# Blayney Shire Council



6 March 2013

Dear Councillor,

Your attendance is requested at an Ordinary Council Meeting of the Blayney Shire Council to be held in the Chambers, Blayney Shire Community Centre on Monday, 11 March 2013 at 6.00 pm for consideration of the following business -

- (1) Acknowledgement of Country
- (2) Recording of Meeting Statement
- (3) Apologies for non-attendance
- (4) Confirmation of Minutes Ordinary Council Meeting held on 11.02.13
- (5) Matters arising from Minutes
- (6) Disclosures of Interest
- (7) Reports of Staff
  - (a) Corporate Services
  - (b) Engineering Services
  - (c) Environmental Services
- (8) Committee Reports

Yours faithfully

Anton Franze

ACTING GENERAL MANAGER

**Blayney Local Infrastructure Contributions Plan 2012** 

• the requirement to provide the public amenities and services within a reasonable time.

Council will therefore plan the expenditure of funds collected from Type B developments under this Plan on an annual basis in response to these factors.

The planned expenditure program will be published in Council's draft Management Plan, which will allow for public input into proposed spending priorities.

#### 2.23 Pooling of monetary contributions

This Plan authorises monetary contributions paid for different purposes in accordance with the conditions of various Development Consents authorised by this Plan and any other contributions plan approved by the Council from time to time (whether or not such a plan is one that is repealed by this Plan) to be pooled and applied progressively for those purposes.

The priorities for the expenditure of pooled monetary contributions under this Plan are the priorities for works as set out in the works schedule to this Plan.

Council to advise of works schedule priorities.

### 2.24 Accountability and access to information

Council is responsible for the maintenance of an accurate and up-to-date register of all Local Infrastructure Contributions. This register details:

- each Development Consent which contains a Local Infrastructure Contribution condition;
- the nature and extent of the contribution required by the condition; and
- the date on which a Local Infrastructure Contribution required by any such condition was received, and its nature and extent.

The register is available for inspection by any person at Council's offices free of charge at any time during normal office hours.

The Council must also maintain accounting records that indicate:

- the various kinds of Local Infrastructure for which expenditure is authorised by the Plan;
- the monetary contributions received under the Plan, by reference to the various kinds of Local Infrastructure for which they have been received;
- in respect of monetary contributions paid for different purposes, the pooling or progressive application of the contributions for those purposes, in accordance with any requirements of the Plan or any Ministerial direction under the EP&A Act; and
- the amounts spent in accordance with this Plan, by reference to the various kinds of Local Infrastructure for which they have been spent.

#### 2.25 Review of Plan without the need for public exhibition

Pursuant to clause 32(3) of the EP&A Regulation, Council may make certain minor adjustments or amendments to the Plan without prior public exhibition and adoption by Council. Minor adjustments could include minor typographical corrections, amendments to rates resulting from changes in the published indexes adopted by this Plan (see clause 2.15).

### 2.26 Savings and transitional arrangements

This Plan applies to both:

- a Development Application or application for a Complying Development Certificate submitted after the date on which this Plan took effect; and
- a Development Application or application for a Complying Development Certificate submitted, but not yet determined, on or before the date on which this Plan took effect.



### 3. Local Infrastructure demands

Local Infrastructure Contributions are requirements imposed on the developers of land in a council area.

Contributions of land, money or works by developers are required by a council to meet the extra demand on Local Infrastructure resulting from new development. Councils impose these requirements on developments through section 94 or section 94A conditions of consent.

Council has prepared this Plan in a way that responds to the locations, types, and scale of expected development in the Blayney LGA in the future.

This Part discusses the existing and future context for development in Blayney LGA, and describes the relationship between anticipated development and future infrastructure needs in Blayney LGA.

#### 3.1 Expected development

#### 3.1.1 Settlement pattern and population

The Shire of Blayney (that is, Blayney LGA) is situated about 240 kilometres from Sydney in the Central Tablelands of New South Wales. It has an area of approximately 1,600 km².

Blayney LGA had an estimated resident population of approximately 7,200 residents in 2011, of whom almost 40% lived in the town of Blayney. Other communities in the LGA include Millthorpe, Carcoar, Mandurama, Neville, Lyndhurst, Newbridge, Hobbys Yards and Barry.

Figure 3.1 shows the relative population size and location of the main settlements in relation to each other and to the larger centres located outside of the Shire.

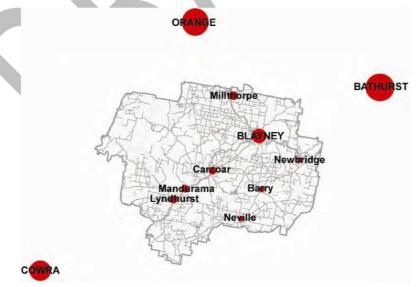


Figure 3.1 Blayney Shire settlement pattern

<sup>&</sup>lt;sup>1</sup> Blayney Urban Centre / Locality had a population of 2,800 persons at the 2011 Census

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The Blayney LGA estimated resident population has increased significantly in recent years, possibly reflecting the economic opportunities available in the surrounding area. The population increased 1 percent per annum between 2001 and 2011, as shown in Table 3.1.

Table 3.1 Estimated resident population, Blayney LGA 2001-2011

	Estimated re	Estimated resident population at 30 June			
	2001	2006	2011	Change 2	2001-2011
	no.	no.	no.	%	no.
Blayney LGA	6,530	6,877	7,186	10.0	656

Source: ABS Catalogue No. 3218.0 Regional Population Growth, Australia. Issued 31 July 2012. Table 1. Estimated Resident Population, Local Government Areas, New South Wales

This recent population growth is compared to recent published population projections for the area by the Department of Planning (2010), Western Research Institute (2008) and Blayney Shire Council (2012). Table 3.2 shows those projections.

Table 3.2 Blayney LGA published population projections

Year	Department of Planning	Western Research Institute 'Scenario B'	Blayney Shire Council Settlement Strategy
2011	7,000	7,186	6,793
2016	7,100	7,455	6,999
2021	7,200	7,636	7,212
2026	7,200	7,714	7,431

Sources: NSW SLA Population Projections, 2006-2036, LGA Summary, Version 1.0, NSW Department of Planning, 2010; CENTROC Population Projections (Western Research Institute: Dec 2008); and Blayney Settlement Strategy (Final) adopted January 2012

Residential growth in the Blayney LGA is predicted to be predominantly in the eastern and northern areas of the LGA. This growth reflects these areas proximity to the major regional centres of Orange and Bathurst. This residential growth will be both in urban towns and villages and as rural residential development, and will lead to an expectation of enhanced services to service this new development. In other areas of the LGA, in both urban and rural area, there is not predicted to be significant change to existing residential trends, with existing population remaining static or with negligible population growth.<sup>2</sup>

The Department of Planning projections in Table 3.2 above show Blayney LGA's population of 7,200 being reached in 2021 and that population level being maintained until at least 2026. Yet the latest resident population data indicates that this level of population was already achieved in 2011. In contrast, the Western Research Institute and Blayney Settlement Strategy projections cited in Table 3.2 incorporate population growth rates of 0.7 and 0.6 percent respectively.

Assuming a continuation of a healthy local and regional economy, it would be reasonable to expect LGA annual population growth rates to be maintained at between 0.5 and 1.0 percent per annum over the next decade. If this is achieved, Blayney LGA's future population would be in excess of 7,500 persons.

For the purpose of apportioning infrastructure demand and costs, this Plan assumes a future (2021) Blayney LGA population of 7,500.

<sup>&</sup>lt;sup>2</sup> Blayney Shire Council Transportation Asset Management Plan 2010, page 19

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#### 3.1.2 Development profile

Economic development in Blayney LGA is predominately rural in nature, supporting primary industries such as dairying, beef, lamb, wool, viticulture, orchards, potatoes, canola and other grains. Mining is also a key industry and the area supports other industrial activities such as manufacturing, transportation and food processing. Smaller sectors include hospitality and retail<sup>3</sup>.

There is significant mineral potential in the geology of Blayney. The Shire is broadly located in the geological area known as the Lachlan Orogen Belt which is one of the more metallic mineral provinces in Australia. This belt has historically yielded significant amounts of gold and copper.<sup>4</sup>

Blayney's mineral wealth has the potential to result in the creation of large scale mining operations that increase employment, economic growth and prosperity in the Shire. Recent growth in the Central West region can be partly attributed to the large mines such as Cadia-Ridgeway. In 2003/04 the Cadia Hill and Ridgeway Mines were estimated to produce \$803 million in annual direct and indirect regional business turnover. Additionally, it was estimated that this resulted in the direct and indirect employment of 2,303 persons.

More recently, there is interest from Regis Mining Resources for an open pit, gold-bearing ore mine at McPhillamy's / Kings Plains. If this project were to commence, it is expected to result in a significant increase in LGA employment.

Newer resource industries such as wind farms have already been established in Carcoar. At the time of writing this Plan, there was a proposal for a future wind farm at Flyer's Creek, with an estimated capital investment of \$160-200 million.

Table 3.3 shows selected statistics on development in Blayney LGA between 2007 and 2012.

Table 3.3 Development indicators - Blayney LGA 2007-2012

Year	Total No. dwellings approved	Value of all new residential building	Value of alterations and additions	Total value of residential building	Value of non- residential building	Value of all building
	No.	\$'000	\$'000	\$'000	\$'000	\$'000
2007 – 2008	43	9,183.9	2,221.4	11,405.3	2,561.0	13,966.3
2008 -2009	39	8,902.0	1,100.0	10,002.1	10,458.4	20,460.4
2009 – 2010	28	6,427.8	1,097.3	7,525.1	8,634.2	16,159.4
2010 - 2011	32	8,124.0	1,379.1	9,503.0	8,832.5	18,335.5
2011 - 2012	65	16,472.3	2,617.9	19,090.2	8,496.5	27,586.7

Source: Building Approvals - Australia, Australian Bureau of Statistics Catalogue No. 8731.0

Assuming economic conditions remain favourable, new industries and new or expanded mines and related industrial and supplier enterprises may be expected to establish in Blayney LGA in the future.

Housing and other development that serves or otherwise responds to local economic growth is also expected to occur in Blayney LGA in the future. Potentially this will include:

· Various types of accommodation including new dwellings.

<sup>4</sup> Blayney Settlement Strategy 2012

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- New and expanded tourism and visitor accommodation, including motels, serviced apartments and caravan parks.
- New and expanded industrial, retail and commercial services to support the additional population and local business needs.

#### 3.1.3 Household occupancy rates

This Plan authorises the levying of section 94 contributions on certain Residential Accommodation development, being Type A development (refer clause 2.7).

The formula for the calculation of the contribution for Type A developments requires the per person contribution rate to be converted to a per dwelling or per lot rate.

This conversion will be based on an assumed occupancy rate for the dwellings that are to be levied a section 94 contribution. The assumed occupancy rate is the gross household occupancy rate recorded for private occupied dwellings at the 2011 Census – being 2.6 persons per dwelling.<sup>5</sup>

# 3.2 Local Infrastructure demands generated by expected development

The Blayney Shire LGA has been experiencing development and will continue to accommodate further development into the future.

Future development will impact on the need and demand for Local Infrastructure provided by the Council.

Council has identified that expected future development will generate increased demand for, and therefore a need to upgrade, the following Local Infrastructure addressed by this Plan; namely:

- Roads and traffic facilities as a result of Type A, B and C developments, specifically the
  accelerated depreciation costs of roads assets generated by laden heavy haulage vehicles.
- Social infrastructure, such as parks and community buildings, as a result of Type A and C developments.

More detail on the demand for Local Infrastructure, the relationship of the Local Infrastructure with the expected development, and the strategies for the delivery of the Local Infrastructure are discussed in the remainder of Part 3 of this Plan.

<sup>&</sup>lt;sup>5</sup> 2011 Census QuickStats, accessed on 26 October 2012 at http://www.censusdata.abs.gov.au/census\_services/getproduct/census/2011/quickstat/LGA11750?opendocument&navpos=220

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#### 3.3 Council's strategic infrastructure issues, values and priorities

#### 3.3.1 Community Strategic Plan

Council in 2011 prepared a Community Strategic Plan (CSP) called *Blayney 2025 - All the pieces together*. CSPs are part of the Integrated Planning and Reporting framework being rolled out throughout all NSW councils.

The purpose of the CSP is to identify the community's main priorities and aspirations for the future and to plan strategies for achieving these goals. In doing this, the planning process will consider the issues and pressures that may affect the community and the level of resources that will realistically be available to achieve its aims and aspirations. <sup>6</sup>

The contents of a council's Local Infrastructure Contributions plan should be informed by the values and aspirations expressed in its CSP. The anticipated revenue from this Plan informs the Resourcing Strategy. This Plan therefore integrates development funding matters into the Council's CSP and associated documents.

The CSP describes 'Develop and maintain Shire infrastructure' as one of 6 community values underpinning that plan.

Key related issues include the following:

- The need to provide well-coordinated and adequate community services and facilities to service and assist existing families and to encourage new residents to the LGA.
- Providing the necessary infrastructure to sustain and strengthen the area's key business sectors.

The CSP articulates a set of strategies and outcomes that respond to these issues, including several relating to infrastructure planning and provision, and to local governance. They include the following:

#### **Outcomes:**

- · Grow the wealth of the Shire
- · A centre for sports and culture
- Preserve and enhance our heritage and rural landscapes
- Develop and maintain Shire infrastructure
- Develop strong and connected communities
- Leadership

#### Strategies to develop and maintain Shire infrastructure:

- Adequate provision of transport, roads, rail, information and communication technologies and community social assets.
- Every village has access to water and sewerage services.
- Improved access to community and public transport between villages and centres.

<sup>&</sup>lt;sup>6</sup> Planning and Reporting Guidelines for Local Government in NSW, prepared by The Division of Local Government, Department of Premier and Cabinet, January 2010, page 7

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- Integrated medical and aged care facilities across the Shire.
- Preservation and continued development of rail infrastructure
- Sustainable waste management.

This Plan seeks to implement the CSP in the following ways:

- By authorising monetary contributions to be imposed on development that, when received by Council, will be directed towards the strategic Local Infrastructure priorities of the Council.
- By ensuring that developments contribute their fair share toward the cost of providing Local Infrastructure that is demanded by Blayney's communities.
- By assisting Council in achieving its Resourcing Strategy and Long Term Financial Plan targets.

#### 3.3.2 Asset Management Plans

Asset Management Plans have been prepared for all Council's physical assets to outline the management of assets in the most cost effective manner, to monitor performance and to ensure that there is a link between the plans and Council's long term financial plans.

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers.

Council has prepared the following Asset Management Plans that are relevant Local Infrastructure assets:

- Transport assets (mainly roads and bridges)
- Parks and gardens assets
- Buildings and other structures assets

All of the plans show that, over the ten year plan period, the life cycle cost to provide the service category is in excess of the Council's planned life cycle expenditure for the service category. For example, the projected cost to provide the services covered by the *Buildings and Other Structures Asset Management Plan* including operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$8,706,000 or \$871,000 per year. Council's estimated available funding for this period is \$7,315,000 or \$732,000 per year which is 84% of the cost to provide the service. This is a funding shortfall of \$139,000 per year.

Council's Asset Management Strategy found that:

- Council is unable to maintain current service levels over the next ten years at current funding levels.
- Council is not able to fund current infrastructure life cycle cost at current levels of service and available revenue.

Council will pursue a suite of strategies to ensure the community obtains maximum value from its limited infrastructure budget. One of those strategies is to seek additional funding. Without funding from other sources, including Government grants and subsidies and development contributions, infrastructure service levels are likely to deteriorate.

<sup>8</sup> See, for example, pages iv and v of the Parks and Gardens Asset Management Plan

<sup>&</sup>lt;sup>7</sup> Blayney Shire Council – Buildings and Other Structures Asset Management Plan, Rev 1, 2012

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This Plan supports Council's Asset Management Plans by securing a relatively minor stream of funding to ensure there is no worsening of the gap between life cycle projected costs and planned expenditure of Local Infrastructure as a consequence of future development.

#### 3.4 Local Infrastructure program for Type A and C developments

#### Parks and Gardens

Council provides the following array of parks and gardens facilities:

- Parks and Reserves: Infrastructure associated with recreation parks and reserves in Blayney and villages, including Millthorpe Skate Park, play equipment, barbeques, gardens, seating, signage, irrigation systems, monuments, paths, lawns and fencing.
- Blayney and village showgrounds: Includes trotting track, roadways, paths, seating, turf, irrigation system, signage and fencing.
- Sportsgrounds: Infrastructure associated with sporting activities, including ovals, pitches, courts, lighting, irrigation and fencing.
- Street gardens and furniture: Gardens, street furniture, signs and bins located in Blayney and villages.
- Council Buildings: Gardens, lawns, irrigation systems and car parks etc. associated with council buildings, including Council's works depot.
- Cemeteries: Landscaping, roadways, public monuments, bins and fencing in Council owned cemeteries.9

Through its Parks and Gardens Asset Management Plan Council plans to provide parks and gardens services for the following:

- Operation, maintenance, renewal and upgrade of parks, gardens, reserves, showgrounds, sportsgrounds and other recreational assets to meet service levels set by council in annual budgets.
- Upgrade or renew parks and gardens assets that can't provide the levels of service required by council within the 10 year planning period. 10

The works schedule (which is incorporated into this Plan) includes both projected capital renewal works program and a capital upgrade / new works program.

#### **Building and Other Structures**

Council provides the following array of community buildings:

- Community Halls: Blayney community centre, Blayney Showground Hall, CWA Hall and various village halls.
- Community Facilities: Includes buildings provided by council for the operation of facilities such as the Blayney Shire Library and 'The Cottage' tourist information centre.
- Residential properties: Includes the Inala Aged Units and an obsolete residential property.
- Shelters: Including bus shelters, park picnic / BBQ shelters and the Carcoar Dam and Heritage Park viewing platforms.

Blayney Shire Council Parks and Gardens Asset Management Plan, page 10

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- Toilet facilities: Toilet Blocks at various sporting and recreational facilities.
- Sporting facilities: Including CentrePoint Leisure Centre, various kiosks / canteens, change / dressing rooms, grandstands and commentator facilities at various sporting grounds throughout the Shire.
- Emergency (RFS & SES) buildings: RFS and SES sheds and buildings in Blayney and in villages and localities throughout the Shire.
- Waste management structures: Council owned structures at the Blayney Waste Management Centre.
- Administration / Operations buildings and structures: Council chambers / offices and other council buildings and structures, including office and sheds at council's works depot.

Through its *Building and Other Structures Asset Management Plan* Council plans to provide the following:

- Operation, maintenance, renewal and upgrade of community halls and facilities, shelters, toilets, sporting facilities, emergency services and council administration and works facilities to meet service levels set by Council in annual budgets (which may be less than community expectations).
- Upgrade and integration of council chambers and the new community centre and the renewal of minor sporting facilities and some toilet blocks within the 10 year planning period.<sup>12</sup>

The works schedule (which is incorporated into this Plan) includes both projected capital renewal works program and a capital upgrade / new works program. Defect repair works identified in the Asset Management Plan are not included in the works schedule.

#### Roads

Council is responsible for the following transport assets:

Regional and Local Roads: 767 kilometres

Bridges: 7,013m<sup>2</sup>

Kerb & Gutter: 66 kilometres

Footpaths: 36,753m<sup>2</sup>

The focus of the *Transportation Asset Management Plan* capital works programs is on the management of existing aging infrastructure, with incremental improvements to existing infrastructure to meet increasing customer expectations. Strategic capital works requirements for transport assets are therefore driven by the Blayney LGA population as whole, and not just new development. It follows that the costs of these programs should be met by the projected total population.

For roads assets the focus of the program is on

- Sealing of gravel roads.
- Shoulder sealing (with possible provision of new kerb & gutter) of existing sealed roads to increase safety and load carrying ability.
- Bridge upgrades, primarily undertaken during refurbishment works.

12 Ibid., page iii

<sup>11</sup> Blayney Shire Council Building and Other Structures Asset Management Plan, page 11

 Upgrade or augmentation of stormwater infrastructure to ensure public safety and property protection objectives are met.<sup>13</sup>

#### 3.4.1 Calculation of the section 94 contribution rate for Type A developments

Section 94 contributions for Council's Local Infrastructure program <u>will be levied on Type A developments only</u> and applied to works identified in Part 4. Section 94A levies that are collected from Type C developments will also be directed toward the works program in Part 4.

Section 94 monetary contributions for Type A development are calculated on a per person or per resident basis, then factored up to a per lot or per dwelling amount.

The monetary contribution per person in a development containing residential dwellings or lots is calculated as follows:

Where:

\$INF = the estimated total \$ cost of all of the Blayney LGA Local Infrastructure items included in Part 4 (\$10,189,314)

P = the estimated resident population (in persons) that will demand the Local Infrastructure - that is, the expected total future population of the Blayney LGA (7,500)

The per dwelling amount is determined by multiplying the per person contribution by the estimated increase in population as a result of the development (i.e. the assumed occupancy rate of 2.6 persons per dwelling discussed in clause 3.1 of this Plan).

The following workings show the calculation of the section 94 contribution rate:

<sup>&</sup>lt;sup>13</sup> Blayney Shire Council Transportation Asset Management Plan, pages 19, 20

Contribution per dwelling (\$) =  $$1,359 \times 2.6$ 

= \$3,533

# 3.5 Contributions rationale and infrastructure program for Type B developments

#### 3.5.1 Basis for imposing contribution requirements on Heavy Haulage Developments

The Shire of Blayney from time to time receives applications for developments that involve the haulage of material using heavy vehicles. These Heavy Haulage Developments can be located anywhere within the rural areas of the Shire.

Concentrated heavy vehicle movements generated by these developments are known to accelerate deterioration of road pavements that were designed to meet demands of rural rather than industrial development.

Councils are not generally able to impose additional fees, charges or rates to meet the extra costs associated with accelerated deterioration of roads caused by heavy vehicle movements from developments, except for development contributions imposed under the EP&A Act. Council therefore will require contributions from developments that generate significant heavy vehicle movements to meet the additional cost burden of providing and maintaining the affected roads in the Shire.

#### 3.5.2 Public amenities and services that will be required as a result of expected Type B development

The existing Shire road network has been generally designed to accommodate the needs generated by rural uses. Blayney Shire Council maintains the rural road types identified in Table 3.4 below.

Table 3.4 Blayney Shire Road Types

Road Class category	Traffic volume (AADT)	Existing road surface	Description in Figure 1
R1	> 500	Sealed 7m wide, 9m formation	Main Arterial
R2	100 – 500	Sealed 7m wide, 8m formation	Shire Arterial
R3	100 - 500	Sealed 6.5 , 7.5m formation	Collector Road
R4	100 - 500	Sealed/unsealed 6m wide, 7m formation	Local Road
R5	< 500	Sealed/unsealed 6m, 6m formation	Local Road
R6	< 40	Gravel material, 6m formation	Gravel

AADT = Average Annual Daily Traffic

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Class '1' is part of the NSW State Highway network. These roads are maintained by Council with funding from the NSW Roads and Maritime Services and are therefore not part of this Plan (see section 3.5.4 for additional information).

Class '2' and '3' roads are Blayney Shire's regional/arterial roads. They can be sealed or unsealed (hereafter referred to as 'Rs' and 'Rg' roads). Class '4' and '5' roads are local roads. They can also be sealed or unsealed (hereafter referred to as 'Ls' and 'Lg'). Class '6' type roads are gravel and not maintained by Council, therefore do not form part of this plan.

For the purposes of this Plan:

- Type R roads may be used for haulage;
- Type L roads may be used for haulage.

The existing Shire road network is shown in Figure 3.2.

Blayney Shire may accommodate development in the future that will result in accelerated deterioration of the Shire road network. Road surface deterioration is primarily caused by heavy vehicles. Higher numbers of heavy vehicles on roads means Council will need to find additional funds to meet the extra demands placed on the Shire's roads. These funds will be required to maintain the Shire's roads to an acceptable standard.

Future development of the area for the purposes of heavy haulage development can only be sustained by investment in the provision, extension and augmentation of road infrastructure. Council considers it appropriate that Heavy Haulage Developments make a reasonable contribution toward this infrastructure.



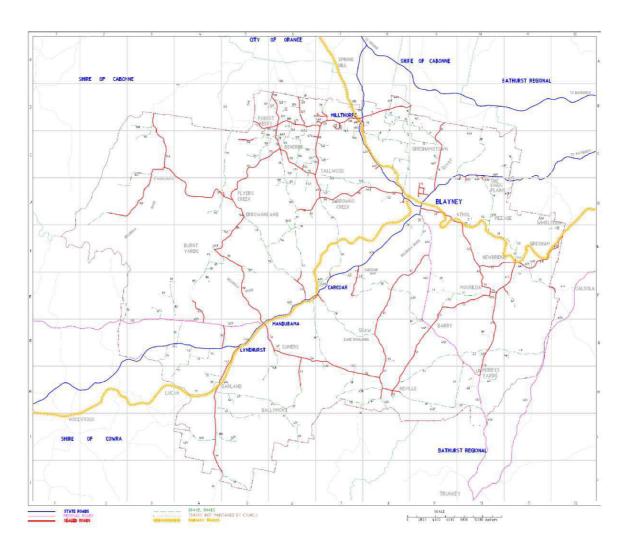


Figure 3.2 Shire Road Network

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#### 3.5.3 The impact of expected development on road infrastructure

#### Heavy vehicle use occasions greater road maintenance expenditure

Council has a responsibility to maintain the Shire's road infrastructure to an acceptable standard; i.e. to ensure roads:

- are kept to an appropriate level of safety for the road user; and
- · remain trafficable for the duration of their design life.

The Austroads publication *Guide to Pavement Technology: Part 2 Pavement Structural Design* (2010) documents that the performance of road pavements is "influenced significantly by the heavy end of the traffic spectrum". This effectively means that there is little or no requirement to account for cars or light commercial traffic as far as pavement loadings is concerned. The only effect light vehicles have on the road is in terms of capacity. The performance and subsequent failure of pavements is determinate on heavy vehicle axle passes, the axle loading and the configuration of these axles.

Consequently, any additional heavy vehicle loadings on a public road that may occur due to Heavy Haulage Development will accelerate the deterioration of that road's pavement. The consequence of this additional heavy traffic is that in order for the roads authority (e.g. Council) to maintain the road pavement at its existing level of service, additional maintenance spending will be required due to the extra heavy traffic causing damage sooner.

This Plan is premised on the principle that it is reasonable to expect that additional heavy vehicle users of the road infrastructure should contribute their share of the additional upkeep.

A review of contribution plans from other NSW councils confirmed that there are various methodologies used to derive a reasonable monetary contribution from Heavy Haulage Developments towards road maintenance costs. The most common methods found are for the purposes of extractive industries and, derive a contribution that is based on the amount of material hauled per kilometre of haul route. This method works well for uses where the heavy vehicles have access to a weighbridge. A method based on laden heavy vehicle movements is used in this Plan. This is to enable Council to capture objective data on vehicles that may not require or have access to weighbridges.

#### Design life of a standard road

In pavement design, the damage caused by different axle groups is dependent on the axle spacing, the number of tyres / wheels per axle, the load on the group and the suspension of the vehicle (Austroads 1992, 2010). Generally, for design purposes axle groups are broken into 4 types namely:

- single axle with single wheels;
- single axle with dual wheels;
- · tandem axles both with dual wheels; and
- · tri-axles all with dual wheels.

For simplicity, the damage to the pavement associated with any particular axle load has been expressed as a 'standard axle'. The standard axle is a single axle with dual wheels that carries a load of 8.2 tonnes. Loads that cause similar damage to a pavement as a standard axle are shown in Table 3.5.

Table 3.5 Axle Load Configurations

Axle Configuration	Load (Kilo Newton)
Single axle, single tyre	53
Single axle, dual tyre	80
Tandem axle, dual tyre	135
Tri-axle, dual tyre	181
Quad-axle, dual tyre	221

For the purposes of design, all vehicle class configurations are converted to equivalent standard axles (**ESA**). The design life of a road pavement can also be expressed in ESA.

Appendix E of the *Austroads Pavement Design Guide* (2009) provides a methodology for the adoption of ESAs for axle group types in accordance with NSW conditions and road functional classes (A copy of the relevant sections of Austroads is provided in Appendix A of this Plan).

In order to use Austroads design tables, roads are provided with a functional class, Blayney Shire will assume a functional class 3 road that is defined as:

A road whose main function is to form an avenue of communication for movements:

- between important centres and the Class 1 and Class 2 roads and /or key towns; or
- between important centres; or
- of an arterial nature within a town in a rural area.

Council uses the Austroads vehicle classification system to identify heavy vehicle traffic numbers from traffic counters. A copy of the vehicle classification system information used in this Plan is in provided in Appendix A. From this classification system, ESAs for each vehicle class can be calculated using Table E4 in Appendix E of *Austroads Pavement Design Guide* (1992). The resulting total vehicle ESA for each class is provided in Table 3.6.

Table 3.6 Total Vehicle ESA per Vehicle Class

Vehicle class	Vehicle type (Austroads classification)	ESA per vehicle
1	Car	0
2	Light vehicle with towing/ commercial van	0
3	Two axle truck	1.2
4	Three axle truck	1.6
5	Four axle truck	2.2
6	Three axle articulated truck	1.8
7	Four axle articulated truck	2.2
8	Five axle articulated truck	2.8
9	Six axle articulated truck	2.8 (average)
10	Seven + axle articulated truck	3.4

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For clarity, the above vehicles are assumed to be loaded. If higher order vehicle classes are used by the developer, those vehicles will be assumed to be class 10.

Using the information in Table 3.6 it can be seen that a loaded class 10 vehicle has almost three times the impact of a class 3 vehicle on a road pavement.

As mentioned above, the conversions in Table 3.6 are for the purposes of road design. Austroads Pavement Design Guide (1992 and 2010) provide methodologies for the design of both rigid and flexible pavements. Blayney Shire sealed roads are primarily flexible pavements with a sub-base, base and wearing surface of asphalt or bitumen.14 The wearing surface is generally due for replacement every 10 -15 years at current traffic use.

Austroads Pavement Design Guides contain design tables where pavement design life can be expressed in accordance with design traffic loadings. Thus a standard life of pavement can be expressed as ESAs. This means that the life of a pavement can be expressed as the total number of equivalent axles that should pass over it prior to replacement.

The standard life for the haul road types in Blayney expressed as ESA are:

approximately 2,000,000 ESA over 20 years Rs roads: approximately 250,000 ESA over 7 years Rg roads: approximately 1,000,000 ESA over 30 years Ls roads approximately 200,000 ESA over 9 years Lg roads:

All laden heavy vehicles on Blayney roads contribute to the deterioration of the road pavement. From the above design methodology, it is also the case that a road pavement has a finite life in terms of ESA. Due to the geographical location of Blayney Shire, there are limited haulage vehicles on the local road at present. Growth of heavy vehicle use on the local roads is limited to growth in the transportation of goods and haulage. Significant increases of heavy vehicles on Council's road network would only likely result from new or expanded heavy haulage development within or adjacent to the Blayney LGA.

Consequently, it is considered reasonable to expect heavy haulage development make a contribution per additional loaded vehicle on Shire roads.

#### Costs of maintaining rural roads over the design life 3.5.4

Council's objective in the maintenance of the road network is to provide a functional and efficient network that services community expectations. Regional roads are the highest order road that Council manages and form a key component of the local and wider road network. Local roads predominantly provide access to properties and supply linkages to higher order roads.15

A key issue facing Council's regional network is ageing infrastructure on narrow, substandard alignments that does not meet current industry or community standards, requiring progressive upgrading. This is particularly exacerbated by the requirement for these roads to carry freight that in turn deteriorates the asset further. 16

The local road network is predominantly unsealed pavements. Many roads carry less than 50 vehicles per day but require maintenance to retain them in a serviceable condition. Additionally,

16 Ibid.

<sup>&</sup>lt;sup>14</sup> Blayney Shire Council - Transportation Asset Management Plan 2011, p 45

unsealed roads in and near urban areas carry greater traffic flows, generating dust nuisance close to residential development and therefore significant maintenance demand.<sup>17</sup>

Council maintains the entire local road network and receives funding to maintain State roads. The local road network is approximately 727 kilometres.

All regional and local roads are funded by Council. Council may apply for and receive Commonwealth Government funding from time to time for upkeep of the local road network. The State highway roads (namely Mid-Western Highway and Millthorpe Road) are maintained by Council with funding from NSW Roads and Maritime Services and are therefore exempt from this Plan.

The financial lifecycle of sealed road assets is made up of construction costs, maintenance costs and replacement of the wearing course over the period of time that the asset was designed to last. Similarly, the financial lifecycle of gravel / natural material road assets comprises of maintenance and gravel re-sheets over the life of the asset, with additional work required if there is significant adverse weather damage from time to time.

The anticipated costs for the various classes of roads are listed in Table 3.7.

Table 3.7 Total lifecycle costs for the Blayney road network

	Cost per kilometre	How often?
Regional Rs		
Rehabilitation	\$264,000	At 20th year
Reseals	\$30,000	At 10th year
Maintenance	\$5,600	Annual for life
Regional Rg		
Resheet	\$40,000	At 7th year
Grading	\$2,150	Annual for life
Local Ls		
Rehabilitation	\$195,000	At 30th year
Reseals	\$28,000	At 15th year
Maintenance	\$4,000	Annual for life
Local Lg		
Resheet	\$34,000	At 9th year
Grading	\$730	Annual for life

From this information the total cost of local sealed roads and gravel roads over their respective design lives can be approximated.

<sup>17</sup> Blayney Shire Council TMP 2011.

**Blayney Local Infrastructure Contributions Plan 2012** 

The total cost per kilometre of a Rs road is:

\$maintenance x 18 yrs + \$reseal (@ 10<sup>th</sup> year) + \$reconstruction (@20<sup>th</sup> year)

- $= (\$5,600 \times 18) + \$30,000 + \$264,000$
- = \$394,800 per km

The total cost per kilometre of a Rg road is:

\$maintenance x 6 yrs + \$resheet (@ 7<sup>th</sup> year)

- $= (\$2,150 \times 6) + \$30,000$
- = \$42,900 per km

The total cost per kilometre of a Ls road is:

\$maintenance x 28 yrs + \$reseal (@ 15<sup>th</sup> year) + \$reconstruction (@ 30<sup>th</sup> year)

- $= (\$4,000 \times 28) + \$28,000 + \$195,000$
- = \$335,000 per km

The total cost per kilometre of a Lg road is:

\$maintenance x 8 yrs + \$resheet gravel (@ 9th year)

- $= (\$730 \times 8) + \$34,000$
- = \$39,840 per km

#### 3.5.5 Calculation of a reasonable contribution

This Plan authorises that the monetary contributions from Type B developments should be made on a periodic (quarterly) basis and should be per ESA for the total distance of sealed and gravel roads anticipated to be travelled by the development's laden heavy vehicles.

It has been shown that the life of a road can be expressed in total ESA loads that can pass over the pavement until the pavement deteriorates to the point of needing reconstruction. As mentioned previously the life of a typical regional road in Blayney is approximately 20 years and equivalent to 2,000,000 ESA, the typical local sealed road is 30 years and 1,000,000 ESA. The life of a gravel road is between 7 and 9 years and equivalent to 200,000 - 250,000 ESA.

Blavney Local Infrastructure Contributions Plan 2012

#### Total contribution amount for any Type B development

The calculation of the periodic contribution relating to any heavy haulage development is as follows:

$$\$C_{Period} = \begin{cases} \$Rs_{Life} \times ESA \times Rs_{Length} & \$Ls_{Life} \times ESA \times Ls_{Length} \\ Rs_{Life} & + & Ls_{Life} \end{cases} + \\ \frac{\$Rg_{Life} \times ESA \times Rg_{Length}}{Rg_{Life}} & \$Lg_{Life} \times ESA \times Lg_{Length} \\ + & Lg_{Life} \end{cases}$$

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\$C<sub>Period</sub> is the monetary contribution payable by the development for the preceding period (i.e. preceding quarter) in dollars

\$Rs<sub>Life</sub> is the standard cost of regional road per kilometre over the design life in dollars, being \$394,800

 $LS_{Life}$  is the standard cost of local sealed road per kilometre over the design life in dollars, being \$335,000

\$Rg<sub>Life</sub> is the standard cost of regional gravel road per kilometre over the design life in dollars, being \$42,900

\$Lg<sub>Life</sub> is the standard cost of local gravel road per kilometre over the design life in dollars, being \$39,840

ESA is the number of ESAs generated by the development in the preceding period (as recorded by the traffic classifier at the development exit)

Rs<sub>Life</sub> is the assumed design life of a sealed regional road, being 2,000,000 ESA

Rg<sub>Life</sub> is the assumed design life of an unsealed regional road, being 250,000 ESA

Ls<sub>Life</sub> is the assumed design life of a local sealed road, being 1,000,000 ESA

Lg<sub>Life</sub> is the assumed design life of a local gravel road, being 200,000 ESA

Rs<sub>Length</sub> is the total length of regional sealed road travelled by the development's laden heavy vehicles estimated at the time of the development application, in kilometres

Ls<sub>Length</sub> is the total length of local sealed road travelled by the development's laden heavy vehicles estimated at the time of the development application, in kilometres

Rg<sub>Length</sub> is the total length of regional gravel road travelled by the development's laden heavy vehicles estimated at the time of the development application, in kilometres

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Lg<sub>Length</sub>

is the total length of local gravel road travelled by the development's laden heavy vehicles estimated at the time of the development application, in kilometres

#### Contribution rate for Type B development

The contribution rate - that is the contribution per ESA per kilometre of road used - can be expressed as follows.

The contributions for each road type per ESA can be expressed as:

$$R_{Rate} = \frac{R_{Life}}{R_{Life}}$$

Where

\$R<sub>Rate</sub> is the monetary contribution rate for each road type (sealed or gravel) per ESA per

kilometre of road type in dollars, and rounded to the nearest cent

\$R<sub>Life</sub> is the standard cost of each road type (regional sealed or gravel, local sealed or

gravel) road per kilometre in dollars, being \$394,800 for Rs, \$335,000 for Ls, and

\$42,900 for Rg and \$39,840 for Lg respectively

R<sub>Life</sub> is the assumed design life of the equivalent standard road in ESA, being 2,000,000

ESA for Rs, 250,000 ESA for Rg, 1,000,000 ESA for Ls and 200,000 ESA for Lg,

respectively

Using the above formula and values:

\$Rs<sub>Rate</sub> = \$0.20 per ESA per kilometre

\$Ls<sub>Rate</sub> = \$0.33 per ESA per kilometre

\$Rg<sub>Rate</sub> = \$0.17 per ESA per kilometre

\$Lg<sub>Rate</sub> = \$0.20 per ESA per kilometre

#### 3.5.6 Worked examples

#### Worked example for Quarry 'A'

It is proposed to extract of sandstone from a quarry (Quarry 'A') located within Blayney Shire. The development application states that the quarry will be operational for approximately 20 years. The distance travelled on Blayney roads as shown from the quarry to the nearest State road is approximately 20 km of regional sealed road (Rs); 12 km of Ls road and 5km of Lg road.

A condition requiring a section 94 contribution per ESA exiting the site consistent with the rates shown in clause 1.2 is imposed on the development consent.

A traffic classifier has been installed at a location in the vicinity of the quarry exit. This classifier is to be reviewed on a quarterly basis. The first quarter results have been extracted and are shown in Table 3.8.

Table 3.8 Quarry 'A' traffic classifier results for 1st quarter of operation

	Vehicle class				
	6	7	8	9	10
Standard ESA per vehicle	1.1	2.2	2.8	2.8	3.4
Number of vehicles for the period	7	13	40	15	0

The monetary contribution required for the quarter is calculated as follows:

\$RS = 
$$394,800 \times \{(1.1x7) + (2.2 \times 13) + (2.8 \times 40) + (2.8 \times 15)\} \times 20$$
  
 $= 0.20 \times 190 \times 20$   
 $= \$760.00$   
\$LS =  $335,000 \times \{(1.1x7) + (2.2 \times 13) + (2.8 \times 40) + (2.8 \times 15)\} \times 12$   
 $= 0.33 \times 190 \times 12$   
 $= \$752.40$   
\$LQ =  $39,840 \times \{(1.1x7) + (2.2 \times 13) + (2.8 \times 40) + (2.8 \times 15)\} \times 5$   
 $= 0.20 \times 190 \times 5$   
 $= \$190.00$ 

Total contribution for 1<sup>st</sup> quarter = \$760 + \$752.40 + \$190= \$1702.40

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#### Worked example for Quarry 'B'

Quarry 'B' is proposed near Shaw. The developer has advised that the extracted material is to be hauled in two directions. Half the material is to go north along local roads until it reaches the Mid Western Highway and half is to go south-east along local roads to Neville-Trunkey Rd until it is out of the Shire.

A condition requiring a section 94 contribution per ESA exiting the site consistent with the rates shown in clause 1.2 is imposed on the development consent.

A traffic classifier is again located in the vicinity of the quarry gate and shows the same result for the quarter as shown in the previous example.

In the simplest case there are two distinct routes to be used by the development. One heads north the other south-east. The total of road length and type used to haul north and south-east can be identified and traffic allocated on a 50% basis in each direction.

Thus if north, Ls = 15km along local roads; Lg = 0 km, then

 $North = (0.33 \times 95 \times 15) + (0.20 \times 95 \times 0)$ 

= \$470.25

Note: 95 is half the total number of ESA for the quarter

And similarly a calculation is possible for loads hauled south-east.

This proportional allocation can be used in any configuration that may arise.

#### 3.5.7 Measures to ensure contributions are reasonable

To ensure section 94 contributions on Type B developments are reasonable, the following will be undertaken:

- The heavy haulage travel route(s) from the site will be identified at the time of development application and nominated as the total distance in kilometres that laden heavy vehicles will likely travel along Rs, Rg, Ls and Lg routes within Blayney Shire.
- The following will be included as conditions of consent for Type B developments:
  - A traffic classifier to be installed (at the applicant's cost) at a suitable location to classify and count the number of loaded heavy vehicles that enter or exit the development site over a set period. The Plan assumes quarterly notices to the operators of developments. The classifier will be used to determine the number of ESAs that are subject to contributions.
  - Responsibility for keeping the traffic classifier in good working order throughout the life of the development will rest with the operator of the development.
  - Council officers are to be provided access to the traffic classifier data on a regular (i.e. at least quarterly) basis.
  - In the event of the traffic data being corrupted, then the Council at its discretion may determine the levy for the preceding period.

There may be circumstances where the likely length or lengths of roads to be used by laden heavy vehicles related to a Type B development is difficult to quantify. In such cases Council will determine the length or lengths of road to be levied based on the information submitted with the development application. It is the duty of the applicant to provide sufficient and accurate information on likely laden heavy vehicle use at the application stage.



### 4. Local Infrastructure works program

Item	Cost	Reference	Priority for funds pooling	Item No. on map
TRANSPORT				
	4050 000	T		
Regional roads improvements (other)	\$250,000	Transportation AMP 2010, Appendix C	?	
Local Roads gravel road sealing	\$2,500,000	Transportation AMP 2010, Appendix C	?	
Local gravel roads improvements (other)	\$250,000	Transportation AMP 2010, Appendix C	?	
Local urban roads gravel sealing	\$1,250,000	Transportation AMP 2010, Appendix C	?	
Local urban roads improvements (other)	\$1,000,000	Transportation AMP 2010, Appendix C	?	
New footpaths	\$150,000	Transportation AMP 2010, Appendix C	?	
	\$5,400,000			
BUILDINGS AND OTHER STRUCTURES				
Upgrade/New works				
New Community Centre	\$1,700,000	Buildings and Other Structures AMP	?	2012.1
Blayney Showground Hall Access pathway and bird proofing	\$40,000	Buildings and Other Structures AMP	?	2012.2, 2012.3
Newbridge bus stop	\$7,000	Buildings and Other Structures AMP	?	2013.1
Showground Hall - Insulate Ceiling	\$2,000	Buildings and Other Structures AMP	?	2013.2
Stringey Bark Cottage, Newbridge	\$2,000	Buildings and Other Structures AMP	?	2013.3
Newbridge Community Hall	\$5,000	Buildings and Other Structures AMP	?	2013.4
Council Chambers	\$60,000	Buildings and Other Structures AMP	?	2014.1, 2015.1
Lyndhurst Sportsground Multi-function building	\$40,000	Buildings and Other Structures AMP	?	2016.1
Gold Street Recreation Ground (toilet block)	\$10,000	Buildings and Other Structures AMP	?	2017.1
BSC Depot Works	\$63,000	Buildings and Other Structures AMP	?	2018.1 - 2018.4
Dakers Oval (toilet block, kiosk and shelter)	\$190,000	Buildings and Other Structures AMP	?	2019.1, 2020.1
Depot Truck Wash	\$65,000	Buildings and Other Structures AMP	?	2021.1
New bus shelters (x2 location to be determined)	\$14,000	Buildings and Other Structures AMP	?	2021.2
Blayney Showground Hall (kitchen)	\$10,000	Buildings and Other Structures AMP	?	2021.3
	\$25,000		?	2021.4
Napier Oval ( kiosk)	\$25,000	Buildings and Other Structures AMP	*	2021.4
Renewal Works				LINEWA A
Blayney Showground Hall	\$5,000	Buildings and Other Structures AMP	?	2013.1
Redmond Oval Tennis Shelter	\$7,000	Buildings and Other Structures AMP	?	2012.2
Redmond Oval Band Rotunda	\$10,000	Buildings and Other Structures AMP	?	2013.3
King George Oval Toilet block	\$7,000	Buildings and Other Structures AMP	?	2014.1
Council Chambers	\$150,000	<b>Buildings and Other Structures AMP</b>	?	2014.3, 2015.6, 2017.3
CentrePoint Leisure Centre	\$160,000	Buildings and Other Structures AMP	?	2014.2, 2015.5, 2016.5, 2017
Red Cross Hall, Gold Street Recreation Ground	\$7,000	Buildings and Other Structures AMP	?	2015.2
Gold Street Recreation Ground (Tennis Shelter & toilet block)	\$47,000	Buildings and Other Structures AMP	?	2015.1, 2017.4
Hobbys Yards Community Hall (Kitchen & Roof and Gable)	\$20,000	Buildings and Other Structures AMP	?	2015.3, 2019.1
Redmond Oval, Millthorpe Pavillion	\$10,000	Buildings and Other Structures AMP	?	2015.4
Lyndhurst Sportsground Multi-function building	\$125,000	Buildings and Other Structures AMP	?	2016.1 - 2016.4
			?	
King George Oval (Kev Newell Stand)	\$10,000	Buildings and Other Structures AMP		2017.1
Carrington Park Toilet block	\$20,000	Buildings and Other Structures AMP	?	2017.2
BSC Depot various	\$57,000	Buildings and Other Structures AMP	?	2018.1 - 2018.5
King George Oval (Jim Coble Stand)	\$10,000	Buildings and Other Structures AMP	?	2018.6
King George Oval (kiosk/commentators box)	\$50,000	Buildings and Other Structures AMP	?	2020.1
Blayney Showground Hall (kitchen)	\$15,000	Buildings and Other Structures AMP	?	2020.2
Napier Oval ( Toilet block and kiosk)	\$133,000	Buildings and Other Structures AMP	?	2021.1, 2021.2
	\$3,076,000			
PARKS AND GARDENS				
Renewal Works				
General capital renewal (bins, benches, recycling, shade)	\$806,314	Parks and Gardens AMP, v1.0		
Capital Upgrade / New Works Program				
Lyndhurst Cricket Nets	\$20,000	Parks and Gardens AMP, v1.0	?	2012.1
			?	2012.1
Lyndhurst Cricket Carpark Dakers Oval Cricket Pitch	\$25,000	Parks and Gardens AMP, v1.0	?	
	\$30,000	Parks and Gardens AMP, v1.0		2013.1
Dakers Oval Picket Fence	\$80,000	Parks and Gardens AMP, v1.0	?	2013.2
Lyndhurst Showground Picnic Tables	\$7,000	Parks and Gardens AMP, v1.0		2014.1
Dakers Oval Lighting	\$50,000	Parks and Gardens AMP, v1.0	?	2014.2
Dakers Oval Carpark	\$25,000	Parks and Gardens AMP, v1.0	?	2015.1
Memorial Park - Mandurrama Picket Fence	\$80,000	Parks and Gardens AMP, v1.0	?	2015.2
Napier Oval Carpark	\$25,000	Parks and Gardens AMP, v1.0	?	2016.1
King George Oval Netball Integration	\$25,000	Parks and Gardens AMP, v1.0	?	2016.2
King George Oval exterior fence	\$180,000	Parks and Gardens AMP, v1.0	?	2017.1
King George Oval Picket fence	\$80,000	Parks and Gardens AMP, v1.0	?	2018.1
Napier Oval Park Benches		Parks and Gardens AMP, v1.0 Parks and Gardens AMP, v1.0	?	2018.2
	\$5,000			
King George Oval Netball Integration	\$90,000	Parks and Gardens AMP, v1.0	?	2019.1, 2020.1
Redmond Oval drainage upgrade	\$160,000	Parks and Gardens AMP, v1.0	?	2021.1
Frog Hollow wetlands	\$25,000	Parks and Gardens AMP, v1.0	?	2021.2
	\$1,713,314			

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Local Infrastructure map or maps to be inserted.

