

Shire of Wiluna

Asset Management Plan

**Shire OF
Wiluna**



DOCUMENT CONTROL

Version No.	Date	Distribution	Reference
Version 1	30/06/2013		

Contents

1.0	Introduction	4
2.0	Assets Covered by this Plan	5
2.1.1	Roads	5
2.1.2	Pathways	6
2.1.3	Buildings	6
2.1.4	Hydrographics	6
2.1.5	Parks & Reserves	7
2.1.6	Miscellaneous	7
2.1.7	Infrastructure Summary	8
3.0	Linkages Level of Service	9
4.0	Future Demand	10
5.0	Risk Management	11
6.0	Lifecycle Management	11
6.1	Operation and Maintenance Strategy	11
6.2	Renewal and Replacement Strategy	11
6.3	New, Upgrade and Disposal Strategy (Capital Investment)	11
7.0	Financial Projections	12
7.1	Renewal Model	13
7.1.1	Renewal Demand and Funding Gap	13
8.0	Glossary	13
8.1	Definitions	13
8.2	Abbreviations	15



Department of Local Government
Department of Regional Development and Lands



The Shire of Wiluna wishes to acknowledge funding provided by the Department of Local Government and Department of Regional Development and Lands through Royalties for Regions to support this project.

1.0 Introduction

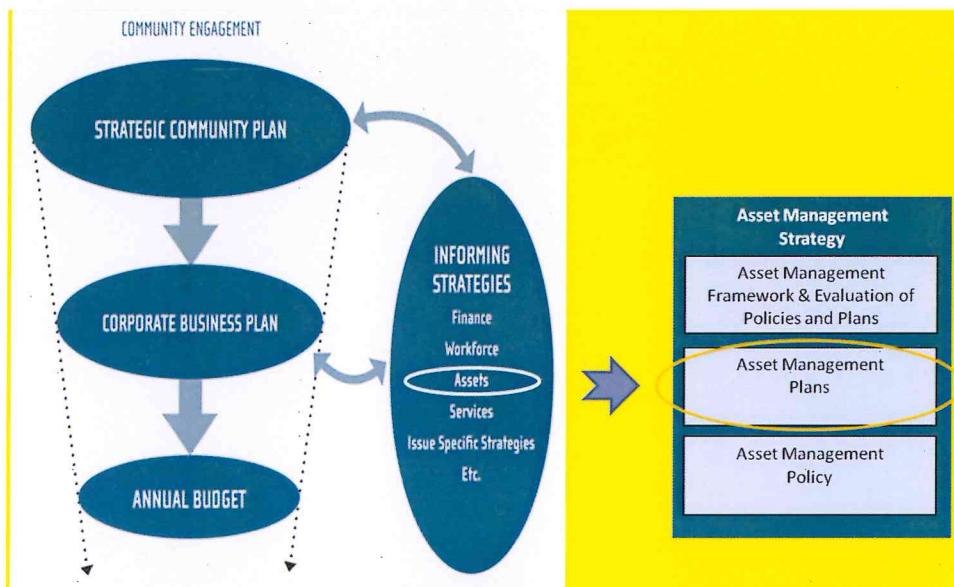
The Asset Management Plan (AMP) has been prepared to show how we will manage our infrastructure assets and ensure service delivery continues in line with the aspirations of the Council's Strategic Community Plan (SCP) and Corporate Business Plan (CBP).

The AMP contains the basic tools to enable the Council to make informed decisions on the allocation of resources in order to maintain all major infrastructure assets under the care, control and responsibility of the Shire to a standard reflective of the community's desires and affordability.

The AMP will ultimately provide guidance on the long-term (10 years) allocation of financial and physical resources required to ensure operational performance of the Shire's infrastructure assets continues. This is a compilation of the Shire's current identifiable knowledge about how infrastructure assets are currently managed.

Asset Management Plans form one of the core components of the Council's Integrated Strategic Planning and Reporting Framework (IPR), (see Figure 1). The aim of an asset management plan is to set out how the council delivers service to the community on a long-term sustainable basis and the infrastructure required to underpin service delivery.

Figure 1: Asset Management Plan Relationship to the IPR Framework



The AMP captures and documents corporate knowledge about assets and importantly, the required service levels to support service delivery. Asset management is seen as a practical and financially responsible means of managing Council's assets by ensuring that the assets continue to provide a specified level of service delivery to defined standards over the entire life of the asset and that there is sufficient resource allocation made to replace the asset at the end of its life if the Council wishes to continue the service being delivered by that asset.

2.0 Assets Covered by this Plan

The Council has care, control and responsibility for over \$128m of Infrastructure Assets. This information is compiled from existing databases and asset registers.

2.1.1 Roads

Table 1: Road Infrastructure Summary

Road - Formation	Length (m)	Area (m ²)	Renewal Estimate (\$)
Sealed Road Formation	17,070	166,860	500,800
Unsealed Road Formation	2,161,150	15,284,966	45,854,898
Total Road - Formation	2,178,220	15,451,826	46,355,478

Road - Pavement	Length (m)	Area (m ²)	Renewal Estimate (\$)
Sealed Road Pavement	17,070	143,580	1,148,640
Unsealed Road Pavement	750,000	5,639,414	45,115,312
Total Road - Pavement	767,070	5,782,994	46,263,952

Road – Seal	Length (m)	Area (m ²)	Renewal Estimate (\$)
Sealed Road Spray Seal	17,070	122,168	1,466,016
Sealed Road Asphalt Seal	0	0	0
Total Road - Seal	17,070	122,168	1,466,016

Road - Kerb	Length (m)	Area (m ²)	Renewal Estimate (\$)
Sealed Road Kerb	13,590		339,750
Total Road - Kerb	13,590	0	339,750
Total Roads			94,425,196

2.1.2 Pathways

Table 2: Pathway Infrastructure Summary

Pathways	Length (m)	Area (m ²)	Renewal Estimate (\$)
Unclassified surface type	0	0	0
Spray Seal	0	0	0
Asphalt Seal	5,978	8,967	224,175
Concrete Slab	0	0	0
Insitu Concrete	0	0	0
Brick Paving	0	0	0
Gravel	0	0	0
Total Pathways	5,978	8,967	224,175

2.1.3 Buildings

Table 3: Buildings Infrastructure Summary

Buildings	Number	Renewal Estimate (\$)
Residential Dwellings	19	5,349,000
Amenities Blocks	1	223,000
Community Facilities	7	601,000
Works Depot	6	1,327,000
Heritage Buildings	1	400,000
Administrative Complex	1	3,999,500
Sporting Facilities	10	3,287,000
Total Buildings	45	15,186,500

2.1.4 Hydrographics

Table 4: Hydrographic Infrastructure Summary

Hydrographics	Number	Length	Renewal Estimate (\$)
Bridges			0
Culverts	24	291	34,944
Pits			0
Pipes			0
Total Hydrographics			34,944

2.1.5 Parks & Reserves

Table 5: Park & Reserves Infrastructure Summary

Parks & Reserves	Number	Area	Renewal Estimate (\$)
Play Equipment & Furniture	12		143,000
Active Playing Fields	1	67,073	3,689,015
Bitumen Courts		1,369	205,350
Passive Recreation Areas			0
Fencing			0
Reticulation Pipes			0
Reticulation Solenoids			0
Reticulation Pumps			0
Reticulation Bores			0
Lighting			0
Total Parks & Reserves			4,037,365

2.1.6 Miscellaneous

Table 6: Miscellaneous Infrastructure Summary

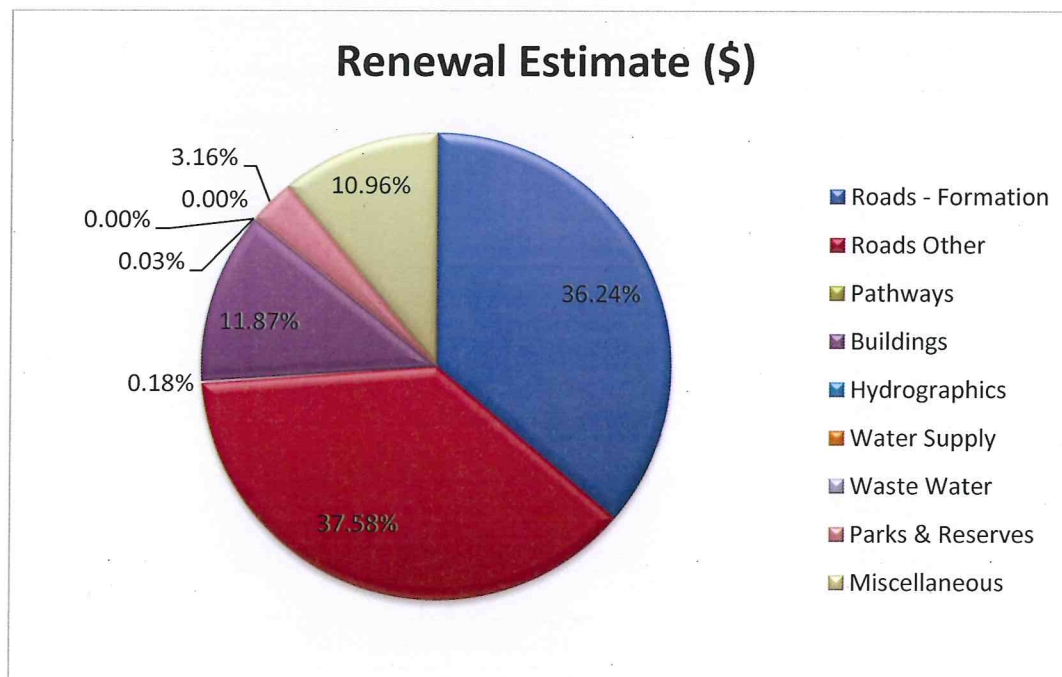
Miscellaneous	Number	Length	Renewal Estimate (\$)
Runway Formation		288,000	8,640,000
Runway Pavement		99,175	2,975,250
Runway Seal		54,000	1,350,000
Taxiway Formation		2,700	270,000
Taxiway Pavement		1,800	54,000
Taxiway Seal		1,350	33,750
Apron Formation		7,000	210,000
Apron Pavement		4,200	126,000
Apron Seal		2,400	60,000
Runway Lighting	1		100,000
Navigation Aids	1		200,000
Jetties			0
Seawalls			0
Groynes			0
Total Miscellaneous			14,019,000

2.1.7 Infrastructure Summary

Table 7: Infrastructure Summary

Infrastructure Summary	Renewal Estimate (\$)	%
Roads - Formation	46,355,478	36.24%
Roads Other	48,069,718	37.58%
Pathways	224,175	0.18%
Buildings	15,186,500	11.87%
Hydrographics	34,944	0.03%
Water Supply	0	0.00%
Waste Water	0	0.00%
Parks & Reserves	4,037,365	3.16%
Miscellaneous	14,019,000	10.96%
Total Infrastructure	127,927,180	100.00%

Figure 2: Infrastructure Summary



3.0 Linkages Level of Service

There are two (2) types of levels of service:

Community - how the community relates to the service provided.

Community levels of service may include things such as style, appearance, level of cleanliness, maintenance responsiveness, quality and type of consumables, safety and accessibility.

Technical - how the organisation provides the service.

Community and Technical Level of service can often mean the same thing but can also be interpreted differently. For example, a stormwater pipe network can be designed to meet identified technical requirements and have sufficient hydraulic capacity to take water from Point A to Point B and in so doing protect property. However if the design results in an unacceptable visual addition to the streetscape it would not be meeting the community criteria in terms of appearance.

The first step is to document community levels of service via community engagement and the Technical levels of service based on asset policy and strategy. This is then followed up by creating targeted levels of service based on community and technical requirements and then develop strategies to bridge the gap.

An example could be where the Shire has adopted a rural road hierarchy as follows;

- Regional Distributors
- Local Distributors
- Local Access

After consultation with key stakeholders such as road users and the transport industry, the Shire has decided that the design standard for all Regional Distributors is a 7m wide seal with 1.5m unsealed gravel shoulders. The Shire would then undertake a gap analysis between the current standard of the Regional Distributor network and desired standard and put a strategy in place to bring the network up to the desired standard. This would involve developing key performance indicators such as widening a given length of road over a given time horizon, followed by monitoring and reporting against whether this is being achieved.

4.0 Future Demand

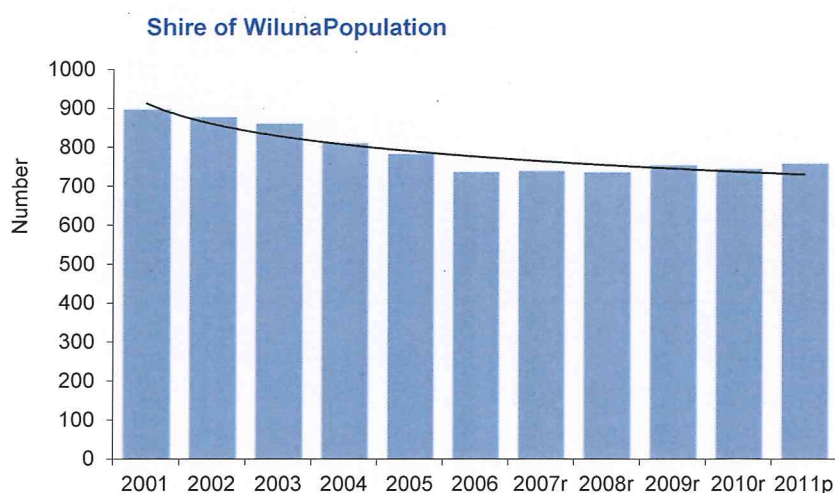
Since 2001, the compound annual growth rate in population of the Wiluna local government area has been -1.52%. In other words, the population has declined by over one and a half percent year on year since 2001. The current population in Wiluna is around 759. Note that some of the figures below are revised estimates (r) or projected estimates (p).

The compound annual growth rate in population growth across WA over the sample period has been (positive) 1.94%. Since population growth elsewhere in the state is outstripping that of the Shire, asset demands may be relatively lower in Wiluna than elsewhere in WA. If the population continues to decline, this will affect management decisions regarding assets going forward.

Table 8: Population change of the Community

Year	Population	Increase	% Increase
2001	898		
2002	878	-20	-2.23%
2003	862	-16	-1.82%
2004	812	-50	-5.80%
2005	784	-28	-3.45%
2006	738	-46	-5.87%
2007r	740	2	0.27%
2008r	737	-3	-0.41%
2009r	755	18	2.44%
2010r	746	-9	-1.19%
2011p	759	13	1.74%
Compound annual growth rate in population			-1.517%

Figure 3: Population change of the Community



5.0 Risk Management

Risk management is used as a decision making tool to help focus on priority areas requiring a response to mitigate risks or realise potential benefits for communities and appropriately assign levels of service to different levels of the functional hierarchy.

Risk management will become a core element for setting business planning priorities. On this basis risk management is a key area covered in the Shire's Corporate Business Planning processes. For further information about risk management please refer to section eight of the Shire's Corporate Business Plan.

6.0 Lifecycle Management

The Shire has a basic understanding of the composition, location and extent of its infrastructure assets. Further work is required in this area to finalise a definitive inventory of Infrastructure Assets

6.1 Operation and Maintenance Strategy

The Council does not have a current documented Operation and Maintenance Strategy. This Strategy will need to be developed as part of future revisions of the Plan.

6.2 Renewal and Replacement Strategy

The Council does not have a current documented Renewal and Replacement Strategy. This Strategy will need to be developed as part of future revisions of the Plan.

6.3 New, Upgrade and Disposal Strategy (Capital Investment)

The Council does not have a current documented Capital Investment Strategy. This Strategy will need to be developed as part of future revisions of the Plan.

7.0 Financial Projections

A key component of determining sustainability is modelling renewal demand. Annual Renewal estimates have been used to model long-term renewal demand. These are based on current financial projection of the average life on the asset category in comparison with historical actual renewal and maintenance expenditure.

Current Position - The current renewal cost estimate of the Council's Infrastructure Assets is \$128k, comprising of the following:

Table 9: Renewal Estimate of Infrastructure Asset Groups (Compiled)

Infrastructure Summary	Renewal Estimate (\$)	Renewal Expenditure	Maintenance Expenditure
Roads - Formation	46,344,478	0	115,000
Roads Other	48,069,718	892,450	1,228,000
Pathways	224,175	10,000	14,000
Buildings	15,186,500	100,000	200,000
Hydrographics	34,944	0	0
Water Supply	0	0	0
Waste Water	0	0	0
Parks & Reserves	4,037,365	15,000	34,000
Miscellaneous	14,019,000	5,000	17,800
Total Infrastructure	127,927,180	1,022,450	1,662,000

7.1 Renewal Model and Funding Gap

The following table shows the renewal demand across all major asset classes is estimated to be \$1.6m in per year. The present estimated level of renewal expenditure based on the 2012/13 budget is \$1.02m. This highlights a shortfall in renewal funding and unless this is addressed the assets will deteriorate over the next 10 years. Not all classes of infrastructure are underfunded. Those of particular concern are Buildings and the Airstrip (miscellaneous).

Table 4: Infrastructure Summary – average annual renewal funding

Infrastructure Summary	Estimated Replacement Cost (\$)	Yearly % of Replacement cost to maintain asset	Estimated Yearly Renewal Expenditure	Current level of Renewal Expenditure
Roads - Formation	46,355,478	0%	0	0
Roads – Other	48,069,718	2.00%	961,394	892,450
Pathways	224,175	4.00%	8,967	10,000
Buildings	15,186,500	2.00%	303,730	100,000
Hydrographics	34,944	2.00%	699	0
Water Supply	0	0%	0	0
Waste Water	0	0%	0	0
Parks & Reserves	4,037,365	1.00%	40,374	15,000
Miscellaneous	14,019,000	2.00%	280,380	5,000
Total Infrastructure	127,927,180		1,595,544	1,022,450

8.0 Glossary

8.1 Definitions

The following terms are used in this strategy.

(Definitions from the International Infrastructure Management Manual, International Edition 2006)

Asset

A physical component of a facility, which has value, provides service or enables services to be provided and has an economic life of greater than 12 months.

Asset Management

The combination of management, financial, economic, and engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost-effective manner.

Asset Management Plan

A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques over the lifecycle of the asset in the most cost-effective manner to provide a specified level of service.

Asset Management Strategy

A strategy for asset management covering the development and implementation of plans and programmes for asset creation, operation, maintenance, rehabilitation/replacement, disposal and performance monitoring to ensure that the desired levels of service and other operational objectives AM achieved at optimum cost.

Current Replacement Cost

The cost of replacing the service potential of an existing asset, by reference to some measure of capacity, with an appropriate modern equivalent asset.

Depreciation

The wearing out, consumption or other loss of value of an asset whether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the cost (or revalued amount) of the asset less its residual value over its useful life.

Gap Analysis

A method of assessing the gap between a business's current asset management practices and the future desirable asset management practices. Also called needs analysis.

Geographic Information System (GIS)

Software, which provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.

Infrastructure Assets

Stationary systems forming a network and serving whole communities, where the system as a whole is intended to be maintained indefinitely at a particular level of service potential by the continuing replacement and refurbishment of its components. The network may include normally recognised ordinary assets as components.

Key Performance Indicator (KPI)

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of Service

The defined service quality for a particular activity (i.e. roads) or service area (i.e. Street lighting) against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.

Life

A measure of the anticipated life of an asset or component; such as time, number of cycles, distance intervals, etc.

Lifecycle Cost

The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, and rehabilitation and disposal costs.

Maintenance

All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal.

Renewal

Works to upgrade refurbish or replace existing facilities with facilities of equivalent capacity or performance capacity.

Replacement

The complete replacement of an asset that has reached the end of its life, to provide a similar or agreed alternative, level of service.

Replacement Cost

The cost of replacing an existing asset with an identical new asset.

Strategic Plan

A plan containing the long-term goals and strategies of an organisation. Strategic plans have a strong external focus, cover major portions of the organisation and identify major targets, actions and resource allocations relating to the long-term survival, value and growth of the organisation

8.2 Abbreviations

AC – Asset Coordinator

AM – Asset Management

AMWG – Asset Management working group

IIMM – International Infrastructure Management Manual

LGPMC - Local Government and Planning Ministers' Council

LOS - Level of Service

LTFP – Long Term Financial Plan

NAMAF - the National Asset Management and Financial Planning Assessment Framework

NFSF – National Financial Sustainability Framework

O & M - Operations and Maintenance

WAAMI – West Australian Asset Management Improvement (Program)

WALGA – West Australian Local Government Association