

## SECTION 2 – THE STRATEGY

### 6 GUIDING PRINCIPLES

The guiding principles for this Strategy reflect those that have been set by the Shire for the next five to twenty years. The Shire of Waroona Strategic Plan 2005-2025 “The Way Ahead” outlines five strategic objectives:

- Objective 1 - Prepare for Growth
- Objective 2 - Conserve our Pristine Environment
- Objective 3 - Protect and Conserve Agricultural Lands and Rural Land Uses
- Objective 4 - Maintain a Strong Sense of Community Whilst Experiencing Social Change
- Objective 5 - Monitor progress and measure performance

Objectives 1 to 4 are relevant to this Strategy and form the four guiding principles.

#### 6.1 *Objective 1 - Prepare for Growth*

The Shire is committed to planning proactively to ensure the sustainable integration of an expected imminent growth in population that will impact on the whole of the Shire.

#### 6.2 *Objective 2. Conserve our Pristine Environment*

The Shire is committed to strengthening its capacity to tackle the issues of sustainable development and the conservation of our sensitive environment that are increasingly interconnected and interdependent.

#### 6.3 *Objective 3. Protect and Conserve Agricultural Lands and Rural Land Uses*

The Shire is committed to the sustainable management of the expected land use change in rural areas and is conscious of the need to achieve

a balance between the pressures of development and the maintenance of existing farming practices and priority agricultural areas.

#### 6.4 *Objective 4. Maintain a Strong Sense of Community Whilst Experiencing Social Change*

The Shire is committed to acting as a catalyst and community leader during the processes of change with a strong emphasis on partnership working with government, local business and the community with the main aim and focus of maintaining a strong sense of rural community.

## 7 AGRICULTURE

### 7.1 Agricultural Considerations

Agriculture contributes significantly to the local economy. Dairy farming has been a traditional rural use surrounding Waroona. The number of dairy farmers has been significantly reduced since the purchasing of significant landholdings in Wagerup for the Wagerup Refinery and the deregulation of the milk market in 2000. The area of irrigated dairy pasture has reduced by about 73% between 1997-98 and 2003-04 (Harvey Water).

Beef cattle raising, including studs and cattle fattening, have been significant in the Shire's agricultural production for many years. The Shire has some comparative advantages for beef production. It is one of the closest irrigated pasture areas to the major Perth markets, major abattoirs and export shipping facilities. Today beef cattle production dominates the agricultural landscape although there are some significant developments, albeit small in area, in horticultural production within the irrigation area.

#### 7.1.1 Waroona Irrigation District

Begun in 1931, the Waroona Irrigation District is agricultural infrastructure of State significance (Peel Region Scheme Background Report, 1999). It originally covered 4,474 hectares of irrigable land in the Shire. At present, about 1,000 hectares are irrigated with good quality water from the Waroona, Drakesbrook and Samson Brook dams. In 2003 the irrigation channels were replaced with pipes, increasing the efficiency and flexibility of water delivery. Piping has also allowed for the expansion of the irrigation area to the west and north of Waroona.

In the past the dominant use of irrigated water (about two thirds) was for dairy pasture and a little under one third was used for beef pasture. Over the past thirty years there has been a reduction in the area of dairy pasture caused by the purchase of farms for the Wagerup refinery operations and buffer, where beef production is favoured, and by the cessation of dairy production following the deregulation of the milk market. Dairy pasture has declined from around 200ha in 1997-98. Beef pasture has been steady as have most other products except

vegetables which have increased considerably since the piping of the water.

In 2003-04 there were 87 farms in the irrigation scheme and according to data provide by Harvey Water irrigated water was supplied for the following uses:

dairy pasture	55 ha
beef pasture	453 ha
other pastures	112 ha
fodder crops	58 ha
vegetables	150 ha
grapes and citrus	8 ha
and other crops	11 ha

#### 7.1.2 Future Of Agriculture

This Strategy acknowledges the contribution that agriculture makes to the economy and to our way of life. In a region of the world that has a burgeoning population and growing and changing economies and food tastes, the demand for agricultural products will increase in the long term. Conversely however, whilst these opportunities are on the horizon some of the most productive agricultural land in Western Australia is coming under increasing competition from other uses.

The future for agriculture within the Shire will focus on intensification and diversification particularly into horticultural production. The requirements for these activities are:

- a. land capability.
- b. water supply.
- c. access to markets.
- d. necessary infrastructure and services.
- f. favourable land values.
- g. labour force.

Parts of the Shire have the necessary requirements for future intensification and diversification. The 'Development of the Horticultural Industry in the Peel Region' (2004) report prepared by 'Quin Consulting and Analysis' for the Peel Development Commission, Department of Agriculture and Shire highlighted the need for the long-term protection of land with potential for horticultural development in order to protect the "Shire's economic production options into the future".

This Strategy aims to protect those areas from 'lifestyle' or urban incursion.

There are a large number of existing small lots in the Waroona Irrigation District. From information supplied by Harvey Water about 55% of lots in the Irrigation District are 10 hectares or below. The majority of these small lots are on the western fringes of Waroona and Hamel.

When these small lots are excluded the range of lot sizes in the Irrigation District is shown in Figure 14.

Figure 14 - Waroona Irrigation District Lot Sizes

Lot size	Percentage of lots
11 – 20ha	22%
21 – 50ha	62%
51+ha	16%

Source: Compiled from data supplied by Harvey Water

This indicates that the majority of lots are between 21 and 50 hectares in size.

Accurate data on farm sizes was not available but the following tentative conclusions can be made using Shire rate records:

1. irrigation farms are made up of several lots that could be tradable.

2. the area to the north and north east of the existing irrigation area has a higher number of larger farms (around 50%) that are over 80 hectares compared to the existing irrigation area.

The Department of Agriculture have advised that "there is a propensity towards increases of farm sizes and agricultural operations". The range of horticulture operation size for a family business is 2 hectares to 40 hectares. However, in order to be competitive in the export market the size needs to be around 40 hectares. (Department of Agriculture response to Shire of Waroona LPS Discussion Paper – December 2002)

The key objective of the Rural zone, particularly the Priority Agriculture zone, is to retain competitive agricultural operations. Permitting inappropriate subdivision of existing lots will jeopardise this objective by creating lots that are unsustainable for agricultural use, or by allowing them to be bought by those intending only to use them for lifestyle purposes.

## 7.2 AGRICULTURE STRATEGY

### 7.2.1 Priority Agriculture Area

As required by the Peel Region Scheme Policy 'Strategic Agricultural Resource Policy' and Statement of Planning Policy No. 2.5 'Agricultural and Rural Land Use Planning' the Shire has considered the extent of the Priority Agriculture Area in this Strategy. Consideration has been given to combination of land and irrigation water that is suitable or has the potential for future agricultural intensification and diversification, including soils data and the existing lot sizes.

The extent of the Priority Agriculture area is shown on the Strategy Map (Appendix 1). Three areas identified as Priority Agriculture in the State Policies have been excluded. The existing small lot subdivisions west of Waroona (bounded by McNeil, Coronation, Fawcett and Peel Road) and Hamel (bounded by the Railway line, south of the properties fronting Roberts Road, west of the properties along Fawcett Road and James Road). The exclusion of these two areas reflects the fact that all of the lots are less than 10 hectares in size (the prevailing lot size is 2 hectares) and therefore are not of sufficient size to be used for agriculture of 'state or regional significance'. There is no significant

agricultural use currently in these areas and the properties are being used for lifestyle purposes. These two areas are to be Rural Smallholdings.

The other area excluded from Priority Agriculture is the four lots in the north eastern corner of the Shire, close to Nanga Road. The four lots were associated with a Priority Agriculture Area on the other side of the Murray River (in the Shire of Murray). All four lots contain a significant percentage of native vegetation. One lot contains an existing recreation camp site and another contains two dwellings and a small vineyard. Given the presence of remnant vegetation, the existing land uses and the proximity to the Murray River, there is no opportunity for 'state or regionally significant' agricultural uses to occur. A more appropriate use of the area would be tourism given the proximity to the Lane Poole National Park. The four lots have been included in the Hills Landscape Protection area.

Analysis of the land capability, lot sizes and availability of irrigation water has resulted in the inclusion of the additional land to the north, north-east and east of Waroona, including the foothills land. The area that is beyond the current piping could potentially be serviced in the future.

This Strategy proposes a minimum lot size of 40 hectares in the Priority Agriculture zone, subject to the created lots having at least 30 hectares of suitable horticultural land.

Notwithstanding the above minimum lot size, consideration may be given to 'farm cluster' subdivisions with lesser lots sizes. The proposal should be centred on a particular type of agricultural use and must be the subject of a scheme amendment prior to subdivision. The amendment would need to demonstrate the capability of the site for the proposal and demonstrate the long term viability of the use. The amendment would also need to propose a mechanism for ensuring that all future landholders would continue with the proposed cluster use and that the lot would not become quasi lifestyle blocks.

### 7.2.2 General Agriculture Area

Land within the General Agriculture zone is still productive for broadacre grazing and may present diversification opportunities such as intensive agriculture. It should be protected for agricultural uses.

A minimum lot size of 80 hectares is proposed for the General Agriculture zone. Given the generally lower capability of this land when compared to the Priority Agriculture zone, a larger zone size is required to protect the viability of agriculture. The 80 hectare minimum should prevent the use of the lots for lifestyle purposes.

### 7.2.3 Hills Landscape Protection Area

The relatively small area of the scarp to the north and east of Waroona has three principle objectives:

1. Allow for small scale diverse agricultural opportunities. It is recognised that these operations will not be competitive on a domestic or international scale, but may provide a supplement to other income sources.
2. Allow for a clustering of low-key tourist ventures. These could include accommodation such as farm-stay, bed and breakfast and chalets or such forms of tourism as farm tourism, farm vacation tourism, wine tourism and agri-entertainment.
3. Protect the visual landscape. The zone includes the scarp and contains significant areas of remnant vegetation. This is one of the attractions of the area and must be protected.

The area is focused around the tourist node of Waroona Dam and the scarp north of Waroona which provides views to the Harvey Estuary and significant remnant vegetation.

In order to ensure that the landscape is protected and some agricultural opportunities are retained, the minimum lot size is 10 hectares in the Hills Landscape Protection area.

Agricultural operations within this area should generally only be in areas that have been predominately cleared of vegetation.

## 8 RESIDENTIAL LOT SUPPLY & DEMAND

### 8.1 Population & Lot Considerations

#### 8.1.1 Population – 1981 to 2001

Over the twenty year period 1981 to 2001 there has been an increase in the estimated resident population of the Shire (Figure 15) although the year to year growth rate has fluctuated. The twenty year annual average growth rate was 1.8% but for the period 1993 to 2003 it was almost double this at 3.3% (WALGA Estimate Resident Population, 2004).

Figure 15 - Population 1981-2001

1981	1986	1991	1996	2001
2,460	2,626	3,010	3,194	3,524

Estimated Residents: Source Western Australia Tomorrow, WAPC 2000

The population has increased and declined principally as a response to a mix of job growth and losses and more recently as a result of the urbanization of Mandurah and the Peel Region. Major job growth resulted from the establishment and subsequent expansion of the alumina refinery at Wagerup and the flow on effect to local industries. The Lake Clifton small holding development area and the town of Waroona and surrounds have been the major recipients of these population additions. These population additions are reflected in the 1993 to 2003 annual average growth rate of 3.3% mentioned previously.

However in the 2001-2003 period there was a loss of 23 people from the Shire's population. The factors that contributed to the slowed growth in the period 2001-2003 were:

1. Loss of employment: The deregulation of the dairying industry forced most dairy farmers in the district off their farms. The only abattoir in proximity to Waroona closed in 2002, resulting in over 200 job losses.
2. Alcoa purchased approximately 50 properties in this period as part of their buffer for the Wagerup alumina refinery.

3. There was a shortage of lots in Waroona and Preston Beach as the result of delays in strategic planning for the district.

#### 8.1.2 Population Distribution

At the 2001 Census the Shire population of 3,278 persons was distributed as follows:

The town of Waroona had 1773 persons but when combined with the surrounding or town fringe area there were 2,242 persons. This was 41 persons less than in 1991.

The area from the South West Highway and the Old Coast Road had 807 persons. This was an increase of 251 persons since 1991. This area contains the small holding development at Lake Clifton where nearly all the additional population can be assumed to have located.

The coastal belt west of the Old Coast Road had 229 persons, an increase of only 6 persons since 1991. This area contains numerous small holdings strung along the Old Coast Road and the holiday/urban centre of Preston Beach. Preston Beach is not identified in Census data but it estimated to have a permanent population of approximately 180 persons.

#### 8.1.3 Past Lot Preferences

Based on the final subdivision approvals issued by the Western Australian Planning Commission between 1991 and 2002 the largest lot production in the Shire was rural residential lots (48%), followed by special residential lots (35%) and single residential lots (17%).

This data must be interpreted with caution. Whilst it probably reflects demand, the lot supply situation over that time is not known. For example, if there was a surplus of lots of a particular lot type then they would not be reflected in the above data even though there might have been a reasonable level of demand.

Nevertheless, anecdotal information from real estate agents confirms the demand for special residential lots at Waroona, particularly in a bushland setting, small holding lots at Waroona and Lake Clifton and

single residential lots at Preston Beach and to a lesser extent, at Waroona.

According to the real estate agents the major demand is from outside the Shire indicating the importance of the urbanisation pressures. This demand in Waroona is reflected in the price of land with an increase of 16% in 2003-04.

### Waroona

Waroona is the local government administrative center and the retail, commercial and service centre and the major urban centre in the Shire. Its retail and commercial backbone is weekly household goods and agricultural goods and services. There are a range of community and recreational facilities and services including a public and private primary school and a public high school to year 10, police, Department of Agriculture, indoor and outdoor recreation facilities including a heated pool, and a substantial aged persons complex with well aged and hostel units.

There are a range of residential lots in and around Waroona including single residential lots, approximately 200 special residential lots, 25 rural residential lots to the east of the town and 64 rural smallholding lots to the north and west that vary in size from 2 to 7 hectares and are used for residential, hobby farming and home based businesses.

The town is serviced with reticulated water and sewerage. Water is supplied from the Samson Brook pipehead dam via the Samson Brook Water Treatment Plant to a water service tank at 115AHD. The Water Corporation advise that the existing service tank can accommodate an additional 4,500kL and at a annual average growth rate of 1.5% it will not require duplicating until 2017-18.

There is a wastewater scheme in the northern part of the town comprising a sewer reticulation network that gravitates the wastewater to a single pump station where it is pumped to the treatment plant on the western side of the town over the railway line. Sewerage infill is programmed for 2010-2011 to the southern end of the town bringing the total number of lots serviced to around 730. This latest infill will require

an additional pump station. The treatment plant can be upgraded to accommodate increased town services.

### Hamel

This small hamlet is about 2.5 kilometres south of the Waroona townsite. In earlier days the hamlet was the centre of horticultural activity particularly potato growing and the State Nursery was located at Hamel. There is a pine plantation on State Forest land adjacent to the residential lots.

There are approximately 44 residential lots with about 30 dwellings. Adjoining to the west are 60 rural smallholding lots containing approximately 25 dwellings. These lots are predominantly 2 hectares in size with some around 4 and 6 hectares.

There are no commercial facilities in the townsite but there is a community hall.

Reticulated water comes from the same source as for the Waroona townsite. There is no wastewater scheme at Hamel and there is no proposal to install reticulated sewerage.

### Preston Beach

This settlement was planned many years ago as a holiday estate. The existing townsite has 410 residential lots containing approximately 350 dwellings. There is also a 30 dwelling unit complex at the northern end of the townsite. The townsite contains a tourist resort, local store/bottleshop, small community centre, fire response shed and a public golf course with clubhouse.

Under Town Planning Scheme No. 7 there is residentially zoned land to the north of the townsite and the 1999 adopted structure plan planned for an additionally 400 lots in this area.

Over time the trend for the settlement has been changing from one exclusively for holiday home owners to retirees and even some families. This trend is expected to continue.

Reticulated water is supplied from two production bores. It is treated and pumped into the reticulation system. The Water Corporation has an allocation of 100,00kL/year of groundwater from the production bores.

At present there is no wastewater system.

#### Lake Clifton

This is a settlement of about 150 rural residential lots that are mostly 2 hectares in size and used predominantly for residential purposes. Recreational horse keeping is permitted on the majority of the lots. This is considered to be a key reason for settling in this locality as many other small holding developments in the region do not permit the keeping of horses.

In addition there are about 45 lots that range in size from 4 to 10 hectares in size on the west side of Old Coast Road. These are used for agricultural, tourist uses and lifestyle purposes.

There is a caravan park and tavern on the Old Coast Road. There is an existing approval for a service station, supermarket bottleshop and several small retail outlets on the site.

A community centre was completed in 2005 in Tuart Grove Avenue for the Lake Clifton and Herron communities.

There is no reticulated water or sewerage. Potable water is supplied from roof catchment rain water tanks and effluent and wastewater disposal is via on-site units.

#### 8.1.4 Population Structure Changes

The age structure of the population changed between the Census years of 1991 and 2001. The family formation group (age groups 25-44 years and 0-14 years) decreased, as did the 15-24 age group. The probable reasons for this are the lack of job opportunities and the lifestyle attractions of the larger centers.

There was a substantial increase of 248 persons in the 45-59 age group. This is probably accounted for by the in-situ ageing of the

workforce population and the increased population at Lake Clifton. Lake Clifton is being settled predominantly with people in the later family life cycle and 'empty nesters'. About 66% of dwellings have two or less occupants (Lake Clifton-Herron Structure Plan, City of Mandurah and Shire of Waroona, March 2006).

There was also an increase of 96 persons in the 65 and over age group. Similar reasons could be attributed as above with also the comprehensive aged care facilities in Waroona allowing greater in-situ ageing than might normally occur in a small town.

#### 8.1.5 Dwelling Occupancy Changes and Projections

Between 1991 and 2001 the average occupancy per dwelling has declined from 3.03 persons to 2.72 persons. This is to be expected with the changes in the population structure described above.

It is expected that the average occupancy will continue to decline over the next ten to fifteen years. Without any anticipated major job increases there will be a slow ageing of the population and the additional population is likely to have the same older profile as in the past.

For the purpose of projecting the generation of future lots it has been assumed that 70% of additional population will be couples and 30% families of 3.5 persons. Based on these assumptions, the future average occupancy per dwelling is estimated to be 2.45 persons.

#### 8.1.6 Affordable Land and Housing

In order to facilitate the provision of affordable housing within the Shire, it is important to establish partnerships between various levels of government and the private sector and identify opportunities arising from subdivision and development proposals.

Importantly, consideration will be given to ensuring that variety and choice in the size, type and affordability of housing is provided at suitable locations in order to support a range of household sizes, ages and incomes and is responsive to housing demand preferences.

## 8.2 Population & Lot Allocation Strategy

### 8.2.1 Population Increases to 2016 and 2021

In 2016 the potential population is projected to be 5400 persons, an addition of 2122 persons from 2001. The projected population to 2016 is based on an annual average growth rate of 3.3%. It is acknowledged that this figure is higher than the 2.2% in 'Western Australian Tomorrow' Population Report No. 4 (Western Australian Planning Commission, 2000) and those contained in the Department of Planning and Infrastructure draft 'Local Government Area Population Projections' (May 2005) of 0.5%. However, it is considered that a growth rate of 3.3% is a better indicator of the future of the Shire given the opportunities that exist.

In 2021 the potential population is projected to be 6480 based on an annual average growth rate of 3.7%. The increased growth rate reflects that the residential expansion in Preston Beach should be reaching its peak in this period.

The long-term population additions are likely to come from the southward growth of Mandurah and the relocation of people from the Perth metropolitan area. The completion of the Peel Deviation Road by 2009 is expected to be a catalyst for an increasing rate of urbanization, particularly at Preston Beach.

Already major metropolitan property developers are showing genuine interest in development at Preston Beach. There is continual interest for more rural residential lots in the western area of the Shire and real estate agents are now seeking single residential and special residential lots in Waroona and rural residential lots close to town.

Employment generated population is likely to increase steadily with the alumina refinery expansion, the mining of heavy mineral sands, small increases in agricultural, manufacturing, tourism and transport and the subsequent additions to employment in the retailing, personal and community services.

### 8.2.2 Projected Number of Additional Lots

Based on the potential population addition of 2122 persons between 2001 and 2016 and an average occupancy rate of 2.45 persons per dwelling, there will be a target of an additional 900 lots. Because land is rarely developed within the projection timelines, it will be necessary to allocate about 25% more lots if achieve the target. That is about 1125 lots.

The projected structure of the additional residential lots to 2016 is as follows.

Single Residential Lots	675 (60%)
Special Residential Lots	180 (16%)
Small Holding Lots	270 (24%)

Whilst the proportion of special residential and rural small holdings is expected to be less because of the increase in single residential lots at Preston Beach, the actual numbers are expected to be 50% and 66% higher respectively than in the previous 12 years.

The Shire has a range of environments including Waroona and the foothills and scarp, Preston Beach and Lake Clifton that can provide good residential amenity and satisfy a range of lifestyle decisions that the Western Australian Planning Commission considers are the "strongest forces shaping future development" (State Planning Strategy, 1997). The provision of good residential amenity is important in attracting the urbanization and relocation population from the metropolitan area and Mandurah.

### 8.2.3 Lot Allocation for Waroona

There is land that is either zoned or could be readily zoned for residential and/or special residential lots to cater for the projected lot requirements for the next 10 years to 2016. The extent of land proposed for the Waroona townsite is indicated on the Strategy Map. It is acknowledged that the total number of lots exceeds that projected to be required in the life of the Strategy. However, it is important to set aside areas now to ensure that they are a protected for the long term from inappropriate development or subdivision.



Generally the target density coding for Waroona shall be R12.5 (average 800m<sup>2</sup> per lot). However, in proximity to the town centre a medium density of R30 (average 300m<sup>2</sup> per lot) is proposed to provide unit development opportunities. The exact extent of the R30 coding is to be determined in the future Town Planning Scheme.

Residential

The following tables outline the areas proposed for residential expansion surrounding Waroona.

Location	South east corner of the townsite, bounded by McLarty Road, Recreation Road, Logue Road and Hill Street
Approx. Area	25 hectares
Lot sizes	800m <sup>2</sup> (R12.5)
Approx. Yield	200 lots
<p><u>Considerations</u></p> <p>Zoned 'Residential' under Town Planning Scheme No. 7.</p> <p>A watercourse runs through the site and riparian habitat and water quality should be protected. Setbacks and use of Public Open Space surrounding the site to be considered.</p>	

Location	East of the existing townsite, Location 254 and Lot 386 on the corner of Hill and Elliot Streets (portion)
Approx. Area	21 hectares (residential portion)
Lot sizes	800m <sup>2</sup> (R12.5)
Approx. Yield	160 lots
<p><u>Considerations</u></p> <p>Zoned 'Residential' under Town Planning Scheme No. 7.</p> <p>An overhead power line runs through the site which will require appropriate setbacks.</p> <p>Requires preparation of an outline development plan prior to subdivision.</p>	

Location	North of existing townsite
Approx. Area	300 hectares (the total area for urban expansion)
Lot sizes	800m <sup>2</sup> (R12.5)
Approx. Yield	To be determined
<p><u>Considerations</u></p> <p>Nanga Brook runs through a portion of the site and riparian habitat and water quality should be protected.</p> <p>Drainage to be considered given part of the site is low-lying.</p> <p>Numerous landowners to be co-ordinated if it is to be subdivided.</p> <p>Requires preparation of an outline development plan prior to subdivision.</p> <p>Sand mining to be completed prior to rezoning or subdivision occurring.</p>	

Location	North east of the existing townsite, Lot 199 corner Nanga Brook Road & Hill Street
Approx. Area	15 hectares
Lot sizes	800m <sup>2</sup> (R12.5)
Approx. Yield	120 lots
<p><u>Considerations</u></p> <p>Subject to the Waroona North Structure Plan and final determination on arrangement of Special Residential vs Residential land use.</p> <p>Nanga Brook runs through a portion of the site.</p> <p>Drainage to be considered given part of the site is low-lying.</p> <p>Sand mining to be completed prior to rezoning or subdivision occurring.</p>	

Location	South east of the existing townsite, Lot 33 south of McLarty Street (portion)
Approx. Area	45 hectares
Lot sizes	800m <sup>2</sup> (R12.5)
Approx. Yield	350 lots
<p><u>Considerations</u></p> <p>Area between McLarty Street and the floodway for Drakesbrook Weir.</p> <p>This area needs further investigation to further determine the viability and arrangement of residential vs special residential lots.</p> <p>Reticulated sewerage will be required because the area is within the Peel-Harvey Coastal Plain Catchment area.</p>	

Location	Infill subdivision within existing townsite
Approx. Area	N/A
Lot sizes	800m <sup>2</sup> (R12.5) or 300m <sup>2</sup> (R30)
Approx. Yield	Undetermined
<p><u>Considerations</u></p> <p>There is a large potential for infill subdivision within the townsite, particularly in the southern half of Waroona once reticulated sewerage is provided (programmed for 2010/11).</p>	

Special Residential

The following tables outline the areas proposed for special residential expansion surrounding Waroona.

Location	Lot 254 on the corner of Hill and Elliot Streets (portion)
Approx. Area	6 hectares
Lot sizes	2000m <sup>2</sup> to 5000m <sup>2</sup>
Approx. Yield	20
<p><u>Considerations</u></p> <p>The site has subdivisional approval for 20 lots.</p>	

Location	Location 544 Elliot Street (east of the Recreation Ovals) (portion)
Approx. Area	20 hectares
Lot sizes	2000m <sup>2</sup> to 5000m <sup>2</sup>
Approx. Yield	70

Considerations

The western half of the site can be serviced with reticulated water.

All lots shall be connected to a reticulated sewerage system, except where reticulated sewerage is not available in which case onsite effluent disposal may be considered in accordance with Clause 5.7 of Statement of Planning Policy No.2.1 'Peel Harvey Coastal Plain Catchment Policy'.

Considerations

This area can be serviced by reticulated water and is therefore appropriate for special residential lots.

There are numerous landowners and an outline development plan will be required prior to subdivision.

There is a watercourse through the area and remnant vegetation that should be protected.

All lots shall be connected to a reticulated sewerage system, except where reticulated sewerage is not available in which case onsite effluent disposal may be considered in accordance with Clause 5.7 of Statement of Planning Policy No.2.1 'Peel Harvey Coastal Plain Catchment Policy'.

Location	Re-subdivision of various rural residential lots between Nanga Brook Road and Robbie Court
Approx. Area	22 hectares
Lot sizes	2000m <sup>2</sup> to 5000m <sup>2</sup>
Approx. Yield	70

Location	Various lots north of surrounding the sand mining pits
Approx. Area	300 hectares (the total area for urban expansion)
Lot sizes	2000m <sup>2</sup> to 5000m <sup>2</sup>
Approx. Yield	To be determined
<p><u>Considerations</u></p> <p>Sand mining to be completed prior to rezoning or subdivision occurring.</p> <p>All lots shall be connected to a reticulated sewerage system, except where reticulated sewerage is not available in which case onsite effluent disposal may be considered in accordance with Clause 5.7 of Statement of Planning Policy No.2.1 'Peel Harvey Coastal Plain Catchment Policy'.</p>	

Rural Residential

The following table outlines the area proposed for rural residential east of Waroona.

Location	Scarp land from Nanga Brook Road to Lake Moyanup
Approx. Area	600 hectares
Lot sizes	4-10 hectares
Approx. Yield	120
<u>Considerations</u>	
The area has been chosen for its proximity and ease of access to Waroona and because views are available.	
The soils (except close to watercourses) are generally capable of supporting effluent systems.	
The protection of remnant vegetation, landscape protection and setbacks to Lake Moyanup and watercourses will need to be considered for each site proposed for rezoning.	

Rural Smallholdings

No further expansion of the extent of the rural smallholdings lots west of Waroona or Hamel is planned. It is not considered environmentally or socially acceptable to produce large number of lots in these areas, which are subject to seasonal inundation. Alternative lifestyle blocks are available on the foothills to the Scarp. A 2 hectare minimum lot size will provide for some limited 'infill' subdivision opportunities.

8.2.4 Lot Allocation for Hamel

It is proposed to excise the small lots to the west of the town from the Strategic Agriculture Policy Area of the Peel Region Scheme and include them in a rural smallholding area for a range of uses including residential, small-scale agriculture, tourist accommodation and home-based businesses. These types of land uses are already occurring in the area and identification as a small holding area will allow provisions to be put in place to control residential amenity issues. A 2 hectare

minimum lot size is proposed which will permit limited 'infill' subdivision opportunities.

No expansion of the townsite is considered appropriate given the lack of reticulated sewerage and commercial facilities.

8.2.5 Lot Allocation for Preston Beach

The 'Coastal and Lakelands Planning Strategy' (WAPC, 1999) details some expansion of Preston Beach to the north (400 lots) and to the south (800 lots). Ultimately the maximum size of the settlement at this location will be determined through the Preston Beach Townsite Strategy.

### 8.2.6 Lot Allocation for Lake Clifton

The extent of proposed Rural-Residential in Lake Clifton is indicated on the Strategy Map in Appendix 1.

It is proposed to bound the rural residential lifestyle blocks on the eastern and southern sides the Harvey River, the new Perth to Bunbury Highway alignment and the Yalgorup National Park. The Coastal and Lakelands Planning Strategy proposed Old Bunbury Road as the southern boundary. However, the new Perth to Bunbury Highway is considered a more appropriate boundary. It is not intended that rural residential be permitted on the eastern side of the Harvey River or the Perth to Bunbury Highway during the life of this Strategy because that land has a reasonable capability of supporting broadacre farming.

#### Lot Sizes

It is proposed that lot sizes be consistent with the Coastal and Lakelands Planning Strategy. In the Peel-Harvey Catchment the lots should have a minimum lot size of 2 hectares with an average of 3 hectares. In the Lake Clifton Catchment the minimum will be 2 hectares with an average size of 5 hectares. It is acknowledged that this is below the 4 hectares stated in Statement of Planning Policy No.2.5. However, there is no prospect of supplying reticulated water to this area and these lot sizes conform to the existing development and the recommendations of the Coastal and Lakelands Planning Strategy.

#### Additional Rural Residential Lots

There is the potential for an additional 120 lots in this area. The rezoning of a majority of the sites to rural residential under Town Planning Scheme No.7 has already been initiated.

It is noted that the proposed rezonings of Lot 1 Southern Estuary Road and Lot 3 Southern Estuary Road (Amendment No.'s 4 and 17 to Town Planning Scheme No.7 respectively) are subject to formal environmental review processes.

### Rural Smallholdings

The Strategy Map indicates the area around Old Coast Road that is to remain as rural smallholdings. It is proposed to allow subdivision of the larger lots along the Old Coast Road into small holding lots with a minimum size of 5 hectares in conformity with the Environmental Protection Authority Guidance No.28 and the Coastal and Lakelands Planning Strategy. There is limited subdivision potential along Old Coast Road, with the majority of the approximately 20 to 30 lots that potentially could be created being south of Old Bunbury Road. A requirement of subdivision would be the ceding and construction of a service road to minimise the number to access and egress points onto the Old Coast Road. Appropriate setbacks to Lake Clifton will also be required.

## 9 COMMERCIAL

### 9.1 Commercial Considerations

#### Waroona

Commercial activity in the Shire is centered on the town of Waroona. The Waroona town centre has developed along South Western Highway and Fouracre Street. The commercial outlets in the town centre provide primarily lower order or daily goods.

There are two supermarkets, a chemist, two hairdressers, a beauty salon, two public bars/pubs, three bottle shops, a video store, a newsagency, a hardware store and a rural services outlet, three delis, three service stations and a number of other small service industries such as a glass repaired and an auto electrician. There are a number of boutique retail outlets starting to locate in the town centre. These include a gift store and restaurant and a tea house. There are no higher order businesses such as showrooms or clothes stores.

Given the proximity of Waroona to the regional centres of Mandurah and Bunbury, the town will not likely be able to provide higher order businesses such as clothes stores in the future. The future of retail in Waroona in the life of the Strategy will be daily goods and boutique retail outlets catering for tourists.

There is a high vacancy rate in the Town Centre. A Shire survey in 2004 of South Western Highway between Parnell and Wass Street determined 19 of the 47 commercial premises or land parcels were vacant (40%).

In 2003 Main Roads estimated there to be 5,800 vehicles per day (annual average daily traffic) traveling along the South Western Highway through the town centre. Of these there were about 280 'small trucks' and about 360 'big trucks' (Town Centre Strategy – Character Study, Shire of Waroona, 2003). The traffic on South West Highway splits the town centre into two halves. The pedestrian environment in the town centre is very unwelcoming. While a Waroona By-pass

alignment has been defined (as shown on the Strategy Map), the By-Pass is unlikely to be constructed in the short to medium term.

The Shire has undertaken the 'Waroona Town Centre Strategy' and is implementing its recommendations. The Strategy will guide the enhancement of the commercial and cultural centre of Waroona in the coming years. The Town Centre Strategy contains three primary elements:

Element 1 – Drakesbrook Place: The creation of a Town Square ('Drakesbrook Place') is instrumental in establishing the cultural heart of Waroona and involves significant changes around the Waroona Memorial Hall to create comfortable meeting and performance spaces, including a stage and amphitheatre.

Element 2 – Commercial: The main objective in the Commercial Town Centre is to upgrade and intensify the area as a major mixed-use retail and commercial CBD. This will be achieved by the creation of a new town park in front of the Waroona Hotel, off-road parking, and the enhancement of the attractive but under-utilised area adjacent to the railway as a picnic spot.

Element 3 – Main Street: The enhancement of the Main Street (South Western Highway) for pedestrians is vital to enhancing the retail experience in Waroona. The power infrastructure will be undergrounded and the South Western Highway roadway and verges enhanced through trees, furniture and new paving.

Element 1 has been completed and the Shire has made progress towards completing all three of the Elements. Works are expected to be completed in June 2009.



### Hamel

There are no commercial outlets or services in Hamel.

### Preston Beach

The sole commercial outlet in Preston Beach is the local store and bottleshop on the corner of Mitchell Road and Panorama Drive. The existing population does not warrant further facilities. However, once the expansion of Preston Beach commences, further commercial services will be required.

### Lake Clifton

Commercial activity in Lake Clifton is centered around the Lake Clifton Tourist and Shopping Centre site on Lots 19-22 Old Coast Road. In addition to a tavern, caravan park and motel units, in the past the site contained a service station. The site is zoned "Special Use" under Town Planning Scheme No. 7, with provision for the development of a 1000m<sup>2</sup> shopping centre. Although a development approval has been granted for such a shopping centre, it is yet to be constructed.

The draft Lake Clifton – Herron Structure Plan recommends that Lots 19-22 Old Coast Road continue to function as the commercial and community centre for the locality.

There are a number of tourist directed businesses established along Old Coast Road in the Rural zone. These include a restaurant, gift and devonshire tea house and vineyard.

## **9.2 Commercial Strategy**

1. Maintain Waroona as the district service centre, providing a range of daily and rural industry goods for the surrounding area.
2. Maintain the extent of commercially zoned land within the current Waroona townsite under the Strategy. Commercial zoned land may be considered within the Waroona North area provided it compliments the existing town centre and is adequately justified.
3. Permit a range of commercial uses in the Town Centre zone and permit medium density residential development in appropriate locations.
4. Implement the outcomes of the Waroona Town Centre, with priority to underground power and the Main Street enhancements.
5. Consider design guidelines for the Waroona Town Centre once the enhancements have occurred.
6. No commercial zoning for Hamel, with residents to utilise the Waroona town centre.
7. Structure planning for Preston Beach to consider the location of a local shopping centre to cater for the daily needs of residents.
8. Reaffirm Lots 19-22 Old Coast Road as the commercial centre of Lake Clifton and encourage the development of a local shopping centre in this location.
9. Individual tourist based businesses in the Rural Smallholdings zoned land along Old Coast Road to be encouraged.

## 10 INDUSTRIAL

### 10.1 Industrial Considerations

There are five zoned industrial areas in the Shire. They are:

1. Wagerup alumina refinery and residue disposal area.
2. North Waroona between the South Western Highway and the railway.
3. McLarty Road East.
4. McLarty Road West.
5. the abattoir site.

These industrial areas accommodate a range of uses from the heavy industry of the Wagerup alumina refinery to earthmoving and stock transport businesses and light and service industries including automotive repairs, household and agricultural services, general hire, engineering and plumbing services.

A Peel Development Commission study commissioned in 2004 found that, similar to the Peel region as a whole, there was a lack of zoned industrial land in the Shire. There are 23 industrial zoned development sites in Waroona. Only two (2) of those sites were vacant. ('Demand for Industrial Land in the Peel Region', Worley, 2004) Further, none of the industrial land has reticulated sewerage and it is all in close proximity to residential uses. The Shire does not have industrial land suitable for general industry.

The Shire, in conjunction with the Western Australian Planning Commission commissioned a study in 2003 ('Waroona Industrial Site Evaluation Study', BSD Consultants Pty Ltd, 2003) to investigate the need for and identify areas for general industry. A new industrial site was proposed at the corner of Waterous Road and South Western Highway, Waroona. However, the landowner has advised that they are unwilling to provide the site for this purpose.

### Buffers

Buffer areas are required around industrial areas in order to protect industry where there is the likelihood of off-site emissions that could adversely affect sensitive premises and/or activities located in the surrounding area (Statement of Planning Policy 4.1 - State Industrial Buffer).

Buffers take the form of areas where sensitive land uses and developments are prohibited under the provisions of a town planning scheme. The Wagerup refinery site and the Waterous Road Abattoir site require appropriate buffers.

The refinery operators own a substantial area of land around the refinery but a formal buffer has still to be determined and incorporated in the town planning scheme. The land is predominantly used by the operator for beef cattle production.

In late 2001 it was proposed that the land surrounding the refinery be managed as a buffer. In late 2002 Council's endorsement of the following process was sought:

1. The preparation by Alcoa of a draft 'Strategic Land Use Plan' in consultation with the Shires of Harvey and Waroona and with the assistance of the Departments of Environment and Planning and Infrastructure.
2. Community consultation regarding the strategic document.
3. The initiation of a scheme amendment creating a buffer.

Council gave broad support to this process and a draft document was prepared but the matter has not been progressed further.

The Long Term Residue Management Strategy for Alcoa's Wagerup operations indicates that expansion of the residue footprint will be required in the future outside the 'Industry' zone. The Shire will determine this expansion on its merits at the time taking into consideration the impact on the amenity of the area.

## **10.2 Industrial Strategy**

A buffer area is proposed around the Waterous Road Abattoir site to prevent dwellings and other sensitive premises being built in close proximity to the general industrial area. The width of the buffer will need to be determined from studies undertaken in accordance with the requirements of Statement of Planning Policy No.4.1.

1. Investigate new locations for a 'General Industry' Estate and permit appropriate industrial uses such as General Industry, Light Industry, Depot etc.
2. Upon establishment of a General Industry Estate, rezone the existing industrial areas surrounding the Waroona townsite to either Light Industry or Mixed Use to recognise their proximity to residential areas. These areas are depicted as Light Industry or Mixed Use in this Strategy to indicate their future zoning. Such zoning is not to occur until the alternative General Industry land is available.
4. In the Mixed Use zone permit a range of service and light industries in conjunction with residential uses. Both the areas indicated as Mixed Use in the Strategy Map already contain a mix of residential and industrial uses.
5. Encourage the formalisation of the Wagerup alumina refinery buffer based on scientific data and community expectations.

## **11 COMMUNITY & RECREATION**

### **11.1 Community & Recreation Considerations**

#### Recreation

The Shire has a number of areas that are National Park, Regional Open Space or State Forest as identified in the Peel Region Scheme (Figure 6). These areas play an important role in the biodiversity of the environment and recreational opportunities for the community and visitors. The variety of environments and experiences includes coastal dune systems, the RAMSAR listed Lake Clifton and Lake Preston, the foreshore reserves around the Harvey Estuary, the waterways and dams of the Darling Scarp and the upper reaches of the Murray River and surrounding State Forest and National Park.

#### Waroona

Waroona is well catered for with sporting and community facilities. The Waroona Aquatic and Recreation Centre contains a 25 metre swimming pool, three multipurpose courts, two squash courts, a gymnasium and a multipurpose meeting/instruction room. Adjoining the Recreation Centre on Hill Street are two ovals and an 18 hole sand green golf course and their associated clubhouses. At the Waroona Showgrounds on South Western Highway there is a further oval and football clubrooms. Adjoining on Parnell Street is the Waroona Bowling club with two active greens.

There are four parks for general and picnic use. They are located on Kings Place, Alexander Street/Hawksley Place, Issepi Street and at Centenary Park on South Western Highway. No further parks are required within the existing settlement of Waroona. However, open space should be incorporated into the subdivision of the urban area between Logue and McLarty Streets. New recreation areas are indicatively proposed on the pits of the sand mining in Waroona North, however the specific location and extent of open space will be informed through the outline development plan for the area.

Waroona has a range of community facilities and services. The Waroona Community Centre was completed in 2004. It contains a

doctors surgery and health consultation rooms, Telecentre, government community workers, a toy library and two meeting/function rooms. There are a number of other community buildings in Waroona also, including the Memorial Hall, Senior Citizens Building, the Old Road Board Building and the Arts & Crafts Centre.

Waroona has two schools, a Catholic kindergarten to Year 7 and the Waroona District High School catering for kindergarten to Year 10.

There is a local police station, fire station, State Emergency Service depot and ambulance centre. The Department of Agriculture and a Landcare centre are also based in Waroona. The Shire administration, works depot and library are also located in the town.

No further community or public use land is considered necessary in Waroona. There are a number of sites currently under utilised that could cater for such uses for the life of the Strategy.

#### Hamel

The sole community building in Hamel is the Hamel Hall, which contains the main meeting room, a general toilet block and a kitchen. Picnic facilities have been developed next to the Hall. There is a park between Pitt and Cullinga Streets. No further open space or public purpose land is considered necessary given that the townsite is not expanding.

#### Preston Beach

In Preston Beach there is a nine hole golf course and clubhouse and a small community hall and fire shed. In 2004 the Shire commissioned a study of the future needs of the Preston Beach community. The study identified the need for a larger multipurpose community centre and recommended its siting on the 1<sup>st</sup> green of the golf course (Master Plan Study for Preston Beach Community Facilities, CARE Consulting, 2004). Community and sporting facilities will need to be further considered in conjunction with structure planning for the expansion of Preston Beach.

There are extensive open space 'spines' that run through the existing Preston Beach settlement. These areas contain remnant dune

vegetation and should be protected for their biodiversity and amenity values. At the end of Mitchell Road is the Preston Beach 'beach'. There is a toilet block, playground and recreation area in addition to the beach and 4wd beach access points. This area should remain the focus for coastal recreation opportunities.

#### Lake Clifton

In Lake Clifton, a community centre was completed in 2004 in Tuart Grove Avenue. The draft Lake Clifton-Herron Structure Plan recommends maintenance of this facility for the Lake Clifton and Herron communities but that future community infrastructure be directed towards Lots 19-22 Old Coast Road to enhance this site as the centre of the community.

### **11.2 Community & Recreation Strategy**

1. Reflect the Regional Open Space, National Park and State Forest indicated in the Peel Region Scheme in the Strategy and encourage its management by the relevant authority to balance the objectives of conservation and recreation.
2. Classify existing parks and recreation areas in the townsites of Waroona, Hamel and Preston Beach (including the golf course land in Waroona and Preston Beach) as Open Space to ensure their continued use for recreation purposes.
3. Open Space to be provided in the residential development area between Logue and McLarty Streets in the south east corner of Waroona.
4. Indicate an area around the old Waroona speedway site as Open Space on the Strategy Map. The specific location and extent of the open space and the form of the development of the open space, however, is to be determined through the outline development plan for the area. The operator to be encouraged to rehabilitate the site in conjunction with the outline development plan.
5. Classify the existing community buildings in Waroona and Preston Beach as Public Purposes to ensure their protection.
6. Consideration in the Structure Plan to be given to the community and recreation needs of Preston Beach once it has expanded. Development of a multipurpose community centre and recreation facilities to occur in conjunction with that expansion.
7. The existing community centre in Lake Clifton is to be maintained and classified appropriately. Future community infrastructure should be directed towards Lots 19-22 Old Coast Road.

## **12 TOURISM**

### **12.1 Tourism Considerations**

Tourism is an important activity in the Shire. It is largely nature and environment based and includes Preston Beach, the Yalgorup Lakes and the Darling Range with the dams (Lake Navarino and Lake Moyanup), and the Lane Poole Reserve.

Activities include bushwalking, sightseeing, fishing, swimming, boating, water skiing, canoeing, rafting/tubing, mountain bike riding, horse riding, marroning and 4-wheel driving.

#### Tourist Accommodation

At present there is a limited range of tourist accommodation including rustic cabins, on-site vans and tent camping, bunk style accommodation for groups such as schools and youth groups and bed and breakfast places. There are three caravan parks; one in the Waroona townsite, one adjacent to Lake Navarino and one in Lake Clifton. There is a tourist resort in Preston Beach and also numerous holiday homes.

#### Visitor Information

It is estimated that there are a total of 26,200 visitors per annum to the Shire. There are 71,000 visitor nights and an average length of stay of 2.7 nights. Most visitors are from Perth, many are regular visitors and that there is increasing interest in adventure recreational activities. Proximity and good access to Perth mean the Shire is readily accessible for day-trippers and overnight stays.

#### Tourist Routes

The Old Coast Road provides ready access to the coastal tourist places. The South Western Highway provides the access to Waroona and Nanga Brook Road connects Waroona to the Darling Range. Nanga Road and Nanga Brook Road form part of a tourist loop from Dwellingup to Waroona via Lane Poole Reserve. The loop winds through scenic country and provides a variety of interesting vistas and destinations.

In 2003 the Water Corporation prepared the Waroona Waterways Recreation and Tourism Master Plan. This plan was a “blueprint for future recreation and tourism use of the major [hills] catchments in the Waroona area”. It made a number of recommendations to enhance the water based experiences of the two publicly accessible dams, Waroona Dam and Drakesbrook Weir. The Master Plan found that tourism could be increasingly developed with recreational facilities and accommodation including caravan parks and camping grounds, chalets and private holiday cottages, guesthouse and lodges, nature study retreats and education camps, specialist health retreats, and conference centres. (Regeneration Technology Pty Ltd, 2003) A tourist link between the two dams is a desirable outcome that could be achieved when Lot 32 Weir Road is subdivided to provide the remaining link with Prince and Scarp Roads.

#### Farm and Small Holding Accommodation

There are opportunities for low-key tourist accommodation on farms and on the larger small holdings. This can provide important supplementary income opportunities. Low-key includes farm stay, bed and breakfast, chalets and cabins.

#### Hamel

Hamel has a rich and interesting history that will provide some tourist opportunities. The area contains the first State Nursery, established in 1897. A nursery and pine plantation have operated in the settlement continuously since that time. There are a wide variety of trees from around Australia and the world on display in the State Forest on either side of the railway line. The Shire and community have developed the concept of the Hamel Eco-Historic Precinct. A concept plan was prepared in 2003 detailing proposals for walk trails and interpretation of the exotic trees, native vegetation and wetland.

## **12.2 Tourism Strategy**

1. Encourage the development of low-scale tourist accommodation in the Rural zones throughout the Shire, but particularly in the Scarp and in proximity to Lake Navarino.
2. Give consideration to resort or similar accommodation on appropriate sites in proximity to Lake Navarino and Preston Beach.
3. Permit the development of hotel/motel accommodation in the Waroona or Preston Beach townsite.
4. Develop a tourist link between Lake Moyanup and Lake Navarino via Prince Road and across Lot 32 Weir Road. A condition of the future rezoning and subdivision of Lot 32 Weir Road would be the creation and construction of the road link.
5. Develop design guidelines to protect and enhance the amenity of the tourist routes designated on the Strategy Map.
6. Maintain the State Forest zoning surrounding the Hamel townsite to protect the historic and ecological character of the area. Implement walk trails and interpretation of the area.
7. Encourage the implementation of the recommendations of the Waroona Waterways Recreation and Tourism Master Plan, in particular the development of tourist accommodation and activities in proximity to Waroona Dam.
8. Give consideration in the new Scheme to the protection of the existing caravan parks through specific zonings for them to prevent redevelopment for other uses.

## **13 TRANSPORT**

### **13.1 Transport Considerations**

The South Western Highway runs through Waroona and is one of two (along with the Perth to Bunbury Highway) major road links between Perth and Bunbury and the rest of the South West Region. As discussed in Chapter 9, the Highway carries a large number of heavy vehicles and its alignment through the town centre creates an undesirable situation. In the medium to long term it is proposed to re-align the highway to the west to by-pass the town. The indicative alignment of the Waroona By-pass is contained on the Strategy Map. The exact alignment will be determined pursuant to an amendment to the Peel Region Scheme.

The other regional road link is Old Coast Road - currently part of the Perth to Bunbury Highway. It is proposed that by 2009 the Peel Deviation Road will be constructed connecting the southern end of the Kwinana Freeway around Mandurah to the Old Coast Road close to the entrance to Preston Beach. This will substantially reduce the travel time from Preston Beach and Waroona to Perth and is likely to reduce the traffic numbers on the South Western Highway in the short term. There will need to be connection between the Peel Deviation Road and Waroona. The most logical route is via Williamson, Dorsett and Coronation Roads. All three roads will require upgrading and re-alignment to remove some dangerous corners.

Paralleling South Western Highway is the South Western Railway line connecting Perth to Bunbury. The 'Australind' train operates daily and stops at Waroona when required by passengers. The line also caters for freight transport, in particular freight to and from the alumina refineries at Pinjarra and Wagerup.

### **13.2 Transport Strategy**

1. Reserve land for the Waroona By-pass in the Town Planning Scheme once the alignment definition work has been completed.
2. Reserve land for realignment of Dorsett and Coronation in the Town Planning Scheme once the alignment definition work has been done to provide an improved linkage between the Waroona townsite and the Perth to Bunbury Highway (Peel Deviation)



## 14 MINERALS AND BASIC RAW MATERIALS

Minerals contribute significantly to the economy. Mineral extraction and processing is a key component of the local economy. Basic raw materials are essential for the road and construction industries.

### 14.1 Minerals and Basic Raw Materials Considerations

Within the Shire the following minerals and raw materials are extracted:

**Bauxite.** Mined in State Forest in the Darling Range and conveyed to the Wagerup refinery. The mining is carried out under a State Agreement Act and limited Shire control exists over its operations.

**Titanium-zircon mineralisation (mineral sands).** There are numerous mining tenements for titanium-zircon exploration and mining within the Shire, concentrated on the Swan Coastal Plain, particularly along the foothills. Mining is currently occurring in Wagerup and north of Waroona. The Shire is supportive of these operations, but the impacts, particularly of the Waroona North mine, need to be sensitively managed.

**Gravel.** There is one remaining gravel pit in the Darling Range. Other reserves exist and may be extracted in the future. Providing that an appropriate setback to sensitive land uses is maintained and the sites are not visible from the coastal plain, this form of extraction is supported.

**Sand.** There are a number of sand extraction licences in a sand ridge centred on Buller and Old Bunbury Roads. The most significant issue associated with this use is the presence of remnant vegetation. Sites should be chosen that do not contain significant areas of remnant vegetation. Extensive rehabilitation of existing sites is required.

**Limestone.** There are significant reserves of limestone on either side of the Old Coast Road in Lake Clifton. Where these resources are on private property, extraction is encouraged prior to subdivision for rural smallholdings. Clearing of the tuart forest

should be given careful consideration given the significance of this vegetation system.

The 'Strategic Minerals and Basic Raw Materials Policy' of the Peel Region Scheme contains provisions to protect identified minerals and basic raw materials from land uses and developments that "would potentially prejudice mining of mineral resources or extraction of basic raw materials." Without careful planning, they can be sterilised by other land uses.

In accordance with the requirements of the Policy, the areas of minerals and basic raw materials as shown in the Policy are contained on the Strategy Map. Provision is made in the Strategy to ensure that rezoning or subdivision does not occur in the Policy Areas until such time as the resource has been extracted.

### 14.2 Minerals and Basic Raw Materials Strategy

1. Rezoning and/or subdivision of land within the Minerals and Basic Raw Materials Areas, is not to occur until the Department of Industry & Resources (or equivalent) has certified that the resource has been sufficiently extracted. Where rezoning/subdivision is within 500 metres of the Areas, the advice of the Department of Industry & Resources is to be sought in consideration of the proposal.
2. Industry – Extractive to be a permitted use in all Rural zones.
3. Permit the extraction of sand, gravel and limestone on sites where clearing of significant vegetation is not required and where the operations can be undertaken without unreasonable impact on the locality and environment. Extensive rehabilitation to be undertaken on a cell by cell basis on all extraction sites upon completion of extraction in that cell.
4. Encourage the operators of the mineral sands and bauxite mines to minimise the amenity impacts on surrounding landowners.
5. Encourage the timely and comprehensive rehabilitation of mine sites.

## 15 SPECIAL LAND USE CONTROLS

The following areas of the Shire will be subject to specific land use controls in order to protect industry and public infrastructure from incompatible development and subdivision:

1. Wagerup Alumina Refinery. The final boundaries of the control area are still to be determined. The purpose is to restrict the encroachment of sensitive land uses and developments.
2. Waterous Road Abattoir. This contains an approved abattoir, which if it recommenced operations could result in odour emission. The purpose will be to restrict the encroachment of sensitive land uses and developments. The width of the buffer shown in this Strategy is indicative only, and will need to be accurately delineated as part of any future Town Planning Scheme or Town Planning Scheme amendment.
3. Waste Water Treatment Plant-Waroona Townsite. This is a 500m separation distance from the plant with the purpose of restricting the encroachment of land uses and developments, particularly dwellings, that would be sensitive to the odour emissions of the plant.
4. Samson Brook Water Treatment Plant. A separation distance of 250m is proposed but this may be refined by the Water Corporation. The purpose is to restrict the encroachment of land uses and developments, particularly dwellings, that would be sensitive to the chlorine odour.
5. Samson Brook Public Drinking Water Source Protection Area. This control area is predominately a Priority 1 Public Drinking Water Source Area and is shown on the Peel Region Scheme Map. The purpose is to “prevent land uses or development which would prejudice the quality or quantity of water supplies for public use”. Restricted access, development and limited recreation is permitted in this Priority 1 area. A small portion of the north west of the catchment is classed as Priority 2. This area is managed to minimise risk to the public drinking water source, and activities that will increase the risk to the water supply are not permitted.
6. Bancell Brook Public Drinking Water Source Protection Area. This control area is predominantly a Priority 2 Public Drinking Water Source Area and is shown on the Peel Region Scheme Map. This area is managed to minimise risk to the public drinking water source, and activities that will increase the risk to the water supply are not permitted. A portion of the catchment within the shire boundaries is classed as Priority 1 Public Drinking Water Source Area. The purpose is to “prevent land uses or development which would prejudice the quality or quantity of water supplies for public use”. Restricted access, development and limited recreation is permitted in this Priority 1 area.
7. Preston Beach Water Reserve - Town Well Field. This a Priority 3 Public Drinking Water Source Area with a 300m radius from two production bores. The purpose is to restrict inappropriate land uses and development that could pollute the groundwater. This restriction does not include residential dwellings or domestic uses.
8. Preston Beach Water Reserve - Johnston Road Well Field. This control area is a Priority 1 Public Drinking Water Source Protection Area and is shown on the Peel Region Scheme Map. The purpose of this is to “prevent land uses or development which would prejudice the quality or quantity of water supplies for public use”. Restricted access, development and limited recreation is permitted in this priority 1 area.

The eight Special Control Areas are displayed on the Strategy Map.