



**Gawler (CT) Development Plan
The Barossa Council Development Plan
Gawler East**

Approval Development Plan Amendment

By the Minister

Declared by the Minister for Urban Development and Planning
to be an approved amendment under Section 26 (8),
Development Act 1993


.....
Signature

.....
Date of Gazette

26 AUG 2010

Approval DPA

Background

The Gawler East Development Plan Amendment (DPA) by the Minister amends the following Development Plan(s):

- Gawler (CT)
- The Barossa Council

This DPA was undertaken as a DPA process B, which included:

- an Initiation document agreed on 27 June 2008
- a DPA released for agency and public/council consultation from 21 May 2009 to 16 July 2009
- a Public Meeting conducted by the Development Policy Advisory Committee (DPAC) Public Meeting Subcommittee on 30 July 2009.

Consultation

A total of three hundred and fifty public submissions, four council submissions, seventeen agency submissions and one Member of Parliament submission were received in relation to the DPA during the consultation period. Forty-two verbal submissions were made at the Public Meeting.

Approval Stage

Based on a review of all submissions and the recommendations of DPAC, the following changes have been made to the Amendment:

- replacement of proposed policy sourced from version 4.1 of the Planning Policy Library with equivalent policy sourced from version 5.0 of the Planning Policy Library
- insertion of policy seeking the protection of electricity and gas transmission infrastructure and corridors
- insertion of policy that seeks to prevent development that would result in the capacity of the road network being exceeded
- adjustment of policy concerning the height of development adjacent the boundaries of the area affected
- adjustment of policy concerning development at the interface between the area affected and adjacent land put to agricultural, rural and rural living use
- adjustment of policy concerning the maximum width of garages and carports that face public roads
- adjustment of policy concerning setbacks
- adjustment of policy concerning the minimum envisaged dimension of private open space
- insertion of policy concerning the protection of development against bushfire
- adjustment of mapping identifying the bushfire risk status of land within the area affected
- adjustment of policy concerning the number of car parks that should be provided in association with development undertaken in the Mixed Use Centre Policy Area of the proposed Residential (Gawler East) Zone

- adjustment of policy concerning the public notification category assigned development envisaged within the area affected
- reinforcement of the role that residential development is envisaged to play in the Mixed Use Centre Policy Area of the proposed Residential (Gawler East) Zone.



Development Act 1993

**Gawler (CT) Development Plan
The Barossa Council Development
Plan**

GAWLER EAST

**Approval Development Plan
Amendment**

**EXECUTIVE SUMMARY AND
ANALYSIS RELEASED FOR
CONSULTATION**

By the Minister

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EXECUTIVE SUMMARY

INTRODUCTION

The *Development Act 1993* provides the legislative framework for undertaking amendments to a Development Plan. The Act allows either the relevant council or the Minister for Urban Development and Planning (under prescribed circumstances) to amend a Development Plan.

In this case, the Minister is undertaking the amendment because he is of the opinion that the matter is of significant social, economic or environmental importance (Section 24(1)(g) of the Act).

A Development Plan Amendment (DPA) (this document) explains what policy changes are being proposed and why, and how the amendment process will be conducted.

A DPA consists of:

- Executive Summary (this section)
- Analysis
- Conclusions and Recommended Policy Changes
- Statement of Statutory Compliance
- References/Bibliography
- Appendices
- The Amendment.

NEED FOR THE AMENDMENT

On 20 December 2007 the State Government adopted an altered urban boundary which included an additional 320 hectares of land at Gawler East. The updated boundary was incorporated into the Planning Strategy for Metropolitan Adelaide (December 2007) and the Planning Strategy for the Outer Metropolitan Adelaide Region (December 2007).

This DPA is proposing to rezone the Gawler East land together with some adjacent areas that were already located within the urban boundary, to allow for residential development and associated community facilities.

In undertaking this DPA a specific focus has been to:

- provide the preconditions necessary to facilitate the orderly and economic expansion of the Gawler township and establish a new master planned community
- provide the preconditions required to develop underutilised rural/rural living zoned land
- provide for existing and future demand for a range of housing types including compact and affordable residential allotments
- provide opportunities for additional community, education, recreation, commercial and retail facilities to support the new population
- facilitate the rehabilitation of the existing sand quarry within the Area Affected
- provide appropriate linkages with the established community without impacting on existing infrastructure
- encourage and facilitate 'best practise' in terms of urban planning, urban design and sustainable development.

The current development controls for the Area Affected are expressed in the Gawler (CT) Development Plan and The Barossa Council Development Plan.

The majority of existing zones within the Area Affected do not support intensive residential development or associated commercial, retail and community uses, as would be anticipated to occur within the urban boundary.

AREA AFFECTED

The Area Affected is identified on the Area Affected Plan (**Figure 1**).

It comprises approximately 400 hectares of land, generally located at the eastern fringe of the existing Gawler township. The land encompasses portions of the suburbs of Gawler East, Gawler South and Evanston Park (within the Town of Gawler) and Kalbeeba (within The Barossa Council).

Figure 1: Area Affected



Overall, the Area Affected can generally be described as gently undulating, albeit it becomes reasonably steep for that portion of the land which borders the South Para River and associated tributaries. The existing quarry is a constraint which has significantly changed the topography.

Existing vegetation can be described as scattered, with principal concentrations within Dead Mans Pass, adjacent to the Gawler to One Tree Hill Road, other areas bordering the South Para River and its tributaries together with a distinct cluster located in the north-eastern portion of the Area Affected. Significant trees and native vegetation have been identified through field survey.

PROPOSED POLICY CHANGES

The main changes proposed by this DPA to the Gawler (CT) Development Plan and The Barossa Council Development Plan include:

- rezoning the Area Affected from Rural/Rural B Concordia and incorporating it within two new zones, one being a new Residential (Gawler East) Zone and the other a Residential Hills Zone. The zones incorporate a structure plan, desired character statements, objectives and Principles of development control that will specifically apply to the Area Affected
- residential zone policy which provides for existing and likely future demand for a range of housing types including compact and affordable residential allotments and housing products
- policy which enables the establishment of supporting commercial, retail, educational and community facilities within two designated nodes
- policy which provides for the incorporation of suitably located and sized areas of public open space that will serve a variety of functions including passive and active recreation, pedestrian and cyclist linkages to surrounding facilities, biodiversity and habitat retention, and defines appropriate interfaces to adjoining activities
- policy which supports the inclusion of wetlands and stormwater management initiatives within the open space network.

LEGAL REQUIREMENTS

Prior to the preparation of this DPA, the Minister received advice from a person holding prescribed qualifications pursuant to Section 101 of the *Development Act 1993*.

The DPA has assessed the extent to which the proposed amendment:

- accords with the Planning Strategy
- accords with other parts of both council's Development Plans
- complements the policies in Development Plans for adjoining areas
- satisfies the requirements prescribed by the Regulations under the *Development Act 1993*.

CONSULTATION

This document is now released for government department/agency and council consultation, concurrent with public consultation, for a period of eight weeks.

The organisations, agencies and Members of Parliament that will be consulted on the DPA include:

- Auditor-General's Department
- Department for Environment and Heritage
- Department for Families and Communities
- Department for Transport Energy and Infrastructure
- Department of Education and Children's Services
- Department of Further Education, Employment, Science and Technology

- Department of Health
- Department of Justice
- Department of Primary Industries and Resources
- Department of the Premier and Cabinet
- Department of Trade and Economic Development
- Department of Treasury and Finance
- Department for Water Land and Biodiversity Conservation
- Environment Protection Authority
- Aboriginal Affairs and Reconciliation Division, Department of the Premier and Cabinet
- Adelaide and Mount Lofty Ranges Natural Resource Management Board
- Office for Recreation and Sport
- Country Fire Service
- The Barossa Council
- Corporation of the Town of Gawler
- City of Playford
- Light Regional Council
- SA Water
- ETSA Utilities
- ElectraNet
- Origin Energy
- Member for Light
- Member for Taylor
- Member for Napier
- Member for Schubert.

All written and verbal agency and public submissions made during the consultation phase will be considered by the Development Policy Advisory Committee (DPAC), which is an independent body responsible for conducting the consultation stage of Ministerial DPAs. Changes to the DPA may occur as a result of this consultation process. (See also 'Have your say' information box at the front of this DPA.)

THE FINAL STAGE

When the DPAC has considered the comments received and heard all the public submissions, it will provide the Minister for Urban Development and Planning with a report on its findings.

The Minister will then either approve (with or without changes) or refuse the DPA.

Note: This Executive Summary is for information only and does not form part of the Amendment to the Development Plan.

ANALYSIS

1. CONTEXT

1.1 AREA AFFECTED

The Area Affected comprises approximately 400 hectares of land, generally located at the eastern fringe of the existing Gawler township. The land encompasses portion of the suburbs of Gawler East, Gawler South and Evanston Park (within the Town of Gawler) and Kalbeeba (within The Barossa Council). The Area Affected is identified on the Area Affected Plan (**Figure 1**).

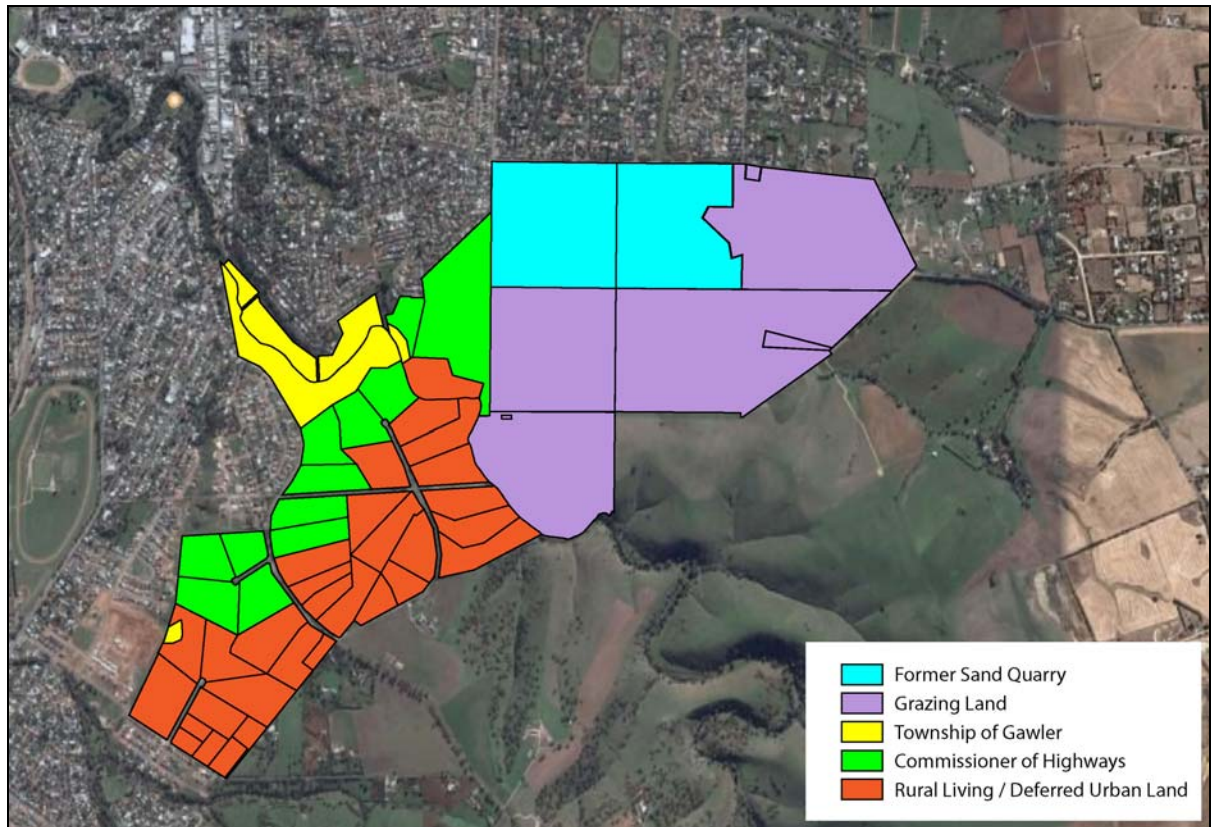
It is also recognised that housing and open space will need to be designed around water courses and natural contours in order to create corridors and networks with adequate buffer distances which take into account environmental hazards.

Figure 1: Area Affected



The Area Affected generally comprises five distinct ownership/land use precincts, these being shown on **Figure 2**, and further identified in the following photographs.

Figure 2: Key Precincts within Area Affected



The former sand quarry owned by Cemex, adjacent to Calton Road (approximately 61.6 ha).



Grazing land, generally bordered by Calton Road, Balmoral Road and the South Para River (approximately 154.8 ha).



Land owned by the Town of Gawler, which borders the South Para Creek, immediately to the south of the existing built up area of Gawler East (approximately 26.77 ha).



Vacant land owned by the Commissioner of Highways, located immediately to the east and west of the Gawler-One Tree Hill Road, south of the existing built up area of Gawler East (approximately 63.498 ha).



Various rural living allotments (several vacant) located within the existing Rural Living and Deferred Urban Zones in Gawler East and Gawler South (approximately 92.53 ha).



Overall, the Area Affected can be described as gently undulating, albeit it becomes reasonably steep for that portion of the land which borders the South Para River and associated drainage corridors. The existing quarry is an existing site constraint which has significantly changed the topography.

Existing vegetation can be described as scattered, with principal concentrations within Dead Mans Pass, other areas bordering the South Para River and its tributaries together with a distinct cluster located in the north-eastern portion of the Area Affected. Both significant trees and native vegetation have been identified through field survey.

The township of Gawler is located to the north-west of the Area Affected and contains the majority of retail and human services for the northern section of Metropolitan Adelaide together with the surrounding hinterland to Adelaide. The township enjoys access via Main North Road. The Sturt Highway provides connection to the Barossa Valley. The township is located at the connection of the South Para, North Para and Gawler River's.

1.2 EXISTING ZONING

The majority of the Area Affected is located within the Town of Gawler, with the Gawler (CT) Development Plan the relevant planning instrument.

The Gawler (CT) Development Plan identifies four zones which apply to the Area Affected.

The Rural Zone is located in the north-eastern portion of the Area Affected. The South Para River forms the boundary between the Rural Zone and the Rural Living Zone. That portion of the Area Affected located within the Rural Living Zone is contained within the Gawler East Policy Area.

Existing policies for this Policy Area suggest a minimum allotment size of 4 hectares. This limits the potential density of residential development and the range of uses that may be established.

The Special Uses Zone is located immediately to the north of the Rural Living Zone. Much of the land within this zone forms part of the Council reserve known as Dead Mans Pass. The area is a major drainage corridor, reasonably steep and heavily vegetated and as such is generally unsuitable for urban development.

The Deferred Urban Zone is located to the west of the Gawler-One Tree Hill Road. It contains a small number of dwellings and outbuildings and is presently used for rural/grazing purposes.

The south-eastern portion of the Area Affected is located within The Barossa Council, and in particular the Rural B Zone (Concordia). The land is presently vacant of buildings and structures and is used for farming purposes. This zone does not envisage residential development, with allotments less than 40 hectares in area listed as non-complying.

The zones which presently apply to the Area Affected are shown on **Figure 3**.

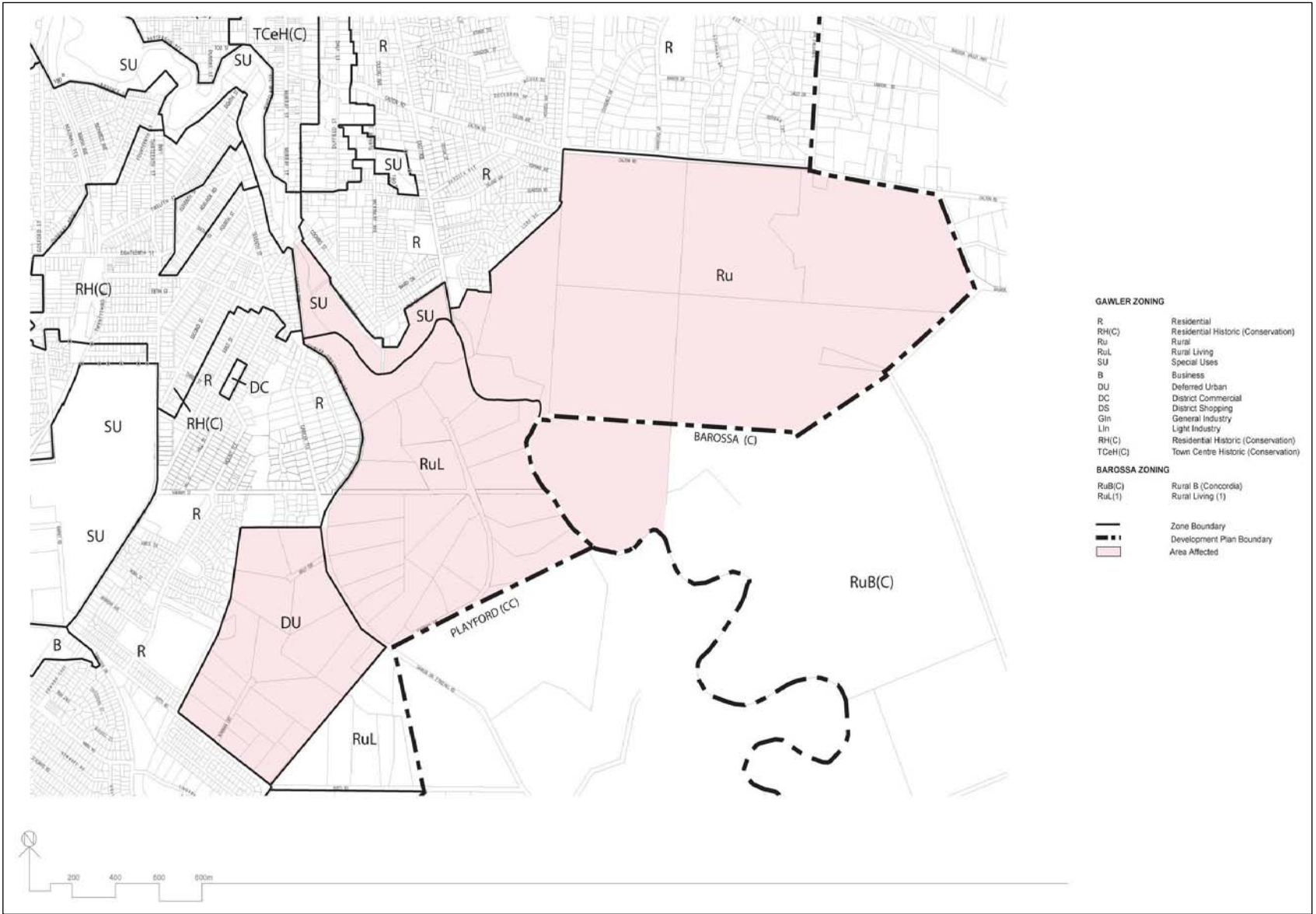


Figure 3: Zoning Within and Adjacent the Area Affected

2. THE STRATEGIC CONTEXT AND POLICY DIRECTIONS

2.1 CONSISTENCY WITH SOUTH AUSTRALIA'S STRATEGIC PLAN

The Strategic Plan does not contain any specific reference to the Area Affected. However the Plan does express themes which are relevant to the planning and development of the Area Affected.

This DPA recognises and supports South Australia's Strategic Plan and in particular will assist in implementing key strategies, goals and targets. The Strategic Plan sets out six objectives each with its own suite of targets, a number of which are relevant to this DPA. The relevant objectives and targets are discussed below.

Objective 1: Growing Prosperity

T10.1 – Jobs: Better the Australian average employment growth rate by 2014.

T1.22 – Total population: Increase South Australia's population to 2 million by 2050, with an interim target of 1.64 million by 2014.

T1.24 – Overseas migration: Increase net overseas migration gain to 8500 per annum by 2014.

The DPA seeks to provide a planning framework for the Area Affected that will progress this objective and targets by:

- rezoning land and in particular providing a Mixed Use Centre Policy Area that will accommodate employment generating uses including retail, community and commercial activities
- rezoning land for the primary purpose of accommodating major residential development thereby providing housing opportunities needed to facilitate population growth.

Objective 3: Attaining Sustainability

T3.1 – Lose no species: Lose no known native species as a result of human impacts.

T3.9 – Sustainable water supply: South Australia's water resources are managed within sustainable limits by 2018.

T3.14 – Energy efficiency – dwellings: Increase the energy efficiency of dwellings by 10% by 2014.

The DPA seeks to provide a planning framework that advances this objective and targets by:

- facilitating a development with pedestrian connections that will encourage walking and cycling to nearby nodes of activity
- managing the impacts of adjacent land use
- ensuring that development within the Area Affected achieves sustainable outcomes in relation to energy efficiency, stormwater management and water conservation techniques
- introducing policies to encourage the retention of native vegetation within the area affected and the enhancement of the biodiversity value of the area
- introducing policies to ensure adequate separation distances relevant to the sensitivities of various uses to minimise adverse impacts on the uses and occupants.
- introducing policy facilitating and encouraging sustainable water supply practices (sewer mining).

The above is achieved through the inclusion of a number of Better Development Plan (BDP) core policies (with local additions) including the following from the General section of the State planning policy library:

- Energy efficiency
- Infrastructure
- Interface between land uses
- Natural resources
- Open space and recreation
- Transportation and access
- Waste.

Objective 5: Building Communities

The DPA seeks to provide a planning framework that advances this objective by:

- reflecting relevant aspects of NRM Plans and regional biodiversity plans and strategies identifying areas of biodiversity significance
- identifying areas of ecological significance and establishing appropriate open space areas/corridors via structure plan
- introducing policy facilitating and encouraging sustainable water supply practices (i.e. sewer mining)
- reinforcing existing policy that encourages energy efficient design and construction of residential development.

Objective 6: Expanding Opportunity

T6.7 – Affordable housing: Increase affordable home purchase and rental opportunities by 5 percentage points by 2014.

The DPA seeks to provide a planning framework that advances this objective and target by:

- introducing development plan policy that facilitates a development that encourages a diversity of housing types and opportunities, including medium density housing, compact development and affordable dwellings
- introducing policy which requires the delivery of 15% affordable housing within the proposed Residential (Gawler East) Zone.

2.2 CONSISTENCY WITH THE PLANNING STRATEGY

The Planning Strategy presents current State Government policy for development in South Australia and is based on key economic, social and environmental imperatives. In particular, it seeks to guide and coordinate State Government activity in the construction and provision of services and infrastructure that influence the development of South Australia. It also indicates directions for future development to the community, the private sector and local government.

The Planning Strategy currently comprises five volumes:

- The *Planning Strategy for Metropolitan Adelaide* (December 2007)
- The *Planning Strategy for the Outer Metropolitan Adelaide Region* (December 2007)
- The *Planning Strategy for Regional SA* (January 2003, as amended at December 2007)
- The *Yorke Peninsula Regional Land Use Framework* (December 2007)
- The *Greater Mount Gambier Master Plan* (February 2008).

The Area Affected is primarily located within the area covered by the Planning Strategy for Metropolitan Adelaide. That portion of the Area Affected located within The Barossa Council is covered by the Planning Strategy for the Outer Metropolitan Adelaide Region.

Both Strategies state that it is important that the visual, functional, economic, social and ecological linkages between the metropolitan region and outer metropolitan region are recognised and incorporated into planning and strategic policy development.

Some of the key links between these planning regions include:

- water resources, particularly links to the watershed and reservoirs
- open space networks, including Yurrebilla, Metropolitan Open Space System (MOSS) and the proposed regional open space system
- biodiversity corridors, mainly through open space
- transport links, particularly for freight movement, including export-focused and intra-regional movement of goods and services
- population movement patterns, such as the movement of retired persons and commuters (for employment) from the metropolitan area to the outer metropolitan Adelaide region
- the reliance of the outer metropolitan Adelaide region on major community facilities located in the metropolitan area such as health and education facilities
- key tourism areas that attract people from the metropolitan area, interstate and overseas.

Connectivity of open space is clearly relevant to the Area Affected given the proximity of existing open space corridors, including Dead Mans Pass, the South Para River and associated tributaries. The existing open space network is a positive feature and asset to the locality and future development should ensure that the network is enhanced and fully integrated with any new open space established.

Both the *Planning Strategy for Metropolitan Adelaide (MA)* and *Planning Strategy for the Outer Metropolitan Adelaide Region (OMA)* are relevant to this DPA. The DPA recognises and supports the following key strategies:

3.1 Water Resources (MA)

1. *Ensure the most efficient use of water based on the principles of avoidance, reduction, re-use, recycle and appropriate disposal, to reduce Adelaide's dependence on water sourced from the Mount Lofty Ranges catchment and the River Murray.*

The DPA supports this strategy by proposing Development Plan policy which supports water use strategies which minimise dependence on the River Murray including:

- the concept of sewer mining (use of treated wastewater) and grey water to supplement water supply
 - reinforcing existing Development Plan policy which supports re-use of stormwater.
2. *Promote water sensitive urban design (WSUD) in Development Plans, the Building Code of Australia and development proposals to achieve multiple catchment water management objectives such as reducing runoff and flooding; protecting waterways and their biotic communities; conserving and harvesting water; and enhancing the amenity of urban environments. (also 3.1.2 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by proposing Development Plan policy which achieves water sensitive urban design, including concepts such as on site stormwater detention and re-use together with grass swales and natural channels for stormwater treatment and management.

- 3. Integrate the management, protection and use of water resources, into broader land use planning and management. (also 3.1.3 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by reinforcing existing Development Plan policy which supports biodiversity, the retention of native vegetation and the maintenance/rehabilitation of river systems. The Natural Resources Module from the BDP policy library being the key tool.

- 4. Ensure coordination of multi-objective management of stormwater by considering it both as a resource and potential hazard. (also 3.1.4 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by identifying the need and benefit of supplementing existing water supply infrastructure through the mechanism of water re-use. This has been reinforced as planning policy within the proposed new zone.

- 5. Increase opportunities for the development of alternative water re-use schemes in appropriate locations. (also 3.1.11 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by introducing planning policy which supports the establishment of water re-use schemes such as those adopted at Mawson Lakes.

3.3 Open Space, Recreation and Sport (MA)

- 4. Plan and provide a network of accessible, well-located and designed state, regional and local-level recreation and sport facilities, including facilities for informal recreation. (also 3.5.4 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by introducing planning policy which allows for sport and recreation facilities to be established.

3.4 Land Use and Transport Integration (MA)

- 4. Encourage people to walk and cycle to destinations by providing suitable infrastructure and developing safe, attractive and convenient walking and cycling environments.*

The DPA supports this strategy by introducing planning policy (both Council-Wide and in the new zone) that seeks the establishment of high quality and well connected walking/cycling environments.

- 9. Ensure integrated transport and land use supports quality of life outcomes.*

The DPA supports this strategy by introducing planning policy that places emphasis on the need to provide pedestrian and cycling corridors.

3.4 Land Use and Transport Integration (OMA)

- 1. Integrate transport and land use planning decisions to facilitate a safe, sustainable, efficient and effective transport network.*

The DPA supports this strategy by identifying the potential impacts arising from the projected increase in traffic volumes and recommending measures required to mitigate the potential impacts. The structure plans and associated planning policy require the establishment of a corridor for a new collector road together with multiple connections to both Calton Road and Balmoral Road.

9. *Provide for safe travel by sustainable transport modes, such as walking and cycling, in the management of transport routes and destinations.*

The DPA supports this strategy by introducing planning policy that places emphasis on the need to provide pedestrian and cycling corridors providing connections with the existing and future public open space network.

3.5 Energy Efficiency (MA)

1. *Reduce energy requirements for transportation and buildings. (also 3.6.1 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by maintaining existing Development Plan policy which seeks energy efficient design of buildings.

3.9 Culture, Heritage and the Arts (MA)

1. *Strengthen and reinforce processes and adopt policies and procedures that protect and conserve places and areas of heritage and cultural value. (also 3.8.1 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by identifying issues of heritage significance (a single local heritage item was identified) and ensuring that existing policy is sufficient to ensure the protection of this item.

3.10 Education Facilities (MA)

1. *Provide access to a range of education and care facilities that provide lifelong learning opportunities in suitable locations. (also 3.9.1 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by proposing policy which allows for such facilities to be established.

2. *Locate education and care facilities so that access to them is equitable and convenient and maximises the use of community resources. (also 3.9.2 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by proposing policy that facilitates education facilities to be established within the Mixed Use Policy Area of the Residential (Gawler East) Zone located within the core of the Area Affected and therefore accessible to the future population.

3.11 Health and Community Services (MA)

1. *Create living environments with services and facilities to support healthy lifestyles and active communities. (also 3.10.1 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*
2. *Match location and delivery of health and community services and facilities with the needs of the community. (also 3.10.2 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports these strategies by proposing policy which allows for such facilities to be established.

3.12 Hazard Avoidance, Minimisation and Management (MA)

2. *Ensure development policies include all relevant bushfire management and prevention policies.*

3.11 Hazards (OMA)

2. *Ensure development policies include all relevant bushfire management and prevention legislation and measures.*

The Gawler (CT) Development Plan contains a number of bushfire management policies. The investigations informing this DPA included a review of these policies. This review found the existing policies to be relevant and appropriate to development within the Area Affected. Accordingly, the DPA proposes no amendment to these policies.

The Area Affected is assigned by the Development Plan as either medium or high risk. Consultation with the Country Fire Service (CFS) has determined that only a small portion of the Area Affected is high risk (typically 30 metre corridor either side of the centre line of water courses) and that this risk level can be managed as residential development occurs, water supply is augmented and appropriate access facilitated to the areas of risk.

Existing Development Plan mapping is proposed to be amended based on the assessment and recommendations of the CFS.

3.15 Residential Neighbourhoods and Housing (MA)

1. *Ensure land is used appropriately within the Urban Boundary to meet projected housing demands and satisfy varied housing preferences and incomes. (also 3.14.1 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by rezoning land for residential purposes that will provide a residential land supply for at least 10 years. A structure plan will be included in the Development Plan to guide the development of the Area Affected. Further, policy will be introduced to promote higher residential densities in locations such as the Mixed Use Policy Area and in locations adjacent to public open space. Policy is intended to be sufficiently flexible within the land controlled by major land holders including Delfin and the Commissioner of Highways contained solely within the Residential (Gawler East) Zone to support innovation in the delivery of housing and the attainment of affordable housing outcomes. Additional principles and guidelines on housing form and density have been included in the Residential Hills Zone due to the number of individual land owners within this zone.

2. *Accommodate a range of facilities in neighbourhoods to increase the diversity of activities within walking distance of housing. (also 3.14.3 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by including a Mixed Use Policy Area and a Local Centre Policy Area within portion of the proposed new Residential (Gawler East) Zone.

4. *Provide a range of medium-to-high-density housing forms in targeted locations to maximise the use of existing infrastructure, services and facilities, including public transport, schools and open space. (also 3.14.5 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by introducing policy designed to promote higher residential densities in locations such as the Mixed Use Policy Area and Local Centre Policy Area and in locations through the remaining zones that are within walking distance of an area of public open space.

6. *Improve the accessibility of neighbourhoods by creating safe, convenient and pleasant environments for walking, cycling and public transport use. (also 3.14.6 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by reinforcing existing Development Plan policy in relation to the provision of pedestrian and cyclist linkages.

9. *Provide a network of parks and recreation areas within neighbourhoods which offer a variety of safe, useable, appropriate and attractive public open spaces. (also 3.14.8 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by establishing a new Open Space Zone along the South Para River corridor and designating particular areas of significance as 'open space' as part of the structure plan for the new Residential (Gawler East) Zone and Residential Hills Zone. Incorporation of the Open Space and Recreation Module from the BDP policy library into the Council-Wide section of the Development Plan will further assist.

12. *Provide a range of housing types to meet the needs of future residents and enable people to remain within their community as their housing needs change. (also 3.14.11 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by introducing a flexible policy framework that provides for a full range of dwelling types to be established, with particular focus on the Residential (Gawler East) Zone.

13. *Facilitate and support a variety of affordable housing development options. (also 3.14.12 Planning Strategy for the Outer Metropolitan Adelaide Region (2007))*

The DPA supports this strategy by introducing policy that promotes the delivery of affordable housing by reducing standards relating to the provision of private open space and on site car parking. The focus of the delivery of affordable housing is within the proposed Residential (Gawler East) Zone due to the integrated development scheme proposed over the majority of this zone and the consolidated land holdings within this zone.

The recommended policy outcome is based on the knowledge derived from delivery of affordable housing in locations including Mawson Lakes and Northgate. The critical issue in housing affordability is land size, cost and the need to innovate new housing products. As such it follows that more traditional policies in respect to dwelling siting and design need to be less stringent to deliver housing that is amenable and functional whilst achieving the affordability criteria.

3.14 Residential Neighbourhoods and Housing (OMA)

9. *Design and develop neighbourhoods in an ecologically sustainable manner.*

The DPA supports this strategy by supplementing existing policy that ensures development responds to environmental constraints and water re-use opportunities.

10. *Improve the integration of ecologically sustainable design principles into housing development.*

The DPA supports this strategy by supplementing existing policy that ensures development minimises energy and water use. Incorporation of the Natural Resources Module from the BDP policy library into the Council-Wide section of the Development Plan will further assist.

3.2 Biodiversity (OMA)

1. *Integrate the protection of biodiversity and ecosystem processes into development and planning policies and processes.*

The DPA supports this strategy by undertaking ecological investigations which have framed policy aimed at protecting and enhancing areas which accommodate and support biodiversity. Policy includes the establishment of a new Open Space Zone which extends either side of the South Para River, and associated policy which controls the nature and form of development.

Incorporation of the Natural Resources Module from the BDP policy library into the Council-Wide section of the Development Plan will further assist.

3.13 Activity Centres (OMA)

1. *Support a range of activity centres that are complementary and meet community needs.*

The DPA proposes the establishment of a Mixed Use Policy Area and a Local Centre Policy Area which both represent forms of activity centres that will support the proposed new community.

2. *Encourage an appropriate mix of uses to create multifunctional activity centres.*

The DPA supports this strategy as the proposed Mixed Use Policy Area and Local Centre Policy Areas envisage a range of uses. The Mixed Use Policy Area provides for the establishment of a mix of retail, open space, recreation, education, community and residential purposes that will result in the creation of a multifunctional activity centre. Higher residential densities are encouraged within both policy areas.

3. *Encourage people to walk, cycle and use public transport to access activity centres by providing safe and convenient linkages and facilities like bike storage and public seating.*

The DPA supports this strategy by including Development Plan policy to promote design that caters for future public transport routes along major road networks and which reinforces the need to establish pedestrian and cycling linkages within the development and that urban design achieves attractive and functional pedestrian environments.

4. *Balance the provision of private and commercial vehicle access and car-parking with the need to ensure walkable, attractive and efficient activity centres.*

The DPA supports this strategy by including planning policy which seeks to ensure that parking is located to the side and rear of buildings within the Mixed Use Centre and Local Centre Policy and in a manner which minimises potential pedestrian conflict and promotes the use of shared parking principles within these centres.

In summary, the Planning Strategy and the policies proposed in this DPA are considered to be substantially aligned with the following key policy and/or design imperatives:

Stormwater Management

Investigations undertaken as part of the DPA identify a possible stormwater management strategy for the Area Affected that incorporates best practice features including:

- rehabilitated water courses
- wetlands
- detention ponds
- revegetated major flow paths
- rainwater tank harvesting
- bioretention swales.

The strategy identifies that stormwater should be dealt with at both the catchment and allotment level.

In terms of DPA policy, best practice stormwater management practices will be encouraged via the introduction of water sensitive design principles from the BDP Policy Library. Other elements of the stormwater management strategy for the Area Affected are reinforced via the structure plan for the Area Affected together with commentary as part of the desired character statement for the relevant new zones.

Proposed policy remains at a high level given that the stormwater investigations highlight a range of possible measures with no need for a prescriptive stormwater management solution to be enforced via the DPA. Ultimately the stormwater management policies introduced by the DPA are well aligned with the Planning Strategy.

Open Space Provision and Design

Any future development of the site will be required to provide significant areas of well located and designed public open space to provide for a range of functions and needs including passive and active recreation, pedestrian and cycle paths, biodiversity and habitat, vegetation protection and revegetation, and stormwater/bushfire management.

The structure plan has identified important connections to existing linear open space networks such as the South Para and the Evanston Park escarpment allowing connections to be enforced via the DPA.

Housing Diversity and Affordability

The policies will encourage the provision of a range of housing types and densities including 15% affordable / high needs housing within the Residential (Gawler East) Zone to accommodate the projected need and satisfy various housing preferences and incomes.

Integration with Surrounding Areas

The future design and layout of the site will achieve a high degree of integration with adjoining and nearby areas and facilities through the road and pedestrian/cyclist path network, thereby further supporting and encouraging the use of existing and proposed public open space, schools, and other facilities and services.

Native Vegetation/Biodiversity

The retention of native vegetation is to be maximised and is supported by existing Development Plan policy. The adoption of the Natural Resources Policy Template from the BDP library will further support the objectives of maximising vegetation retention.

Energy Efficiency and Greenhouse Gas Reductions

The inclusion of the Energy Efficiency Module from the BDP Policy Library will assist in the attainment of relevant targets from the State Strategic Plan. Street and allotment layout will be required to consider the need to encourage passive solar housing designs, and to reduce energy requirements for transportation and buildings where possible giving consideration to slope constraints.

2.3 CONSISTENCY WITH OTHER KEY POLICY DOCUMENTS

2.3.1 Strategic Infrastructure Plan for South Australia 2005/6 – 2014/15

The *Strategic Infrastructure Plan for South Australia* is a coordinated long-term approach to infrastructure provision throughout the state. It provides an overarching framework for the planning and delivery of infrastructure by all government and private sector infrastructure providers. The Plan identifies strategic priorities for 14 infrastructure sectors such as transport, energy, health, and recreation and sport.

The *Strategic Infrastructure Plan for South Australia* does not contain any specific reference to the Area Affected. However the Plan does express policies and actions which are relevant to the planning and development of the Area Affected, and includes the following Infrastructure Sectors:

Transport

- Coordinate the development of urban planning and transport systems to maximise the economic, social and environmental benefits
- Ensure residential land supply is available when needed to meet market demand.

Land

- Give greater consideration to population data and changing demographics in residential land supply planning
- Ensure that planning for residential developments is more closely integrated with infrastructure and transport planning.

Community Services and Housing

- Encourage higher-density residential development in appropriate urban areas through planning for land use and infrastructure augmentation
- Promote energy efficiency and environmental sustainability in new residential developments.

The DPA supports these policies by:

- including an overall structure plan for the Area Affected that provides appropriate directions in terms of land use, transport and open space outcomes
- rezoning additional land for the purposes of residential development which will meet current and future market demands basing policy outcomes including the facilitation of a full range of dwelling forms and densities in relation to projected population and demographic data
- inclusion of policy that facilitates a range of dwelling forms and densities
- reinforcing existing policies in relation to energy efficiency and environmental sustainability.

2.3.2 Housing Plan for South Australia 2005

The Housing Plan has five main objectives and identifies key actions in relation to affordable housing, high needs housing, neighbourhood renewal and other associated areas of importance to South Australians.

Specific Actions within Objective 1 (Affordable housing and strong communities) of the Housing Plan of relevance to this DPA include:

- expand the supply of affordable housing by implementing a target of 10% affordable and 5% high need housing in all significant new housing developments. Work with industry, local government and the community to achieve this target
- work with the Department of Planning and Local Government to develop planning mechanisms to support affordable housing provision, including:
 - amending development plans to accommodate affordable housing
 - guidelines for design and planning modules for affordable housing
- work with local government to identify opportunities and good practice in the adoption of planning mechanisms (such as density, set back, parking, zoning and height controls) that encourage affordable housing development and designs that decrease operating costs.

The DPA aims to introduce flexible development policies that encourage and facilitate medium density housing, including some affordable and adaptable housing opportunities across the Residential (Gawler East) Zone with a focus in the future mixed use centre and local centre policy areas thereby advancing the above objectives and actions.

2.3.3 Adelaide and Mount Lofty Ranges Natural Resource Management Plan

Below are the Adelaide and Mount Lofty Ranges Natural Resource Management (NRM) targets and outcomes relevant to the DPA. They are addressed using best management practices in the cited sections.

Relevant NRM Targets		Outcomes	Sections
T1	Stormwater and waste water used	75% of stormwater used 100% of waste water reused	5.3.3, 5.5, 9.9
T2	Surface water and groundwater	All water resources meet water quality guidelines to protect defined environmental values	5.3.3, 5.5, 9.9
T3	Water resources managed within sustainable limits	All water resources used within sustainable yield (allowing for variability)	5.3.3, 5.5, 9.9
T7	Condition and function of ecosystems (terrestrial, riparian)	Recover from current levels	5.2
T9	Conservation status of native species (terrestrial, marine, aquatic)	No decline in conservation status from current levels	5.2

Expert consultant reports commissioned to inform this DPA have particular relevance to NRM Targets T1, T2, and T3.

Wallbridge and Gilbert have prepared a Stormwater Management Strategy (SMS) for the Area Affected (*Gawler East Residential Stormwater Management Strategy (October 2008)*). The Strategy identifies the potential for the innovative management of stormwater, including the potential reuse of both stormwater and grey water. The encouragement of innovative management and re-use of water is outlined in the desired character statements for both the Residential (Gawler East) Zone and the Residential Hills Zone. In addition, there is an intention to include detention areas as part of the linear open space system as identified on the structure plan, based on the recommendations from the SMS.

Further to the above, the attainment of the water related targets will be supported by the inclusion of the Natural Resources Module from the BDP library.

The Ecological Survey undertaken by KBR (*Gawler East Ecological Survey (September 2008)*) also outlines strategies which are relevant to achieving NRM Targets T7 and T9. It is noted however that the KBR report recommends future/additional survey work when both livestock have been removed and the Area Affected has experienced average or above average rainfall.

Once the final assessments outlined above are complete it is then considered possible to determine the required area or related offsets required for conservation preservation. In the interim, existing legislation including the *Environment Protection and Biodiversity Conservation Act, 1999*, further supported by additional Development Plan policy (Natural Resources Module from BDP Policy Library) will serve to facilitate the protection of presently known areas of significance.

2.3.4 Town of Gawler Strategic Plan 2007- 2017

The Town of Gawler's Strategic Plan was most recently updated in July 2007.

The following background information from the Town of Gawler Strategic Plan provides useful context for the DPA.

The Town of Gawler is a regional centre located 41 km north of Adelaide. It has a large catchment area extending beyond Gawler, into the Light, Barossa, Mallala and northern Adelaide Hills Councils. The town provides major services such as employment, shopping, health, education, leisure and local government.

The Town of Gawler is a community of 20,000 residents with a current growth rate of approximately 1.9% per annum. It comprises of 7,000 households and covers an area of 41 square kilometres. The population within its catchment area is estimated at up to 80,000 people, who in some way make use of the Town of Gawler facilities and services. The main industries in the area are education, retail, light industrial, small manufacturing, agriculture, viticulture and tourism.

Gawler's Central Business District is located on Murray Street, with three major supermarkets in the town centre. Public health services for Gawler are mainly located at the Gawler Health Service plus a range of smaller localised clinics throughout the town. Public transport is mainly the Gawler to Adelaide train route, which services other major suburbs including Elizabeth, Salisbury and Munno Para. A local 'dial-a-ride' service operates. Gawler is linked to Adelaide and the Northern Suburbs via Main North Road.

Other key points contained within the Town of Gawler Strategic Plan relating to sustainable development, infrastructure and services, rezoning and character have been investigated and addressed through proposed policies in the DPA.

Sustainable development (environmentally, socially and economically) is addressed in the DPA by the introduction of policy controlling water sustainable urban design, stormwater detention/treatment re-use, open space, centres and density policies. Together these will benefit future generations of residents in Gawler East.

The majority of the Area Affected is already serviced/capable of being economically serviced by infrastructure thereby reducing the burden on Council. Moreover, policies increasing the desired density will create a larger and more localized user base with the potential to upgrade and add services, such as public transportation to/from and within Gawler East.

The rezoning of land to residential is occurring to the east of the Town of Gawler, an area already designated for future development, in order to accommodate the forecasted housing demands and population growth. This will include the need to create new roads, located and designed not to increase the existing high traffic volumes which pass through the centre of Gawler.

2.3.5 The Barossa Council's Strategic Plan 2007

In 2005, The Barossa Council produced a four year Strategic Plan, which was reviewed in 2007. The vision, mission and principles of the Strategic Plan have been considered in terms of the intent behind the DPA and specific policy formulation. The Strategic Plan is based on four 'pillars' or Strategic Focus Areas. These are as follows:

- Community Wellbeing
- Economic Wellbeing
- Natural and Built Environment
- Governance and Organisation.

Of particular relevance to this DPA are the following outcomes:

Natural and Built Environment

Outcome 3.1: Preservation of our local heritage and character within towns and rural areas

- 3.1.1 *Encourage industry, business and residential development that is consistent with the individual character of our towns*
- 3.1.3 *Retain distinct township boundaries through the effective use of development planning*

Outcome 3.2: Protected and enhanced natural environs

- 3.2.1 *Conserve and manage key biodiversity assets to sustain natural ecosystems and support primary industry*
- 3.2.9 *Ensure land use policies are consistent with NRM priorities and protect ecological assets*

Outcome 3.4: High standard of streetscaping, town entrances, parks and gardens

- 3.4.1 *Ensure adequate child friendly parks, gardens and playgrounds in each township*
- 3.4.3 *Develop and implement programs to maintain and upgrade town entrances reflecting individual character*
- 3.4.4 *Manage and maintain Councils parks, gardens and open space*
- 3.4.5 *Maintain and develop township streetscapes*

Outcome 3.5: Safe and reliable roads, footpaths and stormwater drainage

- 3.5.1 *Maintain and develop, roads, footpaths and tracks including car parking at appropriate standards*
- 3.5.2 *Enhance bike and walking trails where appropriate*
- 3.5.3 *Work with Transport SA to ensure appropriate traffic management and road safety*

Outcome 3.6: Development control that meets community needs

- 3.6.1 *Maintain a balance between the natural environment and residential, primary industries, mining and industrial land uses*
- 3.6.2 *Maintain buffer zones between residential, rural, mining and industrial land uses*
- 3.6.3 *Actively work with neighbouring Councils on a regional approach to planning and development issues*
- 3.6.4 *Collaborate with State Government to ensure that local planning and development needs are met*
- 3.6.5 *Ongoing review and improvement of the Development Plan*
- 3.6.7 *Ensure all future planning addresses sustainability issues*
- 3.6.8 *Increase the stock of affordable housing*
- 3.6.9 *Increase the stock of short stay and emergency accommodation*
- 3.6.10 *Adjust planning to encourage a mix of housing*
- 3.8.1 *Ensure a coordinated approach to water resource management*
- 3.8.3 *Ensure appropriate treatment of stormwater run off*

The DPA has investigated and proposes policies in relation to heritage and buffers, biodiversity and public spaces, sustainable development, affordable housing, infrastructure and services.

The protection of existing heritage in the Barossa and adequate buffers to preserve primary production are important to the Council and its residents. This will be maintained by reinforcing existing policies and those from the Better Development Plan – Planning Policy Library Module Interface between Land Uses.

Tree, flora and fauna surveys have been undertaken to ensure the preservation of biodiversity in the Area Affected. The structure plan and zoning has identified where future linear open space corridors are to be retained/established.

Sustainable development (environmentally, socially and economically) is addressed by water sustainable urban design, stormwater detention/treatment re-use, open space, centres and density policies. Together these will benefit future generations of residents in Gawler East.

The majority of the Area Affected is already serviced/capable of being serviced by existing infrastructure thereby reducing the burden on Council. Moreover, policies increasing the desired density will create a larger and more localised user base with the potential to upgrade and add services, such as public transportation to/from and within Gawler East.

2.3.6 Adjacent Council's Development Plans

The proposed planning policies accord and complement the policies in the adjacent councils' Development Plans.

2.4 BDP POLICY LIBRARY

The Better Development Plans (BDP) project is a Development Plan improvement initiative being undertaken by the Department of Planning and Local Government and councils throughout the state to establish a more standardised format and set of planning policies that deal with issues that are common to most Councils.

Relevant aspects of the BDP Planning Policy Library and guiding principles have been taken into account in preparing the DPA. The following parts of the library have been considered in revising the policy framework for the Gawler East area, taking into account the particular circumstances of this land and the desired land use outcomes:

General Sections

Energy Efficiency
Infrastructure
Interface between Land Uses
Natural Resources
Open Space and Recreation
Sloping Land
Transportation and Access
Waste

Zone Sections

Local Centre Zone
Mixed Use Zone
Neighbourhood Centre Zone
Open Space Zone
Residential Zone
Residential High Density Zone
Residential Hills Zone

One of the guiding principles of the BDP approach is to avoid or reduce repetition in Development Plans. As a consequence, the amendments proposed in this DPA are not intended to be all encompassing, but rely on existing Development Plan policy where it exists and is relevant in guiding the future development of the Area Affected.

Both the Gawler and Barossa Development Plans do not encapsulate many of the policies contained in the BDP library. The potential nature of future development in the Area Affected is such that additional planning policies/control are considered necessary within key areas. The majority of additional policies are also equally applicable/desirable for the balance of both Council areas. For this reason it is proposed to include the following policy modules (with some minor adaptations/exclusions) in the Council-wide section of the Gawler (CT) Development Plan:

- Energy efficiency
- Infrastructure
- Interface between land uses
- Natural resources

- Open space and recreation
- Sloping land
- Transportation and access
- Waste.

This DPA does not seek to include such modules in the Barossa Development Plan given the recent release for public consultation of the Better Development Plan (BDP) and General DPA by The Barossa Council.

Not all policies from the above modules are considered appropriate for inclusion in this DPA including the following:

Transportation and Access

- 27 Development with access from roads with existing or projected traffic volumes exceeding 6000 vehicles per day should be sited to avoid the need for vehicles to reverse onto the road.

This principle has particular relevance for the new collector road shown on the proposed structure plan. The design intention for this road is to create a boulevard (akin to Mawson Lakes Boulevard). The urban design principles utilised in the design and delivery of Mawson Lakes Boulevard is the delivery of a road that is safe and convenient for the intended traffic volumes while equally promoting the design of the road as a safe and convenient pedestrian and cyclist route, with homes directly fronting the road to ensure surveillance of the road is maximised and provide a strong housing address to the road network. These urban design principles are equally relevant to the collector road as shown on the proposed structure plan.

With appropriate road design (i.e. verge v carriageway width) and maintenance of sight lines it is possible for vehicles to safely reverse onto roads which carry vehicles exceeding 6000 vehicles per day. There are countless collector roads in Adelaide both in new and established areas that demonstrate these urban design principles demonstrating that a ban on reversing is not the only solution to ensure safe traffic movements on roads of this category.

Development which requires vehicles to exit a site in a forward direction has implications in terms of allotment widths and design/amenity outcomes with the front yards becoming dominated by driveway and turn-around areas. There is the potential for dwellings to be unnecessarily setback from the street frontage, with the space filled with sealed surface. This would not create a desirable or amenable boulevard character.

Zones

In terms of policy direction, a dual/split zone approach is recommended.

Essentially a flexible zone and policy framework is considered appropriate for the large parcels of land which are held in single ownership, contracted to Delfin Lend Lease, and adjacent land owned by the Commissioner of Highways. A flexible policy approach is warranted because:

- only a limited number of land owners are involved, one being the Department for Transport, Energy and Infrastructure (DTEI)
- the land owned by both major owners is of a scale (approximately 285 ha) that allows for the delivery through a true master-planned approach
- Delfin Lend Lease proposes to prepare design guidelines which it will design and administer through an encumbrance registered on the title of every parcel sold. These guidelines will potentially evolve over time and will further direct design outcomes and promote the delivery of innovative housing solutions. If necessary the need to prepare these guidelines can be encapsulated within a Commitment Deed with state and/or local government as appropriate. This is consistent with the approach taken in Mawson Lakes and Golden Grove to control development form, density and character.

- experience shows that innovation and product development evolves over time. The delivery timeframe for land contracted by Delfin Lend Lease is approximately 10 years, given this timeframe and the degree of innovation and product development likely within this extended timeframe a more flexible planning approach (guided by a relatively detailed structure plan) and detailed desired character statements will best assist the achievement of best practice.

In relation to the BDP, no single module is considered to represent/accommodate the diverse range of uses considered appropriate for the land parcels which are contracted to Delfin Lend Lease/owned by the Commissioner of Highways. As such policies from a variety of the zone modules have been used to create a hybrid Residential (Gawler East) Zone which includes a major Mixed Use Policy Area and a minor Local Centre Policy Area.

A prescriptive approach which stipulates maximum dwelling densities is not considered warranted with the preferred focus on ensuring adequate performance in relation to factors such as:

- building setbacks
- private open space.

This is consistent with the approach taken in the Playford North DPA by the City of Playford. Other examples of a more performance based approach include Mawson Lakes and portions of the City of Charles Sturt, where for example, no density limits apply.

In relation to the balance of the land a more rigorous or traditional level of policy control is warranted given the multiple land owners. With multiple land owners there is less opportunity to enforce a co-ordinated development outcome, or for an integrated set of design guidelines to be administered. Accordingly, there is greater risk that the balance of the land could become further fragmented and subject to inappropriate development outcomes due to the lack of policy control.

Given the topography of the balance of the land, it is considered that the Residential Hills Zone Module is appropriate for adoption.

3. INVESTIGATIONS INFORMING THIS DPA

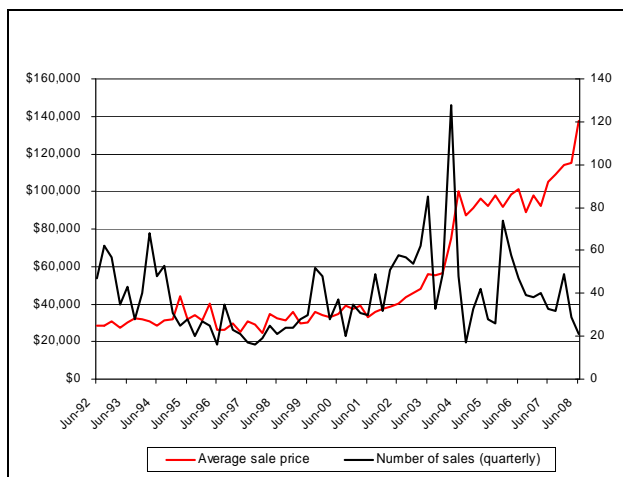
3.1 LAND SUPPLY AND POPULATION TRENDS / PROJECTIONS

3.1.1 Residential Market Analysis - Land Sales

Data has been obtained to determine land sales trends from June 1992 to June 2008 for the Town of Gawler.

Figure 4 shows both the number of land sales and average sale price over this period. It is evident that the market was relatively stable between 1992 and 2002. In the last half of 2002 there was a noticeable increase in both the number of sales and the average sale price. In the second half of 2004, the number of sales returned to pre 2002 levels, however the average sale price has remained at elevated levels. This would seem to indicate an imbalance between supply and demand, which will place further pressure on sale prices and therefore affordability. The divergence between the number of land sales and the average sale price is particularly strong in the 2 years to June 2008.

Figure 4: Town of Gawler Land Sales



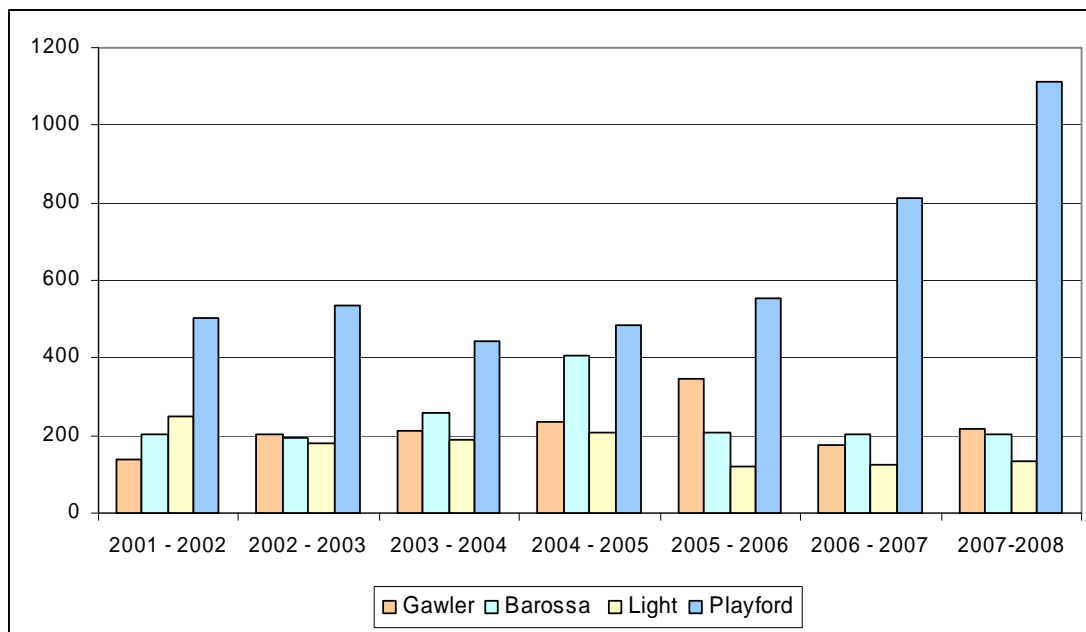
Source: Valuer General/RP Data

3.1.2 Regional Dwelling Approvals

Data has been obtained from the ABS to determine the number of annual dwelling approvals for the following Council areas between 2001-02 and 2006-07:

- Gawler
- Barossa
- Light
- Playford.

Figure 5: Regional Dwelling Approvals



Source: ABS Catalogue No. 8731.0

Figure 5 shows the trends arising from this data. It is evident that:

- the City of Playford is contributing to an increasing number and proportion of dwelling approvals within the region. Strong growth occurred in 2006 - 2008 with the release of several private estates
- dwelling approvals within Gawler peaked in 2005-06 however have since declined in 2006 - 2008, potentially reflective of supply issues
- dwelling approvals within Barossa and Light peaked in 2004 - 2005 however have since declined/stabilised, potentially reflective of supply issues.

3.1.3 Existing Dwelling Type

Data has been obtained from the 2006 ABS Census to determine the dwelling structure of select suburbs within close proximity to the Area Affected, including Gawler, Gawler East, Gawler South and Evanston.

Figure 6 compares the obtained data for these suburbs with the Adelaide Statistical Division (ASD). It is evident that:

- separate dwellings are the predominant housing type for all suburbs and the ASD
- the suburb of Gawler has a greater degree of housing diversity compared to all other areas, with a noticeable higher proportion of semi-detached, row or terrace housing.

Figure 6: Dwelling Structure of Gawler, Gawler East, Gawler South, Hewett and ASD.

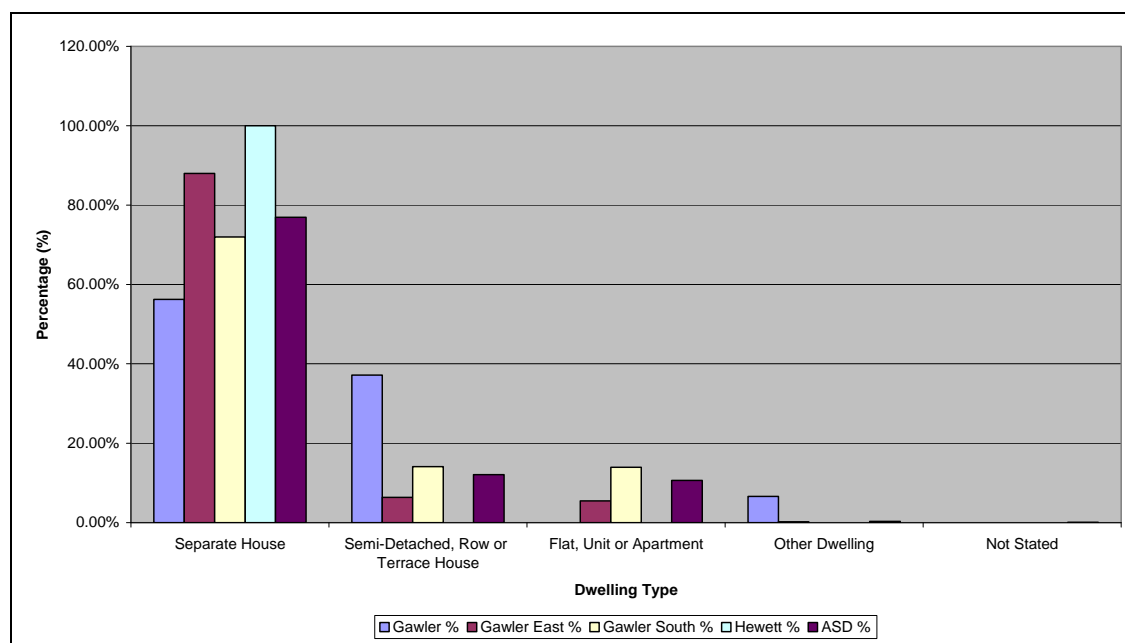


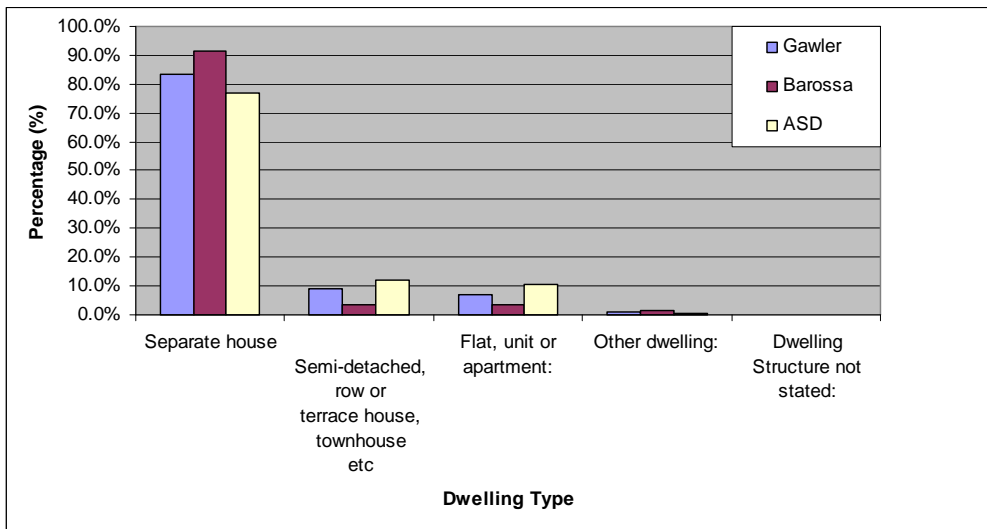
Table 1 and **Figure 7** reproduce 2006 Census data concerning dwelling type for the Barossa and Gawler Council areas and for the ASD as a whole. It is evident that overall there is very little diversity in dwelling types, with separate houses (i.e. detached dwellings) the predominant dwelling type. Traditionally higher density housing forms such as flats, units and apartments are under-represented compared to the whole of the ASD.

Table 1: Dwelling Type 2006

Dwelling Structure	Dwelling Type 2006					
	Gawler		Barossa		ASD	
	#	%	#	%	#	%
Separate house	6,091	83.3%	7,081	91.39%	331,336	76.92%
Semi-detached, row or terrace house, townhouse etc	654	8.94%	283	3.65%	52,049	12.08%
Flat, unit or apartment:	497	6.80%	271	3.50%	45,696	10.61%
Other dwelling:	71	0.97%	113	1.46%	1,443	0.33%
Dwelling Structure not stated:	0	0%	0	0%	254	0.06%
Total	7,313	100	7,748	100	430,778	100

AUSTRALIAN BUREAU OF STATISTICS 2006 Census of Population and Housing

Figure 7: Dwelling Type for Gawler, Barossa LGA's and ASD - 2006



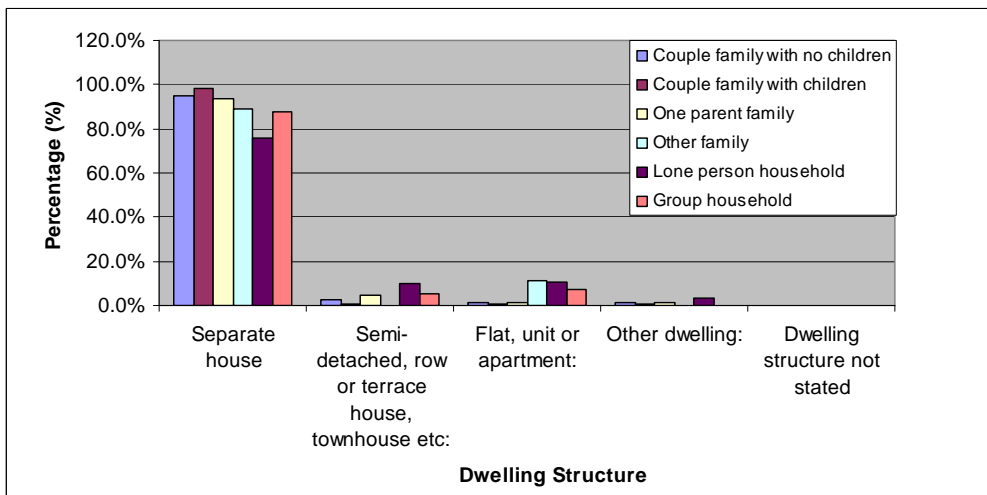
Source: 2006 Census

3.1.4 Household Type by Dwelling Type

Figures 8-10 show households by dwelling type, for the Barossa and Gawler Council areas and the ASD at the 2006 Census. What is most interesting to note from these figures is the high number of separate houses within all areas which contain lone person households or one parent families. Potentially at least a portion of these smaller household types may be better suited to higher density housing forms.

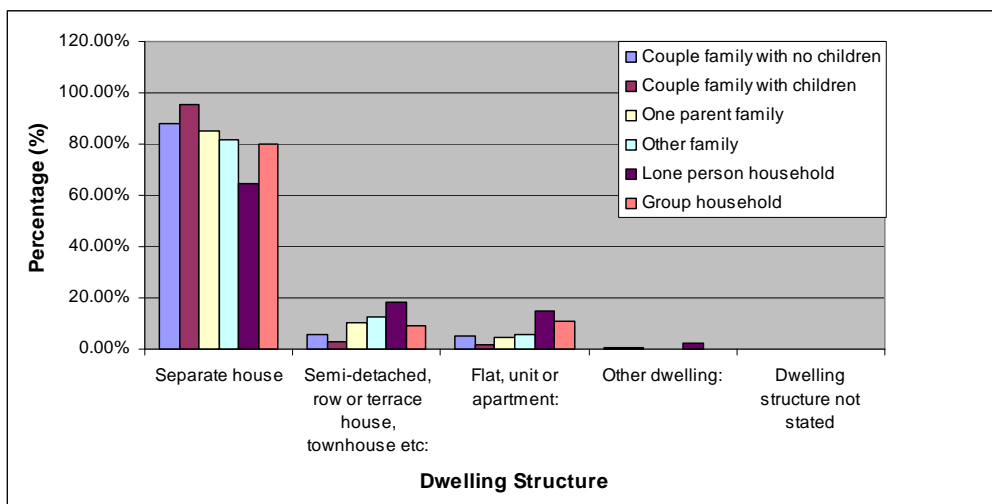
Comparing all of the preceding data, it appears that the predominant form of existing housing has a major influence on the type of housing occupied, and may not necessarily be representative of housing preference and choice.

Figure 8: Barossa Council Household/Family Type by Dwelling Structure



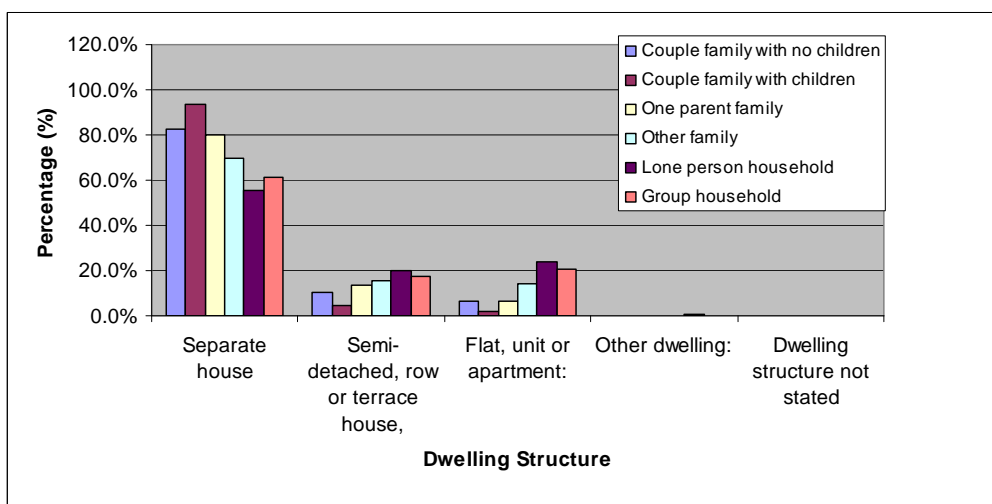
Source: ABS Catalogue no. 2005.0 Expanded Community Profile Series 2006 Census

Figure 9: Town of Gawler Household/Family Type by Dwelling Structure



Source: ABS Catalogue no. 2055.0 Expanded Community Profile Series 2006 Census

Figure 10: Adelaide Statistical Division Household/Family Type by Dwelling Structure



Source: ABS Catalogue no. 2055.0 Expanded Community Profile Series 2006 Census

3.1.5 Population Trends and Growth Predictions

Information on population profiles and household types is useful and indeed necessary for the planning and delivery of human services. Matching service requirements with evolving population characteristics requires constant monitoring and evaluation.

3.1.5.1 National Trends

Aging

The general aging of the population is projected to continue as a consequence of several factors including advances in medical technology and a greater consciousness of healthy living, but also population dynamics that are influenced by the disproportionately large number of Australian's born in the post war 'baby boomer' era (1946 to 1960) and declining fertility rates in particular.

Household Size

As noted in the 1991 National Housing Strategy, average household sizes reduced from 3.44 in 1961 to 2.88 in 1986. At the local ASD level in 2001, the average number of persons per dwelling was in the order of 2.4.

Projections prepared by the Department of Planning and Local Government as part of the Metropolitan Development Program estimate that household sizes in Adelaide will continue to decline reflecting the general trends in household structure.

Further, the growth of smaller household types (single parent families, couples without children and lone person households) is expected to outstrip the growth of 'traditional' family units over the next 5 years.

Household Formation

The trend towards smaller households means that Australia is experiencing relatively higher rates of household formation. Population growth may have declined over the last four decades, but as the population ages and existing households are retained for a longer period of time, the overall rate of household formation has remained strong. Growth in household formation exerts pressure on land supply.

3.1.5.2 Population Projections – Metropolitan Adelaide

The Department of Planning and Local Government have prepared population projections for South Australia for the period 2001-2031 and for the State's Statistical Divisions from 2001-2021. The summary of these projections from the document *Population Projections for South Australia (2001-31) and the State's Statistical Divisions (2001-21)* is reproduced below:

- *At the 2001 census the population of Adelaide Statistical Division (ASD) was 1.11 million, at the 2006 census it is projected to be 1.14 million and by 2021 between 1.19 (Low series projection) and 1.29 million (High series)*
- *Between 2001 and 2021 the population of Adelaide Statistical Division is projected to increase by at least 82,500 persons (Low series) and possibly by as much as 185,000 (High series) if current high levels of net overseas migration continue*
- *The population of Adelaide Statistical Division will remain one of the youngest in the State (Figure 14) with the median age projected to increase from 37.4 years in 2001 to between 40 and 41 years in 2021*
- *Adelaide Statistical Division currently attracts the dominant share of overseas migrants to South Australia and it is assumed that this will persist until 2021 but at a slightly reduced level as population growth accelerates in Outer Adelaide Statistical Division*
- *For most of the projection period natural increase (births minus deaths) will be the major component of population growth under the Medium and Low series, but gains from net migration will be the major component of population growth under the High series.*

3.1.5.3 Regional Population Trends

Data has been obtained from the ABS to identify the estimated resident population of the following four Council areas between 1996 and 2007:

- Barossa
- Light
- Playford
- Gawler.

Table 2 summarises the data obtained. It is evident that the total population within the four Council areas has increased by 17,981 persons with approximately half of this growth occurring within Playford.

Table 2: Regional Population Trends 1996-2007

LGA	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Barossa (DC)	18,339	18,633	18,900	19,026	19,190	19,497	19,751	20,078	20,523	20,966	21,407	21,806
Light (Reg C)	9,524	9,761	9,965	10,106	10,399	10,542	10,919	11,578	11,999	12,419	12,846	13,160
Playford (C)	64,998	65,679	66,780	67,408	68,253	68,653	69,273	69,873	70,345	71,111	71,903	73,162
Gawler (T)	17,127	17,528	17,734	17,859	18,069	18,345	18,580	18,612	18,845	19,097	19,406	19,841

Source: ABS Catalogue No 3218.0 (Released March 2008; October 2007)

Data has been obtained from the ABS to identify the age profile of the same four Council areas at the 2006 Census. The obtained data is compared with the age profile of the ASD, in **Table 3**.

Key observations from this data include:

- the Town of Gawler has an age profile generally consistent with that for the ASD, with a slightly higher proportion of population in the 10-19 age cohorts and a lower proportion in the 20-39 age cohorts
- Light and Playford have a noticeably younger age profile compared to the ASD, particularly in the 0-14 age cohorts.

Development of the Area Affected is likely to boost the number of first home buyers within Gawler and inject additional people in the 0-39 age cohorts. Over time the age profile of Gawler is anticipated to move closer to the current profile of Playford, which is presently accommodating the majority of new residential growth within the northern sector of Adelaide. This has implications in terms of service provision (i.e. schools) and planning for open space and recreation needs.

Table 3: Regional Population Age Profile 2006

Age Profile	ASD		Gawler		Barossa		Light		Playford	
	#	%	#	%	#	%	#	%	#	%
0-4 years	62,258	5.63%	1,052	5.56%	1,213	5.90%	906	7.33%	5,201	7.43%
5-9 years	65,388	5.91%	1,181	6.24%	1,427	6.95%	964	7.80%	5,496	7.85%
10-14 years	69,646	6.30%	1,446	7.65%	1,459	7.10%	1,030	8.33%	5,716	8.16%
15-19 years	74,550	6.74%	1,380	7.30%	1,405	6.84%	927	7.50%	5,223	7.46%
20-24 years	79,980	7.23%	1,170	6.19%	939	4.57%	609	4.93%	5,017	7.17%
25-29 years	69,022	6.24%	974	5.15%	1,007	4.90%	559	4.52%	4,318	6.17%
30-34 years	73,150	6.61%	1,065	5.63%	1,229	5.98%	824	6.67%	4,556	6.51%
35-39 years	79,044	7.15%	1,252	6.62%	1,485	7.23%	937	7.58%	5,132	7.33%
40-44 years	80,875	7.31%	1,417	7.49%	1,589	7.73%	1,100	8.90%	5,337	7.62%
45-49 years	81,511	7.37%	1,489	7.87%	1,684	8.20%	1,073	8.68%	4,975	7.11%
50-54 years	75,221	6.80%	1,284	6.79%	1,527	7.43%	876	7.09%	4,050	5.78%
55-59 years	71,628	6.48%	1,082	5.72%	1,426	6.94%	699	5.65%	3,576	5.11%
60-64 years	54,231	4.90%	907	4.80%	1,058	5.15%	585	4.73%	2,813	4.02%
65-69 years	43,411	3.93%	849	4.49%	840	4.09%	435	3.52%	2,545	3.64%
70-74 years	37,673	3.41%	785	4.15%	724	3.52%	303	2.45%	2,293	3.28%
75-79 years	36,151	3.27%	710	3.75%	621	3.02%	242	1.96%	1,883	2.69%
80-84 years	28,902	2.61%	506	2.68%	485	2.36%	168	1.36%	1,129	1.61%
85-89 years	15,381	1.39%	242	1.28%	295	1.44%	79	0.64%	513	0.73%
90-94 years	6,152	0.56%	95	0.50%	107	0.52%	31	0.25%	187	0.27%
95-99 years	1,437	0.13%	21	0.11%	27	0.13%	11	0.09%	41	0.06%
100 years and over	230	0.02%	5	0.03%	0	0.00%	3	0.02%	9	0.01%
Total	1,105,841	100.00%	18,912	100.00%	20,547	100.00%	12,361	100.00%	70,010	100.00%

Source: ABS Catalogue No. 2001.0

3.1.5.4 Regional Population Projections

Population projections have been obtained from DPLG for the period of 2002-2021, and are shown in **Table 4**. It is evident that the following increases are projected:

- Gawler – 7,584 persons
- Light – 2,853 persons
- Barossa – 3,386 persons
- Playford – 21,554 persons.

Consistent with trends for the whole of the ASD, it is projected that the population for each of the Council areas will age, with an increased proportion of population aged 50 and above.

3.1.5.5 Population Projections – Area Affected

Dwelling and population projections have been made for the future development of the Area Affected. The dwelling and population projections are based on the following assumptions:

Delfin Contracted Land (220 ha)

- average dwelling density of 12 dwellings/ha
- occupancy rate of 2.7 persons per dwelling

= 2640 dwellings (say 2700 dwellings)

= 7290 persons (say 7500 persons).

Other Land (180ha)

- average dwelling density of 7 dwellings/ha
- occupancy rate of 2.0 persons per dwelling

= 1260 dwellings (say 1300 dwellings)

= 2600 persons.

The dwelling density assumptions are based on a comparison of broadhectare yields achieved in comparable locations. The Delfin contracted land has a higher yield given that it is less constrained and would be the focus of the Mixed Use Centre Policy Area where higher dwelling densities should be accommodated.

The balance of the land is typically steeper and is certainly more fragmented in terms of land tenure. It has already been developed in parts and abuts the scenic road, thereby resulting in lower desired dwelling densities and therefore yield.

The occupancy rate assumption of 2.7 is assumed as the majority of new large broadhectare housing estates achieve occupancy levels well above the Council-wide average. This is because such estates tend to attract young couples/families, as distinct to other household forms.

Table 4: Regional Population Projections 2006-2021

AGE	GAWLER				LIGHT				BAROSSA				PLAYFORD			
	2006		2021		2006		2021		2006		2021		2006		2021	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0-4	1,053	5.35%	1584	5.81%	765	6.20%	914	6.02%	1,205	5.70%	1,282.00	5.23%	5206	7.21%	6526	6.96%
5-9	1,206	6.12%	1567	5.74%	900	7.30%	1081	7.12%	1,405	6.65%	1,411.00	5.76%	5511	7.63%	6393	6.82%
10-14	1,396	7.09%	1440	5.28%	1019	8.26%	1124	7.40%	1,469	6.95%	1,479.00	6.03%	5609	7.77%	6099	6.50%
15-19	1,530	7.77%	1433	5.25%	927	7.52%	988	6.51%	1,412	6.68%	1,356.00	5.53%	5289	7.32%	5658	6.03%
20-24	1,369	6.95%	1438	5.27%	675	5.47%	617	4.06%	1,095	5.18%	1,069.00	4.36%	5567	7.71%	6241	6.66%
25-29	1,132	5.75%	1864	6.83%	581	4.71%	666	4.39%	1,168	5.53%	1,155.00	4.71%	4931	6.83%	6845	7.30%
30-34	1,038	5.27%	2264	8.30%	817	6.63%	919	6.05%	1,266	5.99%	1,465.00	5.98%	4897	6.78%	6871	7.33%
35-39	1,263	6.41%	2345	8.60%	838	6.80%	1094	7.20%	1,437	6.80%	1,620.00	6.61%	5432	7.52%	7227	7.71%
40-44	1,452	7.37%	1755	6.43%	1027	8.33%	933	6.14%	1,630	7.72%	1,579.00	6.44%	5510	7.63%	6034	6.44%
45-49	1,536	7.80%	1383	5.07%	1061	8.60%	1038	6.84%	1,661	7.86%	1,515.00	6.18%	5124	7.10%	5838	6.23%
50-54	1,383	7.02%	1491	5.46%	894	7.25%	932	6.14%	1,582	7.49%	1,617.00	6.60%	3986	5.52%	6004	6.40%
55-59	1,162	5.90%	1629	5.97%	779	6.32%	1163	7.66%	1,507	7.13%	1,850.00	7.55%	3590	4.97%	5780	6.16%
60-64	902	4.58%	1753	6.43%	617	5.00%	1186	7.81%	1,140	5.40%	1,862.00	7.60%	2723	3.77%	5086	5.42%
65-69	821	4.17%	1527	5.60%	485	3.93%	909	5.99%	866	4.10%	1,628.00	6.64%	2603	3.60%	3823	4.08%
70-74	776	3.94%	1262	4.63%	361	2.93%	679	4.47%	717	3.39%	1,332.00	5.43%	2290	3.17%	3191	3.40%
75-79	708	3.59%	878	3.22%	265	2.15%	446	2.94%	633	3.00%	944.00	3.85%	1944	2.69%	2199	2.35%
80-84	541	2.75%	728	2.67%	174	1.41%	263	1.73%	472	2.23%	621.00	2.53%	1183	1.64%	1772	1.89%
85+	431	2.19%	942	3.45%	147	1.19%	233	1.53%	458	2.17%	724.00	2.95%	815	1.13%	2177	2.32%
TOTAL	19,699	100%	27,283	100%	12,332	100%	15,185	100%	21,123	100%	24,509	100%	72,210	100%	93,764	100%

Source: Department of Planning and Local Government Population Projections Enquiry System, 2007

3.2 HOUSING TRENDS

3.2.1 Housing Types and Trends

Emerging housing types and trends is an issue that was considered at some length as part of the Northfield (Stage 3) Plan Amendment Report (PAR) prepared by the Minister in 2005. Key commentary from the PAR Statement of Investigations (section 5.3.1) remains relevant to this DPA, and is reproduced as follows:

Housing is a dynamic and evolving field in which notions about medium and high density housing can change dramatically from one city to another and between locations within a single city. In Adelaide, the delivery of housing has generally been described as conservative when compared to other Australian cities, probably because of the high proportion of single storey detached houses.

Even though detached houses predominate, allotment sizes for detached dwellings have reduced substantially over time. Reduced allotments sizes has had other notable consequences in respect to building heights (with a notable shift from single storey to two storey houses), the provision of private open space and building setbacks.

Other emerging trends include:

- a return to laneway style development which has the benefit of maximising the potential for on street car parking spaces, minimising the visual impact of garaging and paving to the primary street frontage, minimising the need for front setbacks to the primary street frontage and facilitating reduced allotment depths
- small lot and terrace style housing typically 2 storey and built boundary to boundary
- small lot affordable housing with minimal private open space and extensive boundary walls
- a growing acceptance of apartment style living in locations outside of the traditional apartment market (i.e. CBD or high profile coastal locations).

Although the Area Affected is located further from the CBD than Northgate, the identified trends in the residential property market have clear potential application in this instance, given that the majority of the Area Affected will form a new master planned community where a variety of dwelling and density outcomes can be accommodated supported by a range of services and recreation opportunities delivered within the community.

-
- Given the varied topography of the Area Affected, it is evident that a wide variety of densities will be appropriate, with higher densities generally concentrated in areas of relatively less gradient and is reflected by the proposed boundary of the Mixed Use Centre Policy Area and the Local Centre Policy Area.

3.3 PHYSICAL, SOCIAL AND LAND CAPABILITY

3.3.1 Product Type

Given the nature and characteristics of the Area Affected a variety of housing products can readily be accommodated. As a general rule the topography (slope) of the subject land will dictate the location of particular dwelling types, with some more compact dwelling types clearly better suited for relatively flat sites, whilst more traditional allotment types better suited on those portions of the site with moderate to high slope. **Table 5** shows the indicative breakdown of allotment types based on the slope of the land. Typically the steeper the land, the greater the allotment area and frontage needs to be.

Table 5: Allotment Types by Slope

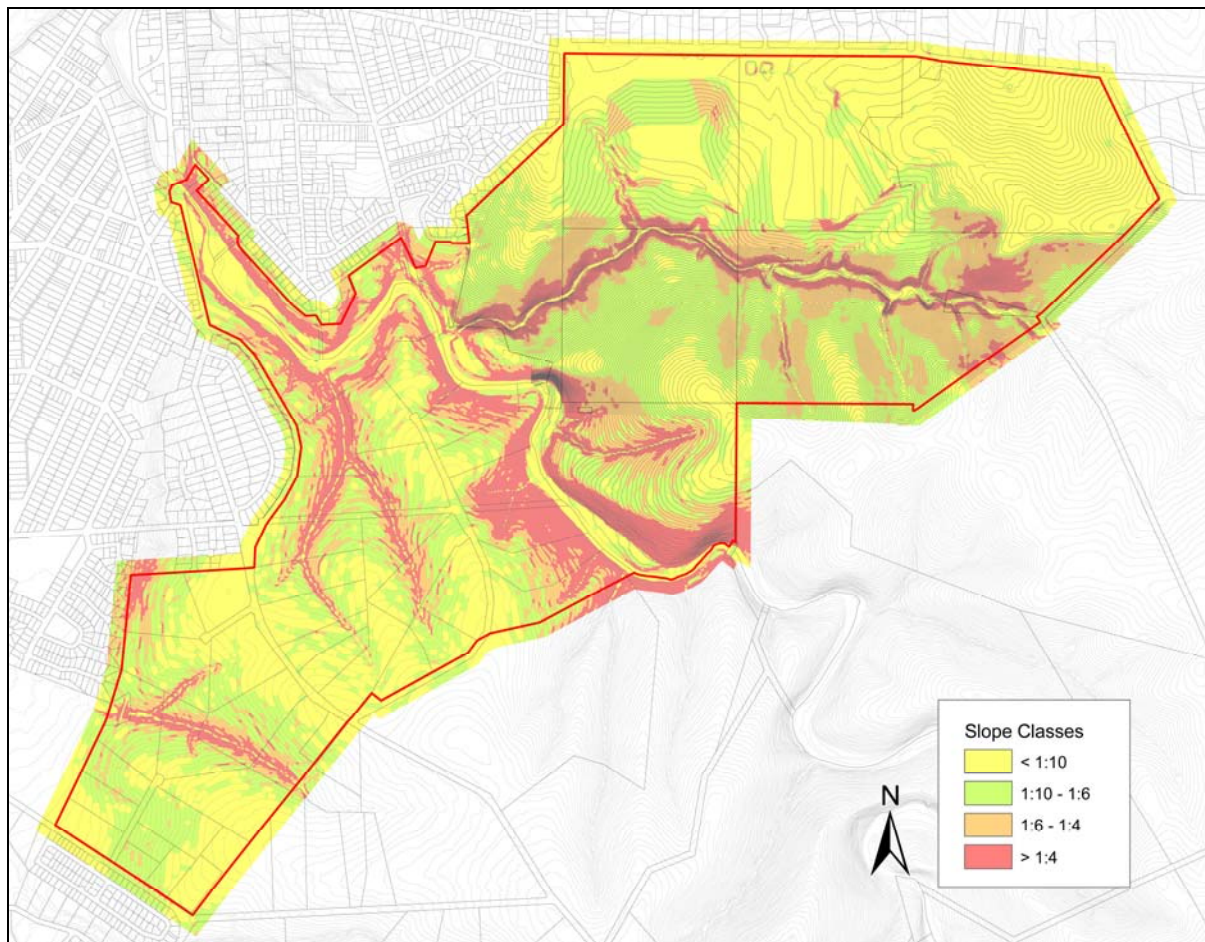
Slope	Allotment Type
≤ 2.5%	High density – 5m wide lots
> 2.5% - ≤ 5%	High density – 5 – 10m wide lots
> 5% - ≤ 10%	Medium density – 10 – 12.5m wide lots
> 10% - ≤ 12.5%	Medium density – 12.5 – 16m wide lots
> 12.5% - ≤ 16.7%	Low density – typically 18m wide lots
> 16.7% - ≤ 25%	Low density – typically 18 – 20m wide lots
>25%	Limited development

Source: Connor Holmes

Given the relative lack of housing diversity and choice within the surrounding suburbs, it is considered appropriate to ensure that the new planning policy is sufficiently flexible to ensure that a range of dwelling types can be accommodated within the Area Affected.

Supporting commercial, retail and community uses are also to be considered. The more suited locations for such activities are on the flattest portion to the Area Affected which are identified on **Figure 11**. Generally such uses should be encouraged in the north-eastern portion of the Area Affected.

Figure 11: Slope Analysis



3.3.2 Topography

The topography of the Area Affected is shown on the Slope Analysis Plan, which forms **Figure 11**. From this Figure, it is evident that the existing quarry has significantly altered the natural landform for a significant proportion of the Area Affected. Generally, the flattest portion of the Area Affected is located to the east of the quarry and existing residences on the property. This area has a slope in the order of $< 1:10$. The slope of the land significantly increases in the southern portion of the Area Affected, in particular in the area parallel to the existing creeks and the South Para River. The slope in these areas is in the order of $>1:4$. This slope is generally unsuitable for most forms of urban development.

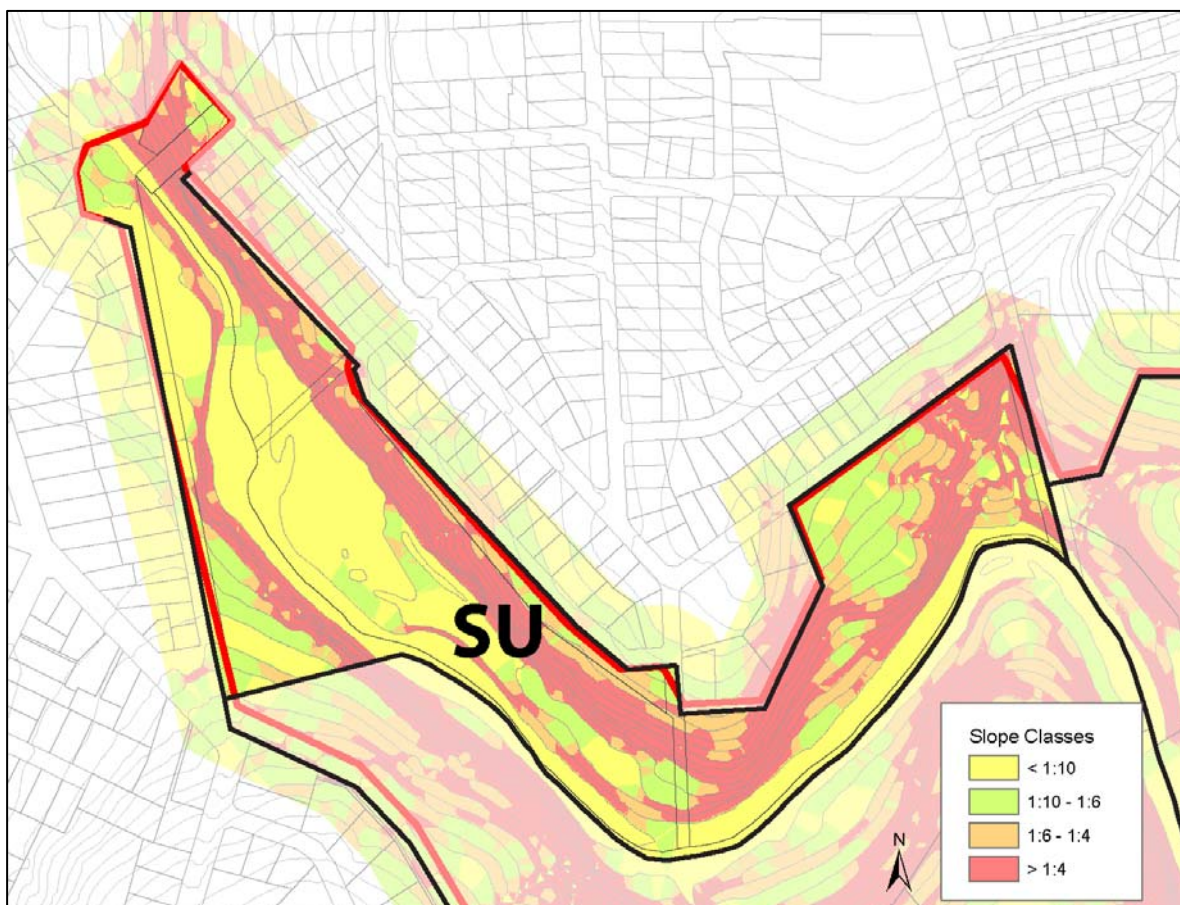
In terms of the existing zones, the opportunities and constraints afforded by the topography of the land is considered on a zone by zone basis as follows:

Special Uses Zone

The land within this existing zone typically has a slope $>1:4$ and includes portion of the South Para River. Most land within this zone is not suited for urban development. Detailed slope analysis is shown on **Figure 12**.

It is envisaged that the existing Special Uses Zone (forming part of a new Open Space Zone) should be extended upstream to include land abutting either side of the South Para River.

Figure 12: Special Uses Zone Slope Analysis

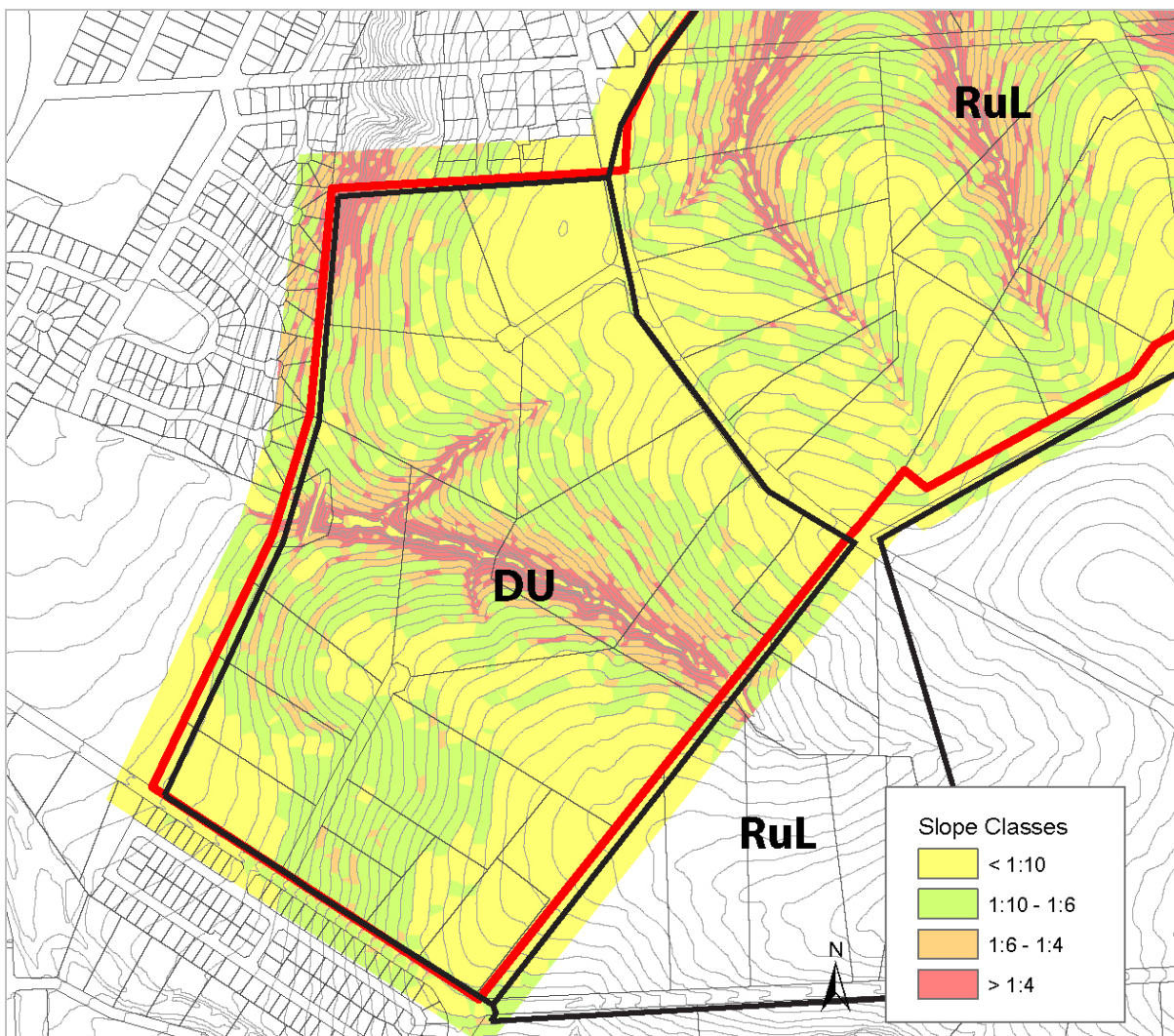


Deferred Urban Zone

The land within this zone is typically a slope of up to 1:6 with areas of relatively flat land along the edges of the zone, other than through the established drainage line through the central portion of the zone. Detailed slope analysis is shown on **Figure 13**. Much of the western portion of the zone is visible from the western plains, being located on the area identified in the Development Plan as the 'eastern escarpment'.

From a gradient perspective the land is capable of accommodating medium to low density residential development. Key additional considerations include minimising flood risk, protection of important viewsheds and capturing opportunities to preserve and enhance biodiversity corridors.

Figure 13: Deferred Urban Zone Slope Analysis



Rural Living Zone

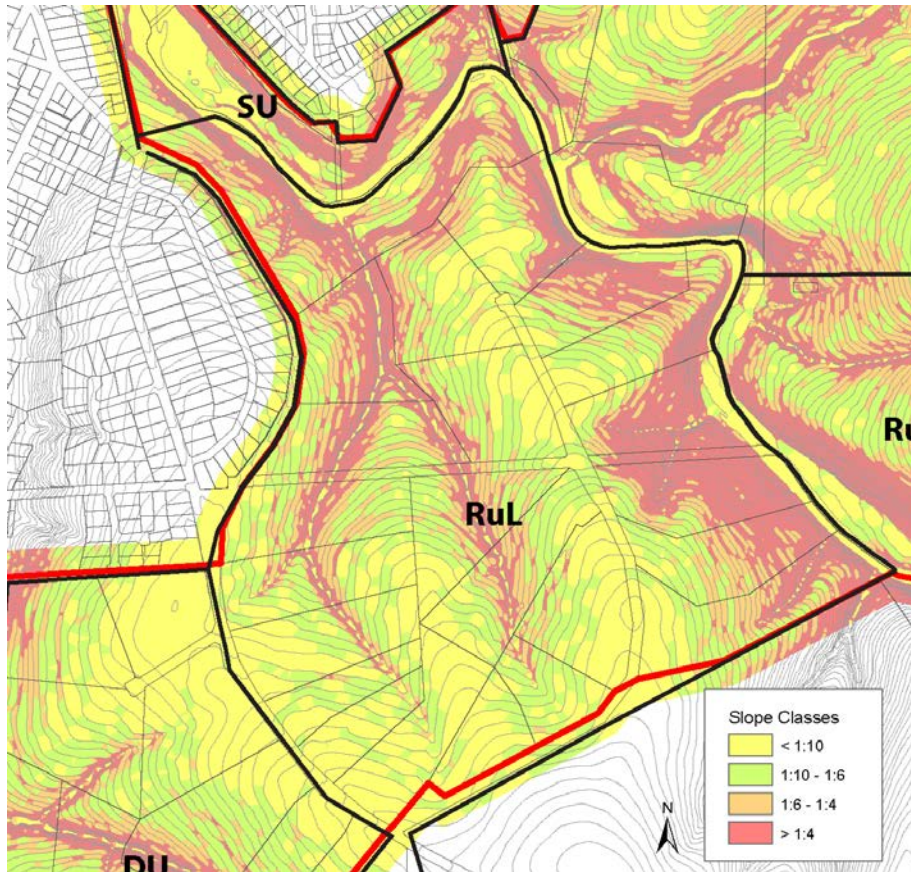
The land within this existing zone is typically a slope of up to 1:6, other than for existing drainage lines and land directly adjacent to the South Para River, which have a slope in excess of 1:4. Detailed slope analysis is shown on **Figure 14**.

The western portion of the zone abuts and is visible from the Gawler-One Tree Hill Road, which is designated as a scenic road. Presently policies exist in the Development Plan providing specific development controls for buildings within 100 metres of this road.

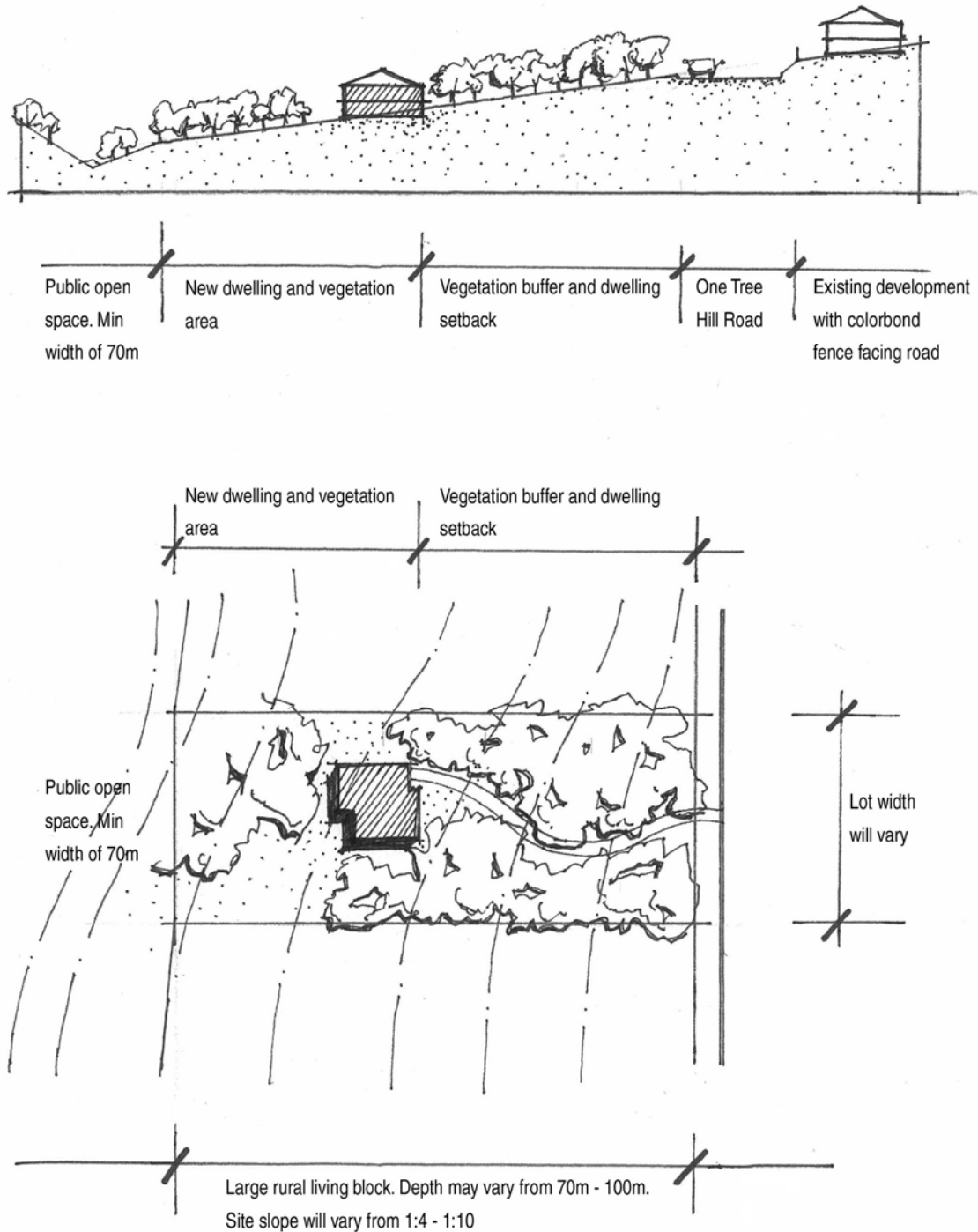
Potential exists to increase the development densities within the zone from 'rural living' to low density residential.

Key considerations include minimising flood risk, protection of important viewsheds, capturing opportunities to preserve and enhance biodiversity corridors and ensuring any future development maximises connectivity and integration.

Figure 14: Rural Living Zone Slope Analysis



The following cross section provides a development scenario whereby a balance is achieved between low density residential development and attainment of an attractive landscaped corridor as an entry to the township as required by the scenic road designation.



Rural Zone

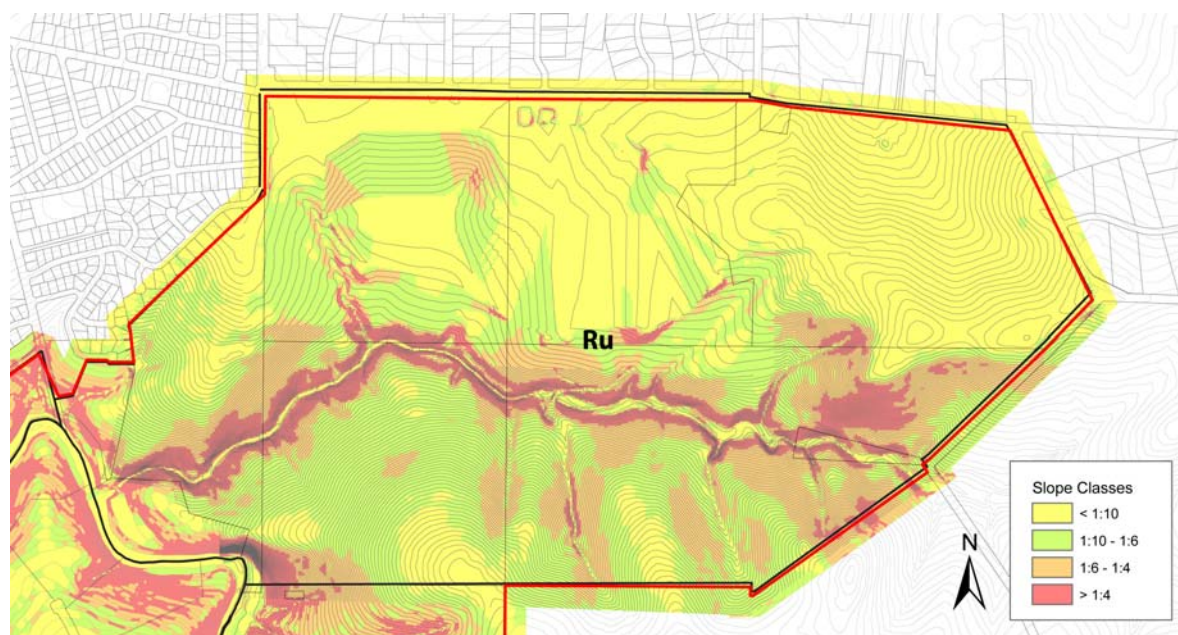
The land within this zone typically has a slope of up to 1:6, with the majority less than 1:10. The exception is the major drainage / creek line which extends in an east / west direction, which in part has slopes in excess of 1:4. In addition, the disused sand quarry has dramatically altered the natural land form although this is not shown on the slope analysis plan which depicts the topography possible after remediation. The quarry will need to be remediated (re contoured/filled) in order to accommodate urban development and this will result in considerable earthworks in and adjacent to the quarry. Detailed slope analysis is shown on **Figure 15**.

Overall, the land is well suited to accommodate development of a range of residential densities. Densities can be at the higher order on land which has:

- the least natural gradient
- has been remediated (filled)
- proximity to centre type activities and open space.

Key additional considerations include minimising flood risk, addressing rural/residential interface and capturing opportunities to preserve and enhance biodiversity corridors.

Figure 15: Rural Zone Slope Analysis

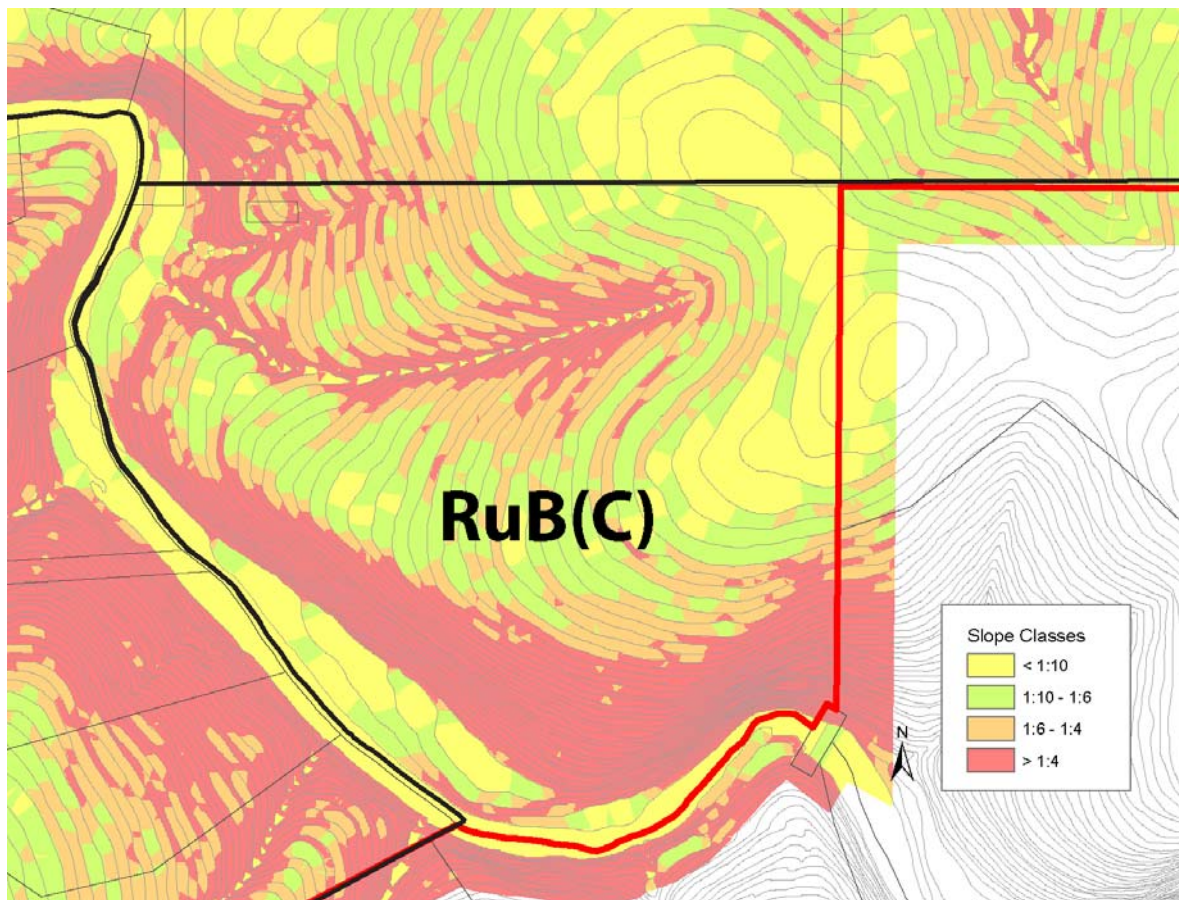


Rural B Zone (Concordia)

The land within this zone typically has a slope $>1:6$ although does include some small sections of land directly adjacent the South Para River of $>1:4$. Some of the land within this zone is therefore not suited for urban development. Detailed slope analysis is shown on **Figure 16**. The land with a slope of less than 1:6 is capable of accommodating low density residential development.

Key additional considerations include the need to minimise flood risk, capture opportunities to preserve and enhance biodiversity corridors and to address the urban/rural interface.

Figure 16: Rural B Zone (Concordia) Slope Analysis



3.3.3 Vegetation/Habitat/Biodiversity

Steinwedel Landscape Consultants have undertaken a tree survey (*Significant Tree Assessment Gawler East* (November 2007)) of private land located to the north and east of the South Para River and have compiled a report outlining the location, species, growth characteristics and health of each significant tree. **Figure 17** identifies the location of those trees deemed to be significant trees. No significant trees are located within the site of the former quarry, notwithstanding the extensive tracts of screen planting used to buffer the site. It is anticipated that other significant trees are located in the balance of the Area Affected however access to these other areas was not possible to undertake a detailed audit.

It is important to note that significant trees are protected under existing legislation, including detailed Development Plan policy. Notwithstanding this existing policy the DPA proposes to introduce a new Council Wide Policy based on the Natural Resources Module of the BDP. These policies provide further guidance in relation to the preservation of significant native vegetation.

Figure 17: Location of Significant Trees within Delfin Contracted Land



The Steinwedel report identified the following matters of interest:

- 141 significant trees were identified within the areas where access was possible, the majority of which were *Eucalyptus* species
- the open farming land generally contained *Eucalyptus porosa* and *Eucalyptus leucoxyton* species
- areas adjacent to the water courses and drainage lines generally contained *Eucalyptus camaldulensis* and *Eucalyptus leucoxyton* species
- areas adjacent to the existing farmhouse generally contained non-endemic species.

The substantial majority of significant trees identified (116) were considered to be healthy.

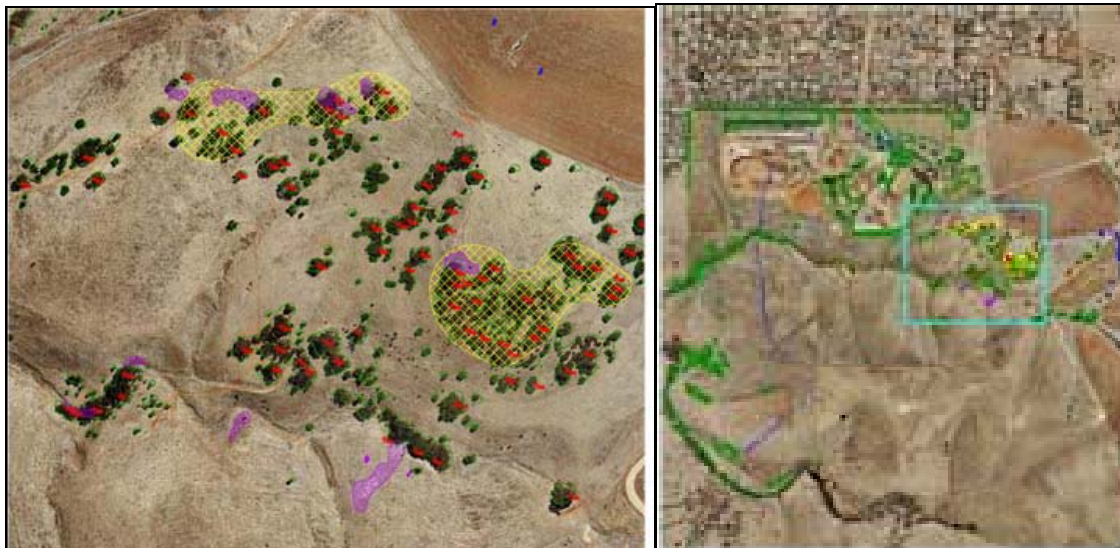
In addition to the significant trees identified, the survey identified other vegetation within the broadhectare area. A number of pest plants were discovered, including *Olea europea*, *Cynara cardunculus* and *Echium plantagineum*. These invasive species should ideally be eradicated.

A small number of endemic plants were identified; however these were generally confined to the steep rocky outcrops and adjacent to creek lines. This is reflective of the fact that the majority of land has been cleared and farmed for many years.


An inspection of the subject land confirms that the existing trees represent a valuable and important contribution to the amenity of the locality, not to mention importance in terms of biodiversity and habitat. The amenity created by the trees is of most significance in those locations where trees are clustered.

In this respect, the tree survey identified two specific areas where the clusters are considered to be representative of the native landscape character of the area and generally worthy of retention as part of future public open space. These areas are shown on **Figure 18**.

Figure 18: Nodes of Vegetation



Legend

-  Vegetation
-  Moss Rocks
-  Possible Reserve Areas

One option in terms of planning policy is to identify these nodes on the structure plan. However the structure plan is not of a scale which can represent a detailed design outcome for the future development of the Area Affected. A preferred approach is to introduce generic policy which encourages the retention of important vegetation and incorporation within open space areas. Importantly given the existence of relevant legislation any proposed removal or development of areas vegetated with either significant trees or native vegetation will need to be negotiated on an individual basis.

In addition to the work undertaken by Steinwedel Landscape Consultants, KBR has undertaken flora and fauna survey of the Area Affected. The information obtained by KBR together with his associated recommendations has been used to guide the structure plan and associated planning policy. The report from KBR (*Gawler East Ecological Survey (January 2009)*) identifies a number of key issues and actions which need to occur.

From the assessment undertaken, areas of biological significance are apparent and are conceptually illustrated in **Figure 19**. The report recognises that the preservation and improvement of the important habitat areas as part of any future use and development of the site would conserve the key areas of biological significance.

In terms of summary and future recommendations, KBR have indicated the following key points:

Vegetation

Detailed mapping and appraisal of the understorey vegetation must be undertaken later in the year following the removal of livestock and preferably during a year with average or above average rainfall. Mapping to date has:

- defined the areas of good quality remnant native vegetation
- defined those areas of anthropogenic vegetation of little or no conservation value, including the larger areas of weeds infestations
- assessed the presence of some additional species of conservation significance.

Once this additional assessment has been completed, then a final assessment of the areas to be set aside for conservation and potential areas implicated by clearing can be undertaken. The latter will be required in order to provide an understanding of legal obligations and compensation requirements under the Native Vegetation Act.

Detailed management requirements for aspects such as biodiversity linkages and corridors, pest species control, fencing to minimise 'people impacts' and revegetation would be included in as part of subsequent planning applications and assessments.

The central and northern areas of the site are within the jurisdiction of the Native Vegetation Council (NVC) and its Act. The NVC would be unlikely to approve clearance of the larger areas of Mallee box woodland (the overstorey of which is an intact community) and the areas of relatively intact understorey. Approval for clearance of other areas containing native vegetation and single trees is negotiable under an Application to Clear Native Vegetation providing it is undertaken under an agreed Plan and an agreed Significant Environmental Benefit (SEB).

Removal of significant trees would require Council approval under the Development Act.

Fauna habitat and species of particular conservation significance

Flinders Ranges worm-lizard

The rocky areas on site represent habitat for the nationally vulnerable Flinders Ranges worm-lizard (*Aprasia pseudopulchella*). Its preferred habitat is present on site, particularly in and around the rocky drainage line that runs east to west through the property. The potential for this species to occur within parts of the proposed development site is high. A fauna trapping and monitoring program is required to confirm its population.

Pygmy bluetongue lizard

Potential, though marginal and degraded grassland habitat for this species occurs on site in the areas of native grassland understorey.

Bird species

Rainbow bee-eater, Peregrine falcon, Elegant parrot and Red-capped robin have been recorded on the site in small numbers in 2008 by the current assessment. Improving the habitat for these species would be part of future development of the site. The current population of the Regent honeyeater in all of eastern Australia is less than 1,500 birds (Birds Australia 2008). The species is considered to be extinct in South Australia and Western Victoria (Armstrong et al. 2003, Tait et al. 2005, SA Museum, pers. comm., July 2008). No additional survey for this species is warranted.

Painted Button Quail and Black-chinned honeyeater (listed as rare at a State level) have been recorded in or adjacent to the site in the past. It is unlikely that both of the species are present given the lack of suitable habitat and increased number of predators such as European red fox and feral cats. General observations for these species should continue to be made during future spring and early summer surveys.

Species of particular significance include Brown quail, Jacky winter, Restless flycatcher, White-winged chough, Hooded robin, White-throated honeyeater and Elegant parrot. Other species which might still occur on the site for part of the year include Crested shrike-tit, Diamond firetail, Brown tree-creeper, Shining bronzecuckoo, Flame robin, Zebra finch, Southern free-tail bat, Western broad-nosed bat and Yellow-bellied sheath-tail bat.

Some of these species are seasonal or altitudinal migrants and a longer survey period under better conditions is required to detect them. No recent sightings of most of these species have been made for this part of the region, although there are recent records for some adjacent areas (R. Attwood, Birds Australia. pers. comm., December 2008).

Habitat for most of these species is not available in the site.

Other fauna species

Species which occur, or may occur, in and adjacent to site include Common brushtail possum, Cunningham's skink, Brown toadlet, plus three species of bats. Trapping and observation for the worm-lizard will provide information about the presence of Cunningham's skink. However, there is no indication that this species is within the historical range of the species and the habitat is considered too dry for the species.

Common brushtail possum is present along the South Para River and Brown toadlet may occur here. An autumn survey is required to assess the latter species.

A bat survey would be required to determine the extent of the bat populations on site. However, it is anticipated that the species recorded in SA Museum (2006) would occur in the site and, providing that key habitats are conserved, a survey may not be required.

Other matters

Due to the likely occurrence of the Flinders Ranges worm-lizard, recent records of Rainbow bee-eater and Latham's snipe, plus potential habitat for Pygmy bluetongue lizard, a referral to the Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) under the EPBC Act is required. Such a referral had been initiated at the time of preparing the DPA.

Post any rezoning, a Vegetation Management Plan (VMP) and a Construction Environmental Management Plan (CEMP) are recommended to be developed to guide the future development of the Area Affected. This would include the development of Significant Environmental Benefit requirements as off-sets for any native vegetation removed. Future conservation initiatives, especially habitat conservation and restoration, pest species management actions and revegetation guidelines should be included in these documents.

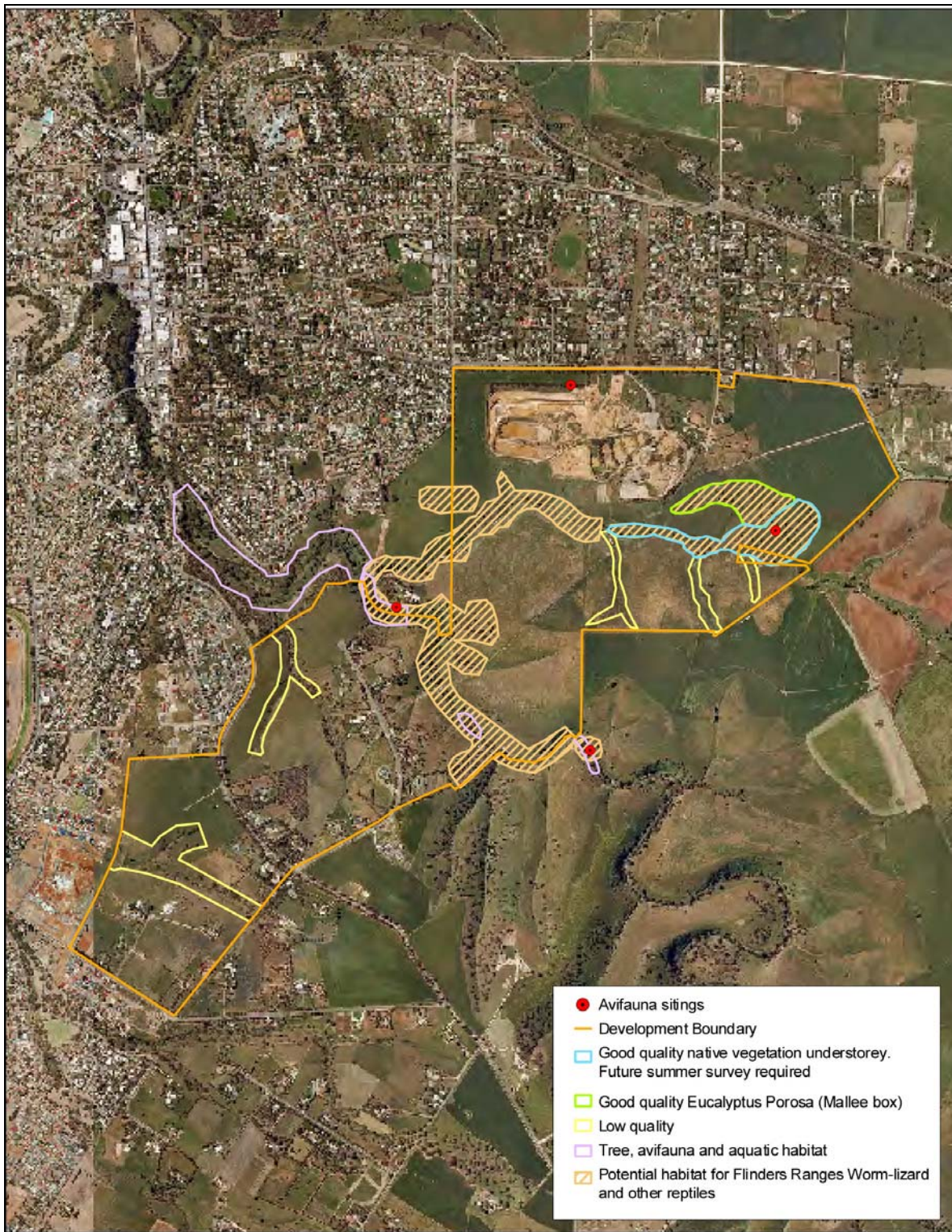
A range of conservation and open space initiatives could be developed for the Area Affected following ongoing surveys later in 2009. The latter assessments are required due to the below average rainfall in 2008 and the severe heavy grazing of the site during the 2008 - 2009 summer limiting the amount of seasonal variation information able to be ascertained.

3.3.4 Geotechnical

Coffey Geotechnics Pty Ltd has undertaken an initial assessment of the viability of earthworks required to support the future development of the Area Affected (*Phase 1 Environmental Site Assessment (December 2007)*).

The initial assessment has largely focussed on the rehabilitation of the area previously used for sand mining. The assessment was based on a site walk over by a Principal Geotechnical Engineer on 15 October 2007 as well as the excavation of 8 test pits with a tracked excavator on 31 October 2007. Investigations were undertaken to the level that Coffey were satisfied that the Area Affected is suitable or can be made suitable for residential development as a distinct body of work to support this DPA. Further detailed geotechnical investigations will be required as part of the detailed design of any future land division and/or residential development.

Figure 19: Target Areas for Native Species and Habitat



Past Use

The Coffey report identifies that a portion of the northern side of the Area Affected was previously used for sand mining, which ceased in 2000. As a consequence of this mining, excavations to a depth of 15m deep or more are present together with stockpiles of fill (visually assessed to comprise mainly overburden materials) up to about 10 m deep. Conceptual modelling undertaken by Coffey indicates that about 650,000 m³ of cut to fill earthworks will be required to provide a suitable landform for a residential development.

Testing and Assessment

Based on a walk-over and limited intrusive testing Coffey consider that the materials encountered within the Area Affected would be suitable for re-use as bulk fill (engineered fill) on a residential subdivision provided appropriate geotechnical design is incorporated into the overall development plans and that overview of the earthworks is undertaken in accordance with the requirements of Level 1 overview presented in AS3798 "Guidelines on Earthworks for Commercial and Residential Developments".

In addition Coffey make a number of recommendations concerning earthworks design, which are outside the scope of the DPA.

3.3.5 Hydrology / Stormwater Management

Wallbridge and Gilbert have prepared a stormwater management strategy for the Area Affected (*Gawler East Residential Stormwater Management Strategy*, October 2008). A key focus of the strategy was to adopt as much as practicable a Water Sensitive Urban Design philosophy. Key findings of the report are summarised/quoted as follows.

The broad hectare portion of the Area Affected is presently not serviced by stormwater infrastructure. The majority of the land will naturally drain into the South Para River.

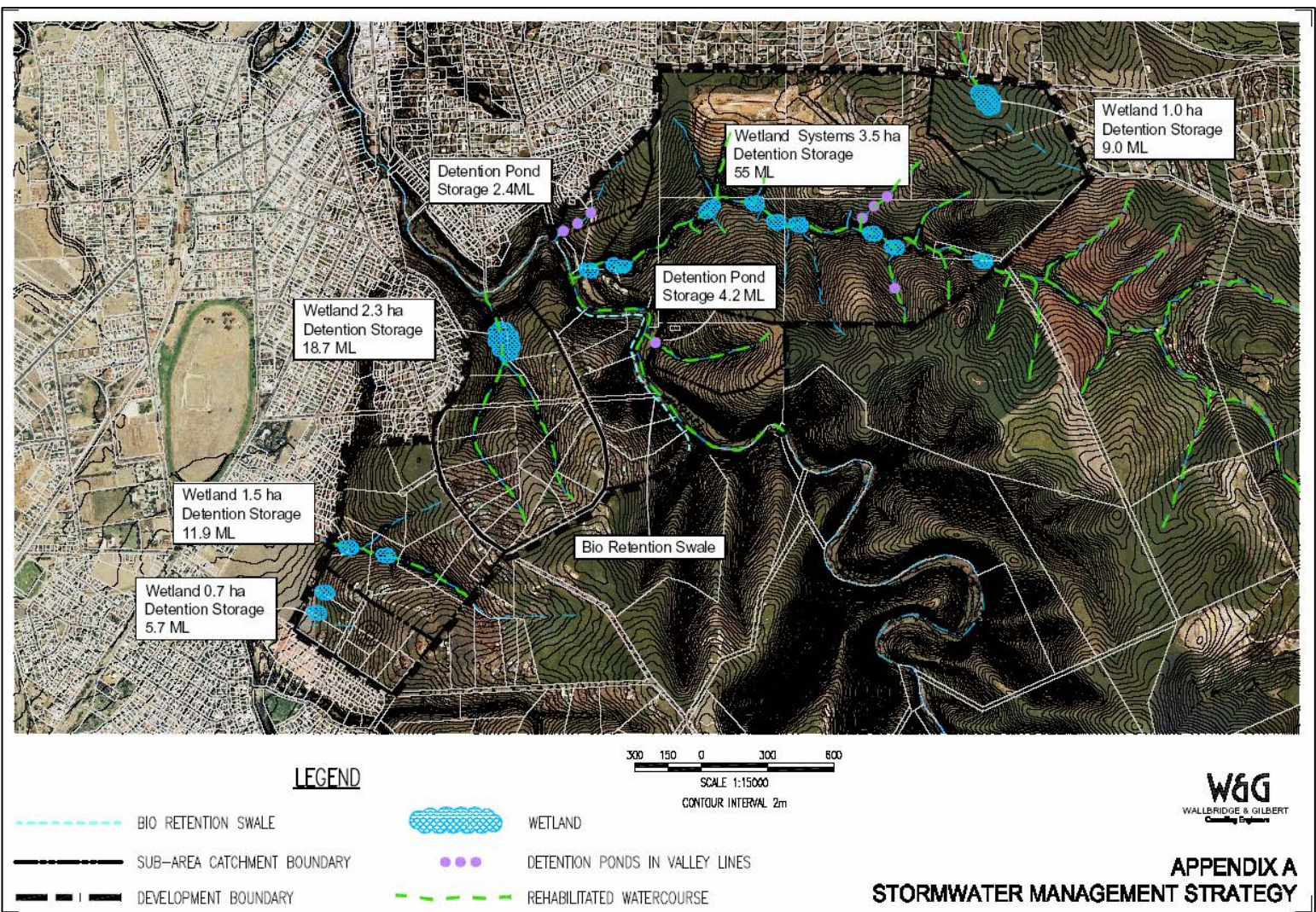
The following stormwater best management practices (BMP's) have been selected which can be integrated into any future planned development of the Area Affected. These have been considered within the limitations imposed due to the sites physical characteristics, and indeed to also seek opportunities that achieve multi-objectives. The BMP's include:

- *allotment rainwater tanks - a source control measure that will collect and harvest roof runoff for domestic non potable uses. May contribute to reduced allotment flow discharges for events up to the 3 month to 1 year ARI storm event*
- *major flood retarding basins also incorporating wetlands - are a means of temporary slowing flood flow by incorporating controlled outlets to regulate flows. A series of ponds and reed beds could be incorporated into the design to treat stormwater flows for the frequent events up to the 1 year ARI storm event. Retention storage could be accommodated subject to further assessment (i.e. not within the scope this study)*
- *localised retarding basins and ponds - small wet detention ponds located along drainage flow paths within valleys which contribute to a major watercourse. These could be designed to improve flow regime through the valleys to slow and reduce erosion potential within the floor of the drainage flow paths*
- *biofiltration and vegetated swales - a source control measure that will collect and treat locally generated stormwater runoff from roads. Can be used as a means of providing a visual feature along roadways and reserves as well as retarding flows. However its applications are limited within steep sites*
- *gross pollutant traps and trash racks - to intercept and capture larger particles, rubbish and other debris.*

The basins will need to be modelled in more detail during subsequent phases of design. The assessment carried out for the purposes of this DPA, is provided as a guide to inform the stormwater management strategy for future development of the Area Affected. A preliminary location plan highlighting the basins and their storage requirements is provided in **Figure 20**.

Key elements of the strategy have been included in the DPA, and referenced on the proposed structure plan including detention basins located within the linear open space area and policy reinforced in relation to the principles of recycling and re-use.

Figure 20: Preliminary Stormwater Plan



Stormwater Harvesting

The State's minimum size requirement for rainwater tanks is 1 kL. This strategy adopts a more environmental approach to domestic harvesting and proposes a 2 kL tanks as a minimum for smaller courtyard allotments. Larger tanks are proposed where lot size allows.

A simulation of tank performance and the savings achieved was modelled to assess the potential savings in potable water for various tank sizes. Rainfall data is based on 10 years of continuous recordings from the Adelaide Airport weather station (1987 -1996). Typical house water consumption rates have been adopted from WSUD: Basic Procedures for "source control" of stormwater, A hand book for Australian Practice 2005. (University of South Australia).

The criterion for tank sizing is proposed and is presented in Table 4 as well as the results of the simulations. Table 4 presents the average and minimum performance outcomes based on the using the 10 years of rainfall data. It assumes an occupancy rate of 3.5 persons per allotment. The other modelling assumptions and considerations include:

- available space on an allotment to accommodate a tank
- average house roof area of 200m²
- usage rates are based on average daily for Adelaide
- Volume of water used outdoors
- Figures presented can vary significantly, however the table is intended to demonstrate the potential benefits and savings in mains water use by adopting a strategy of tank sizes larger than the minimum 1 kL
- The 10 year data contains years of low and high rainfall, the outputs in the table presents an average of the 10 year period. The table shows the minimums (which are based on a dry year).

Proposed minimum rainwater tank sizing for lot area

Maximum Allotment Area (m ²)		400		600		800	
Minimum tank size (kL)		2		3		5	
Average and Minimum performance outputs		Ave	Min	Ave	Min	Ave	Min
Simulation results (Annual Averages)	Demand Met by Mains Water (kL)	66	44	59	32	52	26
	Demand Met by Rain Water (kL)	53	-	60	-	67	-
	Number days full demand met by rain tank	139	112	164	129	188	149
	Reduction in Overflow to Street (measured as a Proportion of Runoff from Effective Roof Area) (%)	69	55	78	67	87	76
	Roof Runoff from connected roof Area (kL)	78	56	78	56	78	56
	Overflow to Street (kL)	25	13	18	9	11	2
	Demand Met by RAINWATER as Proportion of Required Annual Demand for Specified Use (%)	45	37	51	40	56	46

The results highlight that there is a significant amount of roof runoff water held within the tank that is available for all in-house and outdoor uses. Reductions and savings in potable water use can be achieved by implementing rainwater tanks.

Aquifer Storage and Recovery (ASR)

A previous investigation (Australian Groundwater technologies (AGT), 2005) for a development area west of Main North Road (West of Para Fault line) revealed that the geology was suitable for an ASR scheme. The study however also suggested that an ASR scheme east of Main North Road (East of Para Fault line) may not be considered feasible.

This site lies to the east of the fault line and therefore further investigations would be required to ascertain whether ASR is suitable. Advice from AGT revealed that the geology of the Area Affected may be highly variable and further investigations would be necessary.

At this stage ASR is not given further consideration within the confines of the development. However, alternatives to establish an ASR scheme downstream of the Area Affected should be explored in collaboration with the Town of Gawler. Opportunities to inject and extract / reuse water can provide a means by which infrastructure associated with ASR is consolidated at the one locality west of Main North Road. This study has not explored this option but highlights that this option will need to be considered if ASR is pursued for the final scheme.

Subject to more vigorous assessment, the wetlands basins may be able to accommodate additional storage from which water may be drawn for reuse applications such as irrigating local reserves. The development could potentially harvest an annual average volume in the range of 100 to 300 ML.

Summary

The stormwater management strategy considers the characteristics, constraints and opportunities within the Area Affected as much as possible. The strategy includes:

- *several constructed wetland systems comprising flood detention storages to treat and manage quality and quantity of stormwater*
- *rehabilitated watercourses to improve ecology, biodiversity and provide opportunities for passive recreation*
- *wet detention ponds to manage quality and quantity of stormwater with major flow paths*
- *revegetated major flow paths to create urban linkages for flora and fauna, convey stormwater in a sustainable manner, integrate stormwater and landscape, improve amenity, and improve water quality*
- *rainwater tank harvesting for individual allotments to reduce potable water demand and stormwater runoff from minor rainfall events (3 month to 1 year events)*
- *bioretention swales to treat the regular stormwater flows*
- *gross pollutant traps and trash racks*
- *the preservation of existing watercourse and other drainage corridors.*

No further investigations have occurred in relation to ASR as rezoning should not be contingent on the establishment of an ASR system. Further investigations can occur separately.

In terms of the DPA, the stormwater management strategy referred to above demonstrates one way of achieving a stormwater solution for the Area Affected. The strategy is generally consistent with the existing Development Plan policy framework.

3.3.6 Land Contamination

The following assessments have been undertaken of the Area Affected:

- REM Phase 1 and 2 Environmental Site Assessment of the land under contract to Delfin Lend Lease
- Coffey review of REM Phase 1 and 2

- Coffey Phase 1 for the balance of the Area Affected.

Access rights do not exist for the balance of the Area Affected to enable a Phase 2 assessment to be performed.

Based on the investigations undertaken, Coffey have formed the opinion that from a land contamination perspective, there is nothing to preclude the Area Affected from being developed (and therefore zoned) for residential use.

Notwithstanding the above, Coffey have recommended that further investigations be undertaken by the land owner to assess the potential contaminants of concern.

The Coffey Report has been submitted to the EPA.

It is noted that the current Gawler (CT) Development Plan contains a principle of development control specifically relating to the issue of site contamination. This principle states:

33 Development should not occur where contamination has been identified or is suspected unless the site has been assessed to be suitable for the intended use or remedial work is undertaken to make the site suitable for the intended use.

The Barossa Development Plan seeks a similar outcome.

13 Development on potentially poorly drained, contaminated or unstable land should not take place until effective remedial measures have been taken to avoid risk to life, health and property. This should include appropriate site histories and other surveys where there is a potential for risk (e.g. contamination possible due to past use).

These principles provide assurance that development should not proceed until any required remedial work is undertaken.

The existing policies contained within the Development Plan are considered sufficient with no need to introduce further policies specific to the Area Affected.

3.4 SERVICE INFRASTRUCTURE

3.4.1 Easements

There are several easements which traverse the Area Affected. The easements each contain infrastructure which includes:

- SA Water Corporation/Seagas pipeline which generally dissects the south-eastern corner of the land
- ElectraNet overhead transmission lines, with the western easement containing a 132 KV line and the eastern easement containing a 275 KV line
- a right of way adjacent to the western boundary of the site.

The easements and associated infrastructure present the following issues:

- building setback requirements from the transmission lines
- restrictions upon access between the northern and southern portions of the area of investigation, due to the location of the above ground water pipe
- visual amenity implications associated with any above ground infrastructure.

These issues can be dealt with at the Development Application stage. Building setbacks to transmission lines are subject to separate legislation. It will be the responsibility of the developer to ensure appropriate access through the site and the creation of appropriate levels of amenity in order to accommodate future development. It is not considered necessary to introduce specific policy relating to the points identified above.

3.4.2 Water

Wallbridge and Gilbert have undertaken investigations concerning the existing water supply network servicing the Area Affected (*Report on Water and Wastewater Networks (October 2008)*). Key findings of their investigations include:

The aim of Delfin Lend Lease in the development of this site is to maximise the reuse of both wastewater “reclaimed water” and stormwater within the development. This has the dual benefit of substantially improving the sustainability of the development through the reduction in potable water demand from SA Water, whilst reducing the infrastructure sizing of the potable water system. This is proposed to be achieved through the provision of a stand alone Wastewater Treatment Plant to service the development, combined with the collection and harvesting of stormwater. Similar to Mawson Lakes the reclaimed effluent and stormwater would be mixed to provide the secondary non potable water supply.

SA Water have indicated that the existing water supply network in the area is only capable of supplying a further 600 homes on the basis of traditional water supply by SA Water, whereby all of the water needs are provided through potable supply. This is on a first in first served basis, and could potentially be taken up by other developments. One of the problems with the proposal for the on site collection and treatment of wastewater to offset potable water infrastructure requirements, is the fact that the effluent availability only comes onstream later in the development as the houses are built and occupied. As a result, the sizing of the water supply infrastructure tends to be governed by supplying full potable water to each dwelling.

In order to offset this problem, the ability to construct a Wastewater Treatment Plant (WWTP) earlier in the project, and sewer mine from the existing Gawler Township sewer pipes has been discussed with SA Water. The aim is to have treated reclaimed effluent available for use in the second pipe system at the start of the development to help offset potable water infrastructure and augmentation requirements. As the development proceeded, the quantities of water being mined from the Gawler township could be reduced or subject to commercial viability maintained in part should other users outside of the development site have a need for reclaimed water.

SA Water have indicated that they are willing to accept the sewer mining concept, on the basis that solids are also mined and processed, and not just the effluent. In establishing a WWTP for the development, it will need to be capable of treating the solids as opposed to an effluent only plant, hence this is considered to be a more desirable option and in accord with SA Water’s preference.

If a WWTP capable of sewer mining from the township could be brought online very early in the development, it is considered feasible that the number of homes that could be supplied from the existing potable network could be increased from 600 homes to say 2000 homes.

To provide potable water, SA Water have indicated that as a minimum the following is required:

- *Due to the varying elevations across the site, a number of pressure zones would need to be created*
- *A booster station(s) would be needed to supply properties above EL 130m AHD*
- *Augmentation works downstream of the Barossa Water Filtration Plant are required to provide suitable capacity to serve the area.*

SA Water is still investigating the full impacts of the project on the scheme, but has confirmed that it will be able to supply potable water to the development.

SA Water has confirmed that potable water for the DLL development area, and expanded area, will be available from the Barossa Water Treatment Plant, but will be subject to augmentation charges.

The DPA notes the advice that there are solutions to ensure appropriate water supply. No further policy is considered necessary with the provision of infrastructure such as water guided through existing planning policy. However, the incorporation of BDP Policy Modules Energy Efficiency and Natural Resources will further facilitate the innovative delivery of water infrastructure. Specific requirements and augmentation of infrastructure supply would be negotiated as part of land division applications/requirements.

3.4.3 Sewer

Wallbridge and Gilbert have considered the potential for a WWTP to be established in order to service the Area Affected, given that a significant portion of the existing Gawler Sewerage Scheme is acting at or above capacity (*Gawler East Residential Stormwater Management Strategy (October 2008)*).

A WWTP would require a site in the order of 1ha in order to accommodate the proposed infrastructure. In addition a 300 metre setback buffer would be required to satisfy minimum requirements of the EPA. Further summary of the Wallbridge and Gilbert advice (Report on Water and Wastewater Networks - October 2008) is as follows:

In order to provide for a more sustainable development and to offset the need for potable water supplies from the River Murray, an on site Wastewater Treatment Plant capable of producing effluent quality suitable for dual reticulation (irrigation and toilet flushing) is being considered for the development.

With the ultimate DLL development comprising up to 2800 dwellings, a WWTP capable of treating an equivalent of approximately 7,000 EP or 1,400 kL/day would be required.

To cater for the full development area, the WWTP would need to cater for 11,000EP. Note that the area not currently proposed for development by Delfin could be serviced by SA Water through the provision of its own sewerage system that connected to the Gawler network, which currently drains to Bolivar. SA Water have indicated that there will be sufficient capacity in the network, however, some augmentation charges will be required.

Establishment of the wastewater treatment system is likely to comprise a staged approach. Stage 1 will involve the construction of the WWTP to accept loads from sewer mining to potentially supply half the proposed amount of dwellings (1,400 dwellings) in the DLL land with reclaimed water for irrigation and toilet flushing.

Future stages will involve the construction of associated wastewater collection system for the development and upgrade of the WWTP to the required full development capacity.

A preliminary water balance has been prepared. In order to provide sufficient recycled water in a more conservative environment it is estimated that up to 50L/p/day may need to be topped up to the recycled system through harvested stormwater or additional effluent through ongoing sewer mining.

If extra quantities are sourced from sewer mining, the capacity of the WWTP will need to be increased accordingly. Other comments of note include:

- SA Water have agreed in principle that sewage can be extracted from the existing Gawler sewer scheme
- the WWTP could ultimately be designed to receive and treat wastewater for the whole of the Area Affected dependent upon negotiations with other developers and SA Water.

The need for innovative reuse of stormwater and recycled water in order to address the water balance is identified in the proposed new zones through the desired character statements.

3.5 EXISTING TRANSPORT NETWORK

The Area Affected is serviced by three major collector roads being Calton Road to the north, Gawler – One Tree Hill Road which bisects the Area Affected and Potts Road to the south.

In addition, Cheek and Sunnysdale Avenues, which intersect with Calton Road, provide access to the Lyndoch (Barossa Valley Way) Road (arterial road) for travel east and north of the Gawler town centre. Balmoral Road located to the east of the site also provides an eastern connection from the Area Affected through Kalbeeba to Williamstown and the southern Barossa Valley.

The function and nature of the existing road network surrounding the development site is identified as follows.

Calton Road is situated along the northern boundary of the development site and provides local access between Gawler and Williamstown. Calton Road provides the main link to the Gawler town centre at Murray Street for the existing Gawler East residential area.

The Gawler – One Tree Hill Road acts as an arterial road access between Gawler and the north eastern suburbs of Adelaide and caters for a large portion of traffic movements in the surrounding area. This road is identified in the existing Town of Gawler plan as a scenic route.

Potts Road to the south acts as a collector road providing access to the southern portions of the Gawler township to Adelaide Road and connecting to Main North Road for major travel south of Gawler into the northern metropolitan suburbs of Adelaide and Munno Para district activity centre.

The existing transport network (road and rail) is shown on **Figure 21**.

Initial investigations undertaken by QED Traffic Consultants (*Gawler East DPA Traffic Assessment Report (8 December 2008)*) have highlighted the following issues regarding the existing traffic network.

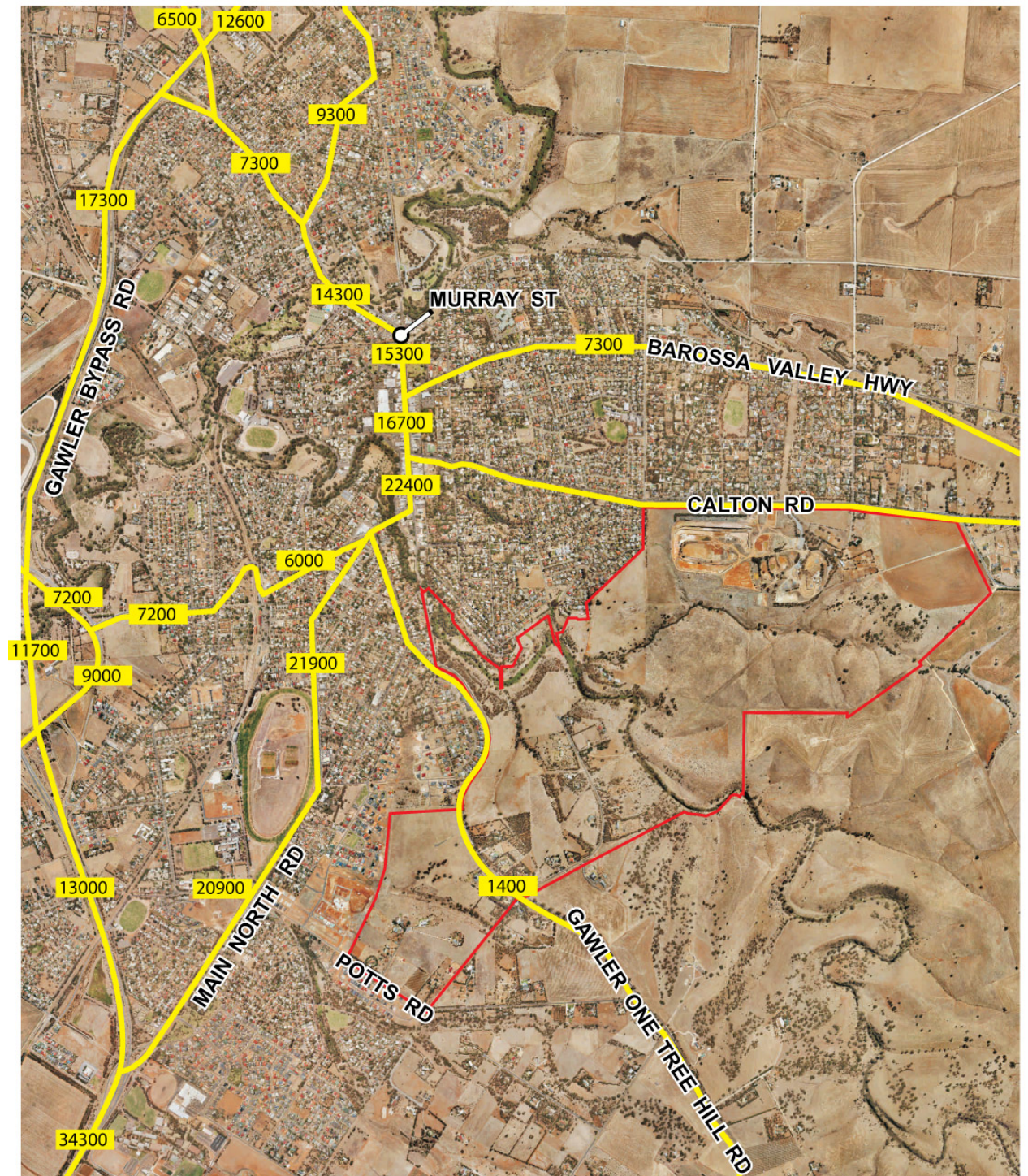
“Traffic operation on the road network in the vicinity of the proposed development is considered satisfactory with minor queues and delays on Calton Road and Barossa Valley Way during the peak periods. The road network operates with minimal delays to road users during off peak periods”.

“However along Murray Street, traffic operation is considered congested due to the volume of traffic (greater than 20,000vpd in some sections), and interaction with the adjacent land uses, including parking manoeuvres. The existing Murray Street/Calton Road junction is congested with current demands and there are significant queues on the Calton Road approach during peak periods”.

The future development of the Area Affected will have potential impacts on the existing road network and require provision of additional road-based infrastructure in the area to service the new Gawler East population.

In particular there is expected to be some improvement required of the road network within the vicinity of the Area Affected to cater for the expected traffic demands. These issues and recommended outcomes are outlined in further detail in Section 3.11.7.

Figure 21: Existing Transport Network



- Area Affected
- 1400 Annual Average Daily Traffic Estimates - 24 hour 2-way flows
(TSA Transport Information Management Section 17-08-08)



TRANSPORT NETWORK

3.6 PUBLIC TRANSPORT

The main public transport provider within Gawler is the Trans Adelaide train service between Adelaide and Gawler Central. During peak periods this service runs at 15 minute intervals with reduced frequency off-peak. It is understood that the main factor affecting use of the train is the lack of adequate parking facilities and bus feeder services. There is an after midnight service that runs from the Adelaide CBD to Gawler only on Saturday night / Sunday morning.

Other forms of 'public' transport include:

- a community bus service which is operated by the Town of Gawler
- a Dial and Ride service that operates between 9.00am and 3.00pm daily with a night service between 7.00pm and 10.00pm Monday to Friday.

There are a number of school bus services that operate on school days only. In addition, Barossa Valley Coaches operate a daily service from Angaston to Adelaide that can stop in Gawler as required.

Given the above, and in a metropolitan Adelaide context, the Area Affected has relatively poor access to public transport.

In the immediate future, no significant change is expected to the provision of public transport services. The Passenger Transport Division (PTD) has indicated that there may be only a minor expansion of existing (train) services to cater for expected additional demands. Given the advice of the PTD, extension of the Dial and Ride bus route to service the subject land would be the most viable solution. One consequence of this is the need to promote and enhance linkages to the existing rail network.

Private transport (motor vehicle and cycling) will continue to be required to access existing public transport infrastructure.

Looking ahead, policy has been proposed in the zone to ensure road infrastructure design caters for future public transport bus services through the design requirements for major road networks through the Area Affected.

Looking further ahead, there may be potential for the Adelaide to Gawler train service to be extended, given that there is already rail infrastructure extending through to the Barossa Valley. However no work has been undertaken to confirm the viability or otherwise of such an extension to the existing rail service. Similarly there is no government commitment in relation to the pursuit of such outcomes.

3.7 EXISTING ACTIVITY CENTRES NETWORK

Metropolitan Adelaide has a designated hierarchy of Activity Centres based on function, as ranked below from highest to lowest order level of centre:

- CBD
- Regional Activity Centre (e.g. Elizabeth)
- District Activity Centre (e.g. Munno Para, Gawler)
- Neighbourhood Activity Centre
- Local Activity Centre.

The population of Gawler and surrounding areas is served by a range of centres. At the highest level, the CBD provides for high order shopping, entertainment, cultural activities and specialist services and facilities. The CBD's influence over the Area Affected is expected to be relatively small, given its distance from Gawler, the typical destinations of the majority of the local workforce and the prevailing socio-demographic characteristics of the population. The CBD's influence is unlikely to grow into the future.

At the regional level, Elizabeth City Centre is the designated regional centre serving the Area Affected. It is located approximately 15 km south of the centre of the Area Affected and is directly accessible via Main North Road. Elizabeth City Centre contains nearly 70,293 m² of retail floorspace and has undergone a major refurbishment in recent times. It is well served by car parking, buses and trains.

Elizabeth City Centre will continue to exert a minor influence over the Area Affected into the future, however, it has been challenged by the expansion and floorspace mix of the Munno Para District Centre in recent years, which is some 3-4 km closer to the Area Affected.

Munno Para District Centre is located on Main North Road, with access via Main North Road, Uley Road via Gawler One Tree Hill Road. Current retail floorspace provision is around 65,000 m², following recent expansion at the centre. This represents the larger end of the range of district centres in metropolitan Adelaide.

Munno Para District Centre is notable for its strong emphasis towards bulky goods retailing and, accordingly, can expect to capture substantial levels of comparison expenditure. At the same time, it has a good cross-section of convenience shopping and will therefore also cater to the weekly grocery shopping trip to the surrounding community. However, because of its distance to Gawler (12 km), its drawing power in this market will be limited.

Gawler Town Centre is the next largest centre in the region, comprising some 50,121 m² of retail floor space but also includes substantial areas of non-retail floorspace. Currently occupied retail space is 38,539 m², with a further 12,000 m² of floorspace recently delivered via recently completed development.

Phoenix Plaza, located on the corner of Calton Road and High Street (adjacent to Murray Street), is a significant new retail centre under construction with Target as its anchor tenant, also including 18 specialty stores, office tenancies and a 300 space multi-deck carpark. This is due for completion in early 2009 and will contribute an additional 6,508m² of floorspace to the Gawler Town Centre.

Although designated as a district centre, Gawler Town Centre (Murray Street) serves a regional function both in the geographic extent of its catchment, which includes the Barossa and Lower North, and in its function, through its provision of financial services, medical services, government agencies and commercial enterprises. It is located about 2.5 km from the proposed centre of Gawler East.

A range of other smaller centres are located within the township of Gawler (and Hewett, which is in Light Council). These include the following:

- Adelaide Road, which is a largely commercial strip extension of Murray Street
- Willaston Shopping Precinct, a small historical centre which was originally established to serve the community north of the North Para River
- Cheeky Shopping Centre, Cheek Avenue, Gawler East, a local centre in closest proximity to the Gawler East site (approximately 1.5 km from the proposed centre of Gawler East)
- Hewett Shopping Centre, a very small local centre which serves the new estate of McKinlay Ridge, Hewett
- Prasads Shops, Main North Road, Evanston, a minor local centre
- Evanston Park Shopping Centre, Kreig Road, Evanston Park, a minor local centre.

A substantial new bulky goods / service trades centre has recently been completed at Main North Road, Evanston (opposite Potts Road), comprising some 11,370 m². Key tenancies are not yet known but can be expected to include a combination of brown goods, white goods, homewares and electrical appliances.

A further shopping centre proposal has been received by the Town of Gawler for the development of some 20,690 m² of floor space in the Gawler Town Centre and comprising the following:

- Supermarket 4150 m²
- Specialty shops 7500 m²
- Offices 1000 m²
- Discount Department Store 6150 m²
- Cinemas 2530 m²

Total retail floor space amounts to 17,800 m².

The development of this floor space should only be categorised as 'possible' at this stage. It still requires development approval and is subject to a range of factors that could influence the developer's intentions to proceed.

Gawler's northern catchment, includes a number of substantial towns, villages and hamlets. The most notable retail facilities are found in the Barossa, at Nuriootpa (c. 15000 m²) and Tanunda (c. 9000 m²).

Gawler's northern catchment has been identified through a range of retail studies undertaken over the years, generally associated with the development of new shopping complexes in and around Murray Street, for example, the Gawler Town Centre Strategy Plan prepared for Michael Johnson in 1988, Gawler Centres PAR commentary in 1995 and Bi-Lo Supermarket analyses of Gawler (1986), Smithfield (1983), Tanunda (1986 and 1988), Kadina (1988) and Berri (1988). These investigations have established that Gawler Town Centre's influence extends to a strong degree into the Lower North and Barossa and to a lesser degree into the Riverland and mid-north.

The range of retail facilities within close proximity to the Area Affected, are shown on **Figure 22**.

Figure 22: Existing Retail Centres



3.8 EDUCATION, COMMUNITY SERVICES AND LOCAL FACILITIES

A range of education facilities are within close proximity to the Area Affected, are shown on **Figure 23**.

In particular, the following private and public education facilities are within 1-2kms from the Area Affected.

- Gawler East Primary and Preschool Centre (public) – 503 enrolments
- Immanuel Lutheran School (private)
- Gawler High School (public) – 791 enrolments
- Trinity College R-12 (situated to the south west) (private).

Additional educational establishments are also located within the surrounding area of Hewett, Evanston South and Evanston Gardens.

In terms of broader community services, Delfin Lend Lease has produced a comprehensive document titled “Gawler East Community Development Strategy”. The purpose of the document was:

1. To report on a community needs assessment of the Town of Gawler – its infrastructure, services and programs of community engagement – to identify gaps and opportunities that may be integrated with, and become focal elements of, the Community Development Strategy for the DLL Gawler East project
2. To provide a plan for the delivery of social and community infrastructure, services and programs in collaboration and partnership with other providers and stakeholders, including government, commercial or community organisations.

The methodology adopted in preparing the report involved:

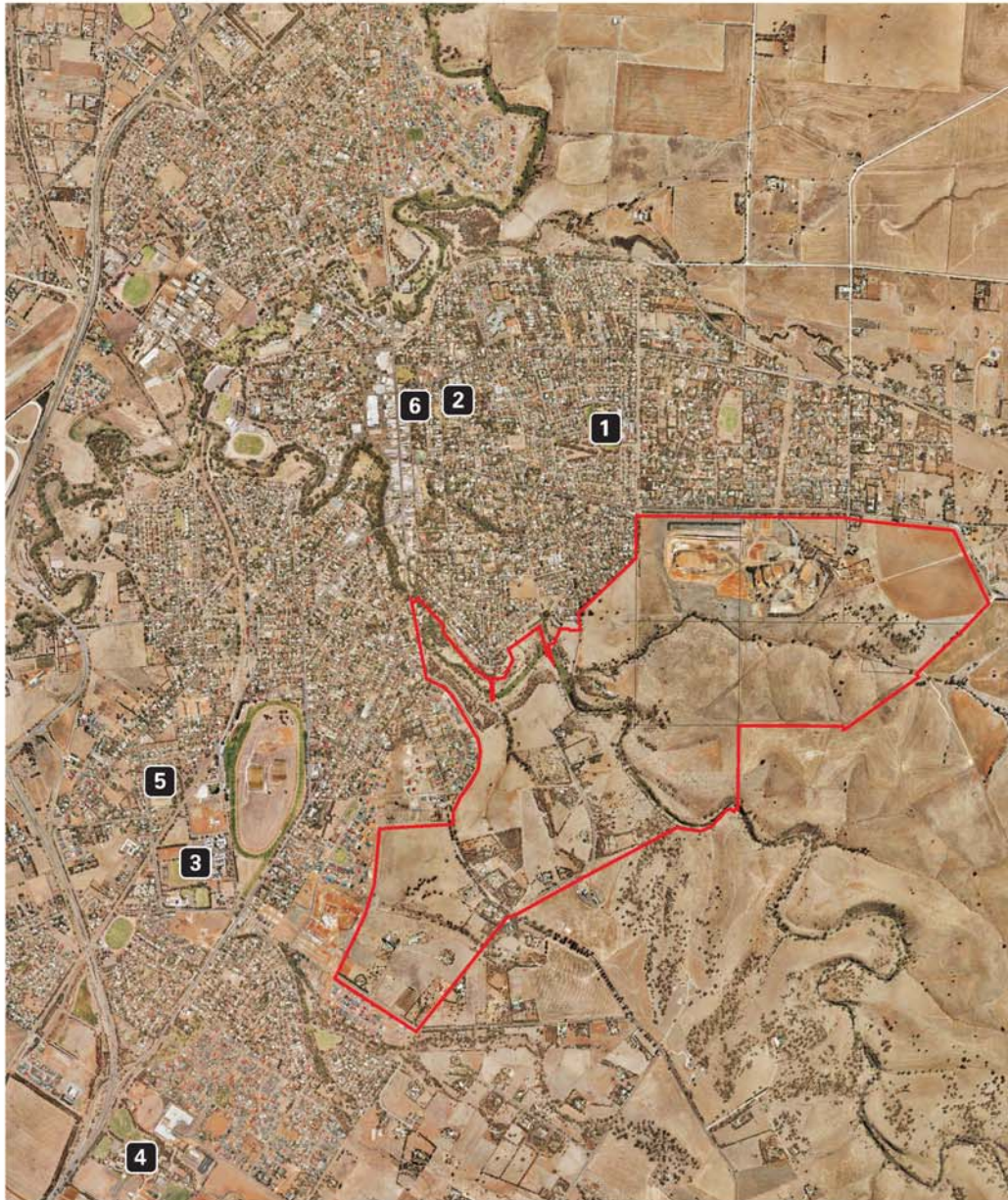
- a desk top audit of community services, programs and infrastructure – including care and education services, community facilities (parks, gardens, ovals and reserves), play areas, sporting and recreational clubs, human services, social infrastructure, cultural heritage, etc
- community consultations and focus groups to evaluate the effectiveness of service provisions and the needs and aspirations of the Town of Gawler Council and Community
- delineation of state and national trends in key community service areas and the implications for Gawler East (e.g. time poor, baby boomers).








The document establishes close links with the Town of Gawler existing strategic plans.

The comprehensive audit of existing facilities included:

- child care centres
- pre-school educational centres
- early childhood development centres
- primary education (government and non-government)
- secondary education (government and non-government)
- tertiary education
- adult community education
- other children’s services (such as toy libraries, kindergyms, after school care)
- health, medical and allied services
- aged care services
- sports facilities
- recreation and leisure clubs

Figure 23: Existing Education Establishments



-  Area Affected
-  1 Gawler East Primary & Pre-School
-  2 Immanuel Lutheran Primary School
-  3 Gawler High School
-  4 Trinity College
-  5 Evanston Primary
-  6 TAFE



EDUCATION FACILITIES
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- youth activities
- arts, culture and entertainment
- playgrounds, parks and reserves
- community groups and services
- community centres and halls.

In terms of this DPA, it is evident that there will be a significant need for additional supporting facilities such as those audited above. From a planning perspective it is important that appropriately zoned land be established to facilitate the future development of these facilities.

The clear focus of these supporting facilities should be in an activity centre type area which is proximate to the surrounding residential community that has been addressed through the size and position of the proposed Mixed Use Centre Policy Area within the Residential (Gawler East) Zone.

3.9 PUBLIC OPEN SPACE/RECREATION

The spatial distribution of public open space within 2km of the Area Affected is shown on **Figure 24**. It is evident that the majority of public open space essentially forms public land which abuts the major river systems which converge in the heart of Gawler, these being the South Para River, North Para River and Gawler River.

At a more detailed level of investigation, it is evident that the township of Gawler and surrounding areas are serviced with a range of recreation and community facilities. These have been spatially identified on **Figure 25**.

Major sporting facilities servicing the township of Gawler are generally concentrated within and adjacent to Essex Park, immediately to the west of the Gawler Town Centre. Facilities concentrated in this location include a golf course, croquet rink, lawn bowls rink, netball courts, Princes Park Oval, Gawler Recreation Centre and the Gawler Dog Track and Oval.

The majority of open space which is located within or adjacent to the Area Affected is in the form of local reserves, which are primarily used for passive recreation purposes. In particular open space adjoining the Area Affected consists of linear trails which abut the major river and creek systems of the area. These linear trails converge on the town centre of Gawler.

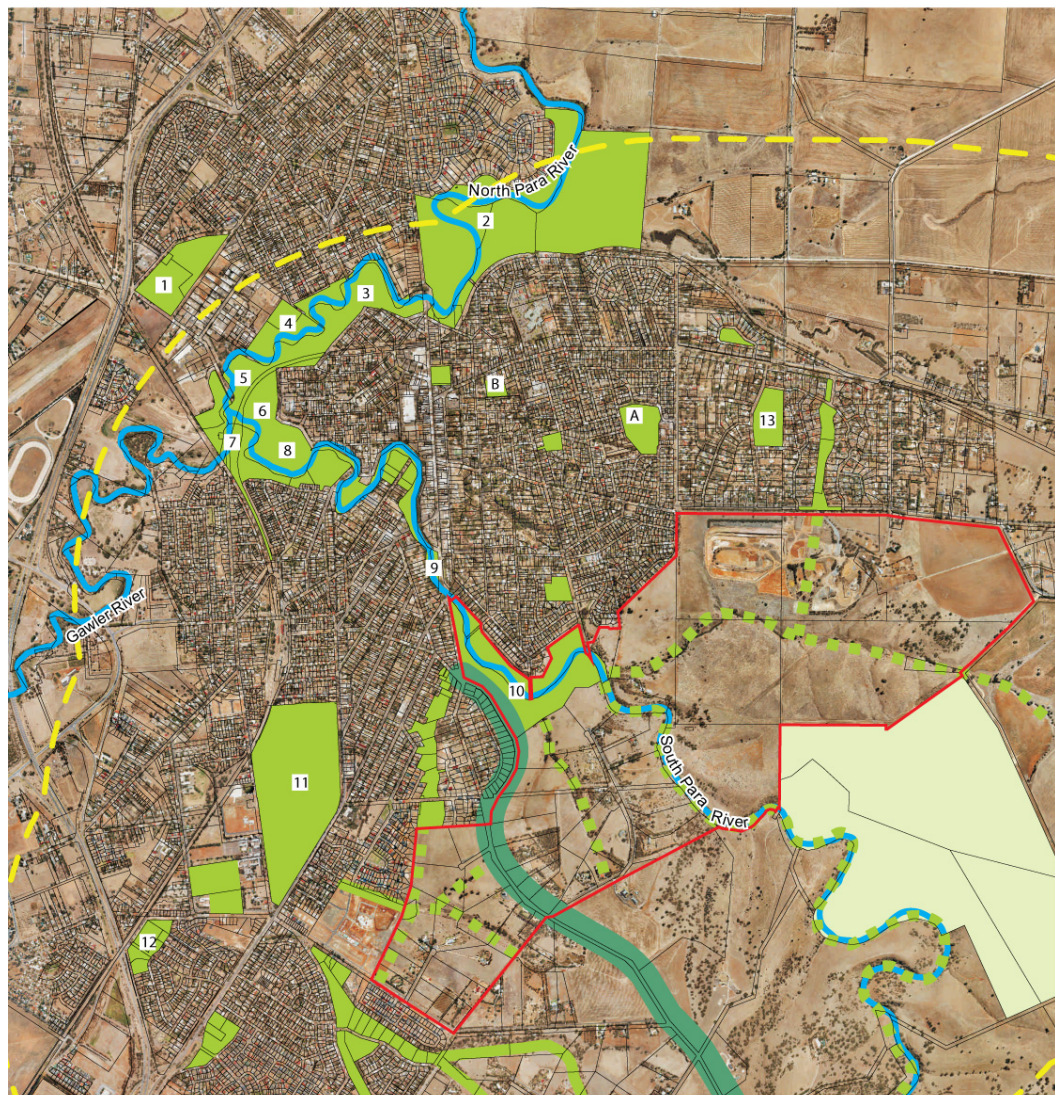
A major reserve is the Dead Mans Pass Reserve, which borders the South Para River. This reserve provides for larger areas of open space for more active recreational pursuits.

More formalised recreation areas are located within three sporting ovals, located at:

- Gawler East Primary School
- Lutheran Primary
- Hemafoord Grove Reserve.

The need to supplement recreation and community facilities is acknowledged in the DPA through the creation of a zone and policy framework that ensures the policy exists to allow such facilities to be established.

Figure 24: Identification and Spatial Distribution of Major Open Space Reserves



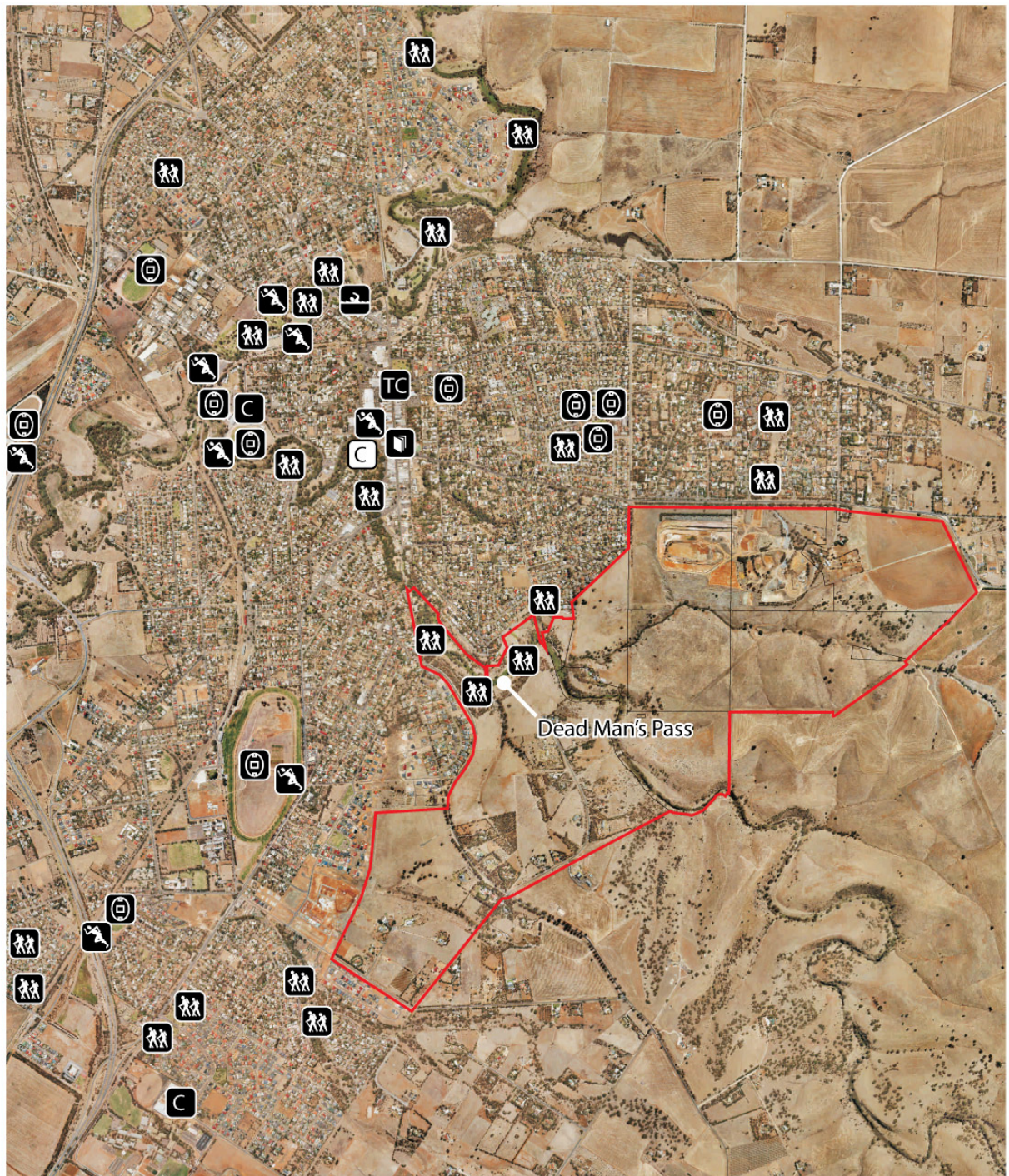
- | | | | |
|----|---------------------------------|---|---------------------------------|
| 1 | Elliot Goodger Memorial Park | A | Gawler East Primary School Oval |
| 2 | Clonlea Reserve | B | Lutheran Primary School Oval |
| 3 | Essex Park | | |
| 4 | Par 3 Golf Course | | |
| 5 | Gawler Oval & Netball Courts | | |
| 6 | Princes Park Oval | | |
| 7 | Parridla Taikondi Park | | |
| 8 | Greyhound Track | | |
| 9 | Apex Park | | |
| 10 | Dead Mans Pass Reserve | | |
| 11 | Gawler Racecourse | | |
| 12 | Eldred Riggs Recreation Reserve | | |
| 13 | Hemaform Reserve | | |

- Area Affected
- 2km distance from Area Affected
- Existing Open Space/Creek Lines
- Minister for Environment and Conservation / Nature Foundation of SA Inc
- Possible Open Space Connections
- Scenic Route
- Water course



OPEN SPACE

Figure 25: Recreation and Community Facilities



- | | | | |
|--|------------------|--|-------------------|
| | Parks | | Sporting Clubs |
| | Sporting Grounds | | Community Centres |
| | Swimming Pool | | Private Centre |
| | Library | | Town Centre |
| | Area Affected | | |



RECREATION FACILITIES

3.10 BUSHFIRE RISK / MANAGEMENT

The Area Affected is located within a bushfire risk area. Portions are assigned High, Medium or General Bushfire Risk.

The Gawler (CT) and The Barossa Council Development Plans have identical objectives and principles of development control for Bushfire Protection under Council Wide Policies. The objectives state that development should minimise the threat and impact of bushfires and be directed away from areas of high bushfire risk.

Consultation with the Country Fire Service (CFS) has determined that only a small portion of the Area Affected is high risk (typically 30 metre corridor either side of the centre line of water courses) and that this risk level can be managed as residential development occurs, water supply is augmented and appropriate access facilitated to the areas of risk.

Existing Development Plan mapping is proposed to be amended based on the assessment and recommendations of the CFS.

3.11 LAND USE ANALYSIS / STRUCTURE PLAN

3.11.1 Urban Design

The key urban design principles supported by this DPA include:

- street layout and subdivision pattern that minimises cut and fill and maximises solar orientation of dwellings
- Water Sensitive Urban Design (WSUD) and water re-use
- minimisation of use of water drawn from the River Murray
- accessibility and walkability to, from and through the future development areas
- connectivity and permeability through the development areas
- provision for mixed use developments to increase opportunities for social interaction
- community safety through adherence to Crime Prevention Through Environmental Design (CPTED) principles
- provision of opportunities for active and passive recreation
- provision of multi-use open spaces
- promotion of liveability through the development of attractive and well-used living environments
- wide range of housing choice and styles to suit all income levels and lifecycle requirements
- conserving and protecting biodiversity and remnant native vegetation
- safe, accessible network of walkable, permeable streets
- street design and parking that calms traffic and protects pedestrians and cyclists.

3.11.2 Residential

The Area Affected primarily comprises broadhectare land which is in the control of one organisation (Delfin Lend Lease) within a coordinate land parcel and which is well suited to accommodate a new master planned residential community, with strong linkages with the surrounding Gawler township and facilities.

The balance of the Area Affected is land which is more fragmented, however relatively under developed to the extent that more intensive residential development of these areas can be reasonably structured and accommodated.

The rezoning will need to incorporate policies in order to ensure future development:

- is sequenced and staged to ensure the orderly development of the land, with land development matched to infrastructure provision
- achieves best practice urban design land development and the building of new communities
- ensures adequate provision is made for all essential non-residential uses, including public open space, wetlands, employment lands, educational/community facilities and activity centres.

Master planned communities generally provide the opportunity to establish the necessary infrastructure and amenity in order to facilitate and achieve a broad range of housing diversity and increased housing density. Similar opportunities exist in this instance. In particular, the following key existing/future possible features provide specific opportunity for housing diversity and density:

- the overall concept of creating walkable communities which bring more residents in close proximity to services and recreation opportunities, which reduces the need for car usage
- the need to establish two new activity centres in order to service the new population, which would provide opportunity to support smaller household types and higher residential densities
- the overall concept of creating connected communities through road layout and open space distribution, which major open space networks supporting higher density housing within close proximity
- the overall concept of providing attractive streetscapes whilst maximizing the efficient use of land, with rear laneway development a means of facilitating both objectives, whilst also enabling the provision of alternate housing forms such as mews dwellings and orienting them to minimise cut and fill and maximise solar orientation.

The key amendments to the Development Plan in order to facilitate the above include:

- incorporation of structure plans
- formulation of a desired future character statement and associated policy which clearly outline the future design and character intent, with specific reference to urban design, land division and road layout, housing form and density
- incorporation of new provisions relating to building height, front, side and rear setback, site coverage and private open space provisions which are specifically tailored to higher density housing forms, housing on sloping sites and encouragement of new housing forms such as terrace housing and mews dwellings
- incorporation of new provisions specifically relating to the location and form of non-residential uses and dwellings with associated home based activities
- incorporation of new provisions relating to complying development and public notification categories.

3.11.3 Activity Centres

Connor Holmes has prepared a Retail Analysis – Interim Report for Delfin Lend Lease (*Gawler East Retail Analysis Final Report (July 2008)*). This report considers the retail catchment for the Gawler Town Centre and the future Gawler East population.

The establishment of catchment areas for the centres proposed to serve Gawler East will be a function of the scale and purpose the centres will serve, the facilities within the centres, the accessibility of the centres and the nature and location of competing centres.

Assuming the centres at Gawler East are sized to serve the incoming population, rather than trying to perform a wider regional function, then they are likely to operate at the local level through to larger neighbourhood level. Consequently, their drawing power will be primarily from within the new Gawler East urban area, with some trade drawn from existing areas in Gawler East and south to Evanston Park (via the proposed collector road). It can also be expected that a proportion of the rural communities to the east of Gawler will choose to divert some of their spending to Gawler East.

The Catchment Area Plan (**Figure 26**) identifies the primary and secondary catchments for Gawler East and their overlap with Gawler Town Centre's primary catchment area.

The estimated population bases of the Gawler East Primary and Secondary catchments, once fully developed, are predicted as follows. Note that it is assumed that the Gawler East project will deliver a total of 4,000 dwellings over a 10-15 year development period, comprising some 2700 dwellings in the north eastern quadrant and a further 1300 dwellings in the south western quadrant (refer Section 2.5.1). Furthermore, an additional 200 dwellings are expected as infill in the existing suburbs of Gawler East and Gawler South and some 600 dwellings in Evanston South over this development period.

Based upon the location and scale of retail facilities within and to the east of Gawler Township, it is expected that the Gawler East Neighbourhood Centre will draw weekly shopping trips for a number of households east of the Town Centre. While penetration levels achieved by Gawler East in the defined Secondary Catchment will be relatively low, some households will take advantage of the convenient access provided by a site in Gawler East relative to the congestion experienced in Gawler Town Centre.

Catchment Area	Catchment Population
Primary Catchment	11,200 persons
Secondary Catchment	17,700 persons

The Connor Holmes report also reviewed household expenditure levels in order to estimate the total retail spending capacity of each catchment. The estimates are reproduced below:

Catchment	Total Catchment Expenditure Per Annum			
	2008	2013	2018	2023
Primary Catchment	-	\$25.3M	\$95.0M	\$159.7M
Secondary Catchment	\$171.2M	\$183.4M	\$196.5M	\$209.1M

Assuming the provision of both neighbourhood and local centres within the Area Affected, Connor Holmes assumed penetration levels within the defined catchments as follows:

	Primary Catchment	Secondary Catchment
Food	50%	10%
Non-Food	20%	4%

At the turnover levels predicted to be required to underpin the successful operation of the anticipated centres, Connor Holmes have estimated total retail floorspace demand of around 28,000m² emanating from within the new Gawler East area. Of this floorspace demand, some 12,000m² would be required within the development at the local and neighbourhood level, predominantly underpinned by the spending of the incoming population to Gawler East (i.e. the primary catchment contributing more than 75% of that expenditure) and the remainder (less than 25%) contributed by the secondary catchment and passing trade.

Assuming the project commences in 2009, the floor space capable of being supported over the life of the project is anticipated as follows:

- 2013 3,700m²
- 2018 8,000m²
- 2023 12,000m²

Figure 26: Catchment Area Plan

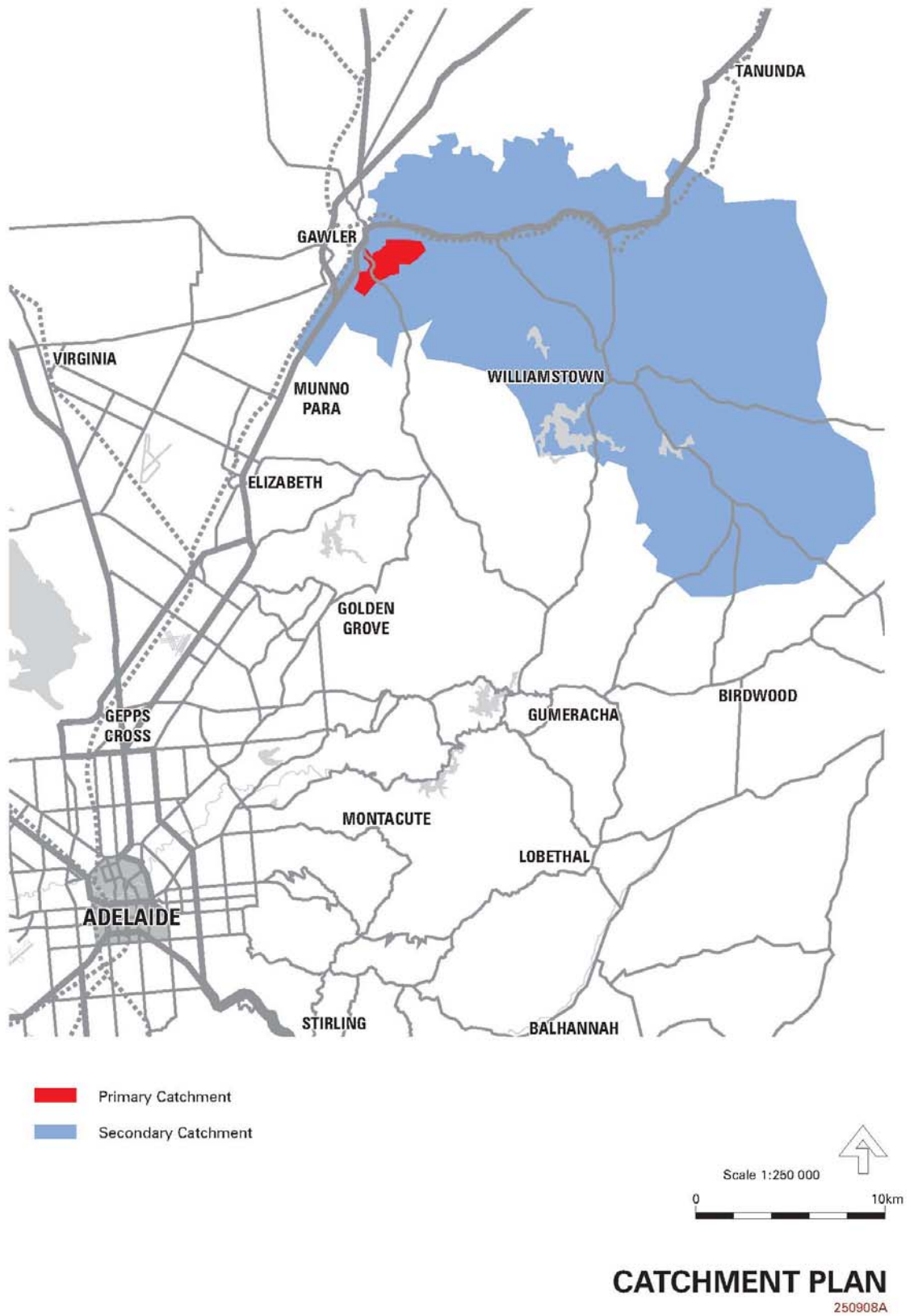
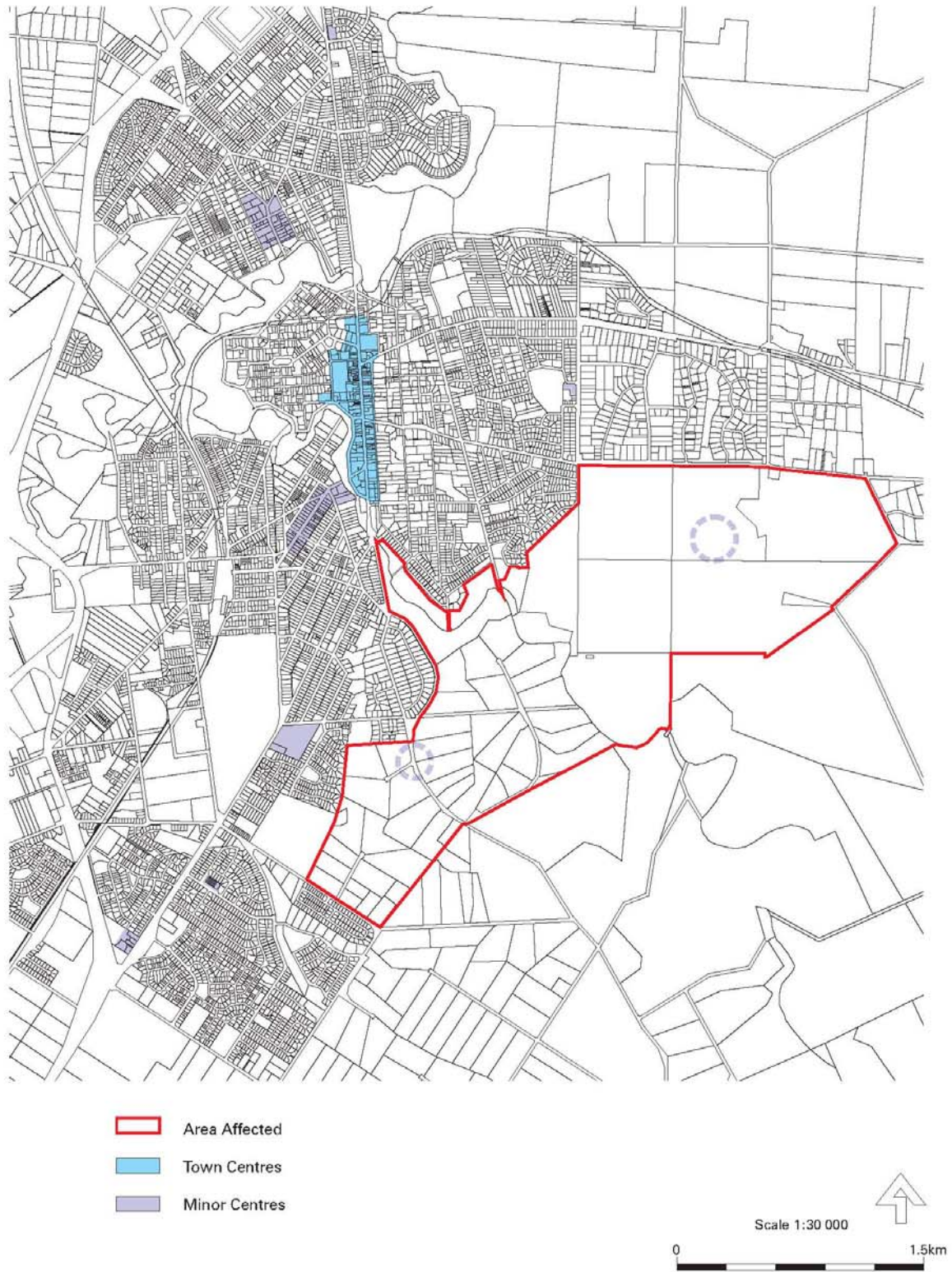


Figure 27: Centres Hierarchy



-  Area Affected
-  Town Centres
-  Minor Centres

CENTRES HIERARCHY
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Given the need to provide for an ultimate retail floorspace of some 12,000m², a distribution of floorspace within Gawler East is anticipated based upon the following:

- a large neighbourhood centre of c. 10,000m² which provides for the majority of weekly purchase requirements in a location on the proposed collector road and central to the largest population concentration
- a large local centre of c. 2,000m² which provides for convenience shopping and improves accessibility to facilities for the lesser population based at the southern end of Gawler East, probably located at the intersection of the proposed collector road and Gawler-One Tree Hill Road.

The proposed centres hierarchy for the Gawler region with proposed locations within Gawler East for the new neighbourhood and local centre is shown on **Figure 27**.

In order to establish the primacy of the neighbourhood centre, the first stage of its development should occur prior to the establishment of the local centre.

3.11.4 Employment

Connor Holmes prepared an Employment Study for Delfin Lend Lease in relation to the Area Affected (*Gawler East Employment Study (August 2008)*). Key findings of this report are quoted as follows.

Current Employment - Metropolitan Adelaide

Table 6 below indicates the number of persons who were employed within each of the metropolitan local government areas at the 2006 Census compared with the number of employed persons residing in each of these areas.

Table 6: Persons employed

LGA	Jobs	Employed Residents	Net Employment
Adelaide	98,541	7,751	+90,790
Port Adelaide Enfield	52,119	42,395	+9,724
West Torrens	38,255	24,016	+14,239
Charles Sturt	37,822	44,168	-6,346
Salisbury	37,741	52,423	-14,682
Onkaparinga	32,971	70,506	-37,535
Mitcham	23,715	30,538	-6,823
Marion	21,571	36,997	-15,426
Playford	21,000	26,307	-5,307
Norwood, Payneham and St Peters	20,936	16,287	+4,649
Tea Tree Gully	18,142	48,834	-30,692
Unley	17,537	18,553	-1,016
Burnside	14,278	20,138	-5,860
Holdfast Bay	10,760	16,001	-5,241
Campbelltown	8,209	20,854	-12,645
Gawler	5,315	8,235	-2,920
Prospect	4,784	9,962	-5,178
Walkerville	2,829	3,239	-410

Source: ABS Catalogue No. 2006.0 and ABS/Connor Holmes customised data

Current Employment - Northern Region

In terms of the northern region, it is evident that there is a significant shortfall of jobs compared with employed persons.

Current Employment - Gawler

Within the Town of Gawler most jobs are in the retail, health, education and community service fields. It is important to note that Gawler Town Centre contains a wide range of services including retail, banks, government agencies and health facilities which serve a much wider catchment than just the population of the Town of Gawler. Outside of the Town Centre, key employment locations are schools and the Willaston Industrial Estate.

Journey to work data provides an insight into the work locations of current residents of the Town of Gawler. At the 2006 Census there were 8,235 employed persons residing within the Town of Gawler. Of these, 2,336 (28%) were employed within the Town of Gawler. A further 27% were employed elsewhere within the northern metropolitan region.

Specifically, 1,187(14%) were employed within the City of Playford, 915 (11%) within the City of Salisbury and 132 (less than 2%) within the City of Tea Tree Gully. Thus a total of 55% of employed persons living in Gawler were employed in the northern metropolitan region.

Other key metropolitan work locations for Gawler residents included the City of Adelaide (6.5%) and the City of Port Adelaide Enfield (6.7%). A further 19% of Gawler's working population were employed outside the metropolitan area, including 397 (4.8%) within the adjoining Light Regional Council area.

Future Employment - Regional

It is expected that in the future key employment growth areas in the northern region will include:

- *Kingsford Regional Industrial Estate (Light Regional Council)*
- *Buckland Park (City of Playford)*
- *Greater Edinburgh Parks (Cities of Salisbury; Playford).*

Kingsford Regional Industrial Estate comprises 170ha of land in Gawler Belt which is zoned Industry (Gawler Belt). A Development Plan Amendment (DPA) has been prepared to implement a master plan for this area to ensure coordinated development of this area. There is already some development within this Estate, such as the Amcor glass plant, which is a significant employer and is continuing to expand. It is highly likely that this industrial area will expand in the future to include land between the Kingsford Estate and Main North Road and link with the Industry (Roseworthy) zone bounded by Main North Road to the West and Roseworthy Road to the north. It is further suggested that an additional light industry zone north of the Kingsford estate would be appropriate to provide a buffer to the Amcor factory. This would provide a total employment area of around 517ha. It has been calculated that industrial and commercial employment within this area could be in the order of 18,000 jobs. This area would then become the primary focus for industrial employment within the northern outer metropolitan region.

Future Employment – Gawler

Within Gawler East it is expected that future employment will include retail, education, community and commercial employment. Industrial development is not considered appropriate in this location given the close juxtaposition of existing and future residential areas and the proximity of the Kingsford Industrial Estate which provides extensive opportunities for future growth and is the focus of future industrial growth within the region.

Total retail employment within Gawler East is estimated at 420.

Total education employment is estimated at 177.

It is estimated that 20,000sqm of commercial and community floor space would be supportable within the Gawler East Town Centre, generating around 900 jobs.

Total future employment within Gawler East is estimated at around 1,500. This broadly corresponds with Core Economics employment modelling, prepared in conjunction with Delfin Lend Lease, which found that around 1,300 jobs would be generated within the 220ha Delfin contracted site.

As a consequence of the above, it is considered important that any new zoning be sufficiently flexible to accommodate a range of employment lands, as supported by the proposed mixed use centre policy.

3.11.5 Education

In planning for the establishment of new residential areas, it is important to determine the nature and capacity of existing services which may be used by the new community, particularly those at the district and regional level.

Initial investigations have highlighted potential capacities exist within current public and private education facilities within the surrounding area. In particular, private secondary schools in the area have been expanded to cater for the proposed increase in residential development.

However, considering the anticipated population increase brought about by the development of Gawler East, it is anticipated that new education services in the form of a new primary school may be required within the Area Affected. Potential also exists for an additional private primary and private secondary school subject to additional investigations.

The DPA policy supports education establishments locating within the Residential (Gawler East) Zone specifically within the Mixed Use Centre Policy Area. This is further supported by the proposed structure plan.

Preliminary discussions with the Department of Education have not confirmed Government funding for a future school and on this basis it is not considered appropriate to reserve a particular parcel of land for such purposes. Unlike Seaford Meadows and Playford North the land is not in public ownership and therefore it would not be reasonable or appropriate to reserve land.

3.11.6 Open Space/Recreation

The development of Gawler East will provide an opportunity to further expand the existing open space network in the surrounding area as well as provide opportunities for the development of additional formal recreation and community facilities for the new residents of the Area Affected.

The topography of the Area Affected as well as the continuation of the South Para River and associated creek system provides a unique opportunity to further develop the existing linear trail network throughout the new residential community.

In addition, the required infrastructure development for the Area Affected will also facilitate the revegetation of major flow paths to create urban linkages for flora and fauna, convey stormwater in a sustainable manner, integrate stormwater and landscape, improve amenity and improve water quality. All of which are important open space developments in a new residential community.

An opportunity exists for the development of more formal and active recreation areas within the northern section of the Area Affected where land is flatter. Active open space has been identified to be incorporated within a dynamic mixed use centre environment and will be ideally linked with a possible future primary school within the Area Affected. This is addressed in the DPA through the desired character statement for the new Residential (Gawler East) Zone and Mixed Use Centre Policy Area and Residential Hills Zone.

The DPA proposes the inclusion of the Open Space and Recreation Policies from the BDP be included in the Council Wide section of the Development Plan. Optimal locations for key open space and recreation are supported by the proposed structure plan.

3.11.7 Roads/Traffic

QED have undertaken an assessment of the existing road network and the impacts arising from the future development of the Area Affected (Gawler East DPA Traffic Assessment – November 2008).

For the purposes of assessment, the assumptions made concerning the future nature of the development within the Area Affected are as follows.

Phase 1 is located to the south of Calton Road and north of South Para River and includes 2,700 residential dwellings, a primary school and a neighbourhood centre.

Road access will be made to Calton Road and Balmoral Road to the north and east, and ultimately via the Gawler to Kersbrook Road to the west. It is proposed the development would be staged over a 10 year period starting in 2009.

Phase 2 is substantially located to the southwest of the South Para River and is expected to comprise 1,200 residential dwellings. Road access will be made to Potts Road, and One Tree Hill Road (Gawler to Kersbrook Road). It is proposed that this Phase of the development would be staged over a 15 year period starting in 2011/12 depending on market conditions.

A link road will be required that connects the two Phases from Calton Road in the north to Potts Road at the southern end.

QED have made the following assumptions and estimations concerning traffic generation.

Using an assumed rate of 8 trips per dwelling, it is estimated that 21,600 trips per day will be generated by Phase 1 and 9,600 trips per day by Phase 2 once both phases are fully developed.

It is understood that Phase 1 would be constructed over a 10 year time frame with beginning in 2009. Initial stages would be centred on the areas fronting Calton Road. Phase 2 of the development is expected to begin in 2011/12 and be concentrated in the area adjacent Potts Road. It is anticipated that full development of Phase 2 would be completed by 2025.

It is noted that the development of the Concordia land (within the UGB) is not expected occur prior to 2021. As a result, no consideration has been given to traffic generated from Concordia as part of this assessment. This traffic assessment has been undertaken assuming that the Link Road will end at Potts Road. No consideration has been given to redirecting the Link Road onto Bentley Road and then Tiver Road.

..without the Link Road, traffic volumes in 2014 on Calton Road just east of Cheek Avenue would vary between 14,100 to 15,800 vpd in 2014. Provision of the Link Road is expected to reduce the traffic volumes on this section of Calton Road to between 9,500 and 11,400 vpd.

At full development in 2025 daily traffic volumes on Calton Road without the Link Road could be in the order of 26,000 to 28,000 vpd. If the road link is not provided then there is expected to be significant increases in traffic on Barossa Valley Way, Murray Street and Adelaide Road north of Potts Road. The provision of the Link Road is expected to reduce the daily traffic volume on Calton Road to between 12,900 and 15,600 vpd.

On the remaining major roads the following increases in traffic and total volumes (shown in brackets) are expected at full development in 2025

- *2,000 to 4,500 (6,300 to 17,000) vpd on Barossa Valley Way*
- *1,000 to 1,500 vpd (4,500) on Balmoral Road (note if the Balmoral/Kalbeeba Road link is provided then the increase would be in the order of 4,000 to 4,500 vpd)*

- 5,900 (6,300) vpd on Sunnydale Avenue (note if the Balmoral/Kalbeeba Road link is provided then the increase would be in the order of 3,000 vpd)
- 4,200 (6,500) on Cheek Avenue
- 1,500 to 4,500 (20,400 to 29,700) vpd on Murray Street
- 12,700 (31,100) vpd on Adelaide Road south of Potts Road
- 4,200 (5,700) vpd on Gawler to Kersbrook Road/Seventh Street
- 11,900 (14,300) vpd on Potts Road.

If the Link Road is not extended to Potts Road (beyond 2014 / 2017) then there is expected to be traffic distributed from the Gawler to Kersbrook Road to Potts Road for long distance movements (outside of Gawler) and to a number of local streets that connect to Adelaide Road including First, Second, Fifth, and Hill Streets for short trips.

Traffic volumes at full development (2025) on the main roads within the proposed development are indicated below:

- 11,200 vpd on the Link Road north of Potts Road
- 17,300 vpd on the Link Road east of the Gawler to Kersbrook Road
- 16,700 vpd on the section just west of the connection to Calton Road
- 17,300 vpd adjacent to the neighbourhood centre
- 12,300 vpd on the Link Road south of Calton Road.

QED have determined that upgrades of several roads and intersections external to the Area Affected will be required. Those upgrades are fully documented in the Traffic Assessment.

Key traffic management measures considered relevant to the DPA process are shown on the relevant structure plan. Also to be identified is the preferred general alignment and in particular connection points of the collector road with the existing road network.

3.12 KEY AREAS

For structure planning purposes it is important to define any distinctive development areas or nodes within the Area Affected. They may not necessarily require a separate zone for each area or node, with options available in terms of the creation of policy areas or precincts. The general preference is to provide a structured development framework without unduly constraining flexibility. The policy framework should therefore encourage flexibility and foster innovation rather than seek to rigidly limit activities to strictly defined areas.

Given this a proposed Mixed Use Centre Policy Area within the Residential (Gawler East) Zone is proposed. Importantly, the areas to be contained within the intended mixed use area are presently controlled by the one owner/developer thereby enabling a coordinated masterplanning process to occur.

The distinct areas/nodes likely to arise from the development of the Area Affected are as follows:

- the primary residential area
- a mixed use/activity centre which accommodates the supporting activities such as commercial, retail, community, education, active formal recreation and employment uses
- the linear open space network, taking into account water courses, topographically steep land and other potential biodiversity corridors. The open space network can link with the MOSS network, other recreation and open space land and areas of important vegetation
- a local centre, providing a limited range of supporting activities.

The broad intent of each precinct is described as follows.

3.12.1 Residential Area

The majority of the Area Affected is considered to be suitable for low to medium density residential development where detached dwellings on individual sites will predominate. All forms of dwelling should remain permissible and medium to high density housing is specifically encouraged within the Mixed Use Centre Policy Area and Local Centre Policy Area of the Residential (Gawler East) Zone.

Limited non residential land uses should be accommodated outside of these designated policy areas encouraged where required. Non residential permissible uses include:

- child care facility
- community facility
- education facility
- home activity when associated with a dwelling.

Development should generally be setback a minimum of 3 to 5 m from front boundaries. Greater setbacks are anticipated on topographically steep sites in order to satisfactorily deal with earthworks and driveway gradients. With lots anticipated to be larger on areas of slope and higher densities within the areas with < 1:4 slopes.

Most dwelling types should include side setbacks but the policy should permit zero lot line setbacks to one side boundary in all instances.

3.12.2 Mixed Use Centre

The Mixed Use Centre should accommodate the principal collection of retail, commercial, community, education, employment and formal recreation facilities proposed to serve Gawler East. In terms of spatial location the Mixed Use Centre should be established in an area where:

- relatively high vehicle movements are envisaged in order to support the commercial viability of the centre

- access is maximised from the surrounding community through a location able to be connected to a collection of pedestrian and cyclist networks
- where the topography is relatively flat and/or in need of remediation and therefore more readily able to accommodate larger building footprints
- adjacent to key amenity areas such as watercourses and tracts of native vegetation to assist in the creation of a destination.

Based on the above, it is considered the Mixed Use Centre Policy Area should be established north of the alignment of the major east-west tributary which bisects the Area Affected. The centre should also have strong linkages and connections to both Calton Road and the future collector road.

The following uses should be specifically encouraged in the Mixed Use Centre:

- affordable housing
- child care facility
- community facility
- consulting room
- detached dwelling
- education establishment
- hotel
- office
- public open space
- residential flat building
- restaurant/ café
- row dwelling
- semi-detached dwelling
- serviced apartment
- shop
- supported accommodation
- tourist accommodation.

Low impact business activities that have minimal off-site impacts with respect to noise, air, water and waste emissions, commercial traffic generation and movement and which do not have a detrimental impact on the amenity of properties in residential or similar environmentally sensitive zones might also be appropriate for employment generation purposes and to provide relevant services to residents.

An ultimate retail floorspace provision of around 10,000 m² is envisaged within the Mixed Use Centre. This floor space provides a guide as to the scale of intended retail development. This can be reinforced by a requirement that a supermarket be the largest floorplate permissible within the centre. Floorspace flexibility is desirable to encourage the small scaled ancillary retail / commercial / residential development, such as that successfully established within the mixed use precinct at Mawson Lakes, without the consequence of detracting from the floorspace potential of the main centre.

Accordingly, the Mixed Use Centre will be supermarket led and will include a range of specialty shopping, such as liquor and / or hardware outlets. Comparison shopping should be limited, with the centre serving the weekly shopping trip and emergency purchases. It should provide some café, restaurant and take away food outlets.

The supermarket is likely to be in the range of 3000m² – 4500m², i.e. it is assumed that it provides a full range of product choices and competes favourably with the existing supermarkets in the region. This presumes a commercially acceptable operator is chosen, that they compete favourably on price and that they successfully market and manage the facility.

The Mixed Use Centre should seek to deliver a number of design priorities including:

- a main street environment, where buildings address the street and car parks are to the rear or otherwise limited in their visual prominence
- a central pedestrian plaza, village green or series of nodes that act as focal points for the development and a gathering point for community events
- encouragement of a diverse range of residential development including both detached dwellings and medium density and affordable housing within and over buildings that may contain a commercial or retail component
- creation of a fine grain of building form via the juxtapositioning of individual developments or by the horizontal and vertical definition of blank elevations of larger developments and focus on verandahs and other protruding elements over the street
- reliance on public spaces, street plantings and the riverine environment to establish the landscape theme of the area.

In terms of planning policy framework, the Mixed Use Centre can be facilitated through the creation of a Mixed Use Centre Policy Area, which can be included as part of the Residential (Gawler East) Zone. The desired character statement for the Policy Area details the design priorities sought.

3.12.3 Linear Open Space Network

The Area Affected encompasses Council reserve commonly known as Dead Mans Pass. This is a topographically steep and highly vegetated area located in the north western portion of the Area Affected. It encompasses the South Para River and has a limited number of formed walking trails. This land is contained within the Special Uses Zone.



Dead Mans Pass



In addition to the above, the Area Affected enjoys a river system and associated tributaries which are a significant natural asset. Of particular relevance is the corridor for the South Para River. Much of this corridor is topographically steep and not developable.

The assets of the riverine environment should be protected and enhanced. It is envisaged that these areas will be predominantly landscaped open spaces accommodating informal and passive recreation, pedestrian and cycle paths (where topography allows), revegetation areas, riverine environments and wetland storage and detention areas. Ancillary office, retail and interpretive facilities are also encouraged in order to provide some basic level of infrastructure to further the enjoyment of the natural asset.

The linear park system may include built form where it pertains to the delivery of one of the primary functions of the park system, e.g. recreation or stormwater facilities.

A preferred approach to achieve this policy outcome is to identify an appropriate corridor to allow the extension of the land currently identified and protected through the existing Special Use Zone further up stream.

Having regard to the contour of the land, the location of existing vegetation, the location of existing dwellings and the findings of the KBR Ecological Survey it is considered that the zone boundary should be based on the existing 1 in 4 contour line, which fluctuates markedly from the centre line of the South Para River.

In terms of Development Plan policy, the application of the Open Space Zone from the BDP Policy Library is considered to be an appropriate outcome. The application of this zone should also include that portion of the Special Uses Zone located within the Area Affected.

3.12.4 Local Centre

The Local Centre is envisaged as a centre providing daily and emergency purchase opportunities for the population at the southern end of the Study Area which is somewhat more remote from the Mixed Use Centre.

The composition of the Local Centre could be expected to include a supermarket of 1000 – 1500m² and a selection from the following:

- supermarket (limited-line)
- specialty shop (food)
- office
- personal service establishment.

The Local Centre should permit affordable housing and higher residential housing as part of a mixed use environment.

In terms of spatial location the Local Centre should be located in an area which has good exposure to passing traffic. The intersection of the Gawler-One Tree Hill Road and Kelly Court is considered to be an appropriate location that will be accessible to the surrounding community, and is sufficiently removed from any competing centre and located within a relatively flat section of the site.

In terms of planning policy framework it is envisaged that the Local Centre can form a Policy Area within the Residential (Gawler East) Zone.

The Policy Area will accommodate a range of non-residential uses as referred to above, but as importantly will accommodate higher density housing. This is consistent with the principle of Activity Centres as referred to in the Planning Strategy. Given the favourable topography of the Kelly Court location, a Policy Area in the order of 3 hectares is nominated to accommodate the desired range of non-residential uses, with the balance of the policy area developed for higher density housing. The size of the Policy Area is also relatively large as it will provide a flexible approach to the siting of the non-residential uses (i.e. either to the north or south of Kelly Court). The proposed boundary is removed from the existing urban area so to minimise potential interface issues.

4. POLICY CONSIDERATIONS AND RECOMMENDED POLICY CHANGES

4.1 LAND USE

The majority of the Area Affected is broad hectare land which has the benefit of being relatively unencumbered and therefore capable of being guided by detailed structure/ master planning. The majority of the broad hectare land is considered suitable for residential development as it:

- forms a contiguous extension of established residential areas
- satisfies the policy expectations of the Planning Strategy and Metropolitan Development Program
- is already serviced/capable of being economically serviced by existing infrastructure.

The exception to the principal use of the Area Affected for residential development, are several locations which have been identified as necessary/suitable for:

- stormwater detention/treatment re-use
- a Mixed Use Centre
- a Local Centre
- open space areas.

Appropriate areas for these activities have been identified and are to be reflected by the proposed zones and structure plan.

The actual amendments to the Development Plan are outlined in the amendment instructions table and associated attachments. The following section addresses some of the key components of the policy framework and the rationale behind the proposed changes.

Overall, it is anticipated that the focus of the DPA will be to:

- establish a new structure plan for inclusion within both the Gawler and Barossa Development Plans
- establish policy which supports the key outcomes outlined in these investigations in terms of land use, access, movement, open space distribution, stormwater management and interfaces
- provide for development within the Area Affected to depart from some of the existing Council-wide land division and residential development provisions of the Development Plan in order to facilitate appropriate development outcomes, as the existing policies are either absent or deficient in relation to:
 - innovative and higher density land products/allotment types, with greater flexibility required/desired in relation to allotment area and configuration, building setbacks and private open space
 - spatial distribution of land use, including higher density residential development
 - non-residential uses within residential areas.

The DPA includes policies from the Natural Resources section of the BDP Policy library to be inserted into the Council Wide Policies of the Gawler Development Plan. The general stormwater management policies contained within this module are considered sufficiently detailed when applied in conjunction with the structure plan for the area.

4.2 HOUSING DIVERSITY

Desired Outcome

The preceding investigations have determined the desire to encourage an increased diversity of housing forms throughout the Area Affected, in order to provide additional housing choice, to provide additional means to achieve affordable housing and to better match housing stock with household size and type.

Policy Issue

While the current Gawler and Barossa Development Plans to an extent contain a range of policies that promote housing diversity, and more particularly a range of dwelling densities, there is very little policy guidance in relation to more intensive forms of housing.

Policy Response

It is proposed to establish a flexible zone outcome for the land which is under contract by Delfin Lend Lease and the land which is owned by the Commissioner of Highways. It is within this zone that a full range of dwelling types can be accommodated. The zone policies will not stipulate maximum site coverage or minimum site areas and will enable less than traditional private open space and building setback outcomes. A more detailed level of planning control can occur via design guidelines which can be prepared and administered by Delfin Lend Lease over development within this area. This approach promotes innovation and best practice. The structure plan and desired character statement for the zone establish the core intended outcomes against which proposals will be assessed.

A zone with additional clarifications for the land parcels to the south west of the Area Affected with multiple land owners will provide an additional layer of control where the ability to deliver controls through design guidelines privately administered is less.

In order to achieve housing diversity, amendments are also considered necessary in relation to residential based policies in both Development Plans applying to site coverage, building setbacks and private open space (refer other sections of Section 4).

4.3 HOUSING DENSITY

Desired Outcome

The broad hectare areas of the Area Affected, in the main have only minimal interface with established residential areas, and therefore have no particular built form character to which it should conform. This provides significant opportunity to achieve a range of dwelling densities and forms, and flexibility in design outcome, albeit design constraints do apply in areas directly adjacent to existing collector roads, existing or future primary production activities and in topographically steep locations.

Policy Issue/Considerations

Policy which dictates minimum allotment or areas is not considered necessary within a broad hectare environment, particularly in respect to the land which is under contract to Delfin Lend Lease and the land which is owned by the Commissioner of Highways.

As mentioned a flexible and innovative planning framework is proposed over the section, which can operate in conjunction with the design guidelines to be established over that land.

The market will determine an appropriate mix and size of dwellings, whilst character and amenity issues are best dealt with by the qualitative siting and design residential development provisions of the Development Plan (including desired character statement), rather than quantified site area requirements.

One major impediment to attaining higher density housing outcomes is existing maximum site coverage policies which tend to be tailored for more traditional, low density housing outcomes. Site coverage is in many respects considered to be a redundant and unnecessary planning policy tool particularly when applied to broad hectare development circumstances. This is due to the fact that private open space and setback policies already establish 'building envelopes' with site coverage serving no additional purpose.

Policy Response

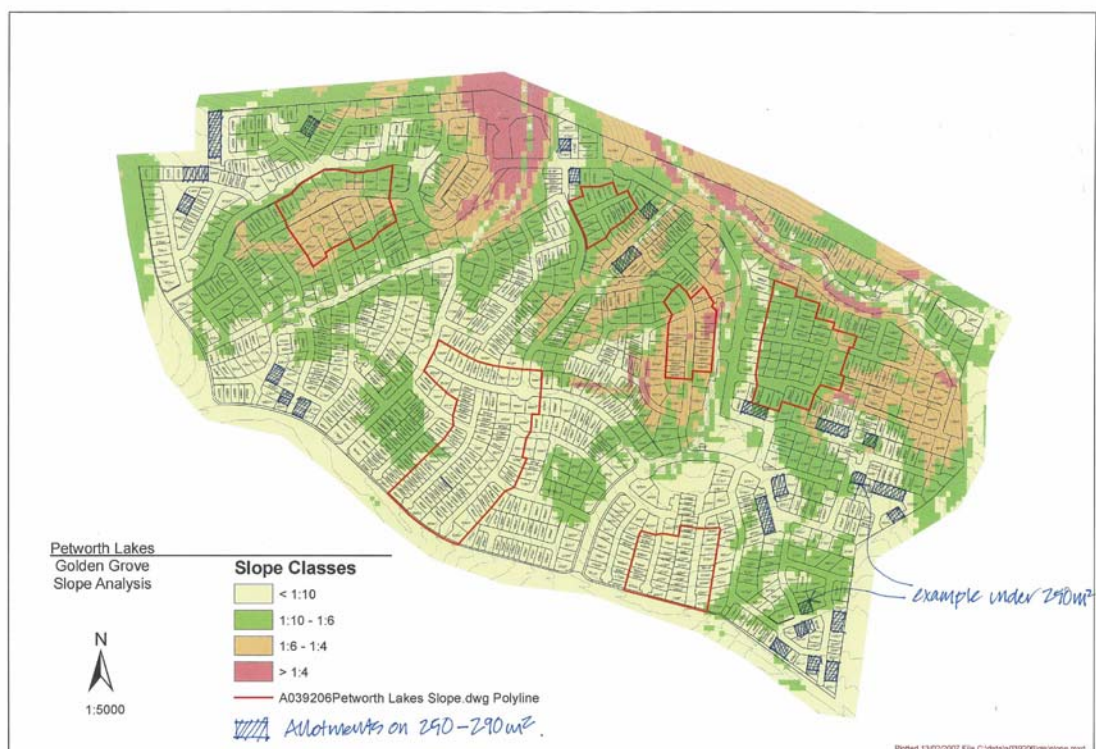
The following policy response is recommended:

- the proposed new Residential (Gawler East) Zone (applicable to the land which is under contract of Delfin Lend Lease and the land which is owned by the Commissioner of Highways) should not contain minimum allotment sizes or site areas
- the balance of the land (to be included in the Residential Hills Zone) should adopt a more traditional approach to allotments areas
- the 'Sloping Land' policies from the BDP module be incorporated into the Council-wide section of the Gawler Development Plan.

In relation to the Residential Hills Zone a minimum site area of 250m² is proposed for all dwellings other than row dwellings. This area is considered to be a minimum and needs to be considered in conjunction with other policies concerning minimisation of earthworks and the like. It may be that only a limited proportion of allotments within the zone achieve the minimum and this will largely depend on specific site and slope analysis. The minimum area does however provide opportunity for the market to deliver appropriate housing product on the steeper sites.

The image below shows one example of the town cottage product, established approximately 15 years ago in Golden Grove. This product is sited on an allotment of approximately 267m². There are some sited on slightly smaller lots and some on slightly larger lots. Allotment sizes between 300m² and 400m² are also common in the example.

The slopes across the example vary and are generally consistent to those in the proposed Residential Hills Zone. This highlights that a minimum lot size of 250m² delivers an appropriate and proven housing product across land similar to that in the proposed Residential Hills Zone.



4.4 RESIDENTIAL BUILDING SETBACKS

Desired Outcome

A key desired outcome is to increase opportunities for housing diversity and density and to make the most economic use of available land.

A further key urban design outcome is to develop a sense of community by increasing opportunities for interaction between semi-private areas (i.e. front porches) and public areas (i.e. the footpath or street). Minimal building setbacks to the front street boundary assist in enhancing this relationship.

Similarly, smaller allotment sizes generally means that traditional approaches to side and rear boundary setbacks need to be reconsidered. Greenfield communities provide the opportunity to establish new benchmarks as compared to infill development which needs to grapple with interface issues and integration with existing character.

Compact housing forms more commonly result in the establishment of walls on side boundaries. This should be accommodated particularly as other policy exists to ensure adequate access to sunlight to dwellings and private open space, protection of privacy and other amenity measures.

Policy Issue

Barossa

The Council-wide provisions contain relatively detailed setback controls as summarised below.

Primary street frontage:	8m (minimum)
Secondary street frontage:	2.5m
Side Boundary (single storey):	1m or on boundary if abutting existing or simultaneously constructed
Side Boundary (two storey):	2m or on boundary
Rear Boundary (single storey):	6m with an incursion to 3m
Rear Boundary (two storey):	8m

In addition, the location and length of boundary walls are controlled.

Gawler

The Council-wide provisions contain relatively detailed setback controls as summarised below.

Primary street frontage:	3-5.5m (based on estimated traffic volumes)
Secondary street frontage:	0-2m
Side Boundary (single storey):	1m or on boundary if abutting existing or simultaneously constructed
Side Boundary (two storey):	2m
Rear Boundary (single storey):	3m or on boundary if abutting a lane
Rear Boundary (two storey):	8m

In addition, the location and length of boundary walls are controlled.

These setback policies are appropriate for standard housing products, however are not suitable for:

- allotments with a 27m depth or less when required to deliver innovative housing product
- narrow fronted product where one and two storey dwellings are constructed boundary to boundary, typically for a length of 17 metres or more
- rear laneway allotments where garages and possibly mews dwellings (above garages) would be constructed on or close to the rear lane boundary
- apartment style living (residential flat buildings)

- affordable housing outcomes (typically located on reduced allotment areas).

Policy Response

Within the Residential (Gawler East) Zone, variations to the existing setback provisions are considered desirable in order to facilitate diversity in housing forms and innovation in design, including the delivery of affordable housing. As much of the broad hectare areas have very little interface with established residential areas (generally separated by major roads), there is no particular built form character that needs to be maintained through setback controls, with the future new development able to establish its own character.

Minimum front boundary setbacks of 1.5 m (sites with vehicle access from rear) to 3 metres (vehicle access to front) are generally considered appropriate for all but the existing collector and arterial roads that border the site where existing properties create a built form character. Where the allotment fronts a public reserve and is serviced by a rear access lane, a minimum 1.5m setback is considered appropriate to that reserve frontage.

No minimum setback to rear lanes is considered appropriate given lanes are not highly trafficked areas and promotion of a built address to the lane is critical to deliver passive surveillance and urban design outcomes within the laneway.

A minimum single storey setback distance of 0.9m to the rear boundary is considered appropriate on sites with minimal gradient where rear boundaries do not abut a lane. Rear setback distances need to be applied in conjunction with other relevant design criteria in particular the provision of private open space. In most instances a courtyard open space area will be established adjacent to the rear boundary, and as such will in most instances result in only portion of a dwelling being sited to within 3.0m of the rear boundary. Dependent on orientation, the private open space may be better positioned to the side of the dwelling a minimum setback of 0.9 metres to the rear boundary will ensure flexibility to deliver best practice solar access requirements while ensuring economic use of land.

Within the Residential Hills Zone, a slight variation to those setbacks recommended for the Residential (Gawler East) Zone is proposed. Typically setbacks will be more substantive, ensuring greater space around buildings and a lower density appearance and character having regard to the topography and existing character within this precinct.

In addition, the side boundary setback policies introduced as part of the Playford North DPA (City of Playford) will be introduced within the Residential Hills Zone whereby setbacks were established depending on allotment orientation and frontage. These setbacks were designed to ensure appropriate solar access to adjacent dwellings.

Proposed new policy is required to amend existing Barossa Council-wide Principles 80-84, and Table Baro/3 and Gawler Council-wide Principles 140, 142 and 143 as they apply to the Area Affected. The new policy can be contained in the new zones so that there is no impact on existing policy outside of the Area Affected.

In addition, further policy is required to facilitate the construction of walls on side boundaries in circumstances where dwellings are not constructed simultaneously, or there is no existing boundary wall.

4.5 BUILDING HEIGHT

Desired Outcome

In order to achieve the most economic use of land a greater proportion of two storey dwellings is envisioned across the Area Affected. In addition to assist in establishing a sense of place, it is desirable to encourage three storey development in certain locations, such as interface with open space, at the end of key vistas and on corner sites. In addition, building height within mixed use areas is important in terms of both the mixed use function and to create/establish a sense of destination.

Policy Issue

Currently, residential buildings up to two storeys in height are envisaged but are not actively promoted. Both the Gawler and Barossa Development Plans contain policy (Council-wide Principles 132 and 144 respectively) which directs that building height should be compatible with the scale of adjoining development, rather than encouraging building form which is set by a desired character. By not painting a desired character, development will be responsive to current circumstances/past outcomes and will not be driven to achieve a future outcome.

Policy Response

The proposed policy response allows a range of building heights up to three storeys in both new Residential Zones. Taller buildings are envisaged in key locations within the Residential (Gawler East) Zone adjacent to public open space and nodes of activity, such as within the Mixed Use area up to 5 storey and within the Local Centre area up to 3 storey and where the building height is required to maximise built form opportunities with the slope through innovative housing solutions.

4.6 SITE COVERAGE

Policy Issue

Existing Council-wide provisions include maximum site coverage for residential development. Site coverage requirements are a major impediment to the intensification of development and the encouragement of innovative and affordable housing. The policy serves little purpose when other policy tools including setback and private open space provisions already control the area and location of dwellings.

Policy Response

Introduce a revised setback table within the Residential Hill Zone to guide appropriate lot sizes within this zone related to the different character proposed.

4.7 PRIVATE OPEN SPACE

Desired Outcome

To achieve higher levels of housing density and a greater diversity in housing forms, a reduction in private open space is warranted. This is particularly relevant for master planned communities that are/will be provided with functional areas of public open space delivered in a fully planned and timely manner as part of the residential development. The housing market is evolving in a manner resulting in larger housing on smaller allotments. A key consequence of this is a reduction in building setbacks and private open space, with many prepared to trade off external space for internal space.

Much of this trade-off has arisen due to the evolving nature of households and lifestyle choices. Well established trends across metropolitan Adelaide include:

- declining occupancy rates, with an average occupancy rate for metropolitan Adelaide in at the 2006 Census estimated to be 2.4 persons per household
- an overall decline in the traditional 'couple with children' household
- an overall increase in lone person or single parent and child households.

These factors result in many households being satisfied with or preferring smaller garden areas and their benefits of limited maintenance.

In addition to changing household trends, housing affordability has emerged and grown in significance as a major issue facing society. There is much evidence to suggest that in relation to greenfield development the increasing costs of delivering house and land product is primarily as a consequence of increased land cost.

The actual cost of constructing dwellings has remained relatively stable. With this in mind the cheaper and therefore smaller allotments are highly sought after resulting in the scenario of larger houses on smaller allotments.

Providing necessary assurances are in place that a diversity of functional and amenable public open space is to be provided within walking distance of all dwellings (i.e. via desired character statement), there should be no need to mandate private open space to be any greater than a larger courtyard of approximately 25 square metres. If the market desires more private open space then individual housing development will be designed accordingly.

Policy Issue

Barossa

The existing provisions relating to private open space requirements are more geared towards relatively low density development. The provision of 25 square metres per bedroom (Design Technique 151.1) equates to 75 square metres for a typical 3 bedroom dwelling. This is considered onerous, impractical and unnecessary in the circumstances of allotments 300 square metres or less which are located within walking distance (i.e. 250 metres) of usable public open space.

Gawler

Like Barossa, the existing provisions relating to private open space are geared towards low density development. Although providing more recognition to smaller allotments than the Barossa provisions, the minimum private open space areas are considered excessive and inappropriate to accommodate a full range of dwelling densities and products, within a master planned community.

Policy Response

It is recommended that private open space provisions applicable to the Residential (Gawler East) Zone be drafted to bring them more in line with the policies developed in locations such as Northgate and Playford North, which are less than the areas and dimensions referred to in the relevant BDP template. In the case of smaller allotments (typically less than 250 square metres) a minimum area (typically 35 square metres) is considered appropriate, with part of this area encourage to be provided through upper floor balconies and roof top decks to promote surveillance over public open spaces and street networks. Further reductions in private open space areas is considered appropriate and necessary to enable the delivery of affordable housing.

The need to provide public open space of an appropriate distribution and form is reinforced through the desired future character statements for both the Residential Hills Zone and the Residential (Gawler East) Zone.

4.8 OPEN SPACE / LINEAR TRAILS

Desired Outcome

The South Para River together with several natural watercourses and several clusters of significant vegetation are dispersed through the Area Affected. These areas have the potential to significantly enhance the amenity of the area and also have the potential to establish/reinforce biodiversity corridors and/or recreation trails, providing linkages with surrounding areas.

KBR have undertaken an Ecological Survey of the Area Affected. Whilst additional survey work will need to be undertaken outside of a drought period, flora and fauna of significance has been identified and warrants policy which to protect identified areas of importance.

Further to the above, the Area Affected is located immediately to the north of a large section of land owned by the Department of Environment and Heritage. Whilst this land is presently undeveloped in terms of an area of open space or vegetation, it is desirable to ensure appropriate linkages are facilitated to this land. This land has been identified to be developed as future Para Woodlands with the open space area once developed likely to become an open space area of regional significance.

Policy Issue

The existing Special Uses Zone encompasses primarily Council owned land which abuts the South Para River. In addition, Council wide policy exists which refers to the creation of linear reserves where land abuts the South Para River. This Policy is reproduced as follows.

- 50** *Where land which has a frontage onto the Gawler River, North Para River and South Para River is divided, a reserve at least 30 metres wide, when measured from the top of the bank, should be provided along such a frontage.*

The slope analysis plan identifies those locations within the Area Affected where the slope exceeds 1 in 4. Such slopes are extremely difficult to develop for urban purposes. This, together with the identified benefit of establishing/reinforcing biodiversity corridors means that there is rationale to consider the expansion of the Special Uses Zone corridor and to replace the Special Uses Zone with the Open Space Zone from the BDP Policy Library.

Whilst the 1 in 4 slope has generally been used as a guide for the zone boundary, there are areas within the zone which have less slope and can be used for a wider range of purposes than that land constrained by the greater slope these opportunities for interpretive and recreational facilities have been identified within the proposed desired character statement of the Open Space Zone. It is further worth mentioning that desired character for the adjacent Residential (Gawler East) Zone seeks to provide an appropriate transition to natural features such as the South Para River. As such a combination of roads, housing allotments, open space and recreation facilities will interface with the Open Space Zone.

The Open Space Zone boundary is primarily determined to define where the intensity of development in the more urban form of the Residential (Gawler East) Zone should be reduced.

Policy Response

It is recommended to expand the corridor of the Special Use Zone up stream to include land either side of the South Para River and to replace the Special Uses Zone with the Open Space Zone from the BDP library.

The corridors which follow secondary creek systems identified on the structure plan as a linear open space corridor will have associated policy established in the Residential (Gawler East) Zone to guide development of this system.

The open space corridors through the Area Affected as outlined in the current Development Plan has been reviewed and refined. Additional corridors of importance have been identified based on slope and existing drainage corridors and connection paths. To the east of the Gawler-One Tree Hill Road an alternative policy approach is recommended (see Section 4.10).

4.9 WATER SENSITIVE URBAN DESIGN/STORMWATER MANAGEMENT

Desired Outcome

Water sensitive urban design (WSUD) is defined as the integration of urban planning and development with the management, protection and conservation of water within the consideration of the total urban water cycle.

It provides sustainable stormwater management outcomes by combining the normal hydraulic design criteria with ecological, biological, economic, social and aesthetic considerations. It applies to the urban water cycle and designing it to be more sustainable by limiting the negative impacts associated with urban development on the pre-existing environment.

Water sensitive urban design can encompass improvement at all levels, such as regional catchment, down to the single dwelling level. WSUD seeks to provide a more sustainable approach to the management of the urban water cycle. In this context the stormwater strategy for the development seeks opportunities to facilitate the following outcomes:

- more efficient use of both conventional water supplies and locally generated urban water resources.
- reduced changes of the hydrological regime through minimising stormwater discharge by employing the *at source control* philosophy to stormwater management
- reducing downstream urban flooding impacts
- improved quality of stormwater
- improved landscapes, recreation linkages and amenity
- improved ecological and habitat outcomes.

These are achieved by adopting the methodologies as follows:

- detain or slow the conveyance of stormwater through the system
- harvest and use stormwater as an alternative source of water to reduce the reliance of potable water at all scales
- use vegetation and landscaping to filter stormwater
- water efficient landscaping
- protection of the water related environments and their associated values
- protection and enhancement of recreational, social, and cultural values of the water related environments
- local treatment and reuse of wastewater as applied for fit for purpose uses.

Policy Issue

The existing Development Plans that apply to the Area Affected contain comprehensive policy in relation to WSUD.

Policy Response

Promote greater consistency and additional policy detail through the inclusion of the Natural Resources BDP Module and the clear reference to WSUD outcomes as part of the desired character statement for both the Residential (Gawler East) Zone and the Residential Hills Zone.

4.10 GATEWAY TO GAWLER

Policy Issue

The Gawler - One Tree Hill Road is identified by the Gawler Development Plan as a scenic road.

In addition, the Gawler South Structure Plan Map Ga/1 (Overlay 1) Enlargement E shows land immediately to the east of the road as Linear Open Space (Landscape Protection Escarpment).

Council-wide Principle 3 states:

- 3** *No buildings should be erected within 100 metres of the One Tree Hill Scenic Road shown on [Map Ga/1 \(Overlay 1\) Enlargements Part A and Part B](#) which would impair, disfigure, interfere with or be in any way detrimental to the aesthetic appearance or natural beauty of:*
 - (a) the scenic road; or*
 - (b) the landscape visible from any part of the scenic road; or*
 - (c) the landscape visible from any vantage point adjacent to the scenic road.*

Whilst it is recognised that there needs to be an appropriate interface to this scenic road, the land located within the existing Rural Living Zone is otherwise capable of accommodating development.

The existing policy referred to above is considered subjective and needs further guidance in order to provide both certainty and to ensure an appropriate development outcome.

Policy Response

It is proposed to amend to Council-wide PDC 3 in order to positively specify appropriate development outcomes adjacent to this road.

4.11 ZONES

The significant majority of the Area Affected is located within zones whereby residential development is not presently anticipated and indeed could not proceed at the current time.

The following sections provide a summary of the existing zone provisions, including key policy intent and identified deficiencies.

Rural Zone

Overview

The Rural Zone encompasses the significant majority of the Area Affected located within the Town of Gawler.

Policy Intent

The Rural Zone has policies which seek:

- to retain land for primarily agricultural purposes
- only allow allotments which are greater than 4 hectares in area.

A number of uses are listed as non-complying, including several which are desirable now that the Area Affected is located within the urban boundary.

Policy Deficiencies

The existing policy is considered deficient in the following areas:

- lack of detailed structure plan parameters
- no expectation of comprehensive land division/residential development outcomes
- no detailed policy guidance for residential based development.

Policy Response

A new zone is created for that part of the Area Affected presently located within the Rural Zone. The zone, named the Residential (Gawler East) Zone, will encapsulate the structure plan, urban design and land use outcomes arising from these investigations and include two policy areas, the Mixed Use Centre Policy Area and the Local Centre Policy Area.

Rural Living Zone

Overview

The Rural Living Zone encompasses portion of the Area Affected immediately to the east of the Gawler-One Tree Hill Road Zone (Town of Gawler).

Policy Intent

The Rural Living Zone has policies which seek:

- detached dwellings on large allotments set in a semi-rural environment, with a range of agricultural activities, including small hobby farms and some non-agricultural activities, in suitable areas
- allotments which are greater than 4 hectares in area.

Policy Deficiencies

The existing policy is considered deficient in the following areas:

- lack of detailed structure plan parameters
- no expectation of comprehensive land division/residential development outcomes
- no detailed policy guidance for residential based development, other than for large rural living based outcomes.

Policy Response

That the northern portion (land owned by Commissioner of Highways) of the Rural Living Zone located within the Area Affected be included in the new Residential (Gawler East) Zone.

The balance (and majority) of the Rural Living Zone be included in a new Residential Hills Zone. The zone will be based on the BDP Module of the same name with some additions, modifications based on the findings of these investigations.

Deferred Urban Zone

Overview

The Deferred Urban Zone encompasses the far western portion of the Area Affected located within the Town of Gawler.

Policy Intent

The Deferred Urban Zone has policies which seek:

- a range of low-intensity rural uses that do not compromise future opportunities for co-ordinated urban development
- primarily non-intensive farming purposes until required for future urban expansion.

Policy Deficiencies

The existing policy is well suited to its intended purpose however needs to be amended in order to accommodate urban expansion.

Policy Response

That portion of this zone containing (land owned by Commissioner of Highways) be included in the new Residential (Gawler East) Zone.

The balance (and majority) of the Deferred Urban Zone be included in a new Residential Hills Zone. The zone will be based on the BDP Module of the same name with some additions, modifications based on the findings of these investigations.

Special Uses Zone

Overview

The Special Uses Zone encompasses the alignment of portion of the South Para River, in the northern portion of the Area Affected.

Policy Intent

The Special Uses Zone has policies which seek:

- cultural activities, passive recreation, active recreation, spectator sports, tourist uses, and natural or conservation areas, essentially along parts of the North and South Para Rivers
- community use
- to provide a distinctive setting for urban development and protecting mature trees, such as occurs along the urban river system.

Policy Deficiencies

The existing policy is well suited to its intended purpose. As mentioned in Section 4.8, scope exists to extend the zone further up the South Para River. That being said, the Open Space Zone from the BDP Policy Library is considered to have more relevant policy application given the significance of the corridor and the desire for policies in such corridors to have some general consistency across metropolitan Adelaide.

Policy Response

The Special Uses Zone is replaced with the Open Space Zone from the BDP Policy Library and the corridor of the zone extended to apply upstream and include land either side of the South Para River. The boundary of the zone is determined by gradient with the 1 in 4 slope the typical transition boundary.

Rural B Zone (Concordia)

Overview

The Rural B Zone (Concordia) applies to all of the Area Affected located within The Barossa Council area.

Policy Intent

In summary, the policies of the Rural B Zone (Concordia) generally seek:

- the development of general agricultural uses on large holdings with cereal crops predominating on the undulating plains to the north while the southern portion of the area supports grazing and other agricultural activities
- all stands of native vegetation should remain as part of the landscape
- any division of land creating an additional allotment or allotments of less than 40 hectares in area should not occur.

Policy Deficiencies

The existing policy is considered deficient in the following areas:

- lack of detailed structure plan parameters
- no expectation of comprehensive land division/residential development outcomes
- no detailed policy guidance for residential based development
- portion of the Zone encompasses land considered better suited for inclusion in the Open Space Zone from the BDP Policy Library.

Policy Response

That portion of the Rural B Zone (Concordia) located within the Area Affected is included in the new Residential (Gawler East) Zone.

New Council Wide policies from the BDP module 'Interface Between Land Uses' are proposed to ensure appropriate interface outcomes with the directly adjacent land owned by the Department of Environment and Heritage are achieved. In addition a specific reference to the importance of the interface to the DEH land has been introduced into the desired character statement of the Residential (Gawler East) Zone. The balance of the zone (abutting South Para River) is included in the Open Space Zone from the BDP Policy Library.

In considering all of the above, the recommended policy approach is to replace the Rural, Rural Living, Deferred Urban Zones and Rural B Zone (Concordia) which apply to the broad hectare areas of the Area Affected with a:

- Residential (Gawler East) Zone (Delfin contracted and Commissioner of Highways owned land)
- Residential Hills Zone (balance of Area Affected).

Overall the DPA proposes a comprehensive set of new policy, supportive of a relatively detailed structure plan for the Area Affected. The proposed planning policy establishes a desired character statement for both new zones together with supporting objectives and principles of development control. Policy Areas are established for the Mixed Use Centre and Local Centre within the Residential (Gawler East) Zone.

4.12 COUNCIL-WIDE POLICIES

Desired Outcome

Given that the Area Affected covers portion of two Development Plans it is desirable to ensure that there is consistency in policy outcome for the whole of the Area Affected.

Based on the above it has been necessary to review all existing Council-wide policies, to identify any significant inconsistencies and deficiencies and to identify policies which would prejudice the future development of the Area Affected for a diverse range of residential development together with supporting commercial, retail and community uses.

Policy Issue

A number of policy issues have been identified. Generally both Development Plans are reasonably consistent with the variations identified considered to be relatively minor. The main issue relates to the conservative nature of some of the policies applying to residential development, which would prejudice the attainment of a full range of residential densities. The range of issues identified includes:

- building setbacks to streets and side/rear boundaries
- reserve width where land fronts rivers
- site coverage
- private open space
- building appearance
- retaining walls/earthworks
- driveway width
- building height.

Reasons why these policies should be amended have been documented in the preceding investigations.

Policy Response

For the reasons previously documented the preferred policy response is to exclude the application of several existing Council policies as they conflict with the flexible planning regime sought and would inhibit attainment of the intended and desired development outcomes.

The new zones which apply to the Area Affected introduce new policy, which provide an alternate response to the existing Council-wide policies.

4.13 PUBLIC NOTIFICATION

Desired Outcome

Given that the majority of the new policy relates to master planned broad hectare areas, there is very little interface with adjoining properties, other than at the very periphery of the Area Affected, and also at the interface of the two policy areas.

Given the above, it would be preferred that development which is considered to be consistent with the expectations of the new Development Plan policy be designated as a Category 1 form of development in the majority of instances. Exceptions may be non-residential development adjacent to non-residential use (in a different zone) where a Category 2 notification may be preferable.

Policy Response

A review of the *Development Regulations 2008* suggests that no additional zone policies are necessary in terms of public notification.

4.14 CAR PARKING

A review of car parking rates as they would apply to the proposed Mixed Use Centre Policy Area has been undertaken on the basis that this centre will be a new centre based on the principles of mixed use and shared parking, similar to the delivery modal used in the Mawson Lakes Town Centre.

The proposed introduction of general policy to promote the shared use of parking (both on and off street) is proposed only in the Mixed Use Centre Policy Area.

5. CONCLUSIONS AND RECOMMENDED POLICY CHANGES

This DPA proposes to amend the Gawler and Barossa Development Plans by introducing the following new zones/policy outcomes:

- a Residential (Gawler East) Zone for the majority of the Area Affected, in particular the land contracted to Delfin Lend Lease and the land owned by the Commissioner of Highways
- the new Residential (Gawler East) Zone to include two policy areas, one a Mixed Use Centre Policy Area the other a Local Centre Policy Area
- the policy areas are intended to accommodate the majority of community, educational, recreational, retail and employment lands to support the new community
- a new Residential Hills Zone to encompass the balance of the Area Affected
- introduction of a detailed structure plan illustrating key features such as land use, major access points and public open space
- an expanded Special Use Zone corridor (to be rezoned Open Space Zone from the BDP Policy Library) to encompass land adjoining the South Para River
- amended/additional linear open space corridors designated at structure plan level
- residential policy aimed at achieving a full range of housing products including affordable housing outcomes.

Consequential changes to existing Council Wide structure plans, zone maps and policy area maps are also proposed to take into account the amendments mentioned above.

6. STATEMENT OF STATUTORY COMPLIANCE

Section 26 of the *Development Act 1993* prescribes that the DPA must assess the extent to which the proposed amendment:

- a) accords with the Planning Strategy
- b) accords with other parts of the Development Plan
- c) complements the policies in the Development Plans for adjoining areas
- d) satisfies the requirements prescribed by the Regulations.

6.1 ACCORDS WITH THE PLANNING STRATEGY

Relevant strategies from the Planning Strategy are summarised in Section 2.2 of this document. It is the intent of the DPA to support the achievement of the Planning Strategy policies.

6.2 ACCORDS WITH OTHER PARTS OF THE DEVELOPMENT PLAN

The policies proposed in this DPA are consistent with the format, content and structure of the Gawler (CT) Development Plan and The Barossa Council Development Plan.

6.3 COMPLEMENTS THE POLICIES IN THE DEVELOPMENT PLANS FOR ADJOINING AREAS

The policies proposed in this DPA will not affect the Development Plans for adjoining areas (as described in Section 2.3.6 of this document).

6.4 SATISFIES THE REQUIREMENTS PRESCRIBED BY THE *DEVELOPMENT REGULATIONS 2008*

The requirements for public consultation (Regulation 11) and the public meeting (Regulation 12) associated with this DPA will be met.

REFERENCES/BIBLIOGRAPHY

1. *Planning Strategy for Metropolitan Adelaide* (December 2007), Government of South Australia
2. *Planning Strategy for Outer Metropolitan Adelaide* (December 2007), Government of South Australia
3. *Better Development Plan Policy Library*, Department of Planning and Local Government
4. *South Australia's Strategic Plan (2008)*, Government of South Australia
5. *Housing Plan for South Australia* (2005), Government of South Australia
6. *Strategic Infrastructure Plan for South Australia 2005/6 – 2014/15*, Government of South Australia
7. *Population Projections for South Australia (2001-31) and the State's Statistical Divisions (2001-21)* (June 2007), Government of South Australia
8. *Town of Gawler Strategic Plan 2007-2017*, Town of Gawler
9. *The Barossa Council's Strategic Plan 2007*, The Barossa Council
10. *Urban Design Compendium* (2000), English Partnerships
11. *Gawler East Retail Analysis Final Report* (July 2008), Connor Holmes
12. *Gawler East Employment Study* (August 2008), Connor Holmes
13. *Draft Community Development Strategy (working document)*, Delfin Lend Lease
14. *Report on Water and Wastewater Networks* (October 2008), Wallbridge and Gilbert
15. *Gawler East Residential Stormwater Management Strategy* (October 2008), Wallbridge and Gilbert
16. *Gawler East DPA Traffic Assessment* (December 2008), QED
17. *Gawler East Ecological Survey* (January 2009), KBR
18. *Phase 1 Environmental Site Assessment* (December 2007), Coffey
19. *Significant Tree Assessment Gawler East* (November 2007), Steinwedel Landscape Consultants
20. *Gawler East DPA – Mixed Use Parking Assessment* (March 2009), QED
21. *Gawler Growth Areas Transport Framework* (May 2009), DTEI



Development Act 1993

**Gawler (CT) Development Plan
The Barossa Council Development Plan**

**GAWLER EAST DEVELOPMENT PLAN
AMENDMENT**

THE AMENDMENT

By the Minister

Amendment Instructions Table

Name of Local Government Area:

Town of Gawler

Name of Development Plan(s):

Gawler (CT)

Name of DPA:

Gawler East

The following amendment instructions (at the time of drafting) relate to the Gawler (CT) Development Plan consolidated on 25 February 2010. Where amendments to this Development Plan have been authorised after the aforementioned consolidation date, consequential changes to the following amendment instructions will be made as necessary to give effect to this amendment.

Amendment Instruction Number	<ul style="list-style-type: none"> • OBJECTIVE (OBJ) • PRINCIPLE OF DEVELOPMENT CONTROL (PDC) • DESIRED CHARACTER STATEMENT (DCS) • MAP/TABLE No • OTHER (SPECIFY) 	Method of change. <ul style="list-style-type: none"> • DELETE • REPLACE • INSERT 	Renumbering required (Y/N)	Subsequent Policy cross-references requiring update (Y/N) if yes please specify.
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COUNCIL WIDE PROVISIONS (including figures and illustrations contained in the text)

1	PDC 3	REPLACE existing PDC with the contents of Attachment A	No	No
2	PDC 33	INSERT the contents of Attachment B immediately following existing PDC 33	Yes	No
3	PDC 46	INSERT the contents of Attachment C immediately following existing PDC 46	Yes	No
4	PDC 65	INSERT the contents of Attachment D immediately following existing PDC 65	Yes	No
5	PDC 128	INSERT the words 'Other than in the Residential (Gawler East) Zone,' immediately before the words 'Dwelling set-backs' and REPLACE 'Dwelling' with 'dwelling'	No	No
6	PDC 132	INSERT the words 'Other than in the Residential (Gawler East) Zone' immediately before the words 'The site coverage' in Design Technique 132.1 and REPLACE 'The' with 'the'	No	No
7	PDC 165	INSERT the words 'Other than in the Residential (Gawler East) Zone,' immediately before the words 'Filling of land' and REPLACE 'Filling' with 'filling'	No	No
8	PDC 190	INSERT the contents of Attachment E immediately following existing PDC 190	Yes	No
9	PDC 216	INSERT the contents of Attachment F immediately following existing PDC 216	Yes	No

ZONE AND/OR POLICY AREA PROVISIONS (including figures and illustrations contained in the text)				
10	New Zone (Open Space Zone)	INSERT the contents of Attachment G immediately following the existing Light Industry Zone	No	No
11	New Zone (Residential (Gawler East) Zone)	INSERT the contents of Attachment H immediately following the existing Residential Zone	No	No
12	New Zone (Residential Hills Zone)	INSERT the contents of Attachment I immediately following Attachment H (new Residential (Gawler East) Zone.	No	No
13	Deferred Urban Zone Introduction	REPLACE the words 'Deferred Urban Zone: Maps Ga/4, 5, 8, 9 and 11' with 'Deferred Urban Zone: Maps Ga/4, 8, 9 and 11'	No	No
14	Deferred Urban Zone Desired Character	REPLACE the words 'Evanston Gardens, Evanston South and Evanston Park' with 'Evanston Gardens and Evanston South'	No	No
15	Rural Zone Introduction	REPLACE the words 'Rural Zone: Maps Ga/4, 5, 6, 7, 8, 9, 10, 11' with 'Rural Zone: Maps Ga/4, 5, 7, 8, 9, 10, 11'	No	No
16	Rural Living Zone Introduction	REPLACE the words 'Rural Living Zone: Maps Ga/4, 5, 6, 9, 12' with 'Rural Living Zone: Maps Ga/4, 5, 9, 12'	No	No
17	Special Uses Zone Introduction	REPLACE the words 'Special Uses Zone: Map Ga/3, 5, 6, 8, 9, 12' with 'Special Uses Zone: Map Ga/3, 5, 8, 9, 12'	No	No
MAPPING (Structure Plans, Overlays, Enlargements, Zone Maps and Policy Area Maps)				
18	New Gawler East Development Constraints Concept Plan	INSERT the content of Attachment J immediately following existing Council-wide Principle of Development Control 41	No	No
19	Bushfire Protection Area Figures Ga(BPA)/2 and 4	REPLACE with the contents of Attachment K	No	No
20	Structure Plan Map Ga/1 (Overlay 1) Part A Structure Plan Map Ga/1 (Overlay 1) Part B Gawler South Structure Plan Map Ga/1 (Overlay 1) Enlargement E	REPLACE with the contents of Attachment L	No	No
21	New Structure Plan Map (Gawler East Structure Plan Map Ga/1 (Overlay 1) Enlargement G)	INSERT the contents of Attachment M immediately following existing Evanston/Evanston Park/Evanston Gardens Structure Plan Map Ga/1 (Overlay 1) Enlargement F	No	No
22	Map Ga/5, 6, 9, 12, 16, 19	REPLACE with the contents of Attachment N	No	No
23	New Map (Zones Map Ga/22)	INSERT the contents of Attachment O immediately following existing Map Ga/21	No	No

ATTACHMENT A

- 3** Development with frontage to the One Tree Hill Scenic Road shown on [Map Ga/1 \(Overlay 1\) Enlargements Part A and Part B](#) should enhance the function of the scenic road as a gateway to Gawler through the following siting and design techniques:
- (a) buildings are designed to follow the contour of the land and to minimise disturbance to the natural landform
 - (b) landscaping is provided to form a distinctive landscape character along the road corridor
 - (c) avoidance of solid fencing or where solid fencing is necessary ensuring a highly articulated finish.

ATTACHMENT B

Energy Efficiency

OBJECTIVES

Objective 1: Development designed and sited to conserve energy.

Objective 2: Development that provides for on-site power generation including photovoltaic cells and wind power.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development should provide for efficient solar access to buildings and open space all year around.
- 2 Buildings should be sited and designed:
 - (a) to ensure adequate natural light and winter sunlight is available to the main activity areas of adjacent buildings
 - (b) so that open spaces associated with the main activity areas face north for exposure to winter sun.

On-site Energy Generation

- 3 Development should facilitate the efficient use of photovoltaic cells and solar hot water systems by:
 - (a) taking into account overshadowing from neighbouring buildings
 - (b) designing roof orientation and pitches to maximise exposure to direct sunlight.
- 4 Public infrastructure and lighting should be designed to generate and use renewable energy.

ATTACHMENT C

Infrastructure

OBJECTIVES

Objective 1: Infrastructure provided in an economical and environmentally sensitive manner.

Objective 2: Infrastructure, including social infrastructure, provided in advance of need.

Objective 3: Suitable land for infrastructure identified and set aside in advance of need.

Objective 4: The visual impact of infrastructure facilities minimised.

Objective 5: The efficient and cost-effective use of existing infrastructure.

Objective 6: The protection of existing infrastructure.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development should not occur without the provision of adequate utilities and services, including:
 - (a) electricity supply
 - (b) water supply
 - (c) drainage and stormwater systems
 - (d) waste disposal
 - (e) effluent disposal systems
 - (f) formed all-weather public roads
 - (g) telecommunications services
 - (h) social infrastructure, community services and facilities
 - (i) gas services.
- 2 Development should only occur only where it provides, or has access to, relevant easements for the supply of infrastructure.
- 3 Development should incorporate provision for the supply of infrastructure services to be located within common service trenches where practicable.
- 4 Development should not take place until adequate and coordinated drainage of the land is assured.
- 5 Development in urban areas should not occur without provision of an adequate reticulated domestic quality mains water supply and an appropriate waste treatment system.
- 6 In areas where no reticulated water supply is available, buildings whose usage is reliant on a water supply should be equipped with an adequate and reliable on-site water storage system.
- 7 Urban development should not be dependent on an indirect water supply.
- 8 Electricity infrastructure should be designed and located to minimise its visual and environmental impacts.
- 9 In urban areas, electricity supply serving new development should be installed underground (excluding lines having a capacity greater than or equal to 33kv).

- 10 Utilities and services, including access roads and tracks, should be sited on areas already cleared of native vegetation. If this is not possible, their siting should cause minimal interference or disturbance to existing native vegetation and biodiversity.
- 11 Utility buildings and structures should be grouped with non-residential development where possible.
- 12 Development in proximity to infrastructure facilities should be sited and be of a scale to ensure adequate separation to protect people and property.
- 13 Existing transmission lines should not be encroached upon by incompatible uses.
- 14 Provision should be made for new distribution substations and overhead major electricity line corridors (having a capacity greater than or equal to 33kv) in optimum locations with adequate access.

Interface between Land Uses

OBJECTIVES

Objective 1 Development located and designed to prevent adverse impact and conflict between land uses.

Objective 2 Protect community health and amenity and support the operation of all desired land uses.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:
 - (a) the emission of effluent, odour, smoke, fumes, dust or other airborne pollutants
 - (b) noise
 - (c) vibration
 - (d) electrical interference
 - (e) light spill
 - (f) glare
 - (g) hours of operation
 - (h) traffic impacts.
- 2 Development should be sited and designed to minimise negative impact on existing and potential future land uses considered appropriate in the locality.
- 3 Development adjacent to a Residential Zone or residential area within a Township Zone should be designed to minimise overlooking and overshadowing of nearby residential properties.
- 4 Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.
- 5 Sensitive uses likely to conflict with the continuation of lawfully existing developments and land uses considered appropriate for the zone should not be developed or should be designed to minimise negative impacts.

Noise

- 6 Development should be sited, designed and constructed to minimise negative impacts of noise and to avoid unreasonable interference.

7 Development should be consistent with the relevant provisions in the current Environment Protection (Noise) Policy.

Rural Interface

- 8 The potential for adverse impacts resulting from rural development should be minimised by:
- (a) not locating horticulture or intensive animal keeping on land adjacent to townships
 - (b) maintaining an adequate separation between horticulture or intensive animal keeping and townships, other sensitive uses and, where desirable, other forms of primary production.
- 9 Traffic movement, spray drift, dust, noise, odour, and the use of frost fans and gas guns associated with primary production activities should not lead to unreasonable impact on adjacent land users.
- 10 Existing primary production uses and mineral extraction should not be prejudiced by the inappropriate encroachment of sensitive uses such as urban development.
- 11 Development within 300 metres of facilities for the handling, transportation and storage of bulk commodities should:
- (a) not prejudice the continued operation of those facilities
 - (b) be located, designed, and developed having regard to the potential environmental impact arising from the operation of such facilities and the potential extended operation of activities.

ATTACHMENT D

Natural Resources

OBJECTIVES

- Objective 1:** Retention, protection and restoration of the natural resources and environment.
- Objective 2:** Protection of the quality and quantity of South Australia's surface waters, including inland and underground waters.
- Objective 3:** The ecologically sustainable use of natural resources including water resources, including ground water, surface water and watercourses.
- Objective 4:** Natural hydrological systems and environmental flows reinstated, and maintained and enhanced.
- Objective 5:** Development consistent with the principles of water sensitive design.
- Objective 6:** Development sited and designed to:
- (a) protect natural ecological systems
 - (b) achieve the sustainable use of water
 - (c) protect water quality, including receiving waters
 - (d) reduce runoff and peak flows and prevent the risk of downstream flooding
 - (e) minimise demand on reticulated water supplies
 - (f) maximise the harvest and use of stormwater
 - (g) protect stormwater from pollution sources.
- Objective 7:** Storage and use of stormwater which avoids adverse impact on public health and safety.
- Objective 8:** Native flora, fauna and ecosystems protected, retained, conserved and restored.
- Objective 9:** Restoration, expansion and linking of existing native vegetation to facilitate habitat corridors for ease of movement of fauna.
- Objective 10:** Minimal disturbance and modification of the natural landform.
- Objective 11:** Protection of the physical, chemical and biological quality of soil resources.
- Objective 12:** Protection of areas prone to erosion or other land degradation processes from inappropriate development.
- Objective 13:** Protection of the scenic qualities of natural and rural landscapes.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development should be undertaken with minimum impact on the natural environment, including air and water quality, land, soil, biodiversity, and scenically attractive areas.
- 2 Development should ensure that South Australia's natural assets, such as biodiversity, water and soil, are protected and enhanced.
- 3 Development should not significantly obstruct or adversely affect sensitive ecological areas such as creeks and wetlands.

- 4 Development should be appropriate to land capability and the protection and conservation of water resources and biodiversity.

Water Sensitive Design

- 5 Development should be designed to maximise conservation, minimise consumption and encourage reuse of water resources.
- 6 Development should not take place if it results in unsustainable use of surface or underground water resources.
- 7 Development should be sited and designed to:
- (a) capture and re-use stormwater, where practical
 - (b) minimise surface water runoff
 - (c) prevent soil erosion and water pollution
 - (d) protect and enhance natural water flows
 - (e) protect water quality by providing adequate separation distances from watercourses and other water bodies
 - (f) not contribute to an increase in salinity levels
 - (g) avoid the water logging of soil or the release of toxic elements
 - (h) maintain natural hydrological systems and not adversely affect:
 - (i) the quantity and quality of groundwater
 - (ii) the depth and directional flow of groundwater
 - (iii) the quality and function of natural springs.
- 8 Water discharged from a development site should:
- (a) be of a physical, chemical and biological condition equivalent to or better than its pre-developed state
 - (b) not exceed the rate of discharge from the site as it existed in pre-development conditions.
- 9 Development should include stormwater management systems to protect it from damage during a minimum of a 1-in-100 year average return interval flood.
- 10 Development should have adequate provision to control any stormwater over-flow runoff from the site and should be sited and designed to improve the quality of stormwater and minimise pollutant transfer to receiving waters.
- 11 Development should include stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure the carrying capacities of downstream systems are not overloaded.
- 12 Development should include stormwater management systems to minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system.
- 13 Stormwater management systems should preserve natural drainage systems, including the associated environmental flows.
- 14 Stormwater management systems should:

- (a) maximise the potential for stormwater harvesting and re-use, either on-site or as close as practicable to the source
- (b) utilise, but not be limited to, one or more of the following harvesting methods:
 - (i) the collection of roof water in tanks
 - (ii) the discharge to open space, landscaping or garden areas, including strips adjacent to car parks
 - (iii) the incorporation of detention and retention facilities
 - (iv) aquifer recharge.

15 Where it is not practicable to detain or dispose of stormwater on site, only clean stormwater runoff should enter the public stormwater drainage system.

16 Artificial wetland systems, including detention and retention basins, should be sited and designed to:

- (a) ensure public health and safety is protected
- (b) minimise potential public health risks arising from the breeding of mosquitoes.

Water Catchment Areas

17 Development should ensure watercourses and their beds, banks, wetlands and floodplains are not damaged or modified and are retained in their natural state, except where modification is required for essential access or maintenance purposes.

18 No development should occur where its proximity to a swamp or wetland will damage or interfere with the hydrology or water regime of the swamp or wetland.

19 A wetland or low-lying area providing habitat for native flora and fauna should not be drained, except temporarily for essential management purposes to enhance environmental values.

20 Along watercourses, areas of remnant native vegetation, or areas prone to erosion, that are capable of natural regeneration should be fenced off to limit stock access.

21 Development such as cropping, intensive animal keeping, residential, tourism, industry and horticulture, that increases the amount of surface run-off should include a strip of land at least 20 metres wide (30 metres wide in the case of the Gawler, North Para and South Para Rivers) measured from the top of existing banks on each side of a watercourse that is:

- (a) fenced to exclude livestock
- (b) kept free of development, including structures, formal roadways or access ways for machinery or any other activity causing soil compaction or significant modification of the natural surface of the land
- (c) revegetated with locally indigenous vegetation comprising trees, shrubs and other groundcover plants to filter run-off so as to reduce the impacts on native aquatic ecosystems and to minimise soil loss eroding into the watercourse.

22 Development resulting in the depositing of an object or solid material in a watercourse or floodplain or the removal of bank and bed material should not:

- (a) adversely affect the migration of aquatic biota
- (b) adversely affect the natural flow regime
- (c) cause or contribute to water pollution

- (d) result in watercourse or bank erosion
- (e) adversely affect native vegetation upstream or downstream that is growing in or adjacent to a watercourse.

23 The location and construction of dams, water tanks and diversion drains should:

- (a) occur off watercourse
- (b) not take place in ecologically sensitive areas or on erosion-prone sites
- (c) provide for low flow by-pass mechanisms to allow for migration of aquatic biota
- (d) not negatively affect downstream users
- (e) minimise in-stream or riparian vegetation loss
- (f) incorporate features to improve water quality (e.g. wetlands and floodplain ecological communities)
- (g) protect ecosystems dependent on water resources.

24 Irrigated horticulture and pasture should not increase groundwater-induced salinity.

25 Development should comply with the current *Environment Protection (Water Quality) Policy*.

Biodiversity and Native Vegetation

26 Development should retain existing areas of native vegetation and where possible contribute to revegetation using locally indigenous plant species.

27 Development should be designed and sited to minimise the loss and disturbance of native flora and fauna and their breeding grounds and habitats.

28 The provision of services, including power, water, effluent and waste disposal, access roads and tracks should be sited on areas already cleared of native vegetation.

29 Native vegetation should be conserved and its conservation value and function not compromised by development if the native vegetation does any of the following:

- (a) provides an important habitat for wildlife or shade and shelter for livestock
- (b) has a high plant species diversity or includes rare, vulnerable or endangered plant species or plant associations and communities
- (c) provides an important seed bank for locally indigenous vegetation
- (d) has high amenity value and/or significantly contributes to the landscape quality of an area, including the screening of buildings and unsightly views
- (e) has high value as a remnant of vegetation associations characteristic of a district or region prior to extensive clearance for agriculture
- (f) is growing in, or is characteristically associated with a wetland environment.

30 Native vegetation should not be cleared if such clearing is likely to lead to, cause or exacerbate any of the following:

- (a) erosion or sediment within water catchments
- (b) decreased soil stability

- (c) soil or land slip
- (d) deterioration in the quality of water in a watercourse or surface water runoff
- (e) a local or regional salinity problem
- (f) the occurrence or intensity of local or regional flooding.

31 Development that proposes the clearance of native vegetation should address or consider the implications that removing the native vegetation will have on the following:

- (a) provision for linkages and wildlife corridors between significant areas of native vegetation
- (b) erosion along watercourses and the filtering of suspended solids and nutrients from run-off
- (c) the amenity of the locality
- (d) bushfire safety
- (e) the net loss of native vegetation and other biodiversity.

32 Where native vegetation is to be removed, it should be replaced in a suitable location on the site with locally indigenous vegetation to ensure that there is not a net loss of native vegetation and biodiversity.

33 Development should be located and occur in a manner which:

- (a) does not increase the potential for, or result in, the spread of pest plants, or the spread of any non-indigenous plants into areas of native vegetation or a conservation zone
- (b) avoids the degradation of remnant native vegetation by any other means including as a result of spray drift, compaction of soil, modification of surface water flows, pollution to groundwater or surface water or change to groundwater levels
- (c) incorporates a separation distance and/or buffer area to protect wildlife habitats and other features of nature conservation significance.

34 Development should promote the long-term conservation of vegetation by:

- (a) avoiding substantial structures, excavations, and filling of land in close proximity to the trunk of trees and beneath their canopies
- (b) minimising impervious surfaces beneath the canopies of trees
- (c) taking other effective and reasonable precautions to protect both vegetation and the integrity of structures and essential services.

35 Horticulture involving the growing of olives should be located at least:

- (a) 500 metres from:
 - (i) a national park
 - (ii) a conservation park
 - (iii) a wilderness protection area
 - (iv) the edge of a substantially intact stratum of native vegetation greater than 5 hectares in area.
- (b) 50 metres from the edge of stands of native vegetation 5 hectares or less in area.

36 Horticulture involving the growing of olives should have at least one locally indigenous tree that will grow to a height of at least 7 metres sited at least every 100 metres around the perimeter of the orchard.

Soil Conservation

- 37** Development should not have an adverse impact on the natural, physical, chemical or biological quality and characteristics of soil resources.
- 38** Development should be designed and sited to prevent erosion.
- 39** Development should take place in a manner that will minimise alteration to the existing landform.
- 40** Development should minimise the loss of soil from a site through soil erosion or siltation during the construction phase of any development and following the commencement of an activity.

Open Space and Recreation

OBJECTIVES

Objective 1: The creation of a network of linked parks, reserves, recreational trails and recreation areas at regional and local levels.

Objective 2: Pleasant, functional and accessible open spaces providing a range of physical environments.

Objective 3: A wide range of settings for active and passive recreational opportunities.

Objective 4: The provision of open space in the following hierarchy:

- State
- Regional
- District
- Neighbourhood
- Local.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Urban development should include public open space and recreation areas.
- 2 Public open space and recreation areas should be of a size, dimension and location that:
 - (a) facilitate a range of formal and informal recreation activities
 - (b) provide for the movement of pedestrians and cyclists
 - (c) incorporate existing vegetation and natural features, watercourses, wildlife habitat and other sites of natural or cultural value
 - (d) link habitats, wildlife corridors, public open spaces and existing recreation facilities
 - (e) enable effective stormwater management
 - (f) provides for the planting and retention of large trees and vegetation.
- 3 Open space should be designed to incorporate:
 - (a) pedestrian, cycle linkages to other open spaces, centres, schools and public transport nodes
 - (b) park furniture, shaded areas and resting places to enhance pedestrian comfort
 - (c) safe crossing points where pedestrian routes intersect the road network
 - (d) easily identified access points
 - (e) frontage to abutting public roads to optimise pedestrian access and visibility
 - (f) re-use of stormwater for irrigation purposes
 - (g) recreational trails where appropriate.
- 4 Where practical, access points to regional parks should be located close to public transport.
- 5 District level parks should be at least 3 hectares in size, and provided within 2 kilometres of all households that they serve.

- 6** Neighbourhood parks should be at least 0.5 hectares and generally closer to 1 hectare in size, and provided within 500 metres of households that they serve.
- 7** Local parks should be
 - (a) a minimum of 0.2 hectares in size
 - (b) centrally located within a residential area, close to schools, shops and generally within 300 metres of households that they serve.
- 8** No more than 20 per cent of land allocated as public open space should:
 - (a) have a slope in excess of 1-in-4
 - (b) comprise creeks or other drainage areasunless the public open space forms part of a regional integrated open space network.
- 9** Signage should be provided at entrances to and within public open space to provide clear orientation to major points of interest such as the location of public toilets, telephones, safe routes and park activities.
- 10** Buildings in open space, including structures and associated car parking areas, should be designed, located and of a scale that is unobtrusive and does not detract from the desired open space character.
- 11** Development in open space should:
 - (a) be clustered where practical to ensure that the majority of the site remains open
 - (b) where practical, be developed for multi-purpose use
 - (c) be constructed to minimise the extent of hard paved areas.
- 12** Open spaces and recreation areas should be located and designed to maximise safety and security by:
 - (a) ensuring that within urban areas, their edges are overlooked by housing, commercial or other development that can provide effective informal surveillance
 - (b) ensuring fenced parks and playgrounds have more than one entrance or exit when fenced
 - (c) locating play equipment where it can be informally observed by nearby residents and users during times of use
 - (d) clearly defining the perimeters of play areas
 - (e) providing lighting around facilities such as toilets, telephones, seating, litter bins, bike storage and car parks
 - (f) focusing pedestrian and bicycle movement after dark along clearly defined, adequately lit routes with observable entries and exits.
- 13** Landscaping associated with open space and recreation areas should:
 - (a) not compromise the drainage function of any drainage channel
 - (b) provide shade and windbreaks along cyclist and pedestrian routes, around picnic and barbecue areas and seating, and in car parking areas
 - (c) maximise opportunities for informal surveillance throughout the park
 - (d) enhance the visual amenity of the area and complement existing buildings

(e) be designed and selected to minimise maintenance costs

(f) provide habitat for local fauna.

14 Development of recreational activities in areas not zoned for that purpose should be compatible with surrounding activities.

15 Recreation facilities development should be sited and designed to minimise negative impacts on the amenity of the locality.

ATTACHMENT E

Sloping Land

OBJECTIVES

Objective 1: Development on sloping land designed to minimise environmental and visual impacts and protect soil stability and water quality.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development and associated driveways and access tracks should be sited and designed to integrate with the natural topography of the land and minimise the need for earthworks.
- 2 Development and associated driveways and access tracks, including related earthworks, should be sited, designed and undertaken in a manner that:
 - (a) minimises their visual impact
 - (b) reduces the bulk of the buildings and structures
 - (c) minimises the extent of cut and/or fill
 - (d) minimises the need for, and the height of, retaining walls
 - (e) does not cause or contribute to instability of any embankment or cutting
 - (f) avoids the silting of watercourses
 - (g) protects development and its surrounds from erosion caused by water run-off.
- 3 Driveways and access tracks across sloping land should be accessible and have a safe, all-weather trafficable surface.
- 4 Development sites should not be at risk of landslip.
- 5 Development on steep land should include site drainage systems to minimise erosion and avoid adverse impacts on slope stability.
- 6 Steep sloping sites in unsewered areas should not be developed unless the physical characteristics of the allotments enable the proper siting and operation of an effluent drainage field suitable for the development intended.

Transportation and Access

OBJECTIVES

- Objective 1:** A comprehensive, integrated, affordable and efficient air, rail, sea, road, cycle and pedestrian transport system that will:
- (a) provide equitable access to a range of public, community and private transport services for all people
 - (b) ensure a high level of safety
 - (c) effectively support the economic development of the State
 - (d) have minimal negative environmental and social impacts
 - (e) maintain options for the introduction of suitable new transport technologies.
- Objective 2:** Development that:
- (a) provides safe and efficient movement for all motorised and non-motorised transport modes
 - (b) ensures access for vehicles including emergency services, public infrastructure maintenance and commercial vehicles
 - (c) provides off street parking
 - (d) is appropriately located so that it supports and makes best use of existing transport facilities and networks.
- Objective 3:** A road hierarchy that promotes safe and efficient transportation in an integrated manner throughout the State.
- Objective 4:** Provision of safe, pleasant, accessible, integrated and permeable pedestrian and cycling networks.
- Objective 5:** Safe and convenient freight movement throughout the State.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 Land uses arranged to support the efficient provision of sustainable transport networks and encourage their use.

Movement Systems

- 2 Development should be integrated with existing transport networks, particularly major rail and road corridors and designed to minimise its potential impact on the functional performance of the transport networks.
- 3 Transport corridors should be sited and designed so as to not unreasonably interfere with the health and amenity of adjacent sensitive land uses.
- 4 Roads should be sited and designed to blend with the landscape and be in sympathy with the terrain.
- 5 Land uses that generate large numbers of visitors such as shopping centres and areas, places of employment, schools, hospitals and medium to high density residential uses should be located so that they can be serviced by existing transport networks and encourage walking and cycling.

- 6 Development generating high levels of traffic, such as schools, shopping centres and other retail areas, entertainment and sporting facilities, should incorporate passenger pick-up and set down areas. The design of such areas should ensure interference to existing traffic is minimised and give priority to pedestrians, cyclists and public and community transport users.
- 7 The location and design of public and community transport set-down and pick-up points should maximise safety and minimise the isolation and vulnerability of users.
- 8 Development should provide safe and convenient access for all anticipated modes of transport including cycling, walking, public and community transport, and motor vehicles.
- 9 Development at intersections, pedestrian and cycle crossings, and crossovers to allotments should maintain or enhance sightlines for motorists, cyclists and pedestrians to ensure safety for all road users and pedestrians.
- 10 Driveway cross-overs affecting pedestrian footpaths should maintain the level of the footpath.
- 11 Development should discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive land uses such as schools.
- 12 Industrial/commercial vehicle movements should be separated from passenger vehicle car-parking areas.
- 13 Development should make sufficient provision on site for the loading, unloading and turning of all traffic likely to be generated.

Cycling and Walking

- 14 Development should ensure that a permeable street and path network is established that encourages walking and cycling through the provision of safe, convenient and attractive routes with connections to adjoining streets, paths, open spaces, schools, public and community transport stops and activity centres.
- 15 Development should provide access, and accommodate multiple route options, for cyclists by enhancing and integrating with:
 - (a) open space networks, recreational trails, parks, reserves and recreation areas
 - (b) Adelaide's Metropolitan Open Space System
- 16 Cycling and pedestrian networks should be designed to be permeable and facilitate direct and efficient passage to neighbouring networks and facilities.
- 17 New developments should give priority to and not compromise existing designated bicycle routes.
- 18 Where development coincides with, intersects or divides a proposed bicycle route or corridor, development should incorporate through-access for cyclists.
- 19 Developments should encourage and facilitate cycling as a mode of transport by incorporating end-of journey facilities including:
 - (a) showers, changing facilities, and secure lockers
 - (b) signage indicating the location of bicycle facilities
 - (c) secure bicycle parking facilities.
- 20 Pedestrian facilities and networks should be designed and provided in Accordance with relevant provisions of the *Australian Standards and Austroads Guide to Traffic Engineering Practice Part 13*.
- 21 Cycling facilities and networks should be designed and provided in accordance with the relevant provisions of the *Australian Standards and Austroads Guide to Traffic Engineering Practice Part 14*.

Access

- 22** Development should have direct access from an all weather public road.
- 23** Development should be provided with safe and convenient access which:
- (a) avoids unreasonable interference with the flow of traffic on adjoining roads
 - (b) accommodates the type and volume of traffic likely to be generated by the development or land use and minimises induced traffic through over-provision
 - (c) is sited and designed to minimise any adverse impacts on the occupants of and visitors to neighbouring properties.
- 24** Development should not restrict access to publicly owned land.
- 25** The number of vehicle access points onto arterial roads should be minimised, and where possible access points should be:
- (a) limited to local roads
 - (b) shared between developments.
- 26** The number of access points for cyclists and pedestrians onto all adjoining roads should be maximised.
- 27** Development with access from roads with existing or projected traffic volumes exceeding 6000 vehicles per day should be sited to avoid the need for vehicles to reverse on to the road.
- 28** Driveways, access tracks and parking areas should be designed and constructed to:
- (a) follow the natural contours of the land
 - (b) minimise excavation and/or fill
 - (c) minimise the potential for erosion from run-off
 - (d) avoid the removal of existing vegetation
 - (e) be consistent with *Australian Standard AS 2890 Parking facilities*.

Access for People with Disabilities

- 29** Development should be sited and designed to provide convenient access for people with a disability.

Vehicle Parking

- 30** Development should be consistent with *Australian Standard AS 2890 Parking facilities*.
- 31** Vehicle parking areas should be sited and designed in a manner that will:
- (a) facilitate safe and convenient pedestrian linkages to the development and areas of significant activity or interest in the vicinity of the development
 - (b) include safe pedestrian and bicycle linkages that complement the overall pedestrian and cycling network
 - (c) not inhibit safe and convenient traffic circulation
 - (d) result in minimal conflict between customer and service vehicles
 - (e) avoid the necessity to use public roads when moving from one part of a parking area to another

- (f) minimise the number of vehicle access points to public roads
- (g) avoid the necessity for backing onto public roads
- (h) provide the opportunity for shared use of car parking and integration of car parking areas with adjoining development to reduce the total extent of vehicle parking areas and the requirement for access points
- (i) not dominate the character and appearance of a centre when viewed from public roads and spaces
- (j) provide landscaping that will shade and enhance the appearance of the vehicle parking areas.

32 Vehicle parking areas should be designed to reduce opportunities for crime by:

- (a) maximising the potential for passive surveillance by ensuring they can be overlooked from nearby buildings and roads
- (b) incorporating walls and landscaping that do not obscure vehicles or provide potential hiding places
- (c) being appropriately lit
- (d) having clearly visible walkways.

33 Where parking areas are not obviously visible or navigated, signs indicating the location and availability of vehicle parking spaces associated with businesses should be displayed at locations readily visible to customers.

34 Parking areas that are likely to be used during non daylight hours should provide floodlit entrance and exit points and site lighting directed and shaded in a manner that will not cause nuisance to adjacent properties or users of the car park.

35 Parking areas should be sealed or paved in order to minimise dust and mud nuisance.

36 To assist with stormwater detention and reduce heat loads in summer, vehicle parking areas should include soft (living) landscaping.

37 Parking areas should be line-marked to indicate parking bays, movement aisles and direction of traffic flow.

ATTACHMENT F

Waste

OBJECTIVES

- Objective 1** Development that, in order of priority, avoids the production of waste, minimises the production of waste, reuses waste, recycles waste for reuse, treats waste and disposes of waste in an environmentally sound manner.
- Objective 2** Development that includes the treatment and management of solid and liquid waste to prevent undesired impacts on the environment including, soil, plant and animal biodiversity, human health and the amenity of the locality.

PRINCIPLES OF DEVELOPMENT CONTROL

- 1 Development should be sited and designed to prevent or minimise the generation of waste (including wastewater) by applying the following waste management hierarchy in the order of priority as shown below:
 - (a) avoiding the production of waste
 - (b) minimising waste production
 - (c) reusing waste
 - (d) recycling waste
 - (e) recovering part of the waste for re-use
 - (f) treating waste to reduce the potentially degrading impacts
 - (g) disposing of waste in an environmentally sound manner.
- 2 The storage, treatment and disposal of waste materials from any development should be achieved without risk to health or impairment of the environment.
- 3 Development should avoid the discharge or deposit of waste (including wastewater) onto land or into any waters (including processes such as seepage, infiltration or carriage by wind, rain, sea spray, stormwater or by the rising of the water table).
- 4 Untreated waste should not be discharged to the environment, and in particular to any water body.
- 5 Development should include appropriately sized area to facilitate the storage of receptacles that will enable the efficient recycling of waste.
- 6 Development that involves the production and/or collection of waste and/or recyclable material should include designated collection and storage area(s) that are:
 - (a) screened and separated from adjoining areas
 - (b) located to avoid impacting on adjoining sensitive environments or land uses
 - (c) designed to ensure that wastes do not contaminate stormwater or enter the stormwater collection system
 - (d) located on an impervious sealed area graded to a collection point in order to minimise the movement of any solids or contamination of water
 - (e) protected from wind and stormwater and sealed to prevent leakage and minimise the emission of odours

- (f) stored in such a manner that ensures that all waste is contained within the boundaries of the site until disposed of in an appropriate manner.

Wastewater

- 7 The disposal of wastewater to land should only occur where methods of wastewater reduction and reuse are unable to remove the need for its disposal, and where its application to the land is environmentally sustainable.
- 8 Wastewater lagoons should not be sited in any of the following areas:
 - (a) within land subject to a 1-in-100 year average return interval flood event
 - (b) within 50 metres of the top of the bank of a watercourse
 - (c) where the base of the lagoon would be below any seasonal water table.
- 9 Artificial wetland system for the storage of treated wastewater, such as wastewater lagoons, should be:
 - (a) sufficiently separated from adjoining sensitive uses to minimise potential adverse odour impacts
 - (b) sited and designed to minimise potential public health risks arising from the breeding of mosquitoes.

Waste Treatment Systems

- 10 Development that produces any sewage or effluent should be connected to a waste treatment system that complies with (or can comply with) the relevant public and environmental health legislation applying to that type of system.
- 11 The methods for, and siting of, effluent and waste storage, treatment and disposal systems should minimise the potential for environmental harm and adverse impacts on:
 - (a) the quality of surface and groundwater resources
 - (b) public health
 - (c) the amenity of a locality
 - (d) sensitive land uses.
- 12 Waste treatment should only occur where the capacity of the treatment facility is sufficient to accommodate likely maximum daily demands including a contingency for unexpected high flows and breakdowns.
- 13 Any on-site wastewater treatment system/ re-use system or effluent drainage field should be located within the allotment of the development that it will service.
- 14 A dedicated on-site effluent disposal area should not include any areas to be used for, or could be reasonably foreseen to be used for, private outdoor open space, driveways, car parking or outbuildings.
- 15 The spreading or discharging of treated liquid or solid waste onto the ground should only occur where the disposal area consists of soil and vegetation that has the capacity to store and use the waste without contaminating soil or surface or ground water resources or damaging crops.
- 16 Stock slaughter works, poultry processors, saleyards, piggeries, cattle feedlots, milking sheds, milk processing works, fish processing works, wineries, distilleries, tanneries and fellmongeries, composting works and concrete batching works should have a wastewater management system that is designed so as not to discharge wastes generated by the premises:
 - (a) into any waters
 - (b) onto land in a place where it is reasonably likely to enter any waters by processes such as:

- (i) seepage
- (ii) infiltration
- (iii) carriage by wind, rain, sea spray, or stormwater
- (iv) the rising of the watertable.

17 Winery waste management systems should be designed to ensure:

- (a) surface runoff does not occur from the wastewater irrigation area at any time
- (b) wastewater is not irrigated onto waterlogged areas, land within 50 metres of a creek, or swamp or domestic or stock water bore, or land subject to flooding, steeply sloping land, or rocky or highly permeable soil overlaying an unconfined aquifer
- (c) wastewater is not irrigated over an area which is within 50 metres of any residence on neighbouring land or 10 metres of any type of publicly owned land
- (d) wastewater is released using low trajectory low pressure sprinklers, drip irrigators or agricultural pipe, and is not sprayed more than 1.5 metres into the air or in fine droplets if there is a potential for the spread of diseases from the wastewater
- (e) stormwater run-off from areas which are contaminated with grape or grape products is drained to winery waste management systems during vintage periods
- (f) stormwater from roofs and clean hard paved surfaces is diverted away from winery waste management systems and disposed of in an environmentally sound manner or used for productive purposes.

ATTACHMENT G

Open Space Zone

The Objectives and Principles of Development Control that follow apply in the Open Space Zone shown on Gawler [Map Ga/5, 6, 9, 12 and 22](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

Objective 1: A zone:

- (a) in which the open space character is preserved to provide a visual contrast to the surrounding urban area
- (b) comprising open space that accommodates a range of public and private activities in an open and natural setting, including:
 - (i) passive and active recreation land uses
 - (ii) habitat conservation and restoration.

Objective 2: Private land within the Metropolitan Open Space System (MOSS) contributing to regional open space networks and providing an open, natural and rural character accommodating low-scale uses such as non-intensive agriculture.

Objective 3: Public land within the MOSS that provides for recreation areas and facilities, sporting facilities and conservation of the open, natural character.

Objective 4: A linear park that:

- (a) provides an open space corridor across Regional South Australia
- (b) promotes the use, awareness and preservation of the riverine environment and enhancement of natural or semi natural habitats for the movement of wildlife and conservation of biodiversity.

Objective 5: A river system which provides for the maintenance of stormwater capacity and flood mitigation measures for adjoining areas.

Objective 6: Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Open Space Zone recognises the special qualities of the South Para River and environs, and it is intended that the zone will manage the river and its interface.

The zone already has natural character and function based on the existing South Para River, topographically steep contours, floodplains and remnant vegetation. This character and function will be maintained and enhanced through appropriate revegetation.

Areas within the zone contain significant flora and fauna, wetlands and permanent waterholes and river corridors and adjoin grassy woodland habitats.

The aesthetic and natural landscape, together with biodiversity value of the zone will be maintained and enhanced in a manner which encourages appropriate human enjoyment and interaction. Whilst the primary intent of the zone is to enhance the natural character of the area, carefully managed development which has a demonstrated benefit to the community is envisaged.

Facilities will include but are not limited to walking and cycling trails, interpretative and recreational activities, formalised open space and car parking. It is envisaged that roads will be developed in the zone to enable movement between areas – refer [Map Ga/1 \(Overlay 1\) Enlargement G](#).

A high pressure gas transmission pipeline traverses the zone as shown on [Map Ga/1 \(Overlay 1\) Enlargement G](#). It is required that development within the zone comply with *AS2885 (Pipeline Gas and Liquid Petroleum)* to ensure minimum pipeline safety requirements have been met.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following forms of development are envisaged in the zone:
 - conservation work
 - farming
 - outbuilding associated with open space maintenance
 - lighting
 - playground
 - recreation area
 - sporting club facility
 - structure associated with a public facility such as car parking, picnic / barbeque area, shelter and toilet
 - toilet block and barbeque facility.
- 2 Development listed as non-complying is generally inappropriate.
- 3 Publicly owned land within the MOSS should be used for any of the following:
 - (a) to provide natural or landscaped open space using locally indigenous plant species
 - (b) to accommodate a range of public recreation, sporting and institutional facilities and uses
 - (c) to accommodate stormwater retention and management
 - (d) to conserve and restore areas of remnant native vegetation and wildlife habitats and corridors
 - (e) to conserve sites of scientific, cultural or heritage interest
 - (f) for revegetation purposes using locally indigenous plant species
 - (g) to provide a buffer to adjoining areas of conservation significance.
- 4 Privately owned land within the MOSS should be used for any of the following:
 - (a) rural activities and agriculture (but not intensive animal keeping)
 - (b) low-impact sporting facilities
 - (c) conservation purposes.
- 5 Development should allow for unstructured passive and active recreation.

Form and Character

- 6 Development should not be undertaken unless it is consistent with the desired character for the zone.
- 7 Development should only occur where it is integral to the aesthetic, drainage or recreation function of the zone.
- 8 Buildings should be:
 - (a) restricted in size and number
 - (b) sited so as not to detract from the open natural character of the policy area

(c) constructed of materials which blend with the riverine landscape.

- 9 Development should ensure coordinated design with an emphasis on the creation of pedestrian areas.
- 10 Landscaped buffers should be provided around the perimeter of recreation or sporting facilities.
- 11 Landscaping should comprise locally indigenous species and incorporate existing remnant vegetation.
- 12 Development should ensure that public access to the Linear Park is retained and enhanced for cyclists and pedestrians.
- 13 Development, landscaping, and paths for pedestrians and cyclists should
 - (a) take into account the changing flow regime and width of waterways and
 - (b) be constructed of permeable material where practical to reduce stormwater runoff.

Land Division

- 14 Land division should not be undertaken except where
 - (a) it will facilitate the development of an envisaged use in the zone or policy area
 - (b) it will facilitate the development of an envisaged road in the zone or policy area or
 - (c) no additional allotments are created.

PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

Non-complying Development

Development (including building work, a change in the use of land, or division of an allotment) for the following is non-complying:

Advertisement and /or advertising hoarding
Amusement machine centre
Consulting room
Crematorium
Dairy
Dwelling
Educational establishment
Fuel depot
Horticulture
Hospital
Hotel
Industry
Intensive animal keeping
Motel
Motor repair station
Nursing home
Office except in association with recreation facilities
Petrol filling station
Place of worship
Pre-school
Prescribed mining operations
Public service depot
Residential flat building
Restaurant
Road transport terminal
Service trade premises
Shop of group of shops except where the gross leasable area is less than 80 square metres
Stock sales yard
Stock slaughter works
Store
Tourist accommodation
Warehouse
Waste reception, storage, treatment or disposal
Wrecking yard

Public Notification

Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

ATTACHMENT H

Residential (Gawler East) Zone

The Objectives and Principles of Development Control that follow apply in the Residential (Gawler East) Zone shown on Gawler [Maps Ga/5, 6, 9 and 22](#) and [Policy Areas Map Ga/16 and 19](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

- Objective 1:** A predominately residential area comprising a range of low and medium-density dwellings, with associated infrastructure, retail, commercial, recreational, educational and community development in master-planned locations in accordance with [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#).
- Objective 2:** A residential zone comprising a range of dwellings types, including a minimum of 15 per cent affordable housing.
- Objective 3:** Increased dwelling densities in close proximity to centres, future public transport routes and public open spaces.
- Objective 4:** Open space systems designed to provide multiple use reserve areas that promote water management, habitat retention and enhancement, and recreational linkages.
- Objective 5:** Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Residential (Gawler East) Zone is located within both the Town of Gawler and The Barossa Council. The Gawler East area encompasses broad hectare land which is expected to support a population of approximately 10,000 persons.

The zone will develop in accordance with [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#) and be undertaken in an orderly manner that achieves the most efficient use of land, the extension or expansion of infrastructure services and the timely provision of community facilities. No more than 1000 allotments should be created within the area defined by [Gawler East Development Constraints Concept Plan Figure CoP/5](#) until such time as the collector road is complete.

The zone will accommodate a diversity of housing forms. The Mixed Use Centre Policy Area 3 will comprise a mix of residential development and a range of commercial, retail, educational, recreational and community facilities. A smaller range of retail facilities, together with compact housing are anticipated within the Local Centre Policy Area 19.

It is essential that development respects and enhances the natural attributes of the zone through the retention of significant views, creek lines, native vegetation and locations of ecological significance. Innovative and best practice solutions in respect to water reuse, grey water supply and stormwater management will be implemented.

Dwellings will range between 1 and 3 storeys in height; however buildings at the interface with adjoining zones other than the Open Space Zone will not exceed 2 storeys.

Buildings of between 3 and 5 storeys, such as apartment buildings, will be located in the Mixed Use Centre Policy Area 3, the former quarry area, adjacent to open space, and where necessary to frame the end of important or significant vistas. It is important that development achieve a clear transition in building height for a cohesive streetscape.

Housing forms will be simple and incorporate a high degree of articulation to the street façade while delivering a mix of housing types and forms to provide interesting streetscapes and promote social interaction. This will include the provision of recessed vehicle garaging and the inclusion of front verandas/porticos and appropriate landscaping.

The delivery of housing diversity will require innovative solutions for front or rear access and parking. Rear access will be provided in the form of 'service lanes', which support vehicular access requirements at reduced speeds providing a safe pedestrian environment.

Allotment configuration is envisaged to be compact particularly within the Mixed Use Centre Policy Area 3, with building setbacks minimised to assist in facilitating an enclosed and active street. This will incorporate opportunities for multi-storey apartments, terrace and rear lane mews housing that will achieve a range of housing types within a single street.

The slope of the land will dictate the location of particular dwelling types, with some more compact dwelling types located on relatively flat sites, whilst more traditional dwelling types will be located on those portions of the site with moderate to high slope. Greater setbacks are envisaged on topographically steep sites in order to satisfactorily deal with earthworks and driveway gradients.

The form and distribution of major open space will be influenced by the need for stormwater detention, treatment and re-use given limitations on the potable water supply for the area. It will also be influenced by the location of drainage corridors, and the need to integrate with existing corridors, including the eastern escarpment at Evanston Park. Public open space areas will need to accommodate both active and passive recreation opportunities and the retention of identified habitat areas of significance.

A network of linear parks including cohesive pedestrian and bicycle movement corridors and visual links will be established between the new development and adjoining natural creek lines, public recreation areas, local shopping and community services and surrounding road networks.

Portion of the southern boundary of the zone is located adjacent to the Para Woodland Reserve. It is essential that development form an appropriate interface with the Para Woodland Reserve. The interface will act as a buffer between the residential area and the Reserve, balancing access, management of bushfire risk, management of potential invasion by pest plants, minimising the impact of domestic pets on native wildlife and as a provision of open space. The interface will vary in width as appropriate to meet the above criteria and will comprise of a combination of roads, paths, public open space and, where appropriate, areas of natural character for stormwater management. Where housing is included in the interface area it is expected that houses will address the Reserve. The interface area will be planted with locally indigenous species (mainly groundcovers and low shrubs) selected to minimise the bushfire risk by providing an area of reduced fuel hazard.

The north-eastern, eastern and southern boundary of the zone adjoins agricultural, rural and rural living land. It is essential that development provide an appropriate buffer between dwellings and land used for agriculture. Larger allotments together with open space and road networks and increased dwelling setbacks will be established at the peripheries of the zone boundary in order to provide an appropriate low density transition and interface with adjacent rural and rural living land.

The collector road shown on [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#) is intended to have a boulevard character comprising wide footpaths and cycle paths on both sides and substantive street tree plantings. Dwellings will front and address the road with setbacks to contribute to the boulevard character.

A high pressure gas transmission pipeline traverses the zone as shown on [Map Ga/1 \(Overlay 1\) Enlargement G](#). It is required that development within the zone comply with *AS2885 (Pipeline Gas and Liquid Petroleum)* to ensure minimum pipeline safety requirements have been met.

The Infrastructure Corridor has been created in response to the presence of key public infrastructure, namely 132 kV and 275 kV transmission lines. This infrastructure comprises a significant component of the State's high voltage power transmission network. The zone provisions are aimed at protecting this significant public infrastructure from encroachment by incompatible land uses and protecting the infrastructure corridor from being fragmented by land division and therefore ensuring on-going access for maintenance is available and that the security and reliability of the power network is not compromised. No residential allotments should infringe on the corridor or existing easement. This corridor provides the opportunity for co-locating compatible land use activities such as other appropriate infrastructure, at-grade car parking and roads, a linear park or a cycling/walking trail.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following forms of development are envisaged in the zone:
 - affordable housing
 - community facilities
 - domestic outbuilding in association with a dwelling
 - domestic structure
 - dwelling
 - dwelling addition
 - dwelling with associated home based business uses
 - non-residential use that serves the local community, for example:
 - child care facility
 - health and welfare service
 - open space
 - primary and secondary school
 - recreation area
 - shop, office or consulting room
 - supported accommodation
- 2 Development listed as non-complying is generally inappropriate.

Form and Character

- 3 Development should not be undertaken unless it is consistent with the desired character for the zone.
- 4 Development should occur in accordance with [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#).
- 5 Road reserves should be of a width, design and alignment that can:
 - (a) provide for safe and convenient movement and parking of vehicles and other users according to projected vehicle volumes, speeds and the character of the road
 - (b) accommodate bus routes where required
 - (c) provide for shared, on-street parking bays for nearby residents and visitors wherever practical to achieve unrestricted movement along collector roads
 - (d) allow vehicles to enter or reverse from an allotment or garage in a single movement, allowing for cars parked on the opposite side of the road (where applicable) or fixed infrastructure on the street
 - (e) allow for the efficient movement of service and emergency vehicles and
 - (f) accommodate street planting, landscaping, street furniture and utilities infrastructure.
- 6 The use and placement of outbuildings should be ancillary to and in association with a dwelling or dwellings.

Land Division

- 7 Land division should facilitate the provision of a broad range of housing options, including affordable housing.
- 8 Land division should accommodate open space and movement networks that provide for strong connections and safe and convenient access to public facilities, public transport and potential future development of adjoining sites.
- 9 Land division:
 - (a) should not exceed 1000 allotments until at least the following infrastructure indicated by [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#) has been constructed:

- (i) a collector road between Calton Road and One Tree Hill Road; and
 - (ii) a collector road between One Tree Hill Road and Potts Road; and
 - (iii) an upgrade of Potts Road and its intersection with Main North Road to accommodate the traffic flows associated with further continued development.
- (b) should not prejudice the construction of the collector road indicated by [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#).

10 Rear lanes should:

- (a) have a minimum reserve width of 6.5 metres
- (b) be limited in length to a maximum of 100 metres
- (c) have a minimum carriageway width of 5.5 metres
- (d) protuberances to accommodate landscaping and lighting should not exceed 1.0 metre
- (e) landscaping should be in the form of tall vertical trees in preference to low level shrubs
- (f) be designed to accommodate garbage trucks and emergency service vehicles.

11 Public lighting should be provided to all public roads, laneways, paths and open spaces.

12 Development with frontage to the eastern side of the Gawler – One Tree Hill scenic road should be established on allotments of no less than 1000 square metres in area and incorporate screen planting between buildings and the road in order to provide a distinctive landscape character along this corridor.

13 Land located west of the South Para River should not be divided for the purpose of creating additional allotments unless forming part of an integrated development scheme where all infrastructure is delivered to service the land in an orderly and economic manner including potable water supply, grey water supply, waste water disposal, formed all-weather public roads and access, and stormwater disposal.

14 Detention and/or retention basins should incorporate good design techniques that:

- (a) allow sediments to settle so as to treat stormwater prior to discharge into watercourses or the marine environment;
- (b) ensure human health and safety, particular with respect to high velocity drainage points;
- (c) ensures the control of mosquitoes and nuisance insects (eg midges); and
- (d) where wetlands are used for the cleaning of stormwater it is advisable that the storage is able to retain the 25 year, 24 hour rainfall event.

15 Transmission lines should be protected from encroachment through the provision of:

- (a) a 30 metre wide corridor (15 metres each side from the centreline) for the 132kV line
- (b) a 50 metre wide corridor (25 metres each side from the centreline) for the 275kV line.

16 Residential allotments should not be created within the Major Transmission Infrastructure Corridors shown on [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#), or within the existing easements for the 132kV and 275kV transmission lines.

Land Use and Density

- 17 Housing with an average site area for dwellings less than 250 square metre should be located within the Mixed Use Centre Policy Area and Local Centre Policy Area or within walking distance of public open space, local shops and public facilities.

Built Form/Setbacks

- 18 Buildings should not exceed the following heights:
- (a) two storey development for properties adjacent to the boundary of adjoining zones other than the Open Space Zone
 - (b) three storeys for the balance of the zone, other than apartment/mixed use buildings within the Mixed Use Centre Policy Area where a 5 storey limit applies.
- 19 Where allotments have direct frontage to an open space reserve, housing should address the reserve.
- 20 Where an allotment immediately adjoins public open space, clear, safe and convenient pedestrian access should be provided to the dwelling.
- 21 Residential building setbacks should satisfy the minimum dimensions outlined in Table 1 except where a proposed plan of division is accompanied by a building envelope plan that demonstrates that lesser building setbacks will contribute to the achievement of the desired character for the zone:

Table 1

Parameter	Value
Primary Street Frontage (excluding arterial or collector roads forming the zone boundary and the One Tree Hill Scenic Road shown on Map Ga/1 (Overlay 1) Enlargements Part A and Part B)	3.0 metres to front facade 1.5 metres for dwellings where vehicle access obtained from the rear or side 1.5 metres to veranda/balcony elements 0.5 metres to entry porch and portico
Secondary Street Frontage (Corner Lots)	1.5 metres to facade 0.6 metres for dwellings on allotments with a frontage equal to or less than 9.0 metres 0.5 metres for veranda/balcony elements 0 metres for entry porch/portico
Side Boundary (excluding road frontage)	0.0 metres for dwellings on allotments with a road frontage equal to or less than 9.0 metres; 0.9 metres for dwellings on allotments with a frontage greater than 9.0 metres, other than a garage wall with a maximum length of 6.0 metres
Rear Boundary (other than rear lane)	0.9 metres
Open Space Reserve Frontage	1.5 metres where dwellings front the reserve 0.5 metres to entry porch and portico, veranda and balcony elements.
Single Carport/Garage	5.0 metres from primary street frontage 0.5 metres for laneway frontage
Double Carport/Garage	5.0 metres from primary street frontage 0.5 metres for laneway frontage

Parameter	Value
Arterial or Collector Roads	6.0 metres to front façade 5.5 metres to carport/garage 4.0 metres to veranda/balcony
One Tree Hill Scenic Road shown on Map Ga/1 (Overlay 1) Enlargements Part A and Part B	15.0 metres to all buildings (excluding minor protrusions such as porches, porticos, eaves, verandas, balconies or similar)
Rear Lane (upper level dwelling)	0.5 metres for laneway frontage

Private Open Space

22 Dwellings should include private open space which conforms to the requirements of Table 2:

Table 2

Site area of dwelling	Minimum area of private open space	Provisions
Greater than 250 square metres	60 square metres (minimum dimension of 2.5m)	(a) Balconies, roof patios, decks and the like, can comprise part of this area provided the area of each is 8 square metres or greater and has a minimum dimension of 2.0m. (b) One part of the space should be directly accessible from a living room and have an area of 25 square metres with a minimum dimension of 4 metres and a maximum gradient of 1-in-10.
250 square metres and less	35 square metres (minimum dimension of 2.5m)	(a) Balconies, roof patios and the like can comprise part of this area provided the area of each is 8 square metres or greater and has a minimum dimension of 2.0m. (b) One part of the space is directly accessible from a living room and has an area of 16m ² with a minimum dimension of 4 metres and a maximum gradient of 1-in-10.
	25 square metres (minimum dimension of 2.5m) where:	(a) The dwelling has no more than two bedrooms (or rooms that could reasonably be used as bedrooms) and a total floor area of not more than 110m ² (b) Separate areas are provided for the provision of a rainwater tank and the storage of refuse and recycling bins.
Upper level dwellings	Minimum area of private open space	(a) 8 square metres and accessible from a living room.

Amenity and Public Spaces

23 Residential development should have regard to existing and possible future noise sources with respect to site layout, orientation, design and construction to ensure a safe and comfortable residential environment and to minimise conflict with existing non-residential activities.

- 24** Front fencing should balance the desire for an open streetscape and passive surveillance with the need for functional privacy. Clear delineation should be provided between public and private spaces, which may incorporate fencing, landscaping or a combination of these elements.
- 25** Filling of land exceeding 1.0 metre in height is appropriate where both of the following can be achieved:
- (a) it is associated with the remediation and development of the former quarry site
 - (b) consequential retaining is not directly visible from a public road.
- 26** Residential development should provide an area for the storage of waste receptacles that is screened from primary and secondary street frontages.

Bushfire Protection

- 27** To protect against bushfire, dwellings should not be sited within 40 metres of a slope greater than 20 degrees, where the length of the slope is greater than 10 metres and covered by unmanaged vegetation.

Separation of Use

- 28** Development should be designed and sited to minimise negative impact on existing and potential future land uses considered appropriate in the locality.
- 29** Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.

Car Parking

- 30** For each dwelling, the maximum width (including the width of any support structure) of any garage or carport opening that faces a street, should be no greater than six metres or 50 per cent of the frontage width, whichever is the lesser, except where a site has a frontage of less than 12 metres and the dwelling is:
- (a) two or more storeys; and
 - (b) incorporates protrusions such as verandas, projecting windows, porches, balconies etc which provide articulation in the building as it presents to the street, in which case garages or carports should have a maximum width of 6 metres or 80 per cent of the width of the site, whichever is the lesser.
- 31** No maximum width applies to garage or carport openings where a site has rear vehicular access and from which vehicular access is obtained.
- 32** Development within Mixed Use Centre Policy Area 3 and Local Centre Policy Area 19 should provide off-street visitor car parking in accordance with the following table based on calculations relating to net-leaseable floor areas:

Form of Development	No. of required car spaces
Apartment	1 space for every unit plus 1 additional space for every 5 2-bedroom units plus 1 additional space for every 3 bedroom unit with a visitor park of 1 space for every 5 units
Bank	5.5 spaces per 100 square metres
Office	4 spaces per 100 square metres
Post Office	5.5 spaces per 100 square metres

Form of Development	No. of required car spaces
Shop	5.5 spaces per 100 square metres
Video Store	5.5 spaces per 100 square metres

Affordable Housing

- 33 Development should include a minimum 15 per cent of residential dwellings for affordable housing.
- 34 Affordable housing should be distributed throughout the zone to avoid over-concentration of similar types of housing in a particular area.
- 35 Dwellings constituting affordable housing should be designed within the parameters shown in Table 3.

Table 3

Parameter	Dwelling Type				
	Detached	Semi-Detached	Group	Residential Flat Building	Row
Minimum area of private open space for ground level dwellings	20 square metres	20 square metres	20 square metres	20 square metres	20 square metres
Minimum area of private open space in the form of a balcony for dwellings above ground level	8 square metres	8 square metres	8 square metres	8 square metres	8 square metres
Minimum open space dimension	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies
Minimum number of on site car parking spaces	1	1	1	1	1

PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

Non-complying Development

Development (including building work, a change in the use of land, or division of an allotment) for the following is non-complying:

Crematorium

Development in the form of land division in the area defined by the Gawler East Development Constraints Concept Plan Figure CoP/5 is non-complying if:

- (a) there exist 1000 allotments within the area defined by the Gawler East Development Constraints Concept Plan Figure CoP/5 and
- (b) the following infrastructure has not been completed in full:
 - (i) a collector road between Calton Road and One Tree Hill Road
 - (ii) a collector road between One Tree Hill Road and Potts Road
 - (iii) an upgrade of Potts Road and its intersection with Main North Road to accommodate the traffic flows associated with further continued development.

Fuel Depot

Horticulture

Hospital except where located within Mixed Use Policy Area 3

Industry

Intensive animal keeping

Junk Yard

Major public service depot

Office greater than 150 square metres, except where located within Mixed Use Centre Policy Area 3 and/or Local Centre Policy Area 19

Prescribed mining operations

Refuse destructor

Shop or group of shops with a gross leaseable floor area exceeding 250 square metres, except where located within Mixed Use Centre Policy Area 3 and/or Local Centre Policy Area 19

Telecommunications Facility above 30 metres in height

Warehouse

Waste reception, storage, treatment or disposal, except a sewerage treatment plant.

Public Notification

Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*. Further, all development listed within Principle of Development Control 1 of the Residential (Gawler East) Zone, Mixed Use Policy Area 3 and/or Local Centre Policy Area 19 are designated category 2 (except where the development is classified as Category 1 or non-complying).

Mixed Use Centre Policy Area 3

The Objectives and Principles of Development Control that follow apply in the Mixed Use Centre Policy Area 3 of the Residential (Gawler East) Zone shown on Policy Areas [Map Ga/16](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

- Objective 1:** A functional and diverse zone accommodating a mix of commercial, retail, recreation, community, residential, office, consulting rooms and educational uses.
- Objective 2:** Development that minimises any adverse impacts upon the amenity of the locality within the policy area.
- Objective 3:** Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

Mixed Use Centre Policy Area 3 will accommodate retail, commercial, community, education and formal recreation facilities and clubrooms to service the local community. It is envisaged that a full range of residential development will form an integral component of this policy area to activate it outside of commercial and retail business hours. Housing forms will include, but not be limited to, mixed use development within a single building where dwellings will typically be established above non-residential land uses.

Low impact, commercial business activities that provide employment opportunities for the local population are envisaged. Such development will need to have particular regard to ensuring that minimal off-site impacts occur with respect to noise, air, water and waste emissions, commercial traffic generation and movement.

A retail facility, not exceeding 10,000 square metres in floor area, will comprise a supermarket and a range of specialty shops to serve the weekly shopping needs of the community. Restaurants, cafes, hotels (incorporating dining) and take away outlets are envisaged and will develop the centre as a destination point and provide uses that extend the hours of the centres operation to promote surveillance and safety of the adjacent recreation and education facilities.

It is envisaged that community facilities and additional educational establishments will be established to complement the existing role of the Gawler township. Future educational establishments will be located in accordance with the [Structure Plan Map Ga/1 \(Overlay 1\)](#). Schools are expected to form a focal point for the new community providing opportunities for the establishment of significant buildings and shared open space.

In terms of urban design and built form, a 'main street' environment will be created, where buildings address the street and car parks are primarily located to the rear. In order to minimise the overall extent of off street parking shared car parking is encouraged, and the convenience, availability and function of on street parking in mixed use environments will be recognised.

Gathering points for formal and informal community events will be established, either by means of a central pedestrian plaza, a village green or series of nodes.

Commercial and mixed use buildings will be established close to the street frontage and incorporate verandas and other protruding elements in order to create a pedestrian-friendly environment and outdoor dining opportunities. These areas will be enhanced by large street trees, high quality paving, lighting and street furniture. Building facades will be designed in a manner to create diversity of interest through the appearance of an aggregation of smaller buildings.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following forms of development are envisaged in the policy area:

- advertisement

- bank
- child care centre
- community facility
- consulting room
- detached dwelling
- educational establishment
- group dwelling
- health centre
- home activity
- hospital
- hotel
- indoor recreation centre
- library
- motel
- nursing home
- office
- office and dwelling
- personal service establishment
- petrol filling station
- place of worship
- pre-school
- recreation area
- residential flat building
- restaurant
- retail showroom
- row dwelling
- semi-detached dwelling
- serviced accommodation
- shop
- shop and dwelling
- supermarket.

2 Development listed as non-complying is generally inappropriate.

Form and Character

3 Development should be designed to ensure that:

- (a) buildings are designed to address the street frontage with servicing areas located internal to the centre and appropriately screened from public view
- (b) the establishment of shared car parking areas to the rear of buildings and on-street.

4 Public space established should be activated by uses around its edges.

5 Buildings should have a maximum of 5 storeys in height.

6 Development should not be undertaken unless it is consistent with the desired character for the policy area.

Local Centre Policy Area 19

The Objectives and Principles of Development Control that follow apply in the Local Centre Policy Area 19 of the Residential (Gawler East) Zone shown on Policy Area [Map Ga/19](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

- Objective 1:** A policy area accommodating small-scale convenience shopping, office, medical and community facilities to serve the day-to-day needs of the local community.
- Objective 2:** A policy area characterised by a traditional corner store or small groups of shops located within easy walking distance of the population they serve.
- Objective 3:** A policy area accommodating residential development in conjunction with non-residential development.
- Objective 4:** Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

The Local Centre Policy Area 19 will be developed as a mixed use centre providing daily purchase opportunities for the population at the southern end of the zone. A supermarket of 1000 – 1500 square metres is anticipated.

A diversity of housing forms will also be established in the zone, taking advantage of the relatively flat land and access to retail services.

Buildings will be designed to encourage active street frontages and minimise the visibility of car parking from the public realm.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following forms of development are envisaged in the policy area:

- advertisement
- community facility
- consulting room
- detached dwelling
- group dwelling
- office
- office and dwelling
- residential flat building
- row dwelling
- semi-detached dwelling
- shop
- shop and dwelling
- supermarket.

2 Development listed as non-complying is generally inappropriate.

Form and Character

3 Development should not be undertaken unless it is consistent with the desired character for the policy area.

Land Division

- 4 Land division in the policy area is appropriate provided new allotments are of a size and configuration to ensure the objectives of the policy area can be achieved.

ATTACHMENT I

Residential Hills Zone

The Objectives and Principles of Development Control that follow apply in the Residential Hills Zone shown on Gawler [Maps Ga/5, 6, 9 and 22](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

- Objective 1:** A residential zone primarily comprising of detached dwellings at low densities.
- Objective 2:** Residential development sensitive to the particular topography of the area and which has minimal visual and environmental impacts.
- Objective 3:** Open space systems designed to provide multiple use reserve areas that promote water management, habitat retention and enhancement, and informal recreational linkages.
- Objective 4:** Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Residential Hills Zone comprises both undulating and in parts topographically steep land. Key features of the land are existing interfaces with the South Para River, other natural drainage corridors and remnant native vegetation. The majority of allotments within the zone contain detached dwellings, some of which are associated with low intensity rural uses.

The zone will develop in accordance with [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#) and be undertaken in an orderly manner that achieves the most efficient use of land, the extension or expansion of infrastructure services and the timely provision of community facilities. No more than 1000 allotments should be created within the area defined by [Gawler East Development Constraints Concept Plan Figure CoP/5](#) until such time as the collector road is completed.

Development will comprise predominantly detached dwellings. This is a consequence of the slope of the land, some of which is too steep to readily accommodate compact housing forms.

The southern boundary of the zone adjoins agricultural, rural and rural living land. It is essential that development provide an appropriate buffer between dwellings and land used for agriculture. A range of allotment sizes for residential development will be provided for, with small allotments being established on land which is both central to the zone and on land which is not topographically steep. Larger allotments together with open space and road networks and increased dwelling setbacks will be established at the peripheries of the zone boundary in order to provide an appropriate low density transition and interface with adjacent rural and rural living land.

It is essential that development respects and enhances the natural attributes of the zone through the retention of significant views, creek lines, native vegetation and locations of ecological significance. Innovative and best practice solutions in water reuse, grey water supply and stormwater management will be implemented.

Development will be designed to minimise alteration to the natural landform. The natural features of the land will be used to minimise the visual dominance of dwellings, outbuildings and retaining walls, particularly when viewed from the street.

Mature trees and extensive landscaping will contribute to the zone's desired character. All development will need to be designed and managed to ensure adequate fire protection measures can be established and maintained.

Housing forms will be simple and incorporate a high degree of articulation to the street façade while delivering a mix of housing types and forms to provide interesting streetscapes and promote social interaction. This will include the provision of recessed vehicle garaging and inclusion of front verandas/porticos and appropriate landscaping.

The relationship between landscaping contained within road reserves and private gardens will be maintained and reinforced to retain a heavily vegetated character for the area.

The form and distribution of major open space will be influenced by the need for stormwater detention, treatment and re-use given limitations on the potable water supply for the area. It will also be influenced by the location of drainage corridors, and the need to integrate with existing corridors, including the eastern escarpment at Evanston Park. Public open space areas will need to accommodate both active and passive recreation opportunities and the retention of identified habitat areas of significance.

A network of linear parks including cohesive pedestrian and bicycle movement corridors and visual links will be established between the new development and adjoining natural creek lines, public recreation areas, local shopping and community services and surrounding road networks.

The collector road shown on [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#) is intended to have a boulevard character comprising wide footpaths and cycle paths on both sides and substantive street tree plantings. Dwellings will front and address the road with setbacks to contribute to the boulevard character.

A high pressure gas transmission pipeline traverses the zone as shown on [Map Ga/1 \(Overlay 1\) Enlargement G](#). It is required that development within the zone comply with *AS2885 (Pipeline Gas and Liquid Petroleum)* to ensure minimum pipeline safety requirements have been met.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following forms of development are envisaged in the zone:
 - detached dwelling
 - domestic outbuilding in association with a dwelling
 - domestic structure
 - dwelling addition
 - dwelling with associated home based business uses
 - semi-detached dwelling
 - small scale non-residential use that serves the local community, for example:
 - open space
 - recreation area
 - supported accommodation.
- 2 Development listed as non-complying is generally inappropriate.
- 3 Development should occur in accordance with [Structure Plan Map Ga/1 \(Overlay 1\) Enlargement G](#).
- 4 Road reserves should be of a width, design and alignment that can:
 - (a) provide for safe and convenient movement and parking of vehicles and other users according to projected vehicle volumes, speeds and the character of the road;
 - (b) accommodate bus routes where required
 - (c) provide for shared, on-street parking bays for nearby residents and visitors wherever practical to achieve unrestricted movement along collector roads;
 - (d) allow vehicles to enter or reverse from an allotment or garage in a single movement, allowing for cars parked on the opposite side of the street (where applicable) or fixed infrastructure on the street;
 - (e) allow for the efficient movement of service and emergency vehicles; and
 - (f) accommodate street tree planting, landscaping, street furniture and utilities infrastructure.
- 5 Vacant or underutilised land should be developed in an efficient and co-ordinated manner to increase housing choice by providing dwellings at densities higher than, but compatible with adjoining residential development.

- 6 Development of semi-detached dwellings and land division for such purposes should only occur where the gradient of each semi-detached dwelling site is no steeper than 1-in-8.
- 7 Non-residential development such as shops, schools and consulting rooms should be of a nature and scale that:
 - (a) serves the local community
 - (b) is consistent with the character of the locality
 - (c) does not detrimentally impact on the amenity of nearby residents.
- 8 The use and placement of outbuildings should be ancillary to and in association with a dwelling or dwellings.
- 9 Development with frontage to the eastern side of the Gawler – One Tree Hill scenic road should be established on allotments no less than 1000 square metres in area and incorporate screen planting between buildings and the road in order to provide a distinctive landscape character along this corridor.

Form and Character

- 10 Development should not be undertaken unless it is consistent with the desired character for the zone.
- 11 Development should be designed and sited to relate to the slope of the land, so that:
 - (a) the bulk and scale of the buildings do not dominate the landscape
 - (b) the amount of cutting and filling of the natural ground profile is minimised
 - (c) views from adjoining dwellings and public open spaces are maintained.
- 12 The conversion of an existing dwelling into two or more dwellings may be undertaken provided that the building and front yard retain the original external appearance to the public road.
- 13 For each dwelling, the maximum width (including the width of any support structure) of any garage or carport opening that faces a street, should be no greater than six metres or 50 per cent of the frontage width, whichever is the lesser except where a site has frontage of less than 12 metres and the dwelling is:
 - (a) two or more storeys; and
 - (b) incorporates protrusions such as verandas, projecting windows, porches, balconies etc which provide articulation in the building as it presents to the street, in which case garages or carports should have a maximum width of 6 metres or 80 per cent of the width of the site, whichever is the lesser.

Building Setbacks

- 14 Buildings should be setback from the allotment boundary on the primary frontage as follows:
 - (a) no less than 1.5 metres where the allotment immediately adjoins a public reserve and has rear vehicular access
 - (b) no less than of 3.0 metres elsewhere (excluding minor protrusions such as a porch, portico, eave, veranda, balcony or similar).

- 15 Dwellings (other than minor protrusions) should be setback from property boundaries in accordance with the minimum dimensions contained in Table 1 except where a proposed plan of division is accompanied by a building envelope plan that demonstrates that lesser building setbacks will contribute to the achievement of the desired character for the zone.

Table 1

Lot type	North – South				
	Front Facade	Side		Rear	
	All	1 storey	2 storey and above	1 storey	2 storey and above
<10m wide	3m	0m (max length 15m) or 1m	0m (max length 15m) or 1 m	3m	3m
≥10m wide	5m	0m (max length 15m) or 1m	0m (max length 15m) or 1 m	3m	3m
<10m wide with rear lane	2m	0m (max length 15m) or 1 m	0m (max length 15m) or 1 m	0m min and 1m max	0m min and 1m max
≥10m wide with rear lane	2m	0m (max length 15m) or 1 m	0m (max length 15m) or 1 m	0m min and 1m max	0m min and 1m max

Lot Type	Front Facade	Southern Side		Northern Side		Rear		
		All	1 storey	2 storey and above	1 storey	2 storey and above	1 storey	2 storey and above
		<10m wide	3m	0m (max length 15m) or 1.0m	0m (max length 15m) or 1.5m	0m or 1m	0m or 1m	3m
≥10m wide	5m	1.0m	1.5m	0m (max length of 8m) or 1m	0m (max length of 8m) or 1m	3m	3m	
<10m wide with rear lane	2m	0m (max length 15m) or 1.0m	0m (max length 15m) or 1.0m	0m or 1m	0m or 1m	0m min and 1m max	0m min and 1m max	
≥10m wide with rear lane	2m	1.0m	1.5m	0m (max length 15m) or 1m	0m (max length 15m) or 1m	0m min and 1m max	0m min and 1m max	

- 16** All buildings should be set-back at least 15 metres from the One Tree Hill Scenic Road shown on [Gawler \(CT\) Structure Plan Map Ga/1 \(Overlay 1\) Parts A and B](#).
- 17** Minor protrusions such as a porch, portico, eave, veranda, balcony or similar may extend 1.0 metre closer to the primary street frontage.
- 18** Existing vegetation should be used to screen the building and excavation or filling from view.
- 19** Development that would be prominently visible from the Adelaide plains should:
- (a) achieve a profile that blends with the topography of the land
 - (b) avoid the use of bright and highly reflective external materials and finishes
 - (c) incorporate existing vegetation wherever possible and additional landscaping to assist in reducing the apparent bulk and scale of the building and any site works.
- 20** Development of more than one storey in height should take account of the height and bulk of the proposed building relative to adjoining dwellings by:
- (a) incorporating stepping in the design in accordance with the slope of the land
 - (b) setting back the upper storey of a dwelling a greater distance from front and side boundaries than the lower storey.
- 21** Dwellings, particularly those with ground-level habitable rooms should include private open space that conforms to the requirements identified in Table 2.

Table 2

Site area of dwelling	Minimum area of private open space	Provisions
250 square metres or greater	60 square metres	<p>Balconies, roof patios, decks and the like, can comprise part of this area provided the area of each is 10 square metres or greater.</p> <p>One part of the space should be directly accessible from a living room and have an area equal to or greater than 10 per cent of the site area with a minimum dimension of 5 metres and a maximum gradient of 1-in-10.</p>
Less than 250 square metres	35 square metres	<p>Balconies, roof patios and the like can comprise part of this area provided the area of each is 8 square metres or greater.</p> <p>One part of the space is directly accessible from a living room and has an area of 16 square metres with a minimum dimension of 4 metres and a maximum gradient of 1-in-10.</p>

- 22 A dwelling should have minimum site area (and in the case of residential flat buildings, an average land area per dwelling) and a frontage to a public road not less than that shown in Table 3.

Table 3

Dwelling type	Site area (square metres)	Minimum frontage (metres)
Detached	250 minimum	10
Semi-detached	250 minimum	9
Group dwelling	250 minimum	16
Residential flat building	250 average	16
Row dwelling	200 minimum	5

- 23 Residential development should provide an area for the storage of waste receptacles that is screened from primary and secondary street frontages.
- 24 Land should not be divided for the purpose of creating additional allotments unless forming part of an integrated development scheme where all infrastructure is delivered to service the land in an orderly and economic manner including potable water supply, grey water supply, waste water disposal, formed all-weather public roads and access, and stormwater disposal.
- 25 Land division:
- (a) should not exceed 1000 allotments until at least the following infrastructure indicated by [Structure Plan Map Gal1 \(Overlay 1\) Enlargement G](#) has been constructed:
 - (i) a collector road between Calton Road and One Tree Hill Road; and
 - (ii) a collector road between One Tree Hill Road and Potts Road; and
 - (iii) an upgrade of Potts Road and its intersection with Main North Road to accommodate the traffic flows associated with further continued development.
 - (a) should not prejudice the construction of the collector road as detailed in the [Structure Plan Map Gal1 \(Overlay 1\) Enlargement G](#).
- 26 Detention and/or retention basins should incorporate good design techniques that:
- (a) allow sediments to settle so as to treat stormwater prior to discharge into watercourses or the marine environment;
 - (b) ensure human health and safety, particular with respect to high velocity drainage points;
 - (c) ensures the control of mosquitoes and nuisance insects (eg midges); and
 - (d) where wetlands are used for the cleaning of stormwater it is advisable that the storage is able to retain the 25 year, 24 hour rainfall event.

Bushfire Protection

- 27 To protect against bushfire, dwellings should not be sited within 40 metres of a slope greater than 20 degrees, where the length of the slope is greater than 10 metres and covered by unmanaged vegetation.

PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

Non-complying Development

Development (including building work, a change in the use of land, or division of an allotment) for the following is non-complying:

Advertisement and/or advertising hoarding

Amusement machine centre

Consulting room except where:

(a) the total floor area is less than 100 square metres

(b) the site does not front an arterial road.

Crematorium

Development in the form of land division in the area defined by the Gawler East Development Constraints

[Concept Plan Figure CoP/5](#) is non-complying if:

(a) there exist 1000 allotments within the area defined by the Gawler East Development Constraints [Concept Plan Figure CoP/5](#) and

(b) the following infrastructure has not been completed in full:

(i) a collector road between Calton Road and One Tree Hill Road

(ii) a collector road between One Tree Hill Road and Potts Road

(iii) an upgrade of Potts Road and its intersection with Main North Road to accommodate the traffic flows associated with further continued development.

Dairy

Farming

Fuel depot

Horse keeping

Horticulture

Hospital

Hotel

Industry

Intensive animal keeping

Motor repair station

Office except where:

(a) the total floor area is less than 100 square metres

(b) the site does not front an arterial road.

Petrol filling station

Public service depot

Restaurant

Road transport terminal

Service trade premises

Shop or group of shops except where:

(a) the total floor area is less than 250 square metres

(b) the site does not front an arterial road.

Stock sales yard

Stock slaughter works

Store

Warehouse

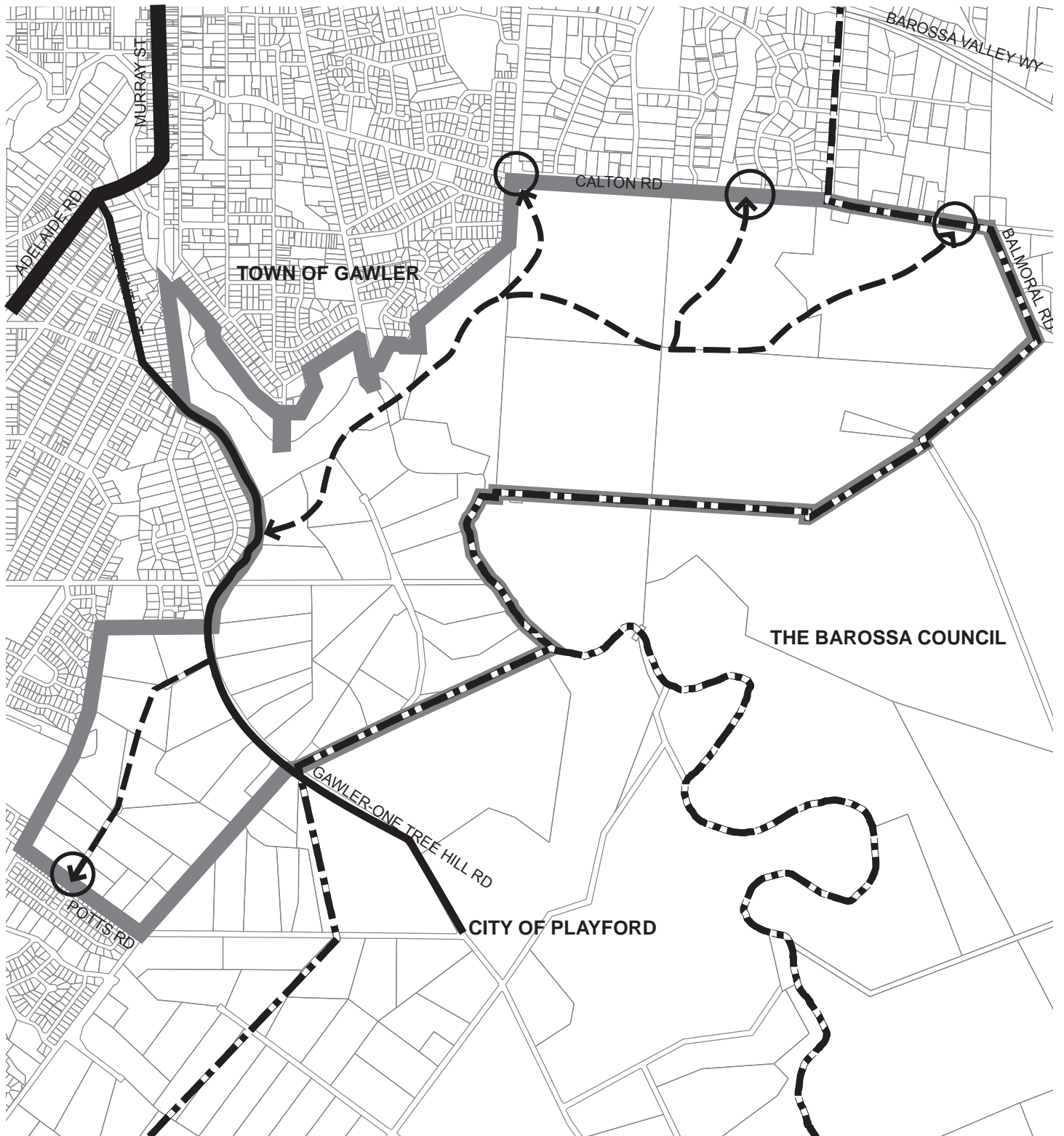
Waste reception, storage, treatment or disposal








Wrecking yard

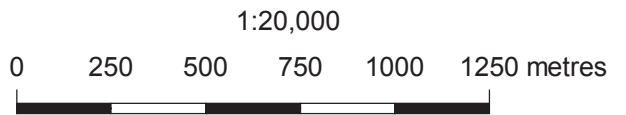
Public Notification

Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

ATTACHMENT J



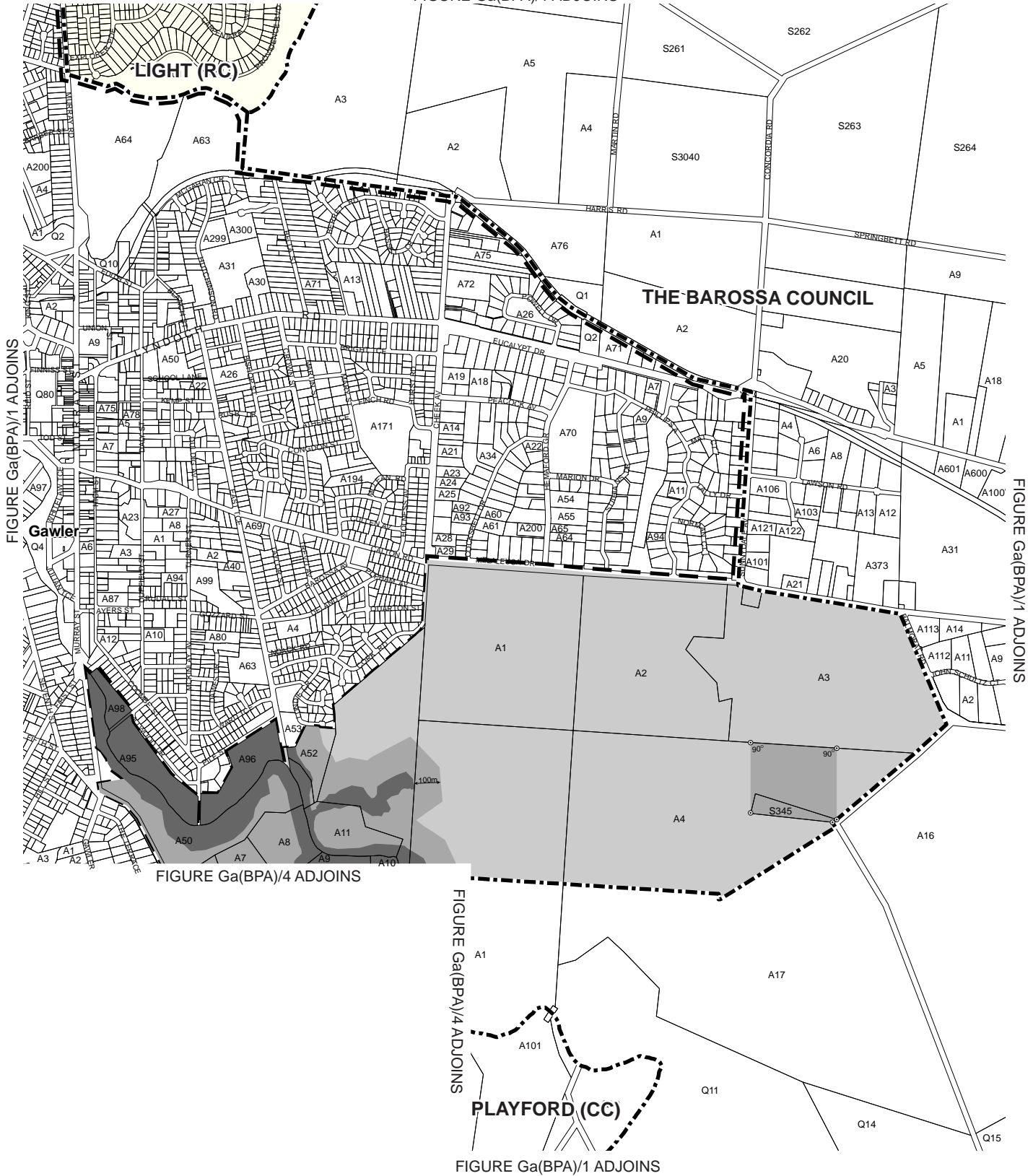
-  Concept Plan Boundary
-  Arterial Road
-  Collector Road
-  Proposed Collector Road
-  Traffic Management
-  Proposed Vehicle access
-  Development Plan Boundary




**GAWLER (CT)
GAWLER EAST
DEVELOPMENT CONSTRAINTS
CONCEPT PLAN FIGURE CoP/5**

ATTACHMENT K

FIGURE Ga(BPA)/1 ADJOINS



NOTE: The boundaries of areas of high bushfire risk identified by this figure align with the boundaries of the Open Space Zone shown on Maps Ga/6, 9 and 22.

-  High Bushfire Risk
-  Medium Bushfire Risk
-  General Bushfire Risk
-  Excluded Area from Bushfire Protection Planning Provisions
-  Development Plan Boundary

GAWLER (CT)

BUSHFIRE PROTECTION AREA

FIGURE Ga(BPA)/2

FIGURE Ga(BPA)/1 ADJOINS

FIGURE Ga(BPA)/2 ADJOINS

FIGURE Ga(BPA)/3 ADJOINS

FIGURE Ga(BPA)/1 ADJOINS

FIGURE Ga(BPA)/5 ADJOINS



NOTE: The boundaries of this area of high bushfire risk aligns with the boundaries of the Open Space Zone shown on Maps Ga/6, 9 and 22.

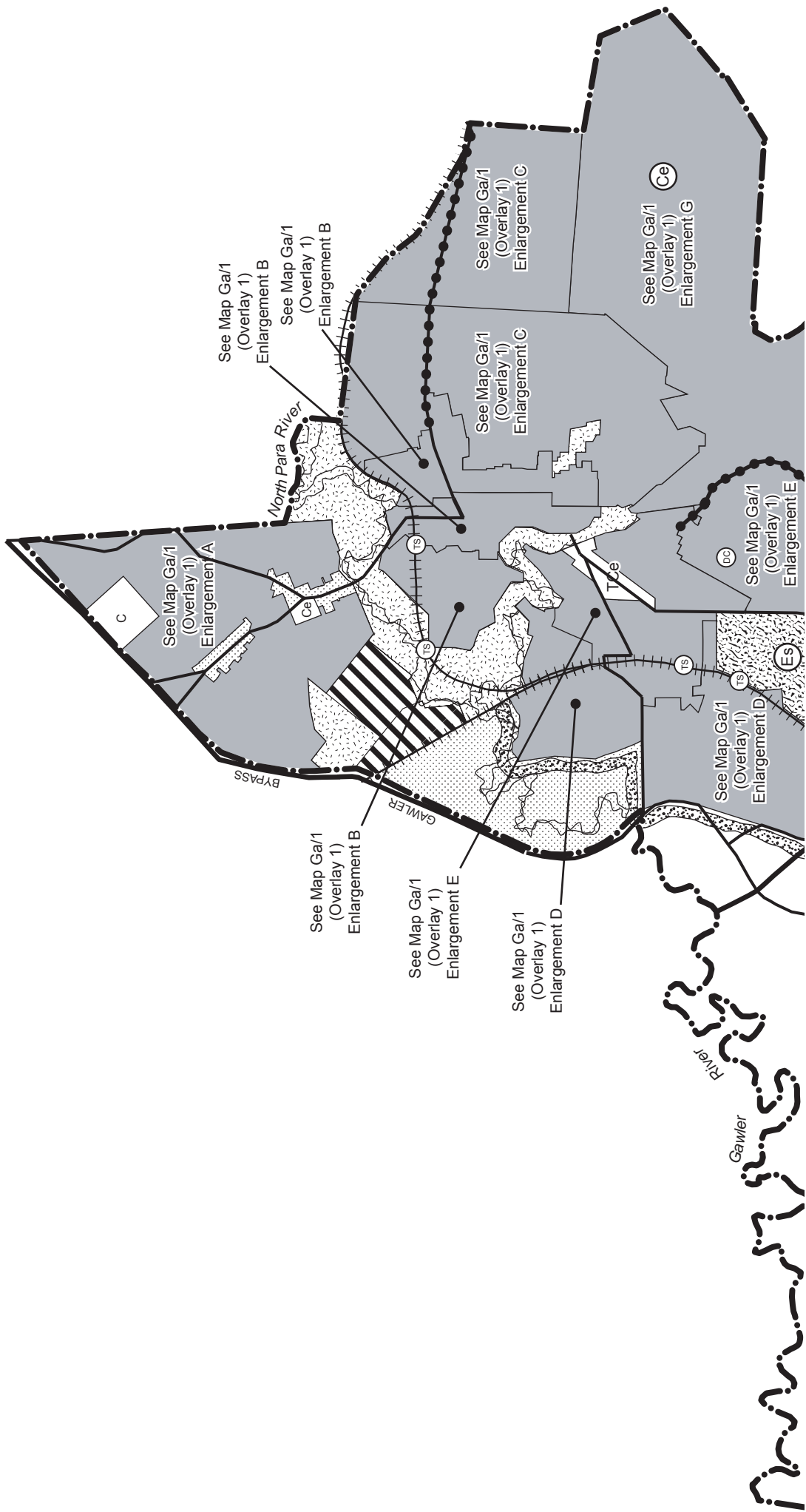


Scale 1:15000



GAWLER (CT)
BUSHFIRE PROTECTION AREA
FIGURE Ga(BPA)/4

ATTACHMENT @



Map Ga/1 (Overlay 1) Part B Adjoins

Living

Industrial

Recreation

Rural

Special Uses

Open Space

Town Centre

Education (Secondary)

Train Station

Centre

Cemetery

District Commercial

Rural/Urban Interface Buffer

Railway

Primary Arterial Road

Secondary Arterial Road

Scenic Road

Future Collector Road

Development Plan Boundary

GAWLER (CT)

STRUCTURE PLAN

MAP Ga/1 (Overlay 1)

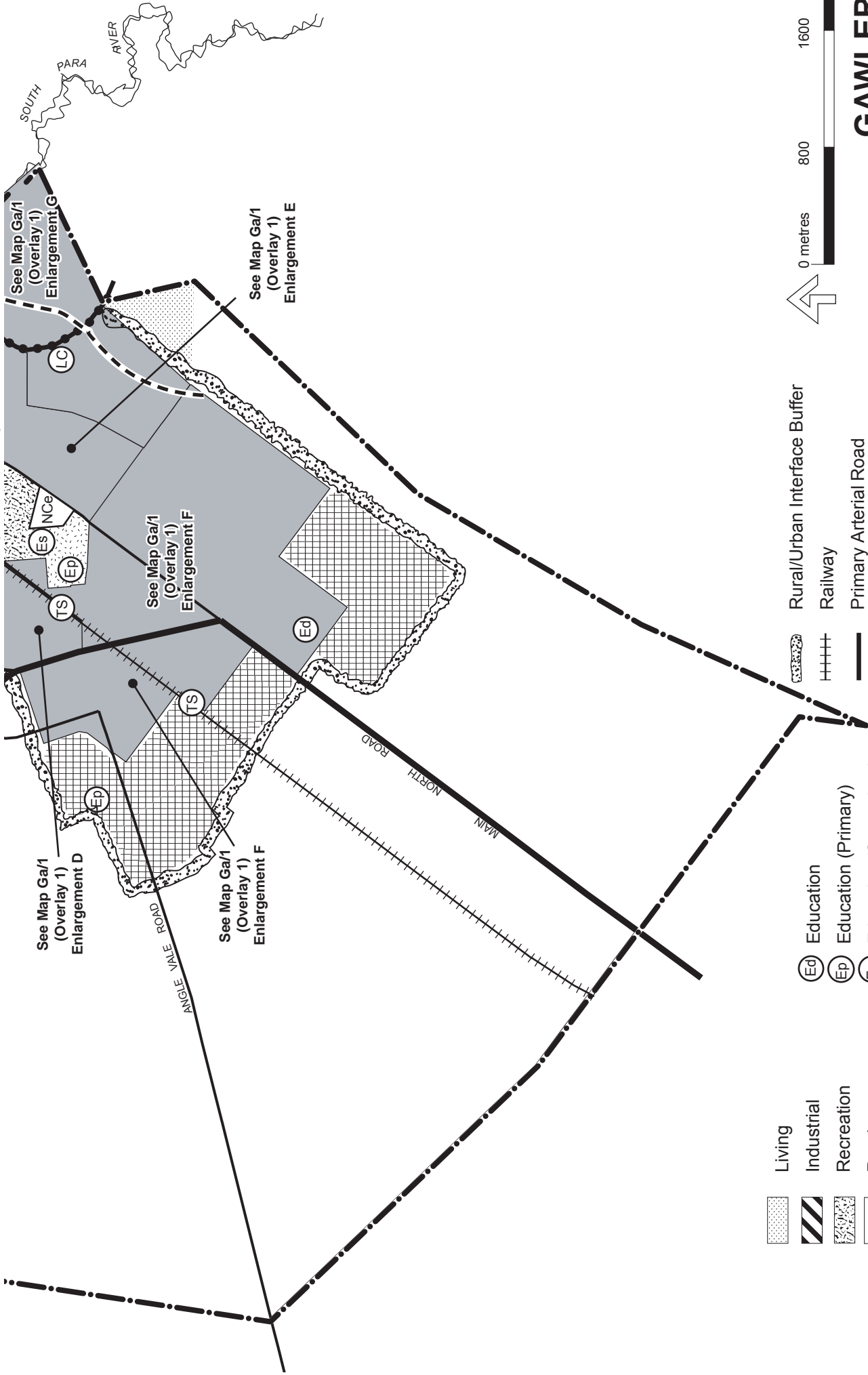
Part A

0 metres

800

1600

2400



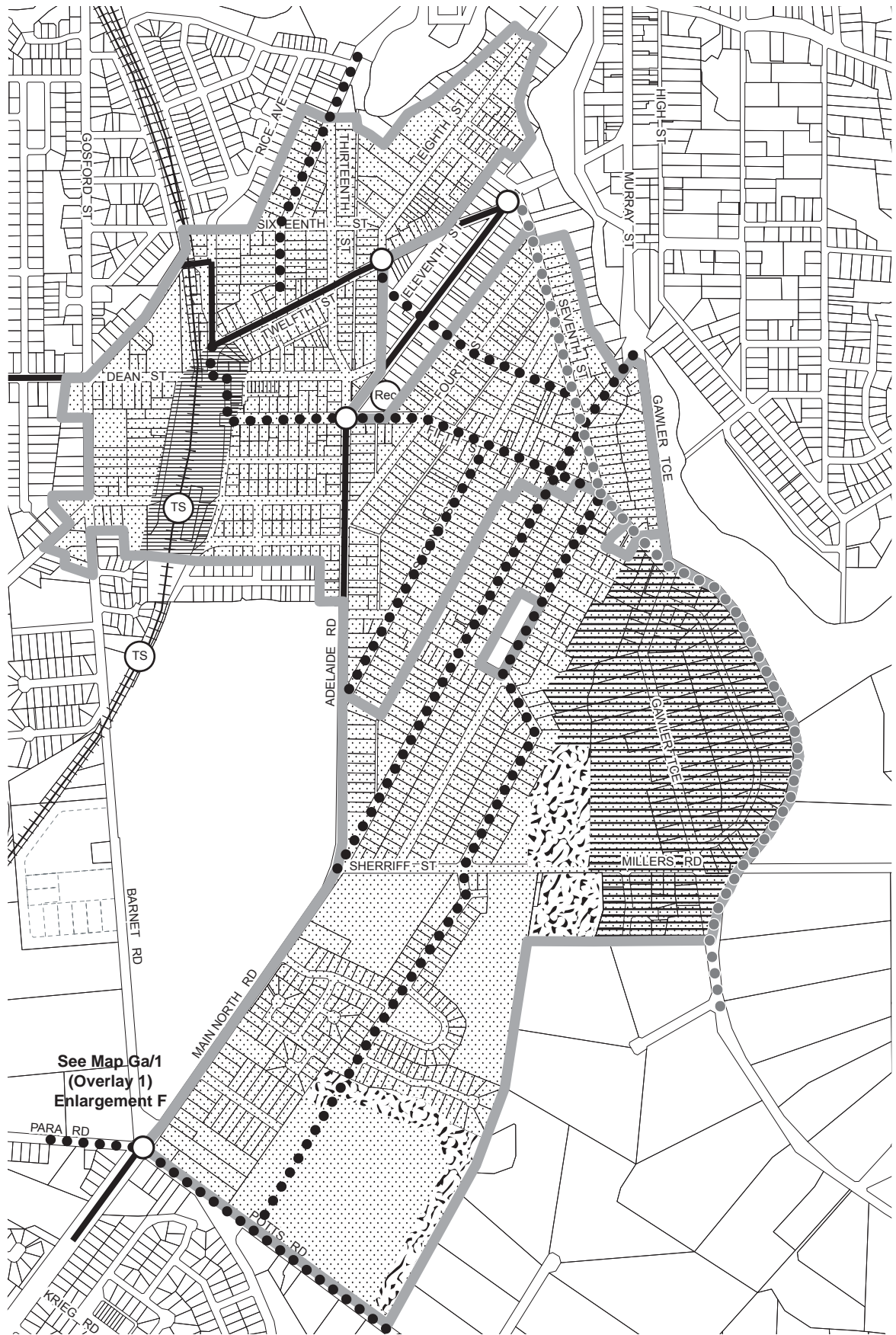
- Living
- Industrial
- Recreation
- Rural
- Special Uses
- Open Space
- Future Urban

- Education
- Education (Primary)
- Education (Secondary)
- Recreation
- Train Station
- Local Centre

- Rural/Urban Interface Buffer
- Railway
- Primary Arterial Road
- Secondary Arterial Road
- Scenic Road
- Future Collector Road
- Development Plan Boundary



GAWLER (CT) STRUCTURE PLAN MAP Ga/1 (Overlay 1) Part B



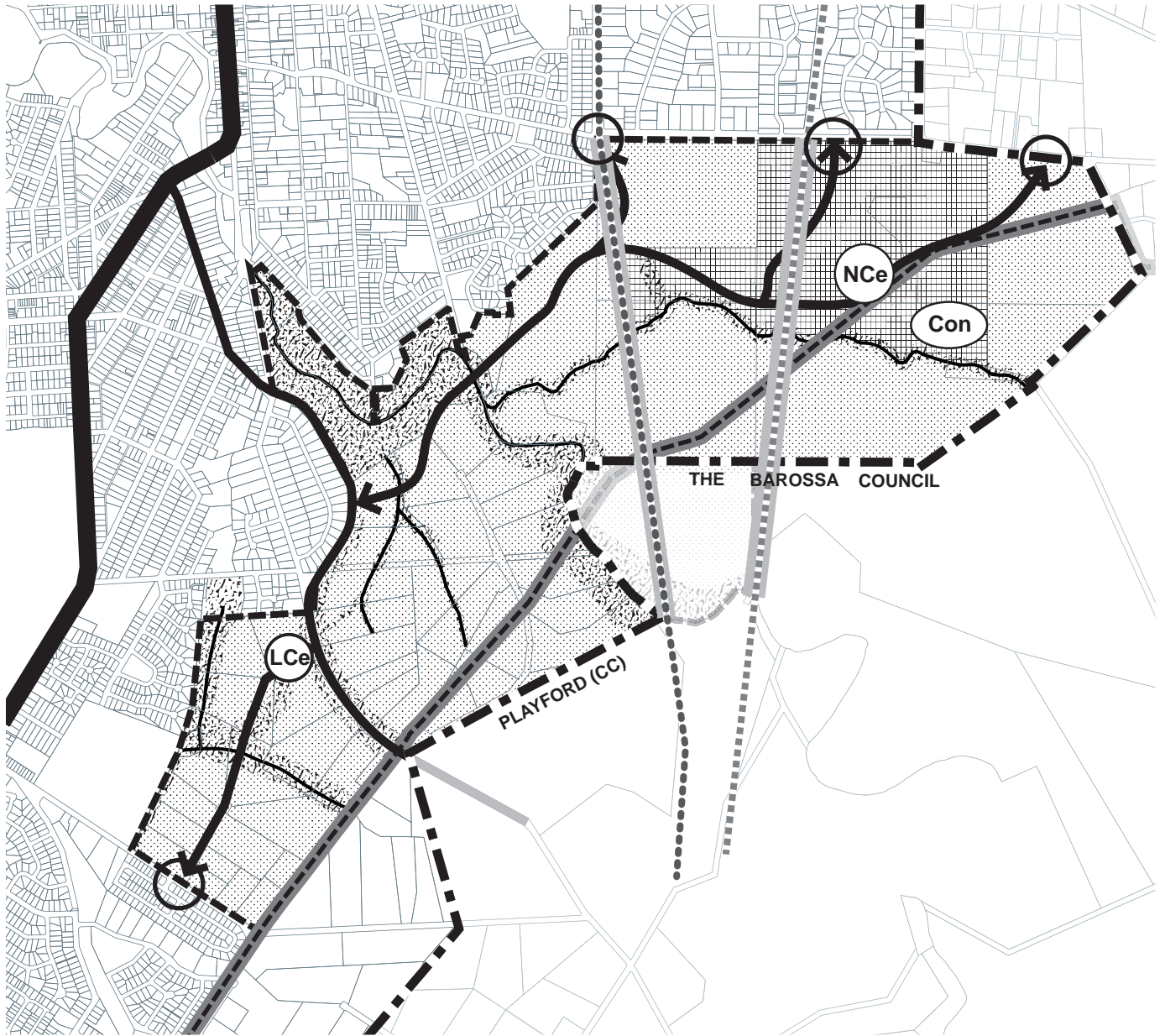
- Living
- Low Density Residential
- Mixed Residential / Business Use / Gawler Rail Station Precinct
- Linear Open Space (Landscape Protection Escarpment)
- Major Traffic Flows
- Scenic Road
- Primary Arterial Road
- Railway
- Policy Area Boundary
- Train Station
- Recreation
- Traffic Control



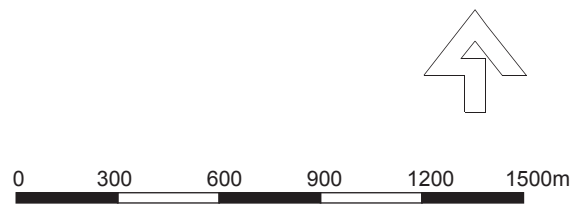
GAWLER (CT)
GAWLER SOUTH
STRUCTURE PLAN
MAP Ga/1 (Overlay 1)
Enlargement E

See Map Ga/1
 (Overlay 1)
 Enlargement F

ATTACHMENT M

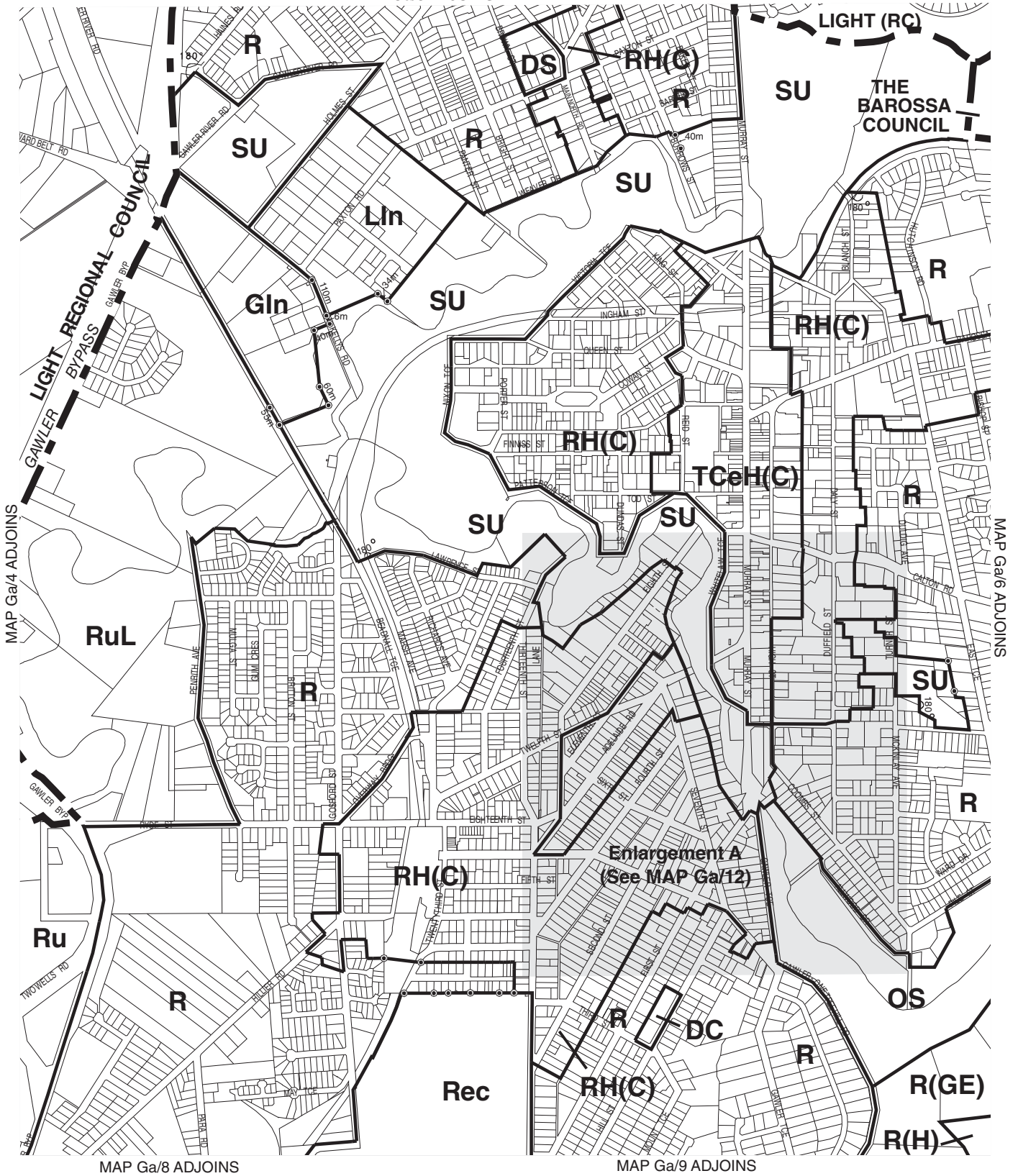


- | | |
|---|--|
| Neighbourhood Centre | Arterial Road |
| Local Centre | Collector Road |
| Mixed Use Centre | Proposed Collector Road |
| Living | Traffic Management |
| Creek Alignment incorporating stormwater detention basins | Major Transmission Infrastructure (132kV) Corridor (30 Metres) |
| Linear Open Space | Major Transmission Infrastructure (275kV) Corridor (50 Metres) |
| Conservation Area | Gas Pipeline |
| Development Plan Boundary | |
| Structure Plan Boundary | |



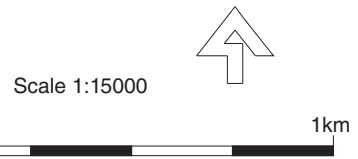
**GAWLER (CT)
GAWLER EAST
STRUCTURE PLAN
MAP Ga/1 (Overlay 1)
Enlargement G**

ATTACHMENT N

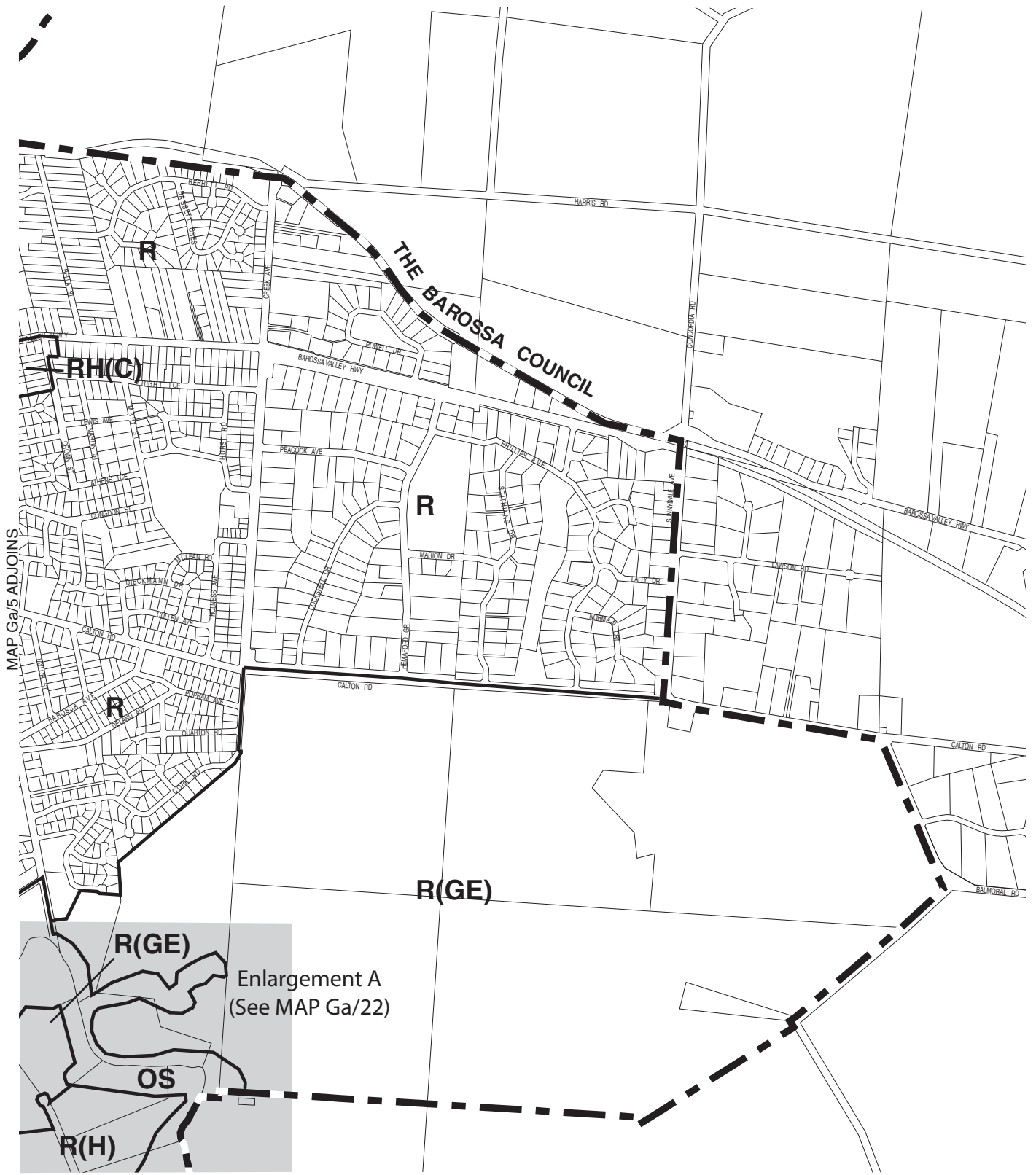


NOTE : For Policy Areas See MAP Ga/15
NOTE : For Precincts See MAP Ga/21

- DC District Commercial
 - DS District Shopping
 - Gln General Industry
 - Lln Light Industry
 - OS Open Space
 - Rec Recreation
 - R Residential
 - R(GE) Residential (Gawler East)
 - R(H) Residential (Hills)
 - RH(C) Residential Historic (Conservation)
 - Ru Rural
 - RuL Rural Living
 - SU Special Use
 - TCeH(C) Town Centre Historic (Conservation)
- Zone Boundary
 - - - Development Plan Boundary



GAWLER (CT)
ZONES
MAP Ga/5



NOTE : For Policy Areas See MAP Ga/16

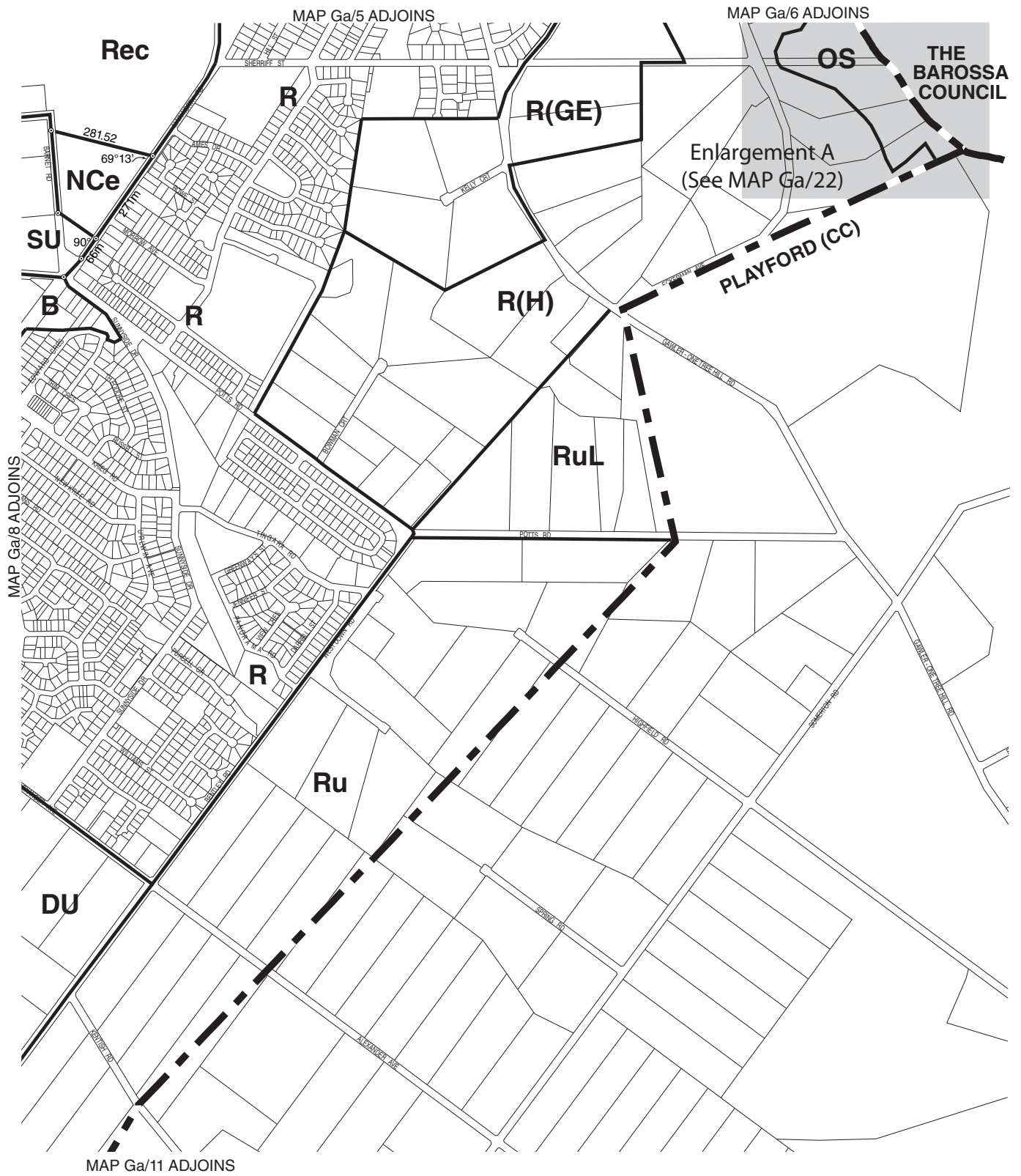
- R Residential
- R(GE) Residential (Gawler East)
- R(H) Residential (Hills)
- RH(C) Residential Historic (Conservation)
- RuL Rural Living
- OS Open Space

- Zone Boundary
- - - Development Plan Boundary

Scale 1:15000



GAWLER (CT) ZONES MAP Ga/6



NOTE : For Policy Areas See MAP Ga/19

- B** Business
- R** Residential
- NCe** Neighbourhood Centre
- DU** Deferred Urban
- Rec** Recreation
- OS** Open Space
- R(GE)** Residential (Gawler East)
- R(H)** Residential (Hills)
- Ru** Rural
- RuL** Rural Living
- SU** Special Uses

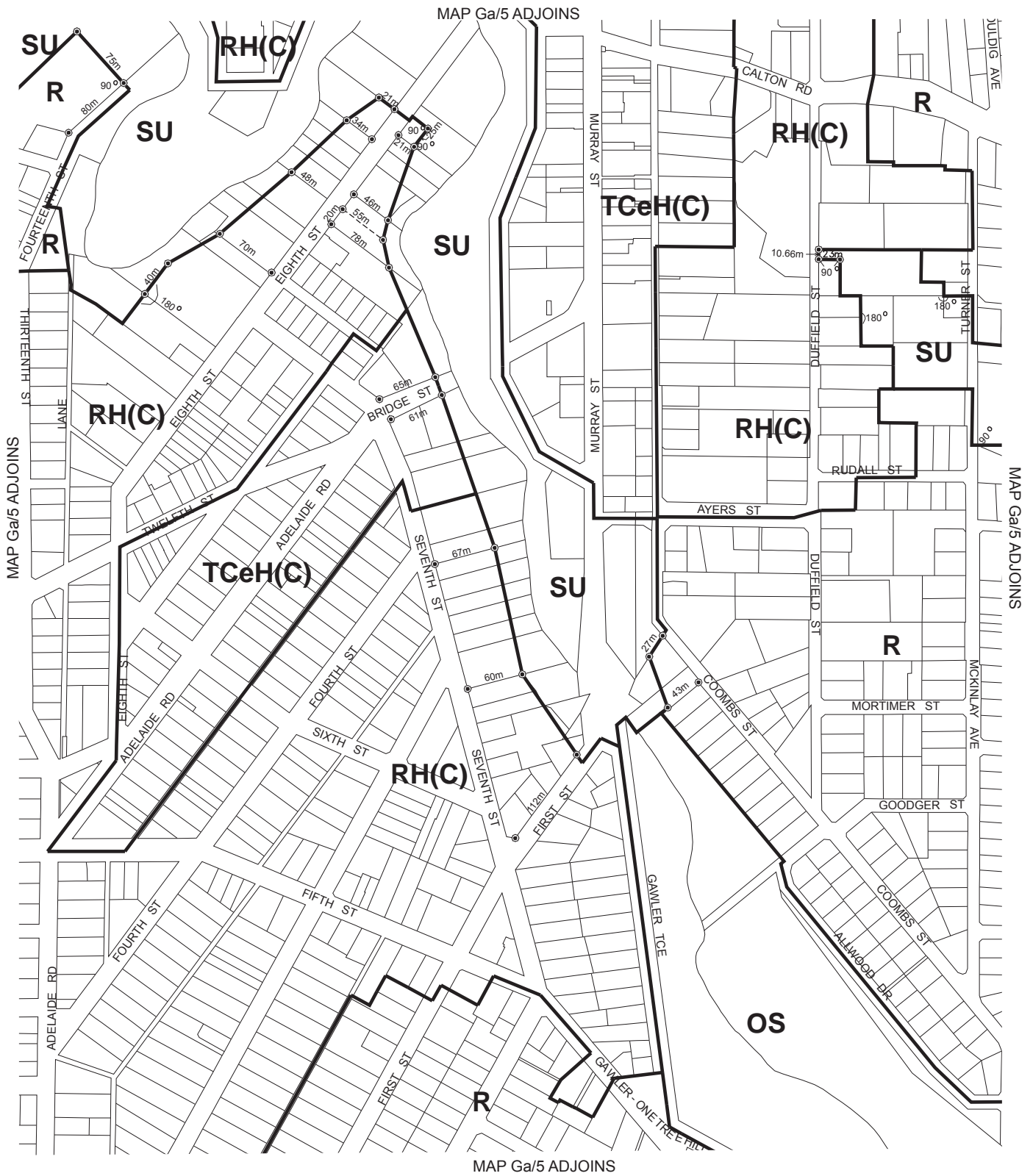
- Zone Boundary
- - -** Development Plan Boundary



Scale 1:15000



**GAWLER (CT)
ZONES
MAP Ga/9**



ENLARGEMENT A

- OS Open Space
- R Residential
- RH(C) Residential Historic (Conservation)
- RuL Rural Living
- SU Special Uses
- TCeH(C) Town Centre Historic (Conservation)

- Zone Boundary
- Development Plan Boundary

Scale 1:6000



**GAWLER (CT)
ZONES
ENLARGEMENT
MAP Ga/12**



MAP Ga/15 ADJOINS

MAP Ga/19 ADJOINS

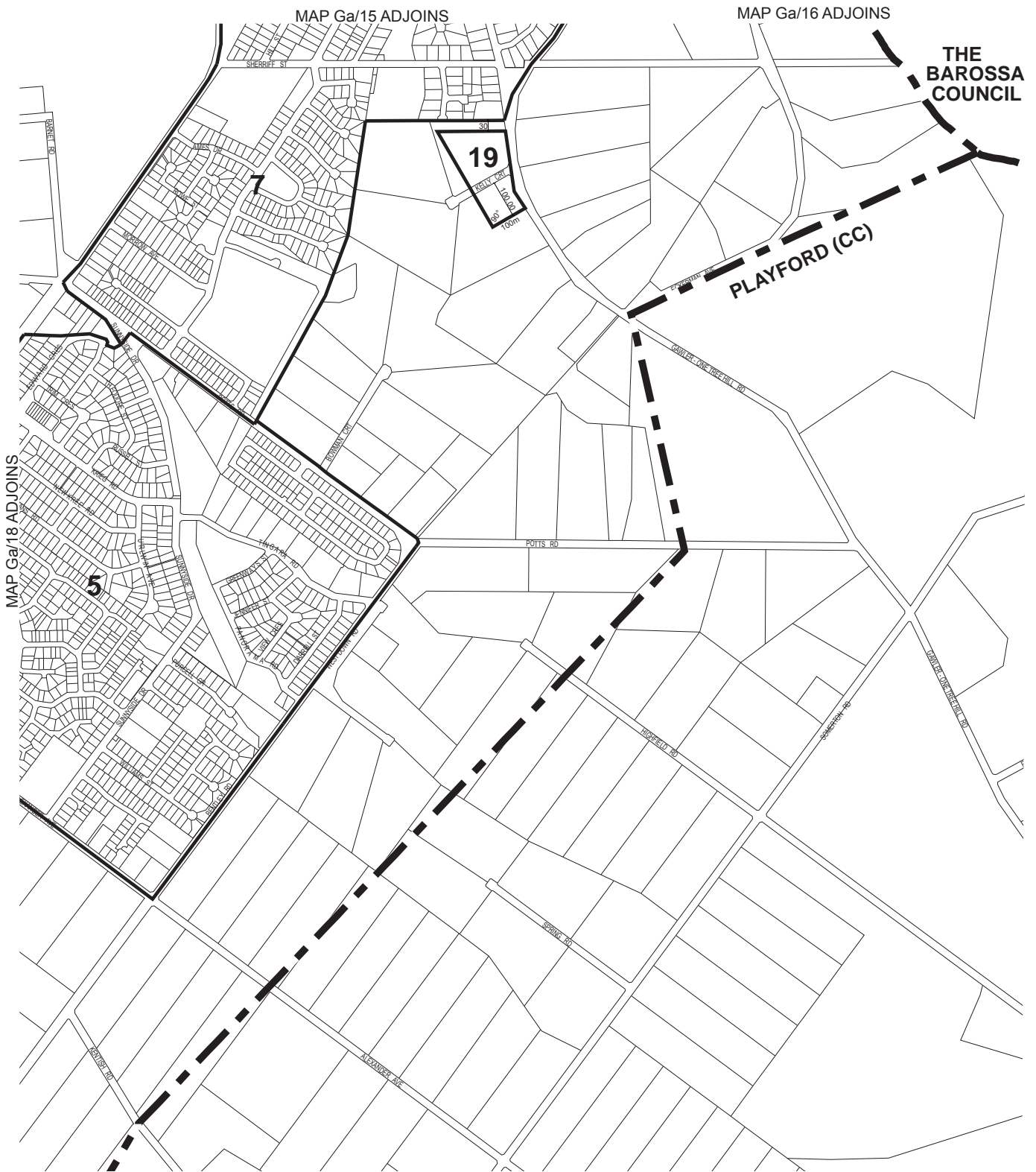
- 3 Mixed Use Centre
- 6 Gawler East Residential
- 10 Wheatsheaf Residential
- 14 Gawler East Residential Historic (Conservation)

Scale 1:15000



- Policy Area Boundary
- Development Plan Boundary

GAWLER (CT) POLICY AREAS MAP Ga/16



- 5 Evanston/Evanston Park Residential
- 7 Gawler South Residential
- 19 Local Centre Policy Area

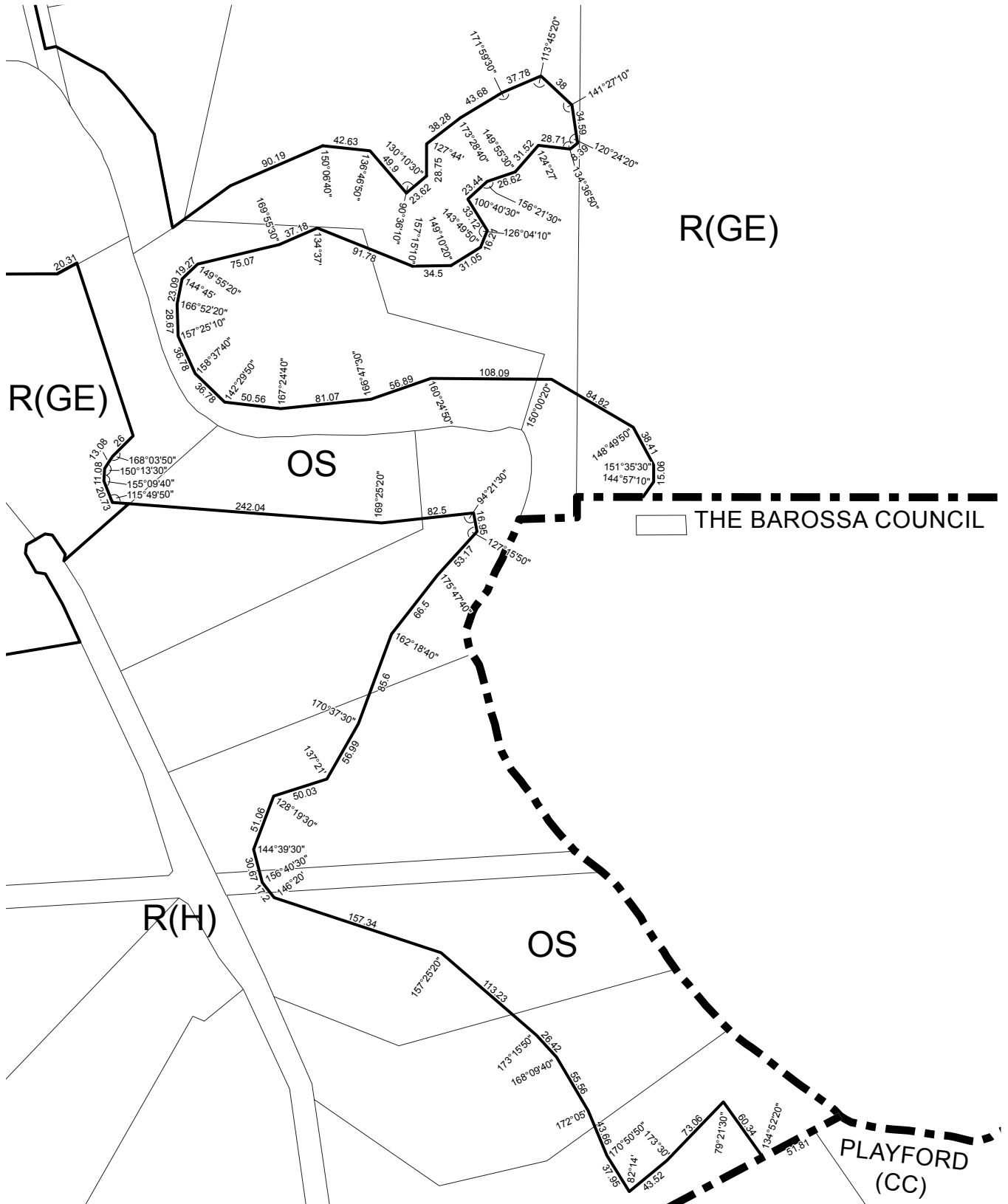
Scale 1:15000



**GAWLER (CT)
POLICY AREAS
MAP Ga/19**

- Policy Area Boundary
- Development Plan Boundary

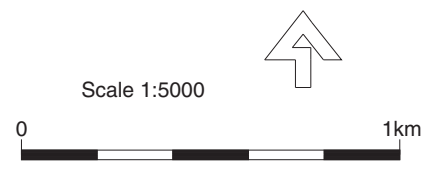
ATTACHMENT O



ENLARGEMENT A

OS Open Space
 R(H) Residential (Hills)
 R(GE) Residential (Gawler East)

— Zone Boundary
 - - - Development Plan Boundary



**GAWLER (CT)
 ZONES
 MAP Ga/22**

Amendment Instructions Table – Development Plan Amendment

Name of Local Government Area:

The Barossa Council

Name of Development Plan(s):

Barossa

Name of DPA:

Gawler East

The following amendment instructions (at the time of drafting) relate to the Barossa Council Development Plan consolidated on 29 April 2010. Where amendments to this Development Plan have been authorised after the aforementioned consolidation date, consequential changes to the following amendment instructions will be made as necessary to give effect to this amendment.

Amendment Instruction Number	<ul style="list-style-type: none"> • OBJECTIVE (OBJ) • PRINCIPLE OF DEVELOPMENT CONTROL (PDC) • DESIRED CHARACTER STATEMENT (DCS) • MAP/TABLE No • OTHER (SPECIFY) 	Method of change. <ul style="list-style-type: none"> • DELETE • REPLACE • INSERT 	Renumbering required (Y/N)	Subsequent Policy cross-references requiring update (Y/N) if yes please specify.
COUNCIL WIDE PROVISIONS (including figures and illustrations contained in the text)				
1	Objective 23	Insert the contents of Attachment A immediately following existing Objective 23.	Yes	No
2	PDC 146	INSERT the words 'Other than in the Residential (Gawler East) Zone' immediately before the words 'With respect to' in Design Technique 146 and REPLACE 'With' with 'with'	No	No
3	PDC 150	INSERT the words 'Other than in the Residential (Gawler East) Zone,' immediately before the words 'Dwellings, carports' and REPLACE 'Dwelling' with 'dwelling'	No	No
4	PDC 157	INSERT the words 'Other than in the Residential (Gawler East) Zone,' immediately before the words 'New buildings' and REPLACE 'New' with 'new'	No	No
ZONE AND/OR POLICY AREA PROVISIONS (including figures and illustrations contained in the text)				
5	Rural B Zone (Concordia) Introduction	REPLACE the words 'Maps Baro/3, 25, 26, 27 and 30' with the words 'Maps Baro/3, 25, 26, 27, 30 and 67'	No	No
6	New Zone (Residential (Gawler East) Zone)	INSERT the contents of Attachment B immediately following the existing Residential Zone	No	No
7	New Zone (Open Space Zone)	INSERT the contents of Attachment C immediately following the existing Community Zone	No	No
MAPPING (Structure Plans, Overlays, Enlargements, Zone Maps & Policy Area Maps)				
8	Bushfire Protection Area	REPLACE with the contents of	No	No

	Figures Baro(BPA)/1 and 10	Attachment D		
9	New Bushfire Protection Area Figure Baro(BPA)/17	Insert the content of Attachment E immediately following existing Bushfire Protection Area Figure Baro(BPA)/16	No	No
10	Structure Plan Map Baro/1 (Overlay 1) Part B	REPLACE with the contents of Attachment F	No	No
11	New Map (Structure Plan Map Baro/1 (Overlay 1) Enlargement K)	INSERT the contents of Attachment G immediately following existing Mount Pleasant Structure Plan Map Baro/1 (Overlay 1) Enlargement J	No	No
12	Map Baro/3, 25	REPLACE with the contents of Attachment H	No	No
13	New Map (Map Baro/67)	INSERT the contents of Attachment I immediately following existing Map Baro/66	No	No

ATTACHMENT A

Objective 24: The protection of existing infrastructure.

ATTACHMENT B

Residential (Gawler East) Zone

The Objectives and Principles of Development Control that follow apply to the Residential (Gawler East) Zone shown on [Map Baro/25 and 67](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

- Objective 1:** A predominately residential area comprising a range of low and medium-density dwellings, with associated infrastructure, retail, commercial, recreational, educational and community development in master-planned locations in accordance with [Structure Plan Map Baro/1 \(Overlay 1\) Enlargement K](#).
- Objective 2:** A residential zone comprising a range of dwelling types including a minimum of 15 per cent affordable housing.
- Objective 3:** Increased dwelling densities in close proximity to centres, public transport routes and public open spaces.
- Objective 4:** Open space systems designed to provide multiple use reserve areas that promote water management, habitat retention and enhancement, and recreational linkages.
- Objective 5:** Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Residential (Gawler East) Zone is located within both the Town of Gawler and The Barossa Council. The area encompasses broad hectare land which is expected to support a population of approximately 10,000 persons.

The zone will develop in accordance with [Structure Plan Map Baro/1 \(Overlay 1\) Enlargement K](#) and be undertaken in an orderly manner that achieves the most efficient use of land, the extension or expansion of infrastructure services and the timely provision of community facilities.

It is essential that development respects and enhances the natural attributes of the zone through the retention of significant views, creek lines, native vegetation and locations of ecological significance. Innovative and best practice solutions in water reuse, grey water supply and stormwater management will be implemented.

The zone will accommodate a diversity of housing forms. Dwellings will range between 1 and 3 storeys in height, however buildings at the interface with adjoining zones other than the Open Space Zone will not exceed 2 storeys.

Housing forms will be simple and incorporate a high degree of articulation to the street façade while delivering a mix of housing types and forms to provide interesting streetscapes and promote social interaction. This will include the provision of recessed vehicle garaging and the inclusion of front verandas/porticos and appropriate landscaping.

The delivery of housing diversity will require innovative solutions for front or rear access and parking. Rear access will be provided in the form of 'service lanes', which support vehicular access requirements at reduced speeds providing a safe pedestrian environment.

Allotment configuration is envisaged to be compact, with building setbacks minimised to assist in facilitating an enclosed and active street. This will incorporate opportunities for multi-storey apartments, terrace and rear lane mews housing that will achieve a range of housing types within a single street.

The slope of the land will dictate the location of particular dwelling types, with some more compact dwelling types located on relatively flat sites, whilst more traditional dwelling types will be located on those portions of the site with moderate to high slope. Greater setbacks are envisaged on topographically steep sites in order to satisfactorily deal with earthworks and driveway gradients.

The form and distribution of major open space will be influenced by the need for stormwater detention, treatment and re-use given limitations on the potable water supply for the area. It will also be influenced by the location of drainage corridors, and the need to integrate with existing corridors. Public open space areas will need to accommodate both active and passive recreation opportunities and the retention of identified habitat areas of significance.

A network of linear parks including cohesive pedestrian and bicycle movement corridors and visual links will be established between the new development and adjoining natural creek lines, public recreation areas, local shopping and community services and surrounding road networks.

Portion of the southern boundary of the zone is located adjacent to the Para Woodland Reserve. It is essential that development form an appropriate interface with the Para Woodland Reserve. The interface will act as a buffer between the residential area and the Reserve, balancing access, management of bushfire risk, management of potential invasion by pest plants, minimising the impact of domestic pets on native wildlife and as a provision of open space. The interface will vary in width as appropriate to meet the above criteria and will comprise of a combination of roads, paths, public open space and, where appropriate, areas of natural character for stormwater management. Where housing is included in the interface area it is expected that houses will address the Reserve. The interface area will be planted with locally indigenous species (mainly groundcovers and low shrubs) selected to minimise the bushfire risk by providing an area of reduced fuel hazard.

The north, eastern and southern boundary of the zone adjoins agricultural, rural and rural living land. It is essential that development provide an appropriate buffer between dwellings and land used for agriculture. Larger allotments together with open space and road networks and increased dwelling setbacks will be established at the peripheries of the zone boundary in order to provide an appropriate low density transition and interface with adjacent rural and rural living land.

A high pressure gas transmission pipeline traverses the zone as shown on [Map Baro/1 \(Overlay 1\) Enlargement K](#). It is required that development within the zone comply with AS2885 (Pipeline Gas and Liquid Petroleum) to ensure minimum pipeline safety requirements have been met.

The Infrastructure Corridor has been created in response to the presence of key public infrastructure, namely 132 kV and 275 kV transmission lines. This infrastructure comprises a significant component of the State's high voltage power transmission network. The zone provisions are aimed at protecting this significant public infrastructure from encroachment by incompatible land uses and protecting the infrastructure corridor from being fragmented by land division, and therefore ensuring on-going access for maintenance is available and that the security and reliability of the power network is not compromised. No residential allotments should infringe on the corridor or existing easement. This corridor provides the opportunity for co-locating compatible land use activities such as other appropriate infrastructure, at-grade car parking and roads, a linear park, or a cycling/walking trail.

PRINCIPLES OF DEVELOPMENT CONTROL

General

1 The following forms of development are envisaged in the zone:

- affordable housing
- community facilities
- domestic outbuilding in association with a dwelling
- domestic structure
- dwelling
- dwelling addition
- dwelling with associated home based business uses
- non-residential use that serves the local community, for example:
 - child care facility
 - health and welfare service
 - open space
 - primary and secondary school
 - recreation area

- shop, office or consulting room
- supported accommodation.

2 Development listed as non-complying is generally inappropriate.

Form and Character

3 Development should not be undertaken unless it is consistent with the desired character for the zone.

4 Development should occur in accordance with the [Structure Plan Map Baro/1 \(Overlay 1\) Enlargement K](#).

5 Road reserves should be of a width, design and alignment that can:

- (a) provide for safe and convenient movement and parking of vehicles and other users according to projected vehicle volumes, speeds and the character of the road
- (b) accommodate bus routes where required
- (c) provide for shared, on-street parking bays for nearby residents and visitors wherever practical to achieve unrestricted movement along collector roads
- (d) allow vehicles to enter or reverse from an allotment or garage in a single movement, allowing for cars parked on the opposite side of the road (where applicable) or fixed infrastructure on the street
- (e) allow for the efficient movement of service and emergency vehicles and
- (f) accommodate street planting, landscaping, street furniture and utilities infrastructure.

6 The use and placement of outbuildings should be ancillary to and in association with a dwelling or dwellings.

Land Division

7 Land division should facilitate the provision of a broad range of housing options, including affordable housing.

8 Land division should accommodate open space and movement networks that provide for strong connections and safe and convenient access to public facilities, public transport and potential future development of adjoining sites.

9 Rear lanes should:

- (a) have a minimum reserve width of 6.5 metres
- (b) be limited in length to a maximum of 100 metres
- (c) generally have a minimum carriageway width of 5.5 metres, although entries may be reduced to a minimum width of 4.0 metres
- (d) protuberances to accommodate landscaping and lighting should not exceed 1.0 metre however may be increased providing a minimum carriageway width of 5.5 metres is maintained
- (e) landscaping should be in the form of tall vertical trees in preference to low level shrubs;
- (f) be designed to accommodate garbage trucks and emergency service vehicles.

10 Public lighting should be provided to all public roads, laneways, paths and open spaces.

11 Detention and/or retention basins should incorporate good design techniques that:

- (a) allow sediments to settle so as to treat stormwater prior to discharge into watercourses or the marine environment;
- (b) ensure human health and safety, particular with respect to high velocity drainage points;
- (c) ensures the control of mosquitoes and nuisance insects (eg midges); and
- (d) where wetlands are used for the cleaning of stormwater it is advisable that the storage is able to retain the 25 year, 24 hour rainfall event.

12 Transmission lines should be protected from encroachment through the provision of:

- (a) a 30 metre wide corridor (15 metres each side from the centreline) for the 132kV line
- (b) a 50 metre wide corridor (25 metres each side from the centreline) for the 275kV line.

13 Residential allotments should not be created within the Infrastructure Corridor as shown on Structure Plan Baro RGE/1 or within the existing easements for the 132kV and 275kV transmission lines.

14 Electricity supply (excluding lines having a capacity greater than or equal to 33kV) should be installed underground.

15 Existing transmission lines should not be encroached upon by incompatible land uses.

16 Provision should be made for new distribution substations and overhead major electricity line corridors (having a capacity greater than or equal to 33kv) in optimum locations with adequate access.

Built Form/Setbacks

17 Dwellings will range between one and three storeys in height however buildings at the interface with adjoining zones other than the Open Space Zone will not exceed two storeys.

18 Where allotments have direct frontage to an open space reserve, housing should address the reserve.

19 Where an allotment immediately adjoins a public open space, clear, safe and efficient pedestrian access should be provided to the dwelling, along with adequate visitor parking.

20 Residential building setbacks should satisfy the minimum dimensions outlined in Table 1 except where a proposed plan of division is accompanied by a building envelope plan that demonstrates that lesser building setbacks will contribute to the achievement of the desired character for the zone.

Table 1

Parameter	Value
Primary Street Frontage (excluding arterial or collector roads forming the zone boundary)	3.0 metres to front facade
	1.5 metres for dwellings where vehicle access obtained from the rear or side
	1.5 metres to veranda/balcony elements
	0.5 metres to entry porch and portico
Secondary Street Frontage (Corner Lots)	1.5 metres to facade
	0.6 metres for dwellings on allotments with a frontage equal to or less than 9.0 metres
	0.5 metres for veranda/balcony elements
	0 metres for entry porch/portico

Parameter	Value
Side Boundary (excluding road frontage)	0.0 metres for dwellings on allotments with a road frontage equal to or less than 9.0 metres; 0.9 metres for dwellings on allotments with a frontage greater than 9.0 metres, other than a garage wall with a maximum length of 6.0 metres
Rear Boundary (other than rear lane)	0.9 metres
Open Space Reserve Frontage	1.5 metres where dwellings front the reserve 0.5 metres to entry porch and portico, veranda and balcony elements.
Single Carport/Garage	5.0 metres from primary street frontage 0.5 metres for laneway frontage
Double Carport/Garage	5.0 metres from primary street frontage 0.5 metres for laneway frontage
Arterial or Collector Roads	6.0 metres to front façade 5.5 metres to carport/garage 4.0 metres to veranda/balcony
Rear Lane (upper level dwelling)	0.5 metres for laneway frontage

Private Open Space

21 Dwellings should include private open space which conforms to the requirements of Table 2.

Table 2

Site area of dwelling	Minimum area of private open space	Provisions
Greater than 250 square metres	60 square metres (minimum dimension of 2.5m)	<p>(a) Balconies, roof patios, decks and the like, can comprise part of this area provided the area of each is 8 square metres or greater and has a minimum dimension of 2.0m.</p> <p>(b) One part of the space should be directly accessible from a living room and have an area of 25 square metres with a minimum dimension of 4 metres and a maximum gradient of 1-in-10.</p>
250 square metres and less	35 square metres (minimum dimension of 2.5m)	<p>(a) Balconies, roof patios and the like can comprise part of this area provided the area of each is 8 square metres or greater and has a minimum dimension of 2.0m.</p> <p>(b) One part of the space is directly accessible from a living room and has</p>

Site area of dwelling	Minimum area of private open space	Provisions
		an area of 16m ² with a minimum dimension of 4 metres and a maximum gradient of 1-in-10.
	25m ² (minimum dimension of 2.5m) where:	<p>(a) The dwelling has no more than two bedrooms (or rooms that could reasonably be used as bedrooms) and a total floor area of not more than 110m²</p> <p>(b) Separate areas are provided for the provision of a rainwater tank and the storage of refuse and recycling bins.</p>
Upper level dwellings	Minimum area of private open space	8 square metres and accessible from a living room.

Amenity and Public Spaces

- 22** Residential development should have regard to existing and possible future noise sources with respect to site layout, orientation, design and construction to ensure a safe and comfortable residential environment and to minimise conflict with existing non-residential activities.
- 23** Front fencing should balance the desire for an open streetscape and passive surveillance with the need for functional privacy. Clear delineation should be provided between public and private spaces, which may incorporate fencing, landscaping or a combination of these elements.
- 24** Residential development should provide an area for the storage of waste receptacles that is screened from primary and secondary street frontages.

Bushfire Protection

- 25** To protect against bushfire, dwellings should not be sited within 40 metres of a slope greater than 20 degrees, where the length of the slope is greater than 10 metres and covered by unmanaged vegetation.

Separation of Uses

- 26** Development should be designed and sited to minimise negative impact on existing and potential future land uses considered appropriate in the locality.
- 27** Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.

Car Parking

- 28** For each dwelling, the maximum width (including the width of any support structure) of any garage or carport opening that faces a street, should be no greater than six metres or 50 per cent of the frontage width, whichever is the lesser except where a site has frontage of less than 12 metres and the dwelling is:
- (a) two or more storeys; and
- (b) incorporates protrusions such as verandas, projecting windows, porches, balconies etc. which provide articulation in the building as it presents to the street, in which case garages or carports should have a maximum width of 6 metres or 80% of the width of the site, whichever is the lesser.

29 No maximum width applies to garage or carport openings where a site has rear vehicular access and from which vehicular access is obtained.”

Affordable Housing

30 Development should include a minimum 15 per cent of residential dwellings for affordable housing.

31 Affordable housing should be distributed throughout the zone to avoid over-concentration of similar types of housing in a particular area.

32 Dwellings constituting affordable housing should be designed within the parameters shown in Table 3.

Table 3

Parameter	Dwelling Type				
	Detached	Semi-Detached	Group	Residential Flat Building	Row
Minimum area of private open space for ground level dwellings	20 square metres	20 square metres	20 square metres	20 square metres	20 square metres
Minimum area of private open space in the form of a balcony for dwellings above ground level	8 square metres	8 square metres	8 square metres	8 square metres	8 square metres
Minimum open space dimension	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies	3.0m for ground level private open space and 2.0m for balconies
Minimum number of on site car parking spaces	1	1	1	1	1

PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

Non-complying Development

Development (including building work, a change in the use of the land, or division of an allotment) for the following is non-complying:

Crematorium
 Fuel Depot
 Horticulture

Hospital
Hotel
Industry
Intensive animal keeping
Junk Yard
Major public service depot
Motel
Office greater than 150 square metres
Prescribed mining operations
Refuse destructor
Shop or group of shops with a gross leasable area exceeding 250 square metres
Telecommunications Facility above 30 metres in height
Warehouse
Waste reception, storage, treatment or disposal except a sewerage treatment plant.

Public Notification

Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*. Further, all development listed within Principle of Development Control 1 of the Residential (Gawler East) Zone are designated Category 2 (except where the development is classified as Category 1 or non-complying).

ATTACHMENT C

Open Space Zone

The Objectives and Principles of Development Control that follow apply in the Open Space Zone shown on Barossa [Map Baro/25 and 67](#). They are additional to those expressed for the whole of the Council area.

OBJECTIVES

Objective 1: A zone:

- (a) in which the open space character is preserved to provide a visual contrast to the surrounding urban area
- (b) comprising open space that accommodates a range of public and private activities in an open and natural setting, including:
 - (i) passive and active recreation land uses
 - (ii) habitat conservation and restoration.

Objective 2: Private land within the Metropolitan Open Space System (MOSS) contributing to regional open space networks and providing an open, natural and rural character accommodating low-scale uses such as non-intensive agriculture.

Objective 3: Public land within the MOSS that provides for recreation areas and facilities, sporting facilities and conservation of the open, natural character

Objective 4: A linear park that:

- (a) provides an open space corridor across Regional South Australia
- (b) promotes the use, awareness and preservation of the riverine environment and enhancement of natural or semi natural habitats for the movement of wildlife and conservation of biodiversity.

Objective 5: A river system which provides for the maintenance of stormwater capacity and flood mitigation measures for adjoining areas.

Objective 6: Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The Open Space Zone recognises the special qualities of the South Para River and environs, and it is intended that the zone will manage the river and its interface.

The zone already has natural character and function based on the existing South Para River, topographically steep contours, floodplains and remnant vegetation. This character and function will be maintained and enhanced through appropriate revegetation.

Areas within the zone contain significant flora and fauna, wetlands and permanent waterholes and river corridors and adjoin grassy woodland habitats.

The aesthetic and natural landscape, together with biodiversity value of the zone will be maintained and enhanced in a manner which encourages appropriate human enjoyment and interaction. Whilst the primary intent of the zone is to enhance the natural character of the area, carefully managed development of a demonstrated benefit to the community is envisaged.

Facilities will include but are not limited to walking and cycling trails, interpretative and recreational activities, formalised open space and car parking. It is envisaged that roads will be developed in the zone to enable access between areas.

A high pressure gas transmission pipeline traverses the zone as shown on Map [Baro/1 \(Overlay 1\) Enlargement K](#). It is required that development within the zone comply with *AS2885 (Pipeline Gas and Liquid Petroleum)* to ensure minimum pipeline safety requirements have been met.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

- 1 The following forms of development are envisaged in the zone:
 - conservation work
 - farming
 - outbuilding associated with open space maintenance
 - lighting
 - playground
 - recreation area
 - sporting club facility
 - structure associated with a public facility such as car parking, picnic/barbeque area, shelter and toilet
 - toilet block and barbeque facility.
- 2 Development listed as non-complying is generally inappropriate.
- 3 Publicly owned land within the MOSS should be used for any of the following:
 - (a) to provide natural or landscaped open space using locally indigenous plant species
 - (b) to accommodate a range of public recreation, sporting and institutional facilities and uses
 - (c) to accommodate stormwater retention and management
 - (d) to conserve and restore areas of remnant native vegetation and wildlife habitats and corridors
 - (e) to conserve sites of scientific, cultural or heritage interest
 - (f) for revegetation purposes using locally indigenous plant species
 - (g) to provide a buffer to adjoining areas of conservation significance.
- 4 Privately owned land within the MOSS should be used for any of the following:
 - (a) rural activities and agriculture (but not intensive animal keeping)
 - (b) low-impact sporting facilities
 - (c) conservation purposes.
- 5 Development should allow for unstructured passive and active recreation

Form and Character

- 6 Development should not be undertaken unless it is consistent with the desired character for the zone.

- 7 Development should only occur where it is integral to the aesthetic, drainage or recreation function of the zone.
- 8 Buildings should be:
 - (a) restricted in size and number
 - (b) sited so as not to detract from the open natural character of the policy area
 - (c) constructed of materials which blend with the riverine landscape.
- 9 Development should ensure coordinated design with an emphasis on the creation of pedestrian areas.
- 10 Landscaped buffers should be provided around the perimeter of recreation or sporting facilities.
- 11 Landscaping should comprise locally indigenous species and incorporate existing remnant vegetation.
- 12 Vehicular access or crossings should not occur through the linear park.
- 13 Development should ensure that public access to the Linear Park is retained and enhanced for cyclists and pedestrians.
- 14 Development, landscaping and paths for pedestrians and cyclists should:
 - (a) take into account changing flow regime and width of waterways
 - (b) be constructed of permeable material where practical to reduce stormwater runoff.

Land Division

- 15 Land division should not be undertaken except where it will facilitate the use of land appropriate uses within the zone and provided no additional allotments are created.

PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

Non-complying Development

Development (including building work, a change in the use of land, or division of an allotment) for the following is non-complying:

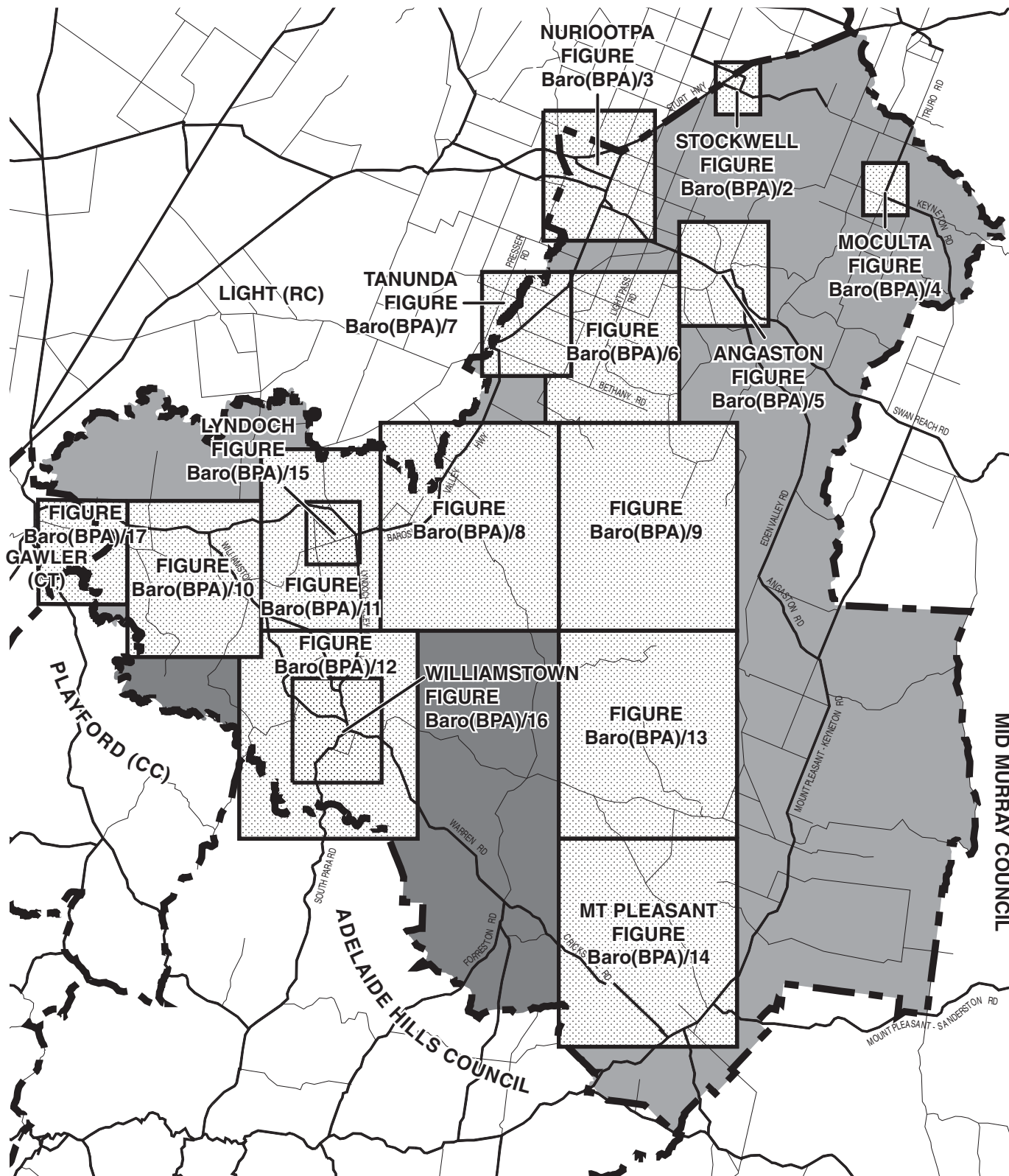
Advertisement and /or advertising hoarding
Amusement machine centre
Consulting room
Crematorium
Dairy
Dwelling
Educational establishment
Fuel depot
Horticulture
Hospital
Hotel
Industry

Intensive animal keeping
Land division except where no additional allotments are created partly or wholly within the zone
Motel
Motor repair station
Nursing home
Office except in association with recreation facilities
Petrol filling station
Place of worship
Pre-school
Prescribed mining operations
Public service depot
Residential flat building
Restaurant
Road transport terminal
Service trade premises
Shop of group of shops except where the gross leasable area is less than 80 square metres
Stock sales yard
Stock slaughter works
Store
Tourist accommodation
Warehouse
Waste reception, storage, treatment or disposal
Wrecking yard

Public Notification

Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

ATTACHMENT D



Scale 1:225000



THE BAROSSA COUNCIL INDEX TO BUSHFIRE PROTECTION AREA FIGURE Baro(BPA)/1

- High Bushfire Risk
- Medium Bushfire Risk
- Development Plan Boundary

FIGURE Baro(BPA)/1 ADJOINS

FIGURE Baro(BPA)/17 ADJOINS



FIGURE Baro(BPA)/11 ADJOINS

FIGURE Baro(BPA)/12 ADJOINS




FIGURE Baro(BPA)/1 ADJOINS

FIGURE Baro(BPA)/12 ADJOINS



Scale 1:30000



-  High Bushfire Risk
-  Medium Bushfire Risk
-  Development Plan Boundary

THE BAROSSA COUNCIL BUSHFIRE PROTECTION AREA FIGURE Baro(BPA)/10

ATTACHMENT E

FIGURE Baro(BPA)/1 ADJOINS

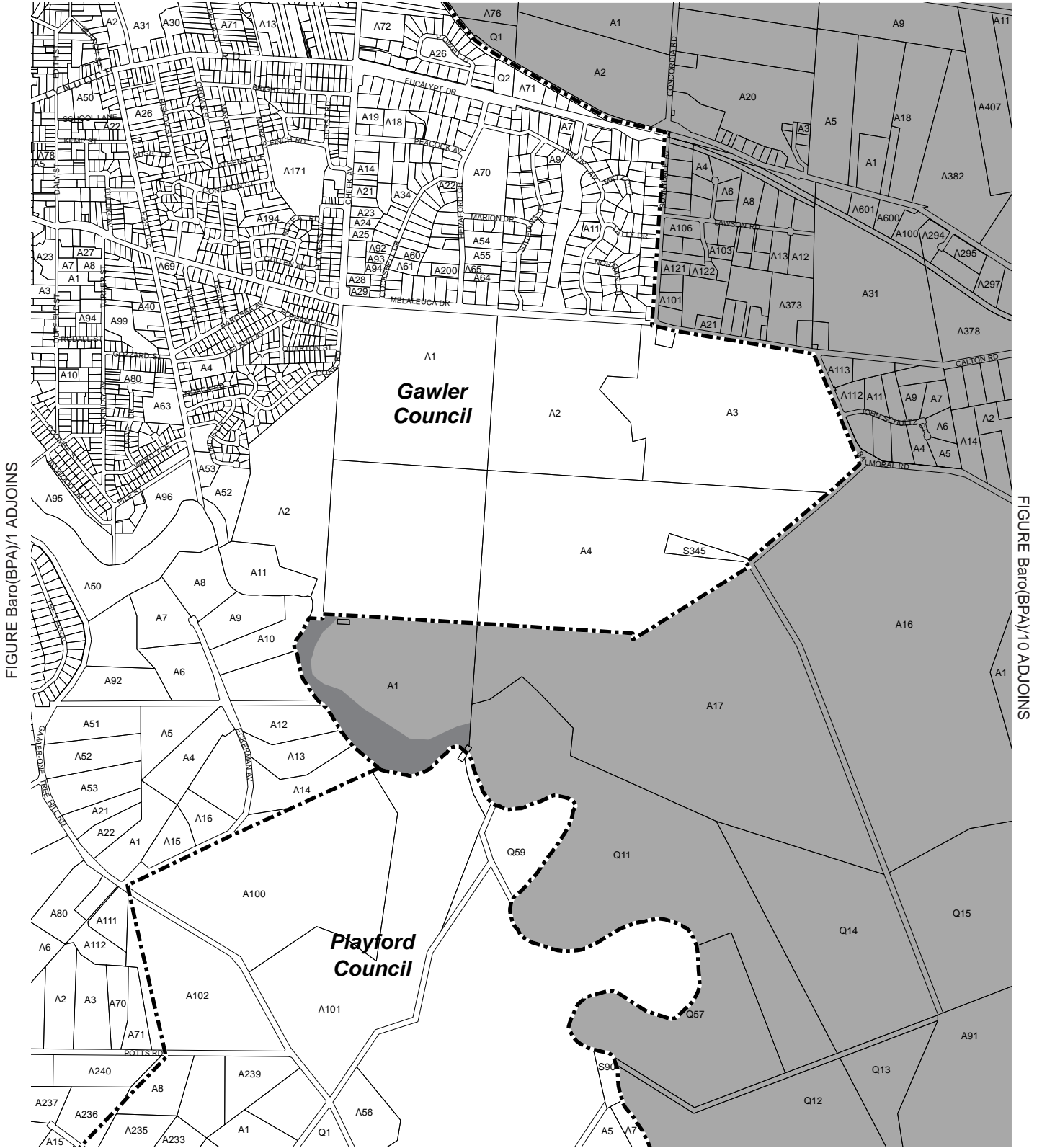


FIGURE Baro(BPA)/1 ADJOINS

NOTE: The boundaries of areas of high bushfire risk identified by this figure align with the boundaries of the Open Space Zone shown on Maps Baro/25 and 67.



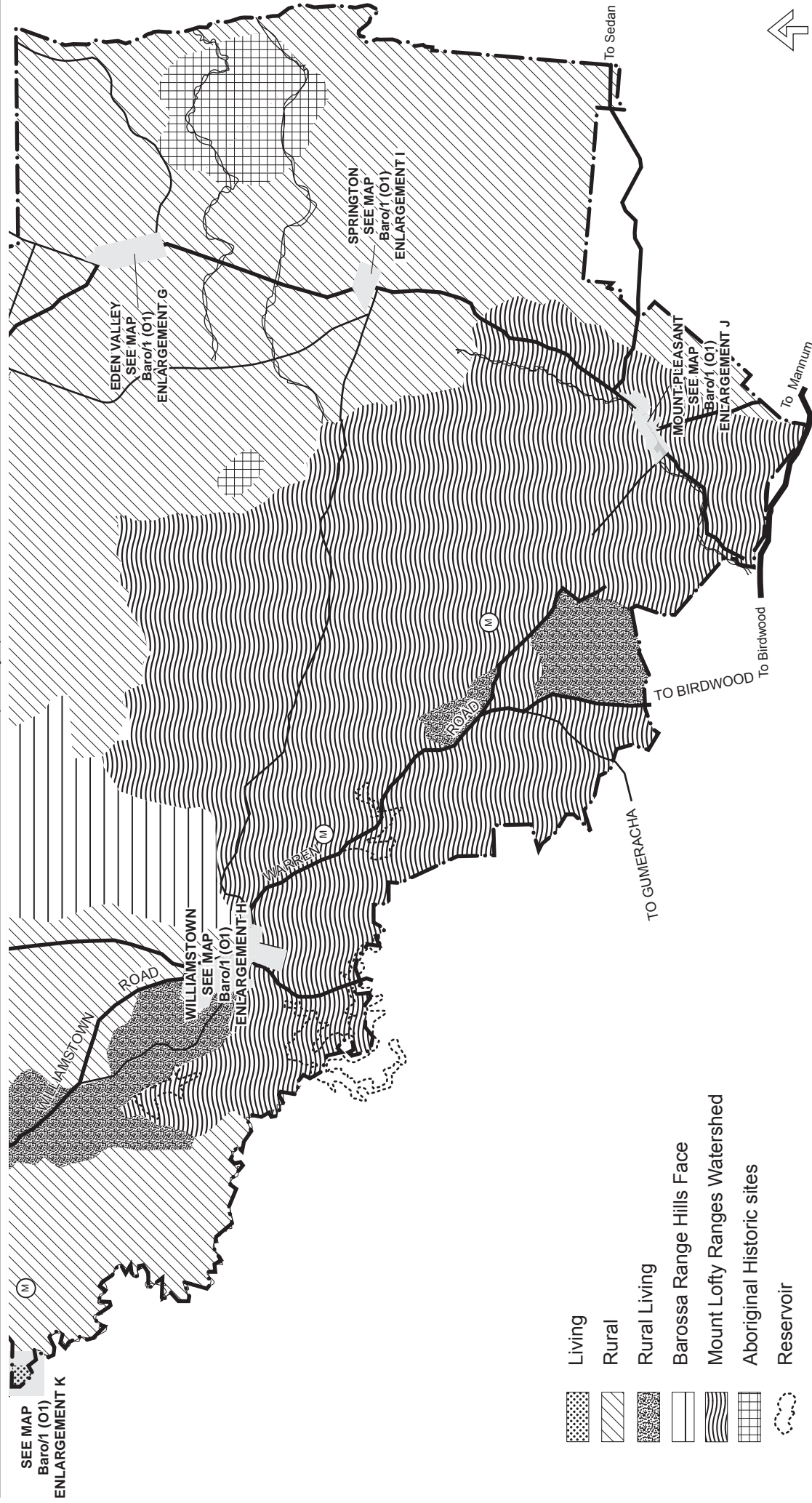
Scale 1:20000



- High Bushfire Risk
- Medium Bushfire Risk
- Development Plan Boundary

THE BAROSSA COUNCIL BUSHFIRE PROTECTION AREA FIGURE Baro(BPA)/17

ATTACHMENT F



SEE MAP
Baro/1 (O1)
ENLARGEMENT K

WILLIAMSTOWN
ROAD
WILLIAMSTOWN
SEE MAP
Baro/1 (O1)
ENLARGEMENT H

WARREN
(M)

SPRINGTON
SEE MAP
Baro/1 (O1)
ENLARGEMENT I

EDEN VALLEY
SEE MAP
Baro/1 (O1)
ENLARGEMENT G

MOUNT PLEASANT
SEE MAP
Baro/1 (O1)
ENLARGEMENT J

TO GUMERACHA

TO BIRDWOOD
To Birdwood

To Mannum

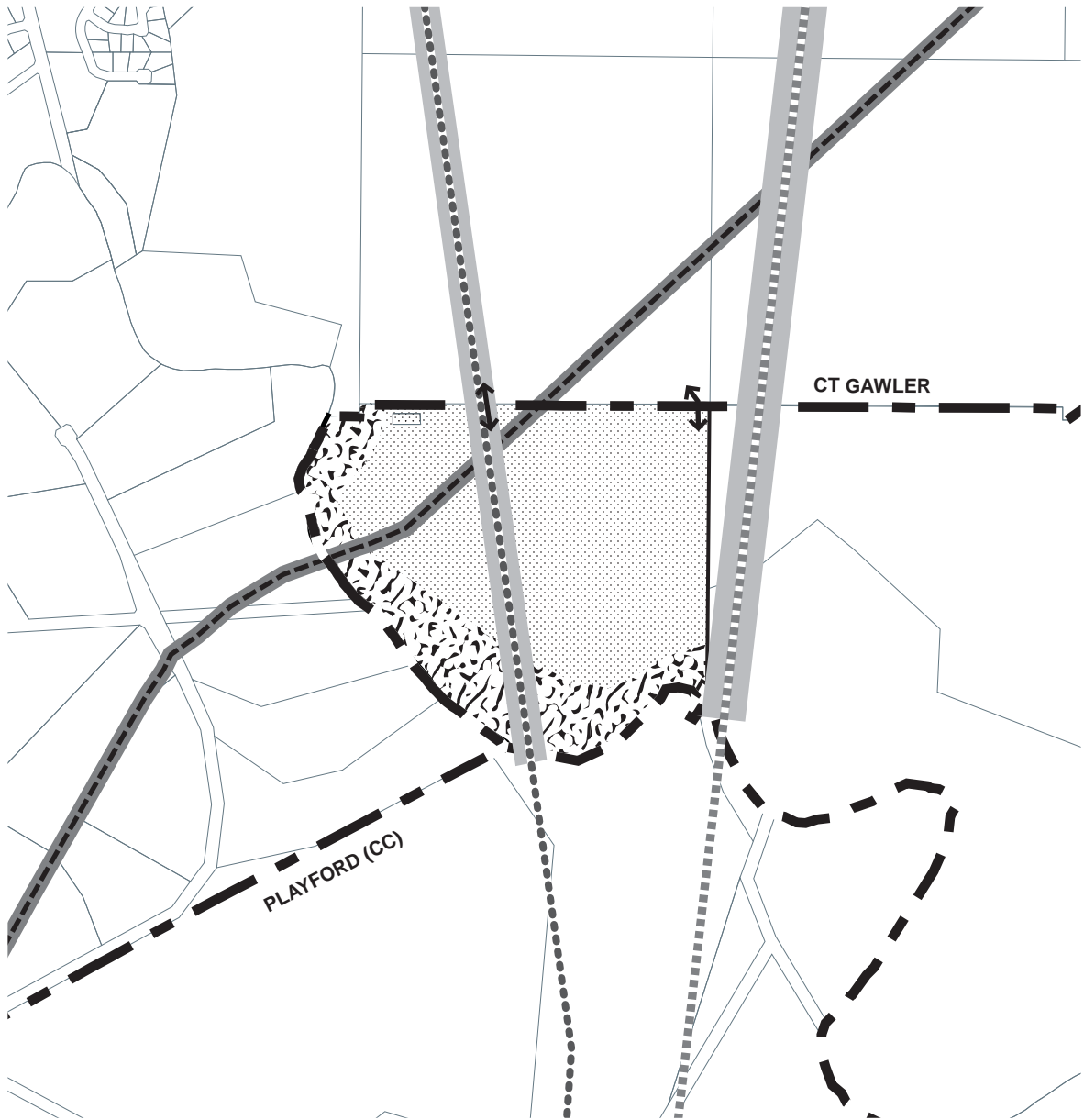
To Sedan









- Living
- Rural
- Rural Living
- Barossa Range Hills Face
- Mount Lofty Ranges Watershed
- Aboriginal Historic sites
- Reservoir
- Watercourse
- Mineral Resource
- Major Local Road
- Secondary Arterial Road
- Primary Arterial Road
- Development Plan Boundary



THE BAROSSA COUNCIL STRUCTURE PLAN MAP Baro/1 (Overlay 1) PART B

ATTACHMENT G

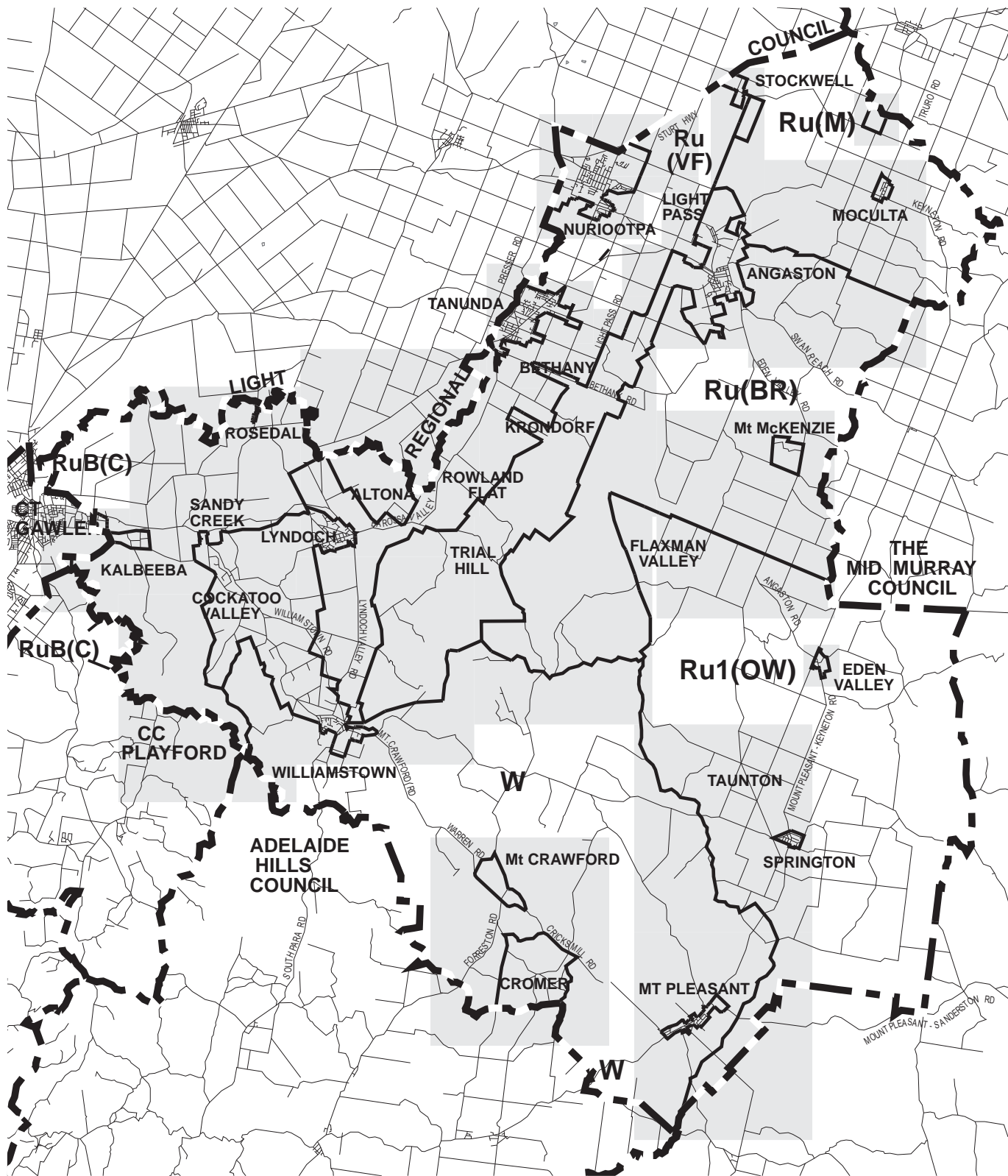


-  Living
-  Proposed Vehicle access
-  Linear Open Space
-  Development Plan Boundary
-  Structure Plan Boundary
-  Major Transmission Infrastructure (132kV)
Corridor (30 Metres)
-  Major Transmission Infrastructure (275kV)
Corridor (50 Metres)
-  Gas Pipeline



**THE BAROSSA COUNCIL
STRUCTURE PLAN
MAP Baro/1 (Overlay 1)
Enlargement K**

ATTACHMENT H



NOTE: See Index MAP Baro/2 for shaded areas. For Concept Plan see Fig Ru(VF)/1.

- Ru(BR) Rural (Barossa Ranges)
- Ru(M) Rural (Moculta)
- Ru(VF) Rural (Valley Floor)
- Ru1(OW) Rural 1 (Outside Watershed)
- RuB(C) Rural B (Concordia)
- W Watershed

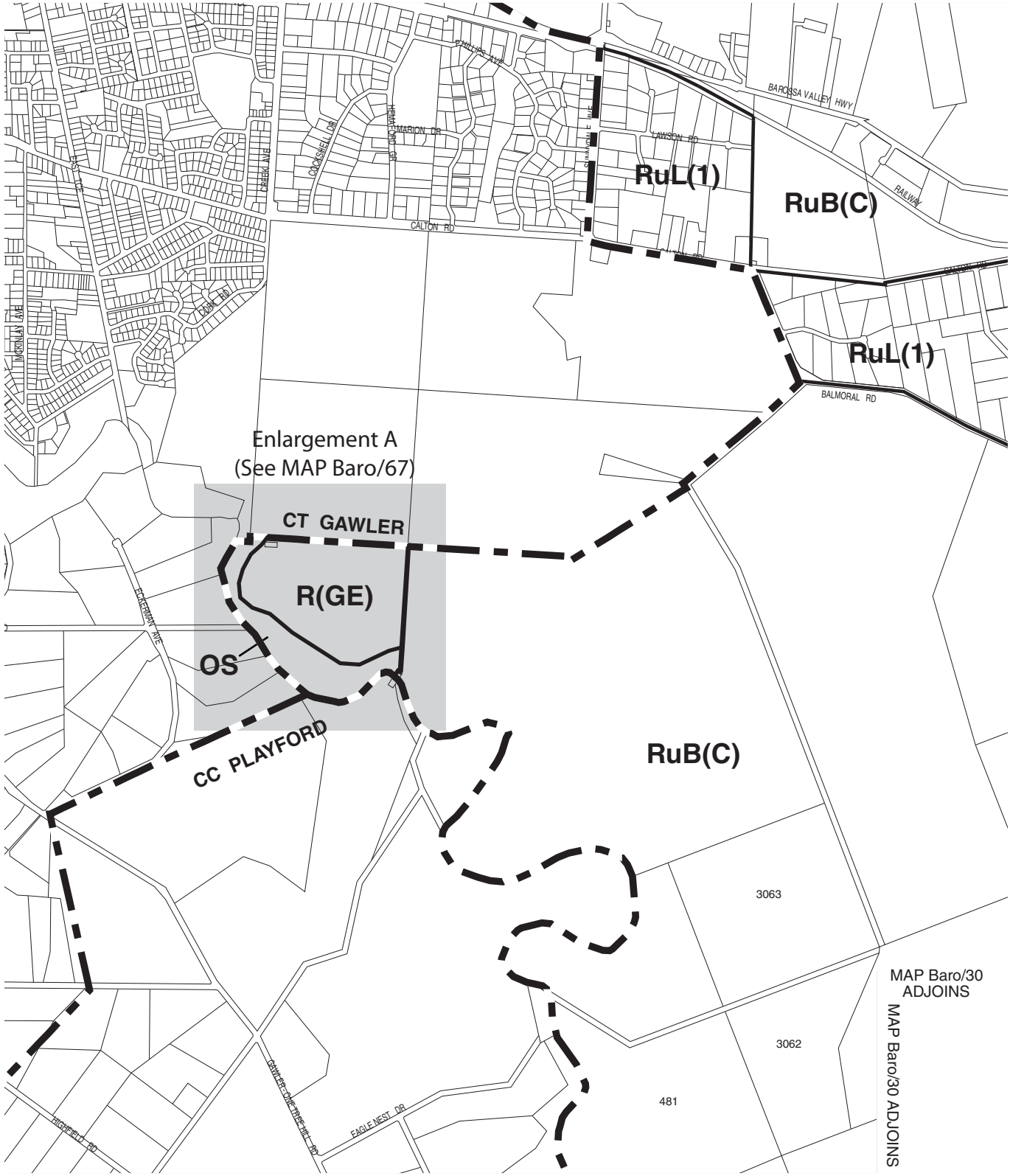


Scale 1:225000



THE BAROSSA COUNCIL ZONES MAP Baro/3

- Zone Boundary
- Development Plan Boundary



MAP Baro/26 ADJOINS

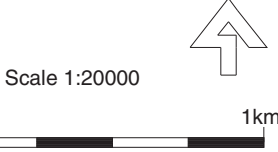
MAP Baro/30 ADJOINS

MAP Baro/30 ADJOINS

MAP Baro/3 ADJOINS

NOTE: For Policy Areas See MAP Baro/54.

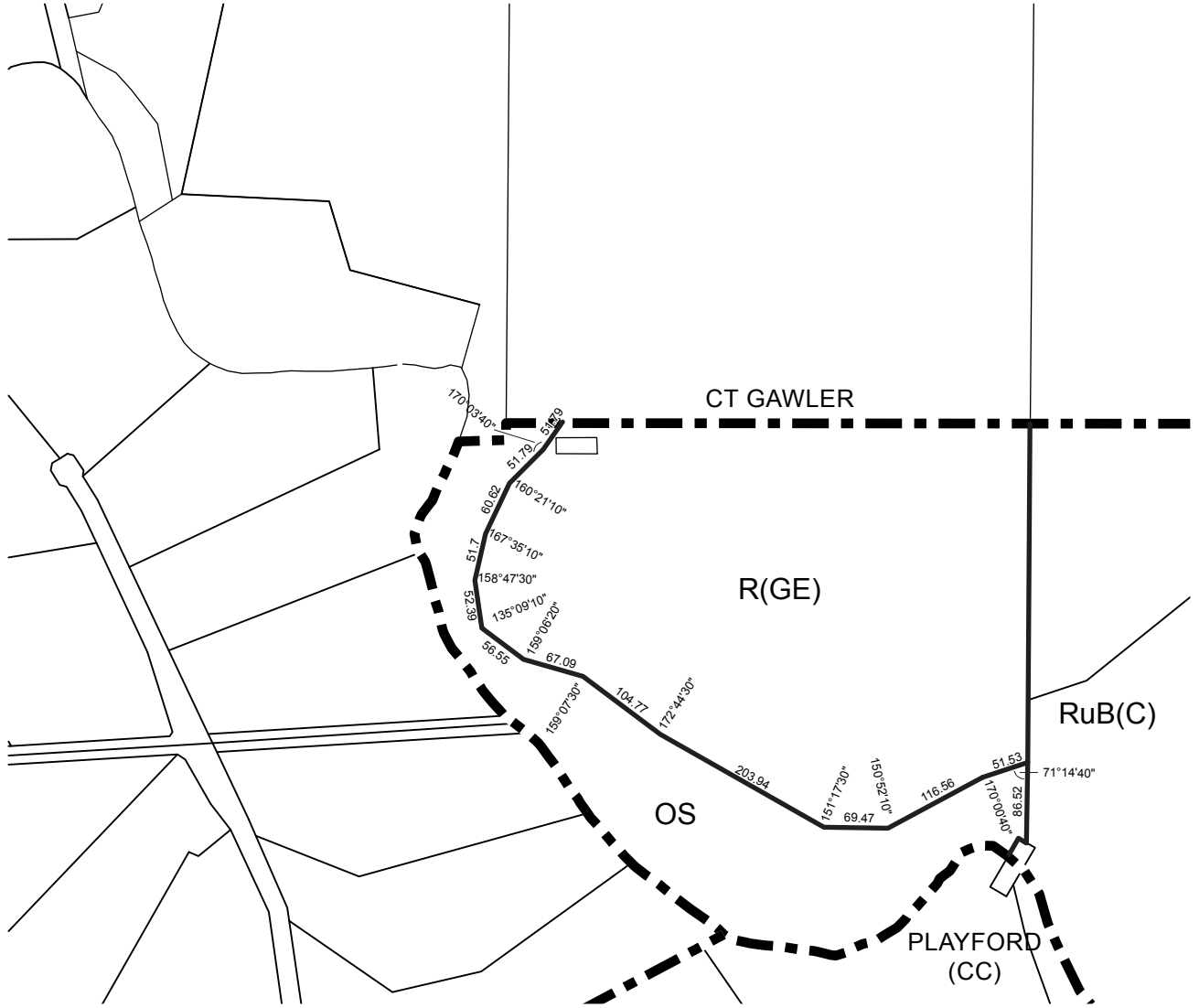
- R(GE)** Residential (Gawler East)
- RuB(C)** Rural B (Concordia)
- RuL(1)** Rural Living (1)
- OS** Open Space



- Zone Boundary
- Development Plan Boundary

**THE BAROSSA COUNCIL
ZONES
MAP Baro/25**

ATTACHMENT I



ENLARGEMENT A

R(GE) Residential (Gawler East)
RuB(C) Rural B (Concordia)
OS Open Space



Scale 1:7500



— Zone Boundary
 - - - Development Plan Boundary

**THE BAROSSA COUNCIL
 ZONES
 MAP Baro/67**

