BATHURST
REGIONAL COUNCIL

SOLID WASTE
ASSET MANAGEMENT PLAN

Version 2.1
February 2021

Bathurst Waste Management Centre, College Road

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Integrated Planning and Reporting Framework

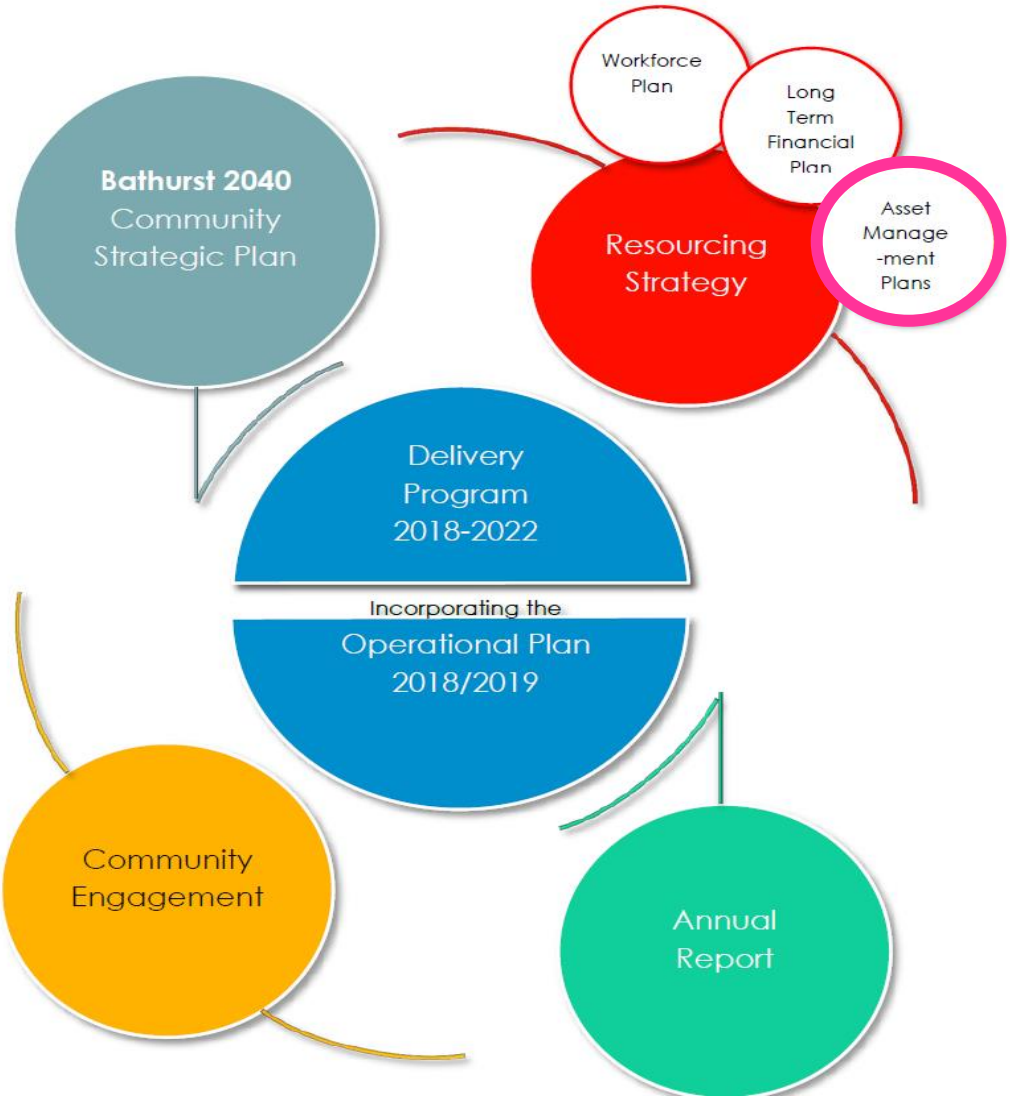


TABLE OF CONTENTS

ABBREVIATIONS

AAAC	Average annual asset consumption
AMP	Asset management plan
ARI	Average recurrence interval
CRC	Current replacement cost
DA	Depreciable amount
DoH	Department of Health
PPI	Producer Price Index
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RTS	Rural Transfer Station
RV	Residual value
vph	Vehicles per hour
WMC	Waste Management Centre

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, eg. 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 resheeting 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

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)

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.

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 **

1. EXECUTIVE SUMMARY

What Council Provides

Council provides solid waste collection, disposal and processing facilities to give residents of the region a certain level of amenity (maintain public health) to match Council's Vision laid out in Objectives; 1.4, 3.1, 3.3, 4.6, 6.1, 6.4 & 6.6 from Council' adopted 2040 Community Strategic Plan

The collection service and facilities provided are different for rural and urban areas. Currently, these facilities cater for a population of approximately 42,389 (2016 Census). Council's strategic planning processes aim to have capacity to provide for a population of 80,000 by 2050.

The main assets include:

- A Waste Management Centre (WMC) which includes;
  - Landfill Space
  - Two Weighbridges, associated Gate House and computer software
  - Transfer station
- Dropoff bays for recycling, e-waste, metal, green waste, oil, batteries (x2), mobile phones, household hazardous waste, printer cartridges
- Amenities block and office for staff
- Various items of heavy plant: 1xCompactor (CAT), 1x Loader (Volvo 912), 2x Skid-Steer loader (Bob-Cat) (1 x WMC transfer station, 1 x for Rural Transfer Stations), 2 x ISUZU Hook Lifts tipper, 4 x IVECO Kerbside Collections trucks (collection and compaction)
- Waste transfer stations at Sofala, Rockley, Sunny Corner, Trunkey Creek and Hill End Landfill
- Kerbside collection facility for solid waste and Recycling in the urban areas of Bathurst, Kelso, Eglinton, Raglan and Perthville
- Kerbside Recycling which has had a significant impact on amount of waste being taken to WMC
- Methane collection and flaring facility installed in 2007 (not Council owned) - future opportunities for capture and use in power generation

What does it Cost?

There are two key indicators of cost to provide the Waste Collection and processing facilities.

• 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 Solid Waste assets is estimated at **$7.377 million per annum.** Council's planned life cycle expenditure for year 1 of the asset management plan is **$6.941 million** which gives a life cycle sustainability index of **0.94**, equating to an estimated annual shortfall of -$436,606.

The total maintenance and capital renewal expenditure required to provide the Solid Waste assets over the next 10 years is estimated at **$86.298 million**.
This is an average of **$8.630 million per annum.**
Council's maintenance and capital renewal expenditure for year 1 of the asset management plan of **$6.941 million** giving a 10-year sustainability index of **0.80.**

Plans for the Future

Council plans to operate and maintain the Solid Waste assets to achieve the following strategic objectives.

1. Ensure the Solid Waste collection/disposal is functioning and available for users.
2. Ensure the Solid Waste collection/disposal process is maintained at a safe and functional standard as set out in this infrastructure asset management plan.
3. Ensure that future expansion or capital improvement of the Solid Waste asset portfolio is planned appropriately to cater for growth.
4. Maximise an assets useful life whilst minimising lifecycle expenditure.
5. Maintain a high level of community satisfaction in the provision of Solid Waste services.

Measuring our Performance

Specific KPIs are not yet adopted for the operation of the WMC or other Solid Waste services; however, they are listed to be developed during the 2019/20 FY. The following represents some broad, general measures that are applicable across all asset management plans.

Quality

Waste Management assets will be maintained in a reasonably usable condition. Defects found or reported that are outside the stated standard will be repaired.

Function

It is intended Waste Management assets will be maintained in partnership with other levels of government and stakeholders to ensure community satisfaction is maintained and safety/public health is not compromised.

The following key functional objectives are met:

- Safe and efficient operation of the WMC.
- Maintenance and renewal of the Solid Waste assets is within budget.

Safety

Council will respond to complaints and requests regarding Waste Management assets according to reasonable response times. These are prioritised according to the perceived risk each complaint presents weighed against the available budget in the Bathurst Regional Council Management Plan.

The Next Steps

The actions resulting from this asset management plan are:

- Implementation of the Plan & Review of the Plan
- Improve financial data collection;
- Improve integration of projections from this plan into Council's broader plans (Delivery, Management, Budget)
- Improve valuation and depreciation projections

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.

Assets owned and maintained by Council ensure that disposal of a variety of residential and commercial wastes plus a small amount of 'self-directed' recycling are made possible. There are a number of commercial waste collection operators that also use the WMC, and service both residential and commercial customers. Other collections also include "DrumMuster" (collection of used farm chemical containers) and household hazardous waste collection which is held annually.

In 2007 the WMC was described as having an **estimated life span of 85 years**. Based on a **commencement date of 1980**, this would suggest an **end of life date of 2065 (46 years remaining in 2019)**. These predictions do not take into account any extension due to increased recycling or other waste diversion programmes. As Council pursues these programmes into the future, the end of life date will continue to extend.

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

- Bathurst Regional Council Delivery Plan 2019-2023 and Annual Operating Plan
- Bathurst Regional Council Detailed Budget 2019-2023
- Bathurst Regional Council Community Strategic Plan 2040
- Bathurst Regional Council 2018 Community Survey
- NSW Waste Avoidance and Resource Recovery Strategy 2014-2021

Table 2.1. Assets covered by this Plan

Category	Dimension	Replacement Value ($)*
Land	96.75 ha	$791,000
Buildings	23.05m^2	$1,990,553
Other Structures	119.80m^2	$630,418
Total		**$3,411,971**

- Replacement value is the 'what would it cost to buy tomorrow' price based on current values and does not take into account any future site remediation costs.
- Estimated cost shown for Land – values produced from Council's rates records and are indicative.

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

Councillors	Formulate 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.
General Public	End users of the network.
Commercial Waste Collection Operators	Users of Solid Waste facilities on a commercial basis (waste contractors).
Construction & Demolition/Commercial & Industrial	Commercial requiring disposal e.g. factories, businesses.
Construction and Demolition	Commercial operators requiring disposal – building and demolition firms.

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:

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

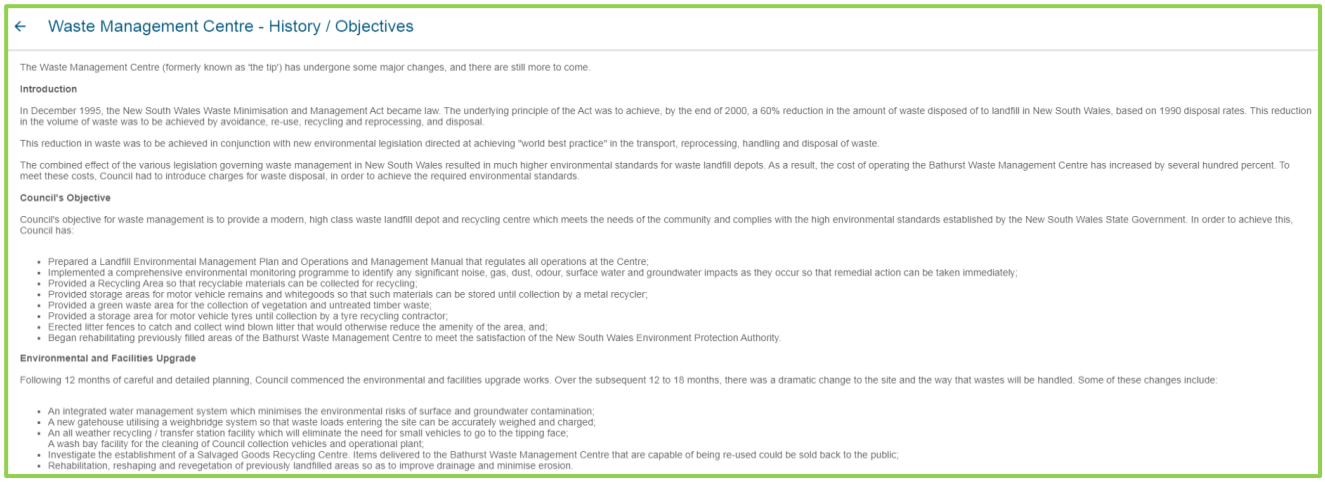
This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

Council's vision:
"Bathurst: A vibrant & innovative region that values our heritage, culture, diversity & 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
1.4 Protect and improve the region's landscapes, views, vistas and open spaces.	Managing Waste in the LGA and WMC Assets to allow adequate capacity for waste in the surrounding area.
3.1 Protect and improve natural areas and ecosystems, including the Macquarie River and other waterways.	
3.3 Minimise the city's environmental footprint, live more sustainably and use resources more wisely.	Increased use of sustainable materials, less impact on landfill and assets used for Waste Management.
4.6 Plan for, assess and regulate development activity.	Construction of Waste Transfer stations, provision on WMC site for greater capacity to cater for future population growth.
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 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.



← Waste Management Centre - History / Objectives

The Waste Management Centre (formerly known as 'the tip') has undergone some major changes, and there are still more to come.

Introduction

In December 1995, the New South Wales Waste Minimisation and Management Act became law. The underlying principle of the Act was to achieve, by the end of 2000, a 60% reduction in the amount of waste disposed of to landfill in New South Wales, based on 1990 disposal rates. This reduction in the volume of waste was to be achieved by avoidance, re-use, recycling and reprocessing, and disposal.

This reduction in waste was to be achieved in conjunction with new environmental legislation directed at achieving "world best practice" in the transport, reprocessing, handling and disposal of waste.

The combined effect of the various legislation governing waste management in New South Wales resulted in much higher environmental standards for waste landfill depots. As a result, the cost of operating the Bathurst Waste Management Centre has increased by several hundred percent. To meet these costs, Council had to introduce charges for waste disposal, in order to achieve the required environmental standards.

Council's Objective

Council's objective for waste management is to provide a modern, high class waste landfill depot and recycling centre which meets the needs of the community and complies with the high environmental standards established by the New South Wales State Government. In order to achieve this, Council has:

- Prepared a Landfill Environmental Management Plan and Operations and Management Manual that regulates all operations at the Centre;
- Implemented a comprehensive environmental monitoring programme to identify any significant noise, gas, dust, odour, surface water and groundwater impacts as they occur so that remedial action can be taken immediately;
- Provided a Recycling Area so that recyclable materials can be collected for recycling;
- Provided storage areas for motor vehicle remains and whitegoods so that such materials can be stored until collection by a metal recycler;
- Provided a green waste area for the collection of vegetation and untreated timber waste;
- Provided a storage area for motor vehicle tyres until collection by a tyre recycling contractor;
- Erected litter fences to catch and collect wind blown litter that would otherwise reduce the amenity of the area, and;
- Began rehabilitating previously filled areas of the Bathurst Waste Management Centre to meet the satisfaction of the New South Wales Environment Protection Authority.

Environmental and Facilities Upgrade

Following 12 months of careful and detailed planning, Council commenced the environmental and facilities upgrade works. Over the subsequent 12 to 18 months, there was a dramatic change to the site and the way that wastes will be handled. Some of these changes include:

- An integrated water management system which minimises the environmental risks of surface and groundwater contamination;
- A new gatehouse utilising a weighbridge system so that waste loads entering the site can be accurately weighed and charged;
- An all weather recycling / transfer station facility which will eliminate the need for small vehicles to go to the tipping face;
- A wash bay facility for the cleaning of Council collection vehicles and operational plant;
- Investigate the establishment of a Salvaged Goods Recycling Centre. Items delivered to the Bathurst Waste Management Centre that are capable of being re-used could be sold back to the public;
- Rehabilitation, reshaping and revegetation of previously landfilled areas so as to improve drainage and minimise erosion.

Council's Waste Management Centre Objectives - Website interactive portal
https://calendars.impactapps.com.au/bathurst/waste-info/#/info-details/22

[1] IIMM 2018 Sec 1.1.3, p 1.3

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 over.

2.4 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual. 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.

Future revisions of this asset management plan will incorporate a review of the benefits of an 'advanced' plan offset the investment in systems and processes to provide better value for Council[2].

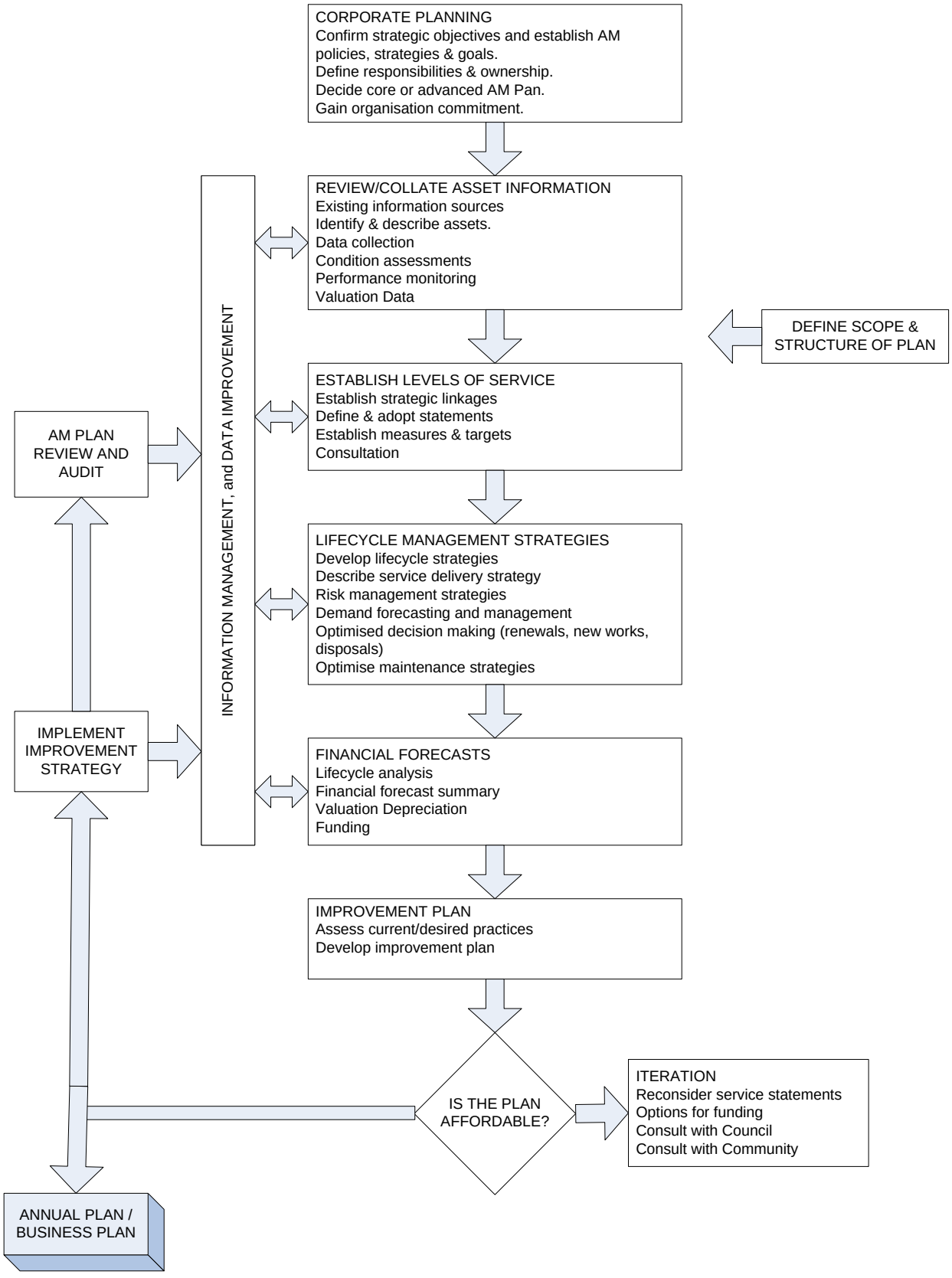
See Next Page.

Weigh Bridge and Gate House

[2] *[See pp 14 NAMS PLUS3 Guidelines]:*
"Seeking advanced practice in all areas may not be the best solution for all organisations. It will depend on the scale and type of assets the organisation manages and the business context. Significant investment in systems, data and process is required to achieve advanced asset management."

Road Map for preparing an Asset Management Plan

Source: IIMM Fig 1.5.1, p 1.11

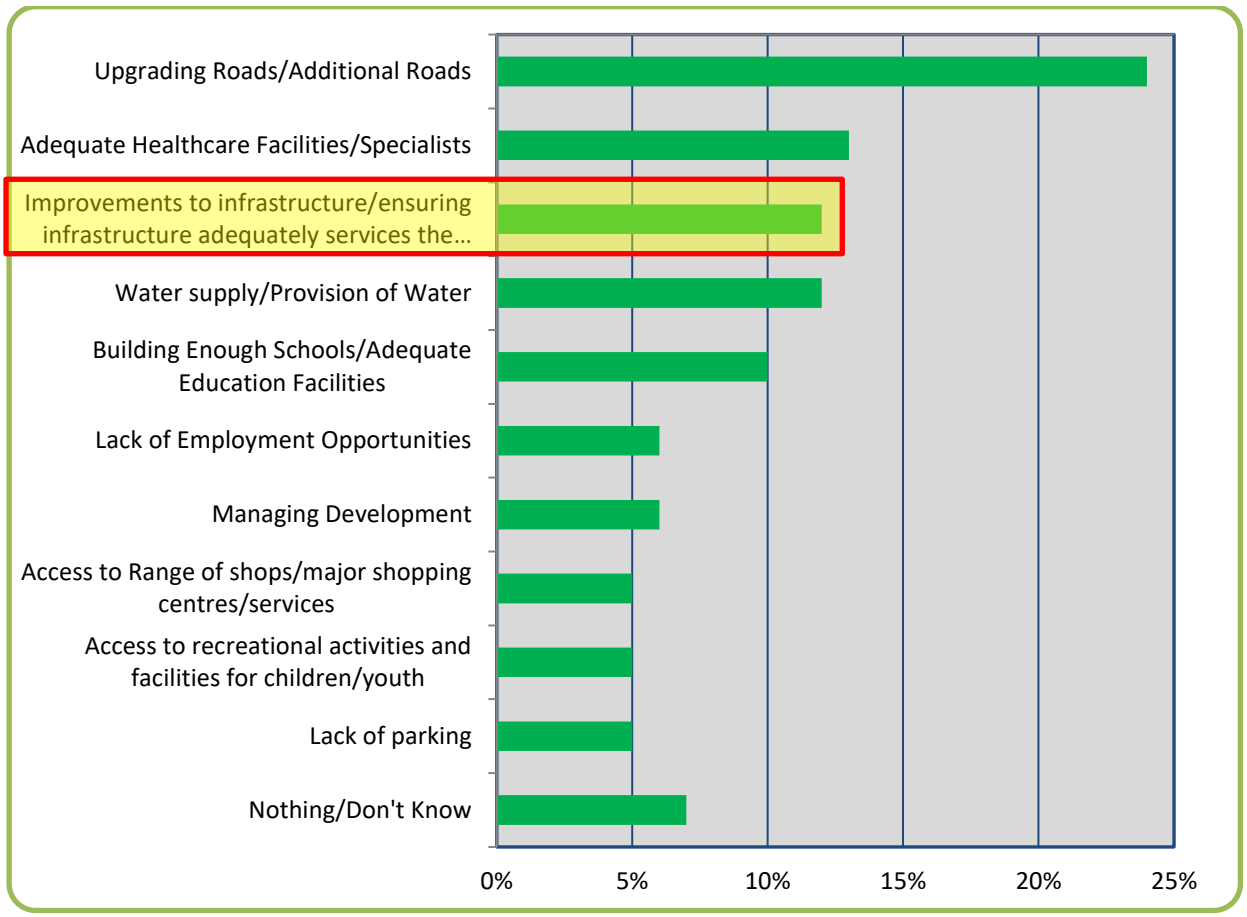


3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

The Council undertakes community surveys on an annual basis to gauge community expectations and satisfaction with the service Council provides. A series of questions are put to a broad cross section of the community including residents from rural and urban areas each year. The survey for 2009 has changed the method of data collection from telephone survey to a mailed written survey. Using the data from the Community Survey helps council meet Objectives; 1.4, 3.1, 3.3, 4.6, 6.1, 6.4 and 6.6 within Council's adopted 2040 Community Strategic Plan.

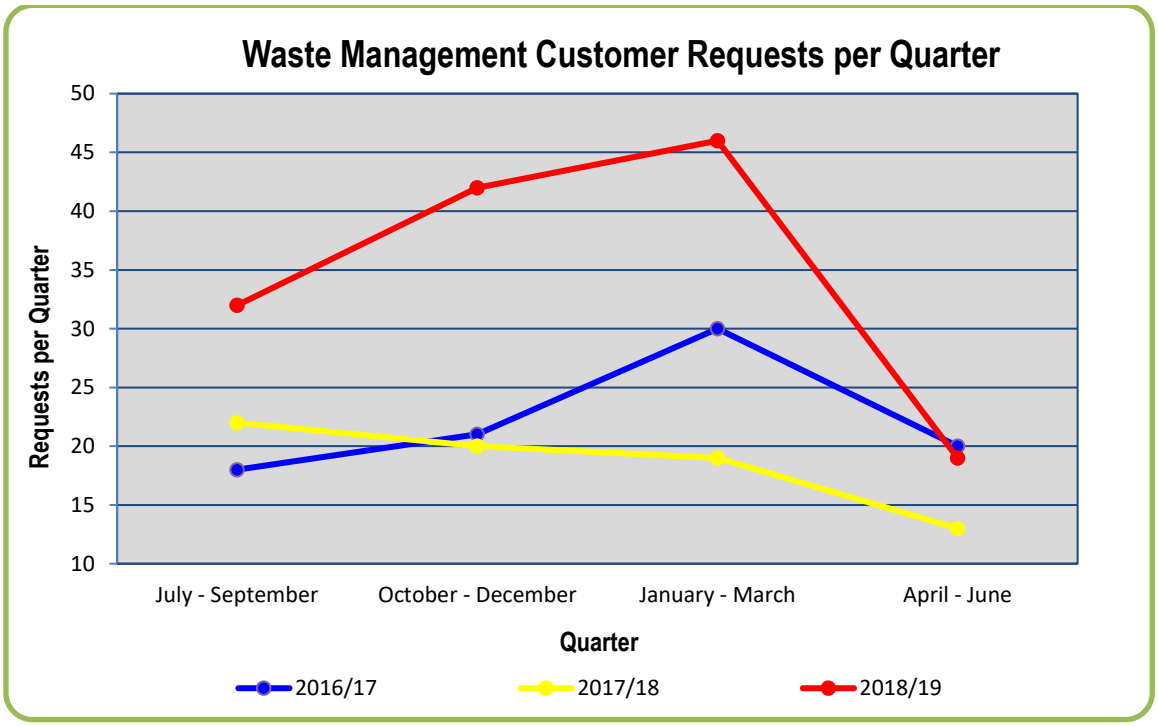
Respondents were asked to select and rank priorities for Bathurst Regional Council in the Community Survey, conducted in 2018. The results in order of priority are:



Respondents were provided with a list of the key infrastructure projects identified in the Adopted 2040 Community Strategic Plan and were asked to nominate on a scale of 1 to 10, with 10 being the highest level of importance, how important each project was to them. Although Waste management topics, were not separated in the above graph, In the 2018 Community Survey, Waste management was given an importance and satisfaction rating from 1 to 5 (Scale: 1 = not at all satisfied, 5 = very satisfied). See Below Table. 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 3.1.1).

Community Performance Gap Ranking	Service/Facility	Importance Rating	Satisfaction Rating	Performance Gap
25	Recycling/waste management/landfills	4.47	3.74	0.73

Fig 3.1.1 Customer Requests impacting the WMC



The above graph a large increase in the number of waste related requests for the 2018/19 FY, particularly the January – March Quarter. A contributing factor for the large increase may be due the inception of council's Confirm Customer Service browser platform customer service platform.

The graph is comprised of Request Subjects within the CCS (Confirm Customer Service) which impact the WMC; Land-Pollution (Transfer Stations, Rubbish, Littering, Spills & Landfilling) and Waste Collection; Garbage, Recycle and Green Waste Bin Categories have been omitted from the graph as data is not available for 2016/17, 2017/18 financial years. The remaining Waste & Environmental Subjects do not directly apply to the WMC and are in relation to managing Waste & Environmental requests with customers and/or environmental authorities.

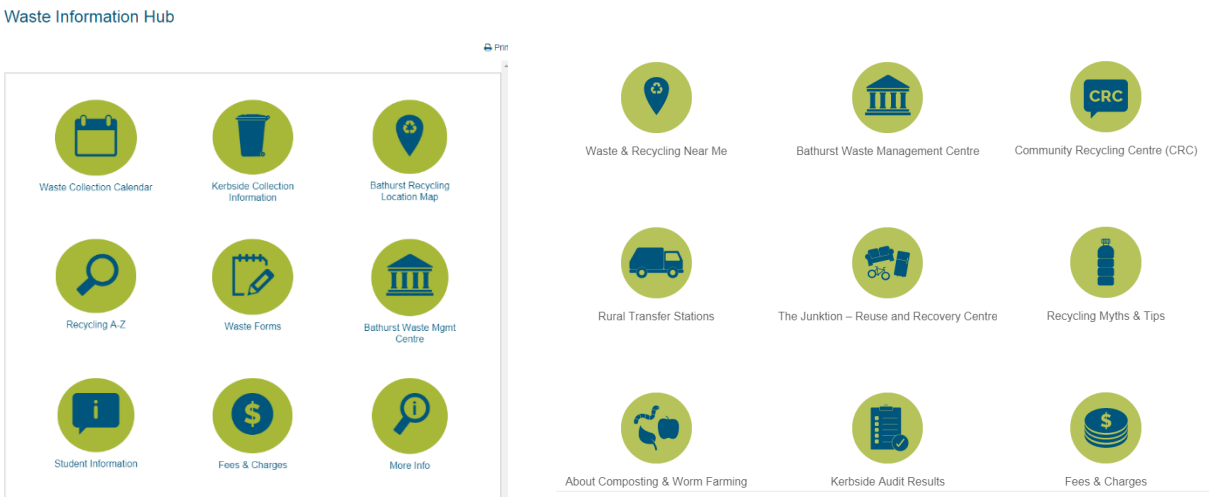
Council's Kerbside Collection Truck

3.2 Legislative Requirements

Council must 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.
Native Vegetation Conservation Act 1997	Provides overriding control of tree and other vegetation destruction in NSW.
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.
Rural Fires Act 1997	Aims for the prevention, mitigation and suppression of bush and other fires in local government areas Ensures co-ordination of bush firefighting and bush fire prevention throughout the State
Noxious Weeds Act 1993	Defines the roles of government, councils, private landholders and public authorities in the management of noxious weeds. The Act sets up categorisation and control actions for the various noxious weeds, according to their potential to cause harm to our local environment.
Native Title (New South Wales) Act 1994	An Act about native title in relation to land or waters; and for other purposes.
Work Health & Safety Act 2011 **Occupational Health and Safety Act 2000 and** **Occupational Health and Safety Regulation 2001**	Provides for the health, safety and welfare of persons at work; and for other purposes.



Council's waste management website interactive portal
https://www.bathurst.nsw.gov.au/residents/waste/waste-information-hub.html

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	Provision of well-maintained Solid Waste assets
Function	Do Solid Waste assets meet functional standards
Availability	Meeting Future demand
Safety	The management of safety risks associated with the Solid Waste

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	Performance Target	Current Performance
Quality	Areas of importance and high pedestrian activity are provided with a quality paved footpath	Satisfaction Level of Council's Assets, (Relating to WMC Site) Scored out of 5, based on Community Survey Results.	**>3/5**	**3.74**
Function	Meets appropriate requirements for - Capacity for Waste - Accessibility/Availability	Customer service requests relating to the perceived Functionality of the WMC Site	**<100 p.a.**	**65* (2019)**
Safety	Management of safety risks associated with Solid Waste	Slips, trips and fall incidents due to defects in footpath	**<5 claims p.a.**	**0 claims (2019)**

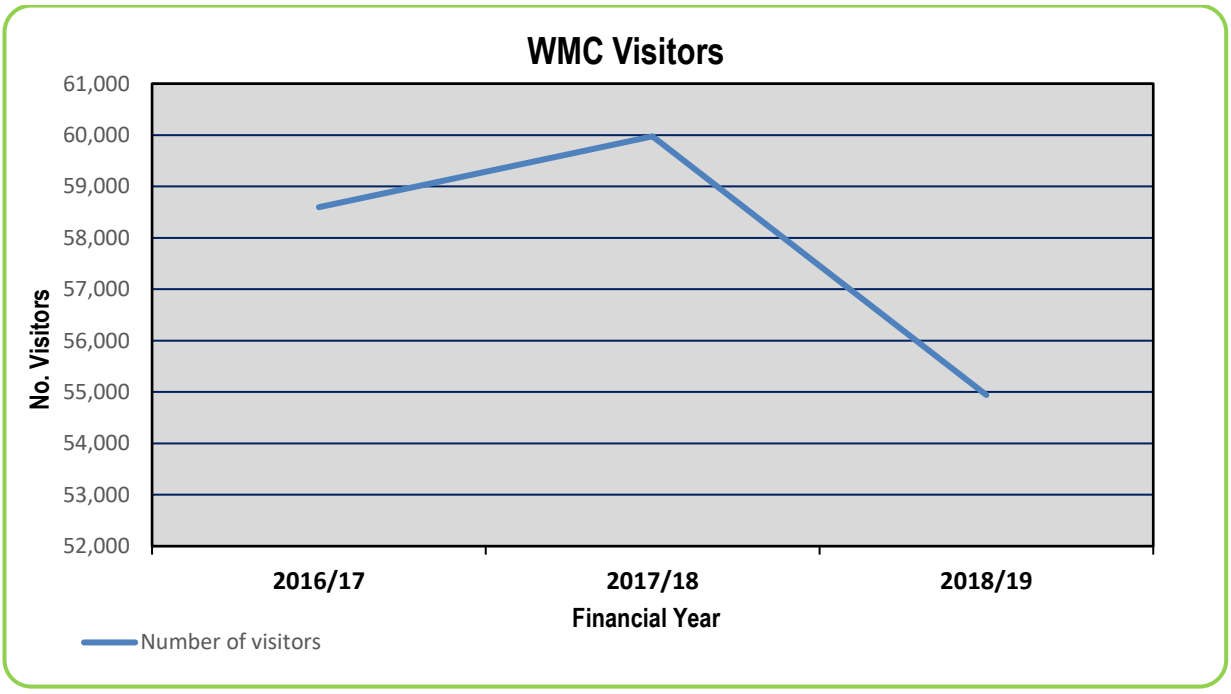
Waste Transfer Station, Waste Management Centre

TECHNICAL LEVELS OF SERVICE

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target		Current Performance	
			Desired Budget for Optimum (p.a.)		**2018/19 Budget (p.a.)**	
Quality	Provision of well-maintained Solid Waste assets	Organisation measure of Maintenance and Operations Budget Expenditure	**Avg. Solid Waste**	**$7,367,264**	**Avg. Solid Waste**	**$6,721,673**
			Avg. Domestic Waste	**$7,621,283**	**Avg. Domestic Waste**	**$7,032,914**
			Avg. Rural Waste (WTS, Landfill)	**$1,069,364**	**Avg. Rural Waste (WTS, Landfill)**	**$987,452**
			Total	**$16,057,911**	**Total**	**$14,742,039**
Function/ Availability	Meet Future Demand	Void Capacity for Solid Waste Present on site	**2065 (Projected End of Void Life)**		**46yrs Remaining**	
Safety	Management of safety risks associated with Solid Waste		**Inspection cycles are completed on time**		**Yes**	

- Desired for Optimum budget expenditure figures have been determined by projected maintenance figures using 2.1% PPI Producer Price Index) Factor over a 10-year period and are indicative of potential future expenditure required to maintain assets at the desired level of service.
- Maintenance/Operational expenditure complied from budget references; 43410 (Solid Waste), 43420 (Domestic Waste) & 43430 (Rural Waste)
- Void life projection from Waste Management Strategy 2007

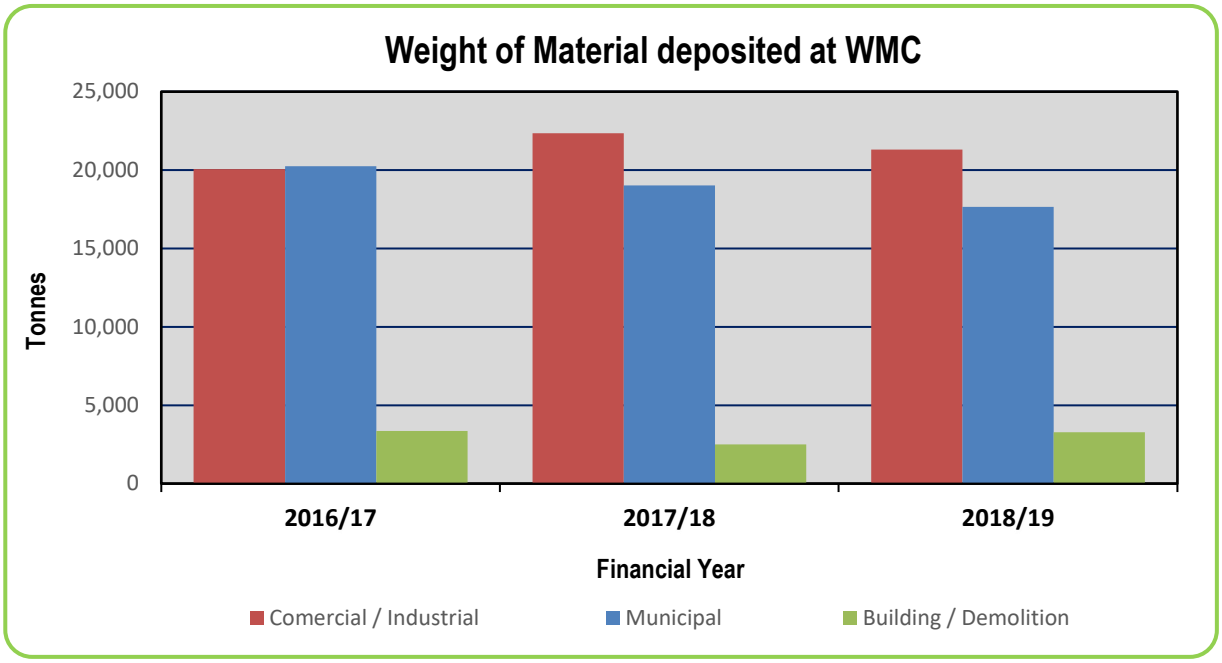
Fig 3.3.1 Number of visitors for Waste Management Centre



The number of visitors at the Waste Management Centre has been reduced by 12% from the 2017/18 to 2018/19 and have remained <60,000 over the last few financial years.

- Data provided by Solid Waste Co-ordinator (AC-W)

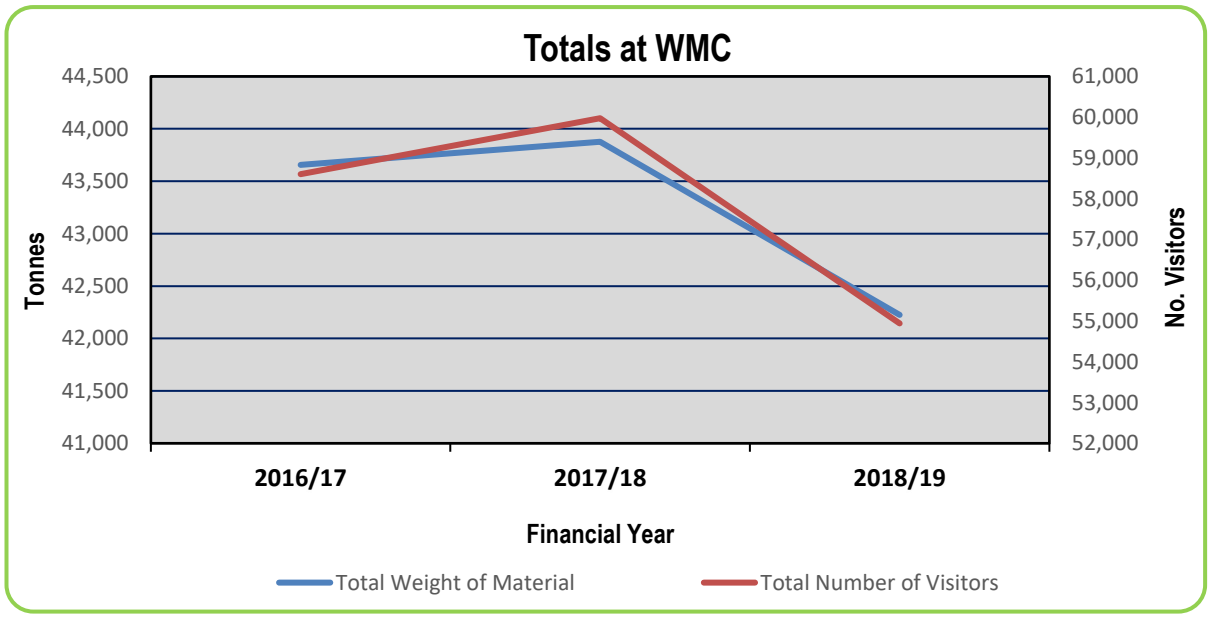
3.3.2 Weight of Material deposited at Waste Management Centre



Waste categorised in to the above used in the graph consist of the following;

- Building Demolition; Asbestos/Building and Demolition Waste
- Commercial/Industrial; Cover material/Business Sludge (e.g. Devro)
- Municipal; Mixed Household waste via kerbside collection

Fig 3.3.3 Total Weight of Material deposited & Visitors at Waste Management Centre



Waste material volume has reduced by 27% and WMC visitors has reduced by 12% from 2017/18 to 2018/19. Amount of material over the past few financial years as remained <50,000 tonnes while visitor numbers have remained <60,000.

- Data provided by Solid Waste Co-ordinator (AC-W)

4. FUTURE DEMAND

4.1 Demand Forecast

The major factor affecting demand is expectation from users of the Solid Waste, both commercial and residential.
This in turn is influenced directly by population change. The Bathurst Region growth rate between 2006 and 2016 census has increased by 0.9%. Meeting the needs of the increased population and demographic changes is outlined within Objectives; 1.4, 3.1, 3.3, 4.6, 6.1, 6.4 & 6.6 from Council' adopted 2040 Community Strategic Plan.

Table 4.1. Demand Factors, Projections and Impact on Services

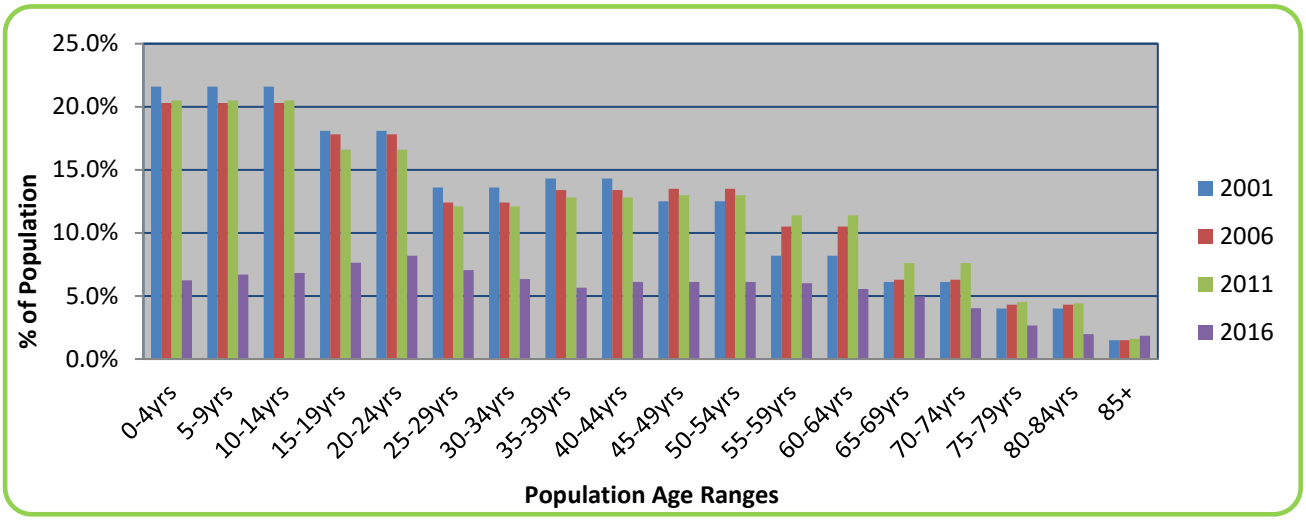
Demand factor	Present position	Projection	Impact on services
Population	42,389 (2016 census)	52,500 (2031)	Increased population means increased infrastructure. In this case more formed footpath and cycleways will be built.
Demographic (see Fig.3)	22.2% of population >60 yrs in 2016 26.9% of population <20 yrs in 2016	26.1% of population >60 yrs in 2031 25.6% of population <20 yrs in 2031	Reduction in demand on facilities directed at younger people. Increased demand on facilities directed at retirees (travellers and users of recreation areas).
Out of LGA Use	Quantity of receivables is disproportionate to LGA population, Commercial operators from outside LGA use BRC WMC due to lower fee structure		WMC useful life is shortened. (2065 End Year – Void Space)

4.2 Changes in Technology

Technology Change	Impact on services
Population	Increased population will lead to increasing expectations of greater availability for transport options and recreational aviation facilities.
Diversion Programmes	Demand for landfill diversion programme support (reduce, reuse, recycle).
Methane Capture	Opportunities for power co-generation to supplement or offset energy consumption by Solid Waste facilities.
New materials and packaging (e.g. starch shopping bags)	Change in 'breakdown rates' within waste collected, extension in void life expectancy.

Recycling Bin arrangement, Rockley Waste Transfer Station

Fig. 4.2 Population Demographics of Bathurst.

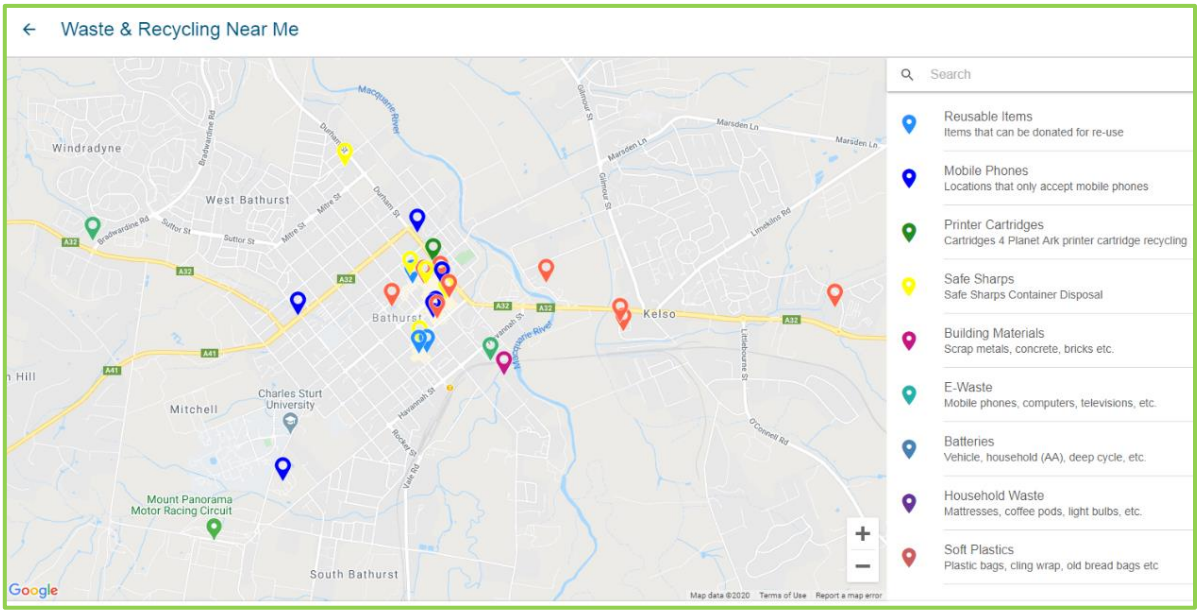


The most notable demographic changes for the period of 2011 to 2016, has been the significant decrease in the proportion of population for age ranges from 2011 to 2016 by an average of 6.6%. The only exception to this is with the 85+ age range being the only portion to increase in this time by 0.2%.

4.3 Demand Management Plan

Table 4.3. Demand Management Plan Summary

Technology Change	Impact on services
Planning for Future Solid Waste Activity	Undertake community consultation to assess the demand for various types of infrastructure required to process and dispose of Solid Waste.
	Waste to energy, other strategies. Diversion from Waste strategy.



Council's recycling locations - website interactive portal
https://calendars.impactapps.com.au/bathurst/waste-info/#/info-multi-map/12

4.4 New Assets from Growth

The majority of infrastructure WMC and Transfer Stations are less than 20 years old; therefore, any major new assets from growth will occur in a time horizon beyond the scope of this AMP. New assets may however result from increased usage of the existing Solid Waste assets (and a consequential increase in usage fees) and/or a need to develop a new WMC location (current void space filled).

Acquiring these new assets will commit Council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

Year	Capital Works
2019/20	Plant and equipment Sofala Waste Transfer Station Operations Sunny Corner Transfer Station Operations Rockley Waste Transfer Station Operations Trunkey Waste Transfer Station Operations Hill End Landfill Operations Waste Management Centre Internal Road Upgrade
2020/21	Plant and equipment Sofala Waste Transfer Station Operations Sunny Corner Transfer Station Operations Rockley Waste Transfer Station Operations Trunkey Waste Transfer Station Operations Hill End Landfill Operations
2021/22	Plant and equipment Sofala Waste Transfer Station Operations Sunny Corner Transfer Station Operations Rockley Waste Transfer Station Operations Trunkey Waste Transfer Station Operations Hill End Landfill Operations
2022/23	Plant and equipment Sofala Waste Transfer Station Operations Sunny Corner Transfer Station Operations Rockley Waste Transfer Station Operations Trunkey Waste Transfer Station Operations Hill End Landfill Operations

Waste Transfer Station, Waste Management Centre

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Council plans to manage and operate waste management assets at the agreed level of service (refer to Section 3 for Technical and Community levels Service Standards).

5.1 Background Data

5.1.1 Physical Parameters

Aerial View of Waste Management Centre, College Road - December 2018

Table 5.1a Solid Waste Assets

Asset Type	Useful Life (Years)	Approximate Quantity
Land	N/A	**28.67 ha**
Buildings	100	**12 Buildings**
Other Structures	25 – 50	**11 Structures**

5.1.1 Age of Solid Waste assets

The majority of infrastructure WMC and Transfer Stations is less than 20 years old.

Table 5.1.2 Known Service Deficiencies

Location	Service Deficiency
No Known Deficiencies	N/A

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.

5.1.3 Asset condition

Public areas at the WMC and the general landfill areas are inspected daily, while other assets are inspected on a varying basis.

5.1.3b Buildings

The majority of the buildings used for Solid Waste are nearing 10 years old and fit within the good or even excellent condition category.

Staff office and Amenities Building at the WMC

5.1.4 Asset inspections

Regular asset and safety inspections are carried out at the WMC for the purposes of the daily operation. Rural Transfer Stations are inspected when possible within the constraints of available resources.

Currently, building inspections are carried out by external contractors for valuation and insurance purposes. In the future Council may develop a program of condition inspections for Council building assets. As part of any future inspection program the Solid Waste building assets should be included

5.1.5 Asset Valuations

The valuation data assembled below has been based on estimation gathered from various sources. See Section 6.4 for details on valuation assumptions.

Current Replacement Cost	**$4,621 million (Land Cost Omitted)**
Depreciable Amount	**$3,706 million**
Depreciated Replacement cost	**$915,041**
Annual depreciation expense	**$10,173**

Sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset consumption	**0.80%**
Asset renewal	**0.00% - No Renewals planned in 2019/20 Budget**
Annual upgrade/expansion	**0.04% - Only WMC Internal Road Upgrade Planned**

Asset Consumption	- Current Replacement Cost/Depreciated Replacement Cost
Asset Renewal	- Renewal Budget % of overall Solid Waste Expenditure
Annual Upgrade/Expansion	- Capital Works Budget % of overall Solid Waste Expenditure

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.

Recycling Oil Container, Rockley Waste Transfer Station


Sofala Waste Transfer Station

Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan	Residual Risk
Buildings	Security/Vandalism	**HIGH**	Security systems review. WMC is covered by Council's Security Contract – Monitoring and Patrols.	Incident could occur between patrols.
	Electrical Fault	**HIGH**	Regular inspections and preventative treatments increase visual inspections.	The defect, although made may still cause an accident or possible increase of deterioration, between inspection and commencement of works.
	Public Liability	**HIGH**	Regular and documented inspections. Upgrade Safety Inspections to include action report.	
	Fire (Internally generated within Building	**HIGH**	Maintain fire equipment in high use and building rules. Implement Annual Inspections.	Fault in equipment could occur between inspections or an item may be missed during inspections.
Illegal Dumping	Hazardous Material Disposal (e.g. Asbestos)	**HIGH**	Identification of material and removal to appropriate location at WMC in accordance with regulations.	Residual hazardous Material may still be present. Further Containment may be required.
Licence	Breach of EPA Licence	**HIGH**	Constant review of procedures against licence requirements to ensure compliance.	Changes in legislative/EPA Licence requirements may change Increase Operational Costs.
Fauna	Fauna interference with operations	**MEDIUM**	Fauna management controls.	On-going costs for management controls.
Capacity	Void Space filled to capacity	**MEDIUM**	Planning process in place to identify new site(s) to reduce current landfilling rate.	Limited space available for new site(s) or complete re-location may be required.

Illegal Dumping Investigation, December 2018

5.2 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 and management/supervisory directions. Reactive maintenance to the Solid Waste assets includes:

- Grass Mowing
- Repair of buildings
- Repair of roadways
- Repair of water infrastructure (fire-fighting near landfill)
- Repair of plant/equipment
- Repair/replacement of signage

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. Planned maintenance includes:

- Grass Mowing
- Internal road resealing
- Replacement of collection assets at transfer station(s)

Cyclic maintenance is work carried out on a periodic basis, not prompted by inspection or complaints. This can include:

- Grass Mowing
- Repair of buildings
- Repair of roadways
- Repair of water infrastructure (fire-fighting near landfill)
- Repair of plant/equipment
- Repair/replacement of signage
- Renewal of line marking on parking and movement areas
- Litter picking in vicinity of WMC or RTS

Maintenance expenditure trends are shown in Table 5.3.1

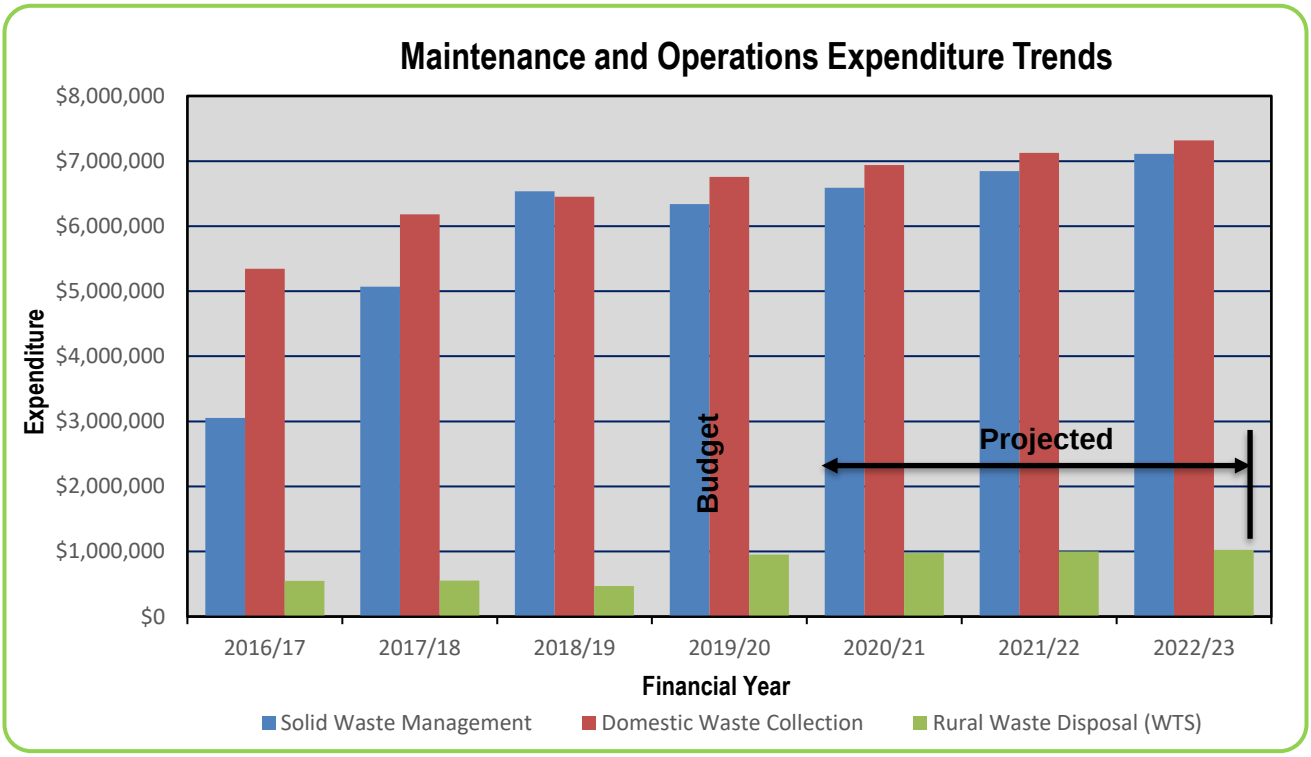
New Rubbish Bin – Customer Service Request, October 2018

Table 5.3.1 Maintenance Expenditure Trends

Financial Year	Operating & Maintenance Expenditure
2016/17	$3,053,669
2017/18	$5,070,607
2018/19	$6,534,318
2019/20 (Budget)	$6,340,831
2020/21 (Estimate)	$6,588,024
2021/22 (Estimate)	$6,844,914
2022/23 (Estimate)	$7,112,923

* Expenditure Values shown in the above table are Solid Waste Management operation and maintenance expenditure only. Domestic Waste Collection and Rural Waste Disposal operating figures have been omitted for clarity. See Fig 5.3.1.

Fig 5.3.1 Solid Waste Management and Domestic Waste Collection Comparison



Past and projected operating figures shown for Solid Waste Management average $5,935,041p.a. and the average expenditure for Domestic Waste Collection $6,586,588 p.a. The above graph shows an increase of $4,059,254 for Solid Waste expenditure from 2016/17 to 2022/23 which, can be associated with many factors including; growing population and required expenditure to meet EPA licence compliance.

5.3.3 Standards and specifications

Maintenance work is carried out in accordance with the following Standards and Specifications and appropriate Australian Standards;

Building Code of Australia

CASA Manual Standards Part 139 Solid Wastes

WH&S Legislative Requirements

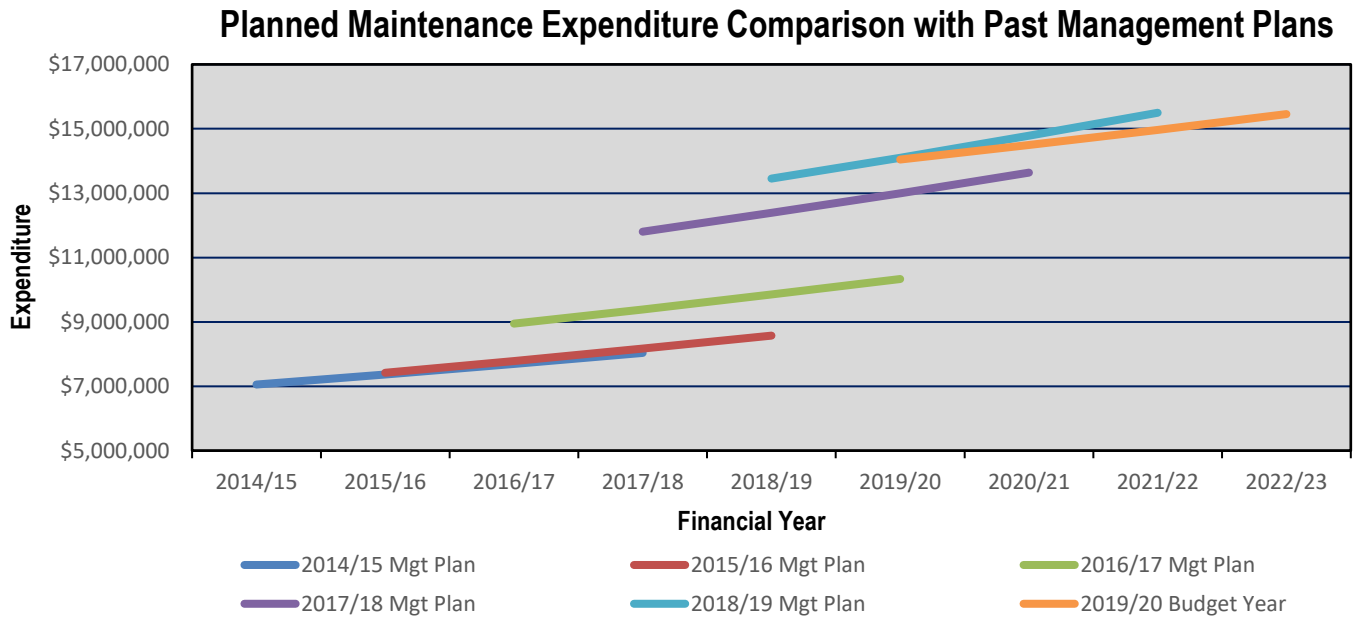
NSW Local Government Act 1993

Other Council Specifications and Guidelines

5.3.4 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock. The minimum expenditure on maintenance will be current expenditure plus inflation variations.

Fig 5.3.4a Planned Maintenance Expenditure Comparison with Past Management Plans



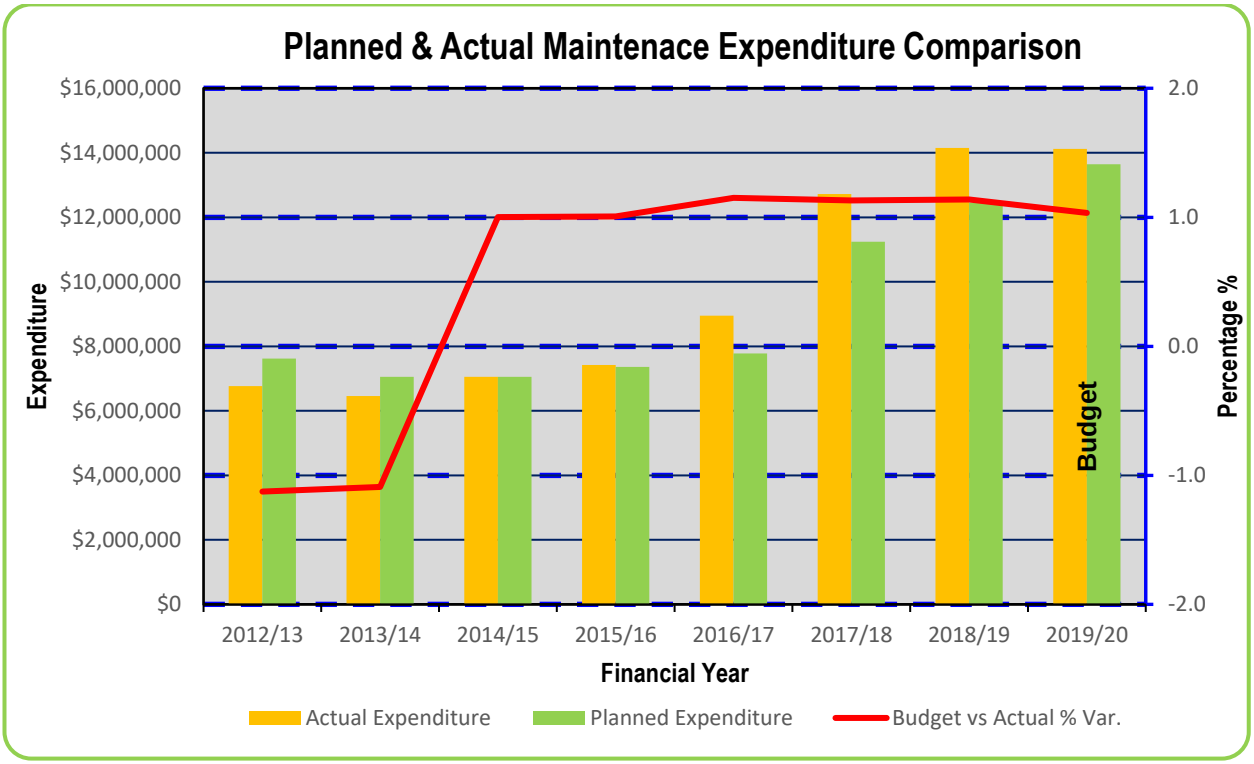
NOTES on Fig 6.

- Budget forecasting is reviewed annually and adjusted for PPI (Producer Price Index) variations.
- See 5.3.1 for comments

Deferred maintenance i.e. 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.

Maintenance is funded from Council's operating budget and grants where available. This is further discussed in Section 6.2.

Fig 5.3.4b History: Planned Maintenance Expenditure & Actual Maintenance Expenditure



The above figure shows the difference between Actual and Planned Maintenance expenditure has been within +-2% over the last 6 financial years, while actual expenditure itself has increasing from 2015/16 by an average of $2,244,321p.a. and the largest increase occurring between 2016/17 - 2017/18 $3,770,883.

Bobcat working within Transfer Station, Waste Management Centre

5.4 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. There is often a poorly defined line between renewal and upgrade.

5.4.1 Renewal plan

Larger assets that are made up of many individual components may be renewed at the component level over a period of time. The implication of this method of maintenance is that records don't show a renewed asset, which over a period of time has been renewed.

Assets will be renewed or replaced as necessary at the end of their useful life and as the budget allows and subject to the conditions outlined in table 5.4.1.

There is no specific long-term plan or budgetary allocation for periodic renewal or replacement of assets. Rather, assets requiring renewal or replacement are identified during the compilation of Council's annual management plan.

Council's asset register recording asset ages and conditions assist in forward programming of asset renewal and replacement and the associated budget implication.

Table 5.4.1 Renewal Priority Ranking Criteria

Criteria	Weighting
Condition of Asset	40%
Aesthetic value of Asset	20%
Population serviced by Asset	20%
Projected Capital Cost	10%
Proximity to similar Asset	10%
Total	100%

Compactor Working on Tip Face

5.4.2 Renewal standards

Renewal work is carried out in accordance with the Bathurst Regional Council's engineering guidelines and appropriate Australian Standards.

5.4.3 Summary of future renewal expenditure

Due to the age of many of the Solid Waste assets, future renewals are beyond the horizon of this plan.

Trunkey Waste Transfer Station

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. These assets from growth are considered in Section 4.4. Table 5.5.1 outlines a basic scoring system that may be used to prioritise upgrade candidate proposals.

5.5.1 Upgrade Priority Ranking Criteria

Criteria	Weighting
Safety	**40%**
Access	**40%**
Economic Development & Commercial Potential	**20%**
Total	**100%**

Compactor Working on Tip Face

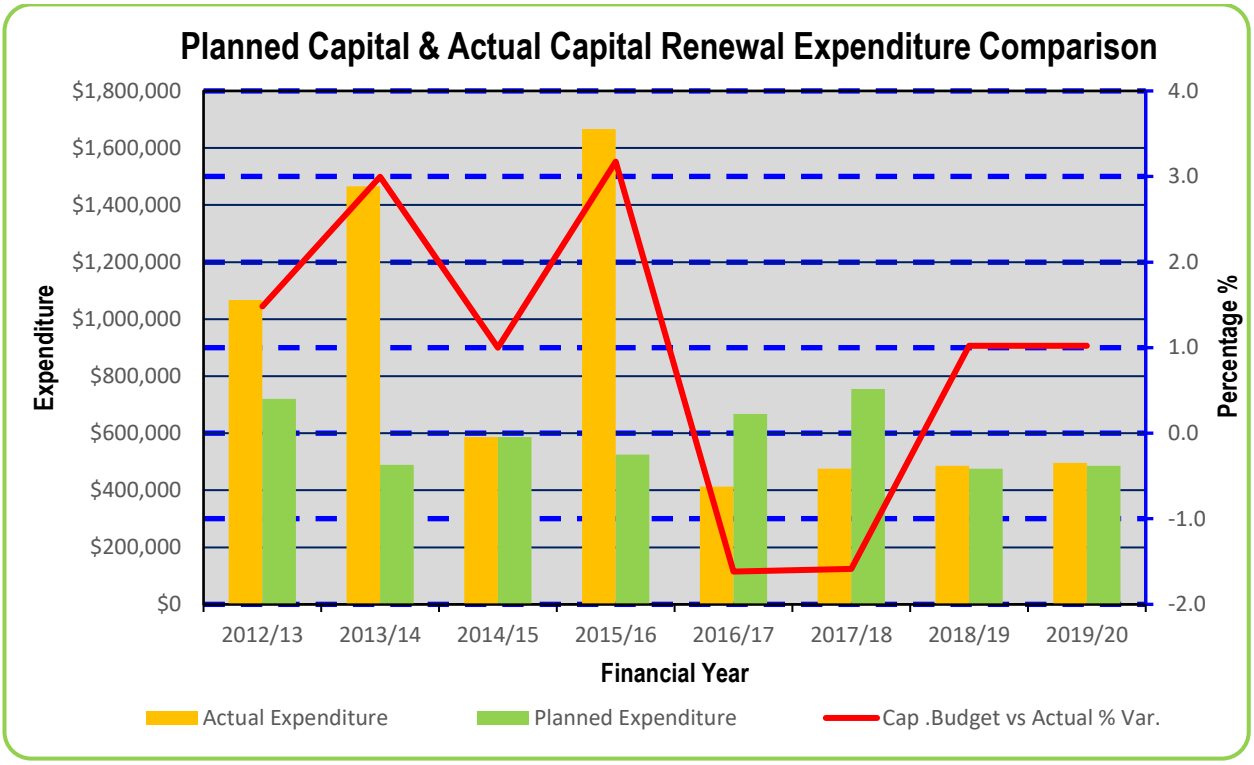
5.5.2 Standards and specifications

New work is carried out in accordance with the Bathurst Regional Council's engineering guidelines and appropriate Australian Standards.

5.5.3 Summary of future Operational and Upgrade assets expenditure

Year	Total Allocation	Works	Operations/ Maintenance	Upgrade
2019/20	200,100	Sofala Rubbish Transfer Station Operating Expenses	200,100	0
	175,200	Sunny Corner Transfer Station Operating Expenses	175,200	0
	174,385	Rockley Rubbish Transfer Station	174,385	0
	162,900	Trunkey Rubbish Transfer Station Operating Expenses	162,900	0
	161,900	Hill End Rubbish Transfer Station Operating Expenses	161,900	0
	600,000	Waste Management Centre Internal Roads Upgrade	0	600,000
2020/21	205,794	Sofala Rubbish Transfer Station Operating Expenses	205,794	0
	180,296	Sunny Corner Transfer Station Operating Expenses	180,296	0
	179,396	Rockley Rubbish Transfer Station	179,396	0
	167,250	Trunkey Rubbish Transfer Station Operating Expenses	167,250	0
	166,348	Hill End Rubbish Transfer Station Operating Expenses	166,348	0
2021/22	211,576	Sofala Rubbish Transfer Station Operating Expenses	211,576	0
	185,504	Sunny Corner Transfer Station Operating Expenses	185,504	0
	185,301	Rockley Rubbish Transfer Station	185,301	0
	171,699	Trunkey Rubbish Transfer Station Operating Expenses	171,699	0
	170,908	Hill End Rubbish Transfer Station Operating Expenses	170,908	0
2022/23	217,451	Sofala Rubbish Transfer Station Operating Expenses	217,451	0
	190,930	Sunny Corner Transfer Station Operating Expenses	190,930	0
	191,030	Rockley Rubbish Transfer Station	191,030	0
	176,250	Trunkey Rubbish Transfer Station Operating Expenses	176,250	0
	175,588	Hill End Rubbish Transfer Station Operating Expenses	175,588	0
Total	**$4,249,806**		**$3,649,806**	**$600,000**

Fig 5.3.4a Planned Maintenance Expenditure Comparison with Past Management Plans



The above graph shows large differences between planned and actual expenditure for majority of the past financial years, this is due to carry over expenditure from the previous year for projects/works. For the last three financial years actual expenditure has come in lower than planned which, may be due to Waste Assets being renewed/upgraded in earlier years.

5.6 Disposal Plan

- There are no current plans for asset disposal from the Solid Waste asset register.
- Plant is disposed of at the time of acquisition of replacement items in order to maximise the financial return.
- If kerbside collection service and operation of WMC was contracted out, some provision for disposal of some assets would need to be taken into consideration of the outsourcing.

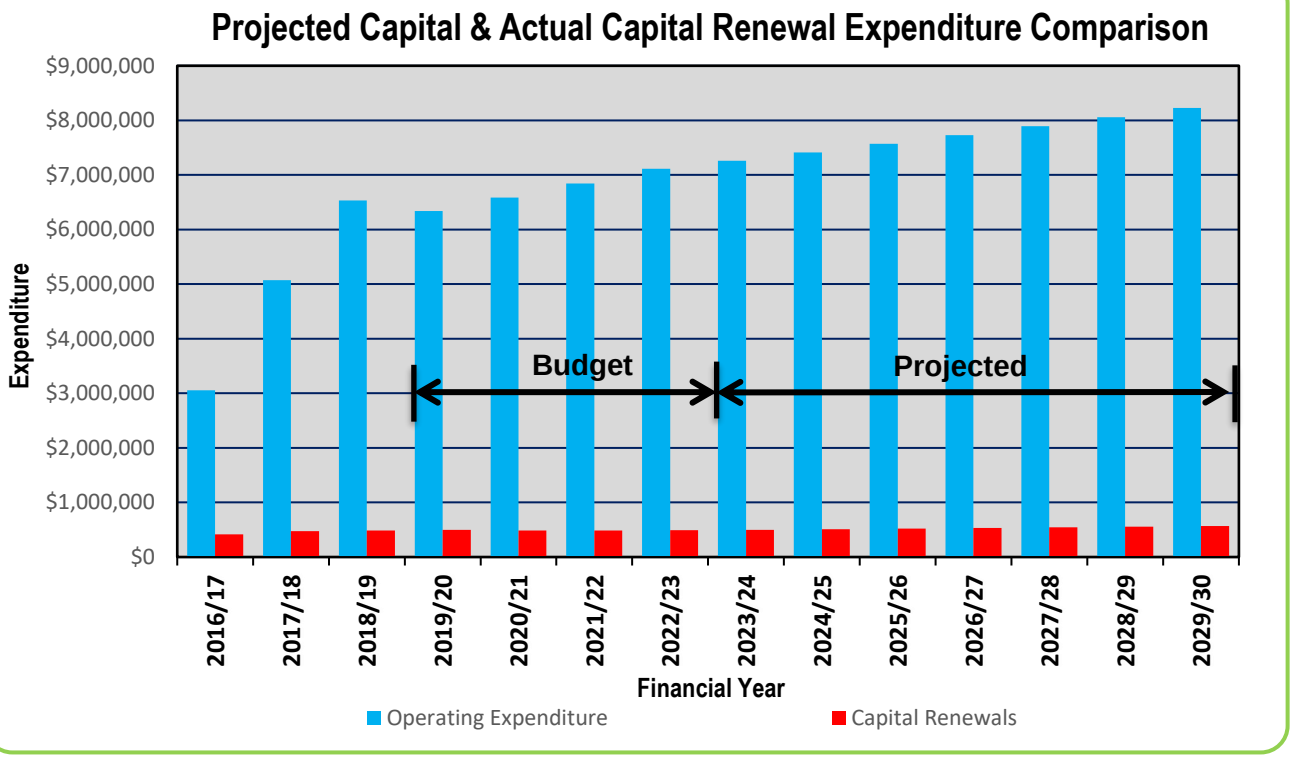
Transfer/Recycling/Green Waste Station, Waste Management Centre

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 expenditure (renewal and upgrade of assets).



NOTE

- It is unlikely that growth will continue at the projected rate for 10 years
- Budget forecasting is reviewed annually and adjusted for PPI (Producer Price Index) variations.
- Note that all costs are shown in 2019-dollar values.
- Planned maintenance costs are forecast to increase proportionally with planned capital expenditure. (See 2019/20 Budget Expenditure Source in the Appendices)
- The projection is for 10 years only as the available data is not sufficient enough to provide a useful long-term prediction.

Compactor working on Landfill Face, Waste Management Centre

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/operational expenditure and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is **$7,377,437**.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance/operational 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 **$6,940,831**.

- Maintenance/operational expenditure sourced from Budget Reference 43410 (Solid Waste) Only.
- Capital renewal expenditure sourced from Budget Reference 47410 (Solid Waste) & 47420 (Domestic Waste)

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 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 **-$436,606** per annum. The life cycle sustainability index is **0.94**.

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.

The current budget compilation method of short-term programming of asset renewal does not allow for long term future predictions.

Using the valuation, remaining useful life estimations and the 2019/20 Management Plan Section 6.4 the following assumptions can be made - (from 5.5.3)

- See next page for table

Methane Gas being flared off (burnt)

Methane Collection Well

Year	Total Allocation	Works	Operations/ Maintenance	Upgrade
2019/20	$200,100	Sofala Waste Transfer Station Operating Expenses	$200,100	0
	$175,200	Sunny Corner Waste Transfer Station Operating Expenses	$175,200	0
	$174,385	Rockley Waste Transfer Station	$174,385	0
	$162,900	Trunkey Waste Transfer Station Operating Expenses	$162,900	0
	$161,900	Hill End Landfill Operating Expenses	$161,900	0
	$600,000	Waste Management Centre Internal Roads Upgrade	0	$600,000
2020/21	$205,794	Sofala Waste Transfer Station Operating Expenses	$205,794	0
	$180,296	Sunny Corner Waste Transfer Station Operating Expenses	$180,296	0
	$179,396	Rockley Waste Transfer Station	$179,396	0
	$167,250	Trunkey Waste Transfer Station Operating Expenses	$167,250	0
	$166,348	Hill End Landfill Operating Expenses	$166,348	0
2021/22	$211,576	Sofala Waste Transfer Station Operating Expenses	$211,576	0
	$185,504	Sunny Corner Waste Transfer Station Operating Expenses	$185,504	0
	$185,301	Rockley Waste Transfer Station	$185,301	0
	$171,699	Trunkey Waste Transfer Station Operating Expenses	$171,699	0
	$170,908	Hill End Landfill Operating Expenses	$170,908	0
2022/23	$217,451	Sofala Waste Transfer Station Operating Expenses	$217,451	0
	$190,930	Sunny Corner Waste Transfer Station Operating Expenses	$190,930	0
	$191,030	Rockley Waste Transfer Station	$191,030	0
	$176,250	Trunkey Waste Transfer Station Operating Expenses	$176,250	0
	$175,588	Hill End Landfill Operating Expenses	$175,588	0
Total	**$4,249,806**		**$3,649,806**	**$600,000**

- Due to the average useful life age of Solid Waste Assets being >70yrs, the data in the above table shows operational expenditure only, except for the Waste Management Centre Internal Road Upgrade which at the time of this plan the road assets have exceeded their useful life.

Using the valuation estimations and remaining useful life the estimated capital renewal and maintenance expenditure required over the next 10 years is **$86.299 million.**

This is an average expenditure of **$8.630 million pa.** Estimated maintenance and capital renewal expenditure in year 1 is **$6.941 million.** The 10-year sustainability index is **0.80**.

It should be noted that the Solid Waste maintenance budget as defined by the management plan contains cost items for both operational expenditure and maintenance and as such is not a good indication of the level of maintenance on capital value assets. (see section 8.2.5 budgetary recommendations).

Figures shown in the above paragraphs sourced from the following Budget References;

- 43410 Solid Waste Management Operation
- 47410 Solid Waste Management Capital Works
- 47420 Domestic Waste Collection Capital Expenditure

6.2 Funding Strategy

This is one of the few Asset Management Plans where a funding stream is readily available. Any surplus from Domestic Waste Management must, under the Local Govt act be returned to Domestic Waste Mgt operations (i.e. a 'closed fund') and not returned to 'Consolidated Revenue'.

The entire Solid Waste budget for 2019/20 financial year is approximately **$14,644,720**. Income for the same period is estimated at **$6,659,702** as per the projected figures from the Council management plan.

Internal reserve accounts at 30 June 2018 of **$14,285,192** (Solid Waste Depot $7,068,788; Domestic Waste Collection $6,754,404 and Rural Waste Disposal $462,000), following amounts transferred to and from the previous year's budgets.

The breakup of the Solid Waste budget will continue to be made up of the same components. Council's current management practices are resulting in a level of service that appears to be meeting expectations of the Solid Waste users, based on the results of the 2018 Community Survey.

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. As there is no firm long-term capital works plan it is not possible to provide a meaningful valuation forecast.

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:

Asset Group	Replacement Value	Useful life (Avg.	Remaining Life (Avg.)	Depreciated Replacement Cost
Land	$791,000	N/A	N/A	$791,000
Buildings	$2,393,074	80yrs	70yrs	$1,990,553
Other Structures	$888,859	50yrs	32yrs	$630,418
Total	**$4,072,933**		**Total**	**$3,411,971**

- Values as at 30 June 2019
- Remaining life is the average of all assets in this group
- Useful lives have been estimated through experience and by using published lives from the Local Government Asset Accounting Manual published by the NSW DLG.
- Annualised PPI (Producer Price Index) have been calculated using the figures published by the Australian Bureau of Statistics *http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6401.0Sep%202009?OpenDocument*
    - Depreciation is calculated using the straight-line method.
    - Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions
    - Estimated cost shown for Land – values produced from Council's Rates Records and are indicative.

.7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

Council currently uses Civica Authority as the primary Corporate System

Administrator: IT manager

Relevant accounting standard is AAS 27 “Financial Reporting by Local Governments”

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

- Obtaining new formed footpath and cycleway 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 Engineer
Data entry:	3 x Asset Technicians
Field inspections:	Asset Inspector

Confirm consists of:

- A comprehensive formed footpath and cycleway inventory;
- Condition rating for the formed footpath and cycleway 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.

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. CONCLUSIONS

8.1 Current position statement

The provision of Solid Waste assets as part of operating the Waste Management Centre is one of

Council's Business Units.

In line with environmental and legislative requirements (refer to Table 3.2) and objectives contained within NSW EPA WARR strategy 2014-2021. In addition to these, council has initiated several initiatives to provide information to the wider community and guidance on managing waste on site to lessen the impact on the local environment and on waste management infrastructure.
Initiatives/programs such as;

- Waste Information Hub - https://www.bathurst.nsw.gov.au/residents/waste/waste-information-hub.html
- Support of The Junktion – reuse shop located adjacent to Waste Management Centre.
- NetWaste – Bathurst Regional Council is a member of the NetWaste Group, (26 Councils Across NSW).
- Community Recycling Centre opened at WMC – collecting batteries of various kinds, motor and cooking oil, paint, smoke detectors, fluro tubes, fire extinguishers and gas bottles.
- Introduction of food and garden organics collection service.
- Mattress and tyre recycling underway.
- Participation in regional waste diversion contracts – used oil, Greenwaste chipping, scrap. metal, e-waste, household hazardous collections.
- Implementation of battery, mobile phone and printer cartridge collections at Civic Centre.
- Maintenance of a methane flare and bore fields.
- Continued provision of waste vouchers to residents in lieu of bulky goods collection.
- Development of waste app.
- Ongoing support of co-mingled recycling (yellow kerbside bin).
- Ongoing Waste education for residents.
- Implementation of public place recycling at events.
- Improved litter management in CBD.
- Management of Rural Transfer Stations under BRC management including collection trucks, bins & equipment.
- Improved management of dumping and misuse at waste transfer stations.
- Review of WMC landfill plan by external consultant.
- Review of stormwater management at WMC completed by external consultant.

The main implication for the WMC is the effect on the usable life of the current facility; this will be dependent on the inflows which will be affected by the above-mentioned recycling and also other factors such as lower tipping fees attracting waste from outside the LGA. An adjustment in the fees charged at the WMC (and for kerbside collection) will improve the overall bottom line but the finite amount of waste that can be put into the 'void space' is the end limiting factor.

The current replacement cost of the Solid Waste asset portfolio is estimated at **$4.621 million**. The annual depreciation expense is estimated at **$10,173**. A detailed asset valuation has not been performed on the Solid Waste assets. The outcomes of this plan will be improved as detailed valuations are performed and a more accurate picture of the current status of the assets is formed. The estimations that have been performed are at greenfield rates and are based on rates published by Rawlinsons Australian Construction Handbook (2019) and actual financial information collected from the financial records of Council.

The current operations and maintenance budget for the Solid Waste asset portfolio is an average of approximately **$14.742 million p.a.**
Customer requests regarding WMC and WTS assets are very minimal since the implementation of the Council's current customer request management system in September 2005. This may suggest that the level of service provided by the Council through the Solid Waste assets is being maintained and current maintenance expenditure is adequate or that a more formalised system of feedback from users of the Solid Waste is required.

Customer Requests relating to kerbside collections show a varying trend suggesting changeable levels of customer satisfaction. This is countered by the Community Survey results that put collection at or near the top of the 'importance' rating and satisfaction with the WMC in the mid-range.

In technical terms the re-current maintenance budget appears to be satisfactory for the Solid Waste assets. The asset deterioration rate appears to be in line with or slower than the useful life used to calculate remaining asset life. A more thorough maintenance management system, including a program of inspection will better allow the Council to ascertain the effectiveness of the budget allocation.

The budget for maintenance and repair is currently forecast by adding an additional amount due to PPI (Producer Price Index) on the previous year's budget. As the Solid Waste assets age and the portfolio expands to meet the expectations of users and meet growth in areas use of the Solid Waste, the expenditure required to meet maintenance needs will increase at a rate higher than the PPI (Producer Price Index). If the current level of maintenance is not increased in line with the increasing maintenance requirements of the Solid Waste assets, a reduction in safety, amenity and aesthetics could reasonably be expected.

The Solid Waste assets have varied useful lives. As mentioned previously, the majority of Solid Waste assets are relatively new (under 20 years old). The useful life will vary from asset to asset depending on the level of maintenance performed. From the estimations of useful life (Section 6.4) most asset groups apart from Other Structures at the WMC have around **87%** of useful life remaining. As an asset group the WMC Other Structures have approximately **72%** remaining life.

When the current WMC landfill area has a remaining lifespan of 15 years, a reserve will need to be built up to cater for the new facility or other strategies. This will need to be accommodated in the budgeting process from approximately, the **2049/50 Financial Year**.

The information contained within the asset management plan sets a benchmark for the Solid Waste asset portfolio at the close of the 2018 calendar year. By continuing to collect information on the condition of the Solid Waste asset portfolio and monitoring the expenditure on maintenance and renewal of Solid Waste assets the performance of the Council's strategies can be measured, reported on and improved in the future.

WMC Accepted Waste - Website interactive portal
https://calendars.impactapps.com.au/bathurst/waste-info/#/info-details/21

8.2 Recommendations

Council aims to ensure all assets are sustainable and appropriate. The key outcomes of this asset management plan are to keep the Solid Waste assets in good condition and ensure that current and future development of these assets are relevant to the needs of the community while appropriate funding is planned for maintenance and capital upgrades.
To ensure that Council can achieve this, the following actions have been identified:

8.2.1 Asset management recommendations

- Include specific questions relating to Solid Waste in the next Community Survey.
- Asset inspection results and condition information should be recorded on the Council's asset management system
- Maintenance and renewal costs should be closely monitored using the asset management system's maintenance management capabilities. This will provide more accurate unit rates and better valuation figures.

8.2.2 Maintenance recommendations

- Current levels of maintenance must be maintained

8.2.3 Renewal recommendations

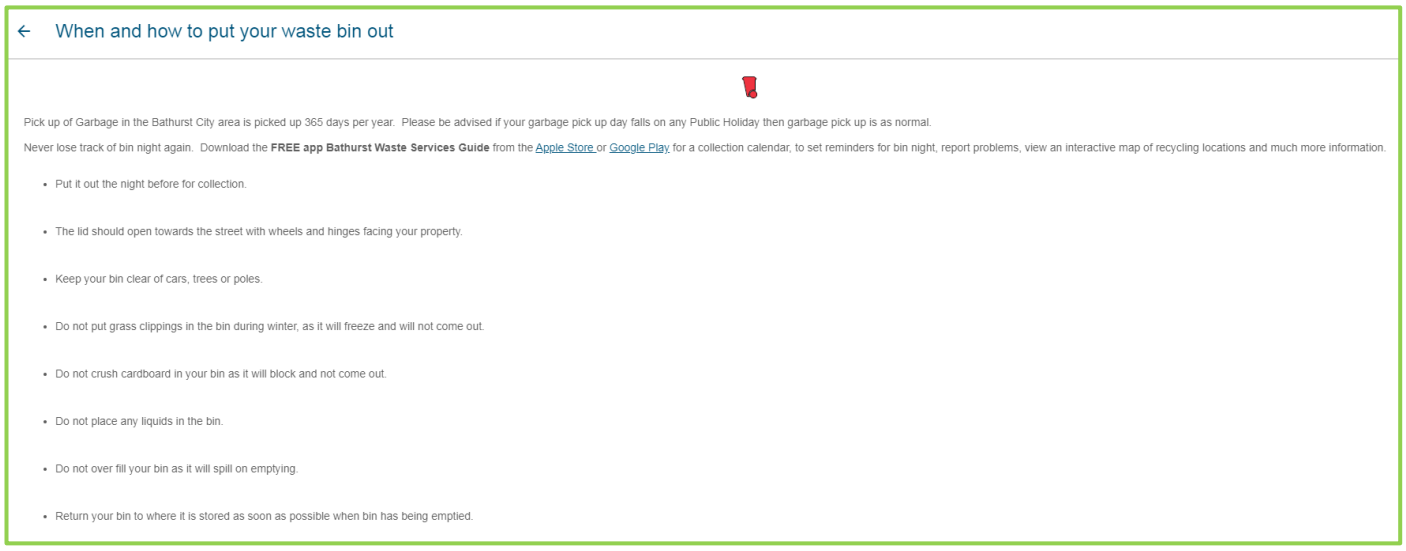
- Nil

8.2.4 Upgrade and new asset recommendations

- When considering new or upgraded assets the whole of life costs is to be considered extra to capital costs, including maintenance, operations, depreciation and any disposal costs. Maintenance and operations budgets **will** be altered to reflect increased or decreased budgetary requirements OR
- the community will be consulted on the reduced level of service that may be experienced if budgets are not increased with increased maintenance loads;

8.2.5 Budgetary recommendations

- Appropriate levels of funding are to be set aside each year from reserves to cover large capital costs as they become necessary;
- An increase in the maintenance budget in real terms to maintain the current asset stock plus additional new and upgraded assets.
- A clearer delineation of expenditure between operational and maintenance cost allocations.



Waste Bin - Website interactive portal
https://calendars.impactapps.com.au/bathurst/waste-info/#/info-details/21

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 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 2 years of each Council election.

9.2 Improvement Plan

Task	Responsibility	Resources Required	Timeline
Incorporation of plant assets into register	Asset Technician/Waste Management Centre Supervisor	Purchase Cost and Date of purchase	4 Years
More specific categorisation of Budget items into Operations/Maintenance/Upgrade/Renewal	Finance Section/Asset Section	-	
More detailed Asset data collection for Waste Management Centre and Waste Transfer Stations	Asset Technician	Construction Costs & Installation Dates	

Green waste stack, Waste Management Centre


Green waste converted to mulch, Waste Management Centre

REFERENCES

- Bathurst Regional Council, 'Management Plan 2019-2023',
- Bathurst Regional Council, 'Detailed Financial Budget and Revenue Policy 2018-2019'
- Bathurst Regional Council Community Strategic Plan 2040
- IPWEA, 2011 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney
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NSW Department of Local Government, 1999 *Local Government Asset Accounting Manual - update 4* NSW DLG, Nowra

- Consultation with BRC staff (A C-W), (RD) *Refer to Key from Version Table
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  - F:\Studies\Community Strategic Plan - Studies 2036\ENV20_Rural Strategy - Adopted Dec 08_1
- NSW Waste Avoidance and Resource Recovery Strategy 2014-2021 https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/140876-warr-strategy-14-21.pdf?la=en&hash=EC6685E6624995242B0538B18C2E80C0CA2E51B3

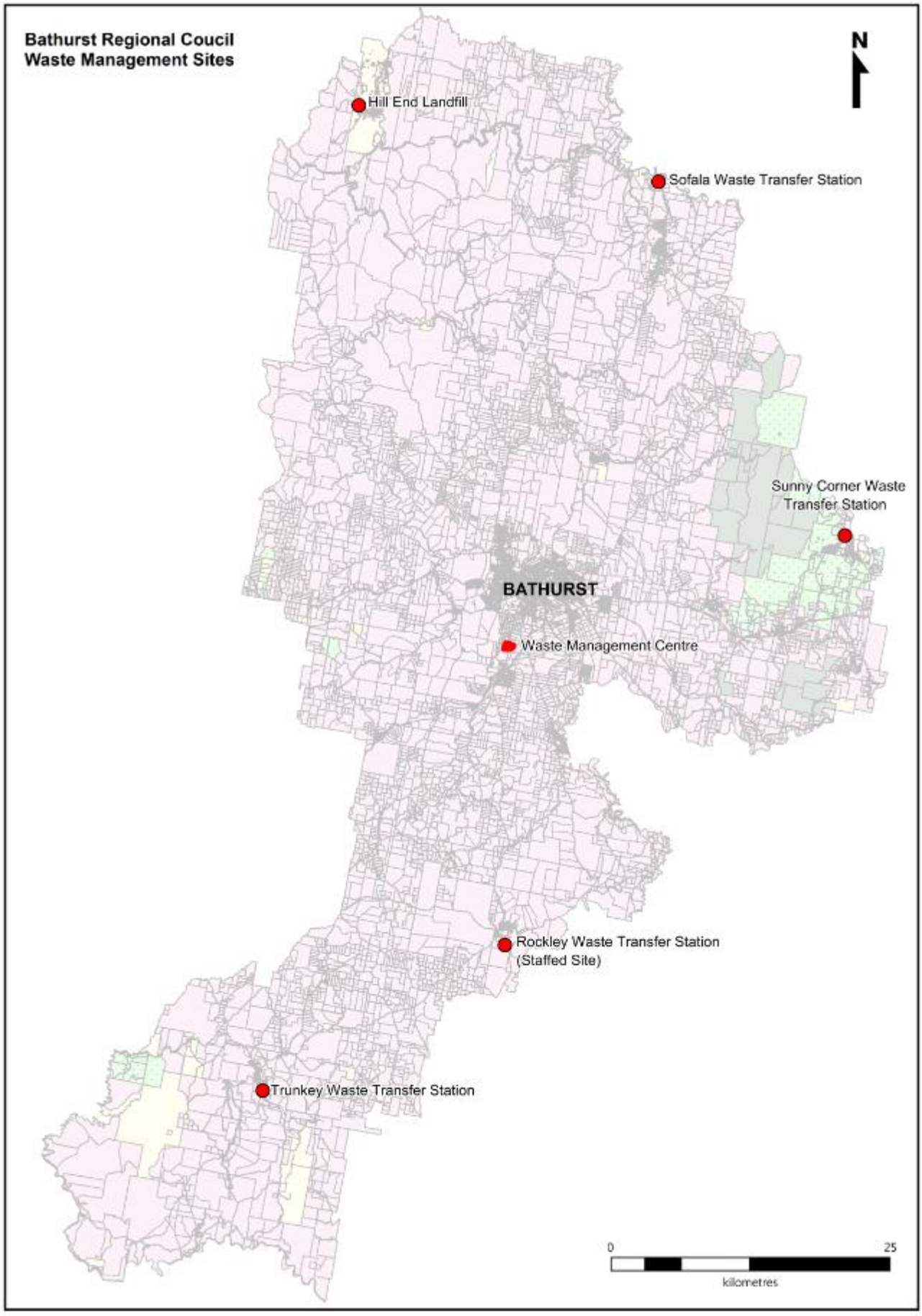
  - Waste Management Plans;
    - F:\Studies\Studies\8000_Engineering\8004_Waste Management Strategy (2007)
    - F:\Studies\Studies\8000_Engineering8057_Bathurst Waste Transport Study (2011)

  - Producer Price Index (PPI) - https://www.abs.gov.au/ausstats/abs@.nsf/mf/6427.0
  - Bathurst Regional Council Waste Information Hub - https://www.bathurst.nsw.gov.au/residents/waste/waste-information-hub.html

APPENDICES

Bathurst Regional Council
Annual Operating Plan 2019/20 and Delivery Plan 2020-2023
Detailed Budget

Major Project Expenditure		**2019/20**	**2020/21**	**2021/22**	**2022/23**
Sofala Waste Transfer Station Operating Expenses		200,100	205,794	211,576	217,451
Sunny Corner Waste Transfer Station Operating Expenses		175,200	180,296	185,504	190,930
Rockley Waste Transfer Station		174,385	179,396	185,301	191,030
Trunkey Waste Transfer Station Operating Expenses		162,900	167,250	171,699	176,250
Hill End Landfill Operating Expenses		161,900	166,348	170,908	175,588
Waste Management Centre Internal Roads Upgrade		600,000	0	0	0
2019/20 Budget Expenditure					
Budget Reference					
43410	Solid Waste Management Operations	6,340,831	6,588,024	6,844,914	7,112,923
43420	Domestic Waste Collection Operations	6,754,404	6,936,772	7,124,066	7,316,414
43430	Rural Waste Disposal Site Operations	949,485	974,084	999,988	1,026,249
47410	Solid Waste Management Capital Works	33,915	33,915	33,915	33,915
47420	Domestic Waste Collection Capital Expenditure	462,000	453,404	454,846	456,327
Total		**$14,540,635**	**$14,986,199**	**$15,457,729**	**$15,945,828**


Bathurst Regional Coucil
Waste Management Sites
N
Hill End Landfill
Sofala Waste Transfer Station
Sunny Corner Waste
Transfer Station
BATHURST
Waste Management Centre
Rockley Waste Transfer Station
(Staffed Site)
Trunkey Waste Transfer Station
0
25
kilometres