BATHURST REGIONAL COUNCIL

URBAN ROADS
ASSET MANAGEMENT PLAN

Version 6.1
January 2021

Rankin Street – Piper St to Lambert St

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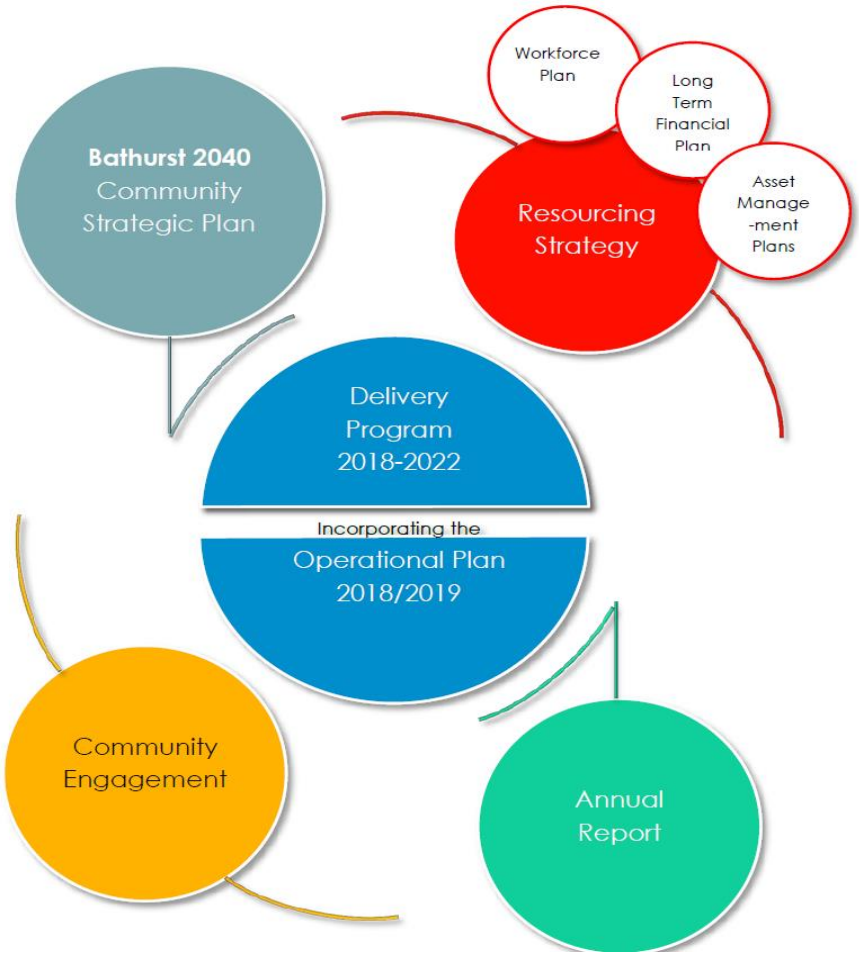
Integrated Planning and Reporting Framework



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ABBREVIATIONS

AAAC	Average annual asset consumption
AMP	Asset management plan
ARI	Average recurrence interval
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
PPI	Producer Price Index
CWMS	Community wastewater management systems
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SS	Suspended solids
vph	Vehicles per hour

GLOSSARY

Annual service cost (ASC)
An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class
Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

Asset condition assessment
The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

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

Assets
Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).
Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*
The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**
Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure
Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretional expenditure, which increases future operating, and maintenance costs, because it increases council's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or formed footpath and cycleway network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure
Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital funding
Funding to pay for capital expenditure.

Capital grants
Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure
See capital expenditure definition

Capital new expenditure
Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure
Expenditure on an existing asset, which returns the service potential or the life of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it has no impact on revenue, but may reduce future operating and maintenance expenditure if completed at the optimum time, e.g. resurfacing or re-sheeting a material part of a formed footpath and cycleway network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure
Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council's asset base, e.g. widening the sealed area of an existing formed footpath and cycleway, replacing drainage pipes

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

with pipes of a greater capacity, enlarging a grandstand at a sporting facility. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Carrying amount
The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets
See asset class definition

Component
An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

Cost of an asset
The amount of cash or cash equivalents paid, or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

Current replacement cost (CRC)
The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Current replacement cost "As New" (CRC)
The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**
Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Depreciable amount
The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

Depreciated replacement cost (DRC)
The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset

Depreciation / amortisation
The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life
See useful life definition.

Expenditure
The spending of money on goods and services. Expenditure includes recurrent and capital.

Fair value
The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.

Greenfield asset values **
Asset (re)valuation values based on the cost to initially acquire the asset.

Heritage asset
An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss
The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets
Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. formed footpath and cycleways, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.

Investment property
Property held to earn rentals or for capital appreciation or both, rather than for:
(a) use in the production or supply of goods or services or for administrative purposes; or
(b) sale in the ordinary course of business (AASB 140.5)

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

Level of service
The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).

Life Cycle Cost **
The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure **
The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Loans / borrowings
Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap
Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (e.g. 5, 10 and 15 years).

Maintenance and renewal sustainability index
Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).

Maintenance expenditure
Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality
An item is material is its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.
A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

Non-revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, e.g. parks and playgrounds, footpaths, formed footpath and cycleways and bridges, libraries, etc.

Operating expenditure
Recurrent expenditure, which is continuously required excluding maintenance and depreciation, e.g. power, fuel, staff, plant equipment, on-costs and overheads.

Pavement management system
A systematic process for measuring and predicting the condition of formed footpath and cycleway pavements and wearing surfaces over time and recommending corrective actions.

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

PMS Score
A measure of condition of a formed footpath and cycleway segment determined from a Pavement Management System.

Rate of annual asset consumption*
A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*
A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade*
A measure of the rate at which assets are being upgraded and expanded per annum expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

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

Recoverable amount
The higher of an asset's fair value, less costs to sell and its value in use.

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

Recurrent expenditure
Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.

Recurrent funding
Funding to pay for recurrent expenditure.

Rehabilitation
See capital renewal expenditure definition above.

Remaining life
The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life.

Renewal
See capital renewal expenditure definition above.

Residual value
The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

Revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management
The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment
A self-contained part or piece of an infrastructure asset.

Service potential
The capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*
A measure of the remaining life of assets expressed as a percentage of economic life. It is also a measure of the percentage of the asset's potential to provide services that are still available for use in providing services (DRC/DA).

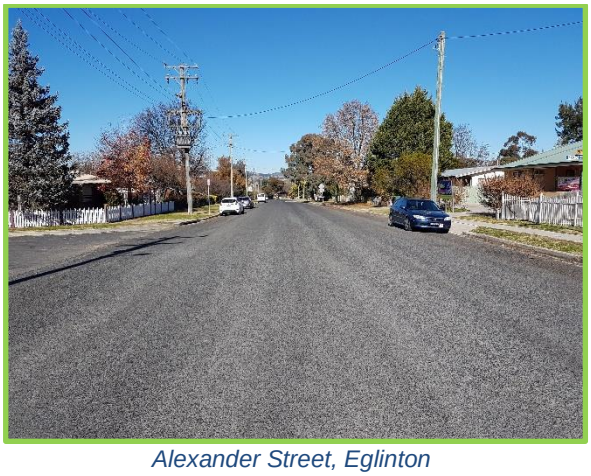
Strategic Management Plan (SA) **
Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

Sub-component
Smaller individual parts that make up a component part.

Useful life
Either:
(a) the period over which an asset is expected to be available for use by an entity, or
(b) the number of production or similar units expected to be obtained from the asset by the entity.
It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the council. It is the same as the economic life.

Value in Use
The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary
Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **



Alexander Street, Eglinton

1. EXECUTIVE SUMMARY

What Council Provides

Council provides a road network to enable the infrastructure necessary for the safe and efficient transport of people and goods within and throughout the Bathurst Region to meet the changing needs of the community.

The network consists of **291.35 km** of urban roads and **455 km** of kerb and gutter.

What does it Cost?

There are two key indicators of cost to provide the urban roads service.

- The life cycle cost being the average cost over the life cycle of the asset, and
- The total maintenance and capital renewal expenditure required to deliver existing service levels in the next 10 years covered by Council's long-term financial plan.

The life cycle cost to provide the urban roads service is estimated at **$5,271 million** per annum. Council's planned life cycle expenditure for year 1 of the asset management plan is **$4,781 million** which gives a life cycle sustainability index of **0.91**, resulting in a funding shortfall of -$490,857 for year 1.

The total maintenance expenditure budgeted to provide the urban roads network in the next 10 years is estimated at **$52.7 million.** This is an average of **$5,271 million** per annum; giving a 10-year sustainability index of **0.91**, resulting in an anticipated shortfall of -$4,909 million over the medium term.

Plans for the Future

Council plans to operate and maintain the formed urban roads network to achieve the following strategic objectives.

1. To provide the infrastructure necessary for the safe and efficient transport of people and goods within and throughout the Bathurst Region to meet the changing needs of the community.
2. To provide resources for the continuing maintenance of the roads network and to provide new transport network systems in accordance with identified needs.

Measuring our Performance

Quality

Urban roads assets will be maintained in a reasonably usable condition. Defects found or reported that are outside our service standard will be repaired.

Function

Our intent is that an appropriate urban road network is maintained partnership with other levels of government to provide a safe and efficient network.

Urban roads assets will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure key functional objectives are met:

- Defects are detected, quantified and programmed for maintenance
- Maintain roads in a safe condition
- Prolong life of assets through effective maintenance

Safety

Council's asset inspector inspects all roads in accordance with its Maintenance Service Level Specification. Any defects found are recorded on the Confirm Customer Service (CCS) system and sent to the appropriate manager for assessment. Repairs are carried out in accordance with CCS timeframes and available funding.

Any defects reported by members of the public are also recorded in the CCS system and processed accordingly.

The Next Steps

The actions resulting from this asset management plan are:

- Develop an inspection schedule to ensure all council owned roads are inspected on a regular basis
- Improve the collection of physical data pertinent to the maintenance of the urban road network
- Make use of available financial data to produce accurate input to future budgets

Eglinton Road

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service.

The asset management plan is to be read with the following associated planning documents:

- Bathurst Regional Council Delivery Plan 2018-2021 and Annual Operating Plan (2018-2021)
- Bathurst Regional Council Detailed Budget 2018-2021
- Bathurst Community Access and Cycling Plan 2011
- Bathurst City Council CBD Beautification Plan 1998

This asset management plan covers urbans roads assets within the Bathurst Regional Council local government area. Urban road assets include the road surface, the layers of road pavement beneath the surface of the road, the kerbs and gutters, cuttings, embankments and all civil works supporting the carriageway. This asset management plan does not include bridges or culverts.

Table 2.1. Assets covered by this Plan

Asset Category	Length (km)	Replacement Value ($000)
Urban Roads Access	157.78	$74,299.14
Urban Roads Collector	85.94	$40,858.18
Urban Roads Distributor	47.62	$27,591.90
Kerb and Gutter	455.00	$30,239.60
Bulk Earthworks	Included in other road assets	$51,898.27
Total	**746.36**	**$224,887.10**

Key stakeholders in the preparation and implementation of this asset management plan are:

Councillors	Agree to policy for the allocation of resources to maximise benefit to the community whilst minimising the Council's exposure to risk
The Council	To manage the implementation of policy in a timely and cost-effective manner. To ensure resources are effectively utilised
Access Committee	Representative of end users with particular access requirements
General Public	End users of the network

Bradwardine Road, West Bathurst

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. Council has acquired infrastructure assets by purchase, by contract, construction by council staff and by donation of assets constructed by developers and others to meet increased levels of service.

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. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance
- Managing the impact of growth through demand management and infrastructure investment
- Taking a life cycle approach to develop cost effective management strategies for the long term that meet the defined level of service
- Identifying, assessing and appropriately controlling risks associated with asset failures
- Having a Long-Term Financial Plan which identifies required expenditure and how it will be funded[1]

This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

Council's vision:
Bathurst: A vibrant and innovative region that values our heritage, culture, diversity and strong economy."

Relevant Council goals and objectives from the adopted 2040 Community Strategic Plan and how these are addressed in this asset management plan are:

Table 2.2. Council Goals and how these are addressed in this Plan

Community Strategic Plan Objective	How Objectives are addressed in AMP
2.5 Support Mount Panorama as a premier motor support and event precinct	Maintain, improve internal road network for spectators, the mount panorama circuit itself and ensuring the facility meets level of service requirements for events held at Mount Panorama
2.6 Promote our city & villages as a tourist destination	Ensure adequate roads infrastructure is in place to provide access by road for future economic development of the Bathurst Regional area.
4.2 Provide safe and efficient road, cycleway and pathway networks to improve accessibility	Maintain and improve the urban road network, through capital renewal, upgrading urban road infrastructure to meet the appropriate levels of service
4.3 Ensure services, facilities and infrastructure to meet the changing needs of the region	The construction of new road assets to adequately serve the expected rise in population. This includes any upgrading of existing roads required to meet the expected growth.
5.2 Help make the Bathurst CBD, neighbourhoods and the regions villages attractive and full of life	Maintain and improve existing road infrastructure throughout the network, facilitating tourism of the region.
5.4 Make our public places safe and welcoming	Ensuring road assets meet community and technical service standards (See Section 3.3 Levels of Service).
6.1 Communicate and engage with the community, government and business groups on important matters affecting the Bathurst Region	Along with conducting community surveys of council's assets, consultation of relevant renewal/upgrade projects with the community to ensure acceptable level of service is met.
6.4 Meet legislative and compliance requirements	All works conducted and completed under relevant policies and standards. Following correct procedures.
6.6 Manage our money and our assets to be sustainable now and into the future	Communication between Council's Departments to manage expenditure for renewal/upgrade works. Apply for government funding for new assets.

[1] IIMM 2011 Sec 1.2.1, p 1/7

2.3 Plan Framework

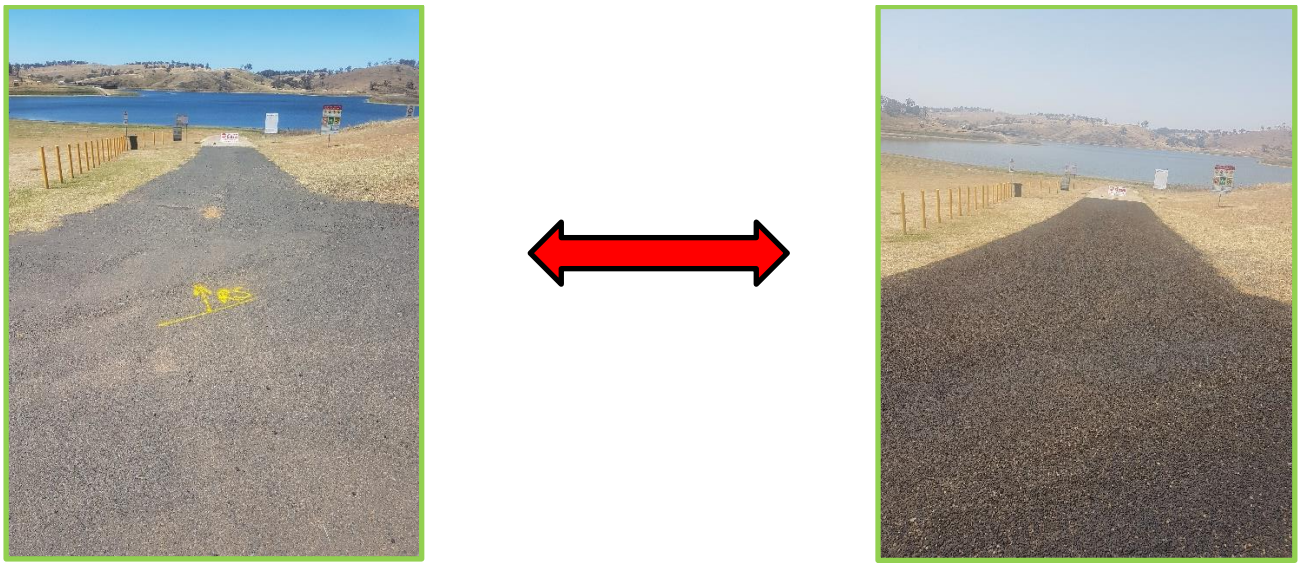
Key elements of the plan are:

- Levels of service – specifies the services and levels of service to be provided by council.
- Future demand – how this will impact on future service delivery and how this is to be met.
- Life cycle management – how Council will manage its existing and future assets to provide the required services
- Financial summary – what funds are required to provide the required services.
- Asset management practices
- Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives.
- Asset management improvement plan

A road map for preparing an asset management plan is shown on the next page.

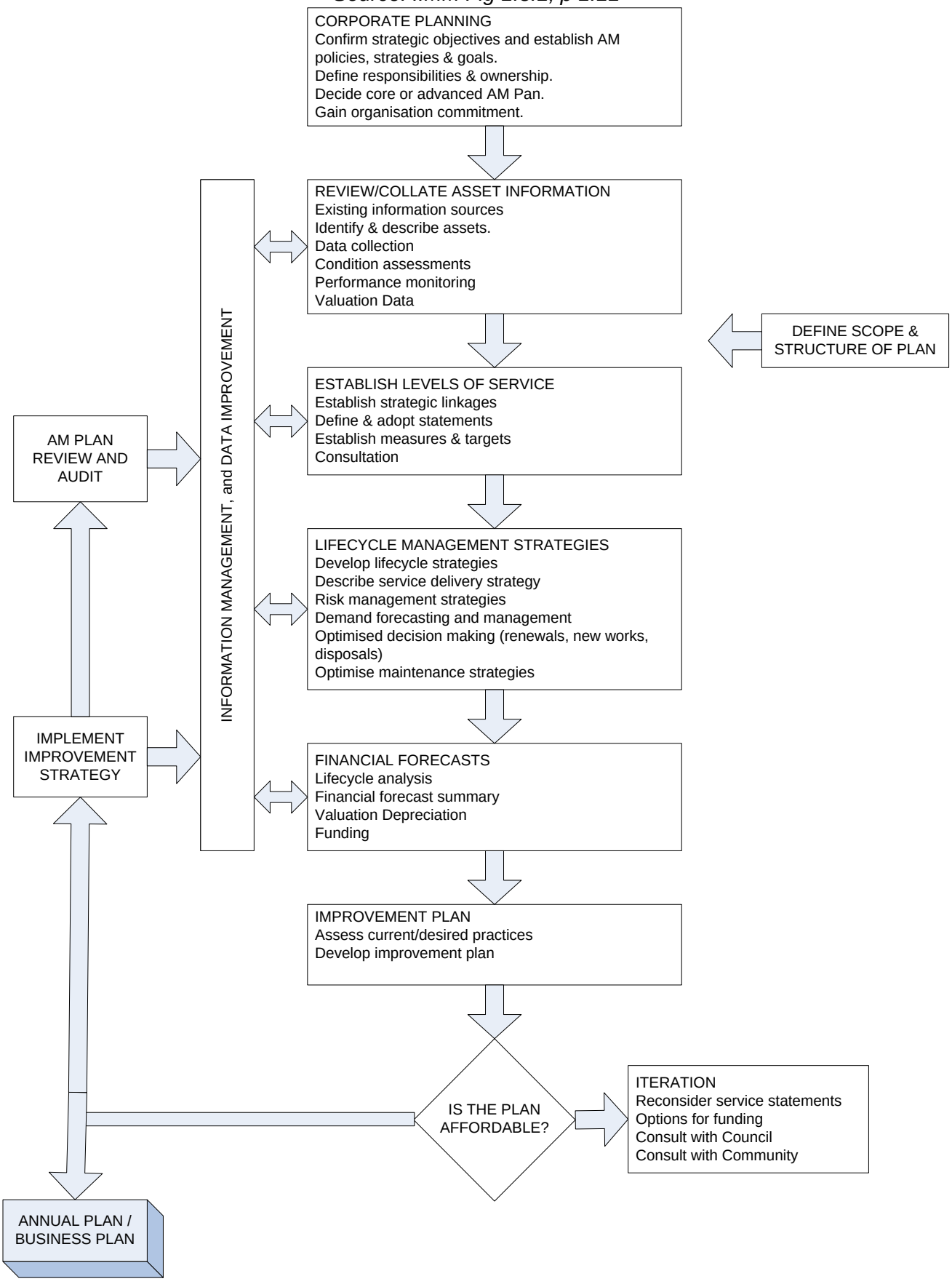
2.4 Concise and Comprehensive Asset Management

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual (IIMM). It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long-term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.



Chifley Dam Internal Roads Upgrade 2019

Source: IIMM Fig 1.5.1, p 1.11



3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

In the 2018 Community Survey, residents were asked to rate the importance and satisfaction they consider the sewer network is to them. They were asked to rate them on a scale of 1 to 5. 1 being not at all important and 5 being very important

Overall, the public rated the urban roads network as being 4.67 out of 5 in importance. In terms of saitisfaction, they rated the urban roads network as being 3.09 out of 5.

In addition to the key findings of the community survey council continues to use the measure of the network performance from Customer Requests (see fig 3.1).

Table 3.1. Community Survey Urban Roads Findings

Community Performance Gap Ranking	Service/Facility	Importance Rating	Satisfaction Rating	Performance Gap
3	Maintaining local urban roads	4.67	3.09	1.58
9	Overall condition of the local sealed road network	4.47	3.15	1.32
16	Road Safety	4.72	3.62	1.10

Fig 3.1. Customer Requests related to Urban Roads

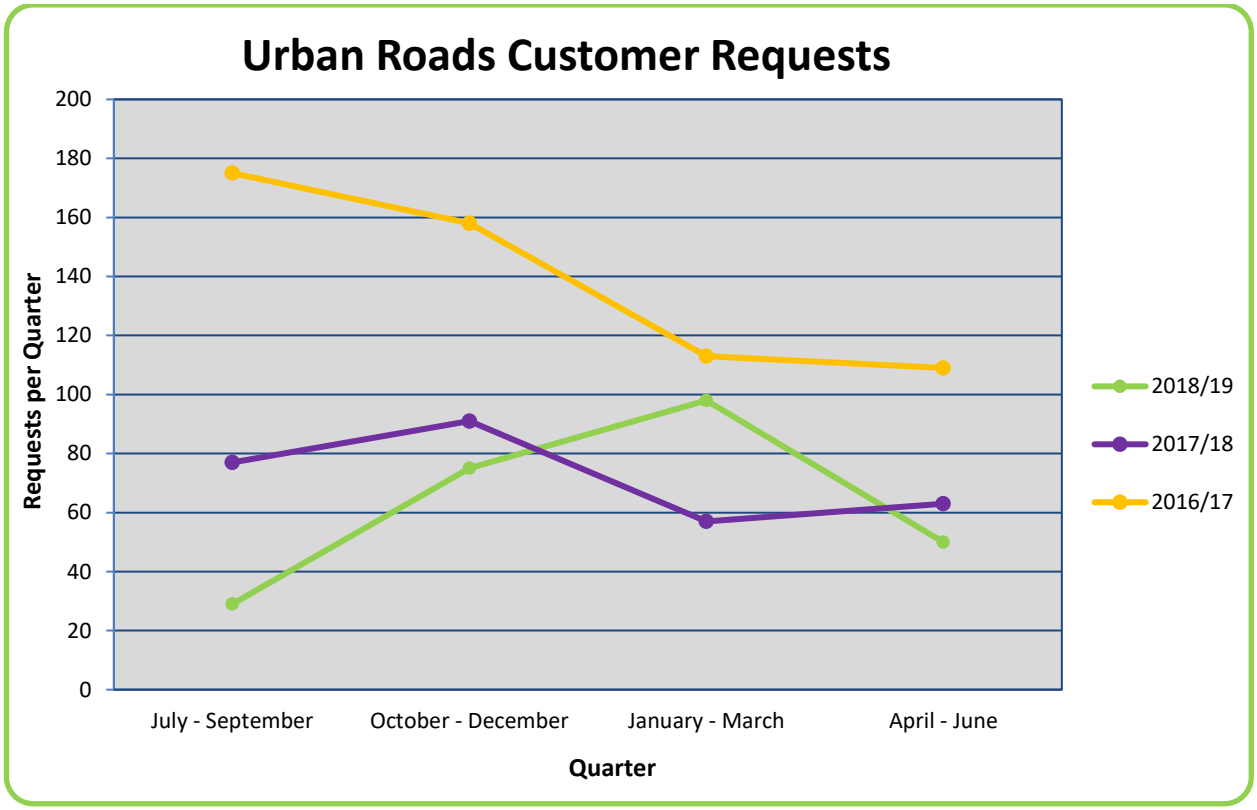


Figure 3.1 shows a spike in customer requests during major roundabout renovations in January – March 2019, but an overall declining trend in the number average number of complaints registered in Council's Customer Service System from July 2016 to June 2019.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
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. Details Council's role as custodian and trustee of public assets, and its associated responsibility to effectively account for and manage these assets.
Roads Act 1993	To confer certain functions (in particular, the function of carrying out road work) on Council and other road authorities and to regulate the carrying out of various activities on Council.
Civil Liabilities Act 2002	Sets out the provisions that give protection from civil liability and the responsibilities of Council and public alike.
Environmental Planning and Assessment Act 1979	The proper management, development and conservation of natural resources, including agricultural land, natural areas, forests, minerals, water, the city, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.
Protection of the Environment Operations Act 1997	To protect, restore and enhance the quality of the environment having regard to the need to maintain ecologically sustainable development.
RMS Standards	Provides industry standards for design.
Australian Standards	Provides a minimum standard in many areas including road design, road signage, provision of guard rails, etc.
Work Health & Safety Act 2011	To secure and promote the health, safety and welfare of people at work.
Bathurst Regional Council Policies	• Bathurst Community Access and Cycling Plan 2011 • Community Strategic Plan 2013 • Bathurst CBD Car Parking Strategy 2013 • Bathurst City Traffic Study 1997

Short Street, West Bathurst

3.3 Current Levels of Service

Council has defined service levels in two terms.

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 technical measures relate to service criteria such as:

Service Criteria	Technical measures may relate to
Quality	Smoothness of road surface
Quantity	Total length of road network
Availability	The ease of access to and from the road network
Safety	Number of injury accidents

Council's current service levels are detailed in Table 3.3.

Table 3.3. Current Service Levels

COMMUNITY LEVELS OF SERVICE

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance
Quality	Perceived level of comfort	Customer service requests relating to potholes in the road <150 per annum	**70 (2019)**
		Community satisfaction survey. Specifically: overall condition of the local sealed road network > 70%	**This is currently measured on a 1-5 scale and scores 3.15 or 63%**
Function	Meets appropriate requirements for - width - accessibility - traffic control devices including signs and line markings - appropriate levels of traffic	Customer service requests relating to the perceived functionality of the road. < 8 per annum	**Separation between standard works request and works requests relating to the function of the road is not currently noted within the CCS.**
	Meets appropriate requirements for traffic control devices including signs and line markings	Community satisfaction survey. Specifically: Road Safety. >75% community satisfaction	**This is currently measured on a 1-5 scale and scores 3.62 or 72.4%**
Safety	Reduce hazards and increase safety	Police reports of car accidents within the urban area < 90 per annum	**53***

*statistics taken from Transport for NSW Centre for Road Safety Crash and Casualty Statistics 2018.

TECHNICAL LEVELS OF SERVICE

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance
Condition	Condition Rating on Urban Roads	Condition Rating Survey 2017 <3% at Condition 4 or 5 (Poor or Very Poor)	**5.8%**
	Road Roughness Counts	Average Roughness across a representative sample of Urban Roads network <110 NAASRA counts	**99.96 NAASRA counts**
	Maintain Seal	% of network sealed per annum (based on total network length) 7% per annum	**13.11% (sealed in 2019)**
		Average Age of Seal 7 years	**10.03 years**
	Increase Seal Coverage	% of Urban Network sealed >=95%	**97.85%**
	Maintain Pavement	Maximum Pavement Age <10% @ >20 years	**62% >20yrs**
Function	Congestion Complaints	Less than 5 per year	**<1**
	Road Traffic is Maintained at the design level	<15% of roads have traffic greater than design level	**5% (from 2018/19 traffic count data)**

Fitzroy Street, Peel

4. FUTURE DEMAND

4.1 Demand Forecast

Factors affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership, consumer preferences and expectations, economic factors, agricultural practices, environmental awareness, etc.

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	42,389 (2016 census)	52,500 (2031)	**Increased population means increased infrastructure. In this case more roads will be built predominantly in urban areas.**
Households with 2 or more cars	8,221 (57% of households - 2016 Census)	10,111 (23% increase projected by 2036)	**The extra vehicle movements will accelerate the deterioration of the road layers, in particular the wearing surface which will need to be resurfaced more often.** **More trucks on the road will require more roads to be constructed to higher standards.**

4.2 Changes in Technology

Technology changes and the forecasted effect on service delivery are outlined in table 4.2.

Table 4.2. Technology Changes and forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
New road construction techniques and plant efficiencies	**Road construction costs may be reduced while pavement life may be extended**
Improved methods of in situ pavement stabilisation	**An increase in pavement life and a reduction in overall reconstruction cost**
Improvements in asset management techniques including inspection and forecasting	**Funds are better directed to areas requiring maintenance resulting in longer asset life**

4.3 Demand Management Plan

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, insuring against risks and managing failures.

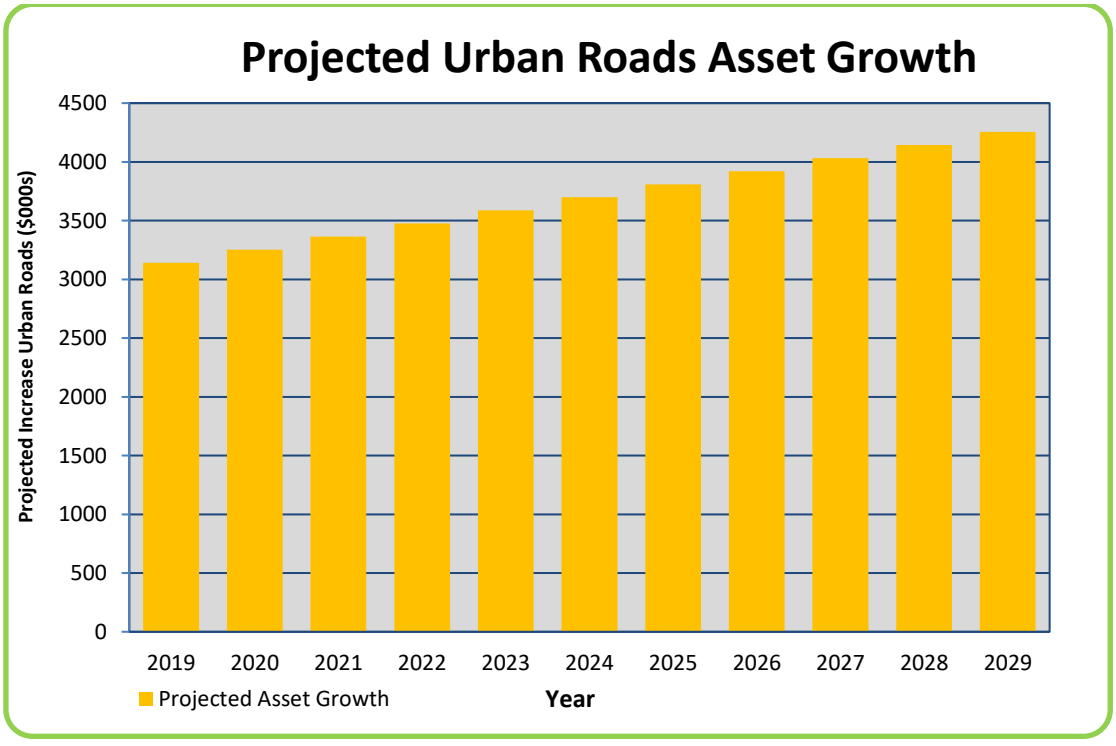
The Bathurst Regional Council Strategic Access Plan seeks to address the future demand expected of the footpath and cycleway network. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.3. Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Increasing Number of Cars/Increased traffic Urban Roads	Increased demand to construct new roads	Improve public transport options to reduce traffic movements Develop a cycleway network as a viable alternative to cars
	Increased maintenance expenditure and need for more frequent re-construction of the road	Resurfacing original asphaltic concrete surfaces with the appropriate sprayed seal to extend the useable life of the seal
		Extending the interval between pavement reconstruction on specific low used segments to allow a decrease in reconstruction intervals on specific high use segments of road
	Crowded roads and increased need for roads to be updated to higher capacity	Traffic pacifying devices such as speed humps, traffic islands and chicanes can be used to manage speed and traffic numbers on access road rather than upgrading the road

4.4 New Assets from Growth

The new assets required to meet growth will be acquired through development of land by council and other developers.



Acquiring these new assets will commit council to fund ongoing operations and maintenance costs. The future costs are identified and considered in developing forecasts of future operating and maintenance costs.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council plans to manage and operate the assets at the agreed levels of service (defined in section 3) while optimising life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this asset management plan are shown below.

Table 5.1.1. Urban Roads Asset Breakdown

Asset category	Length (km)	Replacement Value ($)
Access Roads	157.78	$74,299.14
Collector Roads	85.94	$40,858.18
Distributor Roads	47.62	$27,591.90
Kerb and Gutter	455.00	$30,239.60
Bulk Earthworks	Included in other measures	$51,898.27
Total	**746.36**	**$224,887.10**

Urban Roads Assets can be characterised as:

Distributor Roads (and industrial roads)

- Road reserve is 22m wide
- Road carriageway is 13.0m wide
- A minimum of 2 traffic lanes of 3.5m in width
- 2 parking lanes of 3.0m width
- Footway on each side of the road of 4.5m width
- 150mm high integral kerb and gutter on each side of the road
- A design speed of 60-80 kph
- Design traffic 1.0 x 10^7 equivalent standard axles

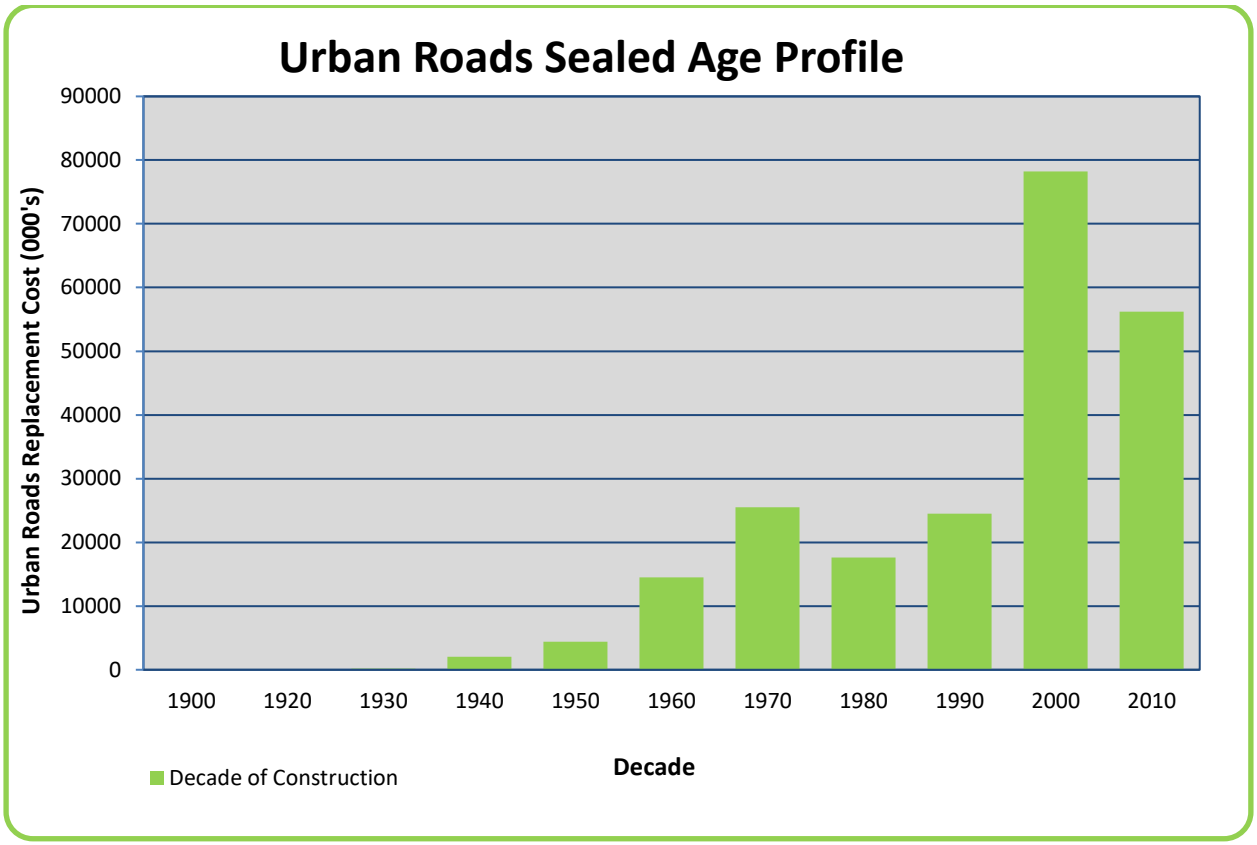
Collector Roads

- Road reserve is 20m wide
- Road carriageway is 11.0m wide.
- A minimum of 2 traffic lanes of 3.0m in width
- 2 parking lanes of 2.5m width
- Footway on each side of the road of 4.5m width
- 150mm high integral kerb and gutter on each side of the road
- A design speed of 60kph
- Design traffic 6.0 x 10^5 equivalent standard axles

Local Access Roads

- Road reserve is 17m wide
- Road carriageway is 8.0 wide.
- A minimum of 2 traffic lanes of 3.0m in width
- 1 parking lane of 2.0m width
- Footway on each side of the road of 4.5m width
- Roll top kerb and gutter on each side of the road
- A design speed of 40kph
- Design traffic 2.0 x 10^5 equivalent standard axles

Fig 5.1.1. Asset Age Profile



Average age of the road seals on the urban roads network is 10.03 years.

NOTE

- The maximum age profile of Council's urban road sealed assets is, for the majority of the network, 30 years. However, if the road is still in good condition at this point, the life of the seal may be increased until it drops below good condition.
- The information above has been determined from the asset register held within the Confirm Asset Management System. This system has been updated over time using information from various sources such as deposited plans that have dedicated roads to Council, historic parish maps and Council reconstruction records. Where no accurate data is available an estimate has been recorded and updated as the road is inspected and assessed.

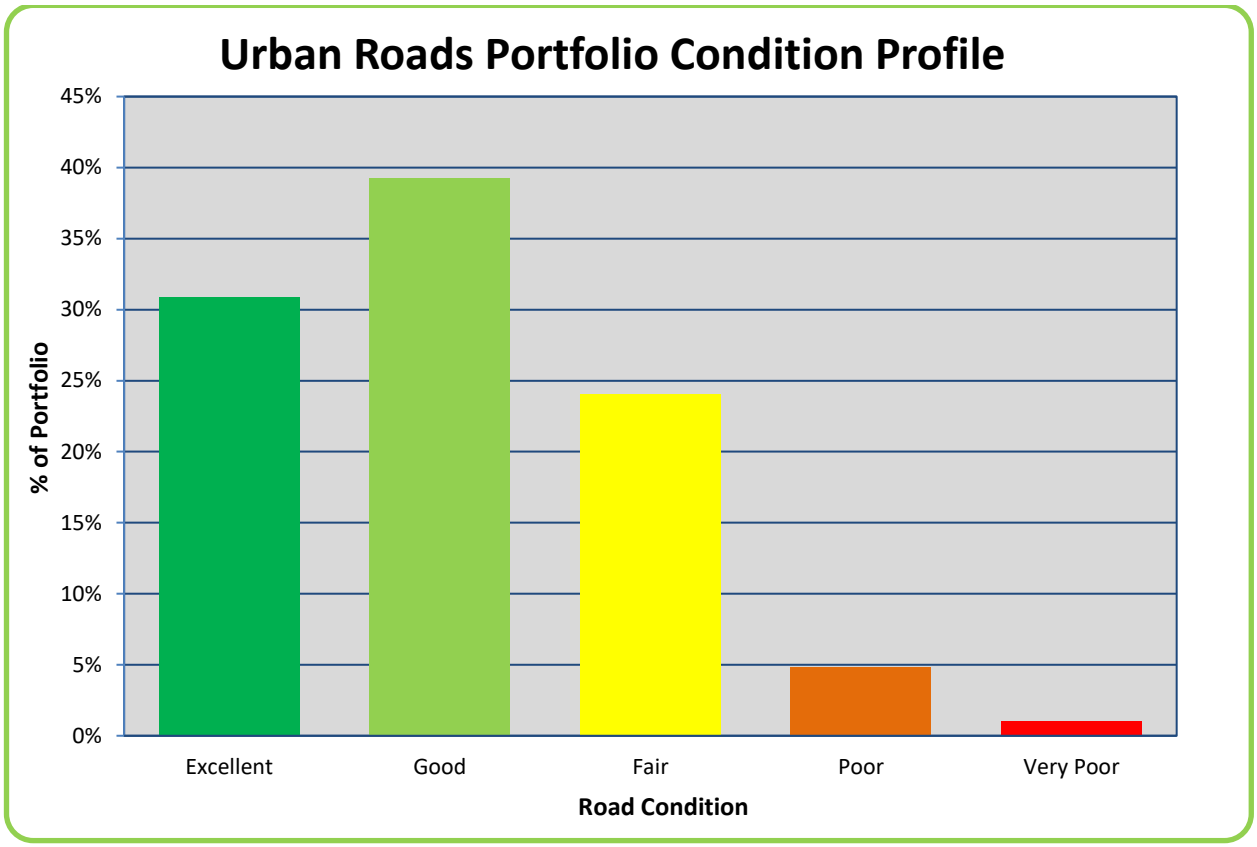
5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2. Known Service Performance Deficiencies

Location	Service Deficiency
Urban Access Roads - Eglinton	A number of streets are not constructed to Council standard. Kerb and Guttering may not be installed.
Urban Access Roads – Raglan	
Urban Access Roads – Perthville	

Fig 5.1.2 Asset Condition Profile



The above graph shows 94.2% of Council's urban roads network has a condition of Fair or better. The last condition inspection of the urban roads network was completed in 2017. The next condition inspection of urban roads is due to commence in 2021.

Condition is measured using a 1 – 5 rating system, using an internal technical document to specify the criteria for each condition type.

5.1.3 Asset valuations

The value of assets as at 30 June 2018 covered by this asset management plan is summarised below.

Table 5.1.3. Asset Valuations

Current Replacement Cost	$223.35 Million
Depreciated Replacement Cost	$162.76 Million
Annual Depreciation Expense	$0.45 Million

The current replacement cost to replace all of council's urban roads network as of **30/06/2019** is **$223.35 million.** The depreciated replacement cost, the accumulated depreciation shown as the cost of the urban road asset network consumed/expired is **$162.76 million**. Meaning the network has depreciated by **$60.59 million or $0.45 million p.a**.

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the infrastructure risk management plan are summarised in Table 5.2.

Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan
Road Pavement	Large defect that compromises road seal and affects pavement within traffic lane on a collector or distributor road	**EXTREME**	Immediate action to restrict access to the area effected. Replace lid and effect any necessary repairs within 24 hours
Road Pavement	Any defect that compromises road seal and affects pavement within traffic lane on a collector or distributor road	**HIGH**	Effect appropriate temporary repairs until such time as a permanent repair can be programmed. Programme defect for permanent repair
Road Seal	Any large defect that compromises road seal within traffic lanes on a collector or distributor road	**HIGH**	Programme defect for repair
Traffic Lane	Any spillage of any substance that can affect the slip resistance of the road surface	**HIGH**	Remove substance within specified response time
Traffic Lane	Any object within the traffic lanes on any urban road	**EXTREME**	Remove obstruction within specified response time
Road Sign	Regulatory or Warning sign (AS1742.1) has been removed or damaged beyond legibility	**HIGH**	Sign to be replaced within specified response time
Guard Rail	Guard rail is damaged so as to affect its function	**HIGH**	Repair or replace guard rail as necessary within specified response time

Bathurst Street, Perthville

5.3 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.

5.3.1 Maintenance plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

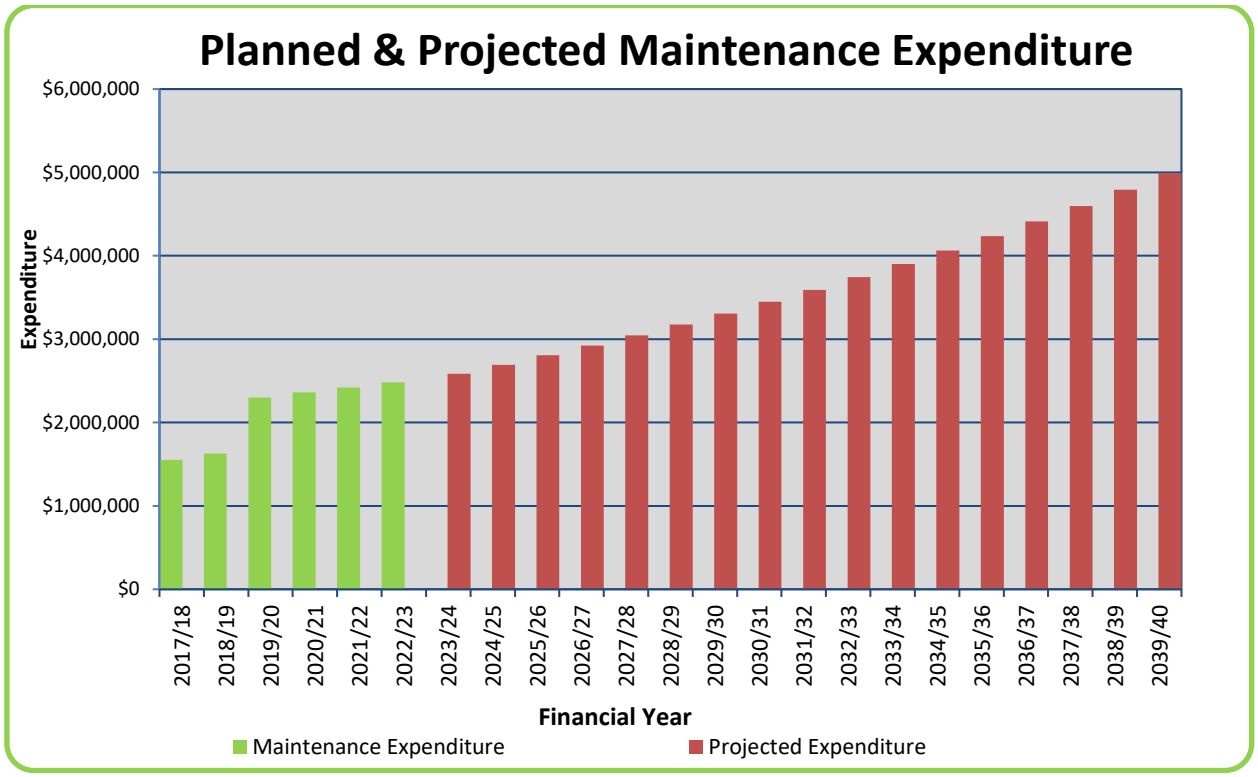
Reactive maintenance is unplanned repair work carried out in response to service requests (mostly through CCS) and management/supervisory directions. Reactive urban roads maintenance consists primarily of:

- Repair of surface defects considered by the appropriate officer to require urgent action
- Replacement of damaged or missing warning and regulatory signs
- Removal of any obstructions

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

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.

Fig 5.3.1 Asset Planned and Projected Maintenance Expenditure



5.3.2 Standards and specifications

Maintenance work is carried out in accordance with the following Standards and Specifications.

- Asset Management Policy 2009
- Bathurst Regional Council - Guidelines for Engineering Works
- Austroads 2002 *Urban Road Design: a guide to the geometric design of major urban roads* Austroads Incorporated, Sydney
- Roads and Traffic Authority NSW 2000 *Road design guide* RTA Parramatta

5.4 Capital 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. Remaining life is currently based on the pavement age or an estimation of pavement age. All roads are inspected every four years to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds are scheduled in future works programmes. A list of the current Urban Roads that are in Poor and Bad condition are included in Appendix B. These roads will be programmed for renewal or upgrade as shown.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

5.5 Creation/Acquisition/Upgrade Plan

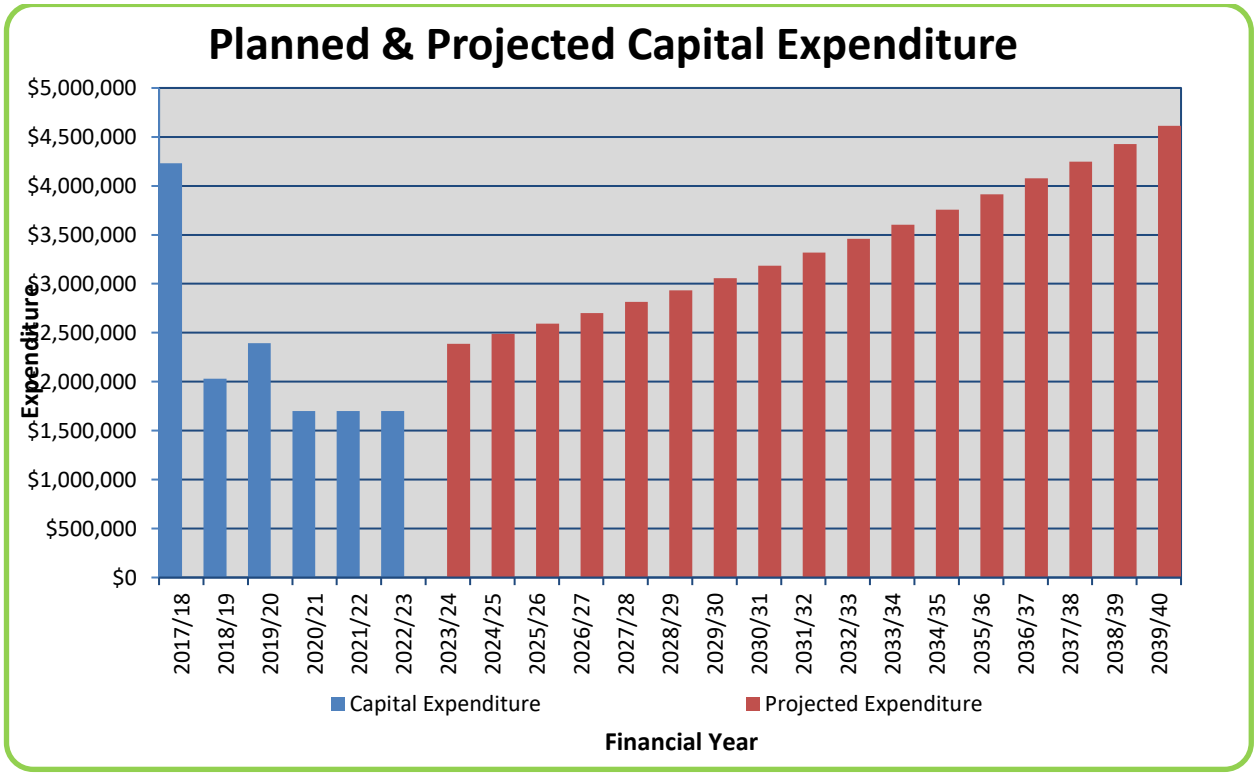
New works are those works that create a new asset that did not previously exist or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the Council from land development.

5.5.1 Selection criteria

New road assets are constructed as new development dictates. This is a function of the forward planning area of Council and as such the decisions involved in new road construction are not part of this asset management plan.

An upgrade of a road asset occurs when a road is reconstructed to a level of hierarchy above its present rating, for example a collector road reconstructed as a distributor road would be classified as an upgrade. The upgrade or expansion of existing road assets is identified from various sources such as community requests and 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 on criteria similar to those for ranking renewal, by priority and available funds and scheduled in future works programmes.

Fig 5.5.1 Asset Planned and Projected Capital Expenditure



5.6 Disposal Plan

Roads are not subject to disposal. Occasionally a road will be closed or re-aligned and ownership transferred to the surrounding land holder at value of the land. This is more relevant to rural roads and is not covered in this asset management plan.

Wellington Street, Peel

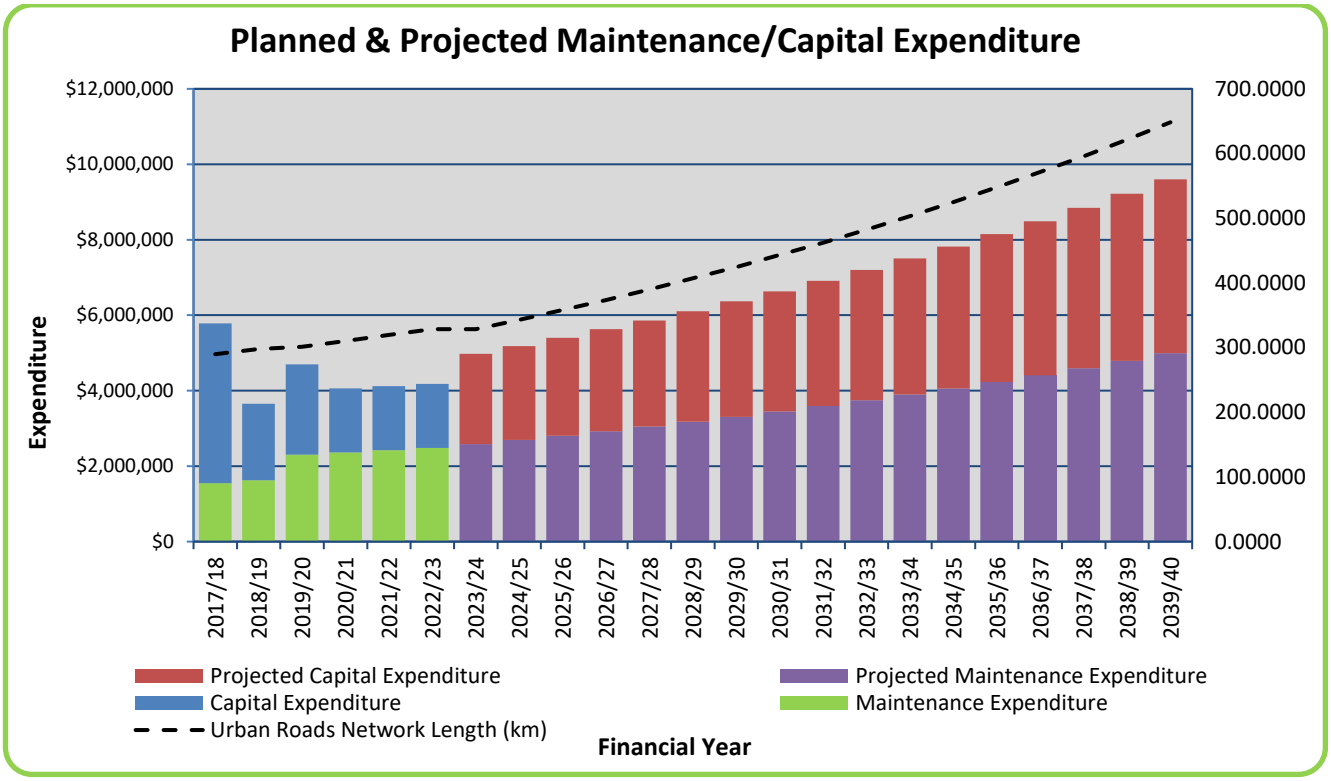
6. FINANCIAL SUMMARY

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.

6.1 Financial Statements and Projections

The financial projections are shown in Fig 6.1 for planned operating (operations and maintenance) and capital renewal.

Fig 6.1. Projected and Planned Operating and Current Renewal Expenditure



6.1.1 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 **$5,271,631 p.a.**

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 **$4,780,774**. This gives a life cycle sustainability index of **0.91**, resulting in a funding shortfall of -$490,857 for year 1.

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 formed footpath and cycleway network 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.

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 10-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 10-year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Fig 6.1 shows the projected asset renewals in the 10-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.

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 service levels and funding to eliminate any funding gap.

Council's long-term financial plan covers the first 10 years of the 20-year planning period. The total maintenance and capital renewal expenditure projected over the 10 years is **$52.716 million**.

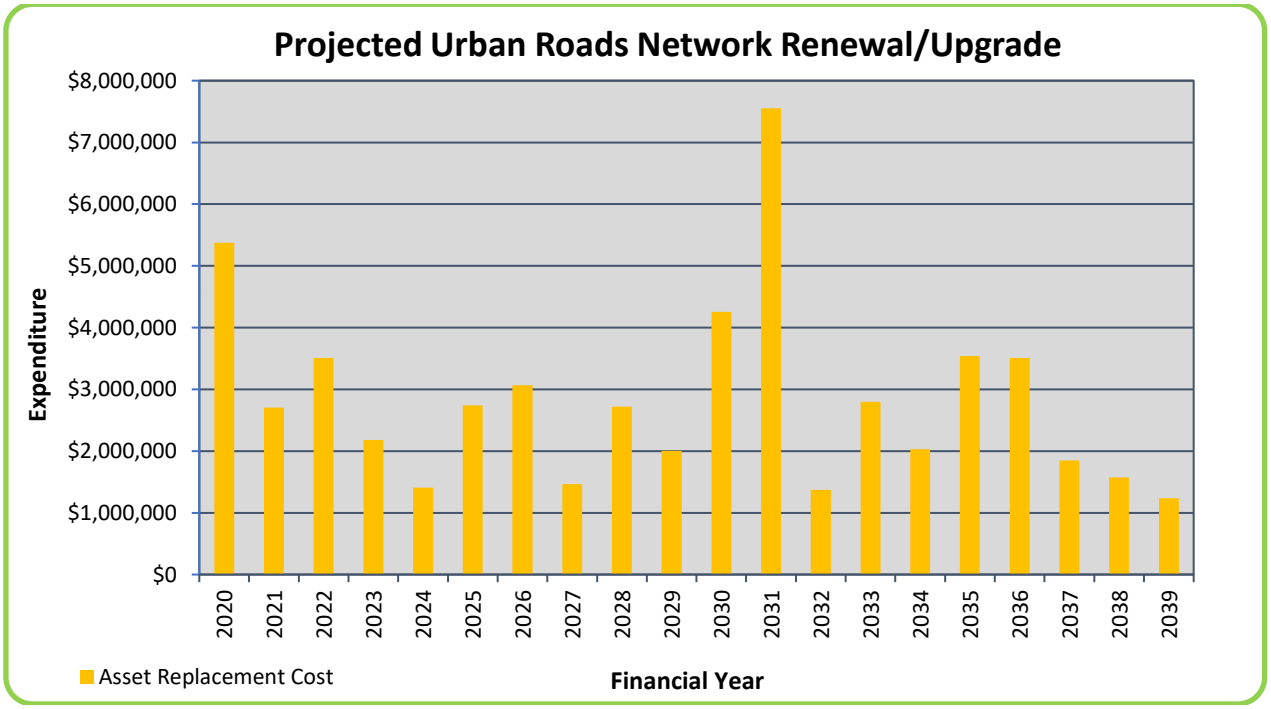
This is an average expenditure of **$5,271,631 p.a**. Estimated maintenance and capital renewal expenditure in year 1 is **$4,780,774**. The 10-year sustainability index is **0.91**, resulting in an anticipated shortfall of -$4,909 million over the medium term.

6.2 Funding Strategy

The current funding strategies for maintenance and renewal of the road network are adequate in the mid-term. However, as the network ages and grows in length an increase in funding (in real terms) will be required to manage the maintenance and renewal of the urban roads. This, in effect is funding the long-term depreciation on the road network.

A number of State and Federal grant systems are available to Council to assist in the funding of road maintenance, renewal and upgrade. The grants are not specifically allocated for expenditure on the urban road network. The level of funding council provides to the upkeep of the urban road network to ensure the level of service is maintained is reliant on the continuation of the funding assistance provided by higher levels of government.

Fig 6.2. Projected Urban Roads Network Renewal/Upgrade



6.3 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.

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.

6.4 Key Assumptions made in Financial Forecasts

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:

- Road construction to engineering guidelines is approximately $84/m^2$ – this includes bulk earthworks, lay and compact pavement and lay an asphalt surface (see appendix 2 for details)
- Kerb and gutter construction to engineering guidelines is approximately $82.8/m
- Maximum expected pavement life on; Distributor roads is 55 years
  Collector roads is 65 years
  Access roads is 80 years
- A continued annualised PPI (Producer Price Index) of 2.6% over the 20-year long term planning period.
- Depreciation is calculated on a straight line method

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

- Appropriate allocation of maintenance costs between repairs and renewals
- Improving the accuracy of unit rates by collecting more detailed financial information from construction work
- Improved monitoring of the relationship between traffic numbers, age and pavement condition.

Abercrombie Drive Roundabout

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

Council currently uses Civica Authority as the primary Corporate Finance System

Administrator: IT manager

Actions required by the finance system resulting from the asset management plan:

- Obtaining new Urban Roads assets for take-up at the conclusion of the financial year from the asset section rather than from the financial system.

7.2 Asset Management Systems

Council uses CONFIRM asset management software. The current version is 19.00e.AM.12665.

CONFIRM team:

Team leader:	Administration Engineer
Administrator:	Asset Systems Administrator
Data entry:	3 x Asset Technicians
Field inspections:	Asset Inspector

Confirm consists of:

- A comprehensive Urban Roads inventory;
- Condition rating for the Urban Roads network;
- Defect inspection and recording via the ConfirmConnect mobile solution;
- Data Management, with reporting procedure to present inventory and assessment information;
- Asset Accounting, AAS27 reporting capability and life cycle costing;
- MapInfo GIS system linked to CONFIRM;
- Valuation of Urban Roads.

As a result of this plan it is intended to improve the Asset management system by:

- Linking of Confirm to Financial Software to gain more accurate costs of works.

7.3 Information Flow Requirements and Processes

The key information flows *into* this asset management plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projections of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by council.

The key information flows *from* this asset management plan are:

- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

These will impact the Long-Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets. The current communication between financial and asset systems is limited to manually entering the relevant data.

8. CONCLUSION

Provision of the urban roads network is an integral part of Council's vision for Bathurst.

The total length of the network is **291.36km** and includes both sealed and unsealed Urban Roads in Bathurst Regional LGA. The average age of the seals of the network is 10 years. Approximately **5.8%** of the network is rated at condition poor or bad.

The current replacement cost is **$223.36 million.** The annual depreciation expense is **$446,839 p.a.**
Assets will be revalued in line with DLG requirements as at 30 June 2020.

The current maintenance and capital renewal/upgrade expenditure for **2019/20 FY** is **$4,781 million** and the current capital renewal budget required is **$5,271 million** creating a shortfall of -$490,857 for year 1 of the planning period. The shortfall in funding does not allow for any upgrades of road infrastructure, only maintaining the pre-existing infrastructure.

In the medium term (10yrs) the average maintenance and capital renewal expenditure required is **$5,271 million p.a.** and the current maintenance and capital renewal budget is **$4,781 million**, resulting in an anticipated shortfall of -$4,909 million over the medium term.

In technical terms the maintenance budget is proving adequate for the network in its current form. Individual defects identified as requiring repair are being actioned within a reasonable period of time. Council is implementing a new maintenance management tool (Confirm Workzone) to help with the programming of works to better deliver the necessary maintenance to areas which need it the most. A more thorough use of the maintenance management module within the Confirm Asset Management System will allow better reporting and analysis of urban roads maintenance.

Future budgets have been estimated by adding a factor for PPI (Producer Price Index) at the time of budget preparation. The 'inputs' to formed footpath and cycleway maintenance (e.g. materials/fuel) have consistently increased at above PPI. Further to this, the maintenance cost of a road increases as the road ages. Therefore the maintenance load will increase as the network ages. If the current level of maintenance funding is not increased in line with the increasing network size and as the aging road infrastructure requires, a real and measurable drop in the overall urban road condition could be expected.

The urban road network has a useful life ranging from **55 to 80** years. Although the final assessment on capital renewal of urban road segments will be based on specific criteria, asset age is the best indicator available to predict the future expenditure required to replace urban road infrastructure that has deteriorated to a point where it is no longer serviceable.

Church Street, Peel

9. PLAN IMPROVEMENT AND MONITORING

9.1 Performance Measures

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

- 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;
- 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;

9.2 Monitoring and Review Procedures

This asset management plan will be reviewed after each council election 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 2 years of each Council election.

Eleven Mile Drive

REFERENCES

- Bathurst Regional Council, 'Management Plan 2018-2022',
- Bathurst Regional Council, 'Detailed Financial Budget and Revenue Policy 2018-2019'
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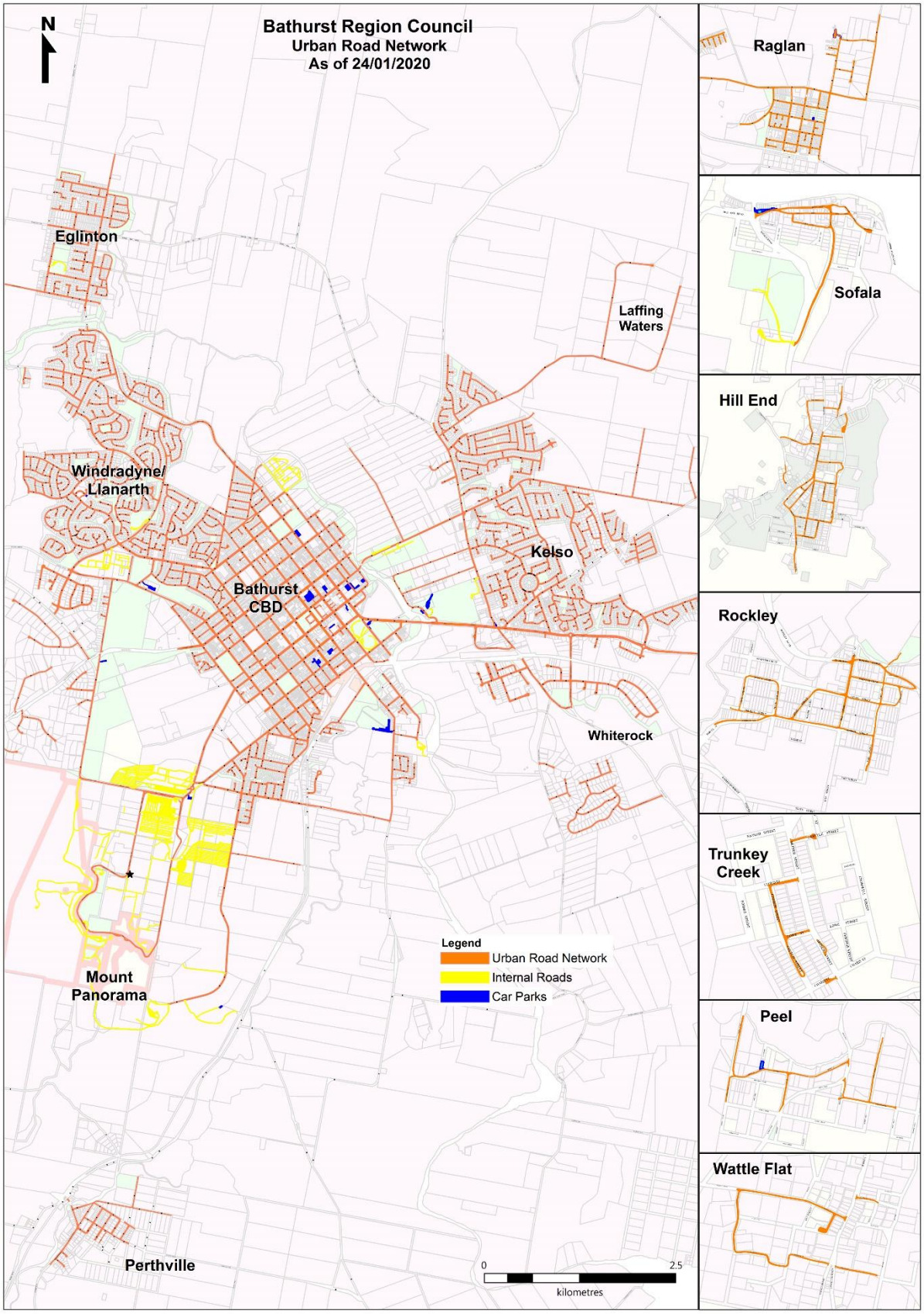
- NSW Department of Local Government, 1999 *Local Government Asset Accounting Manual - update 4* NSW DLG, Nowra
- Producer Price Index (PPI) - https://www.abs.gov.au/ausstats/abs@.nsf/mf/6427.0

APPENDIX A

Map of Existing Urban Roads Network



APPENDIX B

Urban Roads Rated in Poor Condition

Road Name	Segment of Road	Date of Inspection	Renewal or Upgrade
Bathurst Street (P)	Glenhaven Cr to start of Rockley Rd	11/07/2017	Renewal
Belmore Street	Bowen Street to High Street	1/06/2018	Renewal
Beyers Avenue	Beyers Avenue, Hill End	1/06/2018	Renewal
Boundary Road	Mitchell Hwy to Gleneagles Cl	4/09/2017	Renewal
Boyd Street	View St to Morang Av	19/09/2017	Completed 19 Jul 2018
Bradwardine Road	Mitchell Hwy to Corporation Ave	12/09/2017	Completed 10 Mar 2020
Charlotte Street	William St to Durham St	18/07/2017	Renewal
Church Street (HE)	Clark Street to Thomas Street, Hill End Village	1/06/2018	Renewal
Church Street (Peel)	Dempsey Street to Victoria Street, Peel	24/10/2017	Completed 29 Aug 2019
Commonwealth Street	Howick St to Russell St	17/07/2017	Renewal
Commonwealth Street	Russell St to Keppel St	17/07/2017	Renewal
Coventry Street	Kobe Street to Toronto Street.	10/10/2017	Renewal
East Street, Rockley	Market St to Lachlan St	5/12/2017	Completed 25 Jul 2018
Ecrates Place	Federation Drive to James Barnet Drive	14/09/2017	Renewal
Eglinton Road	Abercrombie Drive to Westbourne Street.	14/08/2017	Completed 21 Jun 2019
Elizabeth Street	George Street to William Street.	18/07/2017	Renewal
Esrom Street	Rosehill St to High St	17/07/2017	Renewal
Fishs Parade	Gormans Hill Rd north to Gormans Hill Rd south.	11/07/2017	Renewal
Fogharty Lane	Reilly St to Sofala Rd	20/11/2017	Renewal
George Street	Howick St to Russell St	18/07/2017	Renewal
George Street	Russell to Keppel St	18/07/2017	Renewal
George Street	Keppel St to Piper St	18/07/2017	Renewal
Hampden Park Road	Lee St to Littlebourne St	10/10/2017	Renewal
Havannah St	GWH to Morse Park	18/07/2017	Renewal
Havannah St	Keppel St to Rocket St	18/07/2017	Renewal
Henderson Street	Hill St to Rocket St	18/07/2017	Renewal
Hope Street	Russell St to Keppel St	25/07/2017	Completed 15 Dec 2017
Howick Street	George St to Rankin St	19/07/2017	Renewal
Howick Street	George St to Bentinck St	19/07/2017	Renewal
Keppel Street	Havannah St to Seymour St	18/07/2017	Renewal
Keppel Street	William St to George St	18/07/2017	Renewal
Lambert Street	Bant St to Havannah St	25/07/2017	Renewal

Landseer Street	Nelson St to Locke St	12/10/2017	Completed 16 Apr 2018
Lawson Street	Sofala Rd to end	20/11/2017	Renewal
Locke Street	Sydney Rd to cul-de-sac	7/12/2017	Renewal
Manilla Street	Keppell St to start of kerb (lane way)	19/07/2017	Completed 15 Jan 2018
Market Street	Long St to River St	5/12/2017	Upgrade
Marsden Lane	Gilmour St to # 51	19/09/2017	Renewal
Mitre Street	Durham St to Howick St	18/07/2017	Renewal
Mitre Street	Esrom St to Keppel St	18/07/2017	Renewal
Moodie Place	Vittoria St to end	19/07/2017	Renewal
Mugridge Lane	Bentinck St near Keppel St	25/07/2017	Renewal
Osborne Avenue	Boundary #13 & #15 to Northcott Dr	18/07/2017	Renewal
Parnham Street	Henderson St to Hill St	18/07/2017	Renewal
Pine Street	Havannah St to Rose St	12/07/2017	Renewal
Pioneer Street	Browning St to Brilliant St	19/07/2017	Renewal
Piper Street	Hope St to Mitre St	25/07/2017	Renewal
Piper Street	William St to George St	1/08/2017	Renewal
Prospect Street	Busby St to Rose St	12/07/2017	Renewal
Rankin Street	Howick St to Russell St	18/07/2017	Renewal
Reef Street	Alexander St to Thomas St	1/06/2018	Renewal
Rigbys Lane	Russell St to RSL carpark	27/07/2017	Renewal
Rocket Street	Veness St to Henderson St	18/07/2017	Renewal
Rose Street	Prospect St to Vine St	12/07/2017	Renewal
Russell Street	William St to Rankin St	19/07/2017	Renewal
Short Street (WB)	Commonwealth St to end	17/07/2017	Completed 1 Nov 2019
Thomas Street	Church St to Denison St	1/06/2018	Renewal
Webb Street	Rocket St to Hill St	18/07/2017	Renewal
Wellington Street (E)	Hamilton St to Ranken St	8/08/2017	Renewal
Wellington Street (E)	Ranken St to Duramana Rd	8/08/2017	Renewal
Wellington Street (P)	Fitzroy St to end	24/10/2017	Upgrade
Wembley Place	Hampden Park Rd to End	10/10/2017	Renewal
Whyalla Street	Toronto St to end	10/10/2017	Renewal
William Street (B)	Stanley St to Elizabeth St	18/07/2017	Renewal
William Street (B)	Russell St to Keppel St	18/07/2017	Renewal
Windemere Road	Mid West Hwy to Huaba Cl	31/08/2017	Renewal
Windemere Road	Huaba Close to end.	31/08/2017	Renewal
Wolseley Street	Alma St to Lloyds Rd	10/07/2017	Renewal
Zagreb Street	Whyalla Street to end.	10/10/2017	Renewal

Urban Roads Rated in Bad Condition

Road	Segment of Road	Date of Inspection	Renewal or Upgrade
Austral Street	Bathurst Street to Hurley Street	15/10/2017	Completed 24 Apr 2019
Marsden Lane	Hughes St to Limekilns Rd	11/10/2017	Upgrade
Rocket Street	Peel St to Veness St	18/07/2017	Renewal
Silver Street	Bathurst St to end	15/10/2017	Completed 24 Apr 2019