



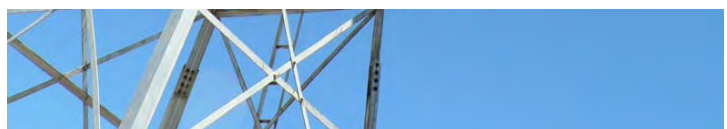
McKinlay Shire INFRASTRUCTURE PLAN

Issue B, Oct 2010

prepared by
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URBAN LANDSCAPE ARCHITECTURE



PLAN C



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1 Introduction

Form and Content of this Report

This report has prepared in co-ordination with the preparation of the McKinlay Shire Community Plan. Infrastructure proposed as part of the Infrastructure Plan for the Shire has focussed on the physical infrastructure recommendations derived from the Community Planning process which has included consultation with McKinlay Shire Council representatives.

The Infrastructure Plan presents infrastructure commendations under the main headings of the Community Plan applicable to physical infrastructure. These are:

- Community Connections
- Economic Diversity and Resilience
- Community and Cultural Services and Facilities
- Housing and Built Environment, and
- Environment and Landscape.

One omission from this list is Governance and Partnerships which, in regard to infrastructure, is considered in depth in the Community Plan in terms of implementation.

The Infrastructure Plan is presented as a series of concepts and master plans applied at the Shire scale and at the scale of each of the Shire's centres, Julia Creek, Kynuna and McKinlay. Nelia is also discussed in terms of potential infrastructure.

Infrastructure recommendations in this report are cross-referenced with corresponding broad strategy areas in the Community Plan and against those of the Draft North West Regional Plan (Dept of Infrastructure and Planning, Queensland State Government, 2009).

2 The Regional Context

A comprehensive planning study and 20 year planning tool has been conducted and prepared by the North West Region Planning Committee and Department of Infrastructure and Planning of the Queensland State Government published as the Draft North West Regional Plan in June, 2009. The purpose of this endeavour was to assist in addressing issues that the region is going to face over the next 20 years, including:

- recognising opportunities and managing the growth associated with mining
- responding to new market opportunities
- encouraging economic diversity
- providing social and economic opportunities to encourage you people to remain in the region
- meeting growth and energy requirements
- managing increasing costs associated with transport
- managing long-term population decline
- adapting to depleting oil resources
- attracting and retaining skilled staff
- accessing and providing essential services in small centres.

The Draft North West Regional Plan was developed using previous studies and recommendations provided in the “Blueprint for the Bush” initiative, the “Rural and Economic Development and Infrastructure Plan” and “Northern Economic Triangle Infrastructure Plan 2007-2012”.

2.1 Local Authority Areas and Population Centres

The North West Region is defined in the Draft North West Regional Plan as five neighbouring local authority areas (LGAs) which lie west of Townsville Figure 1):

- Mount Isa City
- Cloncurry Shire
- McKinlay Shire
- Richmond Shire and
- Flinders Shire.

The region is home to a population of approximately 28,500 people, most of whom reside within the Mount Isa City Council area. Mount Isa is the largest centre in the region with a population of nearly 21,000 people and is classified as a Major Regional Activity Centre. Cloncurry, with almost 2,600 people is the next largest centre and is classified as a Major Rural Activity Centre, while the administrative centres of the remaining Shires, Julia Creek, Richmond and Hughendon all classified as Community Activity Centres due to their relatively low populations and limited levels of infrastructure (Figure 2).

The fastest growing LGA in the region until 2026 is projected to be Mount Isa City, with an average annual growth rate of 0.8%. In comparison, Queensland is projected to have a growth rate of approximately 1.8% per year in the same period (Office of Economic and Statistical Research, Qld Government, accessed May, 2010). Other LGAs in the region are projected to decline in population (0.2% to 0.8% per year until 2026).

The region has a lower proportion of migrants and people of non-English speaking backgrounds compared with Queensland as a whole and a higher proportion of indigenous people; 15.6% of the population of the region compared with 3.3% of the population of the state. Mount Isa City and Cloncurry Shires were the LGAs with the highest proportion of indigenous people (16.6% and 22.5%, respectively) while the remainder of LGAs in the region averaged 6.1% (Office of Economic and Statistical Research, Qld Government, accessed May, 2010).

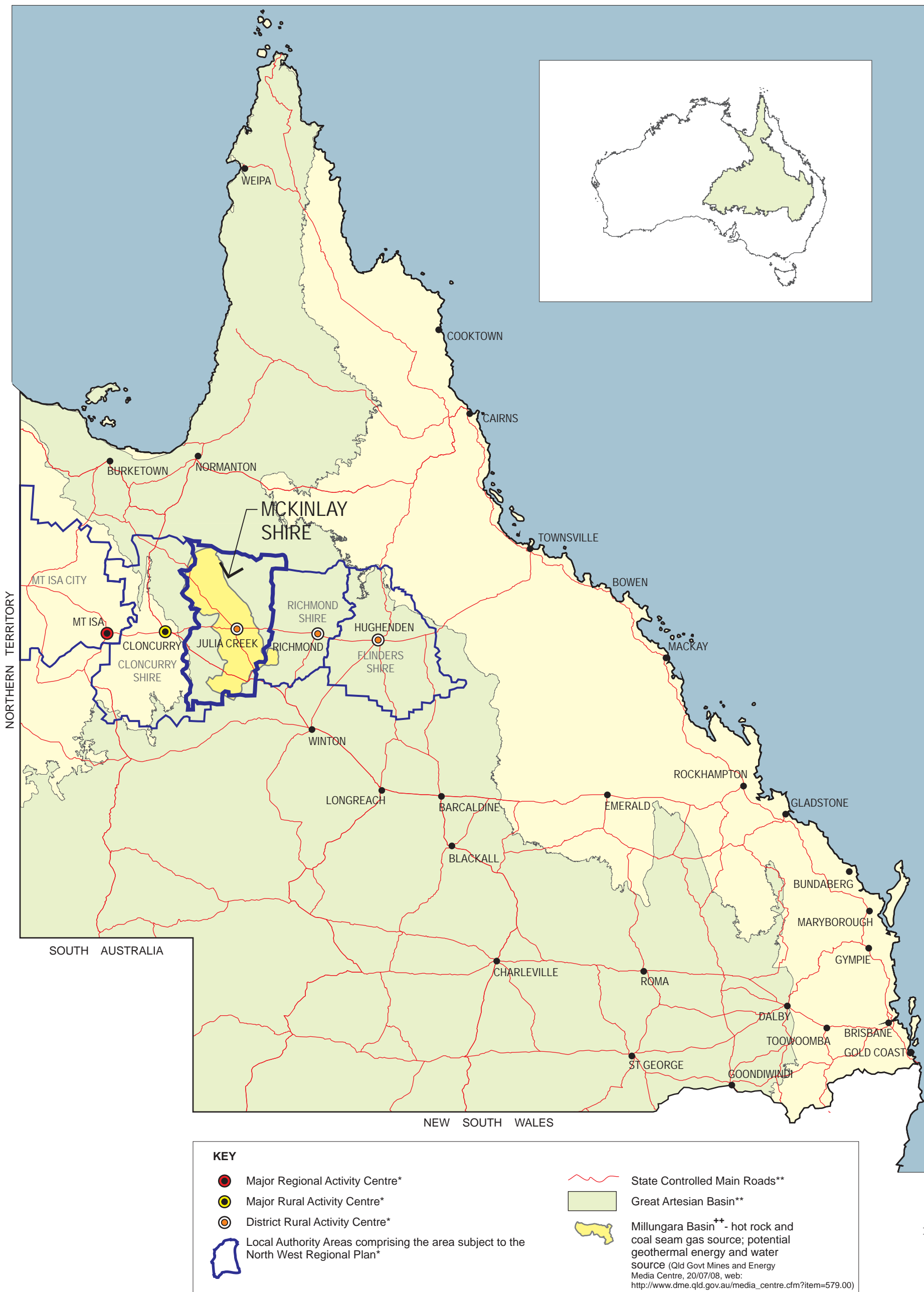
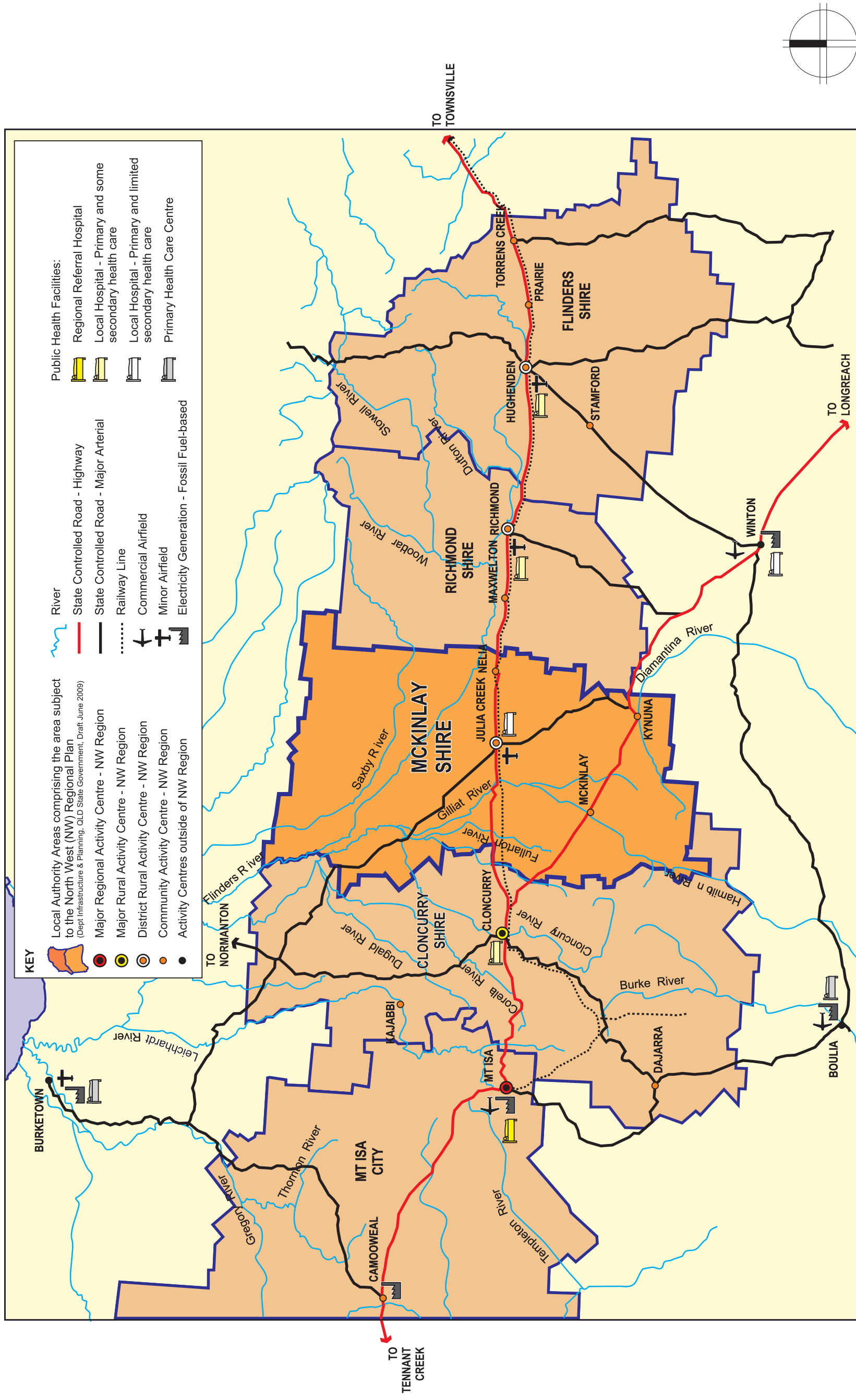


FIGURE 1.

MCKINLAY SHIRE Location Plan, North West Regional Plan Context and Great Artesian Basin Context



NOTE: All information except for public health services adapted from the Draft North West (NW) Regional Plan (Dept Infrastructure & Planning, QLD State Government, June 2009). All mapped information is indicative only.

FIGURE 2.
NORTH WEST REGION
Major Regional Infrastructure

2.1.1 Transport Infrastructure

All of the main centres within their respective LGAs are transport hubs for people and goods. All lie on a major highway road corridor comprised of the Flinders and Barkly Highways, connecting Townsville to Mount Isa, plus all of the centres in between. All centres also lie along a railway line from Townsville to Mt. Isa.

The Auslink transport corridor study of the road and rail routes between Mount Isa and Townsville (Sinclair Knight Merz, 2007) recommended a number of strategies to address infrastructure issues associated with these links. Those most relevant to the North West Region were:

- to provide measures to reduce risk of fatigue-related incidents on highways by providing rest stops and pull-over areas for vehicles (related to the narrow shoulders in McKinlay and Richmond Shires, in particular),
- to manage freight, tourist and local traffic interaction in towns (mainly Mount Isa and Cloncurry),
- to strengthen and widen road pavement and widen narrow bridges to improve safety, particularly in black soil areas (such as McKinlay and Richmond Shires) where road infrastructure is more prone to damage by heavy freight vehicles, and
- to reduce flood risk to road and rail infrastructure, some of which may be addressed during bridge upgrades for widening. Such risks were identified in all LGAs except Richmond Shire.

All main centres of regional LGAs possess air transport infrastructure, with commercial airfields at Mount Isa and Cloncurry. Julia Creek, Richmond and Hughendon all have minor airfields with regular, though infrequent, commercial passenger flights.

2.1.2 Energy and Telecommunications Infrastructure

Mount Isa City has the only electricity generator in the region, located at Mica Creek, which supplies centres within Mount Isa City and Cloncurry Shire, and most of the mines in the western part of the region. The Mica Creek power station uses gas piped from the Ballera gas plant in south west Queensland.

Electricity to most of McKinlay Shire, and Richmond and Flinders Shires is sourced from power generators at Townsville, via 66kV transmission lines to Hughendon and 33kV transmission lines to Richmond and Julia Creek.

The Sims review of power supply options for securing power supply to North West Queensland conducted by Rod Sims of Port Jackson Partners Limited (reviewed in BIS Shrapnel, 2010) put forward three options as recommendations to the Queensland Government and major energy users. These were:

- Upgrading the existing baseload gas power station at Mica Creek
- Installing an AC transmission link from Mount Isa to Townsville
- Installing a high voltage DC (HVDC) transmission link from Cloncurry to coal-fired power station at Stanwell, near Rockhampton.

Uncertainty of the gas-fuelled option was expressed in the Sims review (BIS Shrapnel, 2010) due to future demand and prices of gas and the HVDC option may be the least cost-effective. BIS Shrapnel, in its report on developing a clean energy corridor to secure power to Queensland's Carpentaria Minerals Province (2010) recommends that the AC transmission line option would provide significant economic and environmental opportunities. These are primarily based around the potential for alternative or renewable fuel generators to be constructed in the North West Region and connected to the state electricity grid, providing employment, power security, positive environmental outcomes and lower cost energy to users.

Potential renewable energy projects proposed along the AC transmission line to Townsville include:

- A 10MW solar thermal power station at Cloncurry is due for completion in 2010,
- Windlab Systems Pty Ltd's proposal for a 600MW wind farm at Hughendon,
- Australia Phytofuel Company Pty Ltd's biodiesel feedstock /waste biomass generation proposal for Julia Creek or Hughendon,
- Samsung's potential solar/biomass project at Pentland in Dalrymple Shire, just east of Flinders Shire (BIS Shrapnel, 2010), and
- Future potential geothermal power generation using hot rock technology applied to the Millungara Basin near Julia Creek, subject to feasibility.

Information technology and telecommunications services are available throughout the region, through the Telstra network (standard) ADSL, with high speed ADSL available in main centres. Telstra 'Next G' mobile telephone services are located in at main centres along the Flinders and Barkly Highways. In McKinlay Shire, this service is only available in and around Julia Creek and elsewhere along most parts of the Flinders Highway using an external aerial. The service is unavailable in McKinlay and Kynuna (Telstra web site, accessed April, 2010, www.telstra.com/mobile/networks/coverage/state.html).

2.1.3 Water Management

LGAs in the region rely to a upon subartesian water supply, except for the city of Mount Isa which sources water from the Leichardt River which is dammed in two places forming major reservoirs at Lake Moondarra and Lake Julius, and Cloncurry with a dam at Chinaman Creek. Due to serious issues with Cloncurry's water supply, a pipeline was constructed from Lake Julius to ensure long-term supply (Dept of Infrastructure and Planning, 2009).

Water supply for mining and industry growth is a government priority for Mount Isa City and Cloncurry Shire LGAs. Irrigation schemes for Richmond and Flinders Shires are also a priority. These have been considered in the recent legislation under the Water Act 2000 (Water Resource [Gulf] Plan 2007) and the North West Queensland Regional Water Supply Strategy, which is currently underway by the Department of Environment and Resource Management (DERM). Further research appears to be required into the implications of water supply sources, environmental flow management and climatic implications before significant water resource infrastructure is implemented.

2.1.4 Economic Resources

Mining and agriculture are the two main sources of economic input in the North West Region with mining accounting for the greatest contribution in the order of 19 to 1 approximately. Manufacturing and retail were also significant in the region. Mining is concentrated in both Mount Isa City and Cloncurry Shire LGAs, with the significant Cannington Mine located just to the east in McKinlay Shire.

Livestock industry is the main rural enterprise with cattle grazing the main rural industry. Crops account for about 0.5% of the region's total value of agricultural production, With the majority of this coming from Flinders Shire (Office of Economic and Statistical Research, Qld Government, accessed May, 2010).

The Draft North West Regional Plan indicates that tourism is strong in the region, although seasonal. Tourism in the region is based on its cultural and natural assets, with growth of approximately 5% each year.

Visitor number data for main centres on the Flinders Highway demonstrate that Julia Creek has the least recorded visitation (approx. 6% of total visitors) compared with Cloncurry (approx. 20%), Richmond (approx. 32%) and Hughendon (approx. 42%) (S. Eales, undated). McKinlay Shire's tourism position is discussed in more depth later in the report.

2.1.5 Community Services and Facilities

Mount Isa, as the Major Regional Activity Centre of the North West Region, has the greatest number and variety of community services and facilities. The town has public and private educational facilities from preschool through to secondary school, and has a TAFE. Cloncurry has a public high school and primary school, and Catholic school for up to year 7. Hughendon also has a Catholic school, teaching up to year 7 and a state school, up to year 12. Richmond has a state school that teaches up to year 10, while the state school at Julia Creek teaches up to year 7. All three of these towns have child care centres.

The regional hospital is located Mount Isa and acts as a referral hospital to smaller facilities at Cloncurry and Julia Creek. Richmond and Hughendon Health Centres are within the referral area of Townsville Base Hospital. All hospitals in the region outside of Mount Isa offer primary and emergency services, and some secondary services. Cloncurry also has some allied health services such as dentistry and pharmacy, but in the smaller centres, allied services are generally on a visiting basis. Hospitals or health care centres of Cloncurry and the smaller regional centres also obtain regular, though infrequent, fly-in services from specialist medical practitioners (data sourced from Queensland Health hospital profiles web sites, accessed April, 2010).

Significant infrastructure improvements are currently only proposed for the hospital at Mount Isa, to be completed in 2012 (Dept of Infrastructure and Planning, 2009).

The Draft North West Regional Plan acknowledges the link between physical activity and health and well-being and recommends that the scope of public health services includes environments that support healthy living to reduce chronic illnesses. Infrastructure that helps promote physical activity includes formal and informal recreation facilities, open spaces and well-designed pedestrian areas within the urban fabric of towns and villages.

2.1.6 Housing and Built Environment

Mount Isa City LGA is predicted to be the only centre to experience population growth in the region in the projection period up to 2026 (Office of Economic and Statistical Research, Qld Government, accessed May, 2010). While other LGAs are predicted to experience a slow decline in population, general trends of an aging population, smaller families, increases in single person households and decrease in affordability and housing quality in the region will require the availability of more variety in housing type throughout the region. Affordable residential land and housing availability is also a key factor in retaining and attracting residents in centres within LGAs.

The Draft North West Regional Plan acknowledges that planning and design of regional centres and the built environment is important in maintaining local population numbers and helping to build communities. It is also important that the built environment responds to environmental challenges, such as building resilience to climate change and minimising greenhouse gas emissions. This is applicable at the town scale through the planning of compact, walkable and legible towns of high amenity, to building planning and design, including orientation and best practice in environmentally sustainable design and implementation.

2.1.7 Environment and Landscape

Landscapes in the North West Region range from the rough Spinifex hills of Mount Isa and open red country of Cloncurry Shire to the Mitchell grass plains of McKinlay and Richmond Shires to the basalt gorges and ironwood forests of Flinders Shire. A number of rivers cross the landscape and change character markedly between wet and dry seasons, flooding in the wet season and diminishing to narrow streams or dry beds, in some cases and locations, during the dry.. The Gregory, Leichhardt and Flinders Rivers travel from south to north, flowing into the Gulf of Carpentaria, while the Diamantina, Hamilton and Burke Rivers flow to the south and are part of the Lake Eyre catchment.

The region is comprised of five bioregions:

- Mount Isa Inlier bioregion, comprised of rugged hills and mountain ranges with predominantly low open woodland and Spinifex hummock grassland;
- Mitchell Downs bioregion, comprised undulating to flat plains of heavy, cracking clay soils and dominated by Mitchell grasses;
- Gulf Plains bioregion, comprised of flat plains of variable soils with open woodlands and grasslands;
- Einasleigh Uplands bioregion, located only in Flinders Shire and comprised of basalt hills and gorges with open woodland, and
- Desert Uplands bioregion, located in the south of Flinders Shire, consisting of hills and sandy, infertile soil with light cover grass, herbs and shrubs..

The most extensive bioregions are the Mount Isa Inlier bioregion which covers Mount Isa City and a substantial part of Cloncurry Shire LGAs; Mitchell Downs bioregion, which covers a large proportion of McKinlay and Richmond Shires and parts of Cloncurry and Flinders Shires; and the Gulf Plains bioregion which covers northern areas of Cloncurry, McKinlay and Richmond Shires.

Areas of greatest environmental significance in the region are designated as protected within the Conservation Estate (Figure 3) and are located in Mount Isa City at the Lawn Hill National Park (Budjamulla), world heritage-listed Riversleigh Fossil Fields and the Camooweal Caves National Park, and in Flinders Shire at the Murrumbidgee National Park, Porcupine Gorge National Park and White Mountains National Park, which is partially in the Shire.

Areas that have been identified as having environmental significance are associated with river systems, creeks and drainage lines and terrestrial environments of different bioregion types that are high in biodiversity (figure 3).

Environmental threats in the region are mainly confined to three factors. These are related to unsustainable grazing or pastoral practices, including overstocking, weed infestation and feral animals, including wild pigs, foxes and cats.

3 Shire Wide Infrastructure

3.1 Shire Overview

Rural Settlements

McKinlay Shire has a small number of centres, classified on the basis of population (Figure 4). Julia Creek, the largest settlement in the Shire with a population of approximately 350 people is classified as a Rural Activity Centre in the Draft North West Regional Plan (2009). It is the administrative centre of the Shire and is both a transport and business hub. The town also has the Shire's only child care, primary school and hospital. McKinlay and Kynuna are much smaller centres, with populations under 40, and are classified as Community Activity Centres. These villages provide essential services such as police and emergency services to their catchments of rural properties and are focal points for local social gathering and essential items such as food and fuel.

Nelia with a population of approximately five, is not classified as a centre. The small hamlet is comprised mainly of residential properties with a small shop which is no longer in operation, except as a postal collection point.

Land Use

The Shire's approximately 41,000 square kilometres is primarily used for beef production, with the majority of land under the ownership of the State and leased for rural purposes (Figure 5).

Mining and exploration leases are current for Cannington in the south-west of the Shire and at other sites to the west of the Shire (Figures 4 and 5).

A number of Native Title claims have been lodged over land in the Shire. Two are known to be registered in favour of the Yullana people near Cannington and the Kalkadoon people in the north west of the Shire.

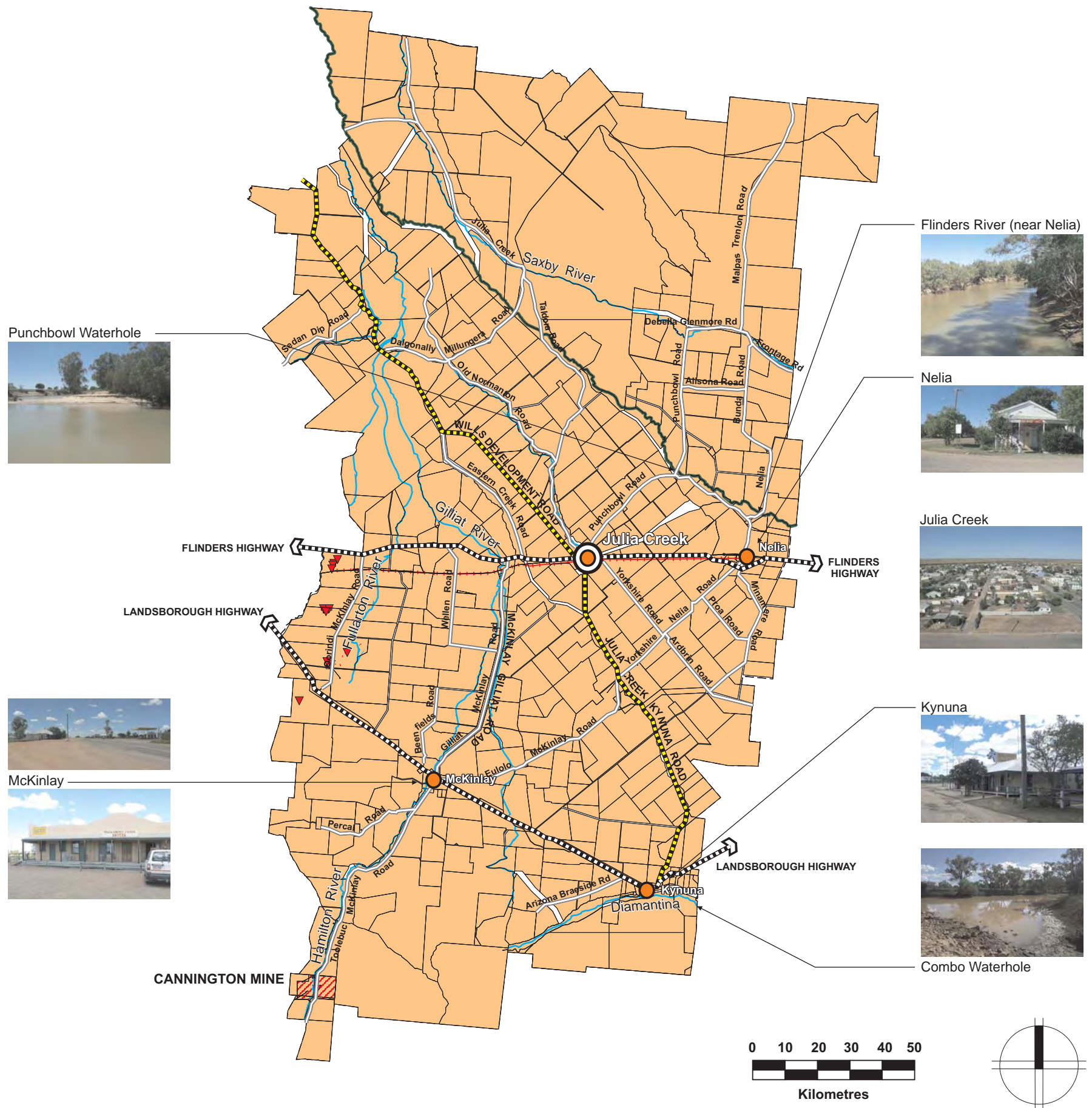
Road and Transport Infrastructure

The Shire is connected by road to neighbouring Shires of the North West Region by the Flinders Highway which extends from Townsville to Cloncurry, via Hughendon, Richmond and Julia Creek, and the Barkly Highway between Cloncurry and Mount Isa. The Landsborough Highway connects settlements, Kynuna and McKinlay in the south of the Shire and extends north to Cloncurry and south to Winton and Longreach (Figure 5). Both highways are important in the conveyance of goods throughout the region.

Wills Developmental Road is another state-owned road which connects Julia Creek to Burke and Wills Junction and the Gulf of Carpentaria. This road is sealed and important for road transport of cattle to Karumba for live export to Asia. Connections to the south of Julia Creek include the Julia Creek-Kynuna Road to Kynuna, which is sealed for over two-thirds of its length, and Gilliat-McKinlay Road to McKinlay, which is unsealed. The remainder of the road network outside of settlements in the Shire is largely unsealed, with either gravel or local soil surfaces.

Rail and services are available in the Shire at Julia Creek. The rail line extends from Townsville to Mount Isa and is important for the transportation of cattle to Townsville for live export.

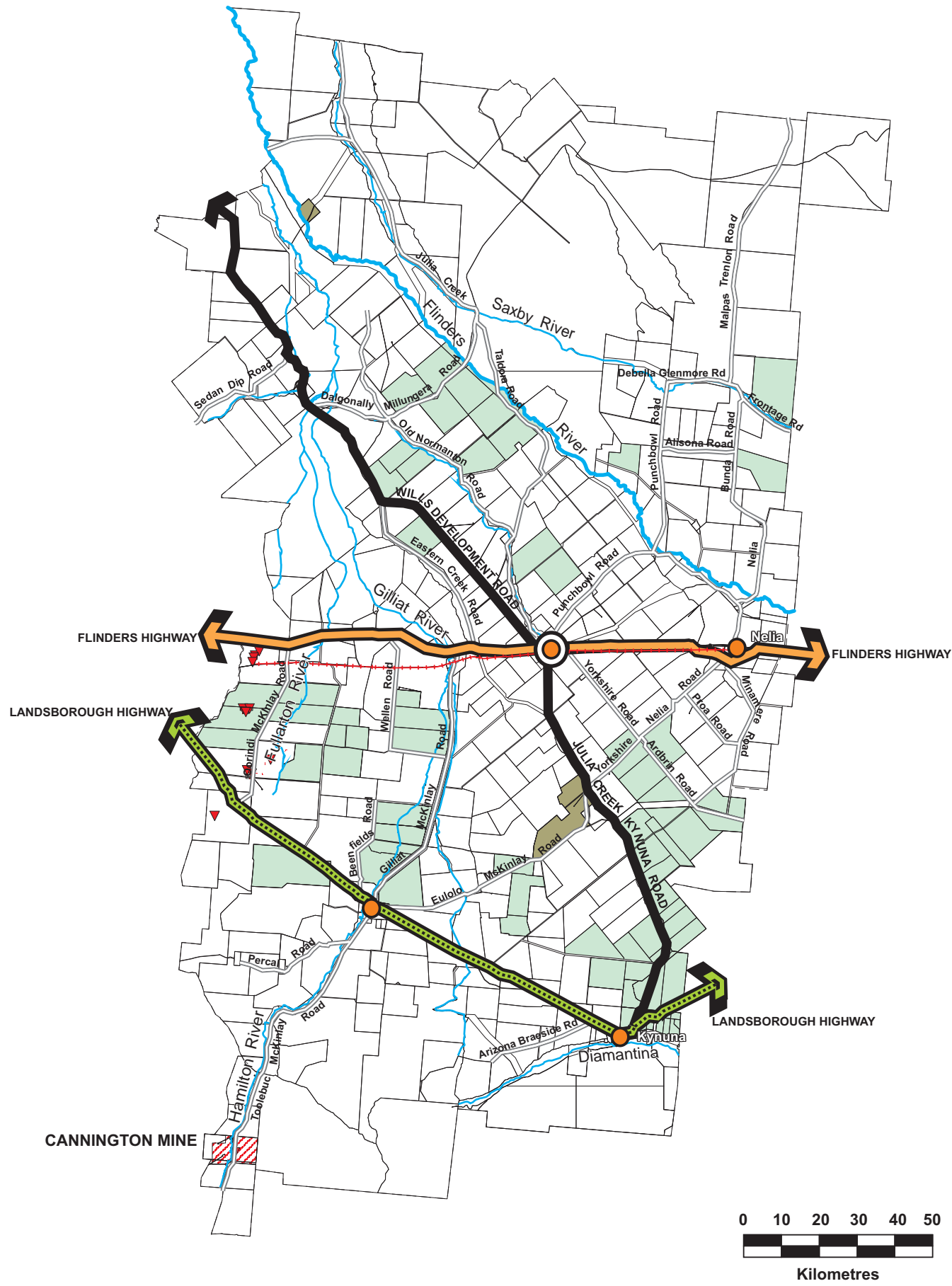
Air services are regular and currently available biweekly via Julia Creek's airport to and from Townsville. Other centres in the Shire have airstrips available for visiting health care professionals and charter services only.



KEY	
	District Rural Activity Centre
	Community Activity Centre
	State Controlled Road - Highway
	State Controlled Road - Major Arterial
	Local Road
	Railway Line
	River
	Riparian Corridor (Flinders River)**
	Mining Lease **
	Rural Land - as designated in the Planning Scheme **

All information, except as marked or noted below, adapted from the Draft North West (NW) Regional Plan (Dept Infrastructure & Planning, QLD State Government, June 2009).
 ** Cadastral, zoning and mining information adapted from the McKinlay Shire Planning Scheme (McKinlay Shire Council, December 2005).

FIGURE 4.
MCKINLAY SHIRE
 Land Use



KEY	
	District Rural Activity Centre - NW Region
	Community Activity Centre - NW Region
	Freehold Land*
	Leasehold Land*
	Reserve
	Mining Lease **
	River*
	Railway Line
	State Controlled Road
	Local Road
	Key Freight Route*
	Main Tourist Routes:*
	"Overlanders Way"
	"Matilda Highway"

NOTES:

Rural land use and agricultural industry is not shown, but is widespread throughout the shire on freehold and leasehold land.
 * Information adapted from the Draft North West (NW) Regional Plan (Dept Infrastructure & Planning, QLD State Government, June 2009). **Freehold land is indicative only.**
 ** Cadastral information adapted from the McKinlay Shire Planning Scheme (McKinlay Shire Council, December 2005).

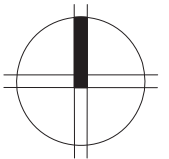
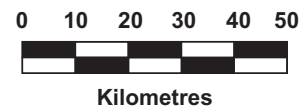
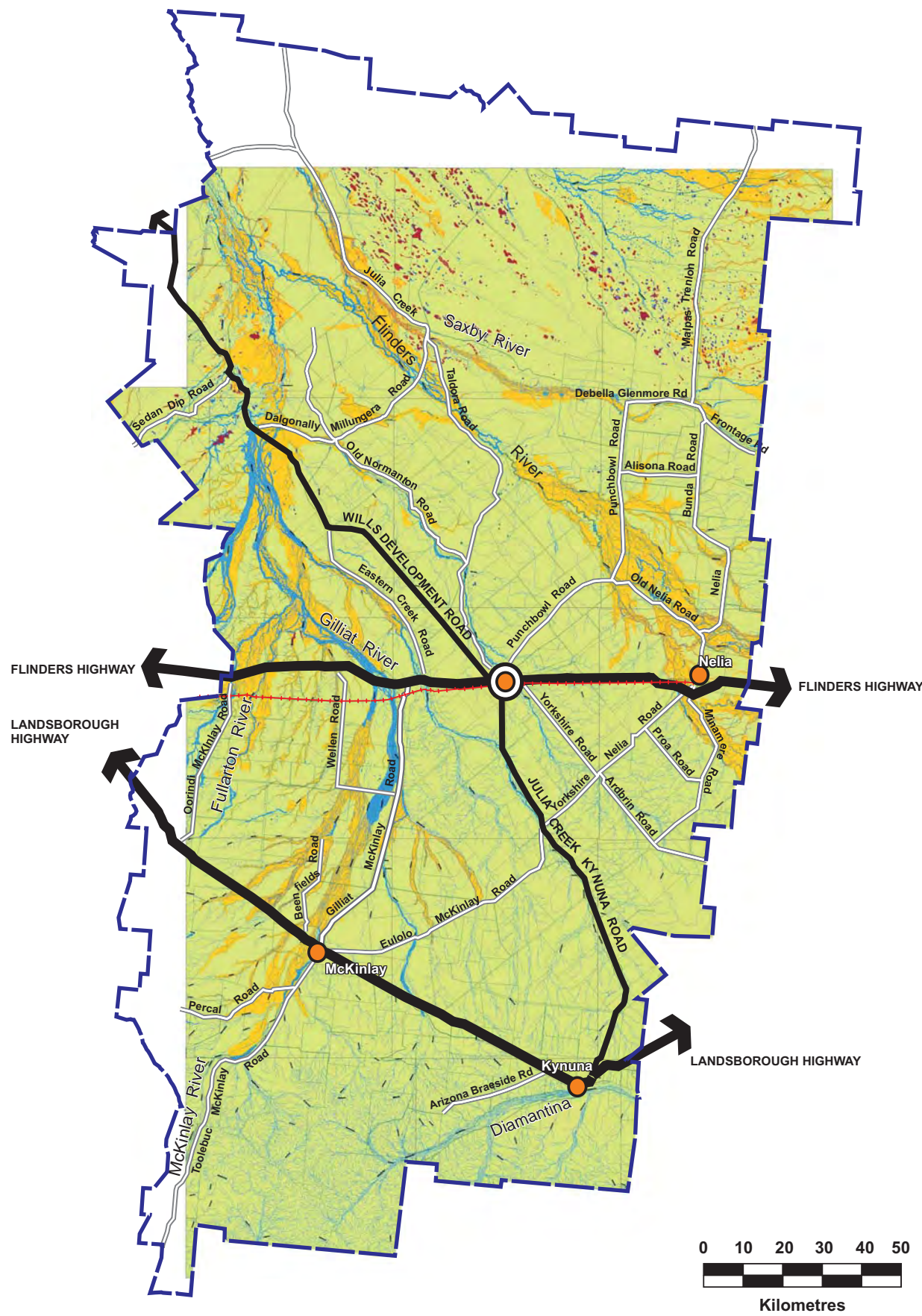
FIGURE 5.
MCKINLAY SHIRE
Economic Resources

Environment and Landscape

Much of the Shire lies within two bioregion classifications; the Mitchell Grass bioregion from around Julia Creek to the south and Gulf Plains bioregion in the north of the Shire (DERM, 2009).

Mitchell grasses (*Astrebla spp.*) dominate the Mitchell Grass bioregion, growing on gently undulating to flat clay plains. Soils in the Gulf Plains bioregion are variable and support open woodland and grasslands. Both bioregion types are threatened by overgrazing and unsustainable grazing pressures, weed infestation, including Prickly Acacia (*Acacia nolita*), Mesquite (*Prosopis spp.*) and Parkinsonia (*Parkinsonia aculeata*) and feral animals.

The Department of Environmental and Resource Management (DERM) also attribute significant environmental significance to the Shire's rivers, creeks and drainage lines (Figure 6), with the north and north-west of the Shire of particular note due to the persistence of waterways in these areas, the formation of extensive wetlands during the wet season, their permanent wildlife and the seasonal influx of a variety of birds associated with the wet season (Figure 6).



KEY	
	District Rural Activity Centre
	Community Activity Centre
	State Controlled Road - Highway
	Local Road
	Railway Line
	River system (rivers, creeks and drainage lines)
	Riverine system (eg. river and creek channels)* Wetlands and deepwater habitats contained within a channel.
	Palustrine system (eg. vegetated swamps)*. Wetlands dominated by persistent vegetation or where water in deepest part of the basin is less than 2m.
	Remnant regional ecosystem*

NOTES:
 Environmental assets mostly lie within freehold or leasehold land and are subject to private management and limited general access.
 * All wetland information adapted from Queensland Wetland Map, Version 2, Wetlands (Maps 7057, 7154-7159, 7254-7259, 7354-7359) DERM, QLD State Government, 2009.

FIGURE 6.
MCKINLAY SHIRE
Environmental Assets

3.2 Community Connections

3.2.1 Road, Rail and Air

The Flinders Highway and Landsborough Highway are the main means of access to the Shire from major and regional centres in the state. As outlined previously, Wills Developmental Road is also an important connection to the Gulf of Capentaria and small port at Karumba.

A biweekly rail service, The Inlander, which runs between Townsville and Mount Isa stops at Julia Creek station. The town is also serviced by a regular air passenger service, Regional Express (REX) and coach services (Greyhound). The latter also service the villages of McKinlay and Kynuna.

The Road Network

Accessibility and interconnectedness are critical in remote locations such as McKinlay. Providing and maintaining linkages between residents and centres and residents and each other via road, rail and telecommunications is a matter of basic safety and convenience. On another level, ensuring accessibility and legibility of Shire centres and townships, making them easier to find and navigate, is important to tourist and locals alike and the prosperity of the local economy.

Julia Creek-Kynuna Road.

The Julia Creek-Kynuna Road (Gateway to the Gulf Byway) is an approximately 112km long, single lane road which is sealed for approximately two-thirds of its length. In the unsealed section, there are small sealed areas associated with overland patterns and inundation in wet weather.

The road connects to the Landsborough Highway a few kilometers north-east of Kynuna and offers a useful byway to Julia Creek from Winton for travellers using the Matilda Highway. It is also the most direct route connecting communities in Kynuna and Julia Creek.

Sealing of the approximately 30km stretch of unsealed road is recommended to provide a safer and more sustainable connection between Kynuna and Julia Creek and facilitate increased visitation within the Shire and on to the Gulf of Carpentaria, rather than conveyance of travellers on to Cloncurry along the Landsborough Highway (Figure 7).

Gilliat-McKinlay Road

The Gilliat-McKinlay Road (Gidyea Bug Byway) is approximately 80km long, unsealed for its length and single lane. It connects McKinlay with the Flinders Highway west of Julia Creek. Surface condition varies along its length with areas of compacted roadbase and extensive lengths of a finer, clay material which can be slippery, even in dry conditions. Some sealed sections occur in areas subject to overland flow and inundation.

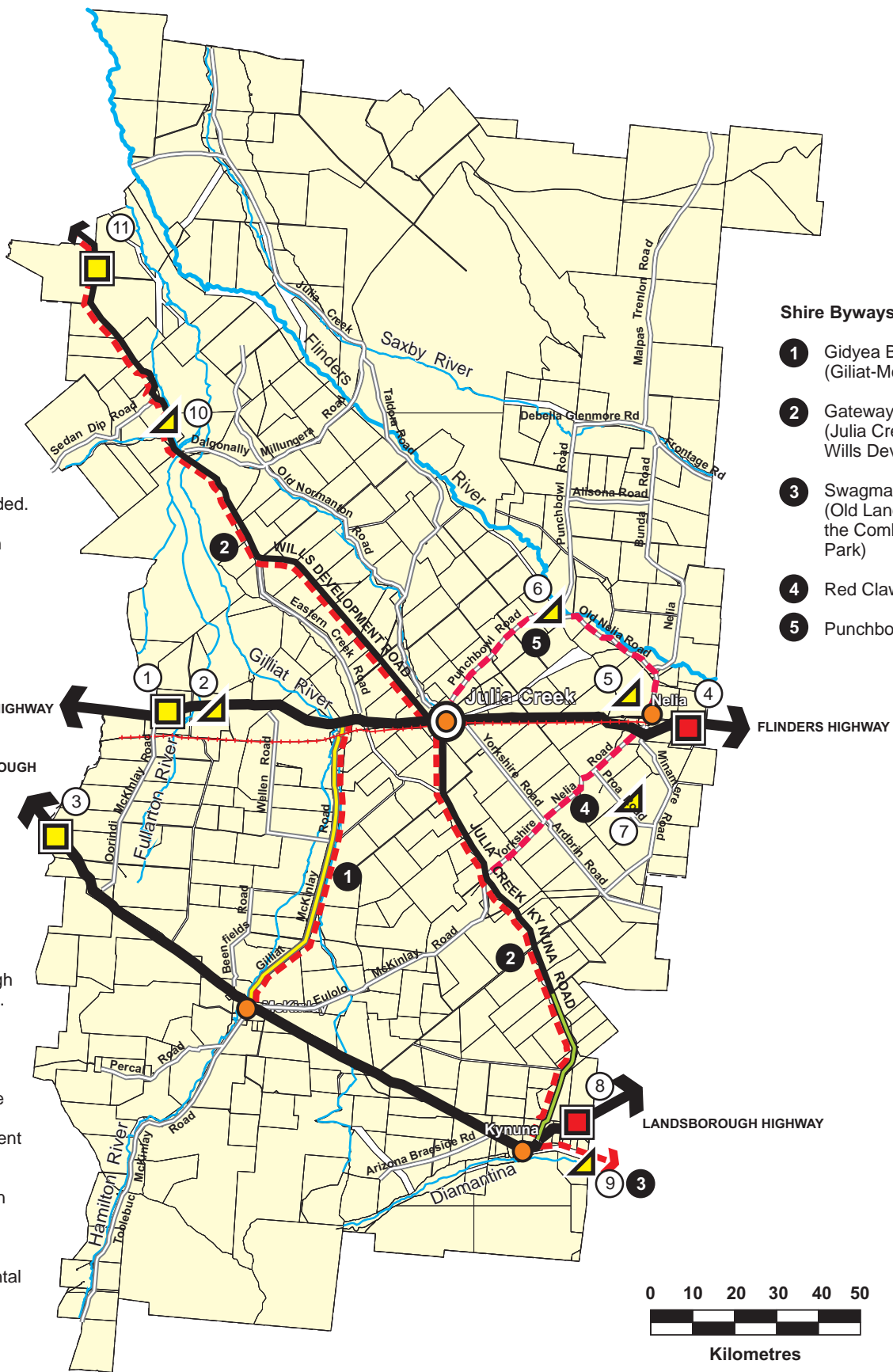
Upgrading the surface of Gilliat-McKinlay Road to a compacted roadbase surface is highly desirable in the short term to establish a safer connection between McKinlay and Julia Creek. In the long term, sealing would also be highly desirable (Figure 7). Currently, anecdotal evidence suggests that residents from McKinlay have a closer association with Cloncurry than Julia Creek, due in large part to the safe, direct access provided by the Landsborough Highway.

Potential New Byways

Connections currently exist by unsealed road between Julia Creek and Nelia, via Punchbowl Waterhole. The waterhole is a significant local attraction for picnics and swimming and is reasonably easily accessed from Julia Creek via a compacted, unsealed surface using Punchbowl Road. The connection to Nelia from the waterhole is much narrower and with a softer surface.

Gateways and Rest/Information Stops

- ① Shire Gateway comprising entrance sign on the Flinders Highway in the west of the Shire.
 - ② Existing rest stop on the Flinders Highway; information signs, toilets, sheltered picnic tables.
 - ③ Shire Gateway comprising entrance sign on the Landsborough Highway in the west of the Shire.
 - ④ Shire Gateway comprising entrance sign and rest stop on the Flinders Highway in the east of the Shire. Limited parking, information signage and shelter provided.
 - ⑤ Existing rest stop at Nelia General Store. Information sign to be upgraded.
 - ⑥ Existing rest area at Punchbowl Waterhole. Information signs to be added.
 - ⑦ Proa Red Claw Farm. Information sign to be added.
-
- ⑧ Shire Gateway comprising entrance sign and rest stop on the Landsborough Highway in the south-east of the Shire. Sign to inform of Combo Waterhole, Kynuna and alternative route/byway to Julia Creek.
 - ⑨ Existing rest area at Combo Waterhole Conservation Park. Information signs to be co-ordinated with state government DERM.
 - ⑩ Proposed rest stop with information sign at Sedan Dip.
 - ⑪ Northern Shire Gateway comprising an entrance sign on Wills Developmental Road.



Shire Byways

- ① Gidyea Bug Byway (Gilliat-McKinlay Road)
- ② Gateway to the Gulf (Julia Creek-Kynuna Road and Wills Developmental Road)
- ③ Swagman's Byway (Old Landsborough Road via the Combo Waterhole Conservation Park)
- ④ Red Claw Byway
- ⑤ Punchbowl Byway

KEY					
	District Rural Activity Centre - NW Region	Gateways and Rest Stops			
	Community Activity Centre - NW Region				
	River*		Shire Gateway - gateway statement with off-road parking & information sign	Shire Byways	
	State Controlled Road*		Shire Gateway - gateway statement only		
	Local Road		Information Stop - off-road parking & information sign		Existing Byway - to be acknowledged with character markers/signage/signposts
	Railway Line		Gateway/Key Signage Code		Proposed Byway - alternative routes via local attractions; to be acknowledged with character markers/signage/signposts
Road Upgrades (Proposed)					Byway Code
	Seal existing unsealed road			NOTES:	
	Upgrade existing dirt road - widen and cover with serviceable crushed rock surface			* Information adapted from the Draft North West (NW) Regional Plan (Dept Infrastructure & Planning, QLD State Government, June 2009).	
				Cadastral information adapted from the McKinlay Shire Planning Scheme (McKinlay Shire Council, December 2005).	

FIGURE 7.
MCKINLAY SHIRE
Shire Scale Infrastructure - Highways and Byways

An opportunity exists to consolidate this connection and establish a distinct byway connection or circuit for travellers that raises the profile of Nelia within the Shire and conveys visitors to Julia Creek via one of the Shire's most popular local waterhole attractions (Figure 7).

Further to the south, a similar strategy may be adopted to establish a clear connection with the Proa Red Claw Farm (Figure 7). An existing connection from the Flinders Highway south of Nelia and the Kynuna-Julia Creek Road via Yorkshire-Nelia Road could be upgraded to contribute greater accessibility for local people to the Proa Red Claw Farm as a meeting place and dining venue, but also provide an alternative route or byway from the Matilda Highway or The Overlander to centres such as Julia Creek and Kynuna.

Rail and Air

'The Inlander' provides connections between Julia Creek and major regional centres at Townsville and Mount Isa, and a major activity centre at Cloncurry. By air, Regional Express (REX) offers flights to Julia Creek from Townsville and Mount Isa. Although both rail and air services are infrequent compared with those servicing major centres, they are regular twice weekly and offer an alternative to road travel for those working within or outside of the Shire or for family reunion visits. There are limitations for tourism, however, as much of existing tourism is based on road-based, self-drive tours to attractions around the Shire and there are currently no vehicle-hire services in Julia Creek.

3.2.2 Legibility within the Shire

Highways and Byways

Road routes through the Shire are the main means by which local people and visitors travel to, from and within the Shire. They convey a first impression to travellers and offer a primary image of the Shire through extensive views of the surrounding landscape. These major road routes, while they offer a physical connection, there also form a perceptual connection in terms of their more colloquial names, such as 'The Overlander' or 'Matilda Highway', their character and the memories they evoke as a form of cognitive wayfinding.

Opportunities exist to enhance the image of the Shire offered by road travel, celebrate the Shire's identity, reinforce community spirit and demonstrate it to visitors. There is also potential to endow main routes through the Shire with markers and rest stops at key locations where attractions can be observed or information provided to convey travellers to places of interest and local settlements, rather than allowing them to pass through.

Highway (Shire) Gateways.

Flinders Highway (The Overlander)

East:

Proposed infrastructure:

- Gateway statement, including character signage (Figure 8)

An existing rest stop is located approximately half-way between Julia Creek and Cloncurry. This has a number of parking spaces, shelters, picnic settings, toilets and information signage (Plate 3.1).



water+land+people
character collage



Shire Character



Gateway Signage

Gateway Character



FIGURE 8.

MCKINLAY SHIRE
Shire Scale Infrastructure - Shire Gateway Concepts

West:

Proposed infrastructure:

- Gateway statement located at the boundary with Richmond Shire.
- Rest stop that enables travellers to pull off the highway, park and view information signage pertaining to the shire (Plate 3.1). Information should also highlight nearest attractions and alternative routes through the shire. These would include the Proa Redclaw Farm, Nelia and connections to the Flinders River to the north of Nelia and an alternative route to Julia Creek, via Punchbowl Waterhole. Signage would also include road condition and distance information.

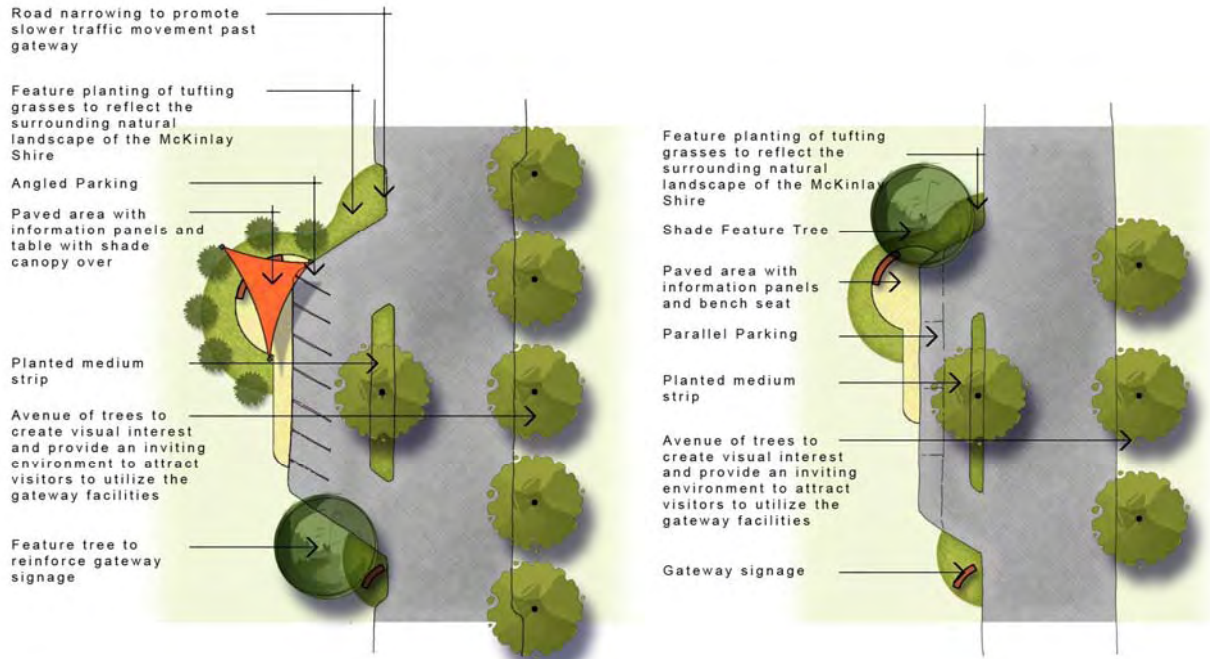


Plate 3.1 Highway Information-Stop Configuration Concept

Landsborough Highway (Matilda Highway)

West:

Proposed infrastructure:

- Gateway statement including character signage.
- Rest stop to enable travellers to pull off highway and view information about the shire and attractions, including McKinlay and Kynuna, however this facility is not as important compared with the eastern gateway.

East:

Proposed infrastructure:

- Gateway statement and rest stop.

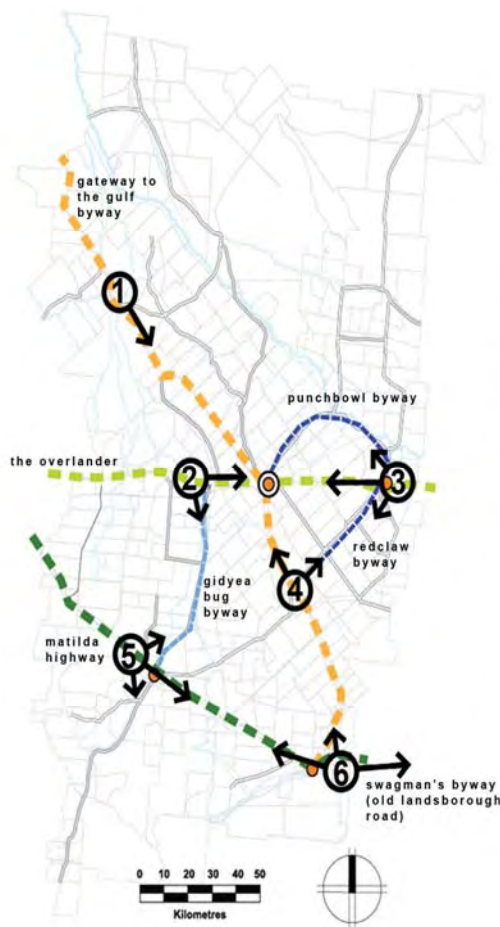
The route from Winton brings travellers into a part of the shire where travel decisions may be considered in regard to visiting local attractions, moving through to Kynuna and McKinlay or diverting north to Julia Creek and Normanton.

Information signage at this location should highlight the Combo Waterhole Conservation Park and the close proximity of Kynuna as the only settlement nearby where accommodation and camping is available. Information on the route to Julia Creek should also be highlighted as a connection to the Burke and Wills Junction and the Gulf of Carpentaria.

Marking the Byways.

Similar approaches are proposed to mark the entrances to local byways. Each of the byways could be marked using gateway statements at an appropriately reduced scale compared with Shire Gateways and include information signage to convey information of each route, their destinations, road conditions and notable attractions or the scenic environment along the way (Plate 3.2). In addition, each byway could be further enhanced using character markers that express both the character of the Shire and the name of the route. These can also function as distance markers between destinations associated with each route (Figure 9).

These strategies are to expose and celebrate elements of local identity, reinforcing community ownership and pride in their Shire, conveying a clear image to visitors and tourists to the area of the Shire's identity and providing the wayfinding mechanisms to allow for exploration of the Shire's attractions as self-drive touring opportunities. Similar strategies have been used elsewhere, with a particularly successful example demonstrated in Western Australia along the 'Tin Horse Byway' (Plates 3.3.3 to 3.3.5) (P. Kenyon and A. Black, 2001).



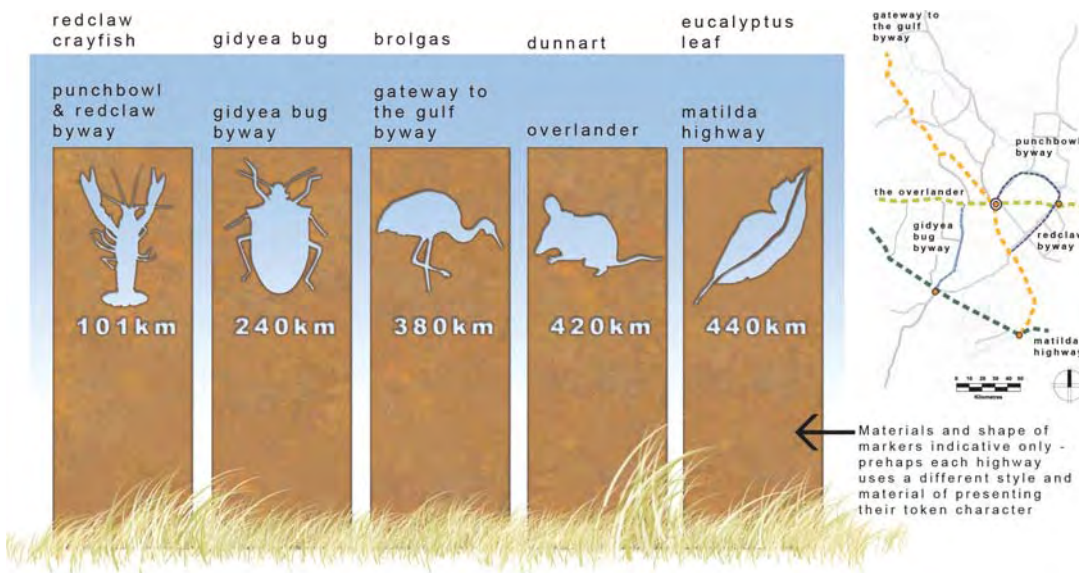
- Wayfinder marker 1**
- ① Provide a overview of upcoming journey options and destinations. Information on what Julia Creek and the McKinlay shire has to offer as a stopover destination.
- Wayfinder marker 2**
- ② Journey options to take the gidyea bug byway as a alternative circuit to explore Kynuna, the Combo waterhole and finish the circuit back to Julia Creek.
- Wayfinder marker 3**
- ③ Illustrate the attractions that can be seen by taking the non-direct route to Julia Creek via the punchbowl byway.
- Wayfinder marker 4**
- ④ Alternative journey option other to take the redclaw byway to Julia Creek which could also lead through to the punchbowl byway
- Wayfinder marker 5**
- ⑤ Provide an alternative route plan that includes Julia Creek stopover via the Gidyea Bug Byway. Also display interesting information and facts on the nearby mining site and perhaps the discovery of geothermal power.
- Wayfinder marker 6**
- ⑥ Information for Combo waterhole and provides a journey outline of the Julia Creek region and the facilities and tourist attraction nearby.

Plate 3.2 Wayfinding and gateway proposals to highways and existing and proposed new byways as identifiable 'character' routes to centres and attractions around the Shire.

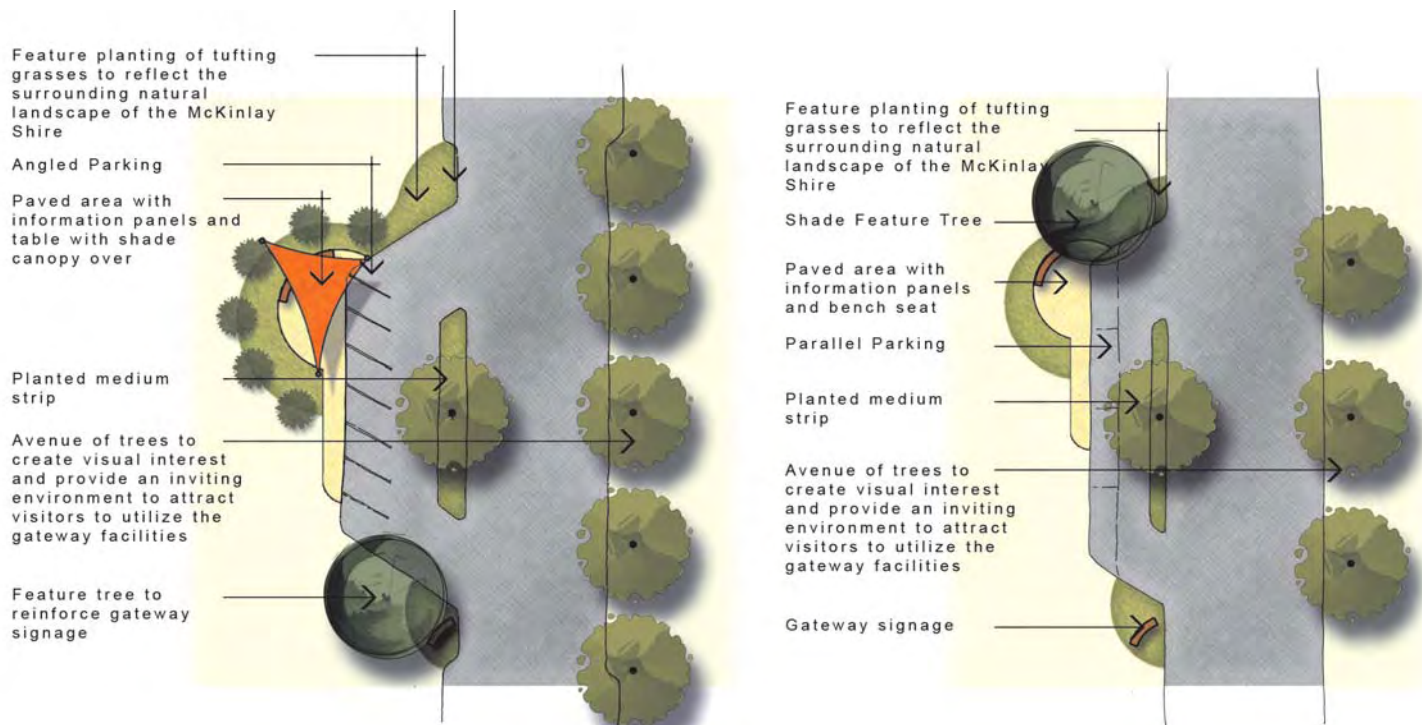
water+land+people materials



Material Palette



Highway and Byway Markers



Highway Information Stop Configurations

FIGURE 9.

MCKINLAY SHIRE Shire Scale Infrastructure - Shire Legibility Concepts



Plates 3.3., 3.3.4 and 3.3.5 'Tin Horse' character elements along the 'Tin Horse Byway' to Kulin in Western Australia

Existing Byways:

Gilliat-McKinlay Road or the '**Gidyea Bug Byway**' connects McKinlay with the Flinders Highway, approximately 30km west of Julia Creek.

The '**Gateway to the Gulf Byway**' or Julia Creek-Kynuna Road connects Julia Creek to the Landsborough Highway, approximately 3 km east of Kynuna. This extends along Wills Developmental Road to the northern border of the Shire.

A Shire Gateway could be established at the border with Cloncurry Shire to the north on Wills Developmental Road (part of the Gateway to the Gulf Byway). Due to the secondary nature of the road connection, the scale of the gateway feature may be reduced compared with major routes along highways further south. A rest stop in the vicinity of Sedan Dip or Dalgonally Station may provide an opportunity for travellers to gain information of the local history of this area of the shire and the environmental significance of seasonal wetlands arising from the wet season.

The '**Swagman's Byway**' or Old Landsborough Road connects the Landsborough Highway, north of Winton at the Ayrshire Hills, directly to the Combo Waterhole Conservation Park and then to the Landsborough Highway, just east of Kynuna. Works associated with this byway will require co-ordination and co-operation from Winton Shire Council, but this may also be reciprocated at the eastern end of the route, near Kynuna.

The Swagman's Byway could also be diverted to bring the road directly into the village of Kynuna rather than to the Landsborough Highway, ensuring that travellers pass through the village and potentially stop there.

The Combo Waterhole Conservation Park provides an opportunity to convey information to direct travellers to Kynuna, using either the Landsborough Highway or Swagman's Byway, and to Julia Creek via the Landsborough Highway and Gateway to the Gulf Byway.

Information signage at Combo Waterhole Conservation Park would require co-ordination with the Department of Environment and Resource Management. Works are currently being conducted by the state government at Combo Waterhole to upgrade visitor facilities, with completion by September, 2010. Refer to Appendix 1 for the scope of upgrade works.

New Byways:

New byways could be established using existing road infrastructure to link to existing attractions within the Shire and connect other settlements, such as Nelia.

Proposed byways include:

'Punchbowl Byway', using Punchbowl Road which connects the Flinders Highway at Julia Creek with Nelia-Bunda Road, just north of Nelia. This route could provide travellers with appropriate vehicles an alternative route to Julia Creek from the east, which passes through the hamlet of Nelia and a local attraction at Punchbowl Waterhole.

The **Proa or 'Redclaw Byway'**, connects Julia Creek-Kynuna Road with the Flinders Highway near Nelia, via Yorkshire-Nelia Road. This route brings visitors in close proximity to the Proa Redclaw Farm as a place of local interest and a rest stop to enjoy dining on local produce. The route offers a circuit from Julia Creek, provides a connection to Nelia and the Punchbowl Byway and could offer an alternative route from the Matilda Highway and Gateway to the Gulf Byway to Julia Creek.

The Railway Station and Airport

The railway station and airport at Julia Creek are both entrances to the Shire and its major centre. They establish a 'welcome' for residents returning to Julia Creek from work or boarding school and could potentially provide the first impression of visitors to the Shire.

Currently tourism to the Shire is based mainly on road transport as part of an 'outback experience', with private vehicles required to access the Shire's places of interest. Although Julia Creek is well-connected to a wider road network including the Flinders Highway and Matilda Highway, particularly with potential upgrades to Julia Creek-Kynuna Road, factors that work against rail and air contributions to local tourism and Julia Creek being used as a point of entry to the north-west of the state are:

- infrequent rail and flight services to the town, although week end stays are catered for with current services, and
- the lack of car hire facilities in the town.
- the lack of a 'destination' character or image for Julia Creek and the Shire, compared with other regional centres which may be better promoted or have a stronger identity associated with natural, cultural or developed attractions.

Although they are currently low-priority tourist entry points, in terms of a gateway experience to the Shire and the image of the Shire projected to visitors, both the railway station and airport have the potential to welcome visitors and convey positive aspects of local identity.

Aligned Strategies with Community Plan:

Community Connections	Strategy 1.	Improved road, rail and air connections.
	Strategy 2.	Towns are accessible for both residents and tourists.
	Strategy 3.	Improved year round linkages between towns, and residents and each other.
Environment and Landscape	Strategy 10.	A thriving tourism industry
	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.

5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.

5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.

5.5.I Encourage the development of strategies for the tourism industry to adopt in order to meet the challenges associated with peak oil and climate change.

5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policies:

6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

6.3.6 Avoid noise sensitive and other incompatible land uses near significant transport corridors, or otherwise buffer these corridors where avoidance is not possible.

6.3.8 Protect airports at Mount Isa, Cloncurry, Julia Creek and Richmond from noise sensitive uses, intrusions into operational airspace or other incompatible uses that may threaten safety or the integrity of airport operations.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

Aligned Strategies:

- 6.3.B Encourage progressive upgrading, maintenance and development of road and rail transport systems to meet the needs of mining, agriculture, commerce and community sectors.
- 6.3.F Encourage transport of bulk goods on the rail network.
- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.

3.3 Economic Diversity and Resilience

Land in McKinlay Shire is dominated by rural land use (Figure 5), primarily used for supporting livestock and the beef industry which was valued at nearly \$76 million according to the 2006 census (Office of Economic and Statistical Research, Qld Government, accessed May, 2010). This represents a significant downturn in value from approximately \$99 million in the 2001 census (Richmond Shire Council, 2006). Mining is the other important industry in the Shire with the BHP Billiton's Cannington mine and metallurgic processing plant located in the south-west of the Shire. Agricultural and mining industries account for approximately 55% of total employment in the Shire.

Industry diversification is a key issue identified by both the Draft North West Regional Plan and McKinlay Shire Council, with tourism highlighted as an opportunity to be explored. In the longer term, a geothermal energy industry shows potential in the Shire, subject to feasibility studies and government policy development of carbon pricing and carbon trading to combat climate change. Also in the longer term opportunities could exist in expansion of the mining industry, subject to the feasibility of mining extensive vanadium deposits, perhaps jointly extracted with oil from fresh rock deposits north and east of Julia Creek (S. Coxhell and B. Fehlberg, 2000).

3.3.1 Support for the Existing Beef Industry

The state government has withdrawn rail loading services of cattle on Queensland Rail services in recent times. This role has now been taken on by the McKinlay Shire Council at the Julia Creek stock yards and loading dock (personal communication, Shane Cagney, CEO, McKinlay Shire Council, 2010). Maintenance of the rail link to Townsville for meat processing and shipping of cattle and associated stock holding facilities is a key objective for support of the beef industry into the future.

Road transport also has a significant role in the conveyance of beef cattle. Similarly to above, maintenance of road systems that connect to the Shire are a key factor in continued support for the beef industry.

3.3.2 Continued Exploration and Implementation of Mining

Cannington

A number of licences are current in terms of exploration in McKinlay Shire. Existing mines, such as BHP Billiton's Cannington mine, are mature in terms of their economic viability, with the Cannington mine likely to close in 2015 to 2020, unless further deposits of lead, zinc and silver are found.

Altia

BHP Billiton and Breakaway Resources plan to commence mining lead, zinc and silver in an area known as Altia, near the Eloise copper mine in the west of the Shire and to the south of the Flinders Highway (BIS Shrapnel Pty Ltd, March 2010). Implications of the Altia mine on the longevity of the Cannington operation, particularly metallurgic processing, are unknown.

Julia Creek

In the centre of the Shire, to the east and north of Julia Creek, large deposits of shale oil have been in association with Vanadium. The latter is used as a hardening agent in steel. Projects to remove the shale oil have been investigated in the past and abandoned due to the expensive nature of the extraction process at the time and moderate oil or fuel prices. Vanadium removal and joint vanadium-

shale oil projects have also been considered, but appear not to have proceeded due to undesirable cost/profit ratios (S. Coxhell and B. Fehlberg, 2000).

3.3.3 Energy and Renewable Fuels

Energy security and price are two issues highlighted from community consultation – both for fuel and electricity. Black-outs are experienced in the Shire weekly, associated with its end of the transmission line location. Projects that contribute to fuel and power self-sufficiency at the Shire scale, and which are renewable and reduce carbon emissions would improve both the local economy and lifestyle, but would also contribute new industry and an employment base that builds upon council's environmental responsibility and sustainability ethos.

BioFuels

Australian Phtyo Fuel Company Pty Ltd propose to develop a facility for making biodiesel feedstock either near Julia Creek or Hughendon in the Flinders Shire. The waste biomass would be used for power generation. The proposal is to make this material from Kaplan Trees, but Prickly Acacia could be used in the first instance. A project feasibility study is underway and this is partly supported by BP.

Geothermal Energy

Approximately 75% of McKinlay Shire lies above the Milungera Basin, with Julia Creek at its centre. This is a deep formation of high-temperature hot rock and offers great potential to establish a geothermal power plant in the Shire. Hot dry rock technology is not yet commercially available, however a demonstration project is currently underway in the Cooper Basin in South Australia to ascertain the cost effectiveness of the technology on a commercial basis. The demonstration plant is scheduled for commissioning in 2013.

If feasibility is able to be demonstrated, a similar plant could be constructed near Julia Creek to take advantage of the rich, carbon emission-free resource available in the substratum of the earth. A base load power station of at least 200MW has been recommended as a viable and efficient size for this area. Sale of power back to the grid will be possible if the AC transmission link option from Townsville is chosen and implemented to secure power to North West Queensland, as one of three options recommended in the independent Sims Review (BIS Shrapnel Pty Ltd, March 2010). Refer to Section 2.1.2. This option may also benefit other potential renewable energy projects in nearby Shires.

In the long term, such an industry would provide a new source of income to the Shire, a new employment base and strengthen the identity of the Shire as one of strong and credible sustainable and ecologically responsible practice.

Tourism

In recent times, the council has recognised that the Shire is underperforming in the area of tourism compared with neighbouring local authority areas and has prepared a Tourism Development Plan (S. Eales, McKinlay Shire Council, undated). The Plan acknowledges a number of natural and cultural attractions in the Shire and focuses on improvements to existing tourist infrastructure and promotion in association with self-drive tours of local attractions, short-stay 'stopovers' on the way to other destinations outside of the Shire and 'destination' events that, in their own right, attract visitors to the Shire.

The Tourism Development Plan also places some emphasis on using the Shire's natural and cultural assets, establishing touring product based on local environmental and cultural assets, and improving signage and legibility for self-drive tours. The Plan also recommends building upon the Gateway to the Gulf theme and the underutilization of the Matilda Highway in bringing tourists to the Shire. Currently, the great majority of tourists travel to the Shire on the Flinders Highway (The Overlander) during the months from April through to October. Improvements to Julia Creek-Kynuna Road, such as

sealing the currently unsealed 40km southern section, and promotion of the route as a connection to the Gulf of Carpentaria, are seen as important in increasing tourism in the Shire.

Tourism in north-west Queensland is largely based on the 'active explorer' tourism market which includes travellers looking for an authentic outback experience, primarily based on self-drive touring (Outback Queensland Tourism Authority, 2006). Strong physical connections such as the Flinders Highway, the Landsborough Highway and Julia Creek-Kynuna Road are very important for consolidating existing tourism to the Shire and adding to it. Strengthening the identity of the Shire and these physical connections is also important in assisting with promotion and improving the perception of travellers in their exploration of the region. Infrastructure to support the identity of major connections is discussed in more detail in 2.3.1 Community Connections, but includes:

- marking the gateways to the Shire on the Flinders and Landsborough Highways
- providing rest stops at strategic locations on the highways to exhibit information about local attractions, towns and villages, and local byways that provide alternative routes and travel experiences to local destinations
- marking the major byways within the Shire to affirm their own identity as a self-drive touring route, such as the Gateway to the Gulf Byway, the Swagman's Byway and the Gidyea Bug Byway
- introducing other named byways that provide alternative routes or self-drive circuits that connect to local attractions such as Punchbowl Waterhole and the Proa Redclaw Farm.

All such measures build upon the existing infrastructure and natural and cultural assets of the Shire, address the explorer tourist market and provide a basis for promotion and positioning of the Shire as place to explore, as part of longer journeys within the region based upon use the Flinders Highway or travel from Winton to the Gulf, using the Landsborough Highway.

The Tourism Development Plan acknowledges that there is a lack of developed tourist attractions in the Shire, but that it has been successful at hosting and attracting visitors to major events such as the 'Dirt and Dust Festival'. A number of strategies recommended in the Plan aim to consolidate and build tourist product upon existing assets, particularly within existing settlements with a focus on Julia Creek as the major centre within the Shire. These will be discussed in more detail later in this report, in association with infrastructure proposed for each of the towns and villages (Section 3.4). Consideration should also be directed at the potential to develop attractors to the Shire based upon the 'Water, Land, People' theme and position the Shire uniquely in comparison with its neighbours. Richmond has a lake and tourist emphasis upon its fossil and 'dinosaur' themes; Cloncurry tourism is based around its landscape, dams and cultural assets and Winton positions itself as the centre of the 'Matilda' story, its history, fossils and opals.

McKinlay Shire has the potential to identify more with its waterhole attractions and its close relationship with artesian water. Connections, both physical and perceptual to natural assets such as the Shire's waterholes have been outlined previously. Additionally, development of a waterhole or system of waterholes close to the Shire's major centre, Julia Creek, would deliver a community asset for the town, and also strengthen the identity of the town as an attractor to the Shire. Similarly, the establishment of an artesian spa facility within the Shire based at Julia Creek would consolidate the 'water and land' identity of the Shire as part of its 'water, land, people' theme. It would supplement existing tourist infrastructure in the town and provide a destination for tourists travelling to a region that is sought out for its authentic 'outback' experience. Such endeavours are aimed at 'active explorer' tourists as attractors, providing tourist product that is closely aligned with the Shire's identity and uniquely positioned compared with its neighbours. These projects are discussed in more depth in this report in the section on Julia Creek.

Aligned Strategies with Community Plan:

Community Connections	Strategy 1.	Improved road, rail and air connections.
Economic Diversity & Resilience	Strategy 6.	A reliable electricity supply.
	Strategy 7.	A prosperous local economy supported by an increased population and new and sustainable industries.
Environment and Landscape	Strategy 8.	Mines and energy form better partnerships with the McKinlay Community
	Strategy 10.	A thriving tourism industry
	Strategy 17	A forerunner in sustainable agriculture and green energy
	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.
	Strategy 21.	Climate change.

Aligned Objectives and Strategies in the Draft North West Regional Plan**1.0 Natural Environment****1.2 Scenic Amenity and Outdoor Recreation**

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

- 1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.
- 1.2.2 Plan outdoor recreational land use opportunities within natural areas in a way that does not diminish the environmental values of the area.
- 1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

Aligned Strategies:

- 1.2.A Source opportunities for practical ecotourism development.
- 1.2.B Continue to implement the subregional tourism strategy for areas of nature conservation value.

1.3 Air and Noise Emissions

Objective:

Locate and manage development to maintain or improve air quality, and minimise the effects of adverse acoustic emissions on the health and wellbeing of the community and the natural environment.

Land Use Policies:

- 1.3.1 Appropriately locate, construct and operate developments that generate emissions to ensure that the impacts of emissions on sensitive land uses meet legislative requirements.

2.4 Greenhouse Gas Emissions

Objective:

Manage the potential impacts of climate change and develop a regional approach to minimising greenhouse gas emissions.

Land Use Policies:

- 2.4.1 Identify key locations suited as alternative power generation sites in planning schemes and ensure provisions are included which protect their long-term viability from incompatible land uses.
- 2.4.2 Identify and protect potential power line corridors from inappropriate land use in local planning schemes.

Aligned Strategies:

- 2.4.A Manage greenhouse gas emission levels responsibly through:
- promotion of responsible management of emissions
 - development of mechanisms to ensure land use and natural resource management processes consider the greenhouse gas effect and are consistent with the regional strategy

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

- promotion of alternative, renewable energy sources
 - promotion of economic instruments, such as renewable energy sources and carbon trading.
- 2.4.B Support research and development of clean energy technologies by industry within the region to ensure that the potential of geothermal and solar thermal power-based industries is considered.
- 2.4.C Promote and support the development of solar towns that capitalise on the region's solar energy resources.

2.0 Natural Resources

2.1 Land and Natural Resource Use and Management

Objective:

To coordinate development and use of the region's natural resources using ecologically sustainable land management practices to enhance the community's economic and environmental values.

Land Use Policies:

- 2.1.1 Identify and protect natural economic resource areas from further fragmentation and inappropriate land use.
- 2.1.2 Protect the region's good quality agricultural land and provide for its long-term and sustainable use.

Aligned Strategies:

- 2.1.C Promote the sustainable use of natural resources for social and economic development opportunities.
- 2.1.D Encourage efficient planning and management to ensure equitable access to the region's natural resources to benefit the region's economic prosperity.
- 2.1.E Encourage innovative use of technology and systems for the management and use of the region's natural resources.
- 2.1.F Encourage climate change adaptation studies to examine climate fluctuation, potential impacts on future production and to inform risk management strategies.
- 2.1.G Investigate the feasibility of establishing a regional research centre or centre of excellence to identify practical ways to enhance natural resource management, including water management, to improve the region's economic capacity.

2.2 Water Management and Use

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

- 2.2.1 Plan, design, construct and operate development in accordance with best practice environmental management principles that protect or enhance environmental values, meet water quality objectives and ensure that water runoff flows mimic pre-development natural flows to waterways.

2.3 Mining

Objective:

Manage mining and extractive resources to maximise economic opportunities for present and future generations.

Land Use Policies:

- 2.3.1 Identify mineral, energy and extractive resource areas and protect them from inappropriate land use activities.
- 2.3.2 Focus land use planning on maximising economic benefits for the community, with minimal negative impact on communities, the environment and natural resources of the region.

Aligned Strategies:

- 2.3.C Minimise, mitigate, rehabilitate and offset impacts of mining, energy and extractive activities on the environmental values of the region by taking advantage of regional innovation and opportunities.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

4.0 Urban Development

4.1 Urban Structure and Settlement Pattern

Objective:

Accommodate regional growth needs in strategically located, well-planned activity centres.

Land Use Policies:

4.1.2 Designate sufficient land for residential and commercial purposes in local government planning schemes for long-term strategic needs.

4.2.4 Protect good quality agricultural land through planning scheme provisions.

5.0 Economic Development

5.1 Business, Industry and Land Development

Objective:

Ensure the North West has businesses and industries that provide sustained wealth and growing employment opportunities that contribute to the region's liveability and prosperity.

Land Use Policies:

5.1.1 Designate sufficient land for commercial, retail and industrial use and identify supporting infrastructure in planning schemes, to ensure business investment and expansion is in line with future requirements.

5.1.2 Identify provisions in local government planning schemes to minimise land use conflicts between industrial land and adjoining non-industrial purposes.

5.1.3 Designate sufficient land in local government planning schemes for business purposes, taking advantage of infill opportunities in existing commercial areas.

Aligned Strategies:

5.1.C Identify industries that build on local strengths and existing regional competitive advantages.

5.1 D Establish mechanisms to coordinate business and industry support services that are available through government and nongovernment agencies.

5.2 Diverse Regional Economy

Objectives:

- *Develop a diverse regional economy that is responsive to changing local and global economic factors and is resilient to the impacts of climate change.*
- *Diversify the region's economy by building on existing competitive advantages and specialisations.*

Aligned Strategies:

5.2A Identify and promote opportunities for the diversification of the region's economic base and co-ordinate regional and subregional activities.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

5.3 Agriculture

Objective:

Maintain and expand agricultural industries and diversify opportunities through agribusiness ventures.

Land Use Policies:

- 5.3.2 Planning schemes protect good quality agricultural land from further fragmentation and conflicting land uses.

Aligned Strategies:

- 5.3.A Encourage a regional sustainable industry study to assist primary industries to achieve long-term environmental, social and economic sustainability.
- 5.3.B Continue to support sustainable agricultural and forestry industries, by facilitating opportunities to expand production, processing and management practices.
- 5.3.C Explore opportunities for developing environmentally sustainable strategies and programs that minimise environmental impacts through cleaner production and waste management practices.
- 5.3.D Continue research into the development of new crops and livestock breeds and value-adding to existing products.
- 5.3.I Where extractive resources not covered by the *Mineral Resources Act* or *Petroleum Act* are removed from agricultural areas, encourage minimisation of the impacts of extractive activities on primary industries and the rehabilitation of locations for agricultural land use.

5.4 Mining and Mineral Processing

Objective:

Maximise the economic opportunities for mining and processing in the region within acceptable social and environmental standards.

Land Use Policies:

- 5.4.1 Identify and protect key or strategic mineral, energy and extractive resources from incompatible development and land use activities that would impact on the development of the resources.
- 5.4.2 Appropriately locate development to avoid impacts on existing and future mineral, energy and extractive resource development and associated infrastructure.

Aligned Strategies:

- 5.4.A Encourage collaborative responses by government, resource companies and the community, to the social, economic and environmental pressures associated with large-scale mining and energy resource projects
- 5.4.B Infrastructure provision supports new development through collaborative partnerships between developers, infrastructure providers and all levels of government.
- 5.4.D Promote mineral, energy and extractive resource development, as a key component of the region's economic development.
- 5.4.E Recognise areas with potential for future mineral, energy and extractive resource discoveries to ensure the long-term viability of these industries.

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.A Promote the natural assets and identity of the region consistently by working closely with regional service providers, all levels of government and regional, national and international tourism organisations.
- 5.5.C Encourage programs that improve visitor experiences and perceptions by ensuring accommodation, product packaging and staff of a high standard.
- 5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.
- 5.5.D Consider the optimal carrying capacity of tourist sites to ensure positive visitor experiences, maintain the integrity of sites and uphold community values.
- 5.5.E Encourage and support cultural heritage tourism products to capitalise on and give value to Indigenous and non-Indigenous heritage and current culture.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.H Inform decision making by evidence-based research, current statistical information and local knowledge to support public and private investment in new and improved tourism infrastructure and products
- 5.5.I Encourage the development of strategies for the tourism industry to adopt in order to meet the challenges associated with peak oil and climate change.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.1 Infrastructure Planning and Co-ordination

Objective:

Provide and coordinate infrastructure planning to support desired regional outcomes in an efficient and effective manner, in order to support communities, diversify the economic base of the region, build regional prosperity, minimise the region's contribution to the causes of climate change and enhance resilience against the impacts of peak oil and climate change.

6.2 Energy

Objective:

Encourage the development of alternative energy sources and facilitate the provision and delivery of more competitively priced energy to support a robust regional economy.

Land use policy:

- 6.2.1 Incorporate in planning schemes appropriate buffer distances to protect corridors for electricity and gas infrastructure, including pipelines supplying power stations, transmission lines, plant sites and substations.

Aligned strategies:

- 6.2.A Explore power supply alternatives that will deliver competitively priced and secure power to the region for industrial and broader community use.
- 6.2.B Encourage renewable energy supply alternatives, including geothermal and solar, which may support electricity grid development and contribute to a carbon neutral environment.
- 6.2.C Encourage network augmentation and lowest cost expansion alternatives, to support development of isolated commercial operations.

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policy:

- 6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.
- 6.3.6 Avoid noise sensitive and other incompatible land uses near significant transport corridors, or otherwise buffer these corridors where avoidance is not possible.

Aligned Strategies:

- 6.3.B Encourage progressive upgrading, maintenance and development of road and rail transport systems to meet the needs of mining, agriculture, commerce and community sectors.
- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.
- 6.3.K Encourage improved local management regimes for roads and access routes, through the use of local law provisions and conditions on approvals

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

6.4 Water Infrastructure

Objective:

Ensure the development of water infrastructure in the region is given priority at a state level to provide certainty for long-term investors and local government.

Land use policies:

- 6.4.1 Identify land requirements for water infrastructure development in planning schemes, as guided by water resource plans and the *North West Queensland Regional Water Supply Strategy*.
- 6.4.2 Identify existing and future subregional priority water demands which require the provision of new or upgraded water infrastructure, including water storage and supply treatment within the next 10–20 years.
- 6.4.5 Consider demand management and water conservation in planning for future water infrastructure.

Aligned strategies

- 6.4.A Ensure the allocation of water for irrigation purposes results in the most sustainable economic, social and environmental outcomes.

6.5 Waste Management

Objective:

Develop an integrated approach to waste management, recycling and reuse within the region, to meet desired community health and environmental outcomes, and to achieve the objectives of sustainability and affordability.

Land use policy:

- 6.5.1 Identify sites for integrated waste disposal, including recycling and reuse, and incorporate regionally specific, best-practice waste management that is applicable to sparsely populated, low-density communities, separated by substantial distances.

3.4 Environment and Landscape

3.4.1 Relationship to Infrastructure Planning

There are a number of environmental issues to be addressed at the Shire and town/village scales, aligned with the following themes:

- Landscape management
- Managing the Mining Industry
- Sustainable Energy and Practices
- Waste and Water Management
- Climate and Climate Change.

In terms of environmental issues, management of the mining industry is administered by DERM under provisions of the Environmental Protection Act 1994, and is not the subject of study or recommendation within this report.

In terms of infrastructure planning, Sustainable Energy and Practices and Climate and Climate Change are discussed in this report within a framework of a new energy industry for the Shire in 2.3.2 Economic Diversity and Resilience.

In terms of Landscape Management, there are opportunities for McKinlay Shire to address environmental issues in association with the development of infrastructure strategies. Shire-wide strategies are discussed below.

3.4.2 Landscape Management

Scenic Management

The low-relief topography of the Shire, consisting of gently rolling downs and plains bisected by waterways lends itself to extensive views of the landscape in open areas. Extensive views of pasture and grasslands are available from the Flinders and Landsborough Highways, and while fairly monotonous, provide an image of the shire as a pastoral landscape, punctuated by vegetated drainage lines and waterways. Approaches to settlements, and the occasional homestead, demonstrate a strong demarcation between rural land use and the landscape of amenity associated with habitation.

Management of scenic amenity is not addressed directly as infrastructure within the Infrastructure Plan, however considerations are required in planning for development within the Shire. Planning schemes should limit any significant infrastructure or development that may impact upon scenic amenity, or if this is not possible, direct mitigation strategies that will limit the impacts. The latter may be achieved by introducing appropriate buffering to diminish views to unsightly development, particularly as viewed from major routes within the road network and towns and villages.

Environmental Weeds

A number of weeds have been introduced to the Shire in association with extensive agricultural land use. Some of the most prominent weeds, including varieties of Prickly Acacia were introduced in the 1800s and early 1900s as shade plants and fodder for sheep and cattle. Livestock, stock rates and other land practices have lead to a wide distribution of such weeds across the north of the state, extending across the country. Herbaceous weeds and invasive grasses have arisen from pasture improvement, replacing native plants, and other land management practices associated with livestock.

The most prominent woody weeds are comprised of a group of species introduced from Asia, Africa and the Americas and include *Acacia nolitica*, the mesquites (*Prosopis* species) and *Parkinsonia aculeata*. They form thorny thickets, replacing pasture and invading riparian areas. Due to their size and form, they are often apparent as a dominant form of vegetation within the pastoral landscape. Their impacts extend beyond ecological degradation to that of local economies by reducing available pasture and the overall productiveness of agricultural land.

There have a number of strategic plans developed for management of each of the woody weeds and others by the Commonwealth Government (2000), requiring co-ordination of all levels of government and landholders.

In the McKinlay Shire, the co-operation of landholders is critical in weed management, together with the LandCare organisation and reporting and monitoring mechanisms provided by DERM. The extent of the weed issue is widespread, however there are key areas which could be addressed as a priority, other than identified areas of new outbreaks. These are the major road corridors through and within the Shire, as the primary mode by which the community and travellers engage with the landscape of the Shire and waterways and drainage lines, as major ecological corridors through the Shire.

Highways and Byways.

The highways and byways through the Shire are the major interfaces with the Shire's landscape that are shared by the McKinlay community and visitors to the Shire. They offer significant views of the surrounding landscape and contribute to local image and identity.

A program of weed management which targets main road infrastructure would enhance landscape scenic values and could contribute to improved local image. Mechanical removal would be the most effective method for initial eradication in these areas, with follow-up required using non-residual herbicide and revegetation strategies. Such a program would be extensive and require the co-ordination and cooperation of landholders and government but this would tie in with existing and more widely-promoted sustainable land use practice and research programs in the Shire and the fundamental sustainability ethos projected by the local council as part of the Shire's identity.

Waterways and Drainage Lines.

Waterways and drainage lines are strongly inscribed into the Shire's landscape. They are visually prominent due to associated riparian vegetation including *Eucalyptus microtheca* (Coolibah) and *Eucalyptus camendulensis* (Red River Gum). They also provide places of interest for tourists, sites of recreation for local residents, watering for cattle and are major ecological corridors with influence that extends well beyond the Shire's borders.

Weed management in these areas is difficult and often requires the application of associated stabilisation methods, such as revegetation. Targeted management of key areas, such as recreation sites and stock watering sites should be a priority, with a systematic management program conducted in small parcels to allow for weed eradication and bank stabilisation to occur.

Demonstration areas and research sites could be established within the Shire to assist landholders in similar management endeavours within their own landholdings.

Waste and Water Management

Waste and Water Management, in this report, is framed mainly within the infrastructure plan for Julia Creek (Section 3.4.6). Other centres at McKinlay, Kynuna and Nelia are serviced by bore water that is sufficient for current populations in those settlements and this is unlikely to increase in the next ten years. Each of these villages is currently not sewered, relying on septic systems. This also is unlikely to warrant change over the next ten years.

General Water Management

McKinlay Shire lies with the Great Artesian Basin Management Area and is subject to statutory laws and regulations under the Water Act 2007, Water Resources (Great Artesian Basin) Water Plan 2006 and the Water Resource (Gulf Plan) 2007. Since peak flows in 1915, artesian pressure and flow rates have declined.

Capping of bores and reduction in bore drains have reduced waste of artesian water and improved artesian pressure, however further sustainable management of artesian bore water throughout the Shire requires attention. This mainly relates to use of the water for irrigation purposes in settlements and on rural properties. In these circumstances, irrigation water is mostly used for maintenance of grass and planting in civic spaces and home gardens. Although the quantity of water used is small relative to other domestic purposes and in industry, irrigation practices that use water at warmer times of the day, particularly in a high temperature environment, are both inefficient and wasteful due to the high rate of evaporation. The use of sprinklers and sprays exacerbates these negative effects further.

It is recommended that council educates water users regarding irrigation practices and water conservation methods, and restrict water use for irrigation to times of the day which will optimise soil wetting and percolation, and minimise waste.

Aligned Strategies with Community Plan:

Environment and Landscape	Strategy 17.	A forerunner in sustainable agriculture and green energy production.
	Strategy 18.	Improved environmental management
	Strategy 19.	Waste and refuse management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.1 Biodiversity Conservation

Objective:

Protect, manage and enhance the extent, diversity and conditions of the region's biodiversity, its ecological integrity and supporting ecological processes to encourage resilience to climate change and other biophysical pressures.

Aligned Strategies:

1.1.A Promote the protection and management of riparian areas to preserve and enhance biodiversity, ecological, recreational, cultural and corridor values

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.

1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

2.0 Natural Resources

2.2 Water Management and Use

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

2.2.4 Incorporate industry best practice water saving methods and technology in new developments.

2.2.A Support the use of a range of mechanisms to protect, conserve, enhance and restore the environmental, social and economic values of river systems, ground water and wetlands.

2.2.E Promote the development and implementation of water efficient technologies and management strategies for industrial, agricultural and private purposes.

2.2.F Implement the Great Artesian Basin Sustainability Initiative, as identified in the *Blueprint for the Bush* program.

2.3 Mining

Objective:

Manage mining and extractive resources to maximise economic opportunities for present and future generations.

Aligned Strategies:

2.3.C Minimise, mitigate, rehabilitate and offset impacts of mining, energy and extractive activities on the environmental values of the region by taking advantage of regional innovation and opportunities.

2.4 Pest, Plant and Animal Management

Objective:

Manage pest plants and animals to protect present and future land use and economic opportunities.

Aligned Strategies:

2.4.A Implement reasonable and strategic pest management practices to protect the environment and the productive capacity of natural resources, communities, industries and business.

4 Julia Creek

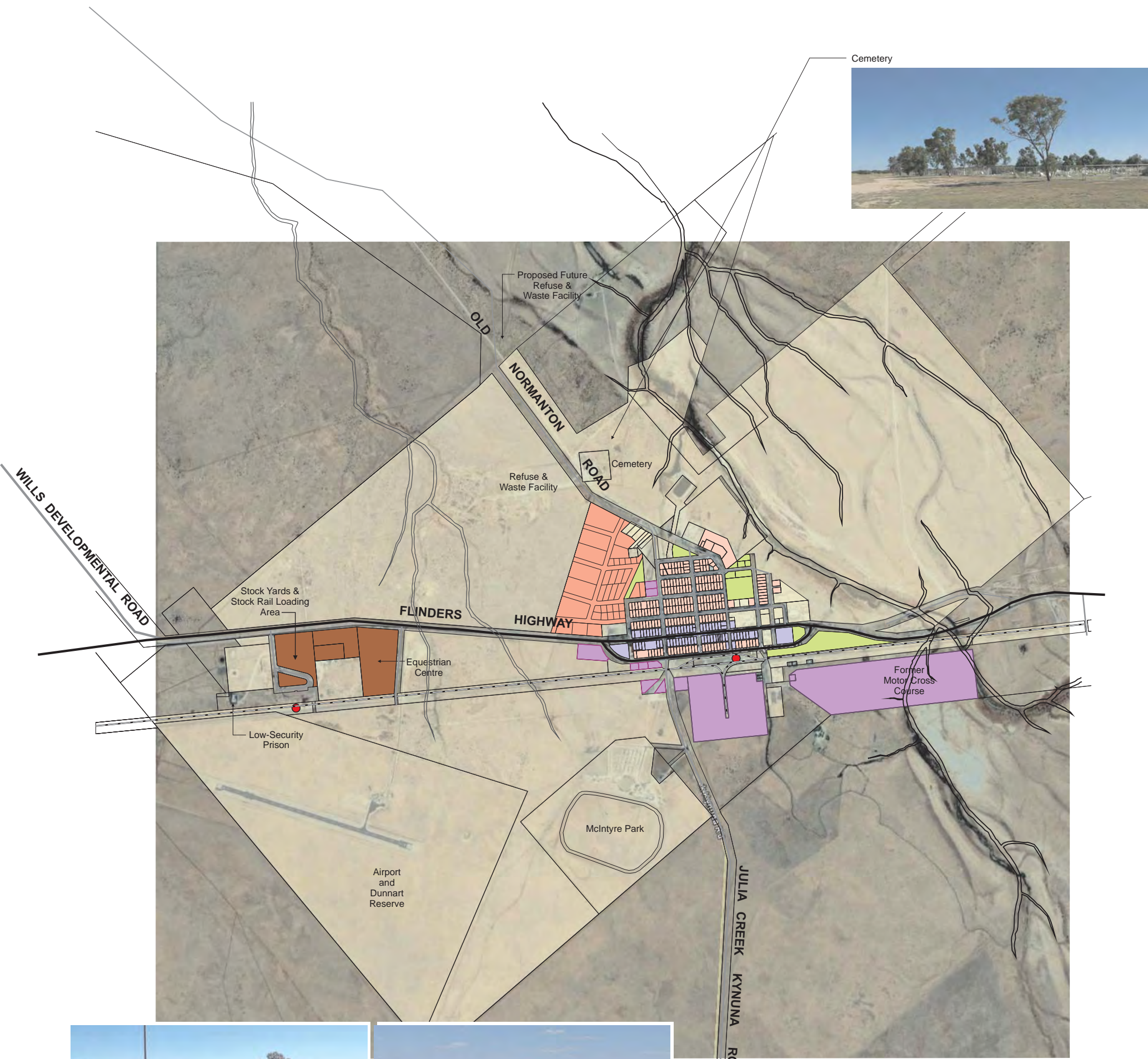
4.1 Background

Julia Creek is the largest settlement in McKinlay Shire and the Shire's administrative centre. The town is designated as a District Activity Centre in the Draft North West Regional Plan, along with larger centres, Richmond and Hughendon. In 2009, the estimated population was 359 compared with a Shire population of 944 (Queensland Regional Profiles: McKinlay Shire Region, Office of Economic and Statistical Research, generated 11 May, 2010). While slow population decline has occurred since 1996 and is predicted to continue (Draft North West Regional Plan, 2009), the Community Plan has identified the desire and need to retain population and facilitate its growth to ensure the long term social and economic survival of the Shire. As the main economic and social centre within the Shire, Julia Creek is likely to be the only centre in the Shire that has any chance of increased population in the future.

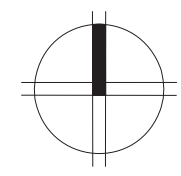
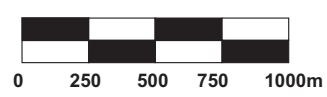
The town is subdivided into lots for residential, commercial, industrial and recreation land uses and lies within a larger 'community purposes' land area as designated in the Shire's Planning Scheme (Refer to Figures 10 and 11). A new subdivision, comprising rural-residential lots and industrial land is planned for the western side of the town and has received Development Approval. Planning studies conducted to inform the siting of the subdivision indicated that topography and proximity to Julia Creek and drainage lines make a large portion of 'community purposes' land subject to flooding (Figure 12) and limit its use for future development (Sargent Consulting, 2010).

Existing infrastructure includes (refer Figures 10 and 13):

- A small hospital with permanent nursing and visiting medical staff. It offers primary and emergency care and visiting allied health services on a regular basis.
- A primary school
- Emergency services such as police, fire and ambulance services
- Child care facility
- An airport with landing strip and small terminal building.
- A train station.
- Cattle stock yards and railway loading facility.
- Water bores, pumping facilities and a water-cooling tower.
- Sewered allotments and a sewerage treatment facility.
- Sealed roads to almost all streets within the township.
- Council administration buildings and works depots.
- Council community facilities such as a public swimming pool, parks, sporting ground and community buildings such as the Information Centre, the Opera House and the Jan Eckford Community Centre.
- McIntyre Park Racecourse and equestrian event facility.
- An aged care facility.
- A refuse and waste facility.



McIntyre Park Racecourse and Equestrian Event Facility



KEY

Residential	Designated Rural Residential in Planning Scheme - to be confirmed
Commercial	Open Space and Recreation
Industrial:	Community Purposes
Light & Service Industry Sub-Area	New Subdivision
General Industry Sub-Area	Railway Station/Loading Point

Note: Land Use and cadastral information adapted from the McKinlay Shire Planning Scheme (Figure 3), December 2005.

FIGURE 10.
JULIA CREEK
Land Use- Environs

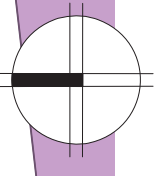
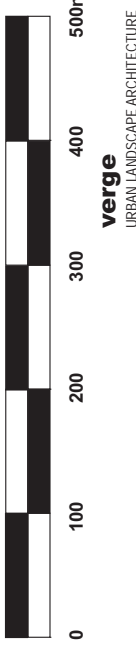


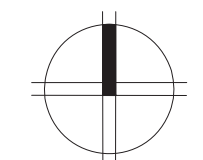
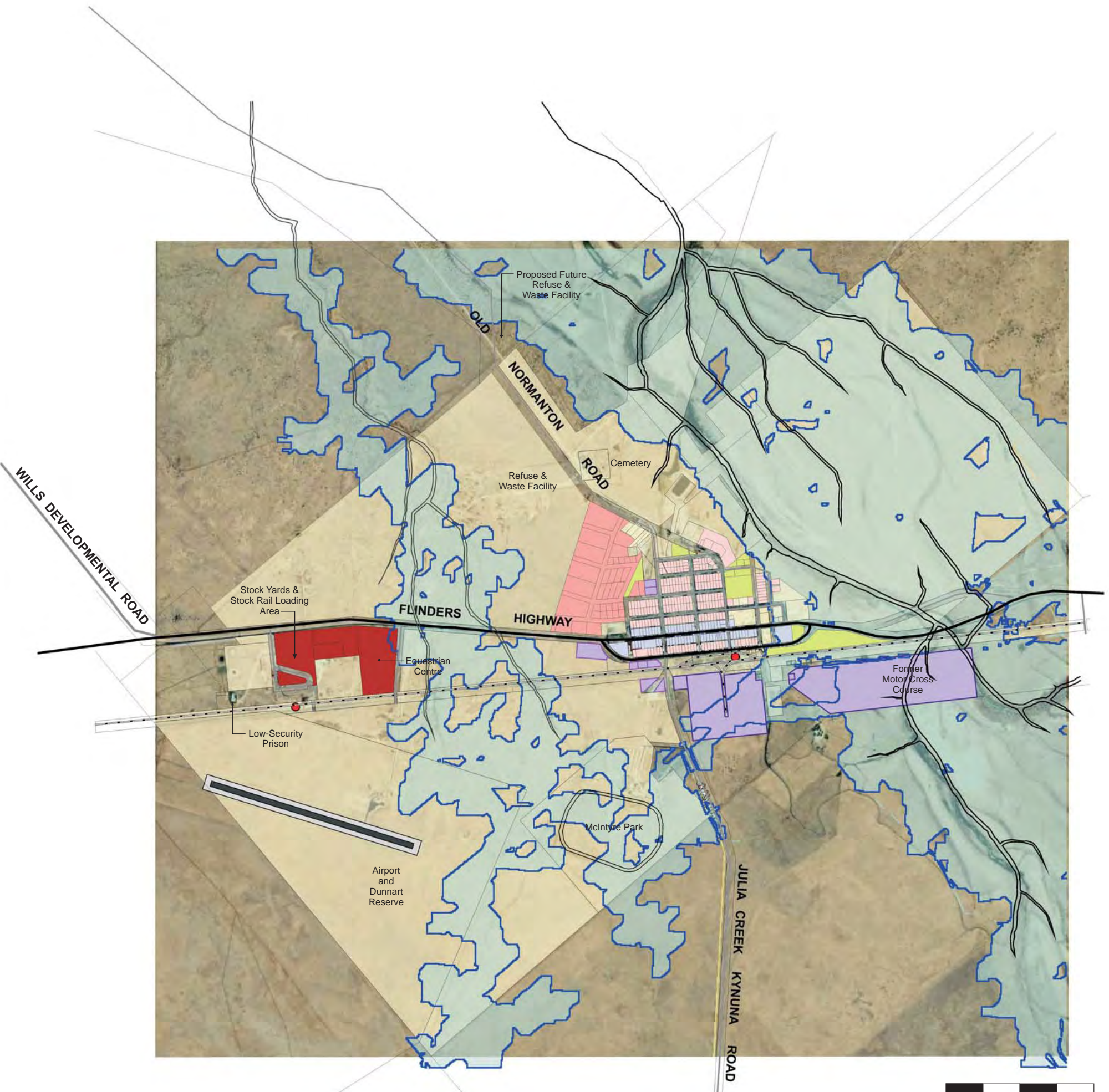
FIGURE 11.
JULIA CREEK
Land Use

KEY

- Residential
- Commercial
- Industrial:
- Light & Service Industry Sub-Area
- General Industry Sub-Area
- Rural Residential
- Open Space and Recreation
- Community Purposes
- New Subdivision

Note: Land Use and cadastral information adapted from the McKinlay Shire Planning Scheme (Figure 3), December 2005.

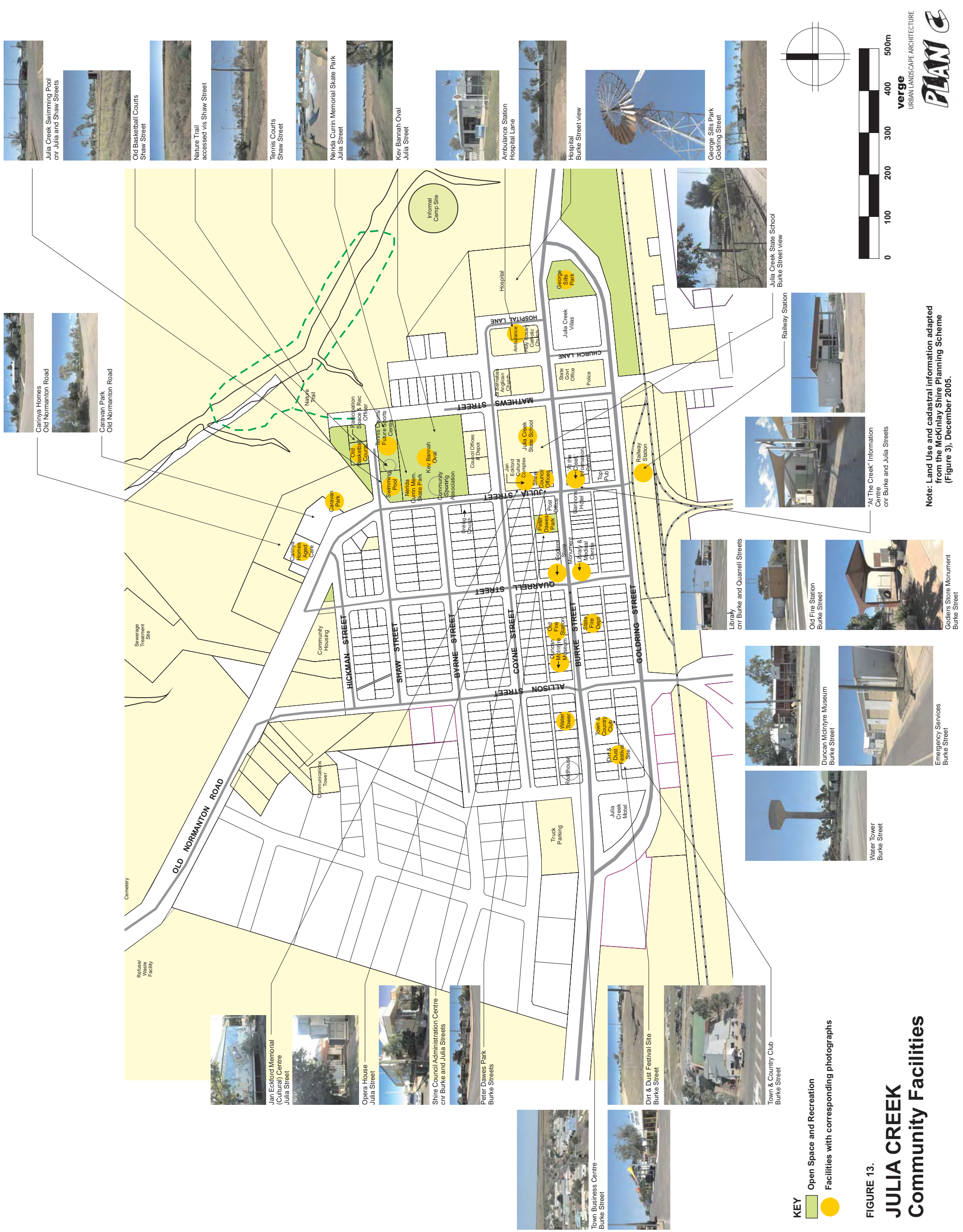




- KEY**
- Residential
 - Commercial
 - Industrial:**
 - Light & Service Industry Sub-Area
 - General Industry Sub-Area
 - Designated Rural Residential in Planning Scheme - to be confirmed
 - Open Space and Recreation
 - Community Purposes
 - New Subdivision
 - Railway Station/Loading Point
 - 100 Year ARI Flood Area (1% AEP adapted from Figure 7, Julia Creek Hydrology Study Final Report, Sargent Consulting, February 2010)

Note: Land Use and cadastral information adapted from the McKinlay Shire Planning Scheme (Figure 3), December 2005.

FIGURE 12.
JULIA CREEK
100 Year Flood Event and Land Use



Julia Creek Swimming Pool
cnr Julia and Shaw Streets

Old Basketball Courts
Shaw Street

Nature Trail
accessed via Shaw Street

Tennis Courts
Shaw Street

Nerida Currin Memorial Skate Park
Julia Street

Key Barnah Oval
Julia Street

Ambulance Station
Hospital Lane

Hospital
Burke Street view

George Sillis Park
Goldring Street

Julia Creek State School
Burke Street view

Carrinya Homes
Old Normanton Road

Caravan Park
Old Normanton Road

Jan Eckford Memorial
(Cultural) Centre
Julia Street

Opera House
Julia Street

Shire Council Administration Centre
cnr Burke and Julia Streets

Peter Dawes Park
Burke Streets

Town Business Centre
Burke Street

Dir & Dust Festival Site
Burke Street

Town & Country Club
Burke Street

Water Tower
Burke Street

Duncan McIntyre Museum
Burke Street

Emergency Services
Burke Street

Godiers Store Monument
Burke Street

Library
cnr Burke and Quarrell Streets

Old Fire Station
Burke Street

"At The Creek" Information
Centre
cnr Burke and Julia Streets

Julia Creek State School
Burke Street view

State Govt Office
Police

Julia Creek State School
Julia Street

State Govt Office
Police

Julia Creek State School
Julia Street

Julia Creek State School
Burke Street view

Julia Creek State School
Burke Street view

Julia Creek State School
Burke Street view

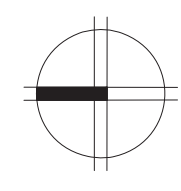
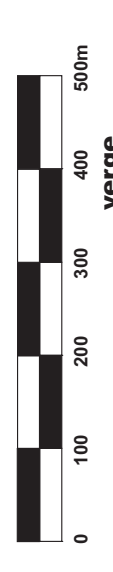
Julia Creek State School
Burke Street view

Julia Creek State School
Burke Street view

KEY
 Open Space and Recreation
 Facilities with corresponding photographs

FIGURE 13.
JULIA CREEK
Community Facilities

Note: Land Use and cadastral information adapted from the McKinlay Shire Planning Scheme (Figure 3), December 2005.



- A low-security prison to the west of the town.
- A cemetery on the northern outskirts of town.

Council has also developed community housing in the town, with future additions planned for the coming year. Council continues to manage the town's only caravan park and has recently upgraded common kitchen facilities there.

Another council project to be implemented in the short term is a recreation building to house indoor sporting facilities and provide for community events. This will be located at the town's Recreation Reserve near the swimming pool in Shaw Street.

4.2 Community Connections

Julia Creek is accessed by residents and visitors mainly via roads. As previously identified for the Shire, road routes convey a first impression to travellers, particularly at the approaches and entrances at the town scale.

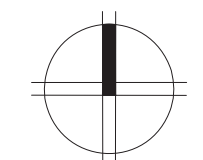
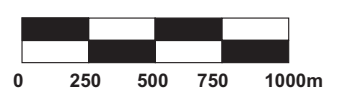
4.2.1 Legibility and Wayfinding

Town Entrances

Opportunities exist to enhance the image of the Julia Creek offered by the road approaches to the town, celebrate the town's identity, reinforce community spirit and demonstrate it to visitors. Council has in recent times conducted tree planting on road approaches along the Flinders Highway, particularly at the eastern entrance to the town. This could be further enhanced with buffer planting to the front of the truck stop facility at the western edge of the town and along the Flinders Highway frontage of future industrial lots. Refer conceptual plans in Figures 14 and 15, and town master plan in Figure 16.

Improvements to the creek corridor to the east of the town, including weed management and revegetation, will also enhance that approach, celebrate the town's main natural asset and demonstrate the Shire's affinity with its 'Water, Land, People' theme.

Existing entrance signs on the Flinders Highway appear outdated and could be improved to present a more contemporary image of the town, suited to the character of the recent development of the Information Centre and Shire entrance features proposed elsewhere in this report. Such entrance treatments could be extended to road approaches to Julia Creek from the north and south, at a scale appropriate to these minor routes.



- KEY**
- Potential major areas for development
 - Open Space and Recreation
 - Nature-based recreation centred around waterways and drainage lines
 - Entrance enhancements

Note: Land Use and cadastral information adapted from the McKinlay Shire Planning Scheme (Figure 3), December 2005.

FIGURE 14.
JULIA CREEK
Concept - Broad Scale

Treated waste water to be collected, stored and distributed to key areas requiring irrigation. Potential for dual potable and non-potable water reticulation to new subdivisions.

Creek corridor to be enhanced with weed management and revegetation, including establishment of shade trees. Channel may be widened in some areas to provide year-round waterholes.

Paths and seating to be established for nature-based recreation and connections to town.

Upgrade to caravan park to include other accommodation types, i.e. cabins. Site to be enhanced with more shade trees, with potential for an artesian spa. Potential for caravan park to be run by private tourism operator to help fund improvements and provide a distinctive destination to the town.

New parkland and public artesian spa facility proposed for old basketball court site. Picnic shelters, barbecues and abundant shade trees to be introduced to establish a community meeting place and establish an attractive destination for visitors. Other recreation facilities to be enhanced with vegetation to strengthen the amenity of the precinct.

Additional community housing currently proposed by McKinlay Shire Council

Future potential to rezone light industry land for residential development to consolidate village character and take advantage of proximate potential open space links.

Allotments in new subdivision further subdivided to continue town house and land character, and maintain a compact town form. Larger size allotments remain for variety in choice, lifestyle and demand.

KEY

- New Subdivision
- Road Hierarchy - highest to lowest importance as connections to destinations within town
- Entrance Enhancements
- Community Residential Development
- Potential Infill Duplex Residential Development
- Nature-based recreation centred around waterways and drainage lines
- Other infrastructure as noted



FIGURE 15.

JULIA CREEK Township Concept

1. Treated waste water is to be collected, stored, treated and distributed to key areas requiring irrigation. Potential exists for dual potable and non-potable water reticulation to new subdivisions.

2. Additional community housing is to be undertaken by McKinlay Shire (current project)

3. There is future potential to rezone light industry land for residential development to consolidate town character and take advantage of proximate potential open space links.

4. Allotments in new subdivision could be further subdivided to continue town house and land character, and maintain a compact town form. Larger size allotments would remain elsewhere for variety in choice and lifestyle to meet local demand.

5. Upgrade to caravan park is to include other accommodation types, such as cabins. The site is to be enhanced with more shade trees and shade structures.

There is potential for caravan park to be run by private tourism operators to help fund improvements and investigate the commercial feasibility of upgrading the facility to an artesian spa/mixed cabin and caravan resort. There is potential for such an endeavour to provide a distinctive destination within the shire and the broader regional tourism context.

6. Creek corridor is to be enhanced with weed management and revegetation including establishment of shade trees. Channel may be widened in some areas to provide year-round waterholes. Paths and seating are to be established for nature-based recreation and to important connections to town.

Refer to FIGURE 17
(Future upgrade to Caravan Park and Parkland)

7. New parkland and public artesian spa facility are proposed for the former basketball court site. Picnic shelters, barbecues and abundant shade trees are to be introduced to establish a community meeting place and establish an attractive destination for visitors.

8. Nature trail.
Revegetation and shade trees are to be planted throughout trail system. Soil will require deep ripping and conditioning prior to planting.

9. New sport and recreation building. (current project-indicative only)

10. Kev Bannah Oval and other recreation facilities are to be enhanced with vegetation to strengthen the amenity of the recreation reserve precinct.

Play equipment and softfall surfacing are to be upgraded in all parks.

11. Enhanced entrance planting and signage is to be located at entrances to town.

12. Future aged care and independent living facility.

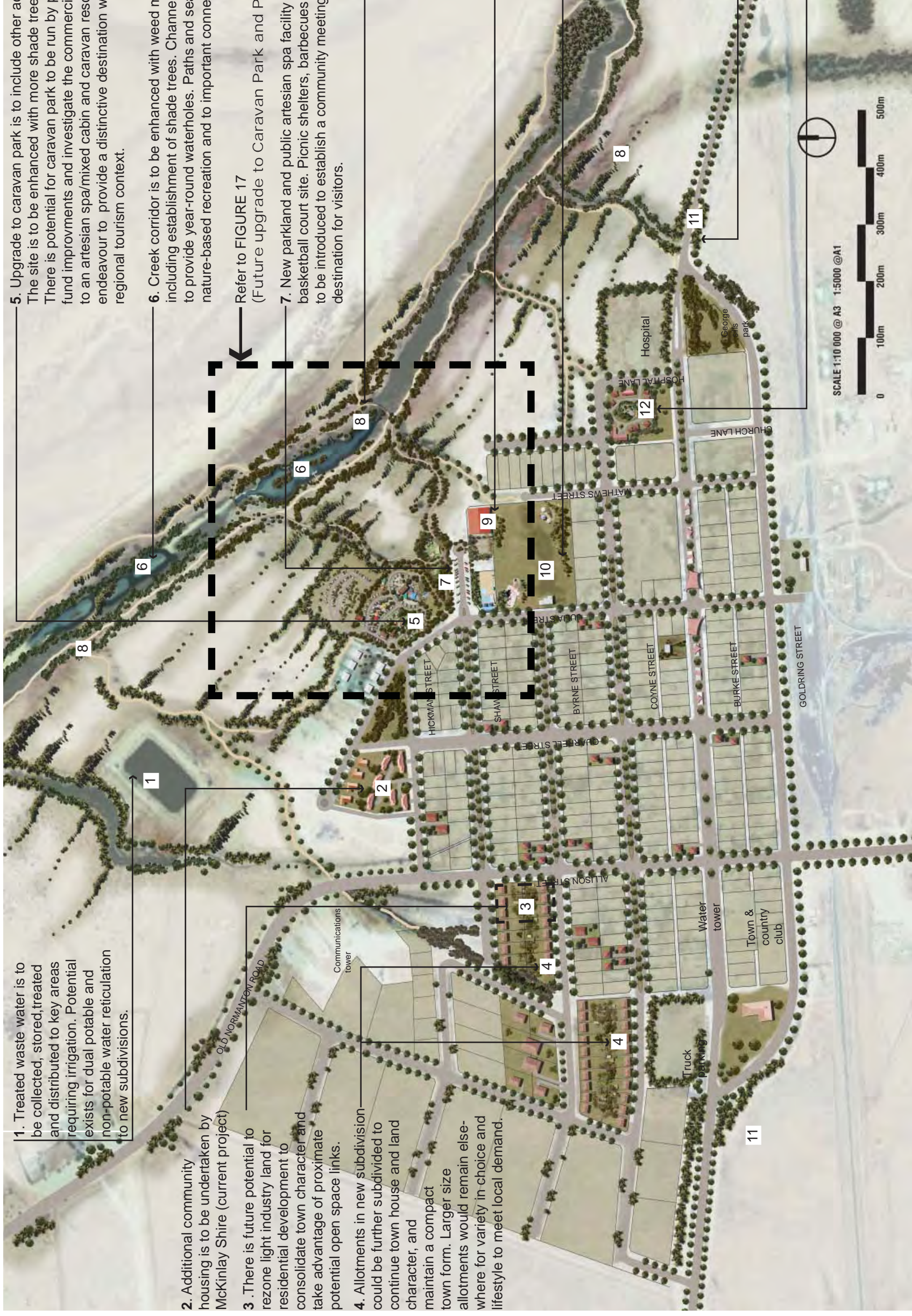


FIGURE 16.

JULIA CREEK Town Infrastructure Master Plan



Plate 4.1 Conceptual town entrance signage or markers- indicative only.

Street Hierarchy

The road network within Julia Creek follows a grid pattern of wide streets. Streets running east-west are largely divided by medians, with Burke Street, the main street of the town, comprised of designated parallel parking lanes and central angle parking within the commercial precinct of the town and adjacent to the primary school.

Heavy vehicles are diverted around the town via Goldring Street.

The grid pattern assists with navigation around Julia Creek and this is assisted by limited directional signage and local landmarks such as the water tower and shade sails to parking in Burke Street; the latter consolidating the destination character of the commercial hub of the town. The road network could be further enhanced to establish a hierarchy of movement through the town to designate main or desirable routes to the town's main destinations. These include the Burke Street commercial centre, other facilities or points of interest in Burke Street such as the Town and Country Club and the McIntyre Museum and the Recreation Reserve located in Julia Street and Shaw Streets. The Recreation Reserve is a local destination for residents and visitors, providing access to community recreation facilities and the entrance to the nature trail which runs along Julia Creek. Further enhancements are proposed to this area (elsewhere in this report) to consolidate its destination character and provide a focus for community gathering and recreation, and local tourism.

Proposed enhancements to the road network include street tree planting and planting of medians, accompanied by directional or character signage (Figures 15 and 16). Planting and signage schemes would reflect the main or minor route status within a street hierarchy to reinforce routes between the town's major destinations. Tree planting would require planning around overhead power lines and street lighting and would also require soil conditioning to promote healthy growth. In addition to improved town appearance and legibility, street trees would provide improved amenity for residents and visitors and offer an enhanced pedestrian environment.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Environment and Landscape	Strategy 18.	Improved Environmental Management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.I Encourage the development of strategies for the tourism industry to adopt in order to meet the challenges associated with peak oil and climate change.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policies:

- 6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.
- 6.3.6 Avoid noise sensitive and other incompatible land uses near significant transport corridors, or otherwise buffer these corridors where avoidance is not possible.

Aligned Strategies:

- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.

4.3 Economic Diversity and Resilience

Julia Creek is the centre of the Shire's commercial activity, with banking, retail and professional services located in the commercial precinct. Industrial land is located nearby and is also proposed as part of the new subdivision to the west of the existing town footprint.

4.3.1 New Business

The Community Plan identifies business incubation programmes and courses of action to attract new business to the Shire. In terms of infrastructure, new business will require access to transport and telecommunications infrastructure and land and premises in order to conduct business. Connections by road, rail and air are available in Julia Creek, although rail and air services are infrequent compared with larger centres. Broadband internet and mobile telephone services are available in the town through Telstra services.

Commercial and industrial land allowed for in the Planning Scheme is currently underdeveloped and there is scope for future business to be accommodated within the existing scheme. New industrial lots adjacent to the Flinders Highway are also proposed on the western side of town and provide for commercial uses with minimal conflicts with residential and other land uses.

Future planning would consider further development for industry in flood-free areas on land designated for 'community purposes' and well-connected with main routes in and out of the town. Provisions should be made in the Planning Scheme to buffer such development from residential and recreation areas and screen from views from main roads to maintain the visual amenity of approaches into the town and from within the town.

4.3.2 Tourism

Julia Creek as a Destination

Julia Creek receives most of its tourist visitation during the months from April to October, with a highlight event being the Dirt and Dust Festival in April. Race meetings are also important events both for local residents and people from around the Shire and neighbouring areas. The town, itself, however, lacks a destination image compared with Richmond, the "dinosaur centre" and Winton, "the centre of the Matilda legend".

The majority of visitors currently enter the town using the Flinders Highway (S. Eales, undated). Further visitation could be increased by providing for clearer connections and improved road conditions from Winton Shire, along the Matilda Highway and the Julia Creek-Kynuna Road/Gateway to the Gulf Byway, as previously flagged in Section 3.3.1.

Julia Creek hosts a range of accommodation types for visitors in its hotels, motel, short-stay 'villas' and caravan park, but major attractions to convey a destination character or image are lacking.

The Council's Tourism Development Plan (S. Eales, undated) provides an analysis of current tourist trends and proposes a number of tourism 'products' to develop the tourist industry based on existing infrastructure and natural attractions. These are consistent with the Destination Management Plan for Tourism in Queensland's Outback 2007-2010 (Outback Queensland Tourism Authority, 2006) in focussing on the main attributes that appeal to tourists to outback Queensland, including the wide open spaces, friendly people, the natural environment, historical sites and outdoor adventure. In regard to positioning the Shire and Julia Creek as destinations, strengths associated with Shire theme of 'water, land, people' should be further developed to provide a strong tourist image and highlight differences with neighbouring shires and competing centres for tourism in the region. These are discussed further below and build upon the existing strengths of Julia Creek.

Infrastructure to Facilitate Nature-Based Tourism

Local environmental assets for Julia Creek reside mainly in its close proximity with the creek and the Dunnart Reserve located at the airport. While the latter's tourism potential may be facilitated by programmes that allow for night tours and education associated with the Dunnart, physical infrastructure changes are required to take advantage of the tourist potential of Julia Creek, the waterway. Physical works would include rehabilitation of the creek to remove woody and other weeds and replace by riparian vegetation suited to the local environment. This would improve the ecological values of the creek and its habitat value for native birdlife and would also increase physical and visual amenity.

There is potential to combine creek rehabilitation works with the creation of a series of waterholes along the length of the creek adjacent to the town. A new waste and refuse facility is proposed to the north of the town which will require substantial amounts of fill over time. Soil for fill could be excavated from the creek, both widening the channel in some areas and increasing depth in the same locations (Figures 15 and 16). A system of weirs would also be required to provide for water to fill the newly-formed basins during the wet season and to hold water in them throughout the year. Although the creek is degraded, approvals with relevant authorities would be required to address environmental issues, including works within a waterway and alteration of stream flows. It is envisaged that evaporation from the formed waterholes may be reduced by revegetation of banks with shady trees and establishment of macrophytes within the water bodies. The efficacy of shading would be greater for elongated waterholes developed through channel widening compared with waterbodies of the same area with a greater expanse or surface area to perimeter ratio.

Proximity of the creek to the Recreation Reserve at the corner of Julia and Shaw Streets provides further opportunities for consolidation of this area as a destination for local residents and visitors to the town. The establishment of waterholes near the Recreation Reserve provides additional recreation opportunities such as fishing and kayaking/canoeing and, together with tree planting and revegetation, provides a high-amenity setting for nature walks, cycling and bird-watching experiences.

Nature trails are widely promoted in terms of local tourism in association with scenic amenity and/or ecological values (various websites via Google search of "nature trails" and tourism). In association with the creek at Julia Creek, nature trails have the potential to provide a positive physical and cognitive experience of the Shire's 'water, land, people' theme for visitors and the town's residents.

An existing nature trail network extends from the Recreation Reserve, at the end of Shaw Street and adjacent to the basketball courts, although its precise location is unmarked and difficult to discern, particularly following rains and optimal grass growth conditions. Improvements to the nature trail system would provide a vital connection between the Recreation Reserve and Julia Creek waterway and waterholes, provide an opportunity for visitors to add more time to their stay through exploration of the town's environmental assets and provide recreation opportunities for the town's residents.



Plate 4.2 Nature Trail character and elements

The nature trail system is proposed to provide for circuit walks and bike rides of varying lengths to cater for varying levels of fitness. It is also proposed to include interpretive elements and connections to both the east side of town at Burke Street and to the west via the open space corridor within the proposed new residential subdivision (Figures 15 and 16). Improvements and additions to the trail network are proposed to include stabilisation or sealing of areas subject to erosion. These would normally occur on slopes or within overland flow paths. Other improvements would include the addition of shade trees in groups or groves to improve the physical and visual amenity of the path network. Soils in the area are comprised of clay which tends to expand and severely contract depending on moisture levels which limits the type of planting that can occur. Careful species selection and broad scale rehabilitation practices would be required for implementation, the latter including deep ripping parallel with contours, followed by soil conditioning with organic matter and clay-aggregating materials.

Establishment of an Artesian Spa Facility

Since European settlement, McKinlay Shire has drawn its prosperity from the abundant, though finite water reservoir that constitutes the Great Artesian Basin. Contemporary life and business in the Shire continues to depend on water drawn from artesian sources and this strongly informs the Shire's central theme of 'water, land, people'.

The Council's Tourism Development Plan suggests that potential tourist and community infrastructure could include artesian spas located at the Julia Creek Recreation Reserve. This has the potential to offer an authentic 'outback experience' for visitors and contribute to a destination image for Julia Creek within the region.

There are a number of artesian spa facilities in Queensland and Northern parts of New South Wales (Plate 4.3), although there are none promoted within the North West Region of Queensland. The closest spa facilities to Julia Creek are located at Ilfracombe near Longreach and Bedourie, north of Birdsville. Both are small swimming pool-type structures with the Bedourie spa co-located with the town's 25m swimming pool.

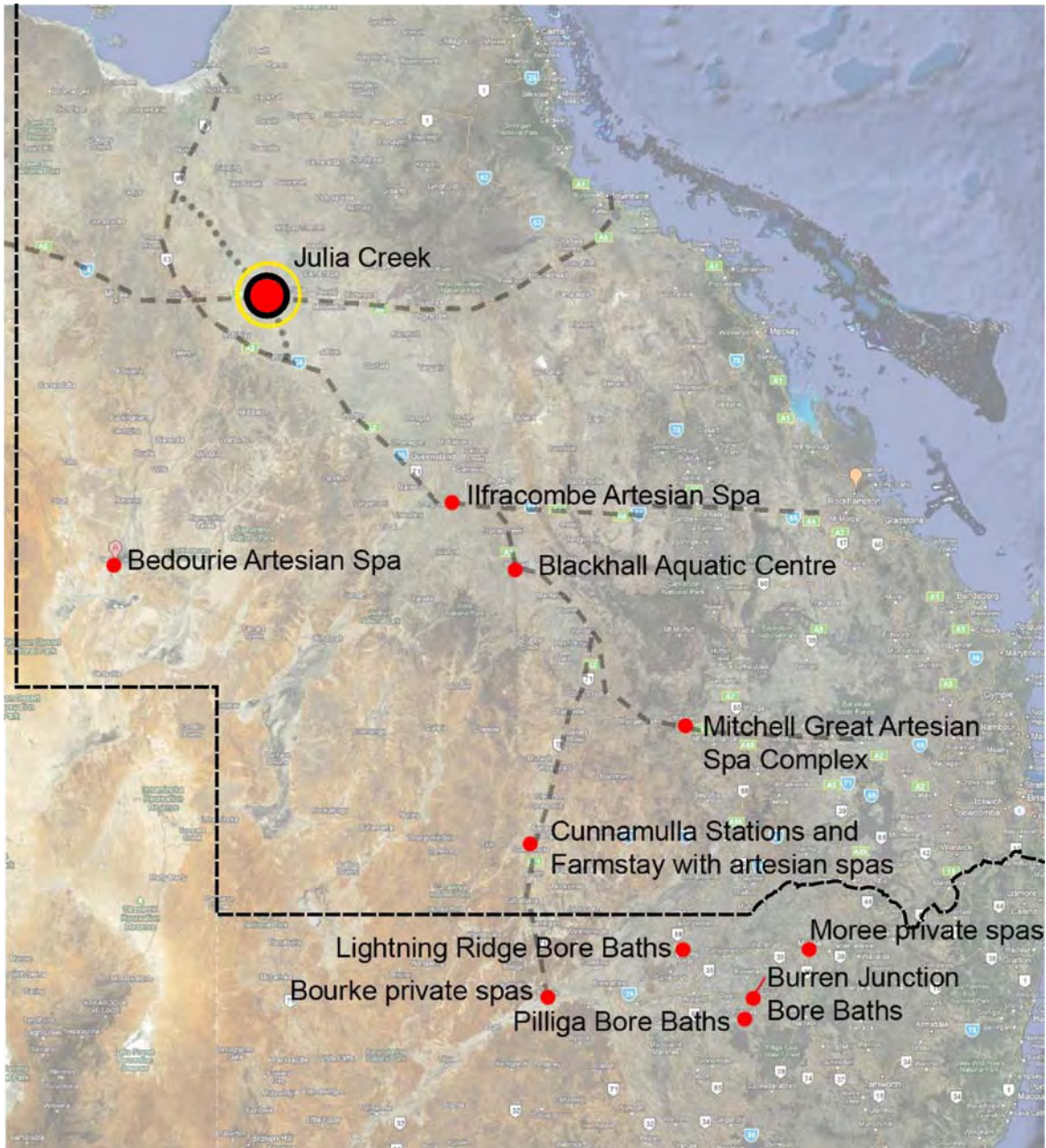


Plate 4.3 Main artesian spa location QLD and northern NSW



Plate 4.4 Bedourie Artesian Spa



Plate 4.5 Ilfracombe Artesian Spa

In Queensland, the most well-known artesian spa facility is located at Mitchell, towards the south of the state. The spa was initially opened in 1998 along with an extension to the local caravan park. The spa facility was further developed into a health resort in 1999 and is considered by the local shire council as Mitchell's biggest tourist attraction and producing a dramatic positive effect on the town by highlighting it as a major outback tourism destination (P. Kenyon and A. Black, 2001). The spa facility has been successful in winning a number of tourism awards (ibid). The spa pools are large by comparison to other spa pools in QLD and NSW, with one pool containing naturally-heated artesian water which is maintained at a comfortable temperature, and a second pool with cooled artesian water.

Other spa facilities in Queensland are located at Blackall and in privately-owned tourist accommodation such as properties offering farmstays, most notably at Cunnamulla. In Northern NSW, the Moree Spa Baths are probably the most well-known in Australia, with the town promoting itself as a spa town. A number of motels in Moree have established artesian spa pools for private use to both promote this image of the town and gain economic benefit from tourists drawn to Moree as an artesian spa 'destination'. Lightning Ridge, Burren Junction and Pilliga are other towns in the northern NSW outback region which have established artesian spas, termed bore baths. Privately run facilities are located in Bourke.



Plate 4.6 Mitchell Great Artesian Spa Complex (L and R)



Plate 4.7



Plate 4.8 Blackall Artesian Spa



Plate 4.9 Lightning Ridge Bore Baths



Plate 4.10 Moree Artesian Baths

Julia Creek has an opportunity to establish a unique position within the North West Region as an artesian spa destination. Establishment of a public spa facility could be undertaken adjacent to the Recreation Reserve, further consolidating this precinct as a major destination within the town for community recreation and tourist visitation (Figure 16). The location of the spa facility is proposed to be opposite the swimming pool and new recreation building in an outback park-like setting which would include barbecues, picnic shelters and interpretive elements. The location is intentionally separate to the swimming pool so that the spa facility is used for passive recreation and relaxation, in contrast to the swimming pool which is a more active recreation and sporting facility.

The spa facility is proposed to be established with concurrent stabilisation works and naturalisation of the gully/drainage line immediately to the south of the caravan park. A connection to the caravan park via a small bridge or boardwalk is also proposed to assist with tourist access to the spa facility and other community infrastructure.

While public spas elsewhere in QLD and NSW tend to have a formal character that resembles a swimming pool, the Julia Creek facility should be designed to reflect the 'outback experience' sought by travellers. This could be realised through the form of spa pools, their colour, i.e. hot and cool pools could be constructed with dark bases and sides to provide for highly reflective water surfaces, and their setting, eg. set within shady grounds to resemble local waterholes or billabongs.

In the experience of Mitchell and Moree, public artesian spa facilities have led to further enhancements and 'value-adding' in association with the initial development of the spas, either by local councils or by private tourism operators, such as motel owners. In Julia Creek, there is further potential for a public artesian spa facility to generate spin-off projects such as a health or therapy-related industry or spa-resort type development, subject to feasibility studies. In the shorter term, upgrades to the caravan park may be the best opportunity in terms of location and viability for such endeavours to be investigated and implemented.

Upgrade of the Caravan Park

The caravan park is located in Old Normanton Road, near the Recreation Reserve and adjacent to community land that borders the creek to the east.

The caravan park caters for caravans, camper vans and camping with on-site management, common bathroom facilities and some shaded common areas. Communal kitchen facilities have recently been upgraded.

The prime location of the caravan park adjacent to potential nature-based recreation facilities at and along the creek, the Recreation Reserve and a potential artesian spa facility highlights the potential of this facility to reinforce the destination character of the precinct and benefit from potential increased visitation. A minimum response would be to upgrade the character of the caravan park to enhance the precinct, but opportunities also exist to develop a variety of accommodation types within the caravan park to include cabin-style accommodation to cater for increased tourism and provide an attractor for visitors to the area to stay. Cabin accommodation could also be used for short-term rentals during the low tourist season.

Temporary expansion of camping facilities to cater for large numbers of visitors during local events, such as the Dirt and Dust festival, is proposed to the east of the existing caravan park (Figures 16 and 17). This is to provide an economic boost to the caravan park and maximise use of local infrastructure, with allowances for temporary ablution/toilet facilities to be added.



Plate 4.11 Cabin character potential (L to R and below)

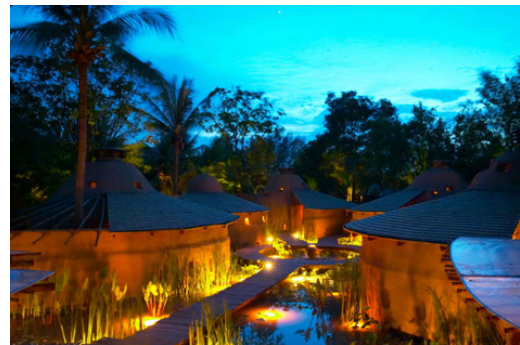


Plate 4.12



Plate 4.13

As outlined previously, there is also potential for the caravan park to be further upgraded to include a private artesian spa facility and possible health or natural therapy-related business, subject to assessment of feasibility. The potential to position Julia Creek as an artesian spa destination builds upon and strengthens the 'water, land, people' theme and distinguishes the town from other main centres in neighbouring shires. The transformation of the caravan park into a spa resort is consistent with this concept and has the potential to act as a destination and attractor, in its own right. Private enterprise partnership, ownership or management may be required to facilitate and implement a scheme that will allow the caravan park to realise its full potential as a spa resort.



New waterhole to be formed within creek bed through widening and excavating to enable it to hold water throughout the year. Spoil from creek widening works to be used as fill for new refuse and waste facility.

Caravan Park:
 Upgrade is to include more variety in accommodation type including: cabins, caravans and camp sites. Vehicle circulation is to be modified to provide a largely one-way system to reduce the width of carriageways, increase circulation efficiency and facilitate safer pedestrian movement across the site. Future upgrades may be managed and funded by private/commercial tourism operators. There is potential for an artesian spa/health spa facility to be established to provide a viable tourist anchor for the shire.

Revegetation is to be conducted along drainage lines. Shade trees are to be planted throughout trail system; soil deep-ripped and conditioned prior to planting.

Potential extension of caravan park for overflow camping to cater for visitor influx during events.

Nature trail. Surface to be stabilized particularly in areas subject to erosive conditions. Trail network is to follow existing drainage lines and extend into other areas requiring revegetation or rehabilitation.

Public parkland and main entrance to nature trail network. Picnic shelters, barbecues and abundant shade trees are to be introduced to establish a community meeting place and an attractive destination for visitors. A public artesian spa facility is proposed to complement the pool opposite and the recreation reserve.

Indicative location of sport and recreation building. (current council project)

NOTE: plan is indicative only

FIGURE 17.

JULIA CREEK Future Upgrade to Caravan Park and Parkland

Main Street Upgrade

Any proposed improvements to Burke Street in the vicinity of the business centre will not necessarily be a tourist drawcard in itself. In combination with other endeavours, including the recent establishment of the Information Centre in Burke Street, improvements to main street would add character and amenity to increase visitor comfort, extend visitor stay in the town centre and facilitate increased patronage of local businesses (Figure 16).

Improvements to Burke Street are outlined elsewhere in this report (Section 4.4.5), but in the context of local economic development, such a project also has the potential to act as a catalyst for generating local community and economic development, including attracting new business to the town. Streetscape enhancements often form a significant component of small town revitalisation strategies and have been shown to assist in developing community pride, forming a positive and marketable image to tourists and motivating local business development. Examples include revitalisation projects in Boonah in Qld, Coolah in central NSW and Kulin in Western Australia (case studies reviewed in P. Kenyon and A. Black, 2001).



Plate 4.14 Boonah Town Centre



Plate 4.15 Coolah Town Centre

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Community Services and Facilities	Strategy 11.	Adequate community services and facilities that respond well to the needs of all ages and sectors of the community.
	Strategy 12.	Sport and recreation, public space and community events.
Environment and Landscape	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan**1.0 Natural Environment****1.2 Scenic Amenity and Outdoor Recreation**

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

- 1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.
- 1.2.2 Plan outdoor recreational land use opportunities within natural areas in a way that does not diminish the environmental values of the area.
- 1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

Aligned Strategies:

- 1.2.A Source opportunities for practical ecotourism development.
- 1.2.B Continue to implement the subregional tourism strategy for areas of nature conservation value.

2.0 Natural Resources**2.2 Water Management and Use**

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

- 2.2.4 Incorporate industry best practice water saving methods and technology in new developments.
- 2.2.A Support the use of a range of mechanisms to protect, conserve, enhance and restore the environmental, social and economic values of river systems, ground water and wetlands.
- 2.2.F Implement the Great Artesian Basin Sustainability Initiative, as identified in the *Blueprint for the Bush* program.

3.0 Strong Communities**3.3 Regional Lifestyles**

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

- 3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

- 3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

4.0 Urban Development**4.1 Urban Structure and Settlement Pattern**

Objective:

Accommodate regional growth needs in strategically located, well-planned activity centres.

Land Use Policies:

- 4.1.2 Designate sufficient land for residential and commercial purposes in local government planning schemes for long-term strategic needs.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

4.2 Urban Design, Character and Form

Objective:

Plan and design activity Centres that encompass sustainable urban design principles..

Land Use Policies:

- 4.2.2 Base plans for town centres on sustainable urban design principles that are energy efficient, climate sensitive and resilient to the impacts of climate change, and which also account for the uniqueness and individual needs of the activity centres.

5.0 Economic Development

5.1 Business, Industry and Land Development

Objective:

Ensure the North West has businesses and industries that provide sustained wealth and growing employment opportunities that contribute to the region's liveability and prosperity.

Land Use Policies:

- 5.1.1 Designate sufficient land for commercial, retail and industrial use and identify supporting infrastructure in planning schemes, to ensure business investment and expansion is in line with future requirements.
- 5.1.2 Identify provisions in local government planning schemes to minimise land use conflicts between industrial land and adjoining non-industrial purposes.

5.2 Diverse Regional Economy

Objectives:

- *Develop a diverse regional economy that is responsive to changing local and global economic factors and is resilient to the impacts of climate change.*
- *Diversify the region's economy by building on existing competitive advantages and specialisations.*

Aligned Strategies:

- 5.2A Identify and promote opportunities for the diversification of the region's economic base and co-ordinate regional and subregional activities.

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.A Promote the natural assets and identity of the region consistently by working closely with regional service providers, all levels of government and regional, national and international tourism organisations.
- 5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.
- 5.5.C Encourage programs that improve visitor experiences and perceptions by ensuring accommodation, product packaging and staff of a high standard.
- 5.5.D Consider the optimal carrying capacity of tourist sites to ensure positive visitor experiences, maintain the integrity of sites and uphold community values.
- 5.5.E Encourage and support cultural heritage tourism products to capitalise on and give value to Indigenous and non-Indigenous heritage and current culture.
- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.H Inform decision making by evidence-based research, current statistical information and local knowledge to support public and private investment in new and improved tourism infrastructure and products
- 5.5.I Encourage the development of strategies for the tourism industry to adopt in order to meet the challenges associated with peak oil and climate change.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policy:

6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

Aligned Strategies:

6.3.B Encourage progressive upgrading, maintenance and development of road and rail transport systems to meet the needs of mining, agriculture, commerce and community sectors.

6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.

6.4 Water Infrastructure

Objective:

Ensure the development of water infrastructure in the region is given priority at a state level to provide certainty for long-term investors and local government.

Land use policies:

6.4.2 Identify existing and future subregional priority water demands which require the provision of new or upgraded water infrastructure, including water storage and supply treatment within the next 10–20 years.

4.4 Community and Cultural Services and Facilities

Julia Creek has a small number of public and privately run facilities that cater for community social and cultural development. These include the Jan Eckford Cultural Complex, the library and the Town and Country Club (Figure 13). Recreation infrastructure includes the Peter Dawes Park, George Sills Park and active recreation facilities at the Recreation Reserve. There public and private medical facilities in the town, however it is unlikely that there will be any expansion to these services in the near future unless population increases. Expansion of the school is similarly constrained by a static or declining population.

In terms of physical infrastructure, the focus of community facilities is to generate opportunities for participation of all segments of the community in activities to enhance health and well-being, and social gathering and interaction.

4.4.1 Pedestrian and Cyclist Circulation

Walking and cycling are amongst a number of active pursuits that are widely accepted in improving general health and well-being. The local climate of Julia Creek, for many months of the year, and lack of shade throughout the town constrains the participation in such pursuits.

This issue is proposed to be addressed on two main levels:

provision of visual amenity and shade to the existing circulation network which is largely the street network

provision of new paths for pedestrian and cyclist use through open spaces within and at the periphery at the town (Figure 16).

Shade tree planting, where possible, is proposed to be conducted in all residential streets in association with soil conditioning and cultivation to enhance opportunities for tree growth in the town's clay soils. This will considerably improve the microclimate of streets and assist in establishing a circulation network that will provide comfort for pedestrians and cyclists.

As previously outlined, enhancement of the nature trail system in association with the development of the Recreation Reserve and nature-based recreation activities will provide a facility to extend the town's non-vehicular circulation system, with the trail network connecting the Recreation Reserve to Burke Street in the east and a new residential subdivision in the west. The provision of walking circuits of varying lengths will cater for a variety of users and levels of fitness.

4.4.2 Community Gathering Spaces

Opportunities for informal or organised gathering in Julia Creek normally takes place within public or privately run venues and recreation venues, such as the swimming pool or Kev Bannah Oval at the Recreation Reserve. Additional facilities and upgrades, as previously outlined, to the Recreation Reserve have the potential to considerably enhance this area as a local community and Shire-wide destination for all ages. Enhancements such as nature trails, rehabilitation of the creek, the creation of permanent waterholes, establishment of an artesian spa facility and community park facilities such as sheltered picnic tables, barbecues, a drinking fountain and play equipment will all contribute to the area becoming a focal point for community activities and provide opportunities for informal social interaction, particularly for segments of the community who may experience periodic social isolation such as young mothers, teenagers and older residents.

The new sport and recreation building in Shaw Street will offer much needed indoor comfort to pursue active pursuits and will also provide a meeting place and venue for programmes directed at teenagers and retired people. It could also house regular movie nights and other events that invite the broader community to interact and gather.

4.4.3 Other Recreation Opportunities

Activities at the Recreation Reserve have been outlined elsewhere. Further to this area and other existing parks within Julia Creek, there is potential to re-establish a motor cross course to the south of town for use by older teenagers and young adults (Figure 15). This area was previously used for this purpose but was abandoned when part of the site was subdivided for industrial land use. While this may not be a priority relative to other recommendations made previously, this type of facility may fulfil a niche activity for a group within the community that is not usually well-catered for in terms of active pursuits. There is also potential for such a facility to be used for motor cross activities to coincide with events conducted in the town, such as the Dirt and Dust Festival.

Further consideration is also required for a community niche involved with equestrian activities. McIntyre Park and an equestrian centre to the west of the town provide infrastructure for formal activities (Figure 11), however there is opportunity for the nature trail network adjacent to the creek to be used for informal horse-riding pursuits, subject to risk assessment of path use and consideration of connections with other centres of equestrian activity to the west and south of the town.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Community Services and Facilities	Strategy 11.	Adequate community services and facilities that respond well to the needs of all ages and sectors of the community.
	Strategy 12.	Sport and recreation, public space and community events.
Environment and Landscape	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.2 Social Planning and Infrastructure

Objective:

Appropriately consider the current and future needs of the community in planning and development processes to ensure the timely provision of social infrastructure.

Land Use Policies:

3.2.1 Identify existing community infrastructure in local government planning schemes.

Aligned Strategies:

3.2.B Use demographic information to guide local and regional land use planning and decision-making processes.

3.2.D Encourage communities to collaboratively participate in planning and developing social infrastructure.

3.2.E Encourage partnerships between governments and private organisations to identify and provide essential community facilities.

3.2.G Identify specific social impact assessment protocols and criteria to reflect the North West region's ongoing needs, utilising existing frameworks.

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

3.4 Social Services

Objective:

Meet the current and future needs of regional communities through coordinated and timely planning and provision of adequate social services and facilities.

3.5 Arts and Cultural Heritage

Objective:

To identify, protect and maintain the North West region's cultural heritage values.

3.6 Promoting Health and Wellbeing

Objective:

Ensure the community has access to high-quality, safe and sustainable health services and urban infrastructure that promote healthy lifestyles.

Land Use Policies:

- 3.6.1 Planning schemes include provisions and design guidelines for walking tracks, pathways, bikeways, open space and recreational areas for new residential subdivisions.
- 3.6.2 Identify public spaces for cultural activities, events and festivals in local government planning schemes in accordance with the intent of the regional activity centres network.
- 3.6.3 Consider crime prevention through environmental design principles in the design and layout of new development and redevelopment areas.
- 3.6.4 Developments incorporate measures to provide shading for public walkways, sporting and recreation facilities, playgrounds and public open space.

4.5 Housing and Built Environment

Julia Creek is the main economic and social centre within the Shire and is likely to be the only centre in the Shire that has any chance of increased population in the future, although state government studies (NW Regional Plan, 2009) indicates that population is likely to remain static or decline in the next ten years.

The Community Planning process has established a primary goal to reverse the trend in slow population decline through population retention strategies and attracting migration to the Shire from elsewhere. In broad terms, this requires a number of key strategic directions working together and some of these have been discussed previously in this report, such as establishing and growing a sustainable economic base, providing community services and a sense of community, and providing opportunities for lifestyle enhancement and enjoyment for community members.

4.5.1 Housing

Availability of accommodation in the form of housing, land for housing and rental property is a fundamental requirement to sustain the current population and encourage its growth. Anecdotal evidence has suggested that there is demand for new housing in Julia Creek and that new workers to the area and seasonal workers have difficulty in finding suitable accommodation, including rental housing.

Land Availability

The Planning Scheme for the Shire will need to identify land suitable for residential subdivision in the future, plan for separation or mitigation of neighbouring incompatible land uses and have provisions for multi-dwelling development, such as duplex or townhouse buildings, as infill in the existing town footprint. Residential planning should aim to integrate new residential areas with the existing road network and existing utility services, provide for a range of household types in terms of number of occupants and age-related and economic circumstances.

In the past, the Shire Council has been active in providing community housing in Julia Creek. The current complex in the north of the town is proposed to be expanded with a further six dwellings planned in the short term. Council has also set aside land for an aged care facility on former church land in Coyne Street (Figure 13).

The new subdivision approved in the west of the town is subdivided for rural-residential living to acknowledge local demand for this type of development. Some larger lots within the subdivision will be able to be subdivided in the future to allow for smaller rural-residential allotments.

Housing Implementation

Anecdotal evidence suggests that housing construction is expensive in Julia Creek relative to larger centres and those less isolated from major distribution networks. While responsibility for construction lies with landholders, Council may be able to facilitate construction through the establishment of relationships with developers to organise spec or batch housing. This could also extend to kit home suppliers and establishing batch supply and construction with the co-operation of land owners.



Plate 4.16 Examples of kit housing of contemporary character with built form and materials to complement existing town character.

Guidelines for building orientation, materials and other measures to achieve sustainable development and maintain town character could also be developed by Council accompany building approvals for all new development. This role could also be extended into facilitation through the organisation of networks to supply solar power, for example, to new or existing buildings.

4.5.2 Urban Form

Urban form can influence a number of town characteristics including character, legibility, image, lifestyle for residents and long-term sustainability. The urban form of Julia Creek is based upon a grid street system layered over low-relief topography with an identifiable centre in Burke Street. New development, where possible should extend and follow the grid network, responding to existing street hierarchies and street character to maintain connections within a legible vehicular and pedestrian network.

Lot sizes within the town are of a consistent size and frontage, with some partially developed land holdings and a few vacant lots. Despite a low residential density, the majority of residences, including the commercial precinct in Burke Street, fit within an area of approximately 1000m by 700m, with the majority of residential land within a walkable 400m radius of the Post Office in Burke Street. A new subdivision to the west of the town lies just outside of the current town footprint, with access from the existing street grid via Coyne and Byrne Streets and Old Normanton Road in the north and the Flinders Highway in the south. It is recommended that lots fronting Coyne and Byrne Streets follow a similar development pattern to existing lots in those streets rather than a rural-residential allotment configuration (Figures 15 and 16) . This will continue the character of those streets and maintain a more compact town form within the extended street grid in terms of residential density.

Subdivision of land around the town should also be developed with legible connections, including those for pedestrian and cyclists, to existing open space facilities and incorporate new open space areas that contribute to a legible open space network throughout the town.

In the longer term, existing land zoned for industrial use in Allison Street (corner of Byrne Street) is recommended to be considered for uses that would be more compatible with the surrounding residential land use and close connections to open space. This could be further residential development or commercial or community uses that are compatible with a residential area.

4.5.3 Burke Street Streetscape Improvements

Improvements in the amenity and character of the commercial precinct in Burke Street have been outlined previously in the context of a suite of strategies to increase the Julia Creek's tourism potential. In terms of urban form, there are a number of urban design principles that are applicable in improving the amenity, unity and character of this important business centre of the town and the Shire. Application of these principles includes:

- Encouraging a cohesive built form, particularly in terms of the relationship or interface with the street.
- Promoting active frontages to Burke Street with visually permeable building frontages (glazed doors and display windows; openings), alignment of buildings to the front (street) boundary
- Promoting a consistent awning line to provide shade, amenity and character to the street
- Establishing shade for centre parking
- Establishing accessible and legible connections throughout the business centre.

There is some inconsistency in the building line and street interface in the commercial centre. This is due in part to a variety in building form and a lack of continuity of repeated elements such as awnings. This could be remedied by 'filling in the gaps' with awning construction from existing buildings, establishment of free-standing awnings over footpaths (Plates 4.4.17 and 4.4.18) or street planting. Given constraints of services, soil type and space, street trees may not be a feasible option.

Additional shade sails are recommended for median parking areas in Burke Street with street tree planting, where possible for both shade and to contribute to visual amenity. It is important for the visual emphasis of the street to reside with those elements that contribute most to town character, such as shopfronts, an impression of human activity and vitality (the footpath areas) and vegetation. Shade sails in the street medians should appear attractive, but should not be overemphasised in terms of colour and form so that they detract from other streetscape elements.



Plate 4.17 Burke Street streetscape concept. Awnings introduced to footpaths to provide shade and provide a unified street appearance. Shade sails and street trees established for median shade (view to southwest; Post Office in bottom centre of frame).



Plate 4.18 Burke Street streetscape concepts (street view)

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible and legible for both residents and tourists.
Housing, Land and Built Environment	Strategy 13.	Increase residential, rural lifestyle and commercial land availability.
	Strategy 14.	Housing affordability and choice.
	Strategy 15.	Quality of housing stock.
	Strategy 16.	Available community housing.
Environment and Landscape	Strategy 20.	Protect and enhance landscape amenity.
	Strategy 21	Climate change.

Aligned Objectives and Strategies in the Draft North West Regional Plan**4.0 Urban Development****4.1 Urban Structure and Settlement Pattern**

Objective:

Accommodate regional growth needs in strategically located, well-planned activity centres.

Land Use Policies:

- 4.1.2 Designate sufficient land for residential and commercial purposes in local government planning schemes for long-term strategic needs.
- 4.1.3 Protect residential development from encroachment by incompatible land uses through planning scheme provisions.
- 4.2.4 Protect good quality agricultural land through planning scheme provisions.
- 4.1.5 Base planning schemes on local growth management strategies that reflect the long-term urban needs, facilitate the efficient use of infrastructure and incorporate good urban design principles.
- 4.1.6 Adopt design principles in planning scheme provisions for both industrial and residential uses that ensure new developments are resilient to the impacts of climate change.

4.2 Urban Design, Character and Form

Objective:

Plan and design activity Centres that encompass sustainable urban design principles..

Land Use Policies:

- 4.2.1 Manage growth of major and district activity centres through community developed local structure plans.
- 4.2.2 Base plans for town centres on sustainable urban design principles that are energy efficient, climate sensitive and resilient to the impacts of climate change, and which also account for the uniqueness and individual needs of the activity centres.
- 4.2.3 Use plans for town centres to integrate new development with existing town areas to enhance existing character and function.
- 4.2.4 Ensure planning schemes reflect sustainable urban design principles in their codes and infrastructure plans.

4.3 Housing Mix, Affordability and Design

Objective:

Plan and provide a range of housing options to meet diverse community needs.

Land Use Policies:

- 4.3.1 Planning scheme provisions promote a range of dwelling types, sizes and densities to provide more diverse and affordable housing options.
- 4.3.2 Planning scheme provisions provide for increased residential densities in major regional and major rural activity centres.
- 4.3.3 Residential development is located, designed and constructed to respond to local climatic conditions, encourage innovation and maximise liveability.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

4.4 Hazard Mitigation

Objective:

Reduce the community's risk and exposure to the adverse impact of natural and human made hazards.

Land Use Policies:

- 4.4.1 Identify in planning schemes natural hazard areas, taking into account the compounding effects of climate change, and/or address risks through appropriate code provisions to minimise adverse impacts on development.
- 4.4.2 Exclude development within areas likely to be subject to factors that threaten lives, property or the environment.
- 4.4.3 Minimise the potential adverse impacts of hazardous and high-impact industries, through the use of buffers and sensitive land use planning.
- 4.4.4 Address the needs of emergency services and disaster management in all future development through inclusion of relevant code provisions in planning schemes.

4.6 Environmental Enhancement

4.6.1 Weed Management and Landscape Rehabilitation

The Shire-wide issue with woody woods is mainly evident in Julia Creek along the creek and adjacent to drainage lines. The creek is a major environmental asset to the town in terms of its recreation potential, its ecological potential and the visibility of the creek line from the eastern approach to town. As such, it is a priority for rehabilitation including removal of woody and other weeds, ongoing management to prevent further outbreaks and rehabilitation, such as stabilisation of creek banks and areas subject to inundation and revegetation using indigenous plant species including *Eucalyptus camendulensis* (Red River Gum) and *Eucalyptus microtheca* (Coolibah).

Areas at town entrances and within and adjacent to the Recreation Reserve are other sites requiring substantial tree planting, in combination with other improvements in those areas. These are mainly cultural plantings rather than rehabilitation, although shade from tree planting will assist in diminishing the establishment of woody and other weeds in these areas. The black soils of Julia Creek and their significant clay content favour a savannah landscape, however local tree species and other native trees suited to growth in black soil, such as *Eucalyptus tessellaris*, could be used. Appropriate soil treatment such as deep ripping and conditioning with organic matter and clay aggregators would be required to assist with establishment and healthy growth.



Plate 4.19 Soil preparation practices and revegetation examples.

4.6.2 Waste and Water Management

Refuse and Waste

A new waste and refuse facility is proposed by council to be established to the north of Julia Creek. As mentioned previously this will require fill material which could be sourced from the creek corridor which could complement other projects such as creek rehabilitation and the formation of waterholes as a recreation element and tourist attractor, subject to state government environmental authority approvals and conditions.

Sewerage and Waste Water

The existing sewerage treatment facility is proposed to be upgraded to provide treated waste water of a quality suitable for use in irrigation. Pumps and pipe to the Recreation Reserve would be useful in the establishment and maintenance of extensive areas of new vegetation in that area. Alternatively

water trucks may be used for establishment purposes, however for longer term irrigation, this would not be a cost-effective option.

The potential for use of treated waste water for toilet flushing and irrigation elsewhere should be explored for new subdivisions, new industry or where water infrastructure is to be installed or renewed. Capacity sufficiency and feasibility of dual water mains from potable and nonpotable water sources would need to be determined in these situations. Given the reliance on artesian water, efforts to re-use treated waste water where possible and in circumstances requiring installation of new water mains rather than retrofitting, should be evaluated and encouraged.

Aligned Strategies with Community Plan:

Environment and Landscape	Strategy 18.	Improved environmental management
	Strategy 19.	Waste and refuse management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.1 Biodiversity Conservation

Objective:

Protect, manage and enhance the extent, diversity and conditions of the region's biodiversity, its ecological integrity and supporting ecological processes to encourage resilience to climate change and other biophysical pressures.

Aligned Strategies:

- 1.1.A Promote the protection and management of riparian areas to preserve and enhance biodiversity, ecological, recreational, cultural and corridor values

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

- 1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.
- 1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

2.0 Natural Resources

2.2 Water Management and Use

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

- 2.2.4 Incorporate industry best practice water saving methods and technology in new developments.
- 2.2.A Support the use of a range of mechanisms to protect, conserve, enhance and restore the environmental, social and economic values of river systems, ground water and wetlands.
- 2.2.E Promote the development and implementation of water efficient technologies and management strategies for industrial, agricultural and private purposes.
- 2.2.F Implement the Great Artesian Basin Sustainability Initiative, as identified in the *Blueprint for the Bush* program.

2.4 Pest, Plant and Animal Management

Objective:

Manage pest plants and animals to protect present and future land use and economic opportunities.

Aligned Strategies:

- 2.4.A Implement reasonable and strategic pest management practices to protect the environment and the productive capacity of natural resources, communities, industries and business.

5 Kynuna

5.1 Background

The settlement of Kynuna lies approximately 115km south of Julia Creek and is located towards the eastern boundary of the Shire on the Landsborough Highway (Figures 18, 19 and 20). The Diamantina River lies to the south of the town, rising in the Swords Range and travelling west to east past Kynuna and then in a southerly direction to the Warburton River and Lake Eyre in South Australia.

Established in the 1860s and gazetted as a town in 1894, Kynuna was a staging post for Cobb and Co coaches and was a centre for surrounding rural industry based on sheep and wool. The town is now best known for its historical associations with Banjo Patterson and his 'Waltzing Matilda' verse. It is believed that the verse was based on events surrounding the Shearer's strike of the late 1800s and that the squatter, Bob MacPherson, the owner of Dagworth Station, and the swagman, Samuel Hoffmeister, drank their last drinks at what is now the Blue Heeler Hotel, followed by the suicide of Hoffmeister at the 'billabong' at Combo Waterhole, approximately 15km east of Kynuna.

The population of Kynuna is currently between 10 and 20 people, which is insufficient to support school and health infrastructure. There is a permanent police position and the State Emergency Service has a shed with fire fighting equipment located in Dagworth Street.

The town is serviced by a water bore, however there is no sewerage. Individual lots have septic systems. A small waste and refuse station is operated by council in the town, however there is no kerbside pick up. Council also operate and maintain a small, historic cemetery at Kynuna.

Recreation infrastructure in Kynuna is limited to the Rodeo and Campdraft Grounds on the eastern outskirts of the town, where a rodeo and campdraft event had been held annually until recently. The other community facility in the town is the CWA building located near the Blue Heeler Hotel. (Figure 21).

Within the town, the two major destinations are the Roadhouse and Blue Heeler Hotel. The Combo Waterhole Conservation Park, which is managed by the state government, is a major local tourist attraction.

5.2 Community Connections

5.2.1 Road Network

Physical connections in a small town, such as Kynuna pose few issues in terms of the local road network, however due to the lack of community services and shopping venues, physical connections with District Activity Centres, such as Julia Creek, are essential. Section 3.1.2 outlined recommendations to improve Julia Creek-Kynuna Road to provide a safer, all weather link to Julia Creek.

Potential also exists to provide improved links directly to the Combo Waterhole Conservation Park from Kynuna via Old Landsborough Road or the Swagman's Byway (Figure 22). The unsealed road extends from the Landsborough Highway, 2 to 3km east of Kynuna, to the waterhole. The eastern end of Old Landsborough Road connects to the Landsborough Highway just north of Winton. Grading to improve the surface of this byway will provide a more direct link for local residents to a significant regional park and better connect tourists who visit the park with Kynuna.

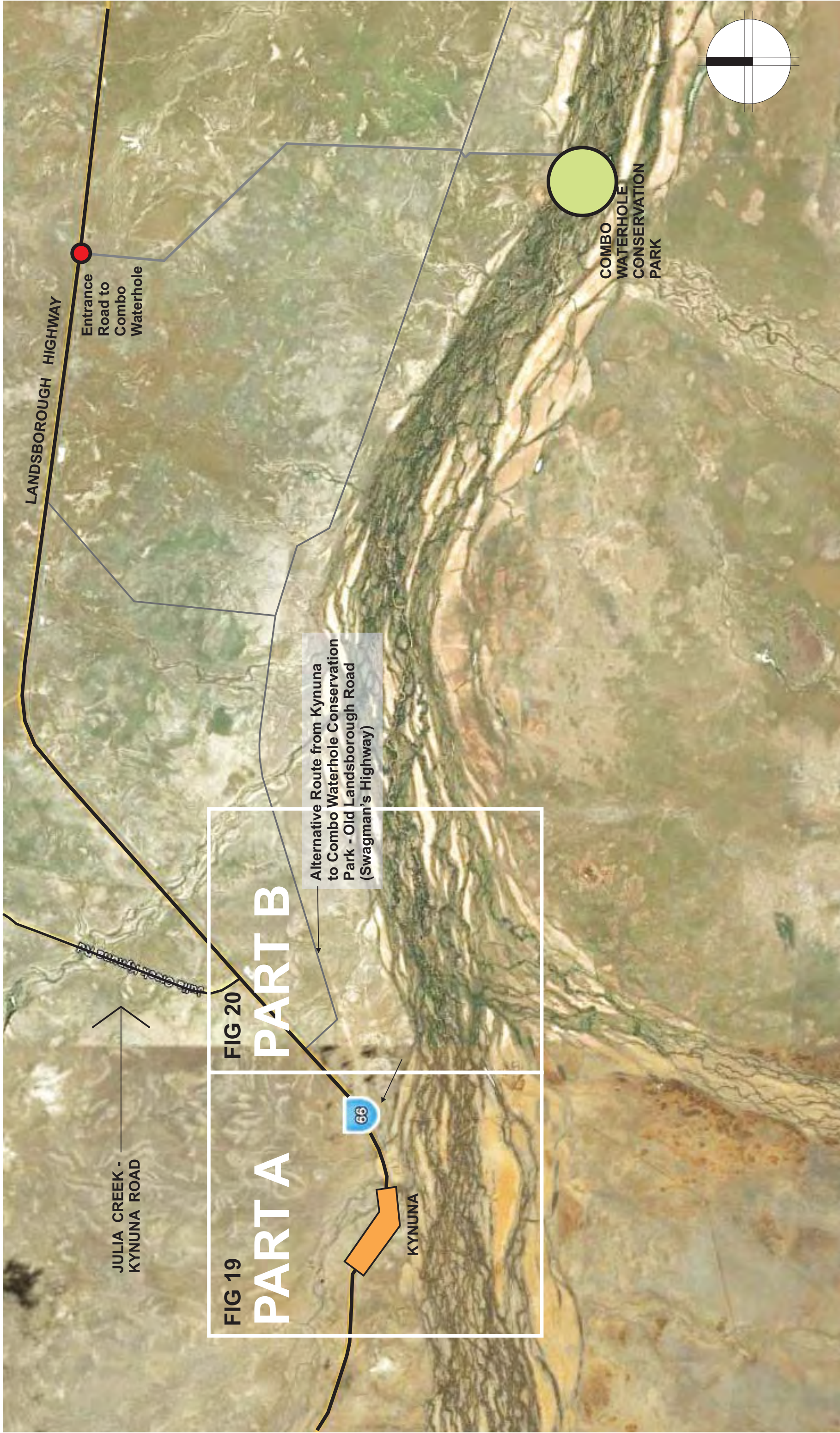


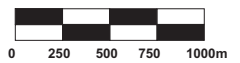
FIGURE 18.

KYNUNA
Environs - Key



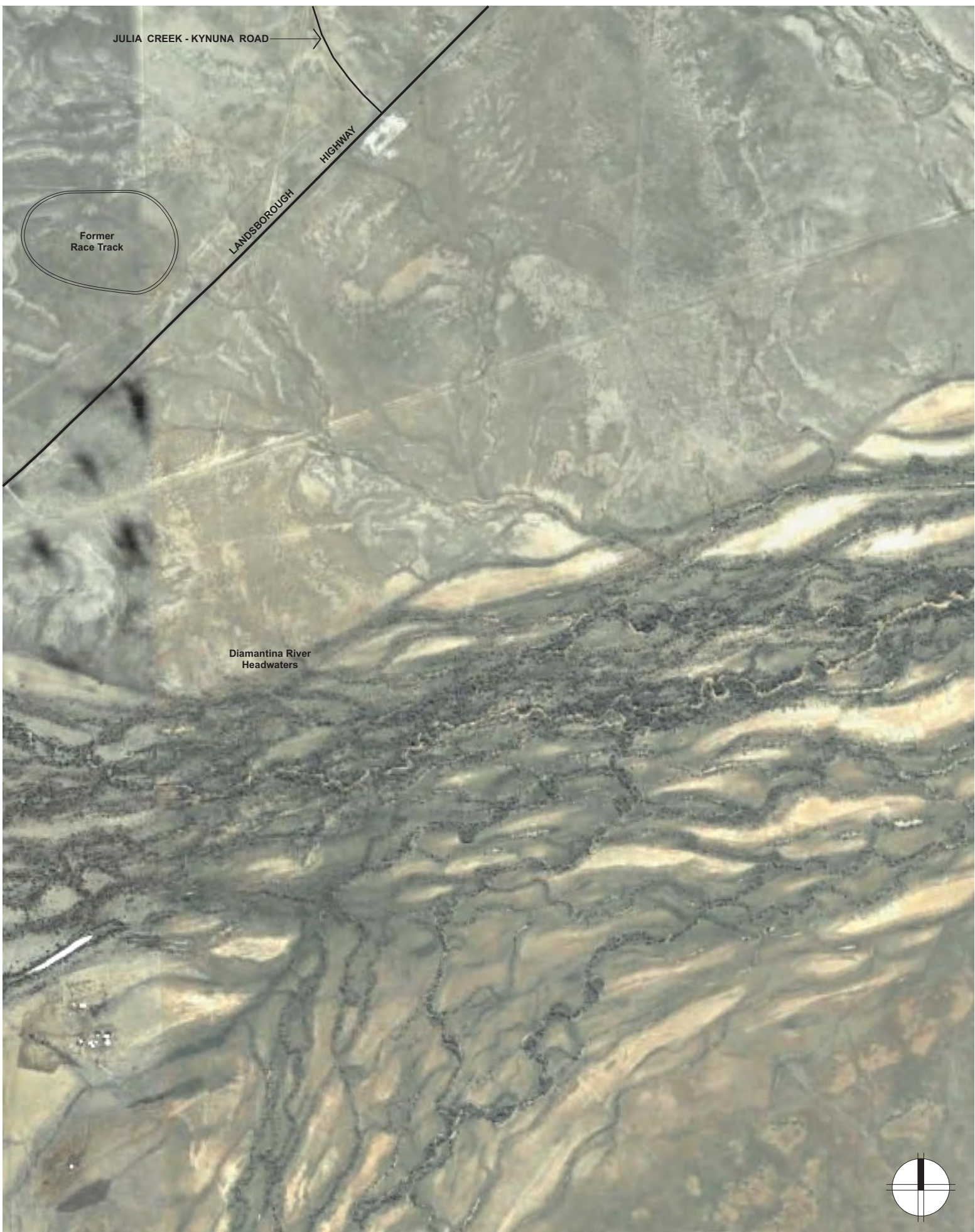
FIGURE 19.

**KYNUA
Environs - PART A**



verge
URBAN LANDSCAPE ARCHITECTURE

PLAN C



JULIA CREEK - KYNUNA ROAD

HIGHWAY

LANDSBOROUGH

Former Race Track

Diamantina River Headwaters

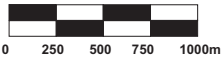


FIGURE 20.

**KYNUNA
Environs - PART B**

verge
URBAN LANDSCAPE ARCHITECTURE

PLAN C



FIGURE 21.
KYNUNA
Land Use



FIGURE 22.

KYNUNA
Broad Scale Concept

Extension of Old Landsborough Road to connect directly with the centre of Kynuna would ensure higher tourist visitation and stop-over (Figures 23 and 24). Kynuna has the potential to form stronger ties with Combo Waterhole as it is the only centre near the waterhole that offers accommodation, food and fuel.

5.2.2 Legibility and Wayfinding

Even without a road direct connection into town, cognitive connections can be improved by installing information signage at Combo Waterhole and on the Landsborough Highway, near to the intersection with Julia Creek-Kynuna Road. Refer to Section 3.1.2 for more details regarding the location and nature of information sign/stopping points close to Kynuna.

At the village scale, local legibility would be enhanced for visitors by installing entrance signs and developing a positive character or image around the town's entrances on the Landsborough Highway. For local people, this would assist in contributing to a sense of pride in their town and reinforce their connection to the town and the community, particularly if the process of developing the entrances includes the ideas and participation of local people.

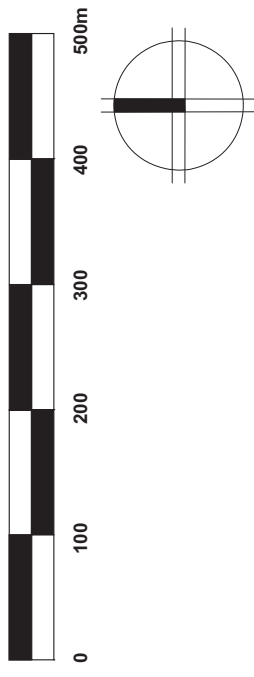
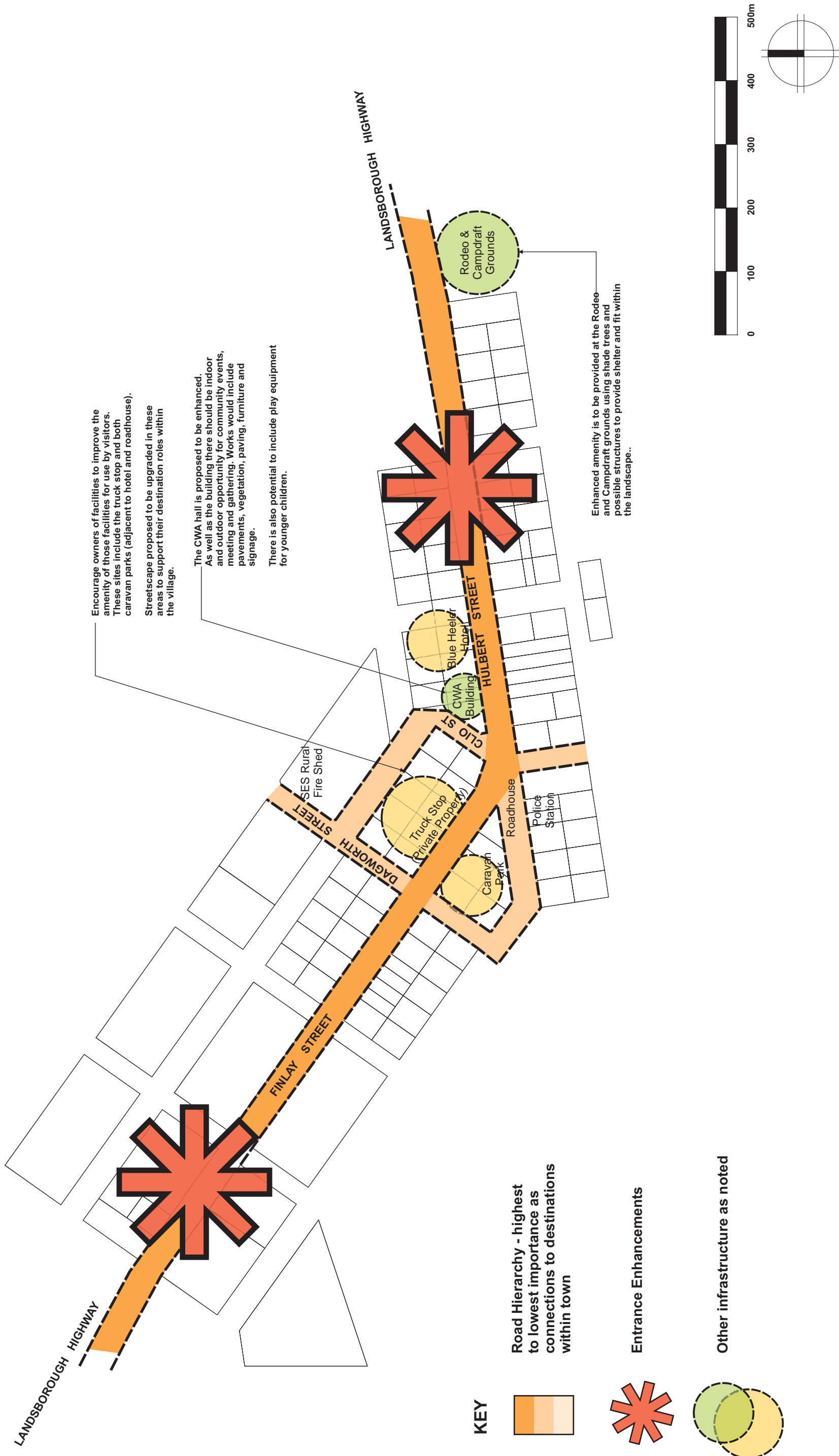


FIGURE 23.

KYNUNA Township Concept

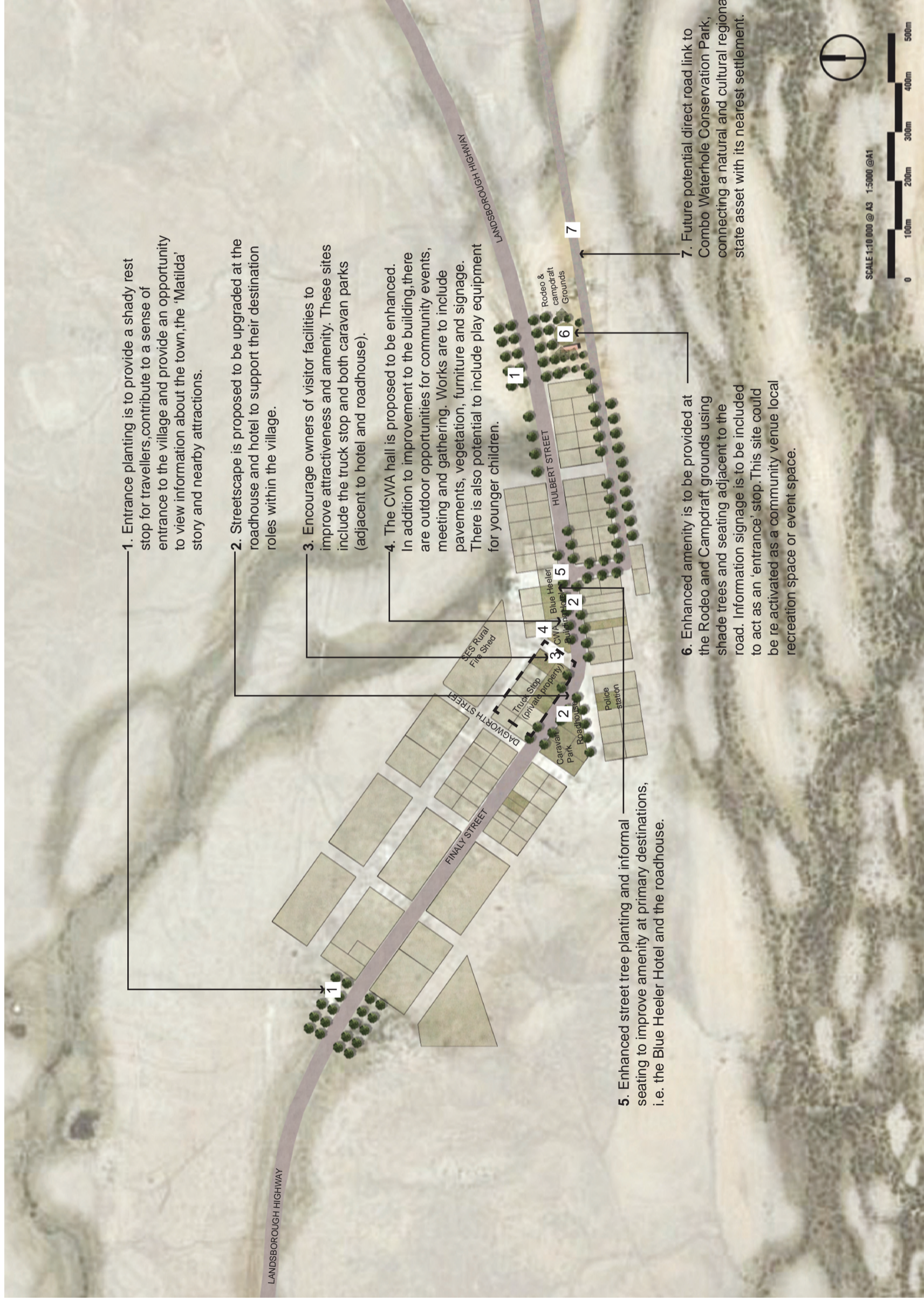


FIGURE 24.
KYNUNA
Village Infrastructure Master Plan

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Environment and Landscape	Strategy 18.	Improved Environmental Management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policies:

- 6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

Aligned Strategies:

- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.

5.3 Economic Diversity and Resilience

5.3.1 Tourism

Kynuna has a close physical and historic relationship with Combo Waterhole, and until his death in 2006, was the home of Richard Magoffin OAM who had researched and published on the 'Waltzing Matilda' story and ran a small museum of artefacts in connection with the legend. Perhaps more than Winton, Kynuna has a much closer connection with the 'Matilda' legend and the events surrounding the basis for the verse written by Banjo Patterson in 1895 at Dagworth station. The Blue Heeler Hotel includes references to the story in memorabilia displayed on its walls, but the story could also be used to build a tourist identity for the town, including references in information signs and character elements at town entrances and directional/mileage markers used between the Combo Waterhole Conservation Park and Kynuna along the 'Swagman's Byway'.



Plate 5.1 Combo Waterhole (L&R)



Plate 5.2 Historic stone weir

Rodeo and Campdraft Grounds Upgrade

At rest stop for travellers and information signage is proposed on the Landsborough Highway at the rodeo and campdraft grounds. This could be accompanied by minor upgrades to the grounds themselves to improve appearance and amenity in the form of shade and greenery as a site of future potential use for camping and events, as well as to develop a welcoming cue to the approaching village (Figure 24).

Enhancement of Local Destinations

The roadhouse and the Blue Heeler Hotel are the two main destinations in the village. Both are dominated by expansive road frontages with little shade or visual amenity (Plates 5.3 and 5.4). This may assist with truck parking and turning, but does little to convey a welcoming perception or encourage travellers to stop and stay.

Improvements are proposed to include tree planting in the road reserve using character trees, such as Figs, and picnic tables to add to the visual prominence of the two sites and establish places of high amenity that welcome travellers to stop (Figures 23 and 24).



Plate 5.3 Kynuna Roadhouse (April, 2010)



Plate 5.4 The Blue Heeler Hotel (April, 2010)

Similar treatments could also be extended to the caravan park adjacent to the roadhouse and accommodation and camping facilities adjacent to the hotel to encourage travellers to stay.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Environment and Landscape	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

- 1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.
- 1.2.2 Plan outdoor recreational land use opportunities within natural areas in a way that does not diminish the environmental values of the area.
- 1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

Aligned Strategies:

- 1.2.A Source opportunities for practical ecotourism development.
- 1.2.B Continue to implement the subregional tourism strategy for areas of nature conservation value.

2.0 Natural Resources

2.2 Water Management and Use

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

- 2.2.A Support the use of a range of mechanisms to protect, conserve, enhance and restore the environmental, social and economic values of river systems, ground water and wetlands.

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

- 3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

- 3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

4.2 Urban Design, Character and Form

Objective:

Plan and design activity Centres that encompass sustainable urban design principles..

Land Use Policies:

- 4.2.2 Base plans for town centres on sustainable urban design principles that are energy efficient, climate sensitive and resilient to the impacts of climate change, and which also account for the uniqueness and individual needs of the activity centres.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

5.0 Economic Development

5.2 Diverse Regional Economy

Objectives:

- *Develop a diverse regional economy that is responsive to changing local and global economic factors and is resilient to the impacts of climate change.*
- *Diversify the region's economy by building on existing competitive advantages and specialisations.*

Aligned Strategies:

- 5.2A Identify and promote opportunities for the diversification of the region's economic base and co-ordinate regional and subregional activities.

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.A Promote the natural assets and identity of the region consistently by working closely with regional service providers, all levels of government and regional, national and international tourism organisations.
- 5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.
- 5.5.C Encourage programs that improve visitor experiences and perceptions by ensuring accommodation, product packaging and staff of a high standard.
- 5.5.D Consider the optimal carrying capacity of tourist sites to ensure positive visitor experiences, maintain the integrity of sites and uphold community values.
- 5.5.E Encourage and support cultural heritage tourism products to capitalise on and give value to Indigenous and non-Indigenous heritage and current culture.
- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.H Inform decision making by evidence-based research, current statistical information and local knowledge to support public and private investment in new and improved tourism infrastructure and products
- 5.5.I Encourage the development of strategies for the tourism industry to adopt in order to meet the challenges associated with peak oil and climate change.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

5.4 Community and Cultural Services

5.4.1 Recreation

There are no designated parks within Kynuna and no public or private venues for sporting activities. The CWA building, located to the west of the Blue Heeler Hotel is proposed to be upgraded in the near future (anecdotal information from McKinlay Shire Council, 2010). Along with improvement to the building, it is recommended, with the co-operation of the managers of the building, that exterior spaces around the building are improved to provide both a formal and informal meeting place for local people.

Shade trees, picnic tables and seating and a public barbecue could be installed for use by local people, independent of the opening hours of the building. Play equipment could also be installed to encourage gathering of young mothers or grandparents caring for small children. While not a public park and only available to locals through local knowledge, this venue could provide a place for local people to informally engage with one another as well as accommodate more formal community social and other events.

Aligned Strategies with Community Plan:

Community Services and Facilities	Strategy 11.	Adequate community services and facilities that respond well to the needs of all ages and sectors of the community.
Environment and Landscape	Strategy 12.	Sport and recreation, public space and community events.
	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.2 Social Planning and Infrastructure

Objective:

Appropriately consider the current and future needs of the community in planning and development processes to ensure the timely provision of social infrastructure.

Land Use Policies:

3.2.1 Identify existing community infrastructure in local government planning schemes.

Aligned Strategies:

3.2.B Use demographic information to guide local and regional land use planning and decision-making processes.

3.2.D Encourage communities to collaboratively participate in planning and developing social infrastructure.

3.2.E Encourage partnerships between governments and private organisations to identify and provide essential community facilities.

3.2.G Identify specific social impact assessment protocols and criteria to reflect the North West region's ongoing needs, utilising existing frameworks.

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

3.4 Social Services

Objective:

Meet the current and future needs of regional communities through coordinated and timely planning and provision of adequate social services and facilities.

3.5 Arts and Cultural Heritage

Objective:

To identify, protect and maintain the North West region's cultural heritage values.

3.6 Promoting Health and Wellbeing

Objective:

Ensure the community has access to high-quality, safe and sustainable health services and urban infrastructure that promote healthy lifestyles.

Land Use Policies:

3.6.2 Identify public spaces for cultural activities, events and festivals in local government planning schemes in accordance with the intent of the regional activity centres network.

3.6.4 Developments incorporate measures to provide shading for public walkways, sporting and recreation facilities, playgrounds and public open space.

6 McKinlay

6.1 Background

McKinlay is a small town or village with a population of approximately 20 people located on the McKinlay River, approximately 98km by road, south-west of Julia Creek (Figure 25).

Like many small towns in outback Queensland, the town was established as a staging post for Cobb and Co coaches. This occurred in 1888, with McKinlay becoming a social gathering centre for the large grazing properties in the surrounding area.

The town was an administrative hub for the McKinlay Shire in the early 1900s, with the Shire Council offices located there until 1930, when they were moved to Julia Creek.

Like Kynuna, the population of McKinlay is insufficient to support school and health infrastructure, although a bush nurse is stationed in the town. There is also a police station that is permanently staffed with a single officer and a rural fire service shed and equipment operated by volunteers.

The town is serviced by a water bore, however there is no sewerage. Individual lots have septic systems. A small waste and refuse station is operated by council in the town, however there is no kerbside pick up. Council also operates and maintains a small, historic cemetery at McKinlay with the assistance of town volunteers.

The town has a park located in Middleton Street with children's play equipment, picnic shelters and a large communal barbecue (Figure 26). A racetrack and equestrian facilities are located just outside town to the west and this plays host to a popular annual racing event. Facilities at the race track are also used for community events and wedding receptions.

McKinlay's most notable attraction is the Walkabout Creek Hotel which became a local icon when it was used for filming in the movie, "Crocodile Dundee". Other local attractions include a number of historical buildings, including the 'smallest library in Queensland'. (Figure 26). The roadhouse is also a popular destination of the town, renowned with truck drivers and local people for its food.

The town is serviced by an airstrip to the east of the town.

6.2 Community Connections

6.2.1 Legibility and Wayfinding

The village is based on a street grid which includes the Landsborough Highway and Gilliat-McKinlay Road which pass through it. The small number of streets is easily navigated, although none have street name signs. The local councillor with members of the local community and BHP Billiton at Cannington are currently endeavouring to establish historic character street signs in the town, based on a cast lead design used in the early nineteenth century. The project is to embellish the town and acknowledge its history.

Further town improvements to foster local pride and distinguish the village in the minds of travellers are recommended for the entrances to McKinlay on the Landsborough Highway. As with entrance features to other towns proposed previously, this would involve the installation of character entrance signage and large tree species to create visually prominent and attractive gateways to welcome local people and visitors.

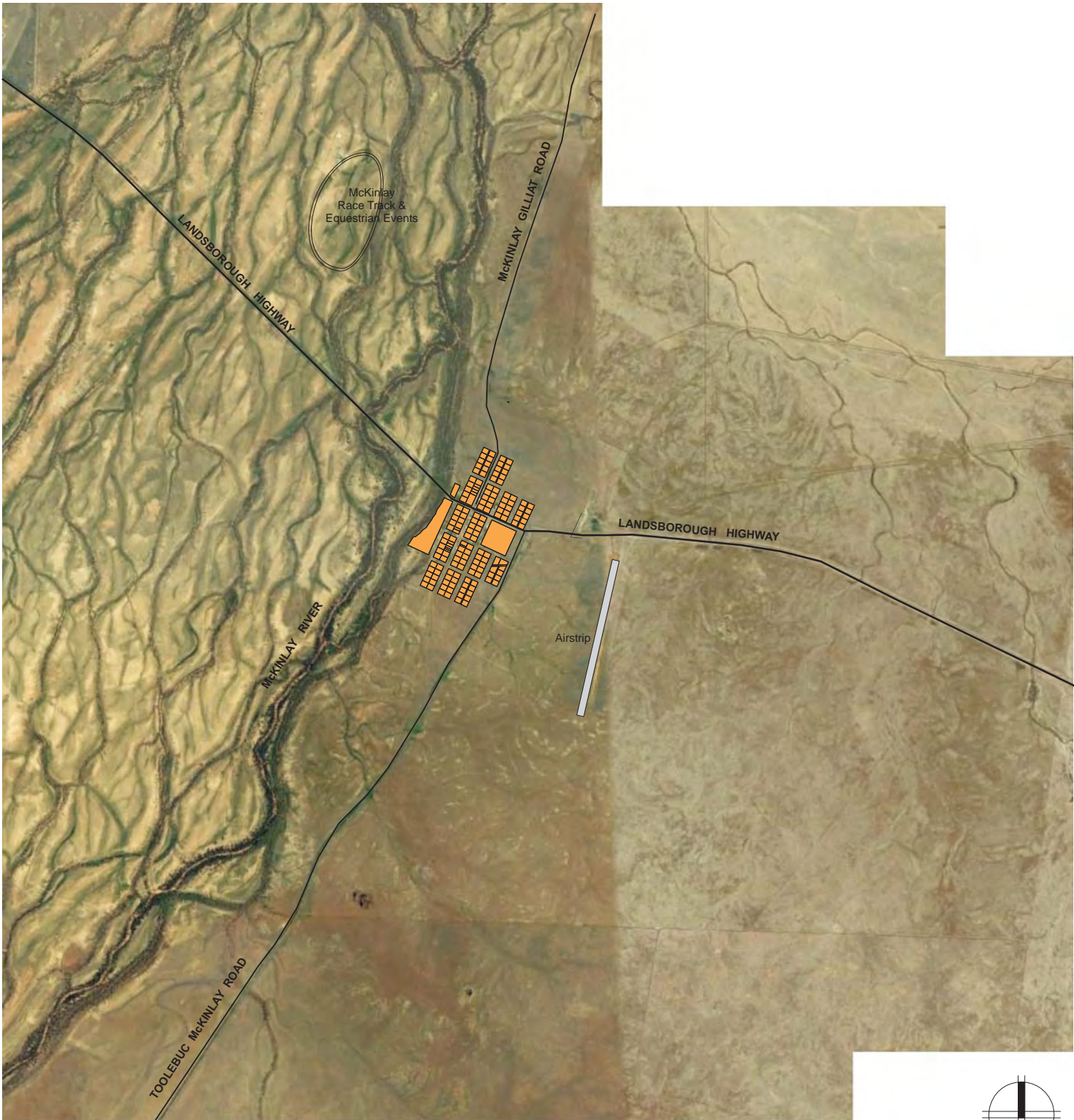
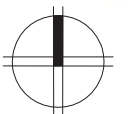


FIGURE 25.

**McKINLAY
Environs**



verge
URBAN LANDSCAPE ARCHITECTURE





- KEY**
- Township
 - Open Space and Recreation
 - Facilities with corresponding photographs

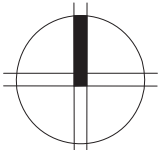


FIGURE 26.
McKINLAY
Land Use

Continuation of street planting throughout the town, particularly in Middleton, Poole and Wilde Streets would complement the historical buildings located there, and establish a distinctive and shady walking trail for residents to connect with the local park, and for visitors to view the buildings (Figures 27 and 28). The addition of interpretive signage adjacent to notable buildings would also contribute greatly to a McKinlay 'heritage trail' and strengthen the character of the town as a 'heritage village'.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Environment and Landscape	Strategy 18.	Improved Environmental Management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

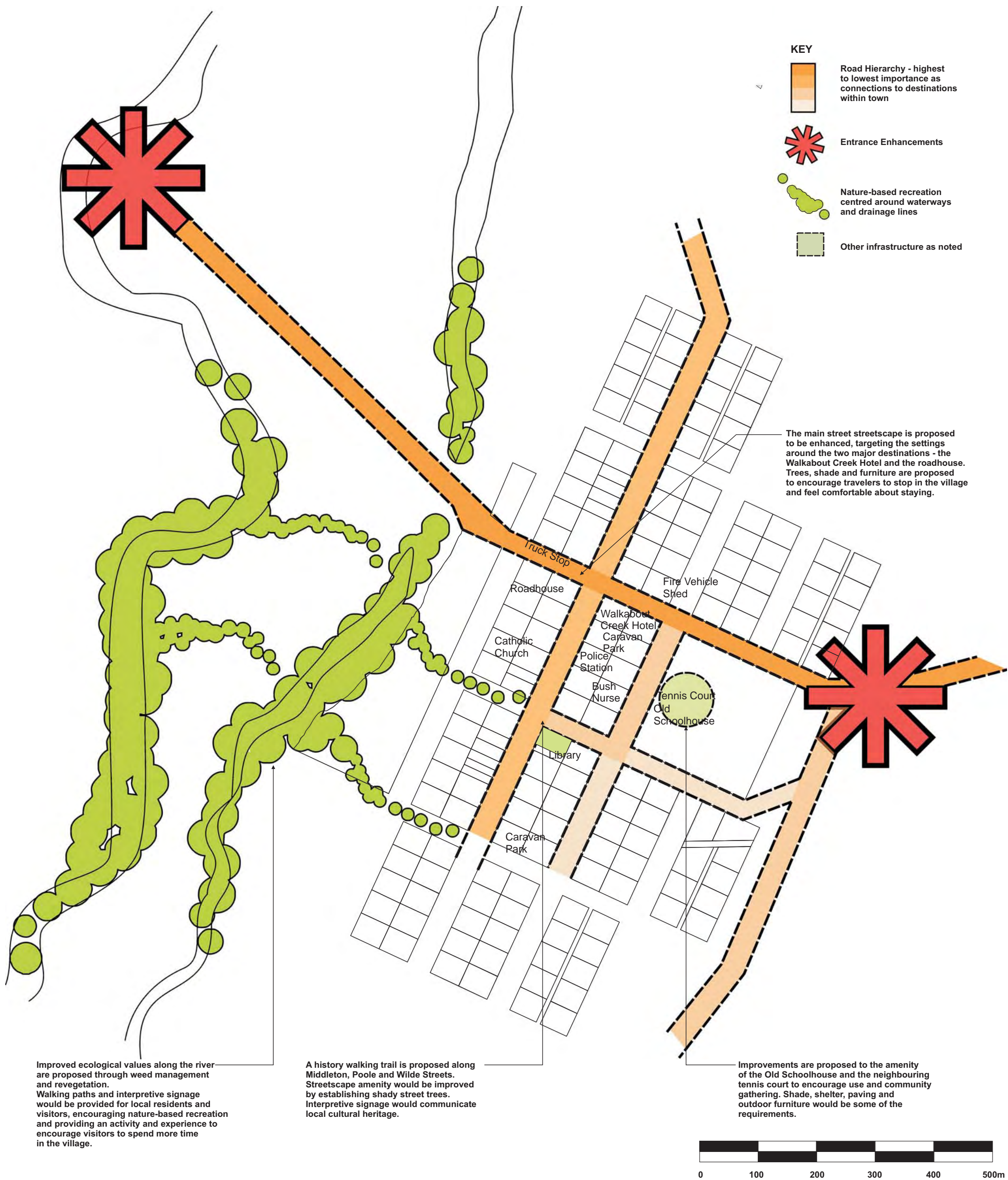
Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.





Land Use Policies:

- 6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

Aligned Strategies:

- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.



- KEY**
-  Road Hierarchy - highest to lowest importance as connections to destinations within town
 -  Entrance Enhancements
 -  Nature-based recreation centred around waterways and drainage lines
 -  Other infrastructure as noted

The main street streetscape is proposed to be enhanced, targeting the settings around the two major destinations - the Walkabout Creek Hotel and the roadhouse. Trees, shade and furniture are proposed to encourage travelers to stop in the village and feel comfortable about staying.

Improved ecological values along the river are proposed through weed management and revegetation. Walking paths and interpretive signage would be provided for local residents and visitors, encouraging nature-based recreation and providing an activity and experience to encourage visitors to spend more time in the village.

A history walking trail is proposed along Middleton, Poole and Wilde Streets. Streetscape amenity would be improved by establishing shady street trees. Interpretive signage would communicate local cultural heritage.

Improvements are proposed to the amenity of the Old Schoolhouse and the neighbouring tennis court to encourage use and community gathering. Shade, shelter, paving and outdoor furniture would be some of the requirements.

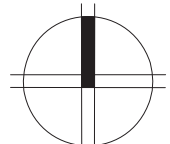


FIGURE 27.
McKINLAY
Township Concept



1. Improved ecological values along the river are proposed through a program of weed management and revegetation.

2. Walking paths and interpretive signage are to be provided, encouraging nature-based recreation and providing an activity and experience to encourage visitors to spend more time in the village.

3. The main street streetscape is proposed to be enhanced, targeting the settings around the two major destinations - the Walkabout Creek Hotel and the roadhouse. Trees, shade and furniture are proposed to encourage travelers to stop in the village and encourage them to stay.

4. Entrances to the village are to be enhanced using vegetation and signage.

5. Improvements are proposed to the amenity of the Old Schoolhouse and the neighbouring tennis court to encourage use and community gathering. Shade, shelter, paving and outdoor furniture is to be included in improvements.

6. A history walking trail is proposed along Middleton, Poole and Wyide Streets. Streetscape amenity and character is to be improved by establishing shady street trees. Interpretive signage is to communicate local cultural heritage.

FIGURE 28.

McKINLAY
Village Infrastructure Master Plan

6.3 Economic Diversity and Resilience

6.3.1 Tourism

Heritage Trail and Destination Enhancement

The cultural tourism element of the village residing in its historical buildings and, potentially, a heritage trail of high amenity and self-guided interpretation, offers the opportunity for travellers to spend time in the town and complement its main current attraction, the Walkabout Creek Hotel. The hotel is widely promoted as a place to visit in 'Outback Queensland' tourist literature, its fame arising from its appearance in "Crocodile Dundee".

The hotel has recently conducted tree planting around its car park to improve amenity and appearance. Similar streetscape planting would compliment these works and contribute to the prominence of the site as a destination within the town. The local roadhouse, also a destination of note in the village could receive a similar treatment in its immediate vicinity to develop a 'destination character' and establish a visual 'heart' to the town and starting point to the heritage trail in Middleton Street.

Nature Trail and Rehabilitation of the McKinlay River

The local reaches of the McKinlay River could also factor more greatly in the village's attraction to the traveller. A nature trail with interpretive signage is proposed from Middleton Street, along branching road reserves to connect with the river and form a walking circuit that takes in the river and its natural environs (Figures 27 and 28). Works associated with implementation of a nature trail system would need to be conducted with weed management and remediation of the banks of the river and surrounding landscape to improve its ecological values, appearance and the experience of local people and travellers using the facility.

Both the heritage trail and nature trail have the potential to add to visitor attraction to McKinlay and encourage travellers to spend time in the village once they arrive there. Each endeavour is based on the existing cultural and natural resources of the town and is an opportunity to contribute an authentic 'outback experience' for tourists to the region.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry
Environment and Landscape	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Land Use Policies:

- 1.2.1 Identify, protect from inappropriate land uses and preserve areas of scenic amenity value for future generations.
- 1.2.2 Plan outdoor recreational land use opportunities within natural areas in a way that does not diminish the environmental values of the area.
- 1.2.3 Plan and develop infrastructure development to avoid or mitigate adverse impacts on areas designated as protected.

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

Aligned Strategies:

- 1.2.A Source opportunities for practical ecotourism development.
- 1.2.B Continue to implement the subregional tourism strategy for areas of nature conservation value.

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

- 3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

- 3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

4.2 Urban Design, Character and Form

Objective:

Plan and design activity Centres that encompass sustainable urban design principles..

Land Use Policies:

- 4.2.2 Base plans for town centres on sustainable urban design principles that are energy efficient, climate sensitive and resilient to the impacts of climate change, and which also account for the uniqueness and individual needs of the activity centres.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

- 5.5.A Promote the natural assets and identity of the region consistently by working closely with regional service providers, all levels of government and regional, national and international tourism organisations.
- 5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.
- 5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.
- 5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.
- 5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policies:

- 6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

Aligned Strategies:

- 6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.
- 6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.

6.4 Community and Cultural Services and Facilities

6.4.1 Recreation

A system of walking trails around town and along the McKinlay River will significantly enhance passive recreation opportunities for local residents as well as providing a means for the maintenance of fitness and health.

The existing park in Middleton Street provides a venue for children to play and informal family and community gathering. The Old Schoolhouse in Wilde Street provides a venue for craft groups to meet and there is a tennis court on the neighbouring site, although the latter has a neglected appearance. Both sites could be improved to consolidate them as a central community facility and alternative to the more informal nature of the park. Outdoor spaces around the Old Schoolhouse are recommended to be upgraded with picnic furniture, shade, lighting and a small play area for children. Merging of this site with that of the tennis court through improved physical connections either through paving or lawn would establish a community facility with the potential for social gatherings and events for all ages, particularly at night for social tennis games or craft making or exhibition nights in the building.

Aligned Strategies with Community Plan:

Community Services and Facilities	Strategy 11.	Adequate community services and facilities that respond well to the needs of all ages and sectors of the community.
Environment and Landscape	Strategy 12.	Sport and recreation, public space and community events.
	Strategy 18.	Improved environmental management
	Strategy 20.	Protect and enhance landscape amenity.

Aligned Objectives and Strategies in the Draft North West Regional Plan

3.0 Strong Communities

3.2 Social Planning and Infrastructure

Objective:

Appropriately consider the current and future needs of the community in planning and development processes to ensure the timely provision of social infrastructure.

Land Use Policies:

3.2.1 Identify existing community infrastructure in local government planning schemes.

Aligned Strategies:

3.2.B Use demographic information to guide local and regional land use planning and decision-making processes.

3.2.D Encourage communities to collaboratively participate in planning and developing social infrastructure.

3.2.E Encourage partnerships between governments and private organisations to identify and provide essential community facilities.

3.2.G Identify specific social impact assessment protocols and criteria to reflect the North West region's ongoing needs, utilising existing frameworks.

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

3.3.1 Use development to enhance the local rural character and amenity of towns and communities

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

3.4 Social Services

Objective:

Meet the current and future needs of regional communities through coordinated and timely planning and provision of adequate social services and facilities.

3.5 Arts and Cultural Heritage

Objective:

To identify, protect and maintain the North West region's cultural heritage values.

3.6 Promoting Health and Wellbeing

Objective:

Ensure the community has access to high-quality, safe and sustainable health services and urban infrastructure that promote healthy lifestyles.

Land Use Policies:

3.6.2 Identify public spaces for cultural activities, events and festivals in local government planning schemes in accordance with the intent of the regional activity centres network.

3.6.4 Developments incorporate measures to provide shading for public walkways, sporting and recreation facilities, playgrounds and public open space.

7 Nelia

7.1 Background

Nelia is a small hamlet comprising just a few residences and a population of approximately 5 people, located near the railway line approximately 1km from the Flinders Highway on Nelia Road (Figure 29). Nelia is the most easterly settlement of the Shire, approximately 50km east of Julia Creek and approximately 15km from the border with neighbouring Richmond Shire.

Established early in the 1900s as a small centre for surrounding grazing properties, Nelia is now mainly a residential hamlet with a postal service centred at the old general store building and a water bore to service the village (Figure 30).

Due to the very small population, there is little community infrastructure to recommend. The CWA building has the potential to be renewed to act as a meeting place for people on properties within the local catchment, however little work is required to enable this from occurring.

7.2 Economic Diversity and Resilience

While Nelia itself may be seen as too small to attract new infrastructure beyond maintaining what already exists, the village has the potential to feature more strongly in the tourist network for the Shire. As outlined in Section 3.1.2, Nelia is located in a strategic location, close to the eastern entrance of the Shire, the Flinders River which lies approximately 20km to the north, the Proa Red Claw Farm to the south and the entrance of a potential tourist byway via Punchbowl Waterhole to Julia Creek.

With appropriate character and information signage located on the Flinders Highway to direct travellers to Nelia, the village has a pivotal role in providing a rest stop for travellers at the front of the quaint General Store and providing information of local attractions and routes through information signage. In the future, it may be feasible to reopen the General Store for refreshments or provide overnight camping sites for travellers wishing to use Nelia as a base to explore local attractions to the south and north.

Aligned Strategies with Community Plan:

Community Connections	Strategy 2.	Towns are accessible for both residents and tourists.
Economic Diversity & Resilience	Strategy 10.	A thriving tourism industry

Aligned Objectives and Strategies in the Draft North West Regional Plan

1.0 Natural Environment

1.2 Scenic Amenity and Outdoor Recreation

Objective:

Maintain and promote the natural scenic amenity and outdoor recreational values of the region's landscape.

Aligned Strategies:

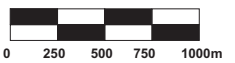
1.2.A Source opportunities for practical ecotourism development.

1.2.B Continue to implement the subregional tourism strategy for areas of nature conservation value.



FIGURE 29.

**NELIA
Environs**



verge
URBAN LANDSCAPE ARCHITECTURE

PLAN C

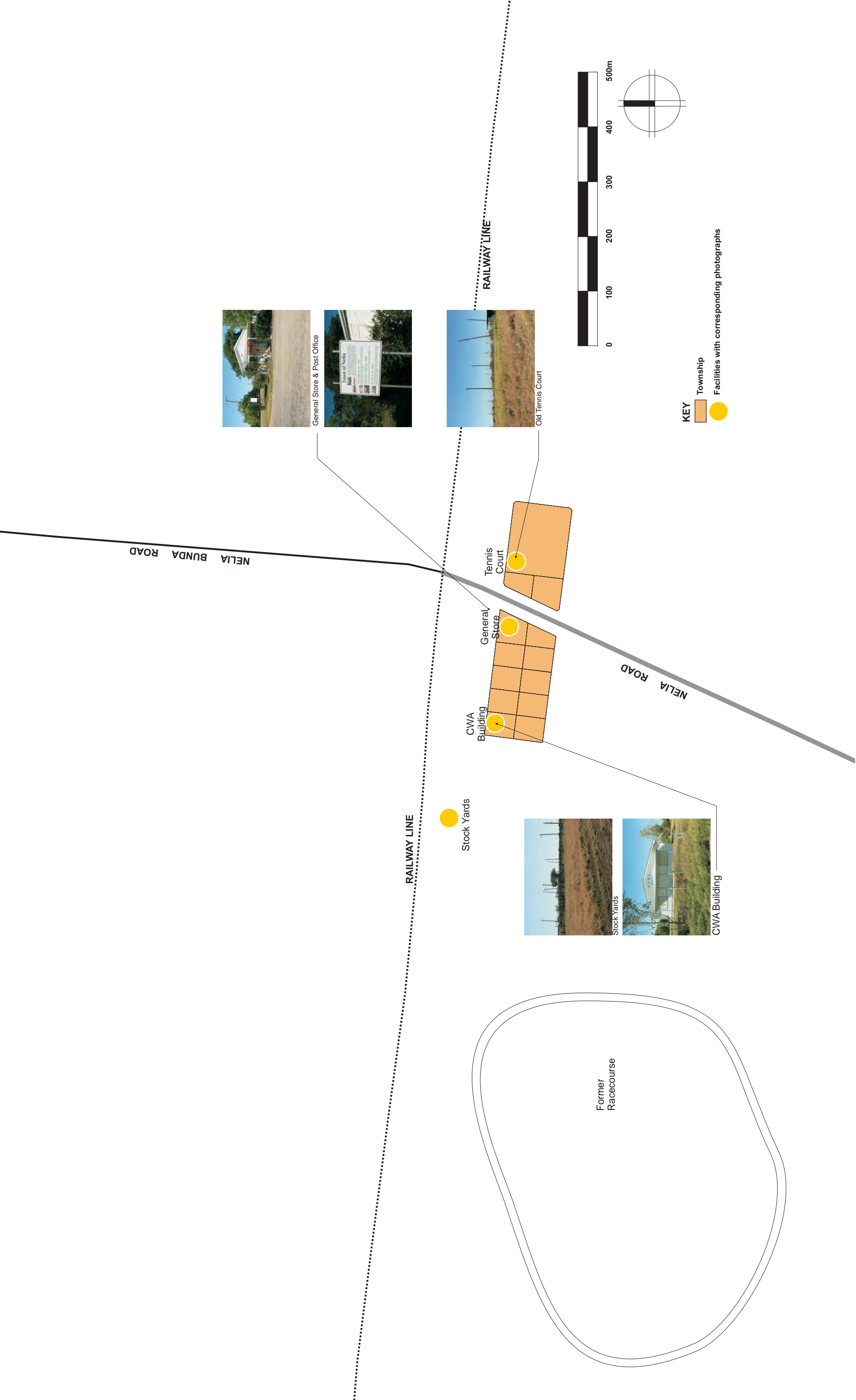


FIGURE 30.

NELIA
Land Use

Aligned Objectives and Strategies in the Draft North West Regional Plan (continued)

2.0 Natural Resources

2.2 Water Management and Use

Objective:

Manage the region's river systems, ground water, and wetlands for sustainable use by industries and communities, and protect dependent ecosystems and water quality in a changing environment.

Land Use Policies:

2.2.A Support the use of a range of mechanisms to protect, conserve, enhance and restore the environmental, social and economic values of river systems, ground water and wetlands.

3.0 Strong Communities

3.3 Regional Lifestyles

Objective:

Celebrate, enhance and build on a sense of community, place and local identity throughout the region.

Land Use Policies:

3.3.1 Use development to enhance the local rural character and amenity of towns and communities.

Aligned Strategies:

3.3.A Promote the region in a co-ordinated manner in order to maximize benefits.

5.0 Economic Development

5.5 Tourism

Objective:

Recognise and develop the region as a distinctive and sustainable tourist destination that offers visitors a diverse range of opportunities and experiences to attract tourists and encourage repeat visitation.

Aligned Strategies:

5.5.A Promote the natural assets and identity of the region consistently by working closely with regional service providers, all levels of government and regional, national and international tourism organisations.

5.5.B Encourage the development of a range of regional tourist circuits that link attractions throughout the North West and adjacent regions to encourage longer visitation.

5.5.F Consider improving the quality and availability of promotional products and signage to improve public knowledge, access, education and safety.

5.5.G Encourage the development of tourism infrastructure that is environmentally appropriate to the setting.

5.5.J Identify tourist nodes that cater for a variety of visitor needs and experiences and take advantage of the National Parks and ecotourism opportunities, while protecting environmental assets.

6.0 Infrastructure

6.3 Transport

Objective:

Provide efficient, safe, sustainable, accessible transport for people and goods throughout the region—and to other regions—to support industry competitiveness, growth and improved liveability in communities.

Land Use Policies:

6.3.1 Integrate land use and transport planning to support efficient land use, movement of people and goods, industry competitiveness and growth.

Aligned Strategies:

6.3.G Progressively develop a transport system that is accessible to, and supports the activities of, industry and the broader community.

6.3.I Support initiatives that improve the broader community's access to transport services and increase resilience to the impact of oil vulnerability and climate change.

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- Australian Explorer, www.australianexplorer.com/queensland_outback.htm
- Godwananet, www.godwananet.com/outback-in-australia.html
- Outback Now, www.outbacknow.com.au
- Queensland Holidays, www.queenslandholidays.com.au/destinations/outback/outback_home.cfm
- Travel Blog, various blogs, www.travelblog.org/Oceania/Australai/Queensland

8.2 PHOTOGRAPHS AND PLATE RESOURCES

Pg. 21

Plate 3.1: Highway Information-Stop Configuration Concept
Prepared by Verge

Pg. 22

Plate 3.2 Wayfinding and gateway proposal to highways
Prepared by Verge

Pg. 24

Plate 3.3.3 to 3.3.5 'Tin Horse Character elements (References top left to right)

3.3.3.

http://www.westernaustralia.com/en/Pages/Attraction.aspx?n=Tin_Horse_Highway&pid=9004352

3.3.4. <http://www.perthwatours.com.au/images/Tin%2BHorse%2BRace%2BKulin.JPG>

3.3.5.

http://www.westernaustralia.com/en/Pages/Attraction.aspx?n=Tin_Horse_Highway&pid=9004352

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Plate 4.1 Conceptual Town Entrance Signage or Markers
Prepared by Verge

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Plate 4.2 Nature Trail Character and Elements (References top left to right)

1. Obtained from Flickr public domain photographs (Accessed April 2010)

2. <http://www.fd2s.com/work/shangri-la-botanical-gardens/>

3. Obtained from Flickr public domain photographs (Accessed April 2010)

4. Obtained from Flickr public domain photographs (Accessed April 2010)

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Plate 4.3 Main Artesian Spa Locations

Prepared by Verge

Plate 4.4 Bedourie Artesian Spa

http://lh6.ggpht.com/_WglGCzgazMg/STd6ppgUUqI/AAAAAAAAEGA/tnYT9G-s5Is/IMG_9851.JPG

Plate 4.5 Ilfracombe Artesian Spa

<http://www.outbacknow.com.au/index.php?module=pagesetter&type=file&func=get&tid=37&fid=image&pid=318>

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Plate 4.6 Mitchell Great Artesian Spa Complex

Obtained from Flickr public domain photographs (Accessed April 2010)

Plate 4.7 Mitchell Great Artesian Spa Complex

Obtained from Flickr public domain photographs (Accessed April 2010)

Plate 4.8 Blackall Artesian Spa

<http://www.wanpardaeeq.edu.au/images/sites/aquatic.jpg>

Plate 4.9 Lightning Ridge Bore Baths

<http://www.totaltravel.com/images/photos/194366/580051.jpg>

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Plate 4.10 Moree Artesian Baths

<http://www.jazclass.aust.com/travel/moree/images/moree03.jpg>

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Plate 4.11 Cabin character Potential

<http://uniquetraveldestinations.net/wp-content/uploads/Eco-Beach-Wilderness-Retreat-Broome-WZ-OZ-1.jpg>

Plate 4.12

<http://trendygreen.files.wordpress.com/2009/03/hua-hin-spa-huts.jpg>

Plate 4.13

http://www.hotelchatter.com/files/3/longitude_131_tent.jpg

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Plate 4.14 Boonah Town Centre

<http://upload.wikimedia.org/wikipedia/commons/thumb/3/3f/BoonahStreetscape.JPG/270px-BoonahStreetscape.JPG>

Plate 4.15 Coolah Town Centre

<http://www.robcaz.net/coolahtops3.jpg>

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Plate 4.16 Examples of Kit housing (References top left to right)

1. <http://cheapcabin.com.au/images/lowcostcabin-s.jpg>
2. <http://www.homedesignfind.com/wp-content/uploads/2009/04/kangaroovalleyhouse1.jpg>
3. Obtained from Flickr public domain photographs (Accessed April 2010)

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Plate 4.17 Burke Street Streetscape Concept

Prepared by Verge

Plate 4.18 Burke Street Streetscape Concepts

Prepared by Verge

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Plate 4.19 Soil Preparation Practices and Revegetation examples (References top left to right)

1. Obtained from Flickr public domain photographs (Accessed April 2010)
2. <http://www.sustainableoutdoors.com.au/wp-content/uploads/2008/12/northyunderup2.jpg>

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Plate 5.1 Combo Waterhole

http://www.flickr.com/photos/maleny_steve/3588548028/

Plate 5.2 Historic Stone Weir

http://farm3.static.flickr.com/2380/3559284036_701e8cda17.jpg

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Plate 5.3 Kynuna Roadhouse

Photo taken by Peter Boyle (Verge) (April 2010)

Plate 5.4 The Blue Heeler Hotel

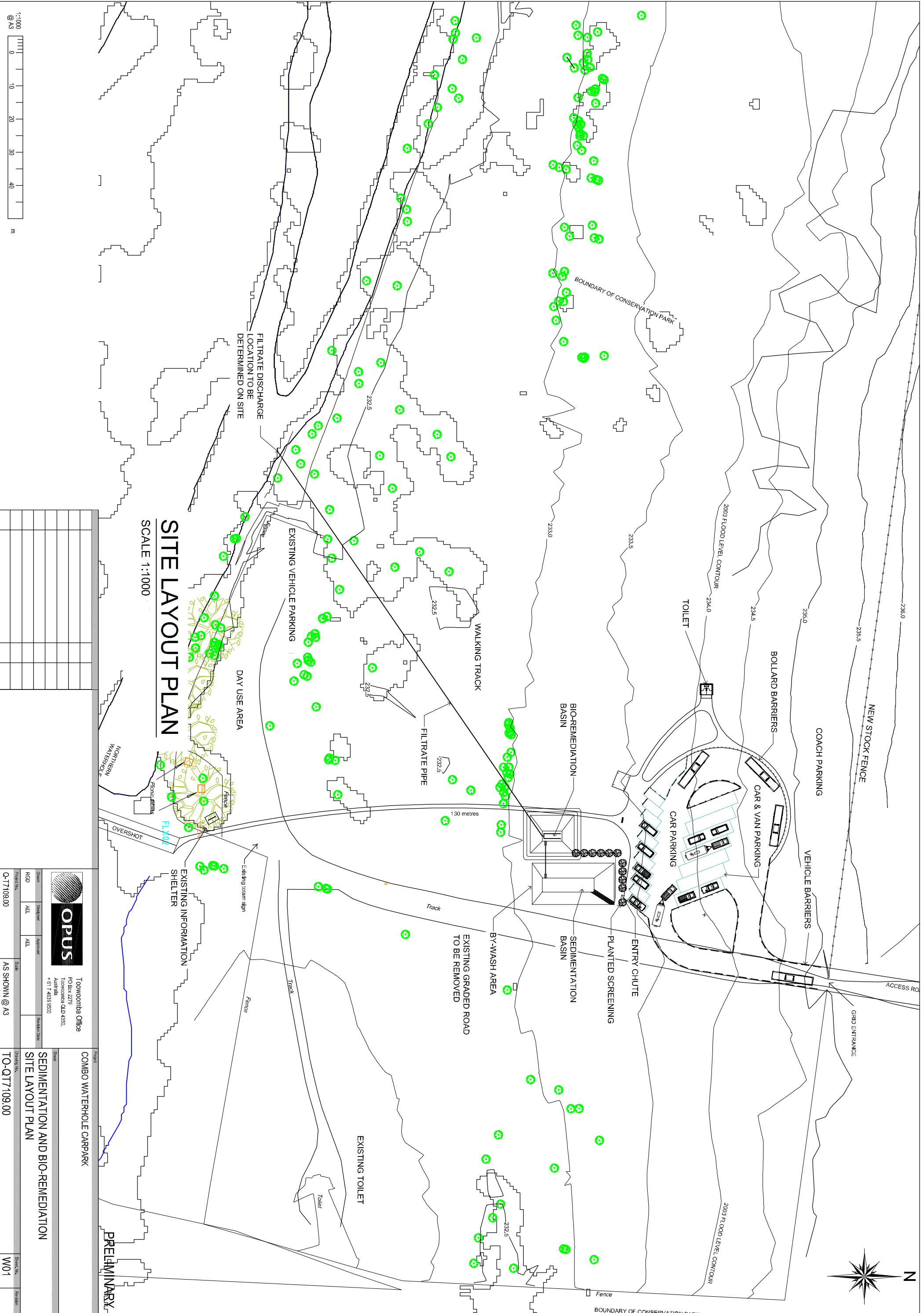
Photo taken by Peter Boyle (Verge) (April 2010)

APPENDIX 1

Combo Waterhole Improvements

Plan of proposed works - Redevelopment of Day Use Area - prepared by OPUS Pty Ltd for the Department of Environment and Resource Management, 2010.

0 10 mm 50 100 150 mm



SITE LAYOUT PLAN

SCALE 1:1000



PRELIMINARY

<p>OPUS Townswomba Office PO Box 4219 Townswomba QLD 4351 Australia +61 7 4639 9500</p>		<p>Project No. Q-17109.00</p>	
Drawn	Designed	Approved	Revision Date
RDD	AL	AL	
<p>Scale AS SHOWN @ A3</p>		<p>Sheet No. TO-Q17109.00</p>	
<p>COMBO WATERHOLE CARPARK</p>		<p>SEDIMENTATION AND BIO-REMEDIATION SITE LAYOUT PLAN</p>	
Drawn	Designed	Approved	Revision
			W01