragmented in ownership (Hackham), some areas are politically sensitive (Bowering Hill) and some face environmental remediation (Highbury). In this context, the delivery of Buckland Park in a timely manner remains crucial to the uninterrupted supply of residential land to the Adelaide market.

Constraints on the construction of housing are likely to remain, even if land supply issues can be overcome. South Australia's labour shortages in key trades will continue as there is strong competing demand for skilled labour from a range of expanding industries.

The following statistics show historical trends in housing construction, immigration levels and population growth. These statistics provide an important reference point for the prediction of future growth levels in Metropolitan Adelaide and, indeed, Greater Metropolitan Adelaide.

Table 1: SA Population and Migration

June Quarter	Estimated Resident Population	Overseas Migration	Interstate Migration	Net Migration	Overall Population Change
1997	1,481,357	3,106	-3,318	-212	7,104
1998	1,489,552	3,160	-1,996	1,164	8,195
1999	1,497,819	2,682	-1,631	1,051	8,267
2000	1,505,038	3,829	-3,531	298	7,219
2001	1,511,728	2,765	-2,418	347	6,690
2002	1,521,119	2,798	-1,335	1,463	9,391
2003	1,531,259	3,904	-1,218	2,686	10,140
2004	1,540,399	4,305	-2,936	1,369	9,140
2005	1,552,523	7,020	-3,250	3,770	12,124
2006	1,568,204	9,813	-2,591	7,222	15,681
2007	1,584,513	13,146	-3,563	9,583	16,309
2008	1,601,821	14,186	-4,355	9,831	17,308

Source: ABS Catalogue No. 3101.0

Figure 2.1: SA Population Annual Growth, 1983-2008

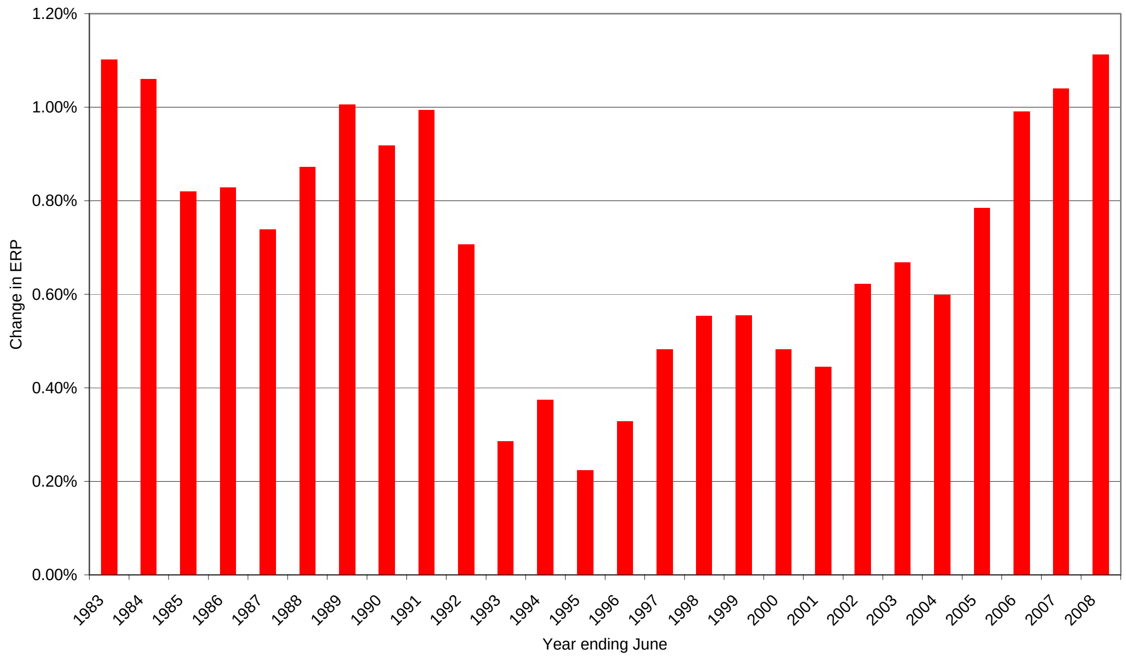


Figure 2.2: Australian Net Overseas Migration, 1982-2008

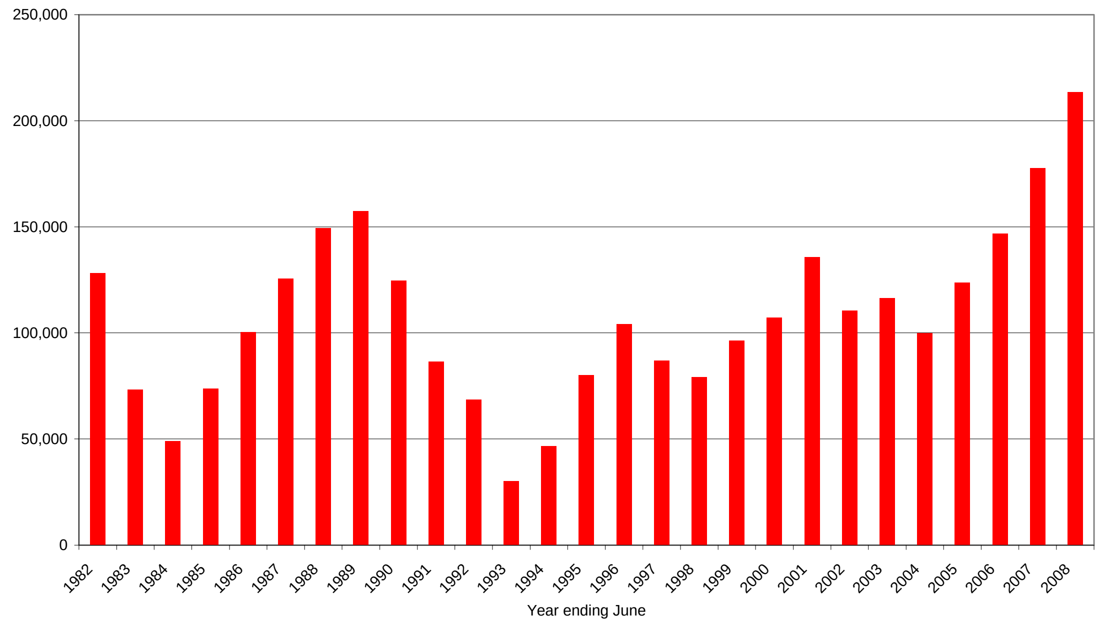
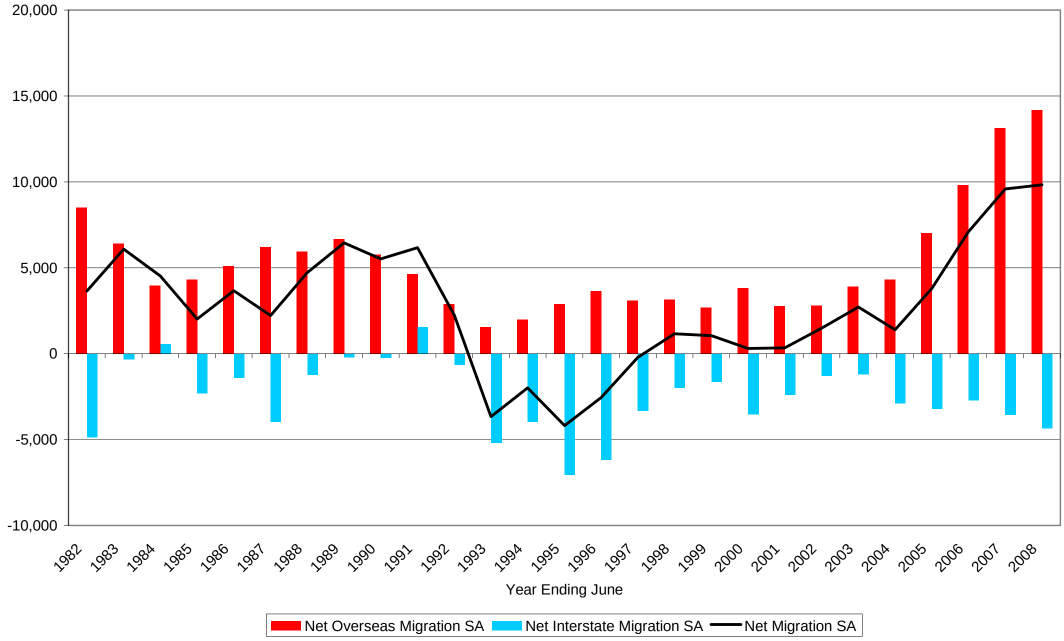


Figure 2.3: **SA Total Net Migration, Net Overseas Migration and Net Interstate Migration, 1982-2008**



As illustrated above, overseas immigration to South Australia has substantially increased over the last few years. With fairly stable interstate migration and natural increase, this has resulted in an increase in the State's rate of population growth from 0.2% per annum in the 1990s, to 1.1% per annum in 2008.

In 2008, population was growing at a rate 2-3 times faster than in the 1990s.

While the long term continuation of growth at these levels cannot be assumed, the anticipated performance of the State in terms of the mining, defence and education sectors, suggests that growth levels could actually rise in the medium term.

The State Government has recently endorsed population and dwelling projections for South Australia and Greater Metropolitan Adelaide to inform 30 year state plans currently being prepared. (DPLG, 2008; Minister for Urban Development and Planning, 2008).

These growth projections anticipate the State's population will grow from 1.6 million in 2008, to 2 million by 2027. Greater Metropolitan Adelaide is projected to grow by 547,000 people and 255,000 dwellings in the 30 years from 2006 to 2036, excluding Murray Bridge.

To support this level of population growth, an average of 8,500 additional dwellings will be required in Greater Metropolitan Adelaide each year, for the next 30 years.

The Government endorsed projections for South Australia's population growth to 2031 are given in Table 2. Table 3 shows Greater Metropolitan Adelaide's population and dwelling projections to 2036, excluding Murray Bridge.

Table 2: Population Projections for South Australia, 2006 to 2031

Year	High
2006	1,568,204
2011	1,662,609
2016	1,764,609
2021	1,873,917
2026	1,985,875
2031	2,095,806

Table 3: Greater Adelaide's Forecast Population, 2006 to 2036

Year	Estimated Resident Population	Dwellings	Occupancy Rate
2006	1,270,592	535,861	2.37
2011	1,347,251	575,677	2.34
2016	1,435,083	617,728	2.32
2021	1,529,480	661,208	2.31
2026	1,626,688	704,322	2.31
2031	1,722,888	747,547	2.30
2036	1,817,007	791,155	2.30

In a regional context, growth in Metropolitan Adelaide's northern region and the Barossa LGA are expected to be strong and substantially above Greater Metropolitan Adelaide's overall growth rates.

While the Government endorsed population projections have not yet been disaggregated into regions, the Department of Planning and Local Government (DPLG) have prepared population forecasts for the Metropolitan Adelaide's northern region and the Barossa LGA for 2007-2021. These are shown in Table 4.

Table 4: Forecast Population of Metropolitan Adelaide's Northern Region and Barossa LGA, 2007-2021

Year	Northern Adelaide	Barossa LGA
2007	350,857	63,167
2011	371,807	71,625
2016	400,490	83,793
2021	429,967	96,771

These projections show increasing growth in the absolute size of the population in each of these regions over the period of projection, reflecting their future role providing land for housing.

The following table records dwelling approvals in LGAs within the Metropolitan Adelaide's northern region and the Barossa LGA over the last 7 years. Significant growth is evident, with total activity levels rising by some 50% over the 4 years from 2003-2004 to 2007-2008.

Table 5: Dwelling Approvals by LGA

	Playford	Gawler	Salisbury	Barossa	Light	Mallala	Total
2001-2002	502	140	1,143	204	247	68	2,304
2002-2003	537	201	979	194	178	72	2,161
2003-2004	442	211	831	260	190	78	2,012
2004-2005	485	236	1,084	404	208	87	2,504
2005-2006	552	348	1,190	207	119	54	2,470
2006-2007	811	177	1,037	205	123	47	2,400
2007-2008	1,111	218	1,443	204	134	35	3,145

Source: ABS Catalogue No. 8731.0

Between 2001-2002 there was a 150% increase in the annual number of dwelling approvals in the Playford LGA. This reflects a possible increase in the creation of new residential areas in the LGA, and also a general upsurge in Adelaide's residential market.

It is reasonable to conclude the Playford LGA is experiencing a surge in new housing construction.

Growth in the Outer Metropolitan LGAs of Barossa and Light is also likely to occur with the Northern Expressway's opening, which will improve these LGAs' accessibility to Metropolitan Adelaide. They will be within 30 minutes driving time of most of the major employment precincts north of Grand Junction Road.

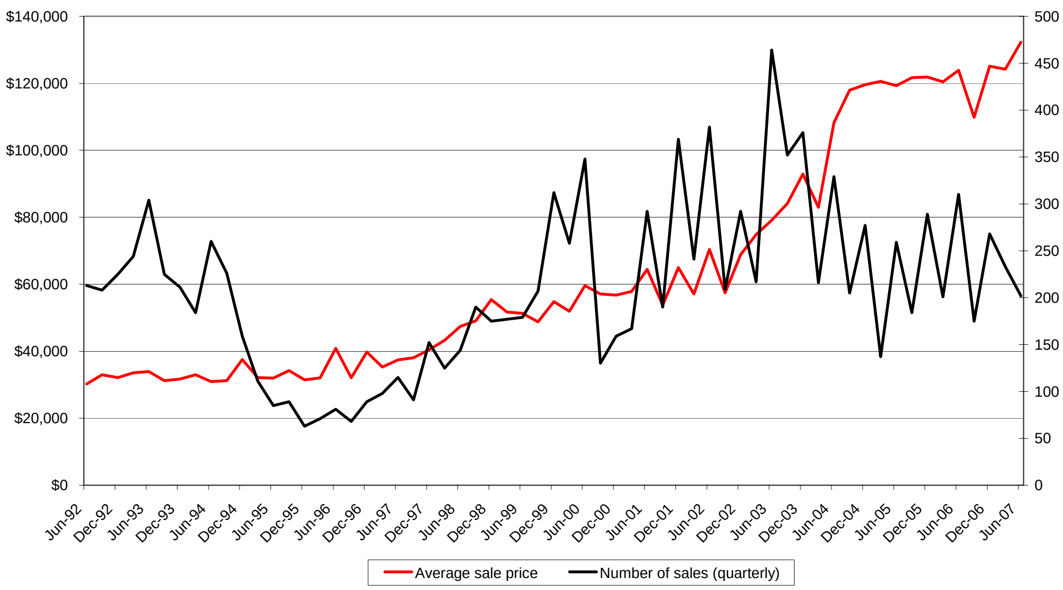
2.2 Land and Housing Prices

While land prices are influenced by a range of factors, the strength of demand coupled with restricted supply have contributed to a rapid escalation in prices.

Therefore, strong land price increases can at least be partially addressed by a substantive increase in the supply of land.

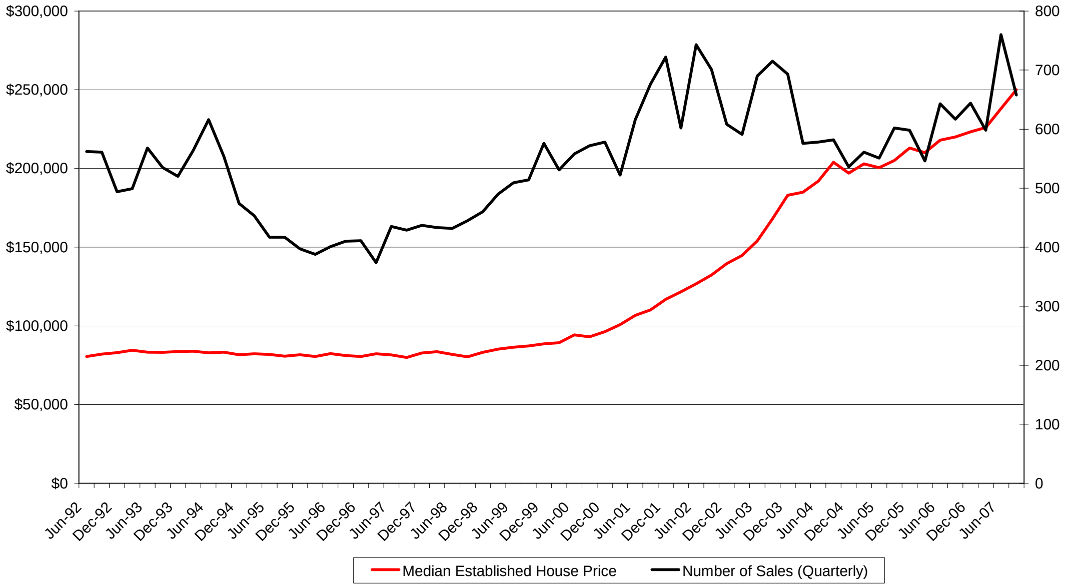
Land and house price increases in the Metropolitan Adelaide's northern LGAs of Salisbury, Playford and Gawler are summarised in the following graphs.

Figure 2. 4: City of Salisbury Land Sales



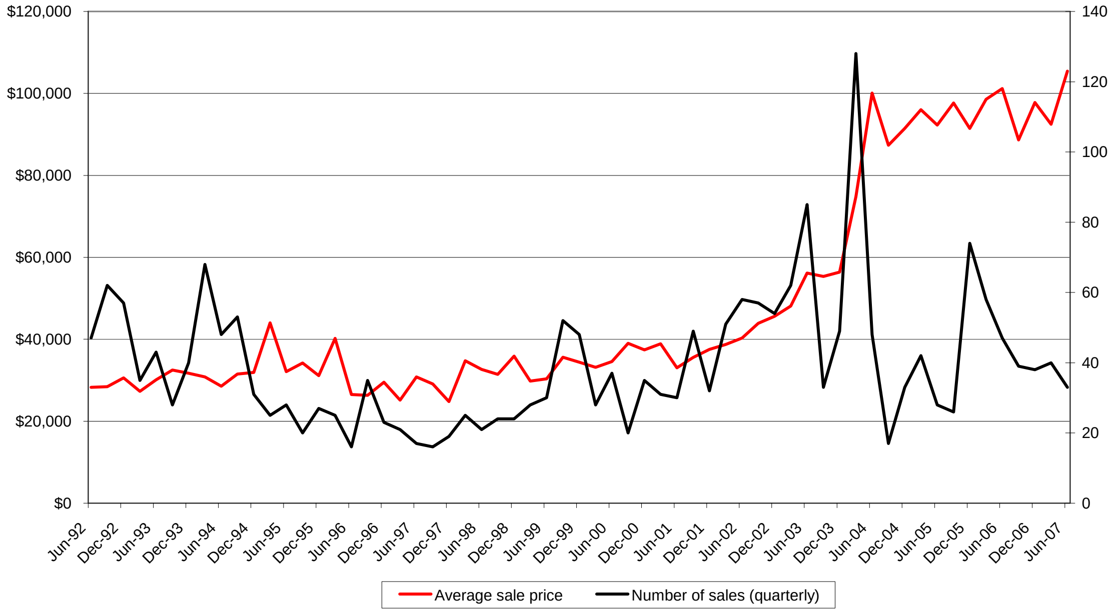
Source: Valuer General; RP Data

Figure 2.5: Salisbury House Sales



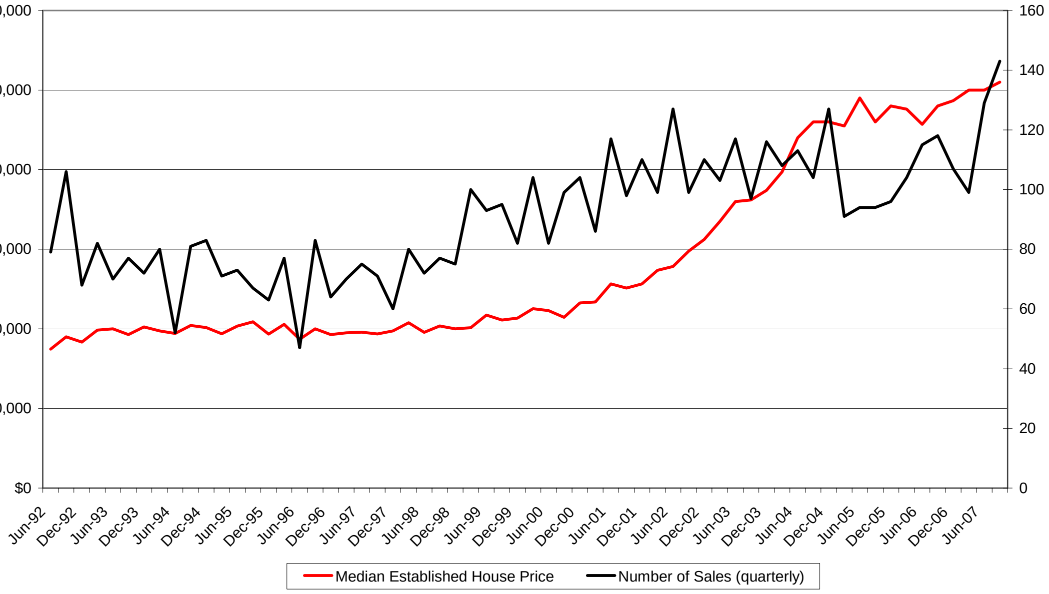
Source: Valuer General; RP Data

Figure 2.6: Town of Gawler Land Sales



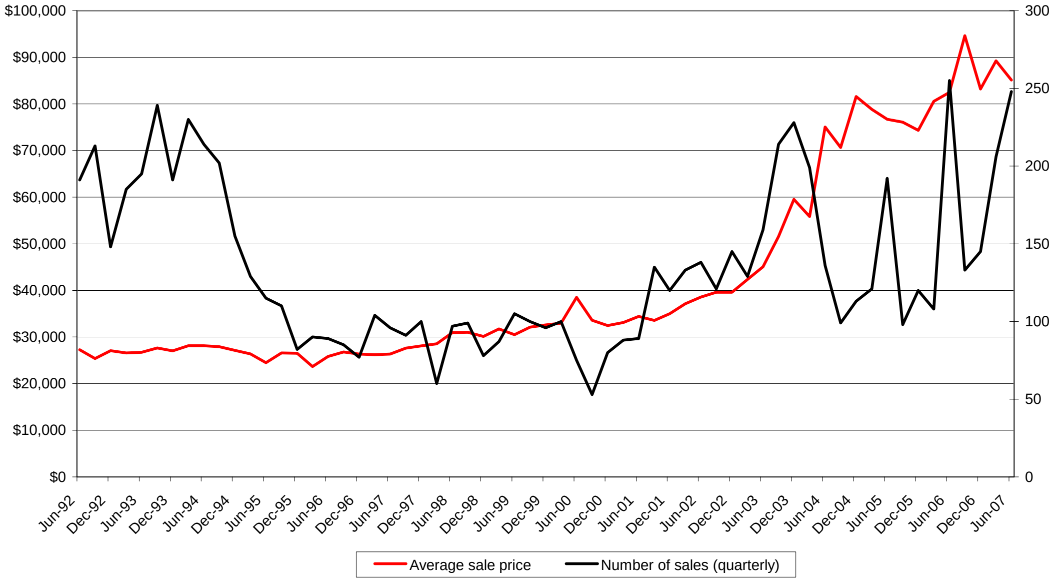
Source: Valuer General; RP Data

Figure 2.7: Gawler House Sales



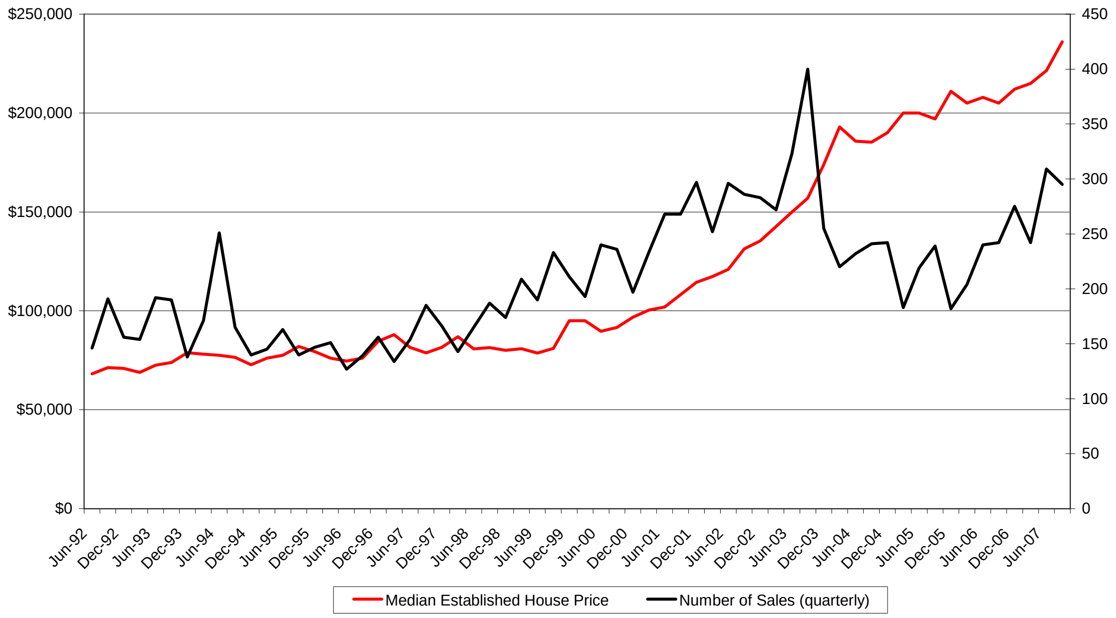
Source: Valuer General; RP Data

Figure 2.8: City of Playford Land Sales



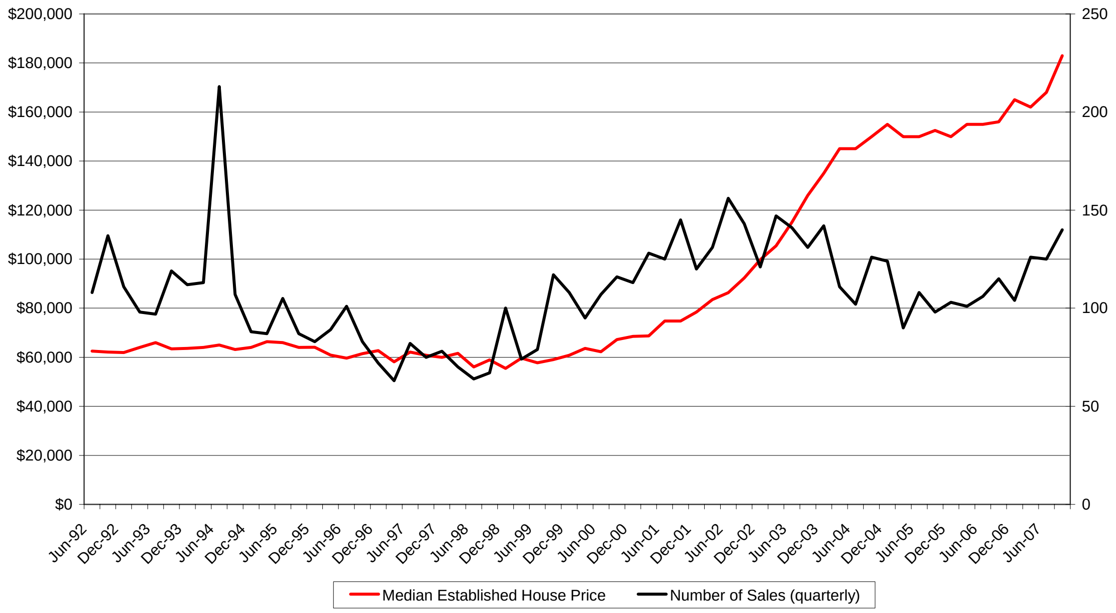
Source: Valuer General; RP Data

Figure 2.9: Playford 1 (Munno Para) House Sales



Source: Valuer General; RP Data

Figure 2.10: Playford 2 (Elizabeth) House Sales



Source: Valuer General; RP Data

These figures demonstrate a strong consistency across these LGAs, with all having:

- Fairly stable prices during the 1990s;
- A rise in prices commencing in 1999;
- Rapid price rises between 2002 and 2004;
- A tapering off in price rises during 2005-2006;
- A recommencement of accelerated price rises in 2007.

While many factors contribute to price rises, it can be expected increased land supply and competition between new residential areas will assist in avoiding supply induced price escalation.

The supply of housing land and competition in the residential market provided by Buckland Park will therefore contribute to restraining house prices in Adelaide.

3. DEMAND FOR BUCKLAND PARK'S RESIDENTIAL LAND

3.1 Context

DPLG's population and dwelling projections for Greater Metropolitan Adelaide and South Australia form the basis for predicting the demand for Buckland Park's residential land. As discussed above, these projections do not reflect the Government's endorsed 30 Year planning projections.

The SA Government has identified locations within Metropolitan and Outer Metropolitan Adelaide for consideration as potential urban growth areas in its Planning Review reference?

Buckland Park's role in supplying land and satisfying demand is considered within this framework.

3.2 Demand For Residential Land

As previously discussed, DPLG predicts an average of 8,500 additional dwellings per annum will be required between 2006-2036 to supply the houses needed to accommodate Greater Metropolitan Adelaide's population growth in the same period.

Based on continuation of the levels of construction activity recorded in Outer Metropolitan LGAs over the last decade, it is assumed approximately 1,350 dwellings per annum will be provided in towns located in Outer Metropolitan Adelaide, (eg. Mt Barker, Barossa towns, Strathalbyn, Victor Harbor, Goolwa etc.)

There will therefore be a demand for approximately 7,150 dwellings per annum in Metropolitan Adelaide.

As an outcome of the Planning Review, the SA Government wants 70% of the new housing needed by 2036 to be provided in infill sites in established suburbs, with 30% provided in new suburbs.

The ratio of growth accommodated in new suburbs, and growth accommodated in Adelaide's established suburbs has varied over Adelaide's history. Up until the 1990s, new suburbs accommodated most of Adelaide's growth.

Between the 1990s and 2003/04, infill and brownfield sites in Adelaide's central region have emerged as a substantial supplier of new residential land. Adelaide's changing demographic, lifestyle aspirations and industrial sector have facilitated this trend.

Since 2003/04, Adelaide's central region has waned slightly relative to new suburbs, possibly as a result of a dwindling number of sites, rapidly escalating prices, increased complexity of planning policies, particularly in character areas, and increasing community resistance.

It is doubtful Adelaide's central sector can continue to supply sites as in the past. There is a lack of sites with potential equivalent to Northfield, Cheltenham and Port Adelaide.

The Planning Review predicates achievement of the 70:30 ratio of infill to new suburbs on the creation of Transit Oriented Development (TOD), which will see increases in residential densities around upgraded fixed transport nodes.

Nevertheless, it is considered 70% of new housing in established suburbs is an ambitious target. However, it may be possible to maintain the level of supply from infill sites in established areas at 50%, given there will be some supply of medium to high housing land from antiquated centrally located industrial sites.

The proportion of supply from infill sites in established suburbs could be raised to 60% if renewal of antiquated industrial sites continues, combined with the creation of TODs.

Renewal of infill sites is likely to be focused in Adelaide's northern established suburbs as this area has better access to employment and services.

It is likely the 30% of housing to be provided in new suburbs will be focused in Metropolitan Adelaide's northern region rather than the southern region. The northern region has more suitable, available land and considerably better access to employment, infrastructure, and future infrastructure (Connor Holmes 2008a)

As new suburbs are established in the northern region, they will draw in more infrastructure, employment and services, providing a catalyst for the creation of additional suburbs.

Towns in Outer Metropolitan Adelaide's south and south east will continue to expand, facilitated by the following factors:

- Accessibility to central Adelaide provided by the South Eastern Freeway;
- The limited availability and cost of land in Metropolitan Adelaide's southern and central regions;
- The growing number of retiring baby boomers seeking a lifestyle change.

It is predicted the direction of Greater Metropolitan Adelaide's growth to 2036 will be influenced by the following:

- Growth from infill areas increasing to 60% - 70%, depending on the success of Government policy, and availability of sites;
- An increasing role for Metropolitan Adelaide's northern region in supplying land for the new suburbs accommodating 30%-40% of predicted growth. This may also include some locations contiguous to existing suburbs, but located in Outer Metropolitan Adelaide, for example, Barossa LGA;
- Declining availability of land in Metropolitan Adelaide's southern region;
- Moderate growth in towns within Outer Metropolitan Adelaide's south eastern region, for example, Mt Barker, Littlehampton, Nairne, Callington or Murray Bridge;
- Continuing town growth in Outer Metropolitan Adelaide and further a field in the state.

Clearly, the land needed to support the 30% of Adelaide's growth to be provided in new suburbs is not available within the current Urban Growth Boundary (UGB).

Locations for new suburbs must be identified and the current UGB adjusted to facilitate planning for those areas.

Therefore, the rate of land supply from Buckland Park identified later in this report assumes the current UGB is adjusted and locations for new suburbs identified. If this does not occur, the rate of demand for Buckland Park would be increased, as land supply from within the current UGB would be inadequate to satisfy demand generated from Adelaide's projected growth. This affect would be more pronounced at the end of Buckland Park's construction and occupation programme, as other land supply locations become exhausted.

3.3 Regional Demand Analysis

Table 6 shows predicted demand for dwellings in Greater Metropolitan Adelaide's infill and new suburbs. Table 7 shows predicted demand for dwellings in Metropolitan Adelaide's northern and southern regions, and at Buckland Park within that context. The figures for the northern region also include the Barossa LGA.

Table 6: Demand for New Dwellings in Greater Metropolitan Adelaide 2006-2036

Year	Ratio of Infill to New Suburbs	Infill	New Suburbs	Towns	Total
2006	50:50	3575	3575	1350	**8500**
2007	50:50	3575	3575	1350	**8500**
2008	51:49	3645	3505	1350	**8500**
2009	52:48	3720	3430	1350	**8500**
2010	52:48	3720	3430	1350	**8500**
2011	53:47	3790	3360	1350	**8500**
2012	54:46	3860	3290	1350	**8500**
2013	54:46	3860	3290	1350	**8500**
2014	55:45	3930	3220	1350	**8500**
2015	56:44	4005	3145	1350	**8500**
2016	56:44	4005	3145	1350	**8500**
2017	57:43	4075	3075	1350	**8500**
2018	58:42	4145	3005	1350	**8500**
2019	58:42	4145	3005	1350	**8500**
2020	59:41	4220	2930	1350	**8500**
2021	60:40	4290	2860	1350	**8500**
2022	60:40	4290	2860	1350	**8500**
2023	61:39	4360	2790	1350	**8500**
2024	62:38	4435	2715	1350	**8500**
2025	62:38	4435	2715	1350	**8500**
2026	63:37	4505	2645	1350	**8500**
2027	64:36	4575	2575	1350	**8500**
2028	64:36	4575	2575	1350	**8500**
2029	65:35	4645	2505	1350	**8500**
2030	66:34	4720	2430	1350	**8500**
2031	66:34	4720	2430	1350	**8500**
2032	67:33	4790	2360	1350	**8500**
2033	68:32	4860	2290	1350	**8500**
2034	68:32	4860	2290	1350	**8500**
2035	69:31	4935	2215	1350	**8500**
2036	70:30	5005	2145	1350	**8500**

Table 7: Demand for New Dwellings in Metropolitan Adelaide's Northern and Southern Regions 2006-2036

Year	Location			Total
	Buckland Park	Northern Region (excl. Buckland Park & incl. Barossa LGA)	Southern Region	
2006	-	2475	1100	**3575**
2007	-	2475	1100	**3575**
2008	-	2505	1000	**3505**
2009	-	2430	1000	**3430**
2010	-	2430	1000	**3430**
2011	-	2460	900	**3360**
2012	120	2270	900	**3290**
2013	160	2330	800	**3290**
2014	200	2220	800	**3220**
2015	300	2145	700	**3145**
2016	400	2045	700	**3145**
2017	480	1995	600	**3075**
2018	600	1805	600	**3005**
2019	600	1905	500	**3005**
2020	600	1830	500	**2930**
2021	640	1820	400	**2860**
2022	640	1820	400	**2860**
2023	640	1850	300	**2790**
2024	640	1775	300	**2715**
2025	640	1875	200	**2715**
2026	640	1855	200	**2645**
2027	640	1835	100	**2575**
2028	640	1835	100	**2575**
2029	640	1865	-	**2505**
2030	640	1790	-	**2430**
2031	640	1790	-	**2430**
2032	640	1720	-	**2360**
2033	640	1650	-	**2290**
2034	220	2070	-	**2290**
2035	-	2215	-	**2215**
2036	-	2145	-	**2145**

For the period 2006-2036, demand for housing at Buckland Park is predicted to be approximately 13% of total dwellings required in the northern region and Barossa LGA, with a peak demand of approximately 25% per annum.

Golden Grove is the only new residential area in Adelaide's history of a similar scale to Buckland Park. Significantly, the demand predicted for dwellings at Buckland is smaller than actually experienced at Golden Grove.

At Golden Grove's peak, nearly 1,100 lots were produced in a single year, and approximately 1,000 lots per annum were produced over a number of years. This was 30-40% of the lots demanded by the northern region's market.

Demand for lots at Buckland Park is expected to be only 13% of the lots required by the northern region's market.

Therefore it is not expected Buckland Park will artificially distort the residential land market by providing more lots than the market demands.

3.4 Impact on Blakeview, Playford North and Penfield

The government is planning for residential growth in Blakeview, Playford North and Penfield, including the provision of services and infrastructure. A slowing of growth in those areas, to levels below the planned levels, could result in unused infrastructure and services, or delays in their provision, potentially wasting government resources, or leaving residents without services.

However, given the high demand for new housing anticipated in Metropolitan Adelaide's northern region, it is considered Buckland Park can be absorbed into the residential land market without impacting on the demand for residential land in Blakeview, Playford North and Penfield.

These projects can therefore be expected to proceed as planned.

3.5 Impact on Virginia and Angle Vale

As the nearest town, Virginia will be most influenced by Buckland Park. In its early stages, Buckland Park's new residents may draw on Virginia's services and facilities. The availability of residential land may impact on Virginia's residential market.

Connor Holmes' centres and social analyses considered the influence Buckland Park may Virginia's Neighbourhood Centre and human services (Connor Holmes 2008b and 2008c).

Land within Virginia's town boundary is held in relatively small allotments, by many different owners. This restricts the ability to subdivide the land to create new residential properties, and limits the viability of small scale residential projects. Site amalgamations would be required to create sites suitable for housing projects. This is a difficult process, made harder by the need to coordinate several owners.

Residential growth in Virginia is therefore likely to be slow, irrespective of Buckland Park.

Angle Vale originally comprised large farming sections, which could be feasibly divided into large residential allotments, of generally 1,800 m^2.

Only a few farming sections of a scale suitable for division into residential allotments remain.

Accordingly, it is concluded Buckland Park will not slow or hamper the creation of new residential land at Angle Vale.

Furthermore, Angle Vale's residential character is created by its large residential lots. Buckland Park will have a totally different character, therefore the two markets will be independent of each other, and one will not impinge on the other.

4. HOUSING SUPPLY FROM BUCKLAND PARK

4.1 Yield

Buckland Park has an area of 1,340 hectares. Excluding land needed for roads, non-residential uses and environmental constraints, there will be approximately 600 hectares of residential land, capable of accommodating 12,000 dwellings.

Detailed planning of future stages will confirm yields, but at this stage in the design process, these figures have been adopted for planning purposes.

This yield is generated from the neighbourhood types and densities described in Table 8.

Table 8: Dwelling Types and Yields

Location	**Net Area (hectares)**	**Net Residential Density (dwellings per hectare)**	**Total Dwellings**
Low Density Residential Neighbourhoods	77	10	700
Residential Neighbourhoods	449	20	8,580
Medium Density Neighbourhoods	61	40	2,320
Mixed Use Precincts	13	40	400
Total Dwelling Yield	**600**		**12,000**

Source: Connor Holmes 2008

4.2 Staging of Construction and Occupation

This proposal does not include construction of dwellings, but only production of allotments. It is anticipated construction and occupation of the allotments and dwellings will occur over a 25 year time frame. There will be a two year lag between commencing construction of the allotment and occupation of the dwelling.

An average of 480 dwellings are expected to be constructed per annum, and this figure has been used to inform transport, centres and services planning. However, the actual rate achieved will be influenced by a combination of factors including:

- The strength of demand Metropolitan Adelaide's northern region's residential market
- The suitability of Buckland Park's allotments to that market, in respect of timing and housing types available. It is expected Buckland Park will be able to provide a range of housing types simultaneously because of its large scale.
- The timing and scale of competing residential land releases in the northern region.
- The time delay between commencement of subdivision construction and building houses.

This rate of production is considered reasonable, but will be subject to variation over time as a result of market conditions for example.

Also production tends to be slower in the early years as an area becomes established, faster in the middle years as production and marketing are in full swing, and slower in the later years as the availability of allotments shrinks.

This affect is likely to be seen over the proposal's 25-year construction and occupation time frame, and on a smaller scale, within each of the proposal's stages.

It is considered however, a figure of 480 dwellings per year is a reasonable average for planning purposes.

Table 9: Dwelling Numbers at Buckland Park over the Life of the Project

Year	Number of Dwellings	
	Occupied During Year	Cumulative Total
2010	0	0
2011	0	0
2012	0	0
2013	120	120
2014	160	280
2015	200	480
2016	300	780
2017	400	1,180
2018	480	1,660
2019	600	2,260
2020	600	2,860
2021	600	3,460
2022	640	4,100
2023	640	4,740
2024	640	5,380
2025	640	6,020
2026	640	6,660
2027	640	7,300
2028	640	7,940
2029	640	8,580
2030	640	9,220
2031	640	9,860
2032	640	10,500
2033	640	11,140
2034	640	11,780
2035	220	12,000

Source: Connor Holmes

These figures differ from those contained in the tables in Table 7 by one year, reflecting the time between dwelling commencement and dwelling occupation.

4.3 Housing Types

With a planned yield of 12,000 dwellings, accommodating 33,000 residents, Buckland Park will comprise approximately 3% of Metropolitan Adelaide's population.

Buckland Park therefore needs provide housing which suits a range of people and households in different age and income brackets.

The housing mix planned for Buckland Park is summarised in Table 10. This mix has been prepared to assist planning. Detailed design of future stages will undoubtedly include changes and refinements, but will be guided by the Masterplan.

Table 10: Housing Type by Household Type

Land and Housing Package	Size		Component of total yield	Household Type
	Site Area	Frontage		
Acreage	2000 m^2+	40 m+	<1%	Families
Premium	800-1000 m^2	22 m+	5%	Families
Traditional	540-700 m^2	18-22 m	25%	Families
Courtyard	420-480 m^2	14-16 m	20%	Families, Older Couples
Four Packs	360-450 m^2	12-15 m	2%	Families, Older Couples
Villa - large	375 m^2	12.5 m	10%	Families, Older Couples, Older Singles, Couples, Single Parent Families, Low Income Groups
Villa - small	300-330 m^2	10-11 m	10%	Families, Older Couples, Older Singles, Couples, Single Parent Families, Low Income Groups
Cottage	300-350 m^2	14-15 m	5%	Families, Older Couples, Older Singles, Couples, Single Parent Families, Low Income Groups
Gatehouse	150-300 m^2	10-14 m	5%	Older Couples, Older Singles, Couples, Single Parent Families, Low Income Groups
Terraces / Row Dwellings	125-300 m^2	5-10 m	5%	Singles, Couples, Older Couples
Rear Loaded Dwellings	125-200 m^2	5-8 m	5%	Singles, Couples Older Couples
Mews Dwelling	25-40 m^2	na	1%	Singles, Couples, Low Income Groups
Apartments	70-100 m^2	na	3%	Singles, Couples, Low Income Groups
Mansions	200-300 m^2	18-22 m	<1%	Singles, Couples, Small Families
Shop Top / Soho	70-100 m^2	na	<1%	Singles, Couples
Retirement - lifestyle	300-400 m^2	na	2%	Active Retirees
Retirement - aged care	250-350 m^2	na	2%	Supported, Retirees, Low Income Groups

Source: Connor Holmes

The above mix includes 87% (10,440) of dwellings provided as allotments, and 13% (1,560) as part of future residential projects, for example medium density housing. There will be a similar breakdown between detached, and attached dwellings.

Table 11 compares Buckland Park's mix of housing types, to the mix in other parts of the Adelaide Metropolitan area.

Table 11: Detached and Attached Housing

Location	% Detached	% Attached
Metropolitan Adelaide	77%	23%
Metropolitan Adelaide's northern region	86%	14%
Playford LGA	81%	19%
Buckland Park	87%	13%

Source: ABS Catalogue No. 2001.0 / Connor Holmes

The allotment and dwelling types planned for Buckland Park are defined in Table 12.

Table 12: Definitions of Allotment and Dwelling Types

Allotment or Dwelling Type	Definition	Location
Acreage	Large allotments greater than 2,000m^2 but including allotments of up to 2 hectares	Areas incorporating significant natural vegetation, stormwater channels or buffers to adjoining land uses
Premium	Large suburban allotments providing scope for grand residences	Adjacent to woodland areas and in exclusive culs-de-sac precincts separated from other neighbourhoods.
Traditional	Standard suburban allotments providing scope for most project home designs including 'triple fronted dwellings'	Throughout the site.
Courtyard	Allotments providing dimensions suitable for specific courtyard products and most 'double fronted dwellings'	Throughout the site.
Four Packs	Sites for four dwellings served by a common central driveway, typically of courtyard dimensions	On main road frontages and on reserve frontages where no road access is provided to the lots fronting the main road or reserve
Villa - large	Allotments providing dimensions suitable for large villa homes, typically single fronted plus double garage	Throughout the e site.
Villa - small	Allotments providing dimensions suitable for compact villa homes, typically single fronted plus single garage	Throughout the site.
Cottage	Shallow allotments that provide for a smaller, more affordable housing product	Throughout the site.
Gatehouse	Small lots, often at the rear of larger properties providing an affordable housing product	Facing onto laneways and minor streets
Terraces / Row Dwellings	Attached dwellings built in rows of three or more which take advantage of zero side setbacks	Mixed use precincts, centres, near centres and where definition of the street environment is required. Corner sites permit vehicular access to the rear of the site

Allotment or Dwelling Type	Definition	Location
Rear Loaded Dwellings	Detached dwellings on small allotments with zero side setbacks and with vehicular access provided from a rear lane, avoiding garaging onto key streets	On main road frontages and on reserve frontages where no access is available from the main road or reserve, and in precincts near the centres
Mews Dwelling	Single bedroom dwellings or bedsits located over garaging	Facing onto laneways and minor streets
Apartments	Multi-level attached dwellings at medium densities	In and around centres and mixed use precincts
Mansions	Two or three apartments on corner sites with separate vehicle access for each dwelling and taking on the appearance of a very large dwelling	At key intersections to define the scale of development of the area
Shop Top / Soho	Multi-level attached dwellings located over ground level commercial floorspace, sometimes with ownership links between residential and commercial space	In centres, mixed use zones and along major road frontages
Retirement - lifestyle	Integrated villages, usually single storey, providing a range of recreation and lifestyle services to active retirees	Reasonable proximity to shops, public transport and medical services
Retirement - aged care	Low care and high care accommodation for older age groups, by way of independent living units and assisted care in hostels and nursing homes. May be multi-storeyed	Close proximity to shops, public transport and medical services

Source: Connor Holmes

This housing mix provides for a wide cross-section of the community, and reflects the ability of Buckland Park to accommodate a wide range of housing types, at different prices, as a result of its significant scale.

The following parts of the community are likely to seek housing at Buckland Park:

- Young singles and couples leaving their family home;
- Young families purchasing their first home;
- Middle families upgrading to a larger home;
- Older parents following their children;
- Families seeking larger allotments or access to open space;
- Families and people on low or fixed incomes seeking affordable housing;
- Local Virginia and Two Wells area residents seeking better housing;
- Workers in the Virginia and Two Wells area seeking housing close to work;
- Defence Housing Authority tenants;
- Families and singles with employment in Metropolitan Adelaide's northern region, including Greater Edinburgh Park.

This cross-section of the community is likely to be drawn predominantly from the second, third and fourth income quintiles, but very often including double income families with moderate to high capacity for mortgage repayments. It is expected to include some professionals and managers, a large administrative and clerical base and substantial numbers of tradespersons and skilled workers.

Table 13 shows household incomes in locations where the majority of Buckland Park's new residents are expected to be drawn from, and which provide an indication of the household incomes expected in Buckland Park.

Table 13: Household Income Levels for Selected Areas

Locality	Median Annual Household Income (2006)
Metropolitan Adelaide	$48,048
Playford LGA	$37,388
Salisbury LGA	$45,500
Gawler LGA	$43,368
Tea Tree Gully LGA	$55,900
Hewett (suburb)	$78,000
Blakeview (suburb)	$52,472
Andrews Farm (suburb)	$55,224
Burton (suburb)	$51,792
Craigmore (suburb)	$55,276
Angle Vale (township)	$65,572

Source: ABS Catalogue No. 2001.0 / Connor Holmes

The median annual household incomes in the Playford LGA are particularly low. However within Playford LGA, the new suburbs of Blakeview, Andrews Farm and Craigmore, have median household incomes which are 9-15% higher than the metropolitan median, as there are many double income families in those suburbs.

Hewett, which is a new large lot estate, is attracting higher income households to Metropolitan Adelaide's northern region. Its median income is 62% higher than Metropolitan Adelaide.

Angle Vale, which has also has large lot estates, has a median household income approximately 36% higher than Metropolitan Adelaide.

These figures are sourced from the 2006 Census, it is expected the incomes listed would have increased since the census.

4.4 Affordable Housing

15% of Buckland Park's housing is planned as Affordable Housing. These dwellings include a cross-section of housing types and locations, and will include sites suitable for not for profit housing providers, investment housing for affordable rental, and low cost allotments and housing types.

The breakdown of affordable land and housing types is anticipated as follows:

Table 14: Affordable Housing Mix

Component	Number of Units	% of Total Yield	% of House Or Allotment Types
Acreage	-	-	-
Premium	-	-	-
Traditional	-	-	-
Courtyard	-	-	-
Four Packs	-	-	-
Villa - large	12	<0.1%	1%
Villa - small	470	4.0%	40%
Cottage	360	3.0%	60%
Gatehouse	610	5.0%	100%
Terraces / Row Dwellings	-	-	-
Rear Loaded Dwellings	-	-	-
Mews Dwelling	120	1.0%	100%
Apartments	180	1.5%	50%
Mansions	-	-	-
Shop Top / Soho	-	-	-
Retirement - lifestyle	-	-	-
Retirement - aged care	48	0.5%	25%
Total	**1800**	**15.0%**	**15%**

Source: Connor Holmes

Allotments will be made available on commercial terms to various affordable housing providers as shown in Table 15.:

Table 15: Anticipated Affordable Housing Recipients

Affordable Housing Recipient	Number of Units	% of Total Supply
Government Welfare providers	607	4.0%
Community housing groups	152	1.0%
Not for Profit Aged Care providers	76	0.5%
Low income purchasers	1137	7.5%
Investors (providing affordable rental housing)	303	2.0%
Total	**2275**	**15.0%**

Source: Connor Holmes

4.5 Delivery of Affordable Housing

The strategy for delivery of Affordable Housing is considered in a separate report (Connor Holmes 2008d).

4.6 Staging

The provision of various housing and allotment types will not be uniform over the 25 year construction and occupation period. In the early stages, it is likely there will be a larger proportion of traditional low density allotments, suitable for accommodating detached dwellings.

As Buckland Park's centres and services become more established, more medium density housing, and high needs housing, such as aged care, will be provided.

The mix of each stage will be established during its detailed planning and design, however this process will be guided by the Masterplan.

4.7 Non-Residential Facilities

The availability of non-residential facilities will improve Buckland Park's attractiveness to potential residents.

Buckland Park will provide a wide range of facilities and services to provide for the social and employment needs of its new residents. These may include the following:

- Education
  > Pre-school
  > Primary education
  > Secondary education
  > Private and Government schools
  > TAFE or University Campus (single discipline)

- Community Services
  > Child Care Centres
  > Library
  > Neighbourhood House
  > Meeting Rooms
  > Worship Centres
  > Aged Care Facilities

- Retailing
  > Local Centres
  > Neighbourhood Centres
  > District Centre
  > Bulky Goods Precinct
  > Growers Market

- Commercial Services
  > Sales Office / Display Centre (with community services / meetings capability)
  > Professional Services
  > Post Offices
  > Banks / Financial Institutions
  > Offices
  > Motel / short stay accommodation

- Recreation Facilities
  > Sports Clubs
  > Gymnasiums
  > Bowling
  > Squash
  > Recreation Centre

> Sports ovals
> Tennis courts
> Netball / basketball courts
> Informal recreation spaces
> Swimming Pool / wave pool / beach
> Boat Ramp upgrade (Port Gawler)

- Entertainment Facilities
  > Restaurants / cafes
  > Hotels / taverns
  > Nightclubs / bars
  > Auditorium
  > Cinema complex
  > Amusement hall

- Health Services
  > Medical Centres
  > Dental Services
  > Physiotherapists etc.
  > Community Health Facilities
  > Alternative Care

- Emergency Services
  > Ambulance
  > Fire
  > Police

- Transport Services
  > Bus network
  > Pedestrian / cycle network
  > Interchange / car parking

- Employment
  > Service provision (retail / commercial / community / education / recreation)
  > Office precinct
  > Business park
  > Mixed commercial precinct
  > Service trades / light industry precinct
  > Vocational training centre
  > Start-up enterprise centre

- Open Space
  > Walking trails / cycling trails
  > Active and passive recreation areas
  > Reafforestation
  > Carbon credits
  > Open woodland regeneration and habitat re-establishment
  > Wetland network
  > Ornamental lakes / permanent water bodies
  > Stormwater capture and reuse

- Infrastructure
  > Water recycling
  > Energy efficiency
  > Passive solar design

Some of these facilities will be provided in Stage 1, including:

- A small supermarket for convenience shopping. The proponent will negotiate suitable lease agreements with potential tenants, in the event a supermarket is not financially viable at opening;
- A community space equipped with office and meeting facilities – a community worker will be based in the space;
- Six specialty shops suitable for a café, private medical and dental surgeries and other small businesses;
- A sales and display centre;
- Landscaping, including an entry statement and children's playground.

The second phase will be constructed when demand for additional facilities is generated by new residents occupying Stage 1, or during later phases. It will include additional community space, additional supermarket space and four additional specialty shops.

Within the neighbourhood centre, an "extension area" has been included for other private facilities, for example, a childcare centre, recreation facilities, a hotel, offices, or housing.

5. CONCLUSION

Demand for housing in Adelaide has steadily increased, while the supply of suitable zoned land has been limited. Demand has been fuelled by a steadily increasing growth rate.

In 2008, population was growing at a rate 2-3 times faster than in the 1990s.

It is anticipated the State's population will grow from 1.6 million in 2008, to 2 million by 2027. Greater Metropolitan Adelaide is projected to grow by 547,000 people and 255,000 dwellings in the 30 years from 2006 to 2036.

To support this level of population growth, an average of 8,500 additional dwellings will be required in Greater Metropolitan Adelaide each year, for the next 30 years.

In a regional context, growth in the Metropolitan Adelaide’s northern region and the Barossa Region are expected to be strong and substantially above Greater Metropolitan Adelaide’s overall growth rates.

These areas have already seen a rise in housing approvals, and improvements to infrastructure will make the region more attractive.

While land prices are influenced by a range of factors, the strength of demand coupled with restricted supply have contributed to a rapid escalation in prices.

Therefore, strong land price increases can at least be partially addressed by a substantive increase in the supply of land.

The supply of housing land and competition in the residential market provided by Buckland Park will therefore contribute to restraining house prices in Adelaide.

Buckland Park’s role in supplying land and satisfying demand must be considered within the context of strategic growth in the Greater Adelaide Region.

As an outcome of the Planning Review, the SA Government is targeting 70% of the new housing needed by 2036 to be provided in infill sites in established suburbs, with 30% provided in new suburbs.

It is considered 70% of new housing in established suburbs is an ambitious target. However, it may be possible to improve the land supply from infill sites in established areas to beyond 60%, if appropriate renewal sites are found, and the creation of TODs is successful.

It is likely the 30% - 40% of housing to be provided in new suburbs will be focused in Metropolitan Adelaide’s northern region, which has more suitable, available land and considerably better access to employment, infrastructure, and future infrastructure.

As new suburbs are established in the northern region, they will draw in more infrastructure, employment and services, providing a catalyst for the creation of additional suburbs.

For the period 2006-2036, demand for housing at Buckland Park is predicted to be approximately 13% of total dwellings required in the Northern Adelaide and Barossa Regions, with a peak demand of approximately 25% per annum.

At its peak, Golden Grove provided 30-40% of the lots demanded by the northern region’s market.

Therefore it is not expected Buckland Park will artificially distort the residential land market by providing more lots than the market demands.

Given the high demand for new housing anticipated in Metropolitan Adelaide's northern region, it is considered Buckland Park can be absorbed into the residential land market without impacting on the demand for residential land in Blakeview, Playford North and Penfield.

Given its existing limited potential and the difficulties of creating new residential areas in Virginia, is anticipated residential growth in Virginia will be slow, irrespective of Buckland Park.

Angle Vale also has limited growth potential, but in any case as a predominately large lot residential area, it will not compete with Buckland Park, and vice versa.

Buckland Park has an area of 1,308 hectares. Excluding land needed for roads, non-residential uses and environmental constraints, there will be approximately 600 hectares of residential land, capable of accommodating 12,000 dwellings.

Detailed planning of future stages will confirm yields, but at this stage in the design process, these figures have been adopted for planning purposes.

Buckland Park will accommodate a range of neighbourhood and dwelling types, at different densities

An average of 480 dwellings are expected to be constructed per annum at Buckland Park, and this figure has been used to inform transport, centres and services planning. However, the actual rate achieved will be influenced by a combination of factors, including the strength of demand and the creation of other new suburbs.

Buckland Park will provide housing which suits a range of people and households in different age and income brackets, so a range of housing types is planned. Detailed design of future stages will undoubtedly include changes and refinements, however, will be guided by the Masterplan.

Housing and allotment types range from large detached housing, to attached housing, apartments and shop top housing. The proportion of detached to attached housing is similar to the mix achieved over Metropolitan Adelaide, with a slightly higher emphasis on detached housing.

The desired character of new neighbourhoods, and the accessibility to centres and public transport will inform the final mix of housing within each stage, however, this processes will be guided by the Masterplan.

The housing mix provides for a wide cross-section of the community, and reflects the ability of Buckland Park to accommodate a wide range of housing types, at different prices, as a result of its significant scale.

Medium density housing is more likely to be provided in later stages when Buckland Park's centres and services are more established.

In summary, Adelaide's Greater Metropolitan Area requires substantial quantities of new housing over the next 30 years. 30%- 40% will be provided in new suburbs.

Buckland Park will make a major contribution to the provision of the required housing.

6. REFERENCES

Connor Holmes *Buckland Park Demographics Report* 2008

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Minister for Urban Development and Planning, *Directions for Creating a New Plan for Greater Adelaide, 2008*

RP Data – Valuer General, Residential and Vacant Allotment Sales

7. GLOSSARY

ERP Estimated Resident Population

LGA: Local Government Area