WALGETT SHIRE COUNCIL

ROADS

ASSET MANAGEMENT PLAN 2012

Roads Asset Management Plan

Prepared For: Walgett Shire Council **By:** Executive Engineer

Document Control

DOCUMENT I.D.					
Version	**Date**	**Version Details**	**Author**	**Reviewer**	**Approver**
1	31/01/2012	Asset Management Plan Template	FBG		Council
2	07/05/2012	Completed Plan	IGT		Council
3		Adopted minute No. 06/2012/32			Council

IMPORTANT DOCUMENT DRAFTING NOTES:

Duration:	Rolling Ten Year Plan.
Sub Period:	Addresses the current council term (4 Years or residual term).
Review:	Annual (informing annual operations plan).
Informs:	Higher level Strategic Planning - Council Resourcing Strategy.

MUST HAVES - S.403 - (Local Government Act 1993)

1. The Asset Management Plan(s) must encompass all the assets under a council's control.
2. The Asset Management Plan(s) must identify asset service standards.
3. The Asset Management Plan(s) must contain long term projections of asset maintenance, rehabilitation and replacement costs.
4. Councils must report on the condition of their assets in their annual financial statements in line with the Local Government Code of Accounting Practice and Financial Reporting.

ADDITIONALLY

5. Water and Sewerage asset management plans must comply with:
   - *Best-practice Management of Water Supply and Sewerage Guidelines, 2007.*
   - *NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Storm water Assets 2007.*

IMPORTANT DOCUMENT DRAFTING NOTES cont.

INFORMATION SOURCES

IPR GUIDELINES 2010

Councils must comply with the "*Essential Elements*" of the guidelines when planning and reporting in order to comply with the Local Government Act.

IPR MANUAL 2010

No mandatory requirements. To be considered by council when making decisions on the transition to the new planning and reporting framework.

ASSET MANAGEMENT

Australian Infrastructure Financial Management Guidelines – Version 1.0, 2009.

The International Infrastructure Management Manual (IIMM) 2006 or 2011

WATER SUPPLY AND SEWERAGE – (MANDATORY COMPLIANCE)

Best-practice Management of Water Supply and Sewerage Guidelines, 2007.

NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets 2007.

Guidance

Water Supply and Sewerage Asset Management Guidelines 1991.

RISK MANAGEMENT

The International and Australian Standard *AS/NZS/ISO/31000:2009 – Risk management – Principles and guidelines.*

NSW LEGISLATION / REGULATIONS

Local Government Act 1993	s403
Local Government (General) Regulation 2005	None
Local Government Code of Accounting Practice and Financial Reporting	Yes

OTHER POTENTIAL INFORMATION SOURCES

Prior Council Management Plans.

Draft Plans (Workforce management / Long term Financial plan / Council Asset Management Policy / Council Strategic Asset Management Plan.

Asset Registers.

Asset Condition Assessments.

Existing Asset Maintenance and Management systems.

Local Knowledge.

TABLE OF CONTENTS

1. Executive Summary

What Council Provides

Council provides a public road network throughout the Shire linking all properties to the State Highway Network.

This asset management plan covers all assets that relate to Regional and Local Roads in Walgett Shire. Land values associated with Council's roads (where applicable) form part of Council's Property Asset management Plan.

The assets covered as part of this plan include formed-only (black soil) roads, gravel sheeted roads, bitumen sealed roads and associated infrastructure such as footpaths, kerb and gutter (channel), culverts, bridges, road signs, guideposts, stock grids, and causeways.

Our Plans for the Future

Council plans to operate and maintain the road network to achieve the following strategic objectives.

- Ensure all properties have public road access, but not necessarily road frontage.
- Maintain or improve the level of road safety in the Shire.
- Improve road infrastructure to meet the needs of tourism and agribusiness.
- Seek to maximize revenue for road maintenance and development from those industries that benefit from improved roads and from other levels of government that tax road users.

Levels of Service

Council has not conducted customer satisfaction surveys to measure the performance of Council roads services. This or similarly documented community engagement will be required to demonstrate that the adopted levels of service (LOS) in the plan meet with community agreement.

Financial Summary

There are two primary indicators we use to cost the roads service:

1. The average cost over the life cycle of the asset (Life cycle cost).
2. The total maintenance and capital renewal expenditure required to deliver our desired service levels.

Our lifecycle cost estimates are $7,599,000 per annum. Council's planned life cycle expenditure for year 1 of the asset management plan is $7,423,000 which gives a life cycle sustainability index of 0.98.

The total maintenance and capital renewal cost estimates required to provide the roads service over the next decade are estimated at $61,215,000. This is an average of $6,122,000 per annum.

Council's maintenance and capital renewal expenditure for year 1 of the asset management plan is $6,348,000 giving us a 10 year sustainability index of 1.04

Next Steps

1. Complete our Asset Management Improvement plan as set out in the table below.
2. Make provision for the completion of the Capital Works Program (See Appendix A).
3. Expand our community consultation prior to this plan's scheduled annual review.

Item	Description	Responsibility	Resources	Timeline
1	Allocate additional professional staff time to asset management processes			12 months
2	Plan and undertake stakeholder consultation to develop Desired Levels of Service			12 months
3	Undertake a risk assessment addressing all high risks associated with road infrastructure			12 months
4	Review maintenance practices to achieve operating and maintenance cost savings required to accommodate increasing level of sealed roads assets			24 months
5	Conduct training on geographic-based asset management system			6 months
6	Integrate geographic-based asset management system with customer relations (requests/complaints) for daily usage			12 months
7	Implement geographic-based asset management system as the basis of documenting: (a) requests for new/upgraded assets; (b) assets that are planned to be delivered in the Strategic Plan; (c) works in progress; and (d) disposal and financial completion of capital works.			12 months

2. Introduction

This asset management plan seeks to provide Council Staff, the Executive Management team, Utility Authorities, Government Agencies, Developers and other Business Operators, Councilors and all interested members of the Walgett Shire community with an easy-to-read, informative asset management planning document.

Key Stakeholders

This asset management plan is guided by the Walgett Shire Council's overarching "Asset Management Strategy". At the core of the asset management strategy rests Council's commitment to ensuring that Council Assets are well maintained on behalf of current and future generations. Walgett Shire Council staff are accountable for implementing Council approved Asset Management Policies, Strategies and individual Asset Management Plans as follows:

General Manager
Responsible for ensuring the development and resourcing of Council's strategic asset management plans and processes and for their integration with Council's Integrated Planning & Reporting framework under the Local Government Act.

Directors
Responsible for development and implementation of Council's strategic asset management plans and processes and for their integration with Council's integrated Planning & Reporting framework under the Local Government Act.

Divisional Managers
Responsible for implementation of Council's strategic asset management plans and processes and for reporting on performance in delivery.

Supervisors
Responsible for the implementation of specific activities identified in the plans.

Council's asset management plans are reviewed and approved by Walgett Shire's elected representatives before being implemented. Asset Management Plans are reviewed annually as part of the new Local Government Act 1993 "Intergrated Planning and Reporting Process".

Plan context and scope

The roads asset management plan is one of 5 asset management plans covering all community assets for which Walgett Shire Council has custodial responsibility. Asset Management plans provide important information critical to Council's higher level planning responsibilities, in particular, Council's over arching "Resourcing Strategy".

How this plan fits in.

Council's Resourcing Strategy is a large component of the new "Intergrated Planning and Reporting Process" legislated through the Local Government Act 1993. The new procedures will be fully adopted by Walgett Shire Council before June of 2012. The Resourcing Strategy and its sub plans shown above, provide critical information enabling Council to plan and deliver services effectively.

The Big Picture

Assets covered in this plan

Walgett shire is the custodian of 558 kilometres of Regional Roads and approximately 1817 kilometres of Local Roads.

This plan covers the following roads assets:

Asset	Quantity	Replacement Value ($M)
Bitumen Seal	1,795,342m^2	11.221
Bridge	12,535m^2	35.184
Formation	15,917,203m^2	202.944
Geotextile Seal	1,603,345	12.025
Gravel Pavement	2,347,112m^2	24.613
Gravel Sheeting	1,159,957m^2	8.120
Kerb & Gutter	53,279m	12.307
Footpaths	25,698m^2	4.560
TOTAL		**310.974**

The land component of Councils roads assets (where applicable) appears in the Walgett Shire Council Property Asset Management Plan.

Specific plan objectives

The specific objectives of this plan are to:

- Communicate effectively the responsible Council stewardship of the communities roads assets;
- Define how these assets will be managed over the next decade to achieve the strategic objectives for our community;
- Provide costing and justification for planned capital works programs and our asset maintenance programs;
- Assist in cost reductions where possible by optimizing whole of life asset costs;
- Identify environmental, financial and public risks of asset failure;
- Directly support the long term financial planning and workforce management planning components of Councils Resources Strategy; and
- Identify areas where our asset management practices can be improved as we move into the future.

By embracing these objectives, Council believes we can competently and sustainably manage the community's assets into the future.

Plan Structure

SECTION 1	Executive Summary	Summarising the plan and key data *What Council Provides* *Our Plans for the future* *Levels of Service* *Financial Summary* *Next Steps*
SECTION 2	Introduction	Setting the Scene *Key Stake Holders* *Plan context, scope, assets covered and specific plan objectives.* *Plan framework at a glance.* *Moving from a Core capability toward Advanced Asset Management.*
SECTION 3	Levels of Service	Working with our community *Customer Research & Expectations* *Current Levels of Service* *Desired Levels of Service* *Legislative Requirements*
SECTION 4	Future Demand	What does the future hold *Demand Forecast* *Relevant Trends* *Impact of technology* *Demand Management Strategies*
SECTION 5	Life Cycle Management	The core of Asset Management Planning *Asset Hierarchy* *Physical Parameters* *Asset Capacity / Performance* *Asset Condition* *Asset Valuations* *Risk Management Plan* *Routine Maintenance Plan* *Renewal / Replacement Plan* *New Works Plan – Creation / Acquisition / Upgrading* *Disposal Plan*
SECTION 6	Financial Summary	How we came up with our financials *Financial Statements, Forecasts, Funding Strategies, Valuation Forecasts and the assumptions we have used.*
SECTION 7	Asset Management Practices	Where we are now and where we are going *Current Asset Management Resources* *Planned Areas of Improvement.* *Standards and Guidelines*
SECTION 8	Monitoring and Review Procedures	How we Plan to Deliver *Performance Measures* *Improvement Program* *Monitoring and Review Procedures*

3. Levels Of Service

Customer Research & Expectations

Council has not conducted customer satisfaction surveys to measure the performance of Council roads services. This or similarly documented community engagement will be required to demonstrate that the adopted levels of service (LOS) in the plan meet with community agreement.

Current Levels of Service

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met.

These measures of performance include:

Monthly reports to Council's Senior Management.

This report includes a financial overview, operational report and human resourcing overview. Key Performance Indicators reported are:

1. Average unit costs of maintenance activities.
2. Proportion of the road network inspected.
3. Outstanding road network defects.
4. Progress of annual planned maintenance/renewal program.
5. Number of new or potential damages claims.
6. Number of unplanned road closures.

Quarterly Reports – Quarterly versions of the monthly reports noted above.

Annual

This report includes the final financial, accomplishment, reliability, and works backlog for the year.

Council's Current service levels are detailed below:

Community Levels of Service

Key Performance Area	KPI	Performance Measure Process	Indicator	How Measured	Target
Safety/Risk Management	Customer Requests	Public Reaction	Number	Requests Lodged	
Safety/Risk Management	New or Potential Damage Claims	Public Reaction	Number	Claims/Potential Claims Lodged	

Technical Levels of Service

Key Performance Area	KPI	Performance Measure Process	Indicator	How Measured	Target
Maintenance Efficiency	Operational Costs	Accomplishment	Maintenance Activity Unit Cost	Reflect System	
Reliability, Safety, & Risk Management	Network Inspections	Accomplishment	Network Inspection Frequency	Reflect System	
Reliability, Safety, & Risk Management	Outstanding Defects	Defects	Number	Reflect System	
Reliability	Unplanned Road Closures	Road Days' Closed	% availability of network	Media Releases Issued	
Risk Management	Completion of Planned Works	Accomplishment	% program completed	Reflect System	

Desired Levels of Service

The desired levels of service are yet to be obtained from the community. They may change depending upon the outcomes of future customer satisfaction surveys, changes in legislation.

Legislative Requirements

Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Environmental Planning and Assessment Act 1979	Requirement for LEP and DCP's. Council control of service approvals.
Catchment Management Act 1989	Requirement for ongoing management plan. Promotes the coordination of activities within catchment areas. Under the provision of this Act, Local Catchment Management Committees can be established to oversee this process in the region.
Soil Conservation Act 1938	Preservation of water course environment.
Public Works Act 1912	Role of DPWS in planning and construction of new assets.
Water Act 2007 Cwth	An Act to make provision for the management of the water resources of the Murray-Darling Basin, and to make provision for other matters of national interest in relation to water and water information, and for related purposes
Water Act 1912	Water rights, licenses, allocations.
Water Management Act 2000	To provide for the conservation of water sources.
Crown Lands Act 1989	Provides for the administration of Crown Lands (including Crown roads)
Work Health and Safety Act 2011	Impacts all operations. Note public safety – insurance. Cost implications. Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
Mine Health and Safety Act 2004	Impacts all gravel pit operations. Council's responsibility to ensure health, safety and welfare of employees and others at places of work.
Protection of the Environment Operations Act 1997	Control of run-off or escape of contaminants entering water courses. Regulating pollution activities and issue of licenses as well as the monitoring of and reporting on waste output. This act includes "Due Diligence requirements, disposal procedures for chemicals and sludge and details penalties for causing environmental impacts.
Pesticides Act 1999	Provides for the use of Herbicides and Insecticides.
Noxious Weeds Act 1993	Provides for the identification and eradication of noxious weeds.
Native Titles Act	Provides definition of freehold zone-able land
Environment Protection & Biodiversity Conservation Act 1999 Cwth	Provides for the Commonwealth Government's requirements for conserving Australia's biodiversity.
Threatened Species Act 1995	Provides for the conservation of threatened species, populations and ecological communities.
Roads Act 1993	Provides for the administration of roads.

Road Transport (Safety & Traffic Management) Act 1999	Provides definition of control of traffic on roads.
Roads to Recovery Act 2000 Cwth	Provides funding from the Commonwealth Government to Councils for Roads
Telecommunications Act 1997 Cwth	Provides for the installation of telecommunications cables on public land and related matters

4. Future Demand

Demand Forecast

There are several key demand drivers that may influence road transport demands in the Walgett Shire Council Local Government Area.

These include:

1. Commonwealth and State Government water and industry reform affecting overall levels of cropping in the Shire;
2. Demographic factors such as population growth, occupancy rate;
3. Reliability of roads on the shortest interstate road transport routes Adelaide-Brisbane;
4. New development in the mining, tourism, or other sectors;
5. Reliability of rail freight transport to key ports;
6. Reliability of local roads to the farm gate;
7. Price trends of relevant local (export) commodities;
8. Price trends of key business input costs such as petroleum based products and labour;
9. Prevalence of higher productivity vehicles (HPV) in the road transport fleet servicing the Shire.

Most Relevant Trends

Data from the 2010/2011 Census was not available at the time of writing, however trends are provided using the previous years' data. Refer Table 1.

The available data (2000-2006) reflect a period of drought and agricultural production in the Shire deteriorated over this period. Comparison with 2001 data should provide further evidence of the extent of the variability and any underlying trend.

Whilst not major drivers of the demand for road infrastructure, government employment, particularly in health care is rising.

Table 1

Economic Activity driving demand for Road Infrastructure										
	2000/2001					2005/2006				
	Employment (Persons FTE)	Establish-ments	Production Area ('000s)	Quantity ('000s) (No./ T)	Value ('000s)	Employment (Persons FTE)	Establish-ments	Production Area ('000s)	Quantity ('000s) (No./ T)	Value ('000s)
Sheep/ Wool		193	1,018	732	16,620		186	1,466	664	13,878
Cattle		213		108	32,505		210		73	31,879
Cereal Crops		257	338	407	75,321		241	363	573	91,678
Non-Cereal Crops		125	83	137	129,296		76	46	152	69,024
All Agriculture	837	334	2,042			714	329	2,086		
Hospitality	200					142				
Mining	132					76				
Public Administration & Safety	225					212				
Education & Training	262					249				
Health Care	231					273				
Other Services	1,151					952				
Population				8,310					7,312	

Impact of technology

At this point in time technology changes are forecast to have little effect on the delivery of services covered by this plan. However, new technology is constantly emerging and this may improve the performance and efficiency of plant and materials used in road maintenance and renewal.

Demand Management Strategies

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions that modify demand, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in the table below. Further opportunities will be developed in future revisions of this asset management plan.

Service Activity	Demand Management Plan
Community Engagement	Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council's charter.
Customer Requests	Analyse customer requests to optimise the use and performance of existing road services and look for non-asset based solutions to meet demand for services.
Traffic Mass and Volume Control	Improve road and pavement performance through mass restrictions and reducing traffic volumes.
Education Campaigns	Help modify community behaviour through explanatory advertising and education campaigns.

5. Lifecycle Management Plan

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service while optimising life cycle costs. The data below are current at 30 June 2010 valuation and condition assessment.

Asset Hierarchy

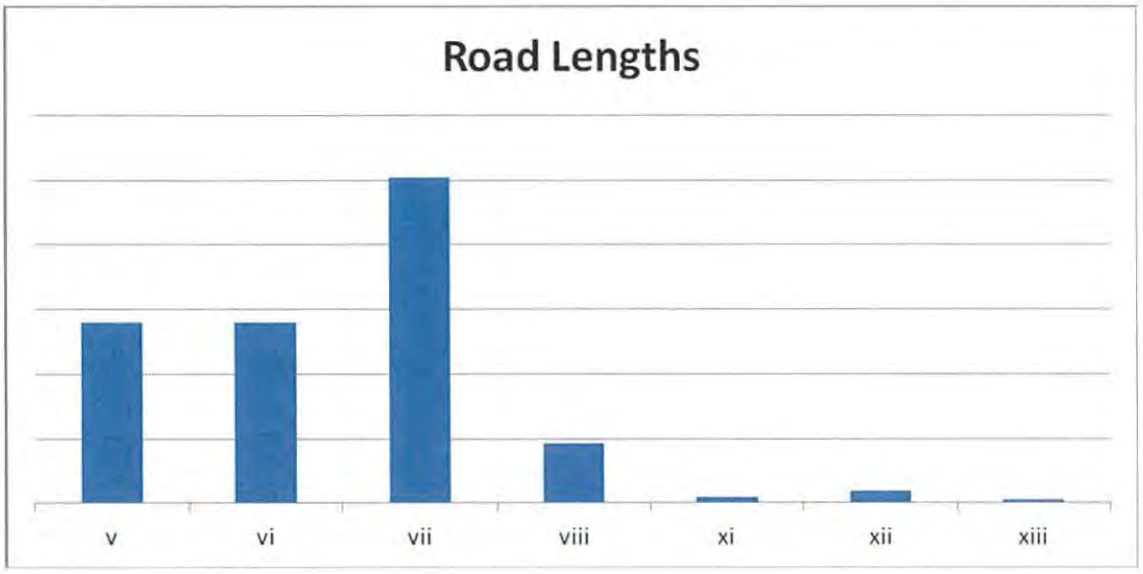

Figure 1

Road Class		Length (km)
v	Regional Road	558
vi	Local Rural Class vi	560
vii	Local Rural Class vii	1,007
viii	Local Rural Class viii	185
xi	Local Urban Class xi	17
xii	Local Urban Class xii	36
xiii	Local Urban Class xiii	12
Total		**2,375**

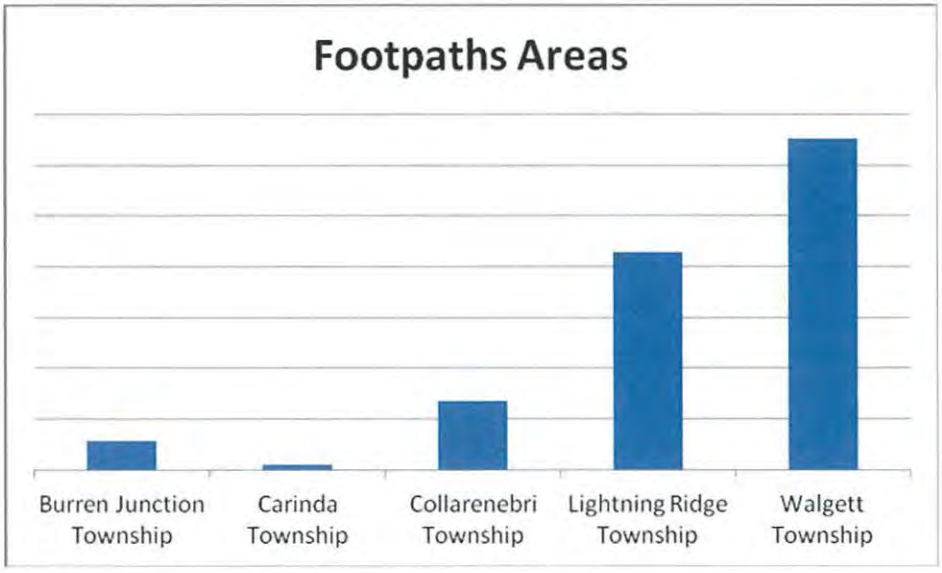

Figure 2

Location	Area m2
Burren Junction Township	1,156
Carinda Township	211
Collarenebri Township	2,697
Lightning Ridge Township	8,570
Walgett Township	13,064
Grand Total	**25,698**

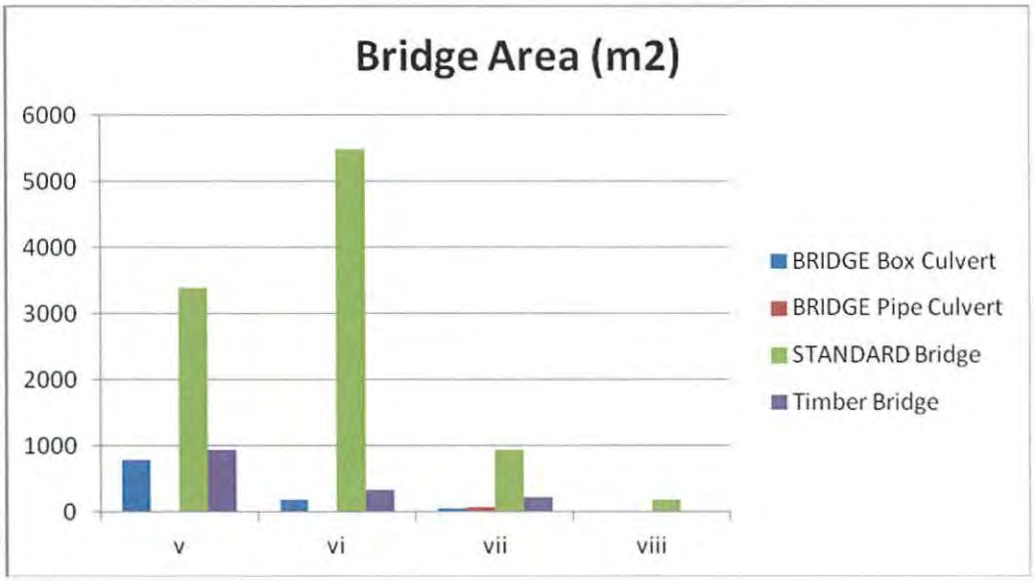

Figure 3

Physical Parameters

The Roads Asset Management Plan covers the assets show in below (dimensions in metres):

Road Class	v	vi	vii	viii	xi	xii	xiii	Total
Bitumen Seal	1,010,274	194,625	67,428	4,902	156,794	312,934	48,384	1,795,342
Bridge - Concrete	4,162	5,663	1,049	178				11,052
Bridge - Timber	941	323	219					1,484
Formation	4,514,164	3,478,981	6,068,084	1,102,103	222,489	431,634	99,748	15,917,203
Geotextile Seal	1,496,778	102,004				4,563		1,603,345
Gravel Pavement	1,299,793	252,537	87,820	6,331	222,489	399,586	78,555	2,347,112
Gravel Sheet	300,310	717,609	87,615	38,590		2,668	13,165	1,159,957
Kerb & Gutter		1,491			14,688	32,601	4,499	53,279

Class v, vi, vii, and viii assets are distributed throughout the Shire. Each road is subdivided into segments of up to approximately three kilometers in length to facilitate their management and inspection.

Class xi, xii, and xiii assets are located in the villages and townships of Burren Junction, Carinda, Collarenebri, Come By Chance, Cumborah, Lightning Ridge, Rowena, and Walgett.

The following diagrams show the condition profile distribution of the road assets:

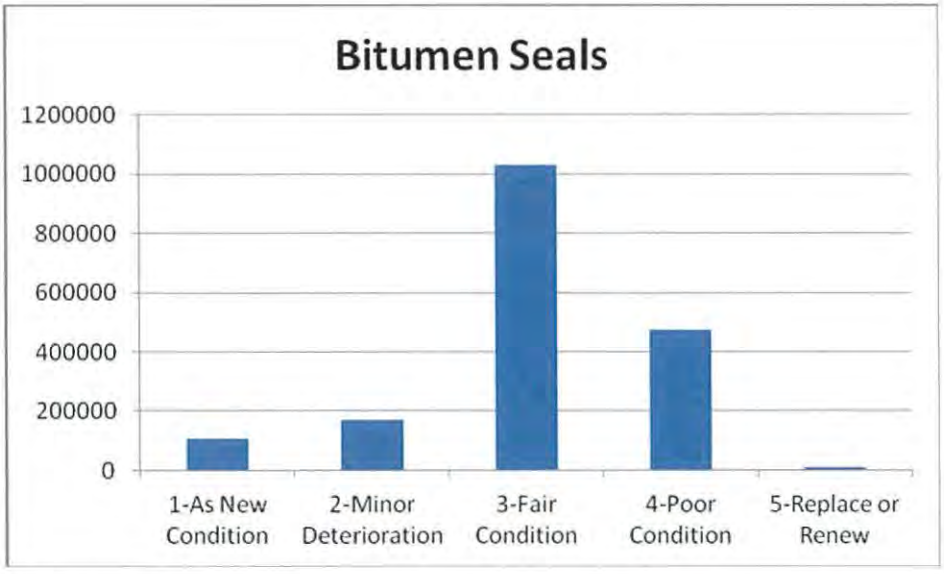

Figure 4

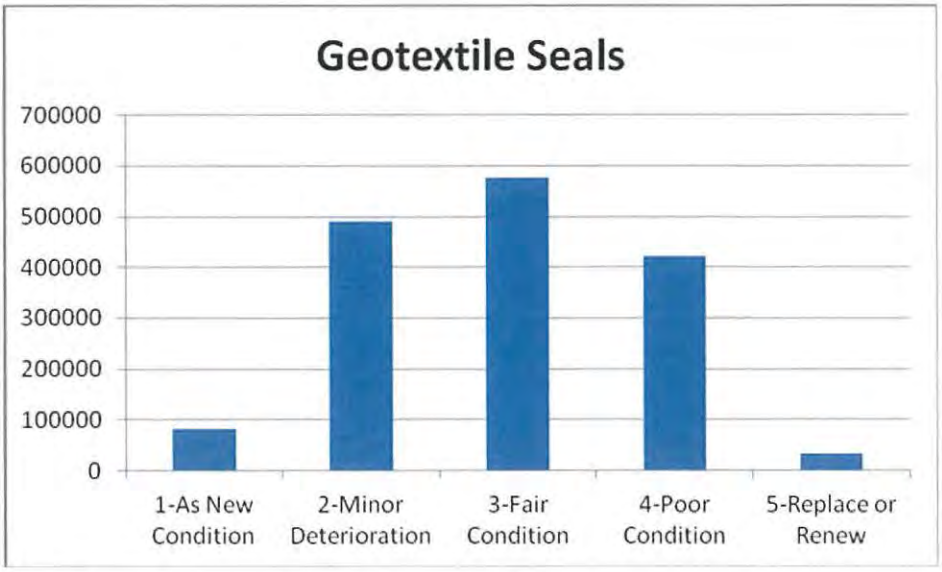

Figure 5

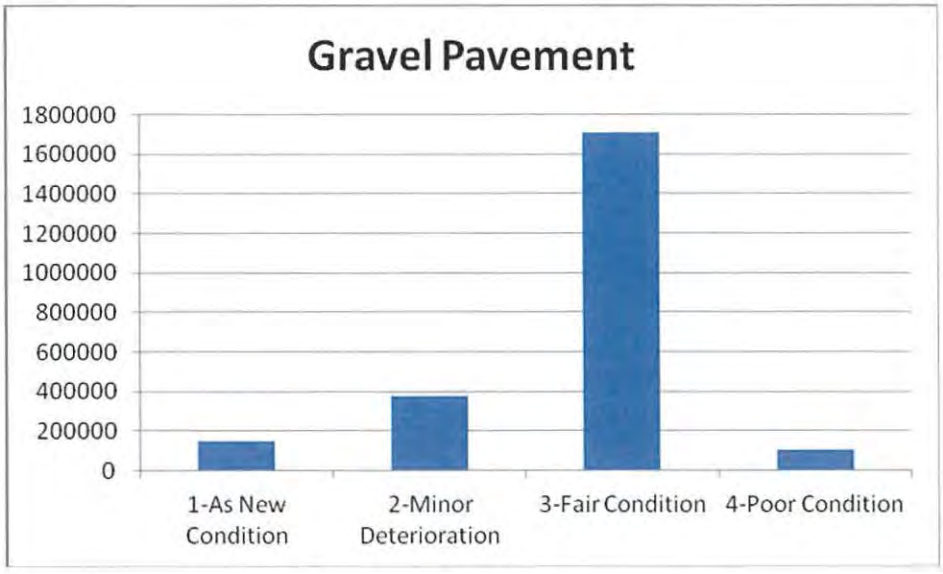

Figure 6

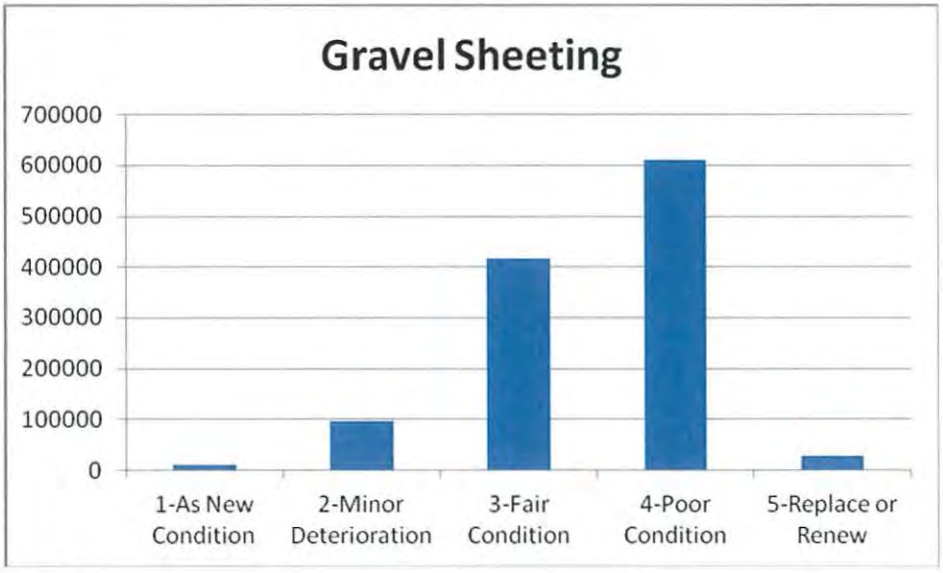

Figure 7

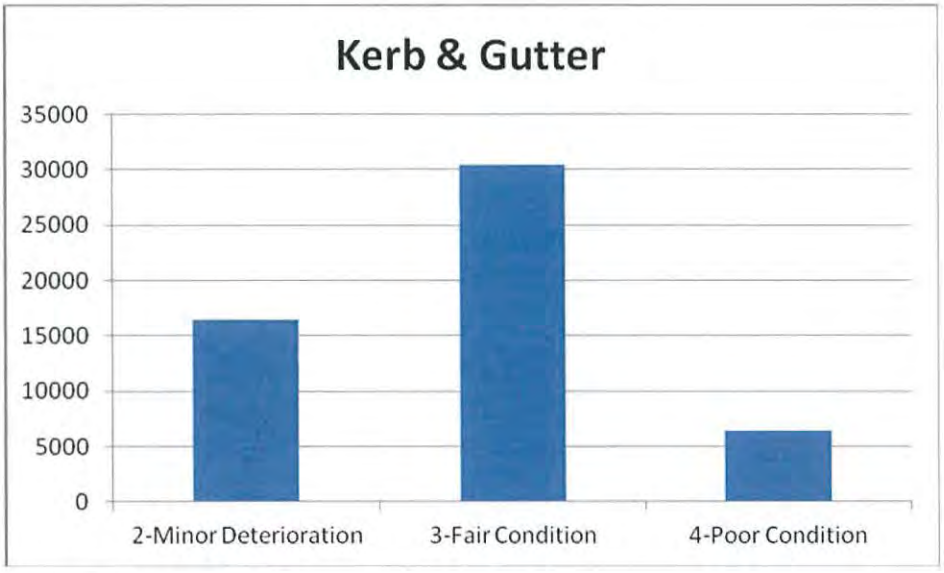

Figure 8

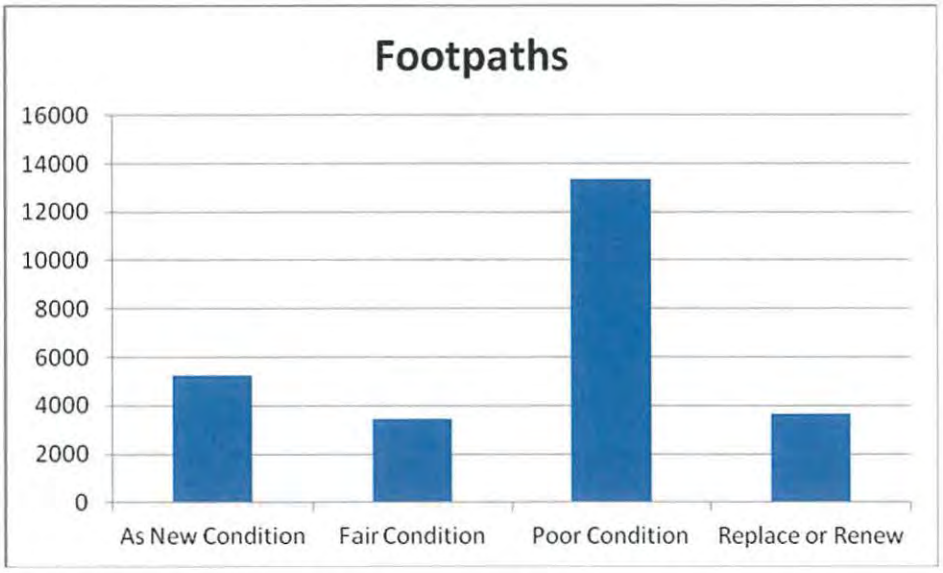

Figure 9

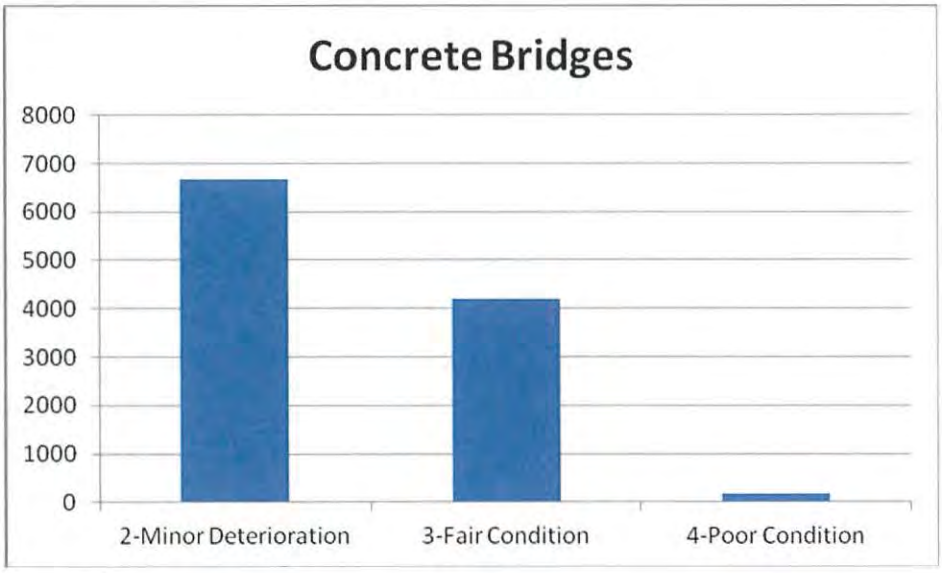

Figure 10

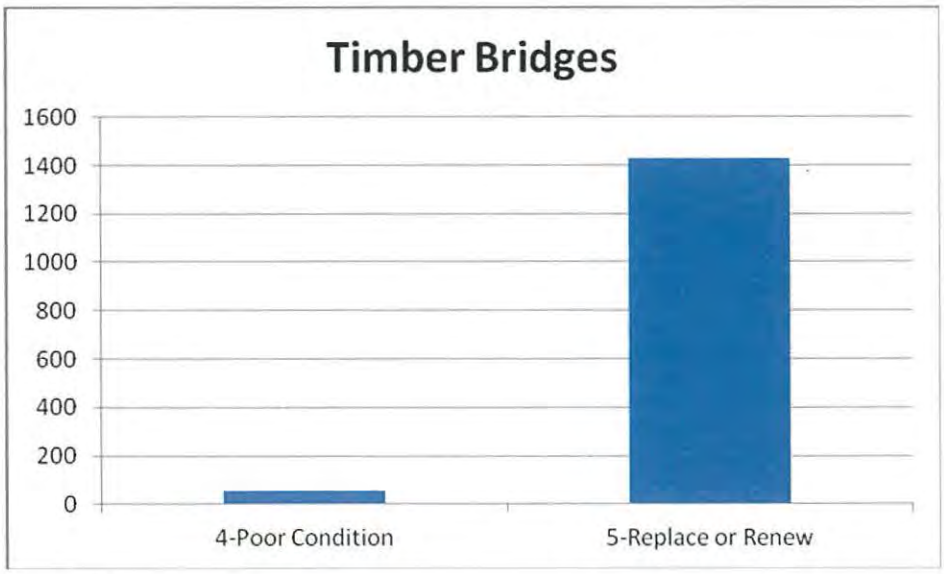
Timber Bridges
1600
1400
1200
1000
800
600
400
200
0
4-Poor Condition
5-Replace or Renew

Figure 11

Asset Capacity / Performance

Council's services are generally provided to meet design standards where these are available. Relevant standards and guidelines include Road Transport Legislation, State Road Authority guidelines, Austroads design guides, and Aus-Spec Design Specification.

Locations where deficiencies in service performance are known are detailed in the Table below.

Location	**Service Deficiency**
Geotextile sealed roads	Road is without structural pavement and is subject to widespread failure if submerged by floodwater for durations exceeding 12 hours.
Some Bridges constructed prior to 2004	Bridge is not certified or designed to meet the current load standards and may not be suitable for use at "Higher Mass Limits" (HML)
Floodways on formed-only roads	Loss of or inadequate gravel is a constraint to the functionality of these roads
Rural Roads	At times a deficiency of water for maintenance of unsealed roads and the shoulders of sealed roads exists in some parts of the Shire which limits the ability adequately compact newly reshaped surfaces.
Urban Streets	At many locations kerb and gutter does not effectively drain water due to low grades, movement due to highly reactive sub-grade, or lack of continuity

Asset Condition

Council currently monitors the condition of its roads infrastructure via visual inspection and customer request. Inspection frequency varied depending upon the asset type and road class. At less frequent intervals, council may engage electronic vehicle-mounted survey of bitumen sealed gravel pavement roads to provide a more detailed condition assessment. Asset conditions in Council's asset management system are updated at least every time assets are revalued.

Asset Valuations

The value of assets as at 30 June 2010 covered by this asset management plan are summarised below. Assets were last revalued at 30 June 2010. Assets are valued at brownfield rates.

Regional Roads & Bridges

Road Category	Replacement Cost	Annual Depreciation	Accumulated Depreciation	Written Down Value	Residual Value
Regional Rural Sealed	$79,921,441	$1,239,988	$14,772,154	$65,149,288	$53,911,779
Regional Rural Unsealed	$20,909,330	$434,269	$2,498,835	$18,410,495	$17,423,649
Regional Urban Sealed	$3,715,432	$41,466	$527,053	$3,188,380	$2,842,697
Regional Urban Unsealed	$20,479	$0	$0	$20,479	$20,479
Grand Total	**$104,566,683**	**$1,715,723**	**$17,798,041**	**$86,768,642**	**$74,198,604**

Local Roads & Bridges

Road Category	Replacement Cost	Annual Depreciation	Accumulated Depreciation	Written Down Value	Residual Value
Local Rural Sealed	$17,018,917	$215,251	$4,359,248	$12,659,669	$7,808,590
Local Rural Unsealed	$150,419,814	$1,330,272	$12,582,592	$137,837,221	$129,619,760
Local Urban Sealed	$33,625,745	$503,869	$9,864,261	$23,761,484	$16,487,978
Local Urban Unsealed	$783,282	$22,431	$79,959	$703,323	$659,234
Grand Total	**$201,847,757**	**$2,071,824**	**$26,886,060**	**$174,961,698**	**$154,575,562**

The high annual depreciation amount for Rural Unsealed Local Roads predominantly reflects the cost of gravel resheeting, which has a short service life.

Footpaths

Town or Village	Replacement Cost	Annual Depreciation	Accumulated Depreciation	Written Down Value
Burren Junction Township	$278,538	$6,963	$221,569	$56,969
Carinda Township	$52,065	$1,302	$45,098	$6,966
Collarenebri Township	$406,419	$10,792	$318,561	$87,858
Lightning Ridge Township	$620,299	$26,145	$378,023	$242,276
Walgett Township	$3,202,824	$80,071	$2,626,316	$576,508
Grand Total	**$4,560,146**	**$125,272**	**$3,589,568**	**$970,578**

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Regional Roads:

Annual Asset Consumption = $\frac{\textit{Depreciation}}{\textit{Depreciable Amount}} = \frac{\$1,716,000}{\$30,368,000} = 5.65\%$

Annual Asset Renewal = $\frac{\textit{Renewal Expenditure}}{\textit{Depreciable Amount}} = \frac{\$1,952,000}{\$30,368,000} = 6.43\%$

Note: The Plan proposes keeping this expenditure constant.

Annual Upgrade/expansion = $\frac{\textit{Upgrade/ Expansion}}{\textit{Depreciable Amount}} = \frac{\$844,000}{\$30,368,000} = 2.78\%$

Note: The Plan proposes increasing this expenditure to $5,426K or 17.87% from 2014.

Local Roads:

Annual Asset Consumption = $\frac{\textit{Depreciation}}{\textit{Depreciable Amount}} = \frac{\$2,072,000}{\$47,272,000} = 4.38\%$

Annual Asset Renewal = $\frac{\textit{Renewal Expenditure}}{\textit{Depreciable Amount}} = \frac{\$726,000}{\$47,272,000} = 1.53\%$

Note: The Plan proposes to increase this expenditure at the rate of 10% p.a. compound.

Annual Upgrade/expansion = $\frac{\textit{Upgrade/ Expansion}}{\textit{Depreciable Amount}} = \frac{\$549,000}{\$47,272,000} = 1.16\%$

Note: The Plan proposes increasing this expenditure to $800K or 1.69% for the life of the Plan.

Footpaths:

Annual Asset Consumption = *Depreciation* / *Depreciable Amount* = $125,000 / $4,560,000 = 2.74%

Annual Asset Renewal = *Renewal Expenditure* / *Depreciable Amount* = $214,000 / $4,560,000 = 4.69%

Note: The Plan proposes keeping this expenditure constant.

Annual Upgrade/expansion = *Upgrade/ Expansion* / *Depreciable Amount* = $86,000 / $4,560,000 = 1.88%

Note: The Plan proposes no expansion beyond 2013.

Risk Management Plan

Council has not conducted a Risk Management Plan for *Roads Infrastructure*. Future versions of this plan will incorporate risk management.

Note: Sealing of currently unsealed roads generates an increase in operation and maintenance expenditure in addition to the depreciation expense of approximately $2,870/km sealed based on 2012 expenditure ratios. The effect of the proposed sealing program is illustrated in Figure 12 below:

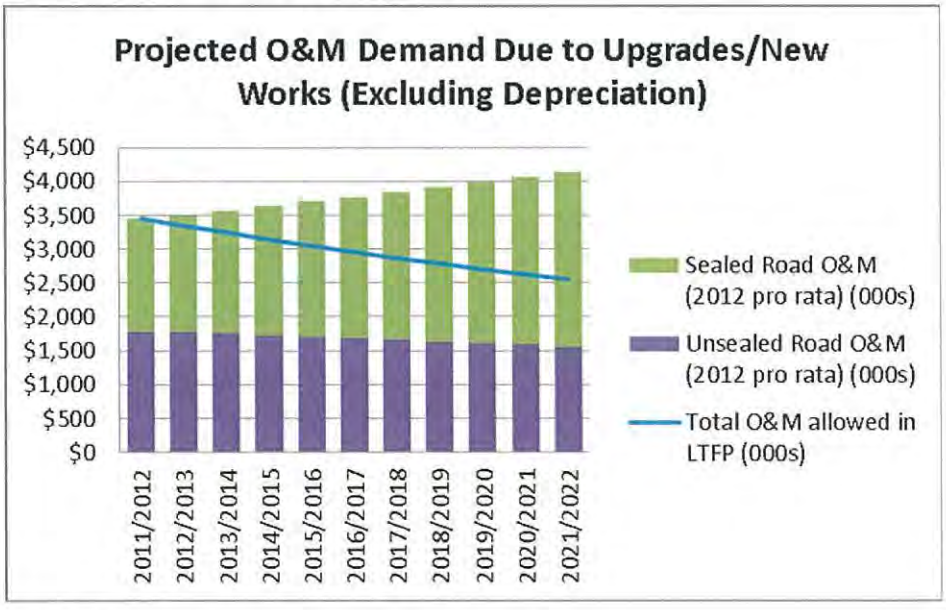

Figure 12

Routine Maintenance Plan

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold.

Maintenance Expenditure Over the last three years:

Regional Roads	
Year	**Maintenance Expenditure** ***Reactive, Planned & Cyclic***
2009/10	$ 949,000
2010/11	$ 971,000
2011/12	$ 1,611,000

Local Roads	
Year	**Maintenance Expenditure** ***Reactive, Planned & Cyclic***
2009/10	$ 1,995,000
2010/11	$ 1,802,000
2011/12	$ 1,837,000

Footpaths	
Year	**Maintenance Expenditure** ***Reactive, Planned & Cyclic***
2009/10	$ 41,000
2010/11	$ 61,000
2011/12	$ 61,000

At present maintenance expenditures are not separated into reactive from planned and cyclic maintenance. It will be separated in the future revision of this plan.

The majority of the maintenance work is planned with minor requests from the Walgett Shire community inspected and acted upon within the existing maintenance budget.

Existing maintenance expenditure levels are considered to be adequate to meet current service levels.

Council is currently in the process of reviewing maintenance processes and developing inspection and condition rating regimes.

Formalising these maintenance processes will enable Council to increase the amount of planned and cyclic maintenance within existing budget allocations and assist in developing a more proactive approach to maintenance.

The Plan proposes a saving of 3% per annum in operating and maintenance expenditure as being required to operate and maintain the network within the available recurrent funding sources. Refer Figure 12.

Deferred maintenance, ie works that are identified for maintenance and unable to be funded are to be included in the risk assessment process in the infrastructure risk management plan.

Renewal / Replacement Plan

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets on the *'Planned Expenditure template'*. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised below.

Note that all costs are shown in current 2009/10 Australian dollar values.

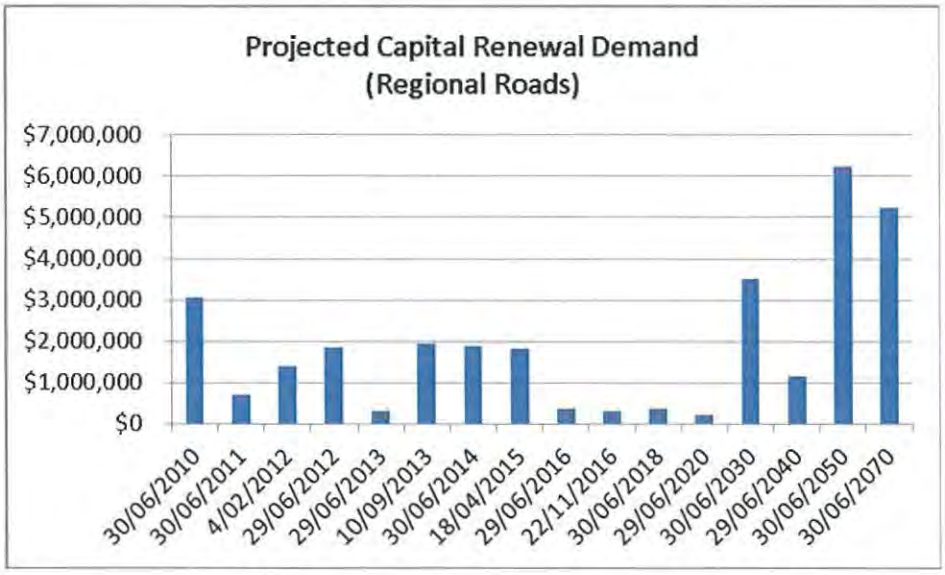

Figure 13

Note: Current renewal expenditure on Regional Roads is $1,952,000 p.a. The Plan proposes to maintain this level of expenditure.

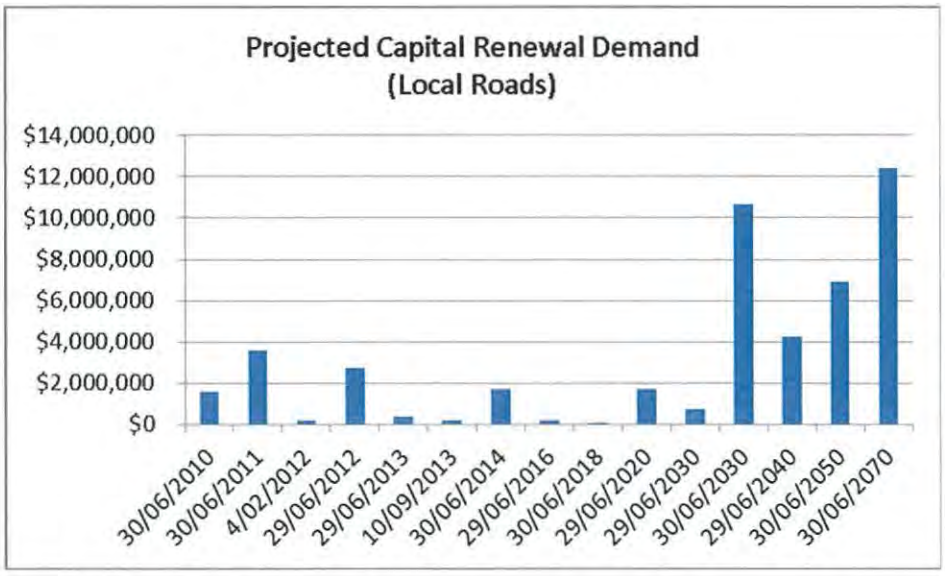

Figure 14

Note: The current renewal expenditure on Local Roads is $725,000 p.a. The Plan proposes to increase this expenditure at 10% p.a. for 10 years.

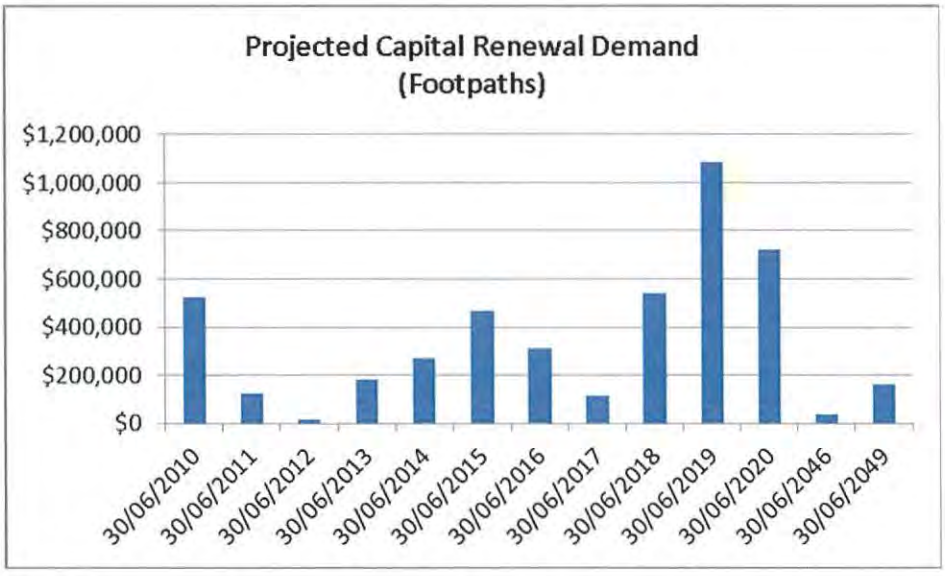

Figure 15

Note: The current renewal expenditure on Footpaths is $214,000 p.a. The Plan proposes to maintain this level of expenditure.

The renewal plan is illustrated in Figure 17 including the depreciation expense associated with existing and new/upgraded roads.

Renewals are to be funded from Council's capital works program and grants where available. This is further discussed in our financial summaries in Section 6.

New Works Plan – Creation / Acquisition / Upgrading

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development.

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programs.

The priority ranking criteria is detailed below.

Table 2

Criteria	Weighting
Traffic Volumes	High
Accident History	High
Bus Route Safety	Med
Urban Amenity	Med
Wet Weather Access	Low

Planned upgrade/new asset expenditures are outlined below. The planned upgrade/new capital works program is shown in detail in Appendix A. All costs are shown in current 2011/12 Australian dollar values.

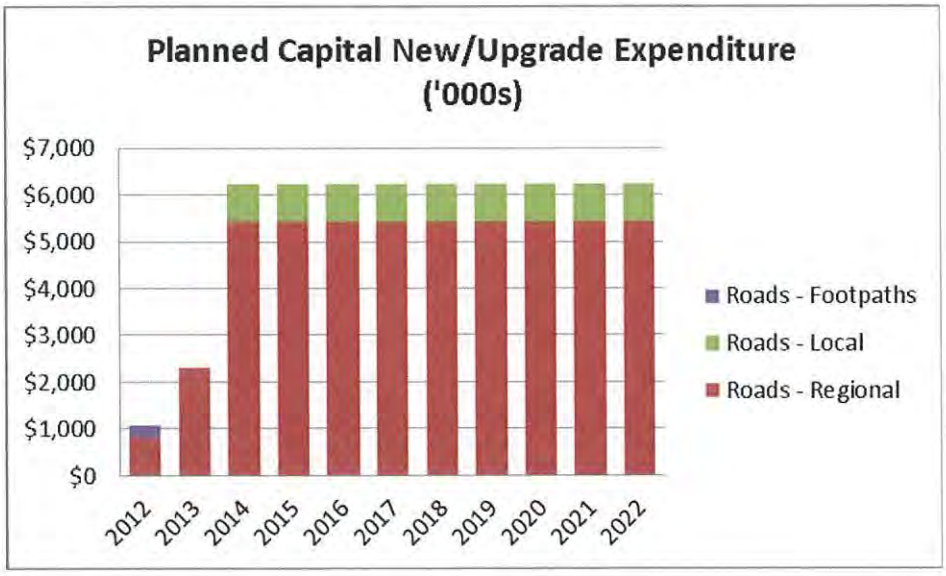

Figure 16

New assets and services are to be funded from Council's capital works program and grants where available. See Financial Summary further discussed in Section 6.

Note that new and upgraded roads assets will incur additional maintenance and renewal expenditure over their life. Refer Figure 12 for the operation and maintenance demand and Figure 17 for the depreciation expense.

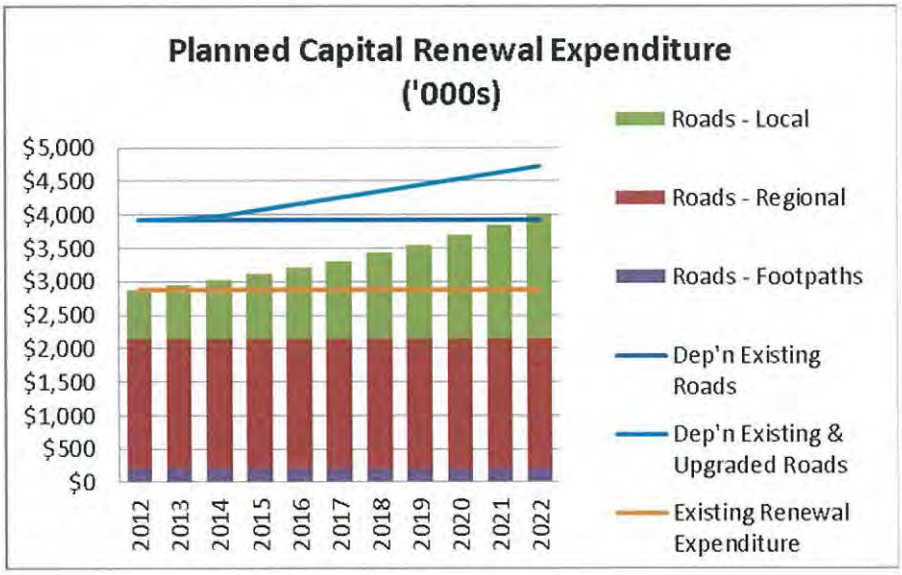

Figure 17

Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. No roads assets have been identified for disposal. Future revisions of this asset management plan will consider any assets suitable for disposal.

6. Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

Financial Statements and Forecasts

The financial projections are shown for planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets) are shown below.

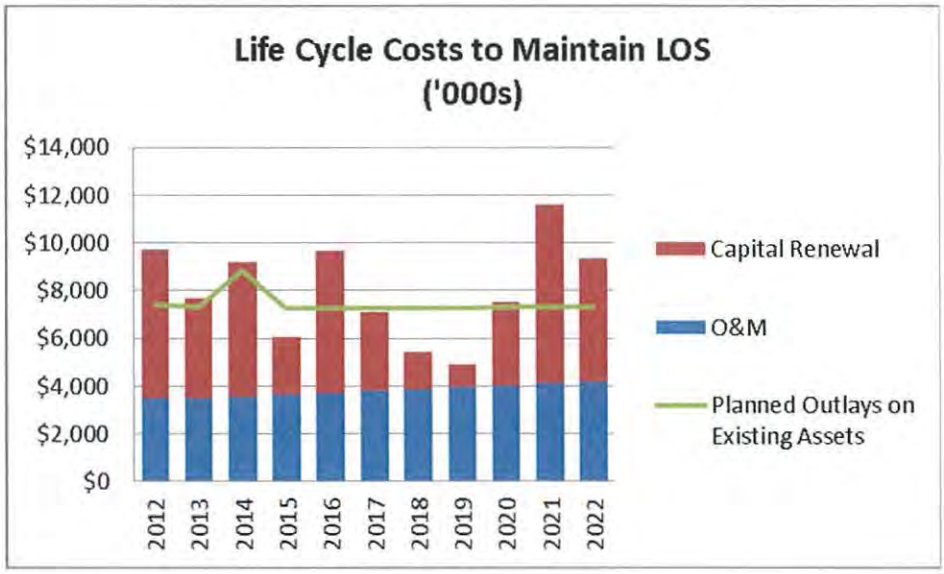

Figure 18

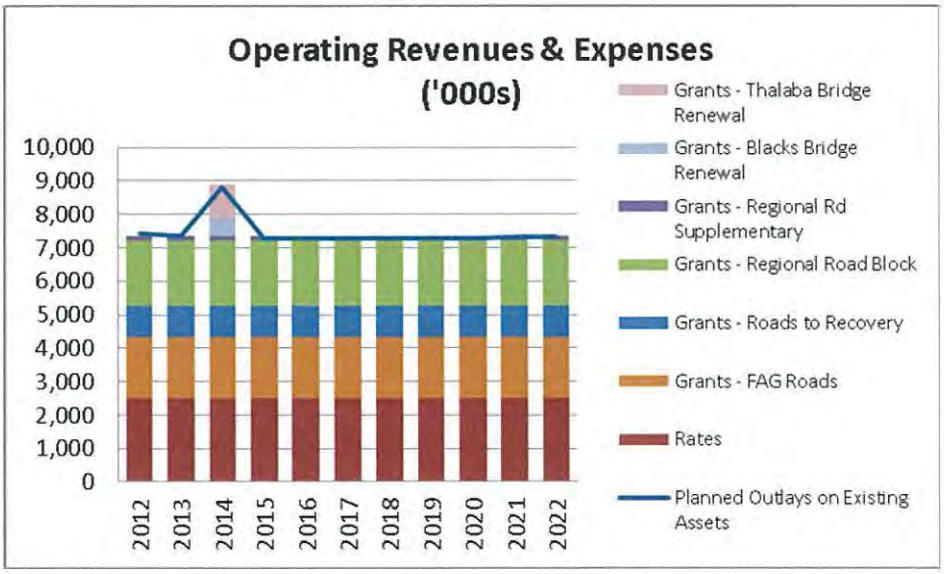

Figure 19

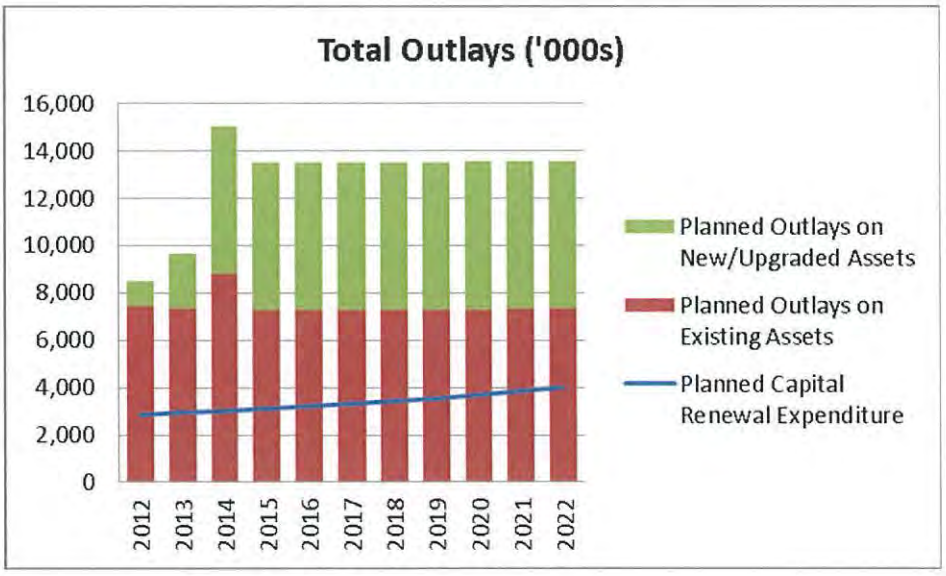

Figure 20

Sustainability of Service Delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is $7,599,000.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is $7,423,000.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this fleet asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

The life cycle gap for services covered by this asset management plan is $176,000 per annum. The life cycle sustainability index is 0.98

The Medium term – 10 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Figure 21 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Figure 20.

Projected and Planned Renewals and Current Renewal Expenditure

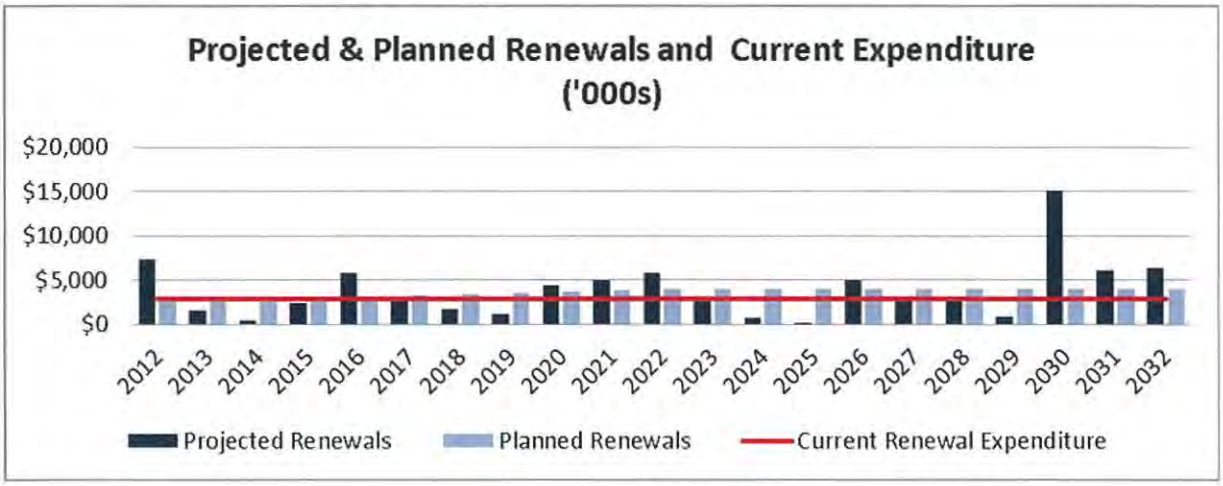

Figure 21

Table 2 shows the annual and cumulative funding gap between projected and planned renewals.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue. A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue. A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap. Council will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services.

Council's long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is $61,215,000.

This is an average expenditure of $6,122,000 p.a. Estimated maintenance and capital renewal expenditure in year 1 is $6,348,000. The 10 year sustainability index is 1.04. This indicates that the year 1 expenditure is currently above the required average. This assumes that the proposed maintenance productivity improvements can be achieved and the assets are currently delivering the required level of service.

'able 3

Renewals: Projected, Planned & Current Expenditure ('000s)																				
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Projected Renewals	7,419	1,526	437	2,496	5,748	3,023	1,704	1,169	4,464	4,937	5,819	2,506	749	191	4,973	2,910	2,629	877	15,152	6,102
Planned Renewals	2,869	2,941	3,021	3,108	3,204	3,310	3,427	3,555	3,696	3,850	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021	4,021
Current Renewal Expenditure	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892	2,892
Annual Funding Gap	4,550	(1,416)	(2,584)	(612)	2,544	(287)	(1,722)	(2,385)	768	1,086	1,798	(1,515)	(3,272)	(3,830)	952	(1,111)	(1,392)	(3,144)	11,131	2,081
Cumulative Funding Gap	4,550	3,134	551	(61)	2,483	2,195	473	(1,912)	(1,144)	(58)	1,741	225	(3,046)	(6,876)	(5,924)	(7,035)	(8,427)	(11,571)	(439)	1,641

Funding Strategy

Projected expenditure identified in section 6.0 is to be funded from Council's operating and capital budgets. Council funds construction, maintenance and improvements to infrastructure assets from a variety of sources, these will include recurrent income, grant and loan funding or any combination of these depending on the size and scope of the project.

It is proposed that $2,500,000 p.a. of General Rate revenue is allocated to the provision of road infrastructure in addition to road-specific grants. This represents approximately 85% of the Rural Rate revenue.

Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Figure 22 shows the projected replacement cost asset values over the planning period in current 2009/10 Australian dollar values.

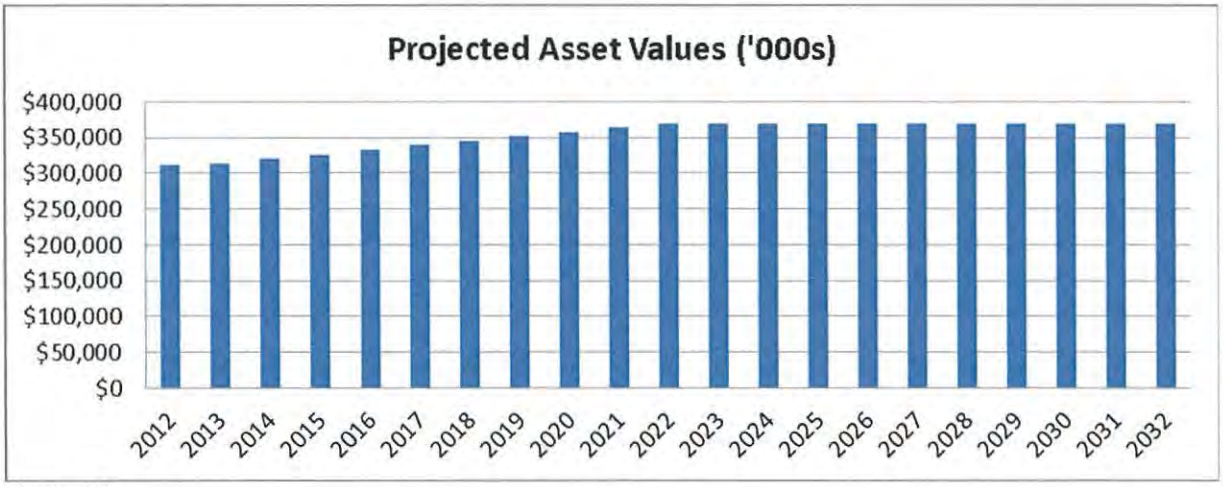

Figure 22

Depreciation expense values are forecast below and are in line with projected asset values above.

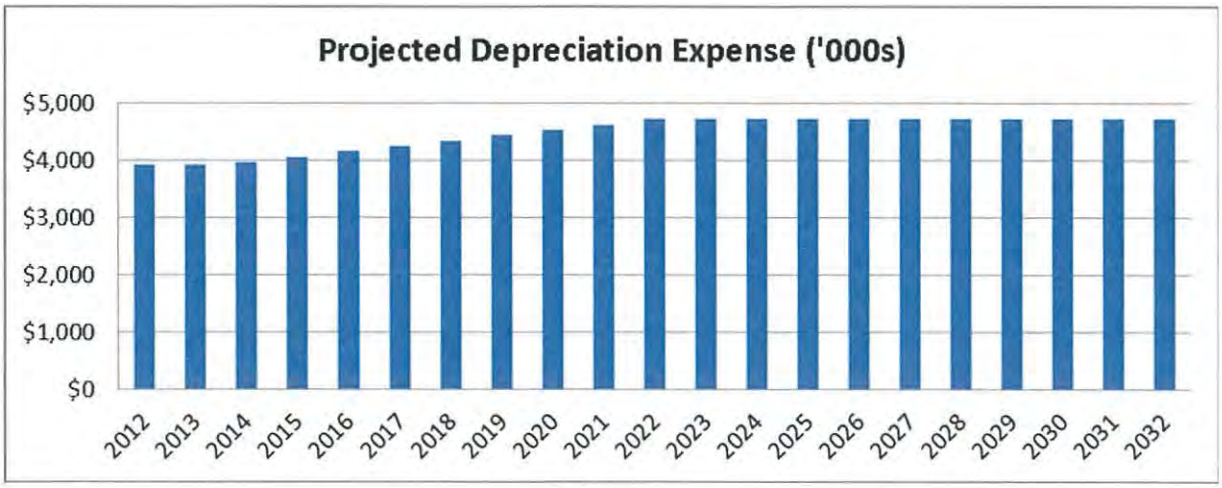

Figure 23

The depreciated replacement cost (current replacement cost less accumulated depreciation) will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown below.

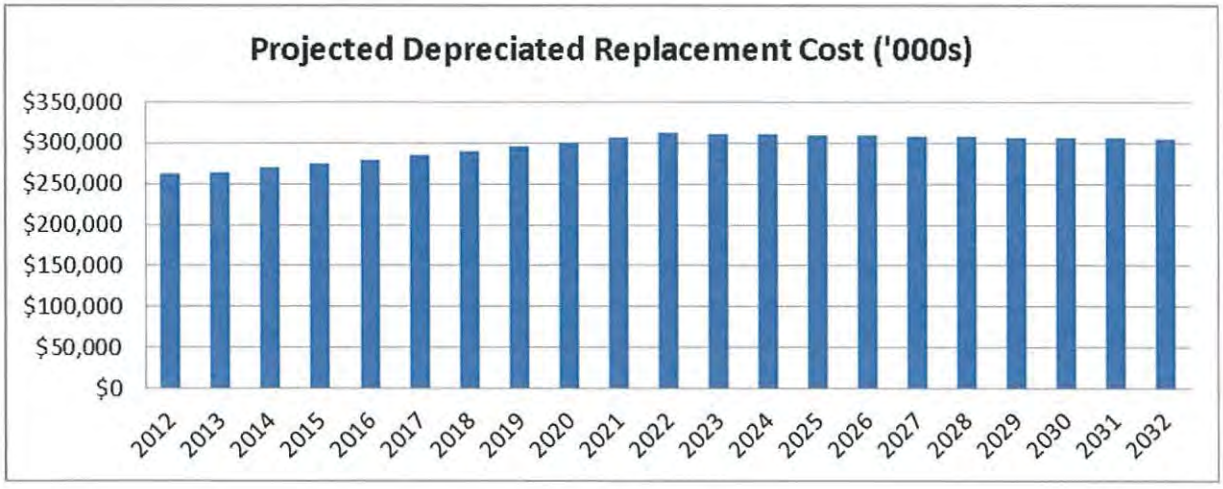

Figure 24

Key Financial Forecast Assumptions

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates.

It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

Depreciation rates

Roads

100mm Gravel Sheeted Unsealed

Life = 5
Residual = 0%

14/10mm C170 Spray Seal

Life = 10
Residual = 45%

14/10mm Geotextile Seal

Life = 8
Residual = 50%

14/7mm C170 Spray Seal

Life = 10
Residual = 45%

14/7mm Geotextile Seal

Life = 8
Residual = 50%

150mm Natural Gravel with Bituminous Seal

Life = 50
Residual = 60%

BRIDGE Box Culvert

Life = 100
Residual = 0%

BRIDGE Pipe Culvert

Life = 100
Residual = 0%

KG - Kerb & Gutter

Life = 50
Residual = 0%

STANDARD Bridge

Life = 100
Residual = 0%

STANDARD Road Formation

Life = ∞
Residual = 100%

Timber Bridge

Life = 100
Residual = 0%

Footpaths

Concrete

Life = 40 years
Residual = 0%

	Concrete Stenciled	
Life =	40	years
Residual =	0%	
	Light Bitumen	
Life =	10	years
Residual =	0%	
	Paved	
Life =	25	years
Residual =	0%	

Revenue

Road related grants are assumed NOT to materially vary with changes in the proportion of the network sealed, changes in demographics, or changes to government policy. If any of these factors were to change the forecasts in this Plan would need to be revised.

The proportion of General Rate revenue allocated to this asset class has been assumed at $2,500,000 per annum.

It has been assumed that a 3% productivity gain can be achieved over each of the first 10 years of this Plan. If this were not able to be achieved, the expenditure on capital renewals would need to be revised down, which would widen the funding gap and diminish the sustainability of the adopted levels of service.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions:

1. Continual review of depreciation rates as improved condition and asset consumption information becomes available.
2. Continued analysis of information to identify if residual values can be identified.
3. Future projected expenditure to be modeled on asset condition.

7. Asset Management Practices

Walgett Shire Council uses Authority software package for accounting purposes and Conquest software for asset reporting purposes.

Authority contains the General Ledger and Conquest includes an Asset Register. The Asset Register is a subsidiary record supporting the balances of General Ledger control.

The Conquest software Asset Register is set up to achieve reporting to satisfy statutory and internal reporting outcomes.

Council also operates Asset Edge "Reflect" Asset Management software on all roads. It provides field staff with geographical-based, asset-linked, inspection, maintenance, and reporting capabilities.

Current Asset Management Resources

Walgett Shire council currently uses Conquest Asset Management System.

There are negligible person hours available for maintaining accurate and current asset information.

Council's asset management systems for roads rely on professional staff to update maintain the systems as one part of a wide range of technical and managerial responsibilities.

Planned Areas of Improvement.

Council could improve its Asset Management for Roads by:

- *Allocating more time for professional staff to undertake Strategic and Maintenance planning*
- *Develop staff skills using the asset management software by training and interfacing the system with the customer relations system*
- *Use the asset management software as the management tool for the capital works program – starting with requested and planned renewals and new assets through to the disposal of assets being replaced when the work is actually completed*

Standards and Guidelines

'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, 2006 / 2011

AAS27, 'Financial Reporting by Local Governments', Australian Accounting Standards, June 1996

AASB1031, 'Materiality', Australian Accounting Standards Board, July 2004

AASB116, 'Property, Plant and Equipment', Australian Accounting Standards Board, July 2007

8. Plan Improvement and Monitoring

Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

1. The degree to which the required cashflows identified in this asset management plan are incorporated into council's long term financial plan and Strategic Management Plan; and
2. The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan.

Improvement Program

The asset management improvement plan generated from this asset management plan is shown in the following table.

Item	Description	Responsibility	Resources	Timeline
1	Allocate additional professional staff time to asset management processes			12 months
2	Plan and undertake stakeholder consultation to develop Desired Levels of Service			12 months
3	Undertake a risk assessment addressing all high risks associated with road infrastructure			12 months
4	Review maintenance practices to achieve operating and maintenance cost savings required to accommodate increasing level of sealed roads assets			24 months
5	Conduct training on geographic-based asset management system			6 months
6	Integrate geographic-based asset management system with customer relations (requests/complaints) for daily usage			12 months

Item	Description	Responsibility	Resources	Timeline
7	Implement geographic-based asset management system as the basis of documenting: (a) requests for new/upgraded assets; (b) assets that are planned to be delivered in the Strategic Plan; (c) works in progress; and (d) disposal and financial completion of capital works.			12 months

Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 1 years of each Council election.

9. Appendices

References

Glossary of Terms

Capital Works Program

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
GS Renewal	$980,398	$306,212	$0	$114,734	$700,825	$980,398	$306,212	$0	$114,734	$700,825	$980,398
Pvmt Rehab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$203,222	$0
Reseals	$2,255,394	$1,950,309	$1,896,169	$1,835,229	$673,638	$0	$474,996	$0	$1,398,633	$1,950,309	$856,761
Wagan Bridge	$0	$900,000	$100,000	$0	$0	$0	$0	$0	$0	$0	$0
Black bridge	$0	$0	$560,000	$0	$0	$0	$0	$0	$0	$0	$0
Sub-Total Renewal Regional Roads	$3,235,792	$3,156,521	$2,556,169	$1,949,963	$1,374,463	$980,398	$781,207	$0	$1,513,367	$2,854,355	$1,837,159
GS Renewal	$1,929,221	$364,143	$82,211	$76,373	$3,565,580	$1,929,221	$364,143	$82,211	$76,373	$3,565,580	$1,929,221
Pvmt Rehab	$0	$0	$0	$0	$0	$0	$0	$0	$0	$240,414	$0
Reseals	$961,918	$213,754	$1,644,543	$0	$218,180	$0	$20,954	$0	$224,815	$213,754	$776,048
Talaba creek bridge	$0	$0	$980,000	$0	$0	$0	$0	$0	$0	$0	$0
Kerb Right Segment 21020 - UR46	$0	$0	$0	$0	$0	$0	$0	$30,996	$0	$0	$0
Kerb Left Segment 21020 - UR46	$0	$0	$0	$0	$0	$0	$0	$30,996	$0	$0	$0
Kerb Left Segment 19350 - UR11	$0	$0	$0	$0	$0	$0	$0	$22,812	$0	$0	$0
Kerb Left Segment 19700 - UR117	$0	$0	$0	$0	$0	$0	$0	$22,728	$0	$0	$0
Kerb Right Segment 19650 - UR117	$0	$0	$0	$0	$0	$0	$0	$53,088	$0	$0	$0
Kerb Left Segment 19650 - UR117	$0	$0	$0	$0	$0	$0	$0	$53,088	$0	$0	$0
Kerb Right Segment 19530 - UR115	$0	$0	$0	$0	$0	$0	$0	$22,740	$0	$0	$0
Kerb Right Segment 20150 - UR25	$0	$0	$0	$0	$0	$0	$0	$22,788	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Kerb Left Segment 20150 - UR25	$0	$0	$0	$0	$0	$0	$0	$22,788	$0	$0	$0
Kerb Left Segment 20140 - UR25	$0	$0	$0	$0	$0	$0	$0	$18,384	$0	$0	$0
Kerb Right Segment 20410 - UR34	$0	$0	$0	$0	$0	$0	$0	$22,752	$0	$0	$0
Kerb Right Segment 20390 - UR34	$0	$0	$0	$0	$0	$0	$0	$0	$22,872	$0	$0
Kerb Right Segment 20550 - UR36	$0	$0	$0	$0	$0	$0	$0	$0	$22,764	$0	$0
Kerb Left Segment 20670 - UR39	$0	$0	$0	$0	$0	$0	$0	$0	$22,632	$0	$0
Kerb Right Segment 20910 - UR43	$0	$0	$0	$0	$0	$0	$0	$0	$23,328	$0	$0
Kerb Left Segment 20910 - UR43	$0	$0	$0	$0	$0	$0	$0	$0	$23,328	$0	$0
Kerb Right Segment 20880 - UR43	$0	$0	$0	$0	$0	$0	$0	$0	$23,340	$0	$0
Kerb Left Segment 20880 - UR43	$0	$0	$0	$0	$0	$0	$0	$0	$23,340	$0	$0
Kerb Right Segment 20870 - UR43	$0	$0	$0	$0	$0	$0	$0	$0	$23,532	$0	$0
Kerb Right Segment 21640 - UR69	$0	$0	$0	$0	$0	$0	$0	$0	$30,156	$0	$0
Kerb Right Segment 21790 - UR72	$0	$0	$0	$0	$0	$0	$0	$0	$25,416	$0	$0
Kerb Left Segment 21790 - UR72	$0	$0	$0	$0	$0	$0	$0	$0	$25,416	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Kerb Right Segment 21770 - UR72	$0	$0	$0	$0	$0	$0	$0	$0	$17,388	$0	$0
Kerb Left Segment 21780 - UR72	$0	$0	$0	$0	$0	$0	$0	$0	$23,160	$0	$0
Kerb Right Segment 22330 - UR89	$0	$0	$0	$0	$0	$0	$0	$0	$27,468	$0	$0
Kerb Right Segment 22340 - UR89	$0	$0	$0	$0	$0	$0	$0	$0	$23,532	$0	$0
Kerb Right Segment 22310 - UR89	$0	$0	$0	$0	$0	$0	$0	$0	$27,912	$0	$0
Kerb Left Segment 22310 - UR89	$0	$0	$0	$0	$0	$0	$0	$0	$27,912	$0	$0
Kerb Right Segment 21380 - UR55	$0	$0	$0	$0	$0	$0	$0	$0	$17,472	$0	$0
Kerb Left Segment 19590 - UR116	$0	$0	$0	$0	$0	$0	$0	$0	$17,532	$0	$0
Sub-Total Renewal Local Roads	$2,891,139	$577,897	$2,706,754	$76,373	$3,783,760	$1,929,221	$385,096	$405,371	$749,688	$4,019,749	$2,705,269
Pitt Street to Dewhurst - High School	$0	$867	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Richie to Arthur)	$0	$31,343	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Euroka to Wee Waa)	$0	$54,866	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Wee Waa to Euroka) - Chambers	$0	$157,080	$0	$0	$0	$0	$0	$0	$0	$0	$0
Euroka Street (Fox to Pitt) - Chambers	$0	$30,649	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cedar Street	$0	$14,602	$0	$0	$0	$0	$0	$0	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Fox Street (Sutherland to Arthur - Caltex)	$0	$25,791	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Montkeila to Warrena - BP)	$0	$56,382	$0	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Arthur to Cedar)	$0	$27,613	$0	$0	$0	$0	$0	$0	$0	$0	$0
Arthur to Pitt - High School (Bus Stop)	$0	$15,421	$0	$0	$0	$0	$0	$0	$0	$0	$0
Montkeila Street (Front of Swimming Pool)	$0	$0	$17,204	$0	$0	$0	$0	$0	$0	$0	$0
Warrena Street - Public School (Bus Stop)	$0	$0	$27,613	$0	$0	$0	$0	$0	$0	$0	$0
Arthur Street to Pitt (High School)	$0	$0	$65,057	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Arthur to Euroka)	$0	$0	$59,418	$0	$0	$0	$0	$0	$0	$0	$0
Warrena Street (Public School)	$0	$0	$59,695	$0	$0	$0	$0	$0	$0	$0	$0
Pitt Street to Dewhurst (Coolibah Kids)	$0	$0	$29,781	$0	$0	$0	$0	$0	$0	$0	$0
Fox Street (Warrena to Montkeila)	$0	$0	$241	$0	$0	$0	$0	$0	$0	$0	$0
Pitt Street to Euroka	$0	$0	$58,927	$0	$0	$0	$0	$0	$0	$0	$0
Arthur Street to Fox	$0	$0	$0	$46,262	$0	$0	$0	$0	$0	$0	$0
Wee Waa Street (Fox to Pitt) - Post Office	$0	$0	$0	$49,443	$0	$0	$0	$0	$0	$0	$0
Wee Waa Street Pitt to Namoi (Old Church)	$0	$0	$0	$59,563	$0	$0	$0	$0	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022		
Peel Street to Wee Waa (Coolibah Motel)		$0	$0	$0	$11,566	$0	$0	$0	$0	$0	$0	$0
Wee Waa Street to Bre Road (Holden)		$0	$0	$0	$32,962	$0	$0	$0	$0	$0	$0	$0
Wee Waa to Bre Road - Holden		$0	$0	$0	$32,673	$0	$0	$0	$0	$0	$0	$0
Wee Waa to Bre Road (Residential)		$0	$0	$0	$88,911	$0	$0	$0	$0	$0	$0	$0
Euroka Street (Fox to Pitt opp. Chambers)		$0	$0	$0	$60,719	$0	$0	$0	$0	$0	$0	$0
Fox Street to Montkeila (Sporto)		$0	$0	$0	$0	$61,731	$0	$0	$0	$0	$0	$0
Dewhurst Street to Pitt (opp. Skate Park)		$0	$0	$0	$0	$52,999	$0	$0	$0	$0	$0	$0
Fox Street (Cedar to Euroka)		$0	$0	$0	$0	$49,443	$0	$0	$0	$0	$0	$0
Pitt Street to Dewhurst - (High School)		$0	$0	$0	$0	$46,262	$0	$0	$0	$0	$0	$0
Wee Waa Street to Bre Road (opp. Holden)		$0	$0	$0	$0	$49,443	$0	$0	$0	$0	$0	$0
Wee Waa to Bre Road (opp. Coolibah Motel)		$0	$0	$0	$0	$59,563	$0	$0	$0	$0	$0	$0
Wee Waa Street (Fox to Pitt - Cafe 64)		$0	$0	$0	$0	$29,203	$0	$0	$0	$0	$0	$0
Wee Waa Street Pitt to Namoi (Aboriginal Health)		$0	$0	$0	$0	$61,009	$0	$0	$0	$0	$0	$0
Wee Waa Street Pitt to Namoi - Aboriginal Health		$0	$0	$0	$0	$88,911	$0	$0	$0	$0	$0	$0
Arthur Street to Peel		$0	$0	$0	$0	$20,818	$0	$0	$0	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Wee Waa Street to Bre Road - opp. Holden	$0	$0	$0	$0	$31,516	$0	$0	$0	$0	$0	$0
Fox Street (Hospital Front)	$0	$0	$0	$0	$95,031	$0	$0	$0	$0	$0	$0
Richie Street	$0	$0	$0	$0	$0	$55,515	$0	$0	$0	$0	$0
Arthur Street (Caltex)	$0	$0	$0	$0	$0	$49,443	$0	$0	$0	$0	$0
Euroka Street (Fox to Duff - Centrelink)	$0	$0	$0	$0	$0	$14,457	$0	$0	$0	$0	$0
Pitt Street (Wee Waa to Warrena)	$0	$0	$0	$0	$0	$58,985	$0	$0	$0	$0	$0
Wee Waa Street (Fox to Pitt) - Cafe 64	$0	$0	$0	$0	$0	$9,433	$0	$0	$0	$0	$0
Wee Waa Street (Fox to Pitt - Post Office)	$0	$0	$0	$0	$0	$14,457	$0	$0	$0	$0	$0
Peel Street to Euroka	$0	$0	$0	$0	$0	$47,708	$0	$0	$0	$0	$0
Wee Waa to Peel	$0	$0	$0	$0	$0	$10,929	$0	$0	$0	$0	$0
Dewhurst Street (Fox to Duff)	$0	$0	$0	$0	$0	$20,818	$0	$0	$0	$0	$0
Sutherland (Fox to Duff - odds)	$0	$0	$0	$0	$0	$59,852	$0	$0	$0	$0	$0
Sutherland Street (Fox to Duff - evens)	$0	$0	$0	$0	$0	$56,671	$0	$0	$0	$0	$0
Pitt Street (Euroka to Wee Waa - Grays Park)	$0	$0	$0	$0	$0	$13,590	$0	$0	$0	$0	$0
Pitt Street (Euroka to Wee Waa - opp Grays Park)	$0	$0	$0	$0	$0	$0	$31,805	$0	$0	$0	$0
Warrena Street (Pitt to Fox)	$0	$0	$0	$0	$0	$0	$58,694	$0	$0	$0	$0
Fox Street (Dewhurst to Sutherland)	$0	$0	$0	$0	$0	$0	$11,855	$0	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Wee Waa to Bre Road (Holden Stencilled)	$0	$0	$0	$0	$0	$0	$61,963	$0	$0	$0	$0
Duff Street (Sutherland to Dewhurst)	$0	$0	$0	$0	$0	$0	$14,457	$0	$0	$0	$0
Fox Street (Wee Waa to Warrena - Supermarket)	$0	$0	$0	$0	$0	$0	$47,708	$0	$0	$0	$0
Fox Street (Warrena to Wee Waa - Pub)	$0	$0	$0	$0	$0	$0	$58,988	$0	$0	$0	$0
Fox Street (Wee Waa to Euroka - Chambers)	$0	$0	$0	$0	$0	$0	$58,695	$0	$0	$0	$0
Morilla Street (Brilliant to Aerodrome - Post Office)	$0	$0	$0	$0	$0	$0	$0	$43,913	$0	$0	$0
Morilla (Brilliant to Aerodrome Rd -Post Office - Shoulder)	$0	$0	$0	$0	$0	$0	$0	$15,180	$0	$0	$0
Morilla (Brilliant to Aerodrome Rd) - Post Office	$0	$0	$0	$0	$0	$0	$0	$39,294	$0	$0	$0
Opal Street (Morilla to Harequin - Service Station)	$0	$0	$0	$0	$0	$0	$0	$32,673	$0	$0	$0
Pandora Street (Harlequin to Ridge Rd - Butcher)	$0	$0	$0	$0	$0	$0	$0	$73,268	$0	$0	$0
Morilla Street (Onyx to Nettleton - Chemist)	$0	$0	$0	$0	$0	$0	$0	$51,149	$0	$0	$0
Morilla Street (Nettleton to Pandora - Bowling Club)	$0	$0	$0	$0	$0	$0	$0	$63,264	$0	$0	$0
Morilla Street (Brilliant to Aerodrome Rd) - opp Post Office	$0	$0	$0	$0	$0	$0	$0	$47,245	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Morilla Street (Nettleton to Pandora opp Bowling Club)	$0	$0	$0	$0	$0	$0	$0	$29,492	$0	$0	$0
Pandora Street (Harlequin to Ridge Rd) -Supermarket	$0	$0	$0	$0	$0	$0	$0	$0	$4,932	$0	$0
Ridge Road Cycleway	$0	$0	$0	$0	$0	$0	$0	$0	$596,904	$0	$0
Lightning Ridge	$0	$0	$0	$0	$0	$0	$0	$0	$601,836	$0	$0
Fred reece Way Cycleway (Airport)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$565,488	$0
Morilla Street (Onyx to Nettleton) - Chemist	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,315	$0
Morilla Street (Brilliant to Aerodrome Rd - opp Post Office)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$70,804
Opal Street (Harlequin to Morilla - Newsagency)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$251,524
Pandora Street (Harlequin to Ridge Rd - Supermarket)	$0	$0	$0	$0	$70,804	$0	$0	$0	$0	$0	$0
Lightning Ridge	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wilson Street - (opp supermarket)	$68,237	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wilson Street	$0	$0	$0	$0	$31,516	$0	$0	$0	$0	$0	$0
Herbert Street - (front of school)	$0	$0	$0	$0	$34,408	$0	$0	$0	$0	$0	$0
Walgett Street (Skate park)	$0	$0	$0	$0	$0	$0	$33,829	$0	$0	$0	$0
Walgett Street (Police Station)	$0	$0	$0	$0	$0	$0	$33,829	$0	$0	$0	$0
High Street	$0	$0	$0	$0	$0	$0	$0	$60,141	$0	$0	$0

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Herbert Street - (Aboriginal Corp.)	$0	$0	$0	$0	$0	$0	$0	$67,659	$0	$0	$0
Herbert Street (Swimming Pool)	$0	$0	$0	$0	$0	$0	$0	$34,697	$0	$0	$0
Wilson Street (Main Street)	$0	$0	$0	$0	$0	$0	$0	$0	$42,103	$0	$0
Collarenebri	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Front of Swimming Pool	$0	$0	$23,709	$0	$0	$0	$0	$0	$0	$0	$0
In Front of General Store	$0	$0	$14,766	$0	$0	$0	$0	$0	$0	$0	$0
In Front of General Store	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,252
In Front of Hotel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,337
Alma Street (General Store)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$38,552
Alma Street (Sporting Club)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$47,130
Waterloo Alma to Hastings (School of Arts)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$34,119
Waterloo Street -(Police Station)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,695
Alma Street (Swimming Pool)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$58,695
Alma Street (Post Office)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,120
Blenheim Street	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$31,227
Sub-Total Renewal Footpaths	$68,237	$414,614	$356,411	$382,099	$782,657	$411,858	$411,824	$557,975	$1,245,776	$580,803	$614,456
Total Renewal	**$6,195,168**	**$4,149,032**	**$5,619,333**	**$2,408,434**	**$5,940,880**	**$3,321,477**	**$1,578,128**	**$963,346**	**$3,508,831**	**$7,454,908**	**$5,156,884**
Rehabilitation of Collarenebri to Lighting Ridge Road(RR426)	$0	$400,000	$2,142,222	$2,142,222	$2,142,222	$2,142,222	$2,142,222	$2,142,222	$2,142,222	$2,142,222	$2,142,224
Rehabilitation of Come by Chance Road (RR7716)	$800,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000	$1,495,000
Collarenebri Mungindi Road (RR457)	$0	$400,000	$1,377,777	$1,377,777	$1,377,777	$1,377,777	$1,377,777	$1,377,777	$1,377,777	$1,377,777	$1,377,784
Billibingbone Road(RR7516)	$0	$0	$411,111	$411,111	$411,111	$411,111	$411,111	$411,111	$411,111	$411,111	$411,112

Roads & Footpaths Capital Works Plan

Program / Project	2012	2013	2014	2015	2016	2018	2019	2020	2021	2022	
Sub-Total New/Upgrade Regional Roads	$800,000	$2,295,000	$5,426,110	$5,426,110	$5,426,110	$5,426,110	$5,426,110	$5,426,110	$5,426,110	$5,426,110	$5,426,120
Rehabilitation of Burren to Pilliga Road (Buglibone Road) (SR103)	$0	$0	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Sub-Total New/Upgrade Local Roads	$0	$0	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Harliquin Sts	$200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collarenebri signs	$15,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Collarenebri	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sub-Total New/Upgrade Footpaths	$265,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Upgrade	**$1,065,000**	**$2,295,000**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,110**	**$6,226,120**

10. Further Document Drafting Notes:

Asset Management Strategy

Councils should ensure their asset management planning has a service delivery focus. In other words, the assets that are provided are necessary to meet the needs of the community as identified by the community.

All councils, irrespective of size or location, need to ensure that the sustainable management of assets is a **'whole of council' responsibility**, and that this is recognised at all levels within Council.

As the Strategy is a 'living document' that will include benchmarks and milestones aimed at improving Council's asset management processes and procedures, it must be monitored regularly and amended to reflect progression in its implementation.

1. The Asset Management **Strategy** must include an overarching council endorsed Asset Management Policy.

This outlines why and how asset management will be undertaken. It provides a clear direction for asset management and defines key principles that underpin asset management for the council

2. The Asset Management **Strategy** must identify assets that are critical to the council's operations and outline the risk management strategies for these assets.
3. The Asset Management **Strategy** must include specific actions required to improve Council's asset management capability and projected resource requirements and timeframes.

The key components or tools in a council's asset management system should include:

1. Asset registers
2. Asset condition assessments
3. Asset maintenance and management systems
4. Strategic planning capabilities
5. Predictive modeling
6. Deterioration modeling
7. Risk analysis
8. Lifecycle costing

Asset Management Plans

Minimum core approach must have

1. the best available information and random condition/performance sampling
2. a simple risk assessment to identify critical assets and strategies to manage those risks
3. a description of existing levels of service
4. long-term cash flow predictions for asset operation, maintenance and renewals based on local knowledge of assets and options for meeting current or improved levels of service and for serving the projected population
5. financial and critical service performance measures against which trends and Asset Management Plan implementation and improvement can be monitored.

There are specific asset management planning requirements for water supply and sewerage. They require compliance with the Best-Practice Management of Water Supply and Sewerage Guidelines 2007 and the NSW Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets. Further guidance for councils is provided in the Water Supply and Sewerage Asset Management Guidelines 1991.

These requirements include the need to prepare an Asset Register, a 20 to 30 year Operation Plan, Maintenance Plan and a Capital Works Plan which identifies the required renewals, works for improved levels of service and works for serving new growth. Councils must continue to meet these asset management planning requirements for their water supply and sewerage infrastructure.

For those councils that are yet to develop Asset Management Plan(s), they may wish to start off the process by developing a 'first cut' plan based on existing data and documenting existing levels of service, management strategy etc.