Vehicles (Fleet), Plant and Equipment Asset Management Plan





Document Control Asset Management Plan
--

Document ID:

Rev No	Date	Revision Details	Author	Reviewer	Approver
	Dec 2020	Issue for Executive Review	RP, MP	JI	AC
	Dec 2020	Issue to Elected Members- Preliminary Draft	RP, MP	JI	AC
	Jan 2021	Issue for Public Consultation - Draft	RP, MP	JI	Council Resolution 19/1/21
	Feb 2021	Issue for Council Adoption	RP, MP	JI	AC
0	Mar 2021	Issue Adopted by Council - Final	RP, MP	JI	Council Resolution 2/3/21

The entity can choose either template to write/update their plan regardless of their level of asset management maturity and in some cases may even choose to use only the Executive Summary.

The illustrated content is suggested only and users should feel free to omit content as preferred (e.g. where info is not currently available).

This Asset Management Plan may be used as a supporting document to inform an overarching Strategic Asset Management Plan.

© Copyright 2020 – All rights reserved The Institute of Public Works Engineering Australasia

Contents

1.0	EXECUTIVE SUMMARY	5
1.1	The Purpose of the Plan	5
1.2	Asset Description	5
1.3	Levels of Service	5
1.4	Future Demand	5
1.5	Lifecycle Management Plan	6
1.6	Financial Summary	6
1.7	Asset Management Planning Practices	7
1.8	Monitoring and Improvement Program	7
2.0	Introduction	8
2.1	Background	8
2.2	Goals and Objectives of Asset Ownership	9
3.0	LEVELS OF SERVICE	12
3.1	Customer Research and Expectations	12
3.2	Strategic and Corporate Goals	14
3.3	Legislative Requirements	14
3.4	Customer Values	15
3.5	Customer Levels of Service	16
3.6	Technical Levels of Service	16
4.0	FUTURE DEMAND	19
4.1	Demand Drivers	19
4.2	Demand Forecasts	19
4.3	Demand Impact and Demand Management Plan	19
4.4	Asset Programs to meet Demand	20
4.5	Environmental Sustainability	20
5.0	LIFECYCLE MANAGEMENT PLAN	22
5.1	Background Data	22
5.2	Operations and Maintenance Plan	25
5.3	Renewal Plan	26
5.4	Summary of future renewal costs	29
5.5	Acquisition Plan	29
5.6	Disposal Plan	31
6.0	RISK MANAGEMENT PLANNING	32

6.1	Critical Assets	32	
6.2	Risk Assessment	32	
6.3	Organisation Strategic Risks	35	
6.4	Service and Risk Trade-Offs	36	
7.0	FINANCIAL SUMMARY	37	
7.1	Financial Sustainability and Projections	37	
7.2	Funding Strategy	38	
7.3	Valuation Forecasts	38	
7.4	Key Assumptions Made in Financial Forecasts	38	
7.5	Forecast Reliability and Confidence	39	
8.0	PLAN IMPROVEMENT AND MONITORING	41	
8.1	Status of Asset Management Practices		
8.2	Improvement Plan	41	
8.3	Monitoring and Review Procedures	42	
8.4	Performance Measures	42	
9.0	REFERENCES	43	
10.0	APPENDICES	44	
Append	ix A Renewal Forecast	44	
Append	ix B Acquisition Forecast	50	
Append	ix C Forecast Expenditure and Long Term Financial Plan	51	

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

This Asset Management Plan (AM Plan) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 2020/21 to 2029/30 year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that assist with a variety of operations and delivery of services to the community.

The vehicles, plant and equipment network comprises:

- Light passenger and commercial vehicles
- Trucks and buses
- Construction plant and equipment
- Mowing and parks maintenance plant and equipment
- Other motorised mobile or portable equipment

The above infrastructure assets have replacement value estimated at \$11,277,683 (2020).

1.3 Levels of Service

The allocation in the planned budget is sufficient to continue providing existing services at current levels for the planning period. There are no major service consequences as a result of the planned budget.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- Population
- Operator/ Driver Expectations
- Changes in community demands
- Environmental Awareness

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may also include a combination of non-asset solutions, insuring against risks and managing failures.

- The utilisation rates of vehicles, plant and equipment will continue to be monitored to assist with the decision making for the acquisition of new assets to suit a growth in demand for services.
- Utilisation reporting is to be refined and improved to assist with the decision making for the acquisition of new assets.
- The acquisition of new vehicle, plant and equipment purchases as well as retrofitting existing assets will need to be assessed to determine whether the improved productivity and safety is worth the increased whole of life cycle cost from the existing assets available.
- The technological advancements in vehicles, plant and equipment will continue to be monitored and assessed to assist with the decision making for asset acquisitions

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for vehicles, plant and equipment is estimated as \$23,766,360 or \$2,376,636 on average per year.

1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period as \$25,305,280 or \$2,530,528 on average per year. on average per year as per the Long-Term Financial plan or Planned Budget. This is 106.88% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long-term financial plan can be provided. The Informed decision making depends on the AM Plan emphasising the consequences of Planned Budgets on the service levels provided and risks.

The anticipated Planned Budget for fleet, plant and equipment leaves a surplus of \$153,892 on average per year of the forecast lifecycle costs required to provide services in the AM Plan compared with the Planned Budget currently included in the Long-Term Financial Plan. This is shown in the figure below.

Forecast Lifecycle Costs and Planned Budgets

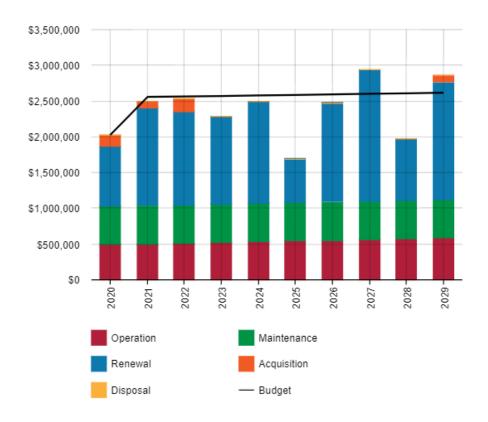


Figure Values are in current dollars.

We plan to provide services for the operation, maintenance, renewal and acquisition of fleet, plant and equipment to meet service levels set by the City of West Torrens and detailed in this AM plan.

1.6.2 What we cannot do

The current level of funding is sufficient to maintain the current level of service.

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Fleet, plant and equipment breakdown or reduction in service output leading to significant productivity losses
- Fleet, plant and equipment is not safe for use and results in injury or damage to property

We will endeavour to manage these risks within available funding by:

- Further developing asset renewal criteria to assist with the decision making for asset renewals. In particular, determination of the optimum timing of replacement to minimise risk of asset downtime.
- Improve reporting on key performance indicators to Management and Supervisors for all asset inspections and maintenance activities to ensure services levels are being met and maintenance practices are being undertaken in accordance with this AMP.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Vehicle, Plant and Equipment are replaced on a "like for like" basis
- Community levels of service remain consistent over the period
- Operations and maintenance budget and budget growth levels remain consistent with historical figures

Assets requiring renewal are identified from either the asset register or an alternative method.

- The timing of capital renewals based on the asset register is applied by adding the useful life to the year of acquisition or year of last renewal,
- Alternatively, an estimate of renewal lifecycle costs is projected from external condition modelling systems and may be supplemented with, or based on, expert knowledge.

The renewal lifecycle costs for this AM Plan are based on actual replacement costs.

This AM Plan is based on a medium level of confidence information.

1.8 Monitoring and Improvement Program

The next steps resulting from this AM Plan to improve asset management practices are:

- Undertake a review of the current method for determining useful lives and actual asset useful lives accordingly
- Develop current methods of measuring and reporting regularly on key performance indicators.
- Review criteria for asset renewals and update the 10 year asset renewal program.
- Undertake a complete review of this asset management plan at least every four years.

2.0 Introduction

2.1 Background

This AM Plan communicates the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the planning period.

The AM Plan is to be read with the City of West Torrens planning documents. This should include the Asset Management Policy and Asset Management Strategy, where developed, along with other key planning documents:

- City of West Torrens Community Plan
- Long Term Financial Plan
- Annual Business Plan

The infrastructure assets covered by this AM Plan include fleet, plant and equipment. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

These assets are used to assist with providing a variety of operations and delivery of services to the community.

The infrastructure assets included in this plan have a total replacement value of \$11,277,683.

The City of West Torrens is committed to adopting an environmentally sustainable approach to managing our assets. This is done by minimising the impact of our assets on the environment and by considering the environmental and climate change issues over the entire life of assets.

We need to be aware of the challenges we face now and in the future - such as population growth, demographic change, climate change, technology change and changes in our community's needs and aspirations.

Council recognises that climate change is likely to affect asset life and functionality. As such, in future reports and analysis Council will further explore how climate change will affect assets.

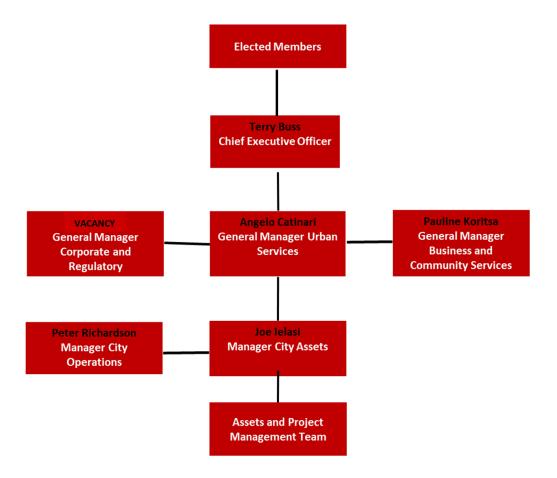
Key stakeholders in the preparation and implementation of this AM Plan are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Elected Members	Represent needs of community/shareholders; andEnsure organisation is financially sustainable.
CEO/ General Manager Urban Services	Executive management endorsement of AM Plan
Manager City Assets	Review and approval of AM Plan
Team Leader Asset and Project Management	Development, implementation and maintenance of AM Plan to meet community levels of service.
Asset Officer/ Engineer	Assist with the development, implementation and maintenance of AM Plan to meet community levels of service.
City Operations Department	Coordinate and deliver maintenance, renewal and operation works in accordance with the AM Plan.

General public	Assist with the determining of levels of service through public consultation processes.
Operators/ users of fleet, plant and equipment	Assist with the determining of levels of service through public consultation processes.

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Ownership

Our goal for managing infrastructure assets is to meet the defined level of service (as amended from time to time) 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 lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are

- Levels of service specifies the services and levels of service to be provided,
- Risk Management,

- Future demand how this will impact on future service delivery and how this is to be met,
- Lifecycle management how to manage its existing and future assets to provide defined levels of service,
- Financial summary what funds are required to provide the defined services,
- Asset management practices how we manage provision of the services,
- Monitoring how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 ¹
- ISO 55000²

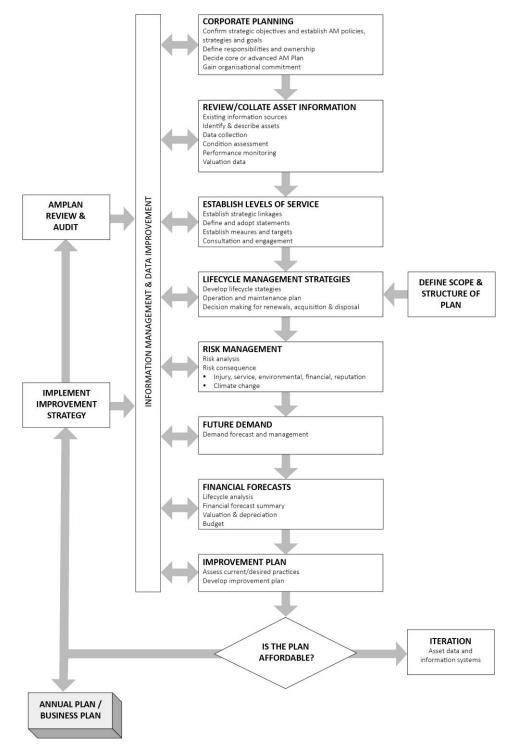
A road map for preparing an AM Plan is shown below.

¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

Road Map for preparing an Asset Management Plan

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

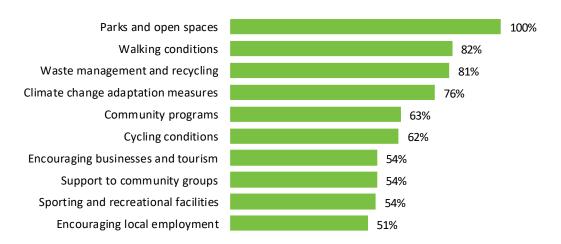
The City of West Torrens is committed to meeting community expectations through asset management. Feedback was received from the community relating to Council's current state of infrastructure assets from recent city-wide community engagement initiatives, which include:

- City of West Torrens Community Needs Analysis 2019/20 (CNA)
- City of West Torrens Customer Experience Strategy 2018 (CES)

3.1.1 Engagement participation rate



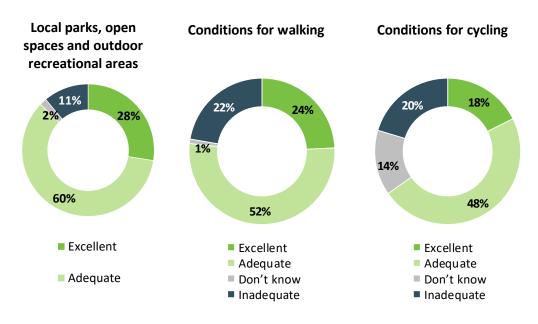
The 2019 Community Needs Analysis Community Survey (with 410 participants) asked respondents to rank ten council services in order of importance. The chart below shows combined priorities for all survey participants, with priority percentage scores ranked relative to the highest scoring service, 'parks and open spaces'.



Ranking of importance of 10 services to engagement participants

Parks and open spaces, walking conditions, cycling conditions and recreational facilities were all ranked of high importance by the majority of survey participants.

The Community Needs Analysis survey asked respondents to rate the current level of service for 20 services provided by the City of West Torrens, including local parks, open spaces and outdoor recreation areas, walking conditions and cycling conditions. The three charts below show the results.



Level of service assessment by survey respondents

The access to vehicle, plant and equipment resources directly affects Council's ability to provide, maintain and operate its assets. In particular, this includes Council's ability to maintain its parks, open spaces, recreational facilities, footpaths and shared user paths.

Overall, there were 20 services ranked in the survey and the rankings for the three relevant services were the following:

- Local parks, open spaces and outdoor recreational areas 2nd, with 11% of the respondents ranking services to be inadequate
- Walking 8th, with 22% of the respondents ranking services to be inadequate
- Cycling 12th, with 20% of the respondents ranking services to be inadequate.

Table 3.1 summarises the results from the Community Needs Analysis and Customer Experience Strategy engagement initiatives..

Table 3.1: Customer Satisfaction Survey Levels

	Satisfaction Level					
Performance Measure	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied	
	80 - 100%	60 - 80%	40 - 60%	20 - 40%	0 - 20%	
Local parks, open spaces and outdoor recreation areas	✓					
Conditions for walking		✓				
Conditions for cycling		✓				

3.2 Strategic and Corporate Goals

This Asset Management Plan is prepared under the direction of the City of West Torrens vision, mission, goals and objectives.

Our vision is:

Committed to be being the best place to live, work and enjoy life.

Our mission is:

To strive for excellence in serving our diverse community.

Strategic goals have been set by the City of West Torrens. The relevant goals and objectives and how these are addressed in this Asset Management Plan are summarised in Table 3.2.

Table 3.2: Goals and how these are addressed in this Plan

Council Vision	Operational Focus	How Goal and Objectives are addressed in the AM Plan	
	- Strong partnerships and working relationships with our community, other organisations and spheres of Government - Customer experience and	As part of the improvement plan, methods are to be established to measure key performance indicators regularly including customer satisfaction levels.	
Organisational Strength	community are at the centre of our considerations		
	- Our community can meaningfully engage with Council	As part of this AM plan, the levels of service of vehicles, plant and equipment assets have been reviewed to ensure that service levels are financially sustainable based on funding available.	
	 Sustainable financial management principles 		
Built Environment	 A variety of indoor and outdoor sport, recreation and community facilities and open spaces 	As part of this AM plan, the acquisition, renewal and maintenance levels of service of vehicles, plant and equipment have been reviewed to ensure that it is adequate to support the built environment and meet	
	 Provide infrastructure that meets the needs of a changing city and climate 	the needs of the city through the efficient management of Council-owned infrastructure.	
Environmental and sustainability	 Reduce the City's impact on the environment Prepare for and respond to the challenges of a changing climate 	As part of this AM plan, the acquisition and renewal of hybrid and electric vehicles has been allowed for in the forecast lifecycle expenditure.	
	cimate		

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the management of road assets are listed in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
South Australian Local Government Act 1999	Sets out role, purpose, responsibilities, and powers of local governments including the preparation of a LTFP supported by asset management plans for sustainable service delivery.
Australian Accounting Standards	Sets out the financial reporting standards relating to assets within the Local Government Environment.
South Australian State Records Act 1997	To ensure the City of West Torrens records and stores all relevant information as set out by the State Government of South Australia.
Environmental Protection Act 1993	An Act to provide for the protection of the environment: to establish the Environmental Protection Authority and define functions and powers and for other purposes.
Work Health and Safety Act 2012	To take a constructive role in promoting improvements in work health and safety practices whilst assisting in the preservation of public health and safety in all undertakings of the organisation.
Australian Road Rules 1989	The Australian Road Rules have been made into regulations under the Road Traffic Act (South Australia) and gives road authorities in each state delegated power to establish standards for all aspects of roadways, including bridges and shared use paths.
Australian Design Rules	The Australian Design Rules are national Australian standards for vehicle safety, anti-theft system and emission standards.

3.4 Customer Values

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective:

Provide vehicles, plant and equipment which are safe, fit for purpose and assist with the efficient delivery of services to the community.

to the community.						
Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget			
Vehicle presentation	Frequency of vehicle cleaning	Monthly or as deemed required by driver/ operator	The current performance is expected to be maintained.			
Efficiency and suitability of vehicles, plant and equipment	Customer satisfaction for the safety and condition of public spaces (e.g. parks, playgrounds, footpaths etc.)	83% customer satisfaction (2019)	The current performance is expected to be maintained.			

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Quality How good is the service ... what is the condition or quality of the service?

Function Is it suitable for its intended purpose Is it the right service?

Capacity/Use Is the service over or under used ... do we need more or less of these assets?

In Table 3.5 under each of the service measures types (Quality, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current funding level.

These are measures of fact related to the service delivery outcome e.g. number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very Good and provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Provide a fleet which is maintained in good condition and operational.	Number of customer complaints regarding vehicle presentation and operation.	The current performance is acceptable.	The current performance is expected to be maintained.
	Confidence levels		Low	Low
Function	Provide a fleet that supports the required operations of Council.	The capacity of vehicles, plant and equipment available.	There is adequate assets available to deliver the desired operations levels of service.	The current performance is expected to be maintained.
	Confidence levels		Medium	Medium
Capacity	Provide a fleet of size and function which suits the organisation's operations.	Hours worked or distance travelled in a calendar year.	The current performance generally coincides with the national benchmark for asset utilisation from the IPWEA Plant and Vehicle Management Manual (Table 1.1).	The current performance is expected to be maintained.
	Confidence levels		Medium	Medium

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- Acquisition the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
- **Operation** the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- Renewal the activities that return the service capability of an asset up to that which it had originally
 provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building
 component replacement),

Service and asset managers plan, implement and control technical service levels to influence the service outcomes

Table 3.6 shows the activities expected to be provided under the current Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEV	ELS OF SERVICE			
Acquisition	Provide a fleet of vehicles, plant and equipment which assist in the efficient delivery of services to the community.	The utilisation of assets e.g. kilometres/ year or hours/ year	Predominately based on changes in demand and asset utilisation.	As required to meet national benchmark from the IPWEA Plant and Vehicle Management Manual (Table 1.1). Utilisation reporting is to be refined and improved.
Operation	To ensure assets are maintained and operated in good working order and do not pose a risk to the health and/or safety of users, the public and the community.	Compliance with daily fleet inspection checklists completed by drivers and operators for all plant and equipment.	>90% of plant used each day	100% of plant used each day Reporting on compliance with daily fleet inspections is to be refined and improved.
		Compliance with WHS Calendar of Events inspections in accordance with relevant legislation.	>95%	100%
		Budget	\$538,752	\$538,752

Maintenance	Compliance with manufacture's service and maintenance requirements	Scheduled maintenance frequency, timing and activities.	> 90%	100%
	Reduce frequency of unplanned maintenance activities.	Ratio of planned to unplanned maintenance activities.	4:1	The current performance is expected to be maintained.
		Budget	\$537,800	\$537,800
Renewal	To ensure fleet, plant and equipment assets are replaced at optimum timing.	Timing of asset replacement.	As per 2016-2025 10 Year Renewal Program including renewal of fleet, plant and equipment at approximately the following intervals: - Light Passenger Vehicles every 3 years - Light Commercial Vehicles every 4 years - Parks and mowing equipment every 3 years - Trucks every 7 years Actual replacement time varies based on make and model.	As per updated 10 Year Renewal Program including renewal of fleet, plant and equipment at approximately the following intervals: - Light Passenger Vehicles every 3 years - Light Commercial Vehicles every 4 years - Parks and mowing equipment every 3 years - Trucks every 7 years Actual replacement time varies based on make and model.
		Budget	\$1,453,976	\$1,248,634
Disposal	There are currently no plans for the disposal of fleet vehicles, plant and equipment assets.	-	-	-
		Budget	-	-

Note: * Current activities related to Planned Budget.

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and customer priorities will change over time.

^{**} Forecast required performance related to forecast lifecycle costs.

4.0 FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

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 can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this Asset Management Plan.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	60,842 (2019)	Population projections indicate that the City of West Torrens will experience an increase in population. This can largely be attributed to urban consolidation.	An increase in population will result in greater demand of Council to provide its services. In order to meet the demand of additional services, additional staff, vehicles, plant and equipment will be required.	The utilisation rates of vehicles, plant and equipment will continue to be monitored to assist with the decision making for the acquisition of new assets to suit a growth in demand for services. Utilisation reporting is to be refined and improved to assist with the decision making for the acquisition of new assets.
Operator/ Driver Expectations	Council's fleet of vehicles, plant and equipment generally suits the expectations of the drivers/ operators of the assets.	Demand may grow to meet the expectations of drivers/ operators. In particular, as technological advancements are made, this will have the potential to make some roles easier.	The change in expectation from operators/drivers may lead to increases in demand for upgrades and increases in the purchasing of vehicles, plant and equipment and retrofitting existing assets. The improved	The acquisition of new vehicle, plant and equipment purchases as well as retrofitting existing assets will need to be assessed to determine whether the improved productivity and safety is greater than the increase in the

			technology will also have the potential to provide improved productivity and safety in operation.	whole of life cycle cost from the existing assets available.
Community Demand	Council's fleet of vehicles, plant and equipment is generally suitable to meet the demand of services by the community.	There will be a change in demand for increased recreation and open space facilities as well and increases in demand for verge management services.	Additional vehicles, plant and equipment will be required to be acquired to be able to maintain these facilities/ services.	Ongoing maintenance requirements are to be considered during the planning stages of projects to consider whether or not the current availability of resources is deemed sufficient.
Environmental Awareness	Council has a relatively high level of awareness of the impact of climate change. This is beginning to drive changes to vehicle selection at the City of West Torrens.	There will be a growth in demand from internal and external stakeholders for Council to consider ways in which it can reduce its Carbon Footprint.	The acquisition of vehicles, plant and equipment which produce fewer greenhouse gas emissions (e.g. electric vehicles and plant) than traditional assets will come at a higher purchase price.	The technological advancements in vehicles, plant and equipment will continue to be monitored and assessed to assist with the decision making for asset acquisitions.

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit the City of West Torrens to ongoing operations, maintenance and renewal 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 operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Environmental Sustainability

The way in which we manage assets should recognise that there is an opportunity to incorporate environmental sustainability as part of asset lifecycle activities. Building environmental sustainability into assets can have the following benefits:

- Assets will withstand the impacts of climate change;
- Services can be sustained; and
- Assets that can endure effects of climate change may potentially lower the lifecycle cost and reduce their carbon footprint

The impacts of climate change can have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change will impact on assets can vary significantly depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.

As a minimum we should consider both how to manage our existing assets given the potential climate change impacts, and also how to incorporate environmental sustainability in any new works or acquisitions.

Current practices and issues as well as future opportunities for improvement with regards to the achievement of environmental sustainability have been identified in Table 4.5.1.

Table 4.5.1 Environmental Sustainability - Current Issues, Practices and Future Opportunities

Environmental Sustainability Pillar	Current Practices and Issues	Opportunities for Future Improvements
Water	• N/A	• N/A
Energy	 Hybrid vehicles are currently used by Council staff Investigation of the installation of electrical vehicles charging stations throughout the city will provide opportunity to Council to procure and operate electric vehicles 	 Explore opportunities for the procurement of energy efficient vehicles, plant and equipment Explore opportunities to be a leader in the community for the use of electrical vehicles and plant
Climate Change	 Exploration of alternatives to petrol and diesel powered vehicles and plant 	 Further develop measures for emissions of Council vehicles, plant and fleet and set targets to reduce emissions accordingly
Waste	 Opportunities to extend the life of assets and contribute to a circular economy 	 Continue to explore circular economy opportunities which reduce waste generated from assets at the end of life
Greening	• N/A	• N/A

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City of West Torrens plans to manage and operate the assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AM Plan are shown in Table 5.1.1.

The City of West Torrens vehicle, plant and equipment assets are used by Council staff to construct, maintain and upgrade infrastructure and to transport materials, equipment, Council staff and community members.

Table 5.1.1: Assets covered by this Plan

Asset Category	Description	Quantity	Replacement Value
Fleet (Vehicles)			
Buses	Buses able to carry more than 8 passengers.	2	\$228,018
Light Commercial Vehicles	Four wheel utilities and vans whose primarily role is goods rather than passenger transport. This category also includes two-wheel motorbikes and motorised scooters, and troop carriers.	30	\$1,067,038
Light Passenger Vehicles	Four wheel sedans, wagons, hatches and passenger vans including people movers seating 8 or less passengers and generally not classed as utility or commercial vehicles.	30	\$938,755
Plant			
Cleansing Plant	Items not readily categorised in any of the categories, such as path sweepers, sprayers, each with a purchase price over \$2,000.	8	\$939,172
Miscellaneous Plant	Items not readily categorised in any of the categories, such as traffic counters, each with a purchase price over \$2,000.	106	\$1,083,842
Tractors	A vehicle used on a work site for the purpose of drawing a trailer or other equipment.	14	\$914,919
Trailers	Towed units with self-contained axles, registered for on-road use, designed to carry goods and plant. This category may include trailers each with a purchase price over \$2,000.	33	\$401,891
Trucks	Trucks having a GVM from 3,500kg and above including Mobile Library.	42	\$4,069,278
Equipment			
Construction Equipment	Earthmoving, road maintenance and construction, compaction, drainage and associated equipment valued at over \$2,000 each. Includes loaders, cranes, compactors of various types, pumps, concrete saws.	21	\$143,573
Line Marking Equipment	Machinery used for the purpose of line marking road ways.	5	\$111,632

Minor Equipment	All motorised, mobile, or portable machinery valued at under \$2,000. Includes brush cutters, chainsaws, power tools, small concrete saws, small compactors. Not intended to include hand tools or simple non-motorised equipment such as wheelbarrows.	54	\$110,316
Parks and Mowing Equipment	Agricultural and horticultural equipment including mowers, tractors and implements pulled by tractor units, with purchase price over \$2,000.	47	\$1,269,248
TOTAL		392	\$11,277,683

The age profile of the assets included in this AM Plan are shown in Table 5.1.1 and Figure 5.1.2.

Table 5.1.1: Age Profile of Assets

Asset Type		Age in Years											
	<1	1	2	3	4	5	6	7	8	9	10	10+	Total
Buses	-	-	-	-	-	-	-	1	-	1	-	-	2
Cleansing Plant	1	1	-	-	1	-	1	1	-	-	-	3	8
Construction Equipment	-	-	-	1	-	2	3	1	2	1	1	10	21
Light Commercial Vehicles	-	9	2	1	9	4	1	-	-	1	1	2	30
Light Passenger Vehicles	4	13	4	7	1	1	-	-	-	-	-	-	30
Line Marking Equipment	-	-	-	-	2	-	-	-	1	-	-	2	5
Minor Equipment	1	3	4	-	ı	1	6	-	-	4	2	33	54
Miscellaneous Plant	1	6	5	12	5	1	2	5	4	4	-	61	106
Parks and Mowing Equipment	1	5	6	3	3	2	-	1	1	-	-	25	47
Tractors	-	2	1	1	-	1	1	3	-	2	-	3	14
Trailers	-	2	5		2	1	-	2	2	-	4	15	33
Trucks	2	4	7	5	5	4	3	4	1	1	1	5	42
Total	10	45	34	30	28	17	17	18	11	14	9	159	392

2500000 2000000 Current Replacement Cost (\$) 1500000 1000000 500000 0 6 8 9 1 2 3 4 5 7 10 >10 <1 Age (Years) Buses Cleansing Plant ■ Light Commercial Vehicles ■ Construction Equipment ■ Light Passenger Vehicles ■ Line Marking Equipment ■ Minor Equipment ■ Miscellaneous Plant ■ Parks and Mowing Equipment ■ Tractors ■ Trailers Trucks

Figure 5.1.2: Age Profile of Assets

All figure values are shown in current day dollars.

There is significant portion of assets over ten years of age however this is largely attributed to low value assets including miscellaneous, construction and minor equipment.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.3.

Table 5.1.3: Known Service Performance Deficiencies

Location	Service Deficiency
Depot - City Operations	Access to vehicles, plant & equipment to perform routine maintenance due to minimal asset redundancy.
Depot - Workshop	Access to diagnostic equipment to assist with the maintenance of vehicles, plant and equipment due to the expensive costs of purchasing and updating diagnostic tools. Due to this, there is a reliance on dealerships to undertake select maintenance activities.

5.1.3 Asset condition

Condition is currently monitored through daily fleet inspections and routine maintenance.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets are shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget \$
2015/2016	\$538,338
2016/2017	\$578,983
2017/2018	\$495,236
2018/2019	\$534,866
2019/2020	\$541,579
2020/2021	\$537,800 (Forecasted Estimate)

Maintenance budget levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and risks of providing services at that level have been identified and are highlighted in this AM Plan.

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

Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed of the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs.

The operations and maintenance budgets values are unable to be determined as they are included in the Long Term Financial Plan across a range of areas. It is expected that the current budget values are suitable in meeting the forecast operations and maintenance costs.

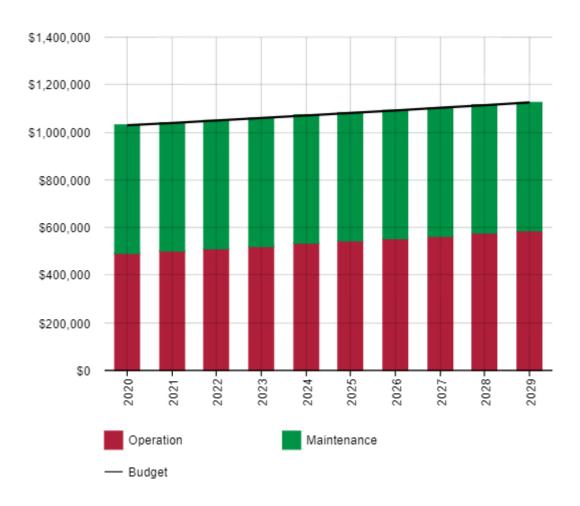


Figure 5.2: Operations and Maintenance Summary

All figure values are shown in current day dollars.

The maintenance and operations expenditure has been forecast based on historical annual expenditure. Maintenance and operation expenditure is not expected to vary significantly during this period. As the budget allocated for vehicle, plant and equipment maintenance and operation expenditure over the period is not outlined in the Long Term Financial Plan, it is assumed that the annual budget available is equal to the 2019/20 expenditure.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, 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 considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to determine depreciation and assist with projected asset renewal forecasts are shown in Table 5.3.1 Asset useful lives are not currently reviewed on a regular basis.

Table 5.3.1: Useful Lives of Assets

Asset (Sub)Category	Useful Life (Years)
Buses	15
Cleansing Plant	10
Compressor	20
Concrete Saw	5
Construction Equipment	15
Excavator	10
Forklift	11
Front End Loader	9
Gator	8
Generator	5
Hoist	10
Jack Hammer	3
Ladder	10
Lifter	10
Light Commercial Vehicles	15
Light Passenger Vehicles	15
Light Trucks	15
Line Marking Equipment	11
Medium Trucks	15
MIG Welder	10
Minor Equipment	10
Miscellaneous Plant	10
Mower	5
Parks and Mowing Equipment	10
Pressure Washer	5
Road sweeper	7
Sander	10
Scarifier	10
Tool Trolley	20
Tractors	10
Traffic Counters	5
Trailers	10
Two-way Radio	7
Welder	10
Wheel Loader	10
Wood chipper	8

The estimates for renewals in this AM Plan were based on the asset register, ideal renewal timing and desired service levels.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).³

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.⁴

The primary considerations for the renewal of Vehicles, Plant and Equipment assets is the utilisation (total and annual average) and the age of the asset. Assets forecasted for renewal are assessed annually by internal stakeholders to prioritise asset renewals. Table 5.3.2 is a guide used from IPWEA Plant and Vehicle Management Manual used to assess asset utilisation and guide optimum replacement timing.

Table 5.3.2: Optimum Replacement Timing - Plant and Heavy Vehicles

Group/Type	National Annual Benchmark Utilisation	Optimum Replacement Timing			
	Engine Hrs/Km Travelled	Years	KM/Hrs		
Mower Front Deck 72inch	500 Hrs	5	2,000 Hrs		
Mower 38-52 inch	350 Hrs	7	2,000 Hrs		
Skid Steer	450 Hrs	7	5,000 Hrs		
Backhoe Loader	650 Hrs	7	5,000 Hrs		
Wood chipper	*350 Hrs	8	5,000 Hrs		
Car Park/Footpath Sweeper	1,000 Hrs	8	5,000 Hrs		
Tractor (PTO Hrs) 25-45HP	300Hrs	8	5,000 Hrs		
Excavator (3.5tonne)	450 Hrs	8	5,000 Hrs		
Vibrating Drum Roller	500 Hrs	8	5,000 Hrs		
Tractor (PTO Hrs) 45-75HP	500Hrs	8	5,000 Hrs		
Tractor (PTO Hrs) 75+HP	800 Hrs	8	5,000 Hrs		
Rubber Tyred Roller	500 Hrs	10	5,000 Hrs		
Side Lift Compactor	*1,700 Hrs	8	8,000 Hrs		
Road Sweeper	1,700 Hrs	8	8,000 Hrs		
Loader	800 Hrs	8	8,000 Hrs		
Rear Lift Compactor	*1,000Hrs	10	8,000 Hrs		
Excavator (15tonne)	1,000 Hrs	10	8,000 Hrs		
Grader	1,000 Hrs	10	8,000 Hrs		

³ IPWEA, 2015, IIMM, Sec 3.4.4, p 3 | 91.

⁴ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3 | 97.

Landfill compactor	1,000Hrs	10	8,000 Hrs
Landfill Wheel Loader	1,000Hrs	10	8,000 Hrs
Excavator (8tonne)	800 Hrs	10	8,000 Hrs
Cars & Utilities	20,000 Km's	5	120,000 Km's
Bus Mini	20,000 Km's	8	150,000 Km's

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix A.

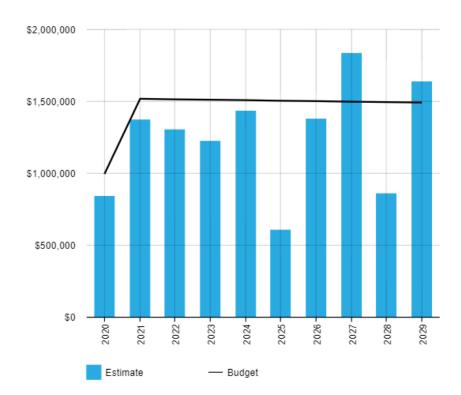


Figure 5.4.1: Forecast Renewal Costs

All figure values are shown in current day dollars.

The total asset renewals forecast for the 10 year period are within the budgeted figures of the Long Term Financial Plan. Therefore, it is not expected that any asset renewals will be deferred during this period.

5.5 Acquisition Plan

Acquisition reflects are new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the City of West Torrens.

5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and

new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programmes. The assessment of the acquisition of new assets is undertaken by internal stakeholders on a case by case basis due to the varying criteria for each asset subcategory. A business case is prepared and is assessed to support the acquisition.

Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised / summarized in Figure 5.5.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix B.

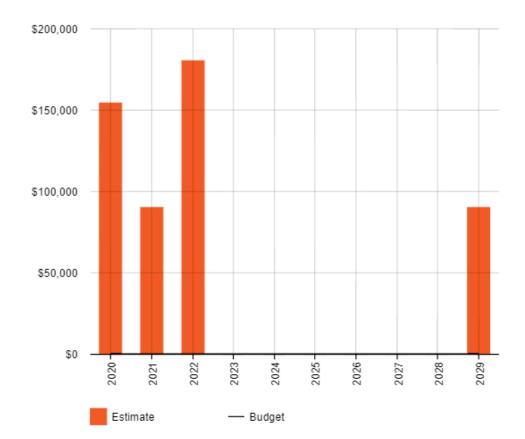


Figure 5.5.1: Acquisition (Constructed) Summary

All figure values are shown in current day dollars.

There are currently no future asset acquisitions identified between 2023/24 and 2028/29.

When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Entity.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.4.3. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

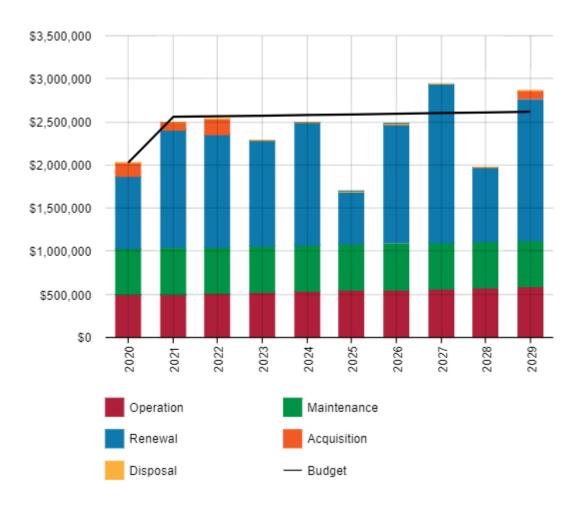


Figure 5.5.3: Lifecycle Summary

All figure values are shown in current day dollars.

The budget shown in Figure 5.5.3 is the funds for all renewal and acquisition activities. Based on this, the budget allocated in the Long Term Financial Plan is adequate to meet the proposed asset renewals and acquisitions for the period. The maintenance and operation budget figures are grouped with other items within the Long Term Financial Plan and therefore cannot be extracted to accurately assess against the estimated expenditure for this period. Based on historical expenditure and service levels, the current level of funding is expected to be adequate for maintenance and operation activities for this period.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. There are no asset disposals currently forecasted for this period.

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management - Principles and guidelines alongside the City of West Torrens Enterprise Risk Management Policy and Framework.

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'⁵.

Critical Assets 6.1

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
All fleet, plant and equipment	Plant/ vehicle breakdown or reduction in service output	 Loss of productivity due to increased downtime Inability for essential services to be provided Increased maintenance costs
	Plant/ vehicle is not safe for use	 Increased risk of injury to operators, field workers and the community Increased risk of damage to Council and privately owned assets

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 **Risk Assessment**

The risk management process used is shown in Figure 6.2.1 below.

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

⁵ ISO 31000:2009, p 2

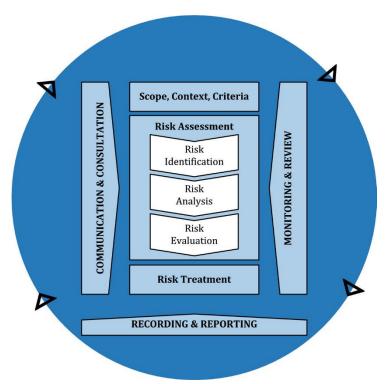


Fig 6.2.1 Risk Management Process – Abridged Source: ISO 31000:2018, Figure 1, p9

In accordance with the Enterprise Risk Management Framework, risk consequences are cited as the following:

- Financial
- Organisational or customer impact
- Reputation and relationships
- People
- Work health and safety

Furthermore, an assessment of risks⁶ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

The City of West Torrens' Risk Analysis Matrix in Figure 6.2.2 is used to assess risk levels associated with assets. The guidelines for using the risk matrix is detailed in *Administration Policy: Enterprise Risk Management Framework*⁷.

33

⁶ Administration Policy: Enterprise Risk Management Framework, 2019

⁷ As above

		t/Reduce/l ve Conseq			LIKELIHOOD			/Promote/ ve Conseq		
E	E	н	м	м	Almost Certain > 95% chance of occurring	м	м	н	Е	ш
E	E	н	м	L	Likely 75% - 95% chance of occurring	L	М	н	E	ш
н	н	М	м	L	Moderate 25% - 75% chance of occurring	L	М	м	Ξ	н
н	М	М	٦	٦	Unlikely 5% - 25% chance of occurring	٦	٦	М	М	π
М	М	٦	٦	٦	Rare < 5% chance of occurring	٦	٦	L	М	М
Catastrophic	Major	Moderate	Minor	Insignificant	Scale	Insignificant	Minor	Moderate	Major	Outstanding

Fig 6.2.2 Risk Analysis Matrix - Level of Risk Source: City of West Torrens

Critical risks are those assessed with High or Extreme risk ratings. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. Services and assets with a residual risks rating of High are required to be managed by the CEO and General Managers, respectively in accordance with the Enterprise Risk Management Framework.

Table 6.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
All fleet, plant and equipment	Plant/ vehicle breakdown or reduction in service output leading to significant productivity losses.	High	- Further develop the asset renewal criteria to assist with the decision making for asset renewals. In particular, determination of the optimum timing of replacement to minimise risk of asset downtime.	Moderate	Developing the asset renewal criteria is estimated as the equivalent of 2 weeks full time work from Council's Asset Engineer.
	Plant/ vehicle is not safe for use and results in injury or damage to property	High	- Further develop the reporting of key performance indicators to Management and Supervisors for	Moderate	The process of developing the methods for reporting on key performance indicators is

	conformance with all asset inspections and maintenance activities to ensure services levels are being met and maintenance practices are being undertaken in accordance with this AMP.	estimated as the equivalent of 1 week's full time work from Council's Asset Engineer working with key stakeholders in the organisation. This also includes time to set up automated reporting functions through Council's Asset Management System.
--	---	--

Note $\mbox{\ensuremath{}^{*}}$ The residual risk is the risk remaining after controls are implemented.

6.3 Organisation Strategic Risks

The strategic risks of the organisation significantly impact the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

The City of West Torrens' strategic risks related to asset management are identified in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to manage this risk. .

Table 6.3: Strategic Risks

Threat / Hazard	Current Risk Control Approach	CWT Risk Level (Revised Risk- after controls)
Business Continuity and Community Resilience	This is reviewed as part of Organisational Strategic Risks including the ability to respond, recover, restore and resume business as usual. Robust plans and processes are developed.	Moderate
Emergency Events	This is reviewed as part of Organisational Strategic Risks. CWT considers all hazards including the response to multiple threats including flooding, earthquake, transport incidents etc.	Moderate
Infrastructure Management	This is reviewed as part of Organisational Strategic Risks and includes monitoring damage caused by deterioration or emergency events	Moderate
Urban Densification	This is reviewed as part of Organisational Strategic Risks and includes the planning and implementation of systems to cope with changes caused by infill development	Moderate

	and changes to State Planning Regulations.	
Financial Management, Sustainability and Cost Shifting	This is reviewed as part of Organisational Strategic Risks and includes strategies to deal with changes in income and expenditure caused by either changes in policy or emergency events	Moderate

6.4 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What we cannot do

The current level of funding is sufficient to maintain the existing level of service.

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Increased risk of fleet, plant and equipment downtime
- Reduction in productivity and therefore reduction is service output

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Delays to delivery of services resulting in an increase in customer complaints
- Increased maintenance expenditure as a result of an increased unplanned maintenance works

These actions and expenditures are considered and included in the forecast costs.

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AM Plan. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AM Plan for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio⁸ 116.45%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 116.45% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget, and the cumulative shortfall, is illustrated in Appendix A.

Medium term – 10 year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$2,325,186 average per year.

The proposed (budget) operations, maintenance and renewal funding is \$2,530,528 on average per year giving a 10 year funding excess of \$205,342 per year. This indicates that 108.83% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AM Plan and ideally over the 10 year life of the Long-Term Financial Plan.

7.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.3 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan (including possibly revising the long-term financial plan).

Forecast costs are shown in 2020/2021 dollar values.

⁸ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal
2020/21	\$154,500	\$492,024	\$537,800	\$841,800
2021/22	\$90,000	\$501,864	\$537,800	\$1,369,397
2022/23	\$180,000	\$511,901	\$537,800	\$1,300,833
2023/24	-	\$522,139	\$537,800	\$1,225,202
2024/25	-	\$532,582	\$537,800	\$1,429,343
2025/26	-	\$543,234	\$537,800	\$607,941
2026/27	-	\$554,098	\$537,800	\$1,378,230
2027/28	-	\$565,180	\$537,800	\$1,835,851
2028/29	-	\$576,484	\$537,800	\$859,872
2029/30	\$90,000	\$588,014	\$537,800	\$1,637,870

7.2 Funding Strategy

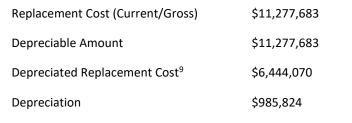
The proposed funding for assets is outlined in the City of West Torren's budget and Long-Term financial plan.

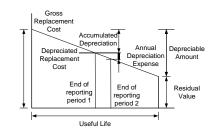
The financial strategy of the City of West Torrens determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued as the actual cost:





7.3.2 Valuation forecast

Asset values are forecast to remain steady as there is no major asset disposals or acquisitions planned for the period.

Additional assets will generally add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs due to future renewals. Any additional assets will also add to future depreciation forecasts.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AM Plan, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AM plan and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AM Plan are:

Vehicle, Plant and Equipment are replaced on a "like for like" basis for asset renewals

⁹ Also reported as Written Down Value, Carrying or Net Book Value.

- Community levels of service remain consistent over the period
- Operations and maintenance budget and budget growth levels remain consistent with historical figures

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale¹⁰ in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm2\%$
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate \pm 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy \pm 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Low	Demand drivers are based on a combination of sound statistics and analysis of internal and external demand drivers.
Growth projections	High	Growth projections are based on the analysis of historical figures.
Acquisition forecast	Medium	Acquisitions are based on Optimum Timing of Asset Replacement (Table 5.3.2)
Operation forecast	Medium	Operations forecast is based on the analysis of trends in historical operation expenditure.
Maintenance forecast	Medium	Maintenance forecasts are based on the analysis of trends in historical maintenance expenditure.
Renewal forecast - Asset values	High	Asset values are based on actual asset renewal costs.

¹⁰ IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

39

- Asset useful lives	High	Asset useful lives are based on IPWEA Best Practice Plant and Vehicle Management Manual
- Condition modelling	Very Low	Condition modelling is mostly estimated.
Disposal forecast	Low	Very few disposals have historically been undertaken.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be Medium.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹¹

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is "Technology One", City of West Torrens' corporate finance system.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is "Conquest", City of West Torrens' Asset Management System.

8.2 Improvement Plan

It is important that an entity recognise areas of their AM Plan and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AM Plan is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Undertake a review of the current method for determining useful lives and actual asset useful lives accordingly.	Team Leader Asset and Project Management	Internal Asset Management staff	June 2021
2	Further develop methods to measure and report regularly on key performance indicators including: - compliance with asset inspections - planned maintenance expenditure versus reactive maintenance expenditure - asset utilisation - customer and stakeholder satisfaction with the performance of vehicles, plant and equipment assets	Team Leader Asset and Project Management Coordinator of Fleet, Cleansing and Support Services	Internal Asset Management, City Operations and Information Technology staff	June 2022
3	Review asset utilisation and the criteria for asset renewals and develop an updated 10 year asset renewal program accordingly.	Team Leader Asset and Project Management Coordinator of Fleet, Cleansing and Support Services	Internal Asset Management and City Operations staff	December 2023
4	Undertake a complete review of this asset management plan at least every four years, within two years of each Council election.	Team Leader Asset and Project Management	Internal Asset Management staff	October 2024

41

¹¹ ISO 55000 Refers to this as the Asset Management System

8.3 Monitoring and Review Procedures

This AM Plan will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The AM Plan will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the Long-Term Financial Plan or will be incorporated into the Long-Term Financial Plan once completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within two years of each Council election.

8.4 Performance Measures

The effectiveness of this AM Plan can be measured in the following ways:

- The degree to which the required forecast costs identified in this AM Plan are incorporated into the longterm financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AM Plan,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 100%).

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6
- IPWEA, 2014, Practice Note 8 Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management Guidelines
- City of West Torrens Community Plan 2030
- City of West Torrens Adopted Budget and Annual Business Plan 2020/21
- City of West Torrens, 2019, Administration Policy: Enterprise Risk Management Framework

10.0 APPENDICES

Appendix A Renewal Forecast

A.1 – Renewal Forecast Summary

Table A1 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2020/21	\$841,800	\$996,300
2021/22	\$1,369,397	\$1,518,069
2022/23	\$1,300,833	\$1,514,744
2023/24	\$1,225,202	\$1,511,425
2024/25	\$1,429,343	\$1,508,113
2025/26	\$607,941	\$1,504,807
2026/27	\$1,378,230	\$1,501,508
2027/28	\$1,835,851	\$1,498,216
2028/29	\$859,872	\$1,494,929
2029/30	\$1,637,870	\$1,491,649

A.2 –10 Year Renewal Program

.2 –10 řed	ar Renewa	Program					Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Asset ID.	Plant No.	Description	Rego. No.	Category (based on GMV)	Purchase Date	RRP \$ (as at 2020)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
92149	6080	Toyota Coaster	SB586V	Buses & Vans	23/12/2013	\$155,400			\$165,000							
88705	6081	MERCEDES SPRINTER	S558AKV	Buses & Vans	1/04/2011	\$109,190										\$130,000
94976	6085	Fuso FK600 MOBILE LIBRARY	SB21JW	Buses & Vans	1/07/2016	\$320,000								\$420,000		
90653	6221	Rogue Drain cleaning unit	S969TCU	Cleansing Plant	3/04/2013	\$42,000						\$55,000				
87133	6090	ROADSWEEPER MacDonald HINO 605VT	SB74CW	Cleansing Plant	14/12/2009	\$301,250	\$360,000						\$360,000			
93897	6091	ROADSWEEPER MacDonald Isuzu 850	SB16JN	Cleansing Plant	12/09/2014	\$301,250					\$340,000					
96546	6092	FOOTPATH SWEEPER MacDonald Johnston	S20SCN	Cleansing Plant	4/11/2016	\$210,000				\$210,000						
100583	6093	FOOTPATH SWEEPER MacDonald Johnston	S46SHR	Cleansing Plant	3/12/2019	\$210,000							\$210,000			
100170	6084	Schibeci Mini Loader		Construction Equipment	17/01/2019	\$86,000							\$86,000			
94227	6203	Husqvarna 20" Flat floor saw		Construction Equipment	18/06/2015	\$15,500		\$15,500							\$18,500	
97339	6240	Yakka Pump trailer Mount	S197TGD	Construction Equipment	31/08/2017	\$60,000										
99957	6068	Holden Colorado 4x4 ute	S648BYP	Light Commercial	27/02/2019	\$38,500		\$38,500				\$38,500				\$38,500
100169	6067	Holden Colorado 4x4 Ute	S649BYP	Light Commercial	27/02/2019	\$38,500		\$35,260				\$38,500				\$38,500
96535	6214	Caravan	S070TFO	Light Commercial	17/01/2017	\$32,565										
100538	6002	Holden Colorado Animal unit	S190CCB	Light Commercial	2/04/2020	\$32,790										\$55,000
94680	6005	VW Caddy Maxi van	S202BJP	Light Commercial	14/04/2016	\$35,200	\$32,000					\$35,200				
100532	6015	Ford Ranger XLS	S356CBW	Light Commercial	27/09/2019	\$51,990				\$48,500				\$51,990		
94677	6016	Isuzu D-Max ute	S463BKE	Light Commercial	22/03/2016	\$34,740		\$33,500				\$34,740				\$36,500
100535	6056	Ford Ranger XLS	S357CBW	Light Commercial	27/09/2019	\$51,990					\$51,990					\$51,990
100012	6024	HYUNDAI iLoad VAN	S731BZI	Light Commercial	15/04/2019	\$33,729				\$33,729				\$33,729		
97343	6032	Mitsubishi Triton Ute	S945BSV	Light Commercial	20/10/2017	\$33,600			\$33,600							\$33,600
95447	6035	Isuzu D-Max ute	S857BMR	Light Commercial	17/10/2016	\$38,500		\$38,500				\$38,500				\$38,500
100482	6040	VW Caddy	S296CAW	Light Commercial	12/08/2019	\$32,690					\$32,690				\$32,690	
94614	6044	Toyota Hilux X-Cab ute	S309BHN	Light Commercial	30/09/2015	\$36,500	\$36,000						\$36,500			
100485	6045	Holden Trailblazer	S053CAX	Light Commercial	1/08/2019	\$51,995				\$51,995				\$51,995		
100011	6048	Toyota Landcruiser	S425BZE	Light Commercial	1/05/2019	\$85,000						\$85,000				
92143	6051	Piaggio Scooter	S34ANR	Light Commercial	18/12/2013	\$2,600		\$2,600							\$2,600	
97841	6021	Toyota Hilux Dual cab	S112BTS	Light Commercial	23/02/2018	\$51,990	\$46,000				\$51,990				\$51,990	
94610	6060	Holden Colorado ute w/Irrigation body	S889BFW	Light Commercial	18/09/2015	\$55,000		\$55,000					\$55,000			
94668	6061	VW Caddy Maxi van	S038BJC	Light Commercial	22/02/2016	\$35,200	\$32,000					\$35,200				
94678	6062	Isuzu D-Maz ute	S464BKE	Light Commercial	22/03/2016	\$35,200	\$26,500					\$35,200				
100536	6063	Ford Ranger XLS	S358CBW	Light Commercial	27/09/2019	\$51,990					\$51,990					\$51,990
100167	6067	Holden Colorado 4x4 Ute	S647BYP	Light Commercial	27/02/2019	\$96,070			\$80,059				\$80,059			
88170	6089	Mercedes Vito Van	S913BKV	Light Commercial	12/05/2011	\$53,467		\$53,467								\$53,467
98247	6071	Hyundai iLoad Van	S482BUO	Light Commercial	29/03/2018	\$38,000					\$38,000					
94723	6020	Isuzu D-Max ute	S913BKV	Light Commercial	25/05/2016	\$40,000		\$36,047					\$36,047			
94667	6083	VW Caddy Maxi van	S037BJC	Light Commercial	11/02/2016	\$32,690	\$32,000					\$35,200				
94659	6087	Isuzu D-Max ute	S975BIZ	Light Commercial	22/12/2015	\$34,500	\$30,000					\$34,500				
94722	6088	VW Caddy Maxi van	S599BKI	Light Commercial	26/05/2016	\$32,690	\$32,000					\$35,200				

88495	6401	NISSAN FORKLIFT TRUCK	S48STI	Light Commercial	20/12/2010	\$37,240				\$37,240						
81916	6402	NISSAN FORKLIFT TRUCK	UDR430	Light Commercial	2/02/1987	\$20,098		\$46,550								
97329	6007	Camry Hybrid 2.5L Auto	S755BSI	Light Passenger	22/09/2017	\$34,990		\$27,605			\$34,990				\$34,990	
97337	6010	Camry Hybrid Level 1 Auto	S348BSF	Light Passenger	29/09/2017	\$34,990		\$27,605			\$34,990				\$34,990	
99942	6001	Toyota Prado Kakadu Turbo Diesel	S427BZE	Light Passenger	29/03/2019	\$73,600		\$63,589			\$73,600				\$73,600	
98234	6003	Stationwagon	\$877BVN								\$73,000	¢4F 940			\$73,000	¢45.840
100533		Toyota Kluger AWD KX 3.5L Petrol		Light Passenger	17/05/2018	\$45,840		\$45,840		¢39,000		\$45,840		¢38,000		\$45,840
	6004	ZB Commodore RS Sedan 2.0 Turbo	S981CBE	Light Passenger	17/09/2019	\$38,990			Ć44 500	\$38,990			Ć47.000	\$38,990		
100486	6006	Holden ZB Calais V	S913CAW	Light Passenger	29/07/2019	\$47,990			\$44,500	444 400			\$47,990	444 400		
100863	6008	Subaru Liberty	S392CED	Light Passenger	25/05/2020	\$41,480				\$41,480				\$41,480		
100573	6009	Mazda CX-5	S719CCL	Light Passenger	3/12/2019	\$41,990				\$41,990				\$41,990		
100865	6011	Toyota Corolla Hybrid	S382CEE	Light Passenger	17/04/2020	\$26,550	4			\$26,550			4	\$26,550		4
97316	6012	Toyota Kluger AWD	S309BSF	Light Passenger	8/09/2017	\$45,840	\$39,500			\$45,840			\$45,840			\$45,840
94149	6014	Hyundai iMax 8 seater	S839BGA	Light Passenger	15/05/2015	\$43,990		\$36,435				\$43,990			\$43,990	
97328	6017	Toyota RAV4 2WD	S753BSI	Light Passenger	20/09/2017	\$34,500		\$34,500			\$34,500				\$34,500	
100534	6018	Toyota Kluger AWD	S714CBV	Light Passenger	21/10/2019	\$46,250				\$46,250				\$46,250		
100484	6019	Toyota Fortuner	S234CBE	Light Passenger	14/08/2019	\$47,558			\$47,558			\$47,558			\$47,558	
98248	6022	Toyota Yaris Sedan	S883BVN	Light Passenger	25/05/2018	\$18,990	\$18,000		\$18,990		\$18,990		\$18,990		\$18,990	
95454	6023	Ford Falcon 1961	ROD061	Light Passenger	14/10/2016	\$13,000										
97330	6025	Toyota RAV 4 AWD	S754BSI	Light Passenger	22/09/2017	\$39,990	\$37,500			\$39,990			\$39,990			\$39,990
99953	6026	ZB Commodore RS Wagon	S577BJZ	Light Passenger	4/04/2019	\$42,950			\$42,950					\$42,950		
99388	6028	Toyota Prado VX	S503CAF	Light Passenger	1/09/2019	\$73,600			\$73,600			\$73,600			\$73,600	
96527	6029	Toyota RAV4 AWD	S467BNY	Light Passenger	9/01/2017	\$29,990	\$30,000				\$29,990				\$29,990	
99941	6030	Toyota RAV4 AWD	S852BYN	Light Passenger	24/12/2018	\$39,990		\$36,293				\$39,990				\$39,990
100864	6031	Toyota Corolla Hybrid	S384CEE	Light Passenger	17/04/2020	\$26,550				\$26,550				\$26,550		
97364	6033	Mazda 3	S499BTF	Light Passenger	13/12/2017	\$26,500	\$24,000				\$26,500				\$26,500	
100483	6046	Mazda CX-5 GT	S531CBA	Light Passenger	9/08/2019	\$42,900				\$42,900				\$42,900		
100531	6052	ZB Commodore RS Wagon 2.0 Turbo	S992CBE	Light Passenger	26/09/2019	\$42,950				\$42,950				\$42,950		
100866	6082	Toyota Corolla Hybrid	S385CEE	Light Passenger	17/04/2020	\$26,550				\$26,550				\$26,550		
100537	6086	Toyota Corolla Hybrid	S519CAF	Light Passenger	11/09/2019	\$26,550				\$26,550				\$26,550		
98236	6072	Toyota Prius	S203BVI	Light Passenger	4/05/2018	\$34,500	\$32,500					\$34,500			\$34,500	
100166	6094	Toyota Corolla Accent Sport	S593BYT	Light Passenger	19/02/2019	\$23,500		\$23,500				\$23,500				\$23,500
90068	6211	Graco Lazeline IV 5900 line marker	S10SWG	Line Marking Equipment	4/02/2012	\$25,405					\$25,405					
81995	6211	Linemarking Machine - Road Lines		Line Marking Equipment	1/10/1999											
95453	6200	Graco Lazerline IV 5900 line marker	S63SCG	Line Marking Equipment	30/09/2016	\$35,500				\$35,500			\$35,500			
95452	6227	Graco Lazerline IV 5900 line marker	S64SCG	Line Marking Equipment	30/09/2016	\$35,500				\$35,500						
81968	6215	ELECTRONIC SIGN BOARD BARTCO	YFS316	Miscellaneous Plant	26/05/2005	\$46,000		\$46,000								
98641	6224	ELECTRONIC SIGN BOARD SAFE-ROADS	S48SFK	Miscellaneous Plant	28/06/2018	\$46,000							\$46,000			
90655	6225	ELECTRONIC SIGN BOARD SAFE-ROADS	S9988TCU	Miscellaneous Plant	9/04/2013	\$46,000				\$46,000				\$46,000		
94975	6226	Cavallo Fertilizer spreader		Parks & Mowing	15/06/2016	\$8,500							\$8,500			
96845	6201	BANDIT WOODCHIPPER	S41SBG	Equipment Parks & Mowing Equipment	23/06/2017	\$102,000		\$102,000					\$102,000			
92144	6209	JOHN DEERE 5090R 4WD	S32SXL	Parks & Mowing Equipment	13/01/2014	\$96,066			\$96,066							\$96,066
93378	6210	Verti-quake turf unit		Parks & Mowing Equipment	28/02/2014	\$24,550		\$24,550					\$24,550			

100168	6212	BANDIT WOODCHIPPER	S79SFA	Parks & Mowing	8/02/2019	\$102,000			\$102,000					\$102,000		
97338	6213	Toro 4010D Ride on Mower	0730171	Equipment Parks & Mowing	24/08/2017	\$105,000		\$105,000	4101,000			\$105,000		ψ102,000		\$105,000
	0213			Equipment Parks & Mowing				\$105,000				\$105,000				
100607	6216	Toro 7010D Groundmaster Gang mower		Equipment	23/01/2020	\$125,000					\$125,000					\$125,000
100728	6241	John Deere Gator Electric	S53S11	Parks & Mowing Equipment	18/12/2019	\$24,000					\$24,000					\$24,000
87100	6219	Ryan sod cuter		Parks & Mowing Equipment	11/08/2009	\$16,500		\$16,500						\$16,500		
100171	6220	AMAZONE SCARIFIER GHL 150		Parks & Mowing Equipment	6/02/2019	\$35,000				\$35,000						\$35,000
93957	6223	Kubota RTV 900xt	S95SYZ	Parks & Mowing	14/01/2015	\$27,206			\$27,206						\$27,206	
98251	6242	KUBOTA RIDE-ON-MOWER 4WD F3690 Rear		Parks & Mowing	13/04/2018	\$31,610		\$31,610			\$31,610			\$31,610		
Not in		Discharge TOPO PIDE ON MOWER converted Edger		Equipment Parks & Mowing				401/010			ψο1,010			ψο1/010		
Conquest	6243	TORO RIDE-ON MOWER converted Edger		Equipment Parks & Mowing	15/09/2005	\$0										
90649	6244	Blower unit attached to Trailer S623TBV		Equipment	23/05/2013	\$5,654					\$5,654					
90643	6245	JOHN DEERE RIDE-ON MOWER-X320		Parks & Mowing Equipment	27/02/2013	\$9,550		\$9,550						\$9,550		
100159	6246	Toro Groundmaster 3280-D		Parks & Mowing Equipment	13/03/2019	\$36,500				\$36,500					\$36,500	
98684	6247	KUBOTA RIDE-ON-MOWER 4WD F3690 Rear Discharge		Parks & Mowing Equipment	9/10/2018	\$31,610		\$31,610			\$31,610			\$31,610		
98686	6248	KUBOTA RIDE-ON-MOWER 4WD F3690 Rear		Parks & Mowing	4/10/2018	\$31,610		\$31,610			\$31,610			\$31,610		
98250	6249	Discharge KUBOTA RIDE-ON-MOWER 4WD F3690 Rear		Equipment Parks & Mowing	16/04/2018	\$31,610		\$31,610			\$31,610			\$31,610		
		Discharge		Equipment Parks & Mowing												
98249	6250	John Deere 1570		Equipment Parks & Mowing	3/04/2018	\$36,550		\$36,550			\$36,550			\$36,550		
98692	6251	BOBCAT S590	S82SFV	Equipment	27/09/2018	\$102,000				\$102,000						\$62,073
94683	6253	Ferrari Ride on Mower PG21		Parks & Mowing Equipment	6/04/2016	\$46,500			\$46,500					\$46,500		
97365	6254	HYDRALADDER CHERRY PICKER 640	S11SDI	Parks & Mowing Equipment	5/12/2017	\$95,000		\$95,000				\$95,000				\$95,000
100027	6255	Ferrari Ride on Mower PG21		Parks & Mowing Equipment	26/03/2019	\$39,628			\$39,628					\$39,628		
98696	6258	Toro 4010D Ride on Mower		Parks & Mowing	22/10/2018	\$104,000			\$104,000				\$104,000			
93899	6259	Flip screen Soil screening unit (6208)		Parks & Mowing	27/08/2014	\$55,800		\$50,725							\$55,800	
				Equipment Parks & Mowing				123,	Ć7F F00						122/222	
95444	6260	Amazone Profihopper PH1250		Equipment Parks & Mowing	30/08/2016	\$75,500			\$75,500							
96846	6261	Bandit 7" Woodchipper	S17SBG	Equipment	27/06/2017	\$55,000				\$55,000						
89926	6208	JD 544K Front End Loader	S61SUY	Tractors	15/11/2011	\$257,363		\$257,363								\$257,363
97315	6205	CATERPILLAR 906K FRONT END LOADER	S85SDU	Tractors	29/08/2017	\$160,930				\$160,930						\$160,930
94652	6206	JCB 3CX Back Hoe	S32SBA	Tractors	27/10/2015	\$177,215	\$140,000									\$177,215
88693	6207	John Deere 512M Tractor	S36STE	Tractors	24/01/2011	\$90,750	\$60,000									
90645	6218	KUBOTA R520S FRONT END LOADER	S71SVV	Tractors	15/03/2013	\$97,617				\$97,617						
90760	6256	TRAILER - GRAFITTI REMOVAL	YDO954	Trailer	18/04/2001	\$9,000		\$9,000								
82051	6460	TRAILER - LINEMARKING	YEB292	Trailer	21/01/2002	\$16,000	\$25,000							\$15,000		
98665	6461	Trailer Treg Dual axle	S600TGI	Trailer	5/09/2018	\$25,000								\$25,000		
95201	6462	TRAILER - LINEMARKING	YCR208	Trailer	16/06/1999	\$16,000	\$16,000									
98246	6463	TRAILER - CAMERA UNIT	S488TGH	Trailer	28/02/2018	\$125,000								\$125,000		
87151	6464	TRAILER - TORO - TREG	S532TAS	Trailer	11/02/2010	\$18,000			\$18,000							
95199	6467	TRAILER - TILT GARDEN TREG	TBX588	Trailer	25/11/1986	\$6,500										

81984	6468	TRAILER - BITUMEN	YEV867	Trailer	27/02/2003	\$0			\$10,275							
95198	6469	TRAILER - Kessner Blue 6x4	YCG997	Trailer	29/10/1998	\$1,200		\$1,200	, ,,							
82050	6471	TRAILER 7X5 ENCLOSED	YDR758	Trailer	28/06/2001	\$8,000		\$8,000								
98252	6472	TRAILER - ENCLOSED - Furniture	S040TGF	Trailer	25/05/2018	\$8,600		7 - 7 - 1				\$8,600				
97845	6473	TRAILER - HYDRALADA	S668TGF	Trailer	8/02/2018	\$21,000		\$21,000				\$21,000				
81986	6474	Trailer Dual Axle - grass	YGD013	Trailer	29/06/2005	\$23,500					\$23,500					
82919	6475	Trailer Treg Dual Axle - Bitumen	YHT514	Trailer	18/09/2007	\$15,000		\$15,000								
87102	6476	Trailer Dual Axle - Green - Kanga	YIG459	Trailer	14/09/2009	\$16,000				\$16,000						
94599	6477	Trailer Dual Axle - Tree Planting	S401TEE	Trailer	1/07/2015	\$23,500					\$23,500				\$23,500	
81985	6460	Trailer - Single Axle Box Home Assist	YEC810	Trailer	17/02/2004	\$8,500				\$8,500						
81987	6478	Trailer Dual Axle - Home Assist	YGB363	Trailer	28/06/2005	\$14,500				\$14,500						
90604	6479	Trailer Single Axle - Line Marking	S230TCL	Trailer	4/09/2012	\$16,000			\$16,000					\$16,000		
90746	6480	Trailer Treg Dual Axle Tipper (6244 attached)	S623TBV	Trailer	23/05/2013	\$15,696									\$15,696	
90639	6481	Trailer Treg Dual Axle - Toro mower GM360	S606TBV	Trailer	28/12/2012	\$23,500								\$23,500		
100172	6482	Trailer Treg Flat Top dual axle 12x8 - Mower	S615TGI	Trailer	28/032019	\$24,500					\$24,500					
88692	6483	Trailer Treg Single Axle - Mower	S910TBJ	Trailer	17/12/2010	\$16,155					\$16,155					
88686	6484	Trailer Treg Single Axle - Mower	S911TBJ	Trailer	21/12/2010	\$16,155					\$16,155					
94724	6486	Trailer Treg Beaver back - Mower	S439TFF	Trailer	30/06/2016	\$25,500					\$25,000					
95451	6487	Trailer Treg Linemarker	S650TFC	Trailer	28/09/2016	\$18,500				\$18,500						
100173	6488	TRAILER Treg Single Axle 5T - BOBCAT	YS27AW	Trailer	21/12/2018	\$40,000							\$40,000			
100186	6489	Trailer - Modern Enclosed Comm. Development	S014TGZ	Trailer	11/04/2019	\$3,500									\$3,500	
100158	6013	Hino 2t Truck	S271CBO	Trucks	6/08/2019	\$86,849					\$86,849					
100498	6034	Hino 921 Concrete tray top truck	XX00BV	Trucks	23/07/2019	\$104,000				\$104,000						
96791	6036	Isuzu FRR 110-260 Water truck - tipper	SB83LZ	Trucks	26/10/2016	\$125,000		\$125,000							\$109,704	
98691	6037	Isuzu NQR 450 Tipper	XS99AU	Trucks	20/11/2018	\$110,000			\$110,000							\$110,000
88491	6038	Isuzu FRR600 Water truck - tipper	SB03KT	Trucks	2/11/2015	\$210,000					\$210,000					
88978	6039	Hino Water truck with hook-lift	SB50PC	Trucks	26/06/2018	\$194,458							\$171,769			
99387	6041	Hino FG500 with Hook-lift	XS11BO	Trucks	28/05/2019	\$212,000								\$212,000		
94682	6042	Fuso 918 with 3 way bitumen tipper	SB74LM	Trucks	25/04/2016	\$135,000	\$35,000							\$135,000		
In build	6043	Isuzu NPR300 Tipper	TBC	Trucks	18/06/2020	\$108,502									\$108,502	
In build	6047	FUSO 7T Chipper Truck	XS08CV	Trucks	12/06/2020	\$166,682									\$166,682	
90603	6049	Fuso 4T Paving truck - 3 way tip w/crane	SB12FT	Trucks	31/08/2012	\$104,034			\$104,034							
100160	6050	Hino 500 FE 1426 Water truck with hook-lift	XS97BH	Trucks	16/04/2019	\$185,892							\$185,892			
98664	6053	Hino 2t Truck	S573BXM	Trucks	20/09/2018	\$100,588				\$100,588						\$100,588
98666	6054	Hino 2t Truck	S562BWS	Trucks	18/07/2018	\$91,771				\$91,771						
94225	6055	Mitsubishi 4T Tipper	SB77KG	Trucks	5/06/2015	\$98,769		\$89,790							\$98,769	
94655	6057	Mitsubishi /GMJ tree tower	SB67KX	Trucks	10/11/2015	\$285,000			\$320,000							
90756	6058	Fuso Canter 4T Tipper	SB45GS	Trucks	20/06/2013	\$105,000	\$110,000									
96792	6059	Isuzu FRR 110-260 Water truck - tipper	SB72LZ	Trucks	30/08/2010	\$125,000		\$125,000						\$125,000		
In build	6064	Isuzu NPR300 with 3-way Tipper	TBC	Trucks	18/06/2020	\$113,892								\$113,892		
95224	6065	Isuzu 850 Chipper truck	SB87LK	Trucks	29/07/2016	\$155,000					\$155,000					
100730	6066	Hino FG500 Tipper	XS99BR	Trucks	9/03/2020	\$175,924									\$175,896	
98674	6069	Fuso 918 Tray Top	XS70AO	Trucks	29/09/2018	\$112,433					\$79,752					

93961	6070	Isuzu NPR400 Tipper	SB14JI	Trucks	12/09/2014	\$119,690	\$108,000									\$101,864
In build	6073	Isuzu NPR300 Tipper	TBC	Trucks	18/06/2020	\$108,502								\$108,502		
97344	6074	Isuzu NPR 75-190 3 way rear Tipper	SB64MX	Trucks	20/10/2017	\$118,000								\$118,000		
97318	6075	Isuzu NPR 75-190 rear Tipper	SB63MX	Trucks	30/08/2017	\$115,000								\$115,000		
96823	6076	Hino 300 816 rear Tipper	SB41MU	Trucks	30/05/2017	\$114,602				\$115,000						
96821	6077	Hino 300 816 rear Tipper	SB77MP	Trucks	30/05/2017	\$114,602				\$115,000						
93896	6078	FUSO 4T Tipper with Crane	SB08JC	Trucks	18/08/2014	\$114,602			\$115,000							\$114,602
94611	6079	Fuso Tray Top Rapid Response	SB49KR	Trucks	23/09/2015	\$155,000					\$155,000					
		Various Minor Equipment					\$15,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
		Resale of Vehicles, Plant and Equipment					-\$475,200	-\$684,562	-\$529,633	-\$585,758	-\$574,337	-\$456,377	-\$381,397	-\$705,635	-\$545,871	-\$755,436
					TOTAL	\$11,261,504	\$841,800	\$1,369,397	\$1,300,833	\$1,225,202	\$1,429,343	\$607,941	\$1,378,230	\$1,835,851	\$859,872	\$1,637,870

Notes

- 1 Motor Vehicle RRP \$ from Glass's Guide on internet
- 2 Machinery based on Dealers Price \$
 Plus 10 % GST + 8% Price Increase
- 3 Trucks based on Dealers Price \$
 Plus 10 % GST
- 4 Trailers based on Manufacturers Price \$
 Plus 10 % GST
 If > 6 yrs old + 20% Price Increase
 If < 6 yrs old + 10% Price Increase
 If > 12 yrs old + 40% Price Increase
- Resale value of assets is based on historical resale values
 Buses and Vans 6% of current replacement cost
 Cleansing Plant 4% of current replacement cost
 Light Commercial 50% of current replacement cost
 Light Passenger 60% of current replacement cost
 Parks and Mowing Equipment 20% of current replacement cost
 Tractors 30% of current replacement cost
 Trailers 20% of current replacement cost
 Trucks 30% of current replacement cost

Appendix B Acquisition Forecast

B.1 – Acquisition Forecast Summary

Table C1 - Acquisition Forecast Summary

Year	Forecast Acquisition Expenditure	Acquisition Budget
2020/21	\$154,500	-
2021/22	\$90,000	-
2022/23	\$180,000	-
2023/24	-	-
2024/25	-	-
2025/26	-	-
2026/27	-	-
2027/28		-
2028/29	-	-
2029/30	\$90,000	-

B.2 – Acquisition Project Summary

Year	Project	Estimate
2020/21	Slop Mop Vacuum Unit	\$23,500
2020/21	Concrete Grinding Unit Trailer	\$16,000
2020/21	Tree Planting Trailer	\$26,500
2020/21	Workshop Minor Plant Hoist	\$8,500
2020/21	Fleet Management Hardware - Vehicle Data Analysis	\$50,000
2020/21	Truck Scales	\$17,000
2020/21	Fuel Trailer, Diesel, 1000L	\$13,000
2021/22	Truck Upgrades- Electric Vehicles	\$90,000
2022/23	Truck Upgrades- Electric Vehicles	\$180,000
2029/30	Truck Upgrades- Electric Vehicles	\$90,000

Appendix C Forecast Expenditure and Long Term Financial Plan

Table C1 – Forecast Expenditure and Long Term Financial Plan

Year	Acquisition	Renewal	Total	LTFP	Shortfall (-)	Cumulative Shortfall (-)
2020/21	\$154,500	\$841,800	\$996,300	\$996,300	\$0	\$0
2021/22	\$90,000	\$1,369,397	\$1,459,397	\$1,518,069	\$58,672	\$58,672
2022/23	\$180,000	\$1,300,833	\$1,480,833	\$1,514,744	\$33,911	\$92,583
2023/24	-	\$1,225,202	\$1,225,202	\$1,511,425	\$286,223	\$378,806
2024/25	-	\$1,429,343	\$1,429,343	\$1,508,113	\$78,770	\$457,576
2025/26	-	\$607,941	\$607,941	\$1,504,807	\$896,866	\$1,354,442
2026/27	-	\$1,378,230	\$1,378,230	\$1,501,508	\$123,278	\$1,477,720
2027/28	-	\$1,835,851	\$1,835,851	\$1,498,216	-\$337,635	\$1,140,085
2028/29	-	\$859,872	\$859,872	\$1,494,929	\$635,057	\$1,775,142
2029/30	\$90,000	\$1,637,870	\$1,727,870	\$1,491,649	-\$236,221	\$1,538,921

