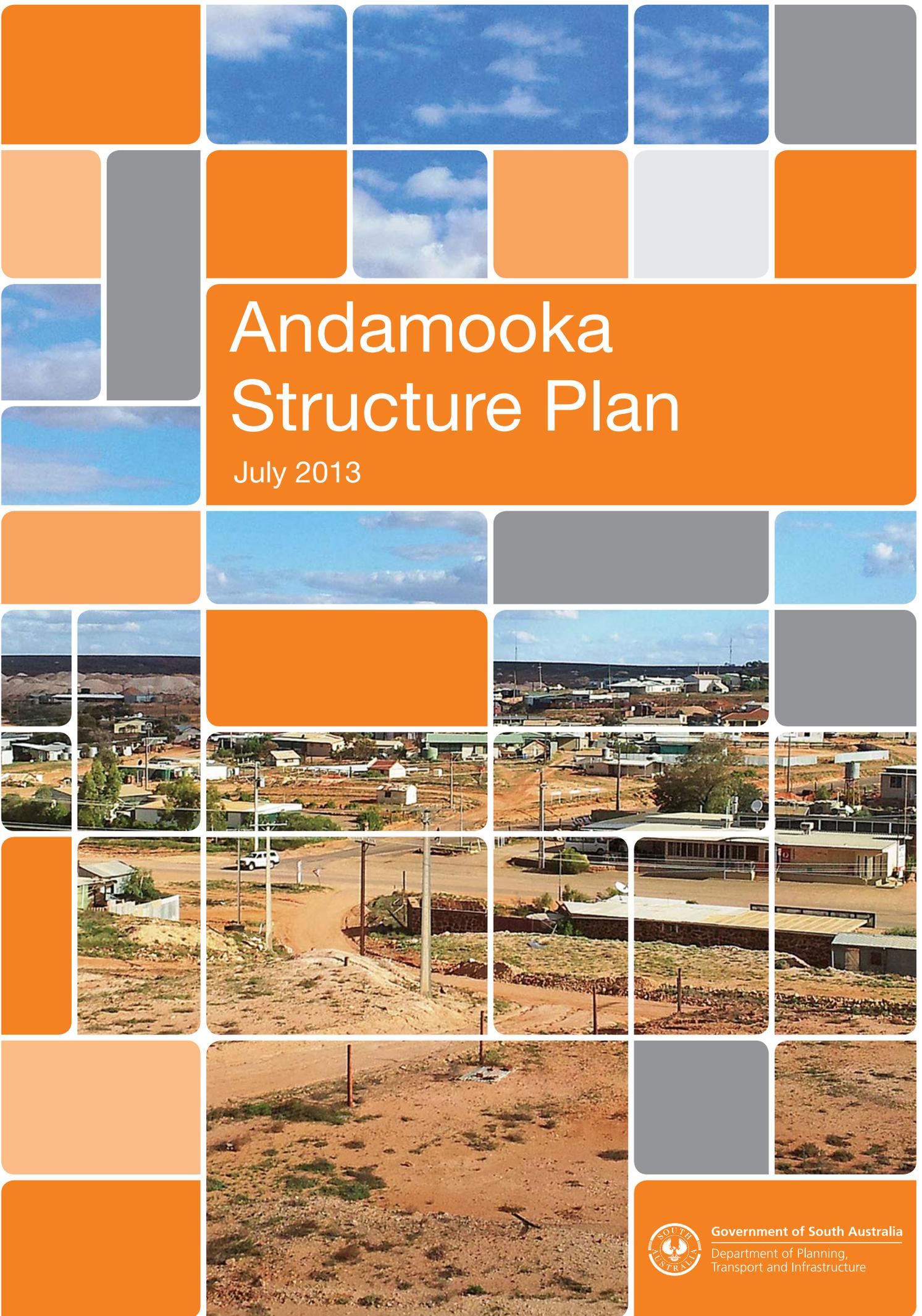


# Andamooka Structure Plan

July 2013



Government of South Australia  
Department of Planning,  
Transport and Infrastructure

# Minister for Regional Development Minister for State/Local Government Relations



Located 33 kilometres north-east from the town of Roxby Downs and the Olympic Dam mine, the town of Andamooka in South Australia's Far-North, is most famous for its association with opal mining.

Andamooka is located outside of local government areas and

its governance falls under the jurisdiction of the Outback Communities Authority. Current and future mining projects may see growth in the population of the township that could result in a demand for land suitable for residential, commercial and industrial development. Development of the township should be undertaken in a manner that enhances the amenity and unique character of the township, strengthens the infrastructure underpinning the community and avoids conflicts between land uses.

The Andamooka Regional Structure Plan is a visionary document that will guide the future design and planning of Andamooka for next 10 to 20 years and ensures that development is responsive to the aspirations of the community. Importantly, it is a tool that will inform coordination of, and investment in, the provision of infrastructure and services as well as

protecting productive and environmentally significant land. The Plan identifies a range of investigations that should be considered as a basis for planning and development within the township.

The Plan has been informed by the Far North Region Plan, a volume of the Planning Strategy for South Australia. It will provide guidance for any future review of the Land Not Within a Council Area Eyre Far North, Riverland and Whyalla Development Plan (consolidated 2012).

The Andamooka Regional Structure Plan has been developed by the State Government in collaboration with the former Andamooka Town Management Committee, the Andamooka Progress and Opal Miners Association, and the broader community. The result is a document which points the way to a future of well-managed growth, protected natural, heritage and economic assets, and a strong community.

## **Hon Gail Gago MLC**

Minister for Regional Development

Minister for State/Local Government Relations



Government of South Australia

Department of Planning,  
Transport and Infrastructure



# Table of Contents



<b>Introduction .....</b>	<b>1</b>
Study area and strategic direction .....	2
<b>Background and Regional Context .....</b>	<b>3</b>
Andamooka at a glance .....	4
Governance .....	5
Community engagement process .....	5
<b>Vision and Design Principles .....</b>	<b>7</b>
Vision .....	7
Design Principles .....	7
<b>Strategic Investigations.....</b>	<b>13</b>
<b>Appendix 1 Related Reports and Strategies.....</b>	<b>15</b>
<b>Appendix 2 Opportunities and Challenges.....</b>	<b>17</b>





### Albertoni's House



This house was built in 1870 on the site of the old 'Creek' farm. It was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time. The house was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time.

The house was built in 1870 on the site of the old 'Creek' farm. It was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time. The house was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time.

The house was built in 1870 on the site of the old 'Creek' farm. It was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time. The house was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time.

The house was built in 1870 on the site of the old 'Creek' farm. It was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time. The house was built by the Albertoni family and is one of the few remaining examples of the type of house built in the area at that time.

# Introduction



The Andamooka Structure Plan (the Plan) guides the future design and planning of Andamooka over the next 10 to 20 years. The Plan has been developed by the South Australian Government in collaboration with the Andamooka Town Management Committee (ATMC<sup>1</sup>), the Andamooka Progress and Opal Miners Association (APOMA) Incorporated and the broader community.

The purpose of the Plan is to identify key design- and planning-related issues that are important to the future of the Andamooka community. It may also be used as a tool to inform the coordination of, and investment in, the provision of infrastructure and services while ensuring the protection of productive and environmentally significant land.

The Plan addresses only what can be achieved through the land-use planning system; matters outside the scope of land-use planning are addressed by other complementary strategies and plans.

It is important to recognise that a number of the proposed directions outlined in this Plan are subject to the completion of critical investigations to ensure the healthy and amenable growth of the township.

---

<sup>1</sup> The ATMC is a committee of the Outback Communities Authority established on 1 January 2012 under section 11 of the *Outback Communities (Administration and Management) Act 2009*

Once finalised, the Plan will provide guidance in reviewing and updating the *Land Not Within a Council Area (LNWCA) Eyre, Far North, Riverland and Whyalla Development Plan* (consolidated 2012). The development plan contains the rules setting out what can be done on the land and contains maps, zones and policies against which development applications are assessed.

In addition, it should be noted that, at the time of this Plan's finalisation, a Native Title claim by Kokatha Uwankara has been lodged over the township and surrounding area. Whilst this will not prevent rezoning it may have significant ramifications for investment and development until the Indigenous Land Use Agreement (ILUA) is agreed.

The Andamooka Structure Plan is an evolving document. Its success will depend on adaption to changes over time and its regard by the people of Andamooka.



Government of South Australia

Department of Planning,  
Transport and Infrastructure

## Study area and strategic direction

The Andamooka Structure Plan covers the whole of the Andamooka Policy Area 1 in the LNWCA Development Plan (as shown on Map 2). The strategic directions are informed by the *Far North Region Plan*, which recognises that more detailed planning and design is required for Andamooka to manage increasing development activity. The *Far North Region Plan* acknowledges Andamooka's:

- > unique character and design, which provide the sense of identity valued by residents and give visitors a distinctive outback experience that should be retained and strengthened
- > need for industrial land to meet potential demand and to encourage clustering
- > role as an opal mining centre, with the town's heritage and character providing an essential part in tourism development
- > supporting commercial and service role, providing a range of accommodation, fuel, goods and services to the local community and travellers
- > potential growth due to increased investment in the region and the need to provide relatively affordable housing, including rental accommodation
- > changing demographics and increased demand for housing / nursing home and health facilities and services to support ageing residents, many of whom wish to stay within the Andamooka community
- > development and design, creating a connected and well-functioning town while retaining its character and appeal to residents and travellers.



# Background and Regional Context



Andamooka is located in the Far North region of South Australia, one of the State's most prolific mineral exploration areas. Andamooka's opal mining heritage dates back to the late 1920s and the outback settlement has developed with a distinctive informal land-use pattern. This unique cultural landscape, shaped by the unregulated and haphazard fashion of opal mining and related heritage, has historic, architectural and social significance to South Australia. Much of Andamooka remains relatively unaffected by subsequent subdivision and regulation, and sections of the town still have unsealed roads, abandoned shafts, machinery, mining overburdens and other debris associated with opal mining scattered throughout.

The town is within the influence of Roxby Downs<sup>2</sup>, a purpose-built regional centre providing accommodation and services for employees of BHP Billiton's Olympic Dam Mine (see Map 1). Roxby Downs' population at the 2011 Census was 4,702 persons; but has the capacity to accommodate up to 10,000 people. In addition, investigations have determined the capacity for a self-contained worker village, Hiltaba, could be established 15 km from Roxby Downs (on the road to Andamooka) with the capacity to accommodate up to 10,000 live-in

---

<sup>2</sup> Built under the *Roxby Downs (Indenture Ratification) Act 1982*

workers. While Roxby Downs and Andamooka have different historical contexts, they have managed to co-exist and develop mutually supporting roles.

With the establishment of the Olympic Dam Mine in the 1980s, Andamooka evolved from an opal mining and tourism town into a residential base for people employed in the mine or in service industries in Roxby Downs. APOMA and the Outback Communities Authority (OCA) recognise that a significant expansion of Olympic Dam may create demand for additional housing and employment lands in Andamooka.

The State Government and BHP Billiton, together with representatives from Roxby Downs Council and community, have established the Olympic Dam Project Social Management Partnership to identify, discuss and collaboratively respond to the social effects of Olympic Dam within Roxby Downs and other potentially affected communities.

Recent subdivisions in the town do not reflect the landscape and follow a more traditional rectilinear land-use pattern. In addition, community concerns have been raised by proposals for single-person quarters<sup>3</sup> for mine workers, as this form of housing is

---

<sup>3</sup> Single-person quarters are usually small, individual 'units' or cabins with en-suites serving as independent living quarters for transient workers. The approximate size of each unit is comparable to a small caravan. In some instances facilities such as a mess hall / laundry / gymnasium may be shared.



Government of South Australia

Department of Planning,  
Transport and Infrastructure

seen to detrimentally affect desired character and amenity. Population growth and increased development has the potential to create conflicts between land uses and health risks associated with incompatible development and on-site wastewater management facilities.

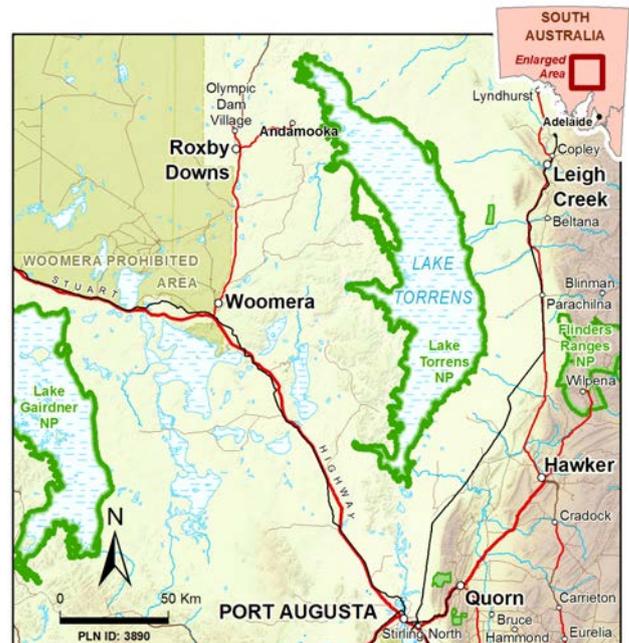
## Andamooka at a glance

- > The town is located 33 km east of Roxby Downs and 600 km north of Adelaide (see Map 1) in the Unincorporated Far North SA.
- > It has 592 residents as counted in the 2011 Census (a 12.1 per cent increase on the 2006 Census).
- > Its population is older and more multicultural, with fewer post-school qualifications, lower income levels, fewer families with young children, and higher levels of unemployment than the rest of South Australia.
- > BHP Billiton estimates that 225 Olympic Dam Mine employees and contractors resided in Andamooka in 2009, which equates to 35 permanent employees (or 3 per cent of residential permanent employees) and 190 contractors (or 14 per cent of residential contractors). Any significant expansion of Olympic Dam will require investigations to determine the growth effect upon Andamooka, during construction and post-construction.
- > A report by the Outback Areas Community Development Trust (now OCA) states that population growth could further increase as a result of secondary employment that may be generated in the township. Given uncertainties about future population impacts, the extent of latent growth potential, and the possibility of expansion of the mine, some investigations recommend planning for a fully developed population of 1,500 people<sup>4</sup>. However, caution is advised regarding this figure and the potential for

overcapitalisation in light of changing economic circumstances.

- > Very limited services are provided in the town and residents often use services and facilities in Roxby Downs.
- > Roxby Downs will continue to be the key service centre for the region and planning for social services and facilities therefore needs to take into account population increases in Andamooka.

Map 1: Andamooka location map



<sup>4</sup> ibid

## Governance

The management and governance authority for Andamooka is the OCA. The Authority covers 65 per cent of the State, taking in areas not serviced by local councils, with Andamooka being the largest community.

The OCA established the ATMC to provide advice and assume delegated functions related to the effective governance and management of Andamooka. A preferred model of town administration and governance to apply beyond June 2013 is currently being considered.

APOMA manages and promotes improvements in public services and facilities, and articulates the views, interests and aspirations of the community. A Town Manager has recently been appointed to support ATMC in its delivery of municipal services.

## Community engagement process

In developing the Plan, the Department of Planning, Transport and Infrastructure, in association with the OCA, the ATMC and APOMA, conducted two community engagement workshops in March 2012. The workshops involved 50 to 70 local residents, business operators, service providers, government agencies and regional bodies.

In addition, the Andamooka Primary School coordinated discussions with the youth of Andamooka. Twenty-eight 5 to 10 year-olds and twenty 11 to 16 year-olds discussed their current experience in the town. A small core group also worked on future planning by imagining 10 years into the future and responding to the question: *“What would I like Andamooka to look like?”*

The School Principal emphasised the importance of what the youth of Andamooka want for themselves and their families. They will inherit the Andamooka that is planned today and their fierce loyalty to their town is very evident. Many of the youth expressed a desire for clustered activities in the town centre and opportunities to undertake apprenticeships (not necessarily in mining) and gain employment in Andamooka.

Key themes arose from workshops where the participants identified their top three opportunities and challenges, which were then grouped according to themes. Appendix 2 shows these opportunities and challenges and the common areas the Plan addresses.

Issues raised by the community and stakeholders outside of land-use planning and design are included in Table 1 in Appendix 2 but are not dealt with in the Plan.

Thirteen submissions were received during the public consultation period which generally focused on the degree and impacts of potential growth upon the township and the community as well as understanding the role of the Structure Plan. A number of minor and technical amendments were made to clarify the issues and directions set out in this Plan.





# Vision and Design Principles



## Vision

Andamooka is an outback town ...

with a distinctive opal mining heritage and frontier character

providing a unique and enjoyable experience

with a strong sense of community spirit and relatively affordable housing.



## Design Principles

### *Economy and employment*

- > Retain and strengthen the role of the town centre as a mixed-use precinct providing convenience goods and services to the local community and travellers
- > Locate small retail shops (< 50m<sup>2</sup>) associated with opal mining within the town boundary
- > Develop an industry hub outside of the township boundary in a location to limit movement of trucks through the township
- > Locate light industry developments under 2,000m<sup>2</sup> in locations where they do not conflict with other land-uses within the township
- > Develop tourist accommodation adjacent to the playground / skate park

### *Movement and access*

- > Maximise permeability of the built form for pedestrian and cyclist safety and security
- > Develop walking and cycling trails along watercourses and the primary local road network



Government of South Australia

Department of Planning,  
Transport and Infrastructure

### *Land use and design*

- > Locate residential developments within the existing township boundary
- > Encourage affordable and diverse residential development and consider housing designs that respond to climatic conditions such as orientation and 'dug out' style
- > Design sub-divisions and developments to support the township heritage and character

### *Liveability, community and sense of place*

- > Retain the opal overburdens within and around the township
- > Identify, protect and conserve buildings, sites and areas of heritage, character and / or cultural value
- > Preserve and enhance scenic views, including the entrances to the town
- > Expand recreation opportunities, including the development of trails along water courses, open space provision and enhancement of mining heritage sites

### *Infrastructure and community facilities*

- > Maximise opportunities for water re-use throughout the town, including incorporation of stormwater management sites into open space
- > Locate aged care accommodation, health, education and civic services in the town centre
- > Close the existing waste site and plan for a new landfill facility and waste transfer station outside of the existing township boundary
- > Developments requiring connection to the Andamooka Power House must demonstrate there is capacity to service the development
- > Subdivision of allotments must demonstrate there is sufficient room for installation of approved on-site wastewater management systems.





# Map 2 Andamooka Structure Plan



## Definitions related to Map 2



### Gateway

- maintain strong views and vistas at town entrances
- enhance entrances to reflect town heritage and character
- ensure developments within view of gateways and the town centre are designed to protect heritage and character



### Primary Local Road Network



### Industry / Employment

- provision of services (eg water, energy) to be funded by the developer
- establish a waste transfer station
- create a visual buffer from the township



### Commercial

- tourism accommodation and supporting activities / infrastructure required to meet the day-to-day needs of travellers



### Town Centre

- provide a range of retail, office, entertainment and community facilities, including health, education and civic services
- protect heritage and character buildings and sites
- development of a scale and form that complements existing character
- single person quarters\* are not envisaged
- facilitate a mix of housing sizes, where it does not impact on town character, and facilitate gradual low-rise (1-2 storey) residential development, eg small-scale supported aged care accommodation; retail / office on ground floor and housing on first floor
- where possible, ensure a network of pedestrian / cycle access ways through developments

\* *single person quarters* are usually comprised of small, individual 'units' or cabins with en-suites serving as independent living quarters for transient workers. The approximate size of each unit is comparable to a small caravan. In some instances facilities such as a mess hall / laundry / gymnasium may be shared.



### Residential

- facilitate residential infill to maintain the heritage and open character of the town by supporting irregular block shape and township pattern and a mix of housing sizes
- higher density development encouraged adjacent / within the Town Centre
- subdivision and development to respect views, topography, slope, stability, township gateways and aspect, and protect township character and heritage
- all residential development (including subdivision where appropriate) subject to consideration of on-site wastewater systems, hazards (flooding, subsidence), heritage, energy and water capacity
- light industry developments are not permitted (includes off-grid diesel or petrol energy generators)



### Open Space / Recreation / Heritage / Character

- maintain and support existing playground / skate park
- create a bike track adjacent playground / skate park and provide trees (subject to water re-use potential)
- expand recreation facilities and open space (development subject to stormwater management plan and water-sensitive urban design assessment)
- protect opal overburdens
- promote safe pedestrian / cycle movement and improved amenity by developing trails along watercourses and primary local network



# Strategic Investigations



Major land-use changes and zoning requirements arising from the structure planning process are incorporated into development plans through Development Plan Amendments (DPAs). Strategic investigations form a significant part of the DPA process and should be sufficiently comprehensive and detailed to form the basis for subsequent planning policy development.

The following are the minimum investigations identified; however, further investigations may be warranted due to particular circumstances or issues arising from the planning process. For example, consideration of the Kokatha Uwankara Native Title claim over the township and surrounding areas and the outcome of negotiations.

## *Economy and employment*

- > Investigate opportunities to support a positive visitor experience, including potential for more bed and breakfast stays
- > Investigate appropriate locations for industrial development and associated infrastructure requirements should there be sufficient demand

## *Movement and access*

- > Assess traffic impacts of potential population growth and dwelling yields on the Andamooka to Roxby Downs road and the internal road network

(including priority design, construction and maintenance)

- > Identify new transport infrastructure and upgrades in Andamooka, including new / upgraded pedestrian and cycle networks, access to the proposed White Dam Road industry hub, tourist access to Lake Torrens and Stuart Creek Road
- > Investigate appropriate access routes and shared storage areas for small scale mining equipment (eg backhoes)

## *Land use and design*

- > Estimate yields (population, housing and employment) and monitor rates of construction of dwellings, land supply and capacity of infrastructure to inform the timing of rezoning of future residential areas
- > Investigate the numbers of and causes for dwellings to be unoccupied. Include assessment of the condition of dwellings to ensure they meet Building Code of Australia requirements (for example, structurally sound, secure, habitable and in good repair)
- > Investigate urban design techniques to ensure future development is integrated in design terms with the existing town
- > Investigate potential for unstable ground from unfilled / unknown underground mining activities prior to development



Government of South Australia

Department of Planning,  
Transport and Infrastructure

### *Liveability, community and sense of place*

- > Undertake a heritage, character and cultural survey to identify significant local sites and landscapes that should be protected
- > Identify strategies to respect and avoid detrimental impact on sites of Aboriginal significance, where any sites are known, identified or discovered

### *Infrastructure and community facilities*

- > Prepare a stormwater management plan and identify and incorporate water-sensitive urban design principles and techniques (if appropriate). A stormwater management plan will:
  - provide a clear direction on minimising stormwater hazards
  - indicate suitability of sites for future development
  - inform priorities for road upgrades or maintenance
- > Investigate options for closing the waste facility and establishing a landfill facility and waste transfer station

- > Assess improvements required to the septic waste dump to allow for population growth, including consideration of alternative systems and location (subject to EPA requirements)
- > Assess and implement cost-effective improvements to the water supply, including the feasibility of reticulated water for the township
- > Explore the feasibility of grid connected energy from Hiltaba to Andamooka (15 km) and the potential for solar and / or wind systems to augment supply. Note that the existing diesel power station will need decommissioning and a site audit<sup>5</sup>
- > Identify easements, separation distances and buffer requirements which may limit or inform development, built form, activities and landscaping
- > Investigate potential hazards including flooding and land subsidence which may impact on development activities



<sup>5</sup> KPMG (2011) *Review of the Remote Areas Energy Supply Scheme*, for the Department of Transport, Energy and Infrastructure, [www.sa.gov.au](http://www.sa.gov.au)

# Appendix 1

## Related Reports and Strategies



Andamooka Progress and Opal Miners Association Inc (2009) *Submission on: The Proposed Olympic Dam Expansion EIS*, developed by The Birchman Group, [www.olympicdameis.sa.gov.au](http://www.olympicdameis.sa.gov.au)

... (2002) *Andamooka Community Plan*, prepared by Collins Anderson Management, [www.oca.sa.gov.au](http://www.oca.sa.gov.au)

BHP Billiton (2009) *Olympic Dam Expansion, draft Environmental Impact Statement*, various chapters and appendices, [www.bhpbilliton.com](http://www.bhpbilliton.com)

... (2011) *Olympic Dam Expansion, Supplementary Environmental Impact Statement*, various chapters and appendices, [www.bhpbilliton.com](http://www.bhpbilliton.com)

Clifford L (2012) *Aged care needs of a remote mining community: Andamooka Aged Care Needs Assessment 2011; containing the opinions and circumstances of older residents of Andamooka*, unpublished report

Department of Primary Industries and Resources SA (2008) *Andamooka Draft Master Plan*, unpublished

Department of Planning and Local Government (2010) *Far North Region Plan; A volume of the South Australian Planning Strategy*, [www.sa.gov.au](http://www.sa.gov.au)

Department of Planning, Transport and Infrastructure (2012) *Land Not Within a Council Area Eyre, Far North, Riverland and Whyalla Development Plan*, [www.sa.gov.au](http://www.sa.gov.au)

... (2012) *Strategic Infrastructure Plan 2012 – 2025+*, unpublished draft

Heylen M (2009) *BHP Billiton Proposed Olympic Dam Mine Expansion; Andamooka – Social Impact Assessment*, report prepared for ARUP HLA, [www.bhpbilliton.com](http://www.bhpbilliton.com)

KPMG (2011) *Review of the Remote Areas Energy Supply Scheme*, for the Department of Transport, Energy and Infrastructure, [www.sa.gov.au](http://www.sa.gov.au)

Outback Areas Community Development Trust (2009) *Review of Olympic Dam Expansion Draft Environmental Impact Statement*, prepared by Connor Holmes, [www.olympicdameis.sa.gov.au](http://www.olympicdameis.sa.gov.au)

Regional Development Australia Far North (2011) *Regional Roadmap and Strategic Plan 2010-2013*, [www.rdafn.com.au](http://www.rdafn.com.au)

SA Arid Lands NRM Board (2010) *Regional Natural Resources Management Plan for the SA Arid Lands Natural Resources Management Region*, Vol 1, [www.saalnm.sa.gov.au](http://www.saalnm.sa.gov.au)



Government of South Australia

Department of Planning,  
Transport and Infrastructure



# Appendix 2

## Opportunities and Challenges



The following table summarises the themes and implications derived from initial engagement with the community and stakeholders. Note: all comments, opportunities and challenges have been included in the table for a full and accurate record; however, only those with land-use / design implications, or governed by the *Development Act 1993*, are addressed in the draft Plan.

*Table 1: Community / Stakeholder Themes*

Theme	Challenge	Opportunity	Design / Planning Characteristic
Economy and employment	Mix of retail, including fast food outlets / entertainment / more retail so you don't have to leave Andamooka / restaurants / not big shops which would ruin the town	Diversity in service industries / separate industrial area out of immediate town area / light industrial area needed now / capitalise on mining support industries / employment opportunities	Provision of mixed-use Town Centre, commercial and industrial land
		Education / jobs for youth in Andamooka (and beyond) ie apprenticeships; post-school training – but not necessarily in the mine / “I wish I could get an apprenticeship here”	
		Tourism facilities – toilets, seating, accommodation, signage at entries and within town, story and experience of Andamooka / bed and breakfast / repaint ‘rainbow’ sign on road from Pimba	Provision of commercial site
		Mixed uses – enforce complimentary activities / more retail potential	Town Centre as mixed-use hub
Movement and Access	Regular bus service / public transport to Roxby Downs and Port Augusta and within Andamooka / transport for school children to Roxby Downs		
	Roads - surface / infrastructure / maintenance / road base repairs / need to be resurfaced with low maintenance, all weather material		
		Need more bituminised roads	
	Keep road access in town for heavy equipment		



Government of South Australia

Department of Planning,  
Transport and Infrastructure

Theme	Challenge	Opportunity	Design / Planning Characteristic
	Shorter access for BHP workers from Andamooka		
		Ring route to other tourist destinations eg Maree, William Creek	
	Pavements	Footpaths and pedestrian access required / need pathways around town	Trails are encouraged and ensuring pedestrian / cycle access ways through Town Centre
Land-Use and Design	Manage environmental hazards fairly. (Note: unsure the meaning behind this comment.)		Open space, stormwater management plan, water-sensitive urban design assessment
	Aged-care facilities / services and aged housing / residential care facility (small – 10 people) / family services / youth services		Provision of land in Town Centre
		Accommodation for visitors / contractors / workers	Provision of commercial site for tourist accommodation / housing choice promoted
		Grow family housing and attendant infrastructure / don't want houses too close together / infill before town expansion / more land for housing	Affordable housing and housing choice encouraged; maintain low density; infill promoted
		Provide State Government employee housing	
		Clear sight lines at playground for safety	
	Concerns regarding town expansion outside of existing boundary - unstable ground from unfilled / unknown underground mining areas / fill in shafts / maintain existing density – expand out rather than in	Opal dumps (outside town) – level them as they are of no use and of questionable town character / town boundary – question of expansion vs retention / limit size of town? Stay the same or expand? Aim to infill first; expand on an as-needs basis / maintain existing town boundary	No expansion outside of town boundary; infill encouraged subject to heritage / character / cultural surveys; capacity for on-site wastewater management system and energy
		Residential allotments – reduce minimum size / smaller allotments needed / reduce to < 800m <sup>2</sup> / reduce to 600-700m <sup>2</sup> / allotment sizes too big	Subject to heritage / character / cultural surveys; capacity for on-site wastewater management system and energy. Note: 1200 m <sup>2</sup> figure tends to be used in development plans in SA as it has been demonstrated to provide sufficient area for wastewater systems, sheds, drives etc and usually enough area to fit a replacement wastewater system if the first one fails (often a problem in areas with low permeability soils).
		Resurvey town – allotment boundaries / survey pegs lost	

Theme	Challenge	Opportunity	Design / Planning Characteristic
		Single men's accommodation - discourage large complexes - perhaps small groups of single men accommodation scattered throughout town / temporary accommodation – flats and multi-unit dwellings	Single persons quarters discouraged in Town Centre; housing choice is encouraged
		Will it be made entirely residential? Eg equipment (mining) in back yards; needs to be integrated with historical practice; part of the character of Andamooka; want a mixture of uses; don't want it over-regulated (balanced approach).	New areas will be residential; heritage / character / cultural surveys required; mixed-use Town Centre; light industry within residential infill; vehicles exceeding 3 tonne tare in weight (Schedule 1 Definitions – Development Regulations) require development approval. Development Plan policy must define machinery as complying.
Liveability, community and sense of place	Pest control – including feral animals and weeds/plants		
	Flooding / water run-off / drainage / stormwater disposal	Stormwater management plan needed	Open space; stormwater management plan; water-sensitive urban design assessment
	River		Trails, open space, stormwater management plan, water-sensitive urban design assessment
	Native Title		Investigation / negotiation required
	Aesthetics / Andamooka as it used to be / risk losing unique character and lifestyle / don't want to be sterile	Heritage – maintain existing heritage items and identify new sites for preservation / character of Andamooka / keep town identity / reserve unique culture and lifestyle / historic cottages – continue maintenance and identify new ones / opal dumps in township – protect and maintain, turn over for tourism potch searching, address safety of shafts / keep as heritage protect heritage through cladding and rooflines / retain the 'long bus' (you can tell people where things are by using the long bus)	Heritage / character / cultural surveys; limited change in residential character area; open space; investigation of disused shafts
		Gateway - appealing to visitors, information bay including all service groups, shops, town map, etc / town entrances need better signs	Gateways identified for enhancement / protection
		Discourage off-grid generation of energy at individual sites (ie diesel manufacture - noise / odour) - impacts will compound with smaller allotments	No off-grid generators in residential

Theme	Challenge	Opportunity	Design / Planning Characteristic
		Recreation facilities / tree planting and playground and pool good / community areas / more playgrounds, sports complex with supervisors / grassed oval / bike track / more trees / baby playground – more fun things for babies / garden / ballet / music / bigger monkey bars	Open space; expanded recreation facilities; trails; tree planting encouraged
		Building your own home according to local needs / building standards for fair rental properties	Subject to Building Code of Australia
		Population growth / new families (focus for township – population attraction) / additional family housing	Structure plan guides land-use planning for growth; encourages affordable housing; limits single persons quarters
	Noise restrictions		
Infrastructure and community facilities		Good the school is in Andamooka / safe zone around schools/community services / child care / as town grows so should school / need bigger school and child care / high school so youth don't have to leave Andamooka	Education hub in Town Centre; no single persons quarters
		Build on success of 'no wrong door approach' for health and community services and education	
	Community wastewater management system / STED / sewer		Subdivisions must demonstrate capacity for on-site wastewater management system
	Water reticulation – impediment to development / Water quality checking / monitoring		Investigate possibility of reticulated water / waste water
	Street lighting – combining land-uses / needed in 'black spots'		Town Centre is mixed-use precinct
		Street names required for emergency / postal / courier access	
		Electricity – gridding / infrastructure / costs / management / inconsistent power / solar power / mains power connected to township	Investigation to assess options
		More taps around town to drink from when it is hot and we are playing	
	ICT – high speed internet for education and health services as well as community use / coverage – not just Telstra and unreliable access / Optus phone provider		
	Lack of infrastructure / maintain new or upgrade into future / water reticulation / infrastructure to support expansion	Need potable water / reliable power / sewerage / ICT	Capacity of infrastructure before development; investigations into infrastructure options for reticulation

Theme	Challenge	Opportunity	Design / Planning Characteristic
		Land for health / need medical services / doctor required / move hospital/clinic to central location near town centre for access / retain/protect land for health and education development and expansion / protect services – no subdivision of government land / as town grows so should health facilities / community facilities developed conducive of family need	Health and education hub in Town Centre
		More facilities for youth	Open space / recreation eg bike track, expanded recreation facilities; services within Town Centre
	Need to manage increased pressure on local businesses and health systems and services / police		
	Rubbish tip and dumping of liquid waste - need to be seriously looked at / waste dump – needs better management / waste trucks should avoid Town Centre / recycling / rubbish collection / transfer depot	Garbage truck instead of smelly, smoky dump truck	Close waste dump and establishing waste transfer station in industrial area
	Police station / presence / living in town / more than one officer	Note: police reports are monitored to determine level of service	
	Social drugs – White Dam settlement		
Governance	Application of land-use compliance to current situations / line in sand – new development regulated/controlled, but leave existing amenity/land use		All development requires development approval (Section 32 – <i>Development Act 1993</i> ); heritage / character / cultural survey
	Retain heavy equipment storage on residential allotments – character and culture		Vehicles exceeding 3 tonne tare in weight (Schedule 1 Definitions – Development Regulations) require development approval. Development Plan policy must define over-size machinery as complying (if required in future)
	Close the gap with Roxby Downs - sense of a larger community / redevelop relationship with Roxby		
	Having the resources and partners to manage the diverse impacts expected / unseen		
		Community leadership - continue active community involvement - not just handing responsibility over / what happens in Andamooka needs to be run by the people / changing the governing of Andamooka / local management of local amenity / control	
		Leverage from ODX to upgrade infrastructure in Andamooka	
		Planning to underpin future agency / government / commercial interaction	Draft structure plan provides strategic framework

Theme	Challenge	Opportunity	Design / Planning Characteristic
		Chance to not only manage future development but to be innovative	Low-rise development in Town Centre; exploring water-sensitive urban design
		Future planning – existing map, zones need amending	Structure plan will guide Development Plan Amendments
	Rubbish needs clearing – including hard rubbish		
	Fierce dogs roaming the town make it difficult for children to ride bikes or walk around town		
		Long lasting changes regardless of expansion - changes must not be for short term	

