STRATEGIC ASSET MANAGEMENT PLAN 2021 - 2031

Port Pirie Regional Council

Port Pirie
Regional Council

REVISION HISTORY

Rev No	Date	Revision Details	Author	Reviewer	Approver
Draft		Draft for public consultation	PPRC/Tonkin	PPRC	PPRC
Final	June 2023	Final	PPRC/Tonkin	PPRC	PPRC

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EXECUTIVE SUMMARY

The Purpose of the Plan

Asset management planning is a comprehensive process ensuring delivery of services from infrastructure is financially sustainable.

This Asset Management 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 10-year planning period. The Asset Management Plan will link to a Long-Term Financial Plan (LTFP) which typically considers a 10 year planning period.

Asset Description

The assets contained within this plan have a total value of **$385 million** and comprise of the following:

- Bridges
- Buildings, structures and site improvements
- CWMS
- Drainage
- Sealed and unsealed roads, kerb, footpath and traffic control devices
- Plant and equipment.

What does it cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan including operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is **$161 million**, averaging **$16.18 million** per year.

An additional **$42 million** of renewal and upgrade works are proposed to be undertaken within the 10 year plan, however are not currently accounted for in the LTFP due to budget constraints. To fund these works, Council will seek external funding (such as grants or loans). The works will continue to be deferred until the funding is available.

The infrastructure reality is that only what is funded in the Long Term Financial Plan can be provided. The emphasis of the Asset Management Plan is to communicate the consequences that this will have on the service provided and risks, so that decision making is "informed".

To fund the additional works that are not currently accounted for in the LTFP, Council will seek funding from external sources, such as the Local Roads Community Infrastructure Program and the Local Government Infrastructure Partnership Program, or via loans. These costs have not been accounted for in the Long Term Financial Plan, however is shown in the Overall Lifecycle Summary below.

A summary of the 10 year capital plan is included in Appendix A.

What we will do

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding over the 10 year planning period is **$162 million**, averaging **$16.24 million** on average per year.

The allocated funding leaves a surplus of **$64,380** on average per year of the projected expenditure required to provide services in the AM Plan compared to the planned expenditure currently included in the Long Term Financial Plan. This indicates **100.4%** of the projected expenditures needed to provide the services documented in the asset management plan. This indicator excludes the works proposed to be funded via external sources, such as grants and loans.

The surplus available in the LTFP, as noted above, will be allocated to the unfunded projects. The projects will continue to be deferred until the funding is available, therefore it is recommended that Asset Management Committee undertake a workshop and risk assessment to determine the required upgrade works and accept the risk trade-off should any works go unfunded.

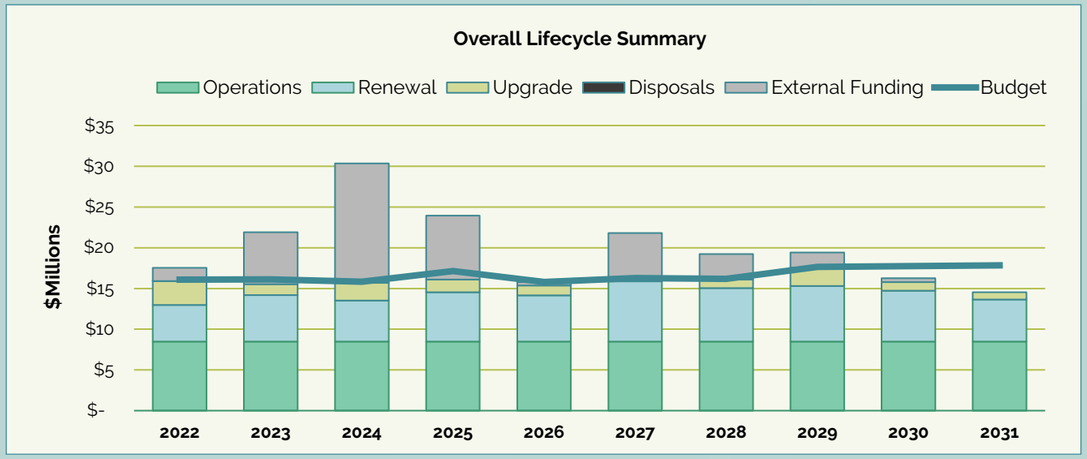
The overall funding demands and the Long Term Financial Plan is shown in figure 'Overall Lifecycle Summary'.

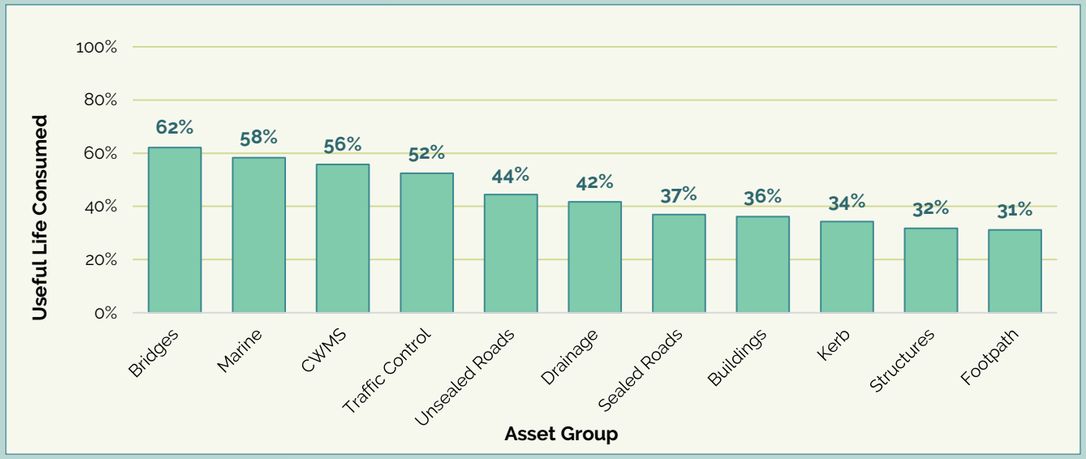
Consumption

The consumption of the assets are measured by the Accumulated Depreciation divided by the Fair Value, indicating how much of the asset class has been consumed based on the level of service. The majority of assets are less than **50%** consumed. The consumption is highlighted in the figure 'Asset Consumption'.

Currently most assets are in average condition and money will need to be spent to ensure the current level of performance is maintained. However, investment must be targeted at current assets and not investing in new assets other than those identified in the Capital Works Program.

It should be noted that in many cases accurate data relating to the original construction date of most assets is not available. Over time, more accurate data will be collected to improve the understanding of the condition of the assets and remaining useful lives.





INTRODUCTION

What is an Asset Management Plan

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

Port Pirie Regional Council aims to achieve a balance of financial, environmental, social and political goals that reflect both the short term and long term needs of the wider community. There is an ongoing commitment to continuing major projects, addressing an infrastructure backlog and responding to community priorities, so far as Council's limited resources allow.

This Asset Management Plan (including Capital Works Program) provides a strategy to manage, renew, replace and its significant fixed asset base. As these assets predominantly comprise major community infrastructure assets it is imperative that there is an appropriate link and consistency between the Asset Management Plan and the Long-Term Financial Plan, in that the latter Plan provides for the necessary capital outlays for their renewal, replacement and upgrade.

The Long-Term Financial Plan period is from 2020-30.

What Council owns

Port Pirie Regional Council owns and is responsible for the management, operation and maintenance of a diverse asset portfolio that provides services to all regional users. Below is a list of asset categories included in this plan:

- Roads
- Kerbing
- Footpaths
- Other Road Infrastructure
- Stormwater Drainage
- Bridges
- CWMS
- Buildings and Land
- Structures and Site Improvements.
- Plant and Equipment.

Asset overview

Asset Class	Types	Quantity	Additional Detail
Bridges	Bridges	6 bridges	Various locations
Buildings	Buildings	116 buildings	51 sites
CWMS	Mains (pipework)	4.7km	Napperby
		21.2km	Crystal Brook
	Nodes (flushing point, inspection point, maintenance hole)	252 assets	Napperby
		780 assets	Crystal Brook
	Electrical, Mechanical and Pipework Assets	38 assets	Napperby Treatment & Reuse Site
	Civil and Structures Assets	20 assets	Napperby Treatment & Reuse Site
	Electrical, Mechanical and Pipework Assets	9 assets	Crystal Brook Treatment Plant
	Civil and Structures Assets	16 assets	Crystal Brook Treatment Plant
	Electrical, Mechanical and Pipework Assets	7 assets	Crystal Brook Pump Station
	Civil and Structures Assets	2 assets	Crystal Brook Pump Station
	Septic Tank	1 asset	Crystal Brook Caravan Park
	Electrical and Mechanical Assets	2 assets	Crystal Brook Caravan Park
Drainage	Stormwater drains (pipes and box culverts)	53.5km length	Various locations
	Stormwater nodes (pits, headwalls and tidal valves)	1,411 each	Various locations
	Stormwater pump stations	6 pump stations	Various locations
	Township and rural cross drains	454 cross drains	Various locations
	Floodways	20 floodways	Various locations
	Other (levee and HDPE liner)	2 assets	Magor Road Stormwater retention basin & Wandearah Catchment Levee wall
Marine	Marine structures	14 assets	Including boat ramps, pontoons, jetties, board walks and dry docks
Structures & Site Improvements	Structures and site improvements	2,975 assets	Various locations within Port Pirie, Crystal Brook, Redhill and other small townships. Includes structures such as fencing, irrigation, playgrounds, etc.
Transport	Footpath	60.5km	Includes bitumen, concrete and paved footpaths
	Kerb	315km	Local and DIT roads
	Sealed roads	331km	Township and rural
	Unsealed roads	649km	Township and rural
	Traffic control devices	258 assets	Includes kerb extensions, crossings, protuberances, road humps, and roundabouts
Plant & Equipment	Graders, loaders, tractors, trucks, utilities, sweepers, mowers, cars and other.		

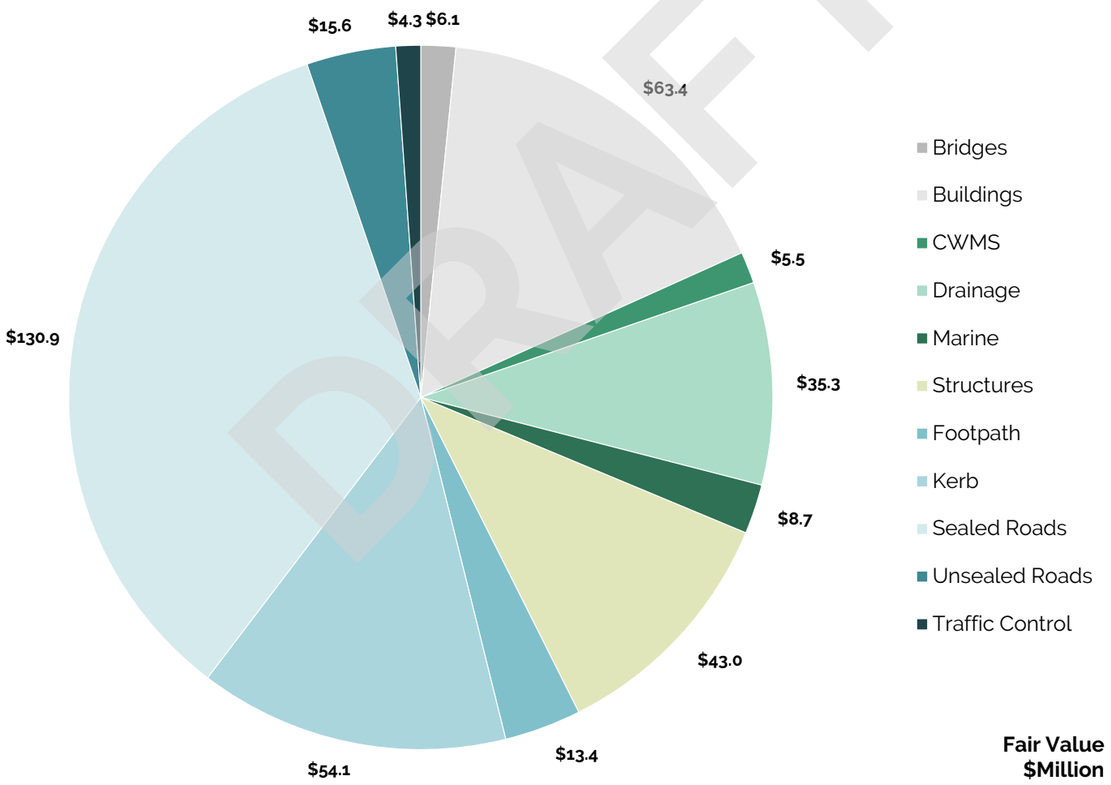
Asset Value

Council periodically revalues its assets to determine the current replacement cost of its assets. Revaluations are performed when it is considered that the carrying amount of the asset class may differ materially from the fair value of the class.

The Fair Value of Council's assets (excluding land) as at 30 June 2021 is **$385 million**.

Plant and Equipment values were sourced from Councils Finance system, Synergy. All other assets were sourced from 'Asset Movement Report 2020-2021' as the Closing Cost.

The breakdown of the fair value of each asset category is provided in the following pie graph.



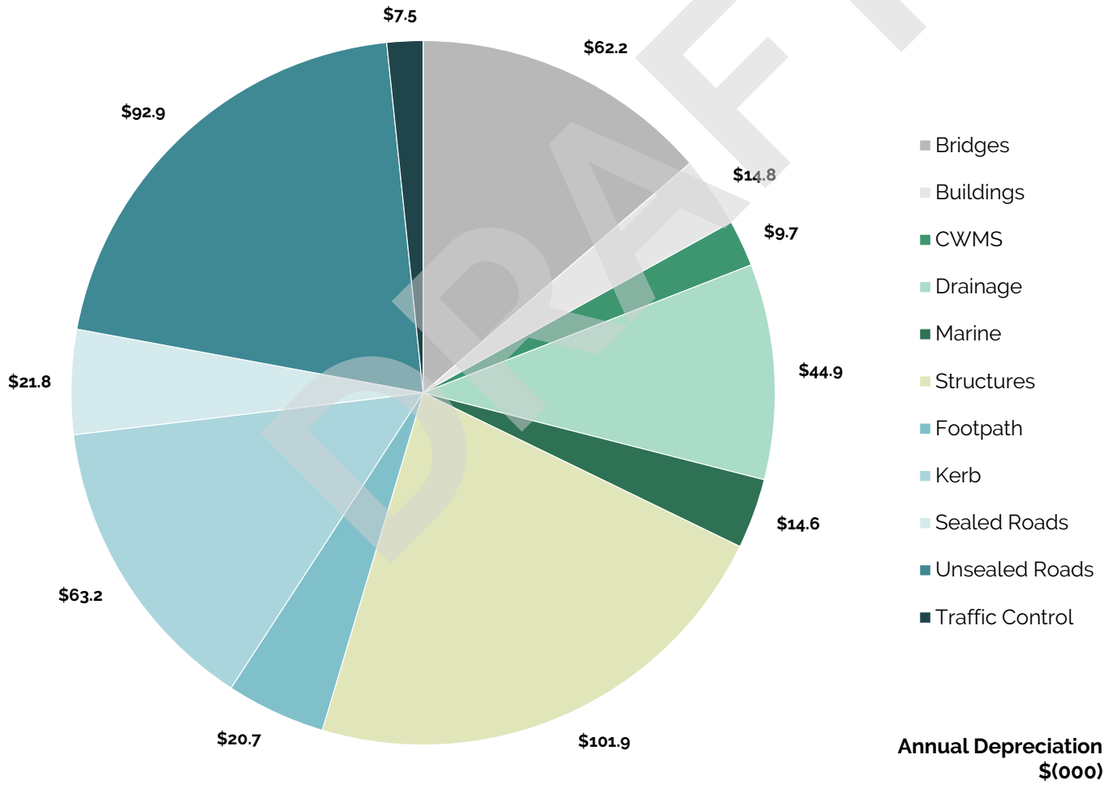
Annual Depreciation

The depreciation expense can be used as an indicator for what Council needs to spend on renewing its assets.

The total annual depreciation for all asset classes (excluding land) reported in this plan is **$7.84 million**.

Plant and Equipment annual depreciation values were sourced from Councils Finance system, Synergy. All other assets were sourced from 'Asset Movement Report 2020-2021' as the Expense.

The annual depreciation for each asset class is shown in the figure below.



Goals and Objectives

This Asset Management Plan has been prepared within the direction of Council's vision, mission, goals and objectives as detailed in its Strategic Plan.

Council Vision:

Regional Leader Economic Hub Quality Lifestyle

By 2030 the Port Pirie Region is the premier regional centre in South Australia where residents and visitors want to be.

Council Mission:

> *To be a progressive organisation that strives for excellence, leads with integrity and delivers positive outcomes for the community.*

The Asset Management Plan has strong linkages with Council's goals and objectives, as detailed in the 'Organisation Values and Objectives' table.

Asset Management Policy

Council first adopted its Asset Management Policy in September 2015 and last reviewed the policy in February 2021. The purpose of an asset management policy is outlined in the International Infrastructure Management Manual as:

> *Asset management policy and strategy development translates an organisation's broad strategic outcomes and plans into specific objectives, targets and plans relevant to a particular portion of the organisation .*

An adopted asset management policy provides the framework which, together with the organisational strategic plan, enables the asset management strategy and specific objectives, targets and plans to be produced.

Plan Framework

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- taking a lifecycle approach,
- developing cost-effective management strategies for the long term,
- providing a defined level of service and monitoring performance,
- understanding and meeting the demands of growth through demand management and infrastructure investment,
- managing risks associated with asset failures,
- ensuring sustainable use of physical resources,
- Implementing continuous improvement in asset management practices.

Further to this the Asset Management Plan will:

- identify and classify all assets held by Council
- address levels of service and desired levels of service
- address funding requirements
- incorporate asset sustainability strategies
- incorporate the Capital Works Program as its schedule of proposed works.

The Asset Management Plan provides an overview of the current state of Council's assets by providing a detailed overview for each asset class. The Asset Management Plan provides the background for the development of the draft Capital Works Program.

Organisation values and objectives

Service Delivery Excellence	Accountability		Honesty, Integrity and Transparency	Ethical Behaviour and Good Governance		Inclusivity	Team Work and Professionalism
Council will ensure that its services meet quality, cost and efficiency standards; are responsive to the needs of the community, accessible to all members of the community for whom they are intended and represent value for money	Council acts on behalf of its communities and accepts accountability for its decisions and actions		Council through its actions and open and honest communication will strive to be valued and trusted by the community	Council values ethical conduct and employs principles of good governance		We act on behalf of all residents and ratepayers. We value the community and will treat all people with dignity, respect and equity	We value a cohesive team approach where the elected Council and the administration work together to lead the region forward with appropriate skills, knowledge and experience

Levels of Service

Current Levels of Service

Service levels can be defined in two terms: community levels of service and technical levels of service.

It is important to monitor the service levels provided regularly as these will change. The current performance is influences by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

Community Levels of Service

Community levels of service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the Asset Management Plan are:

Quality	**How good is the service?**
Function	**Does it meet users' needs?**
Capacity/Utilisation	**Is the service over or under used?**

Within each of these measures are the Key Performance Indicator (KPI) metrics of Level of Service Objective, Performance Measure Process, Desired Service Level and the Current Level of Service.

In 2015 and 2017 Council surveyed the community to seek their views to help Council to utilise the information in its Community Plan and to develop performance measures of Quality, Function, Capacity Utilisation, Accessibility and Safety.

Technical Levels of Service

Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Technical service measures are linked to annual budgets covering:

Operations	the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc.
Maintenance	the activities necessary to retain an asset as near as practicable to an appropriate service condition (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 (e.g. frequency and cost of road resurfacing and pavement reconstruction, pipeline replacement and building component replacement)
Upgrade	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)

The information used to determine the current levels of service has been gathered through physical data collection, consultant reports, staff knowledge and many other sources. It is expected that over the next 2-3 years, the quality of Council's asset data will improve significantly, which will lead to more accurate costing and reporting of levels of service.

Desired Levels of Service

Desired or future levels of service have been considered in the context of asset management as follows:

- Future operations, maintenance and renewal requirements are based on current and future demand forecasts.
- Management of existing assets can be better modelled when demand is considered.
- More educated decisions can be made to upgrade existing assets when demand by the community can be understood.
- Decisions regarding provision of new assets can be better made.
- The implementation of non asset solutions can be enhanced.

Factors effecting desired or future levels of service include but are not limited to:

- Population (Increase/decrease)
- Demographics
- New (and in-fill) development
- Increased legislative demands
- Increased environmental demands
- Market conditions
- Resources
- Increase in percentage of people from urban areas for 'tree change' reasons
- Industrial development in areas requiring bridge upgrades
- Progressive move to environmentally sustainable and recyclable materials to achieve sustainability goals.
- Changes in construction materials, techniques and equipment to maximise on opportunities to build more efficiently and in harmony with the environment.
- Improved design techniques adopted to arrive at more durable and utilitarian designs of public facilities to reduce maintenance costs
- Building management systems to be more capable of providing universal comfort level effectively
- Computerised asset management system
- The development of Geographic Information Systems (GIS) and mobile mapping (GPS).

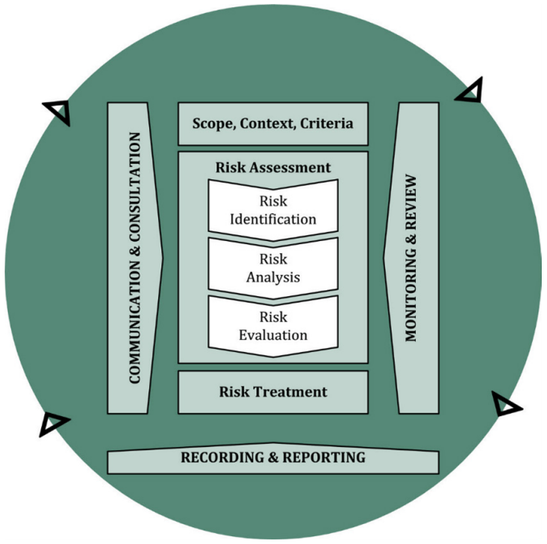
Risk Management

The purpose of infrastructure risk management is to document the results 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 31000:2009 Risk management – Principles and guidelines.

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

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock'. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

The risk management process used in this project is shown in the figure below.



Source: ISO 31000:2018, Figure 1, p9

Operational and Capital Expenditure

Council is responsible for the management, operation and maintenance of its assets and in doing so aims to operate and maintain its asset network to achieve the following objectives:

- Ensure the assets contribute to strategic objectives by providing the required levels of service.
- Ensure the assets are maintained at a safe and functional standard which will be set out in this Asset Management Plan.
- Ensure the inspection and maintenance plans for all assets are sufficient to meet the legislative and operational requirements in order to deliver the required levels of service to the community.

In the lifecycle of the assets, Council will also plan for capital renewal and replacement projects to meet the level of service objectives and minimise risks associated with infrastructure failure.

The lifecycle costs of an asset need to be budgeted for and the impact of doing so is explained in the following section.

Operations and Maintenance Expenditure

Definitions of the various types of expenditure are provided as follows:

- **Operational Expenditure** is generally recurrent expenditure, continuously required to provide a service, typically including power, fuel, staff, plant and equipment, on- costs and overheads.
- **Operating Expense** is the gross outflow of economic benefits, being cash and non cash items, arising in the course of ordinary activities of an entity, typically including depreciation.
- **Maintenance Expenditure** is recurrent expenditure which is periodically or regularly required to ensure that the asset achieves its useful life and provides the required level of service. Maintenance can include:
  - **Planned** work identified through a maintenance management system, through inspection, assessment, prioritisation, actioning and reporting, to form a reliable history to improve future delivery and performance.
  - **Unplanned**, corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service.
  - **Reactive** works undertaken in response to service requests and management direction.
  - **Significant**, major work as detailed in long term maintenance budgets.

Capital Expenditure

Capital expenditure is relatively large expenditure, which will produce benefits expected to last for more than 12 months. Types of capital expenditure are as follows.

Capital Renewal

Expenditure on an existing asset or to replace an existing asset, which returns it to its original service capability. Typically includes resurfacing or re-sheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, replacing a building or structure with a similar asset.

Capital Upgrade

Expenditure which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Typically includes widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a building or structure.

Capital New

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. It will increase future operations and maintenance expenditure.

Capital Works Planning

The Capital Works Plan 2021 - 2031 provides a list of projects and acquisitions and their proposed priority, expected timing and estimated cost.

Ultimately, the Capital Works Program seeks:

- To achieve an average Asset Renewal Funding Ratio of approximately 100%
- To include new and additional infrastructure assets to cater for the anticipated future demands and growth of the community; and
- To provide a responsible, consistent and affordable expenditure program over the term of the Program.

The Capital Works Plan was developed based on a series of workshops with internal stakeholders, condition data, community requests, and previous investigations/studies. The Capital Works Plan provided the current desired funding requirements for the renewal and upgrade of assets. The funding requirements are detailed within this Asset Management Plan.

BRIDGES

Background

The operational bridges covered by this asset management plan are:

- Butlers Bridge
- Sims Hill Bridge
- Butlers Overflow Bridge
- Redhill Bridge
- O'Shaughnessy Bridge
- Koolunga Bridge (Hopes Crossing).

Bridge infrastructures provide a valuable link for roads for regional and local communities across waterways and need to cope with the ever-changing demand for traffic loading.

The goal in managing infrastructure assets is to meet the required level of service in the most cost-effective manner for present and future consumers.

The condition assessment undertaken for bridge assets was undertaken in 2019, therefore this Asset Management Plan is reporting with old data. PPRC are planning on undertaken a new condition assessment in the near future. The plan will be updated accordingly.

Lifecycle Management Plan

Renewal and Upgrade

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year. A visual field assessment was undertaken in 2019, and the condition has supported the renewal program. Community requests have also been considered in the plan. As bridges typically are a long life asset, this resulted in minimal renewal work required in the short term period.

Capital Renewal forecast on existing assets is a total of **$95,000** over the 10-year period.

Butlers Bridge (photo below) was scheduled for upgrade in 2020-21, however this work has been carried over to 2021-22. No additional funding was required therefore it has not been accounted for in the 10 year plan.

$495,000 has been proposed for the construction of new culverts over the Rocky River at Merriton to replace the bridge in private land. This is currently not funded in Councils LTFP, therefore Council will seek external funding (such as grants or loans) to undertake these works. Council will continue to defer the works until external funding has been secured.

For further details on the development of the Renewal and Upgrade plan, refer to 'Capital Works Plan' section on the following page.

Operational and Maintenance

PPRC undertake regular inspections and adhoc inspections resulting from community requests to ensure they are suitable for purpose with no critical defects that affect the function and safety.

Future operations and maintenance expenditure is forecasted to be **$20,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets. This financial indicator excludes projects that require external funding.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$29,500** on average per year, excluding external funding.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$29,500** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

Council will need to consider the need and demand for the construction of new culverts over the Rocky River at Merriton. Due to the budget constraints, Council will need to consider funding these works by grants or loans.

Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Port Pirie Region – 17,364 (ABS 2016 Census QuickStats)	Can affect future capacity and utilisation requirements	Medium impact – may result in upgrade of bridges
Industrial Development & Freight Movement	Deterioration of pavement material caused by freight movements	The current operational bridges are in good condition to handle the increased volume of traffic. Periodical condition assessments to be conducted	Low impact
Rural Region	Heavy vehicles movement between townships	Impacting structural stability and requiring additional services	Assess load limits and direct heavy vehicles in alternate paths
Community Expectations	Community require safe and functional bridges to allow movement between townships and support freight movement	Increased pressure to upgrade services	Upgrade of bridges if not meeting communities' level of service
Environmental Impacts	Flooding causing washout of pavement material leading up to bridges	Continuation of pavement washout. Hazardous road conditions leading up to bridge	Medium impact - Upgrade surface with asphalt

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service. The renewal plan was developed based on the expiry of assets over the 10 year period stored within Councils Asset Management System, Conquest.

Conquest holds information on all of Council's Bridge assets at component level, including length/size, value, useful life, condition, construction year and expiry date. Conquest was utilised to assist the future renewal costs of the Bridge assets.

Bridge inspections were undertaken in 2019 to determine the current condition of each bridge at component level. The condition data and field inspection findings were used to assist the renewal program.

The Capital Works program includes resurfacing the approach for the following bridges:

- Koolunga Bridge (Hopes Crossing)
- Redhill Bridge
- O'Shaughnessy Bridge.

PPRC is also planning on replacing Merriton Bridge with culverts.

PPRC undertook a planning workshop with the appropriate Council staff to refine the program, however is subject to change depending on funding.

Levels of Service

Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Bridges are to be kept and maintained to a functional standard	Number of service requests from users per annum	Measured in Synergy Soft through a customer request system	< 2 service requests per annum
Function	Provide a Bridge that is fit for purpose and meets community user requirements	Regular contact with users and proactive inspections	Two community surveys completed in the last 5 years. Condition rating done in 2019 Reactive maintenance done as required	< 2 service requests per annum Annual traffic counting & Council inspections High use bridge (annually) Medium use bridge (bi-annual) Low use (every 5 years)
Capacity / Utilisation	Provide a bridge that has capacity matched to the need of the community	Formal reviews of high use Bridges	No formal reviews	High use 2 years. Medium use 4 years Low use 6 years
Accessibility	Provide a bridge that is accessible and safe to all	The bridge is useable for all types of transport systems	Not currently measured	Compliance for high use bridges
Safety	Provide a safe suitable bridge that is free of hazards	Number of injury/ incident reports	Incidents are reported and hazards are rectified if practicable. If not, hazards are identified and signed. Rectifying hazard will be planned in the Capital Works Program	Zero incidents per year

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Ensure all bridge components achieve maximum life and have a serviceably performance Apply useful life reviews Effective management of assets	Condition assessments Random assessments resulting from customer requests Inspection frequency Useful life review	Condition audit in conjunction with Conquest provide priority of work Condition inspection every 2 – 6 years Compliance inspections to standard frequency	Annual review of useful life in accordance with accounting standards. Condition inspection every 2 – 6 years Compliance inspections to standard frequency. Capital and maintenance set up and operational in Conquest – Asset Management system. Useful life review taking into account the condition audits. Independent verification from consultant
Maintenance	Bridges are suitable for purpose	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within an Asset Management System
		Planned maintenance activities completed to schedule	Previous inspection data used to inform maintenance tasks	Capital works and maintenance program utilised in an Asset Management system
Renewals	Ensure minor components are replaced when due so that the Bridge continues to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on previous inspections	Identifying renewals from the Asset Management system at a component level based on recent condition assessments
Upgrade / New	Ensure bridge network is upgraded to meet all relevant legislation, new standards and modern needs (some bridges will be replaced with culverts and fords)	Elected member requests Government funding Crash data	Reporting on project from start to completion	Time frames met Use of Federal/State funding Bridge condition average of 3
		Number of upgrades identified in Upgrade Plan	Projects are defined in response to grant funding	Upgrade plans approved by Council and funded through the Long Term Financial Plan

Risk Management

Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Guard Railing at all bridges	Guard rails non-compliant	Vehicle falling over the side of a bridge. Guardrail has recently been replaced for O'Shaughnessy's, Redhill and Koolunga bridges

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Merriton Bridge over River Broughton (adjacent to Clements road DPTI bridge)	Out of service and heritage listed
Old Redhill Bridge	Out of service and heritage listed

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

Critical risks and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Bridges	Structural failure causing restricting access, possible loss of life, increase of maintenance costs, and/or creating detours	H	Timely reporting by DPTI on formal inspections, annual inspections by PPRC, identified works to be funded and rectified
Bridge and Property	Over-loaded vehicle damages bridge	H	Load limit signs in place in line with advice from technical inspections
Bridge and Environment	Stormwater flow exceeds bridge capacity	H	Where bridge deck is likely to go under water in an event, install flood depth markers.

BUILDINGS

Background

The building infrastructure assets covered by this asset management plan provide the following services:

- Corporate service (administration, and depot);
- Community (sporting clubs, community centres, and libraries);
- Commercial assets (leased to third parties for a commercial return); and
- Facilities (including public toilets and pools)

The plan reports on 129 Buildings, located across a total of 49 sites within the following townships:

- Crystal Brook
- Koolunga
- Mundoora
- Napperby
- Nelshaby
- Port Pirie
- Redhill
- Warnertown.

Lifecycle Management Plan

Renewal and Upgrade

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year.

Building inspections were undertaken in 2017 by Council to staff to develop an inventory of building components and determine the replacement year and cost. The renewal plan includes the building component renewal actions developed from the inspections.

Capital Renewal forecast on existing assets is a total of **$2,634,500** over the 10-year period.

Various upgrade projects are planned to be undertaken, including the following:

- Design and Install Solar Panels to various buildings
- Upgrade T&A Centre, Art Gallery Entrance, and Library Entrance.
- Install new Hangar at aerodrome.

Capital Upgrade forecast for assets is a total of **$125,000** over the 10-year period.

$400,000 has been proposed for the construction of Aerodrome passenger room for 2025/26. This is currently not funded in Councils LTFP, therefore Council will seek external funding (such as grants or loans) to undertake these works. Council will continue to defer the works until external funding has been secured.

Operational and Maintenance

As a result of the condition assessment of building components undertaken in 2017, an action plan was developed to inform Council the components that require replacement and the corresponding cost.

This action list was further detailed to separate capital and operational actions. This allowed Council Administration to prepare an informed planned maintenance program and support the capital renewal program. The action list was further reviewed by Council Administration and the action dates were adjusted accordingly.

Future operations and maintenance expenditure is forecasted to be **$1,251,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

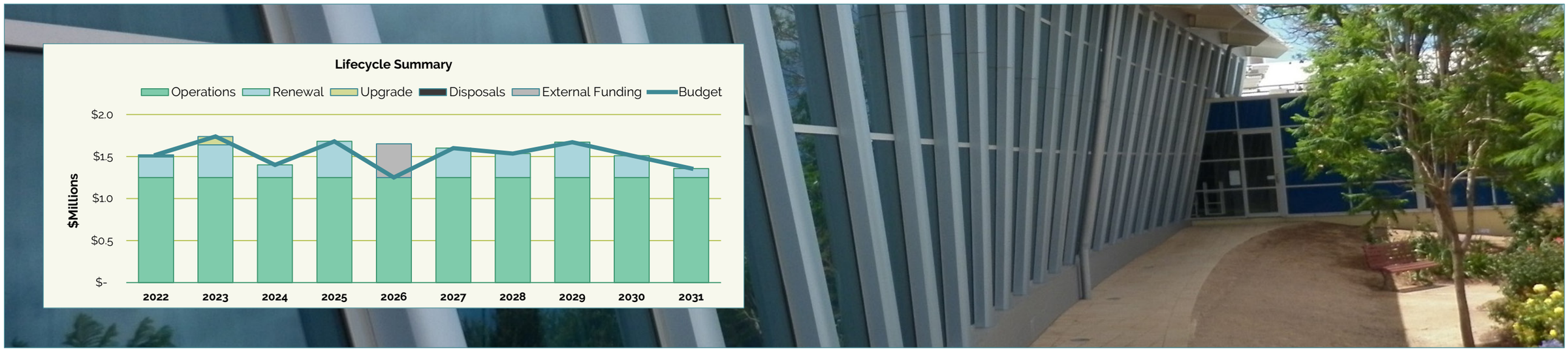
The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets. This financial indicator excludes projects that require external funding.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$1,525,950** on average per year, excluding external funding.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$1,525,950** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

Council is currently considering options for disposal of its building assets either by gifting to community groups or sale or demolition. If successful this will go some way towards reducing Council's depreciation and ongoing expenses and renewal costs. Where this is unsuccessful Council will need to consider such things as extending useful lives or increasing intervention timelines to spread the maintenance and renewal costs over a longer period of time. Where there is still a shortfall Council can consider funding either by loans or grants.



Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Port Pirie Region – 17,364 (ABS 2016 Census QuickStats)	The population is forecast to have low but steady growth	Low population growth may lead to consolidation of built assets as a result may lead to co-habitation
Demographics	Ageing Population & Long standing families	Growing Families & few moving out to cities	Minimal impact
Community Expectations	Grant funding & Council Long Term Financial Plan has been able to meet the required budgets to deliver most components to manage building assets	New Sports Precinct Facility to improve tourism	Increased demand for maintenance & repair works on buildings
Environmental Sustainability	New Buildings are constructed to complement today's environment	Construction design to consider adverse climatic conditions. (eg flood, power outage, sea level rise)	Temporary disruption to services for existing facilities
PPRC Business Needs	Visitor Information Centre, Administration Office Building and Art Gallery needing Improvements	Limited revenue growth and reduced size of grants from other tiers of government not matching required capital asset expenditures	Robust business needs cannot be met
PPRC financial sustainability	Maintenance & Capital works have been completed via customer requests and previous inspections	Increased maintenance & operational expenses by new Sports precinct facility completed in 2019	Increased need of fund allocation for Operational, timely renewal and upgrade of building assets

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service. The renewal plan was developed based on the expiry of assets over the 10 year period and the renewal actions determined from the building inspections in 2017, both stored within Councils Asset Management System, Conquest.

Conquest holds information on all of Council's Building assets including size, value, useful life, condition, construction year, expiry date and renewal actions. Conquest was utilised to determine the future renewal costs of the Building assets.

An annual allowance for a Toilet replacement program has also been included in the 10 year plan.

Various upgrade projects are planned to be undertaken, including the following:

- New pump house at Port Pirie Swimming Pool
- Depot store modifications

PPRC undertook a planning workshop with the appropriate Council staff to further develop the program, however is subject to change depending on funding.

Levels of Service

Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget.
Quality	Provide buildings that are clean, well appointed	Number of service requests relating to service quality from users per annum	Not currently measured	< 2 service requests per annum/per building
		Condition data	Majority (<50%) of buildings in Good/Very Good condition	Condition is likely to reduce as the projected renewal/maintenance expenditure requirements are not fully funded
Function	Provide buildings that are fit for purpose and meet community user requirements	Regular contact with tenants/users and proactive inspections	Not currently measured	< 2 service requests per annum/per building
Capacity / Utilisation	Provide buildings with a capacity matched to the need of the community	Formal reviews of Council's high use buildings	Hierarchy of buildings are recorded based on capacity and use. Usage is currently under review	Stakeholder review High use every 5 years
Accessibility	Provide high and medium use buildings that are accessible to all	Implementation of Disability Discrimination Act (DDA) Action Plan	Currently not measured. Audit to be undertaken	100% compliance for high and medium use buildings.
Safety	Provide safe, suitable buildings free of hazards	Number of injury/ incident reports	**Council Occupied Buildings:** Hazards, incidents and near misses are reported and hazards are removed if practicable and if not, are identified and signed. **Non Council Occupied Buildings:** A system for reporting hazards, incidents and near misses is yet to be developed.	Zero incidents per year

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Ensure buildings are kept clean and have good sanitation	Cleaning frequency/ contracts	Council Occupied Buildings: • Contract • Public Toilets: • Other facilities • Refer lease/ management documents	Council Occupied Buildings: • Contract • Public Toilets: • Other facilities • Refer lease/ management documents
	Ensure buildings are inspected for condition and compliance	Inspection frequency	Condition inspection Every 2 – 3 years Compliance inspections to standard frequency (asbestos, electrical, fire)	Condition inspection Every 2 – 3 years Compliance inspections to standard frequency (asbestos, electrical, fire)
	Effective management of assets	System setup and operational	Capital, maintenance and operational set up in Conquest – Asset Management system	Spreadsheet information has been uploaded to automated Conquest system in the last year
Maintenance	Buildings are suitable for purpose with no critical defects	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System. Requests to be documented in the AM system
Renewal	Ensure building components are replaced when due so that building continues to be fit for purpose	Planned maintenance activities completed to schedule	Capital works and maintenance program developed using AM system Conquest.	Capital works and maintenance program has been uploaded to automated Conquest system in the last year
Upgrade / New	Ensure building components are upgraded to meet all relevant legislation, new standards and modern needs	Number of renewals identified in renewal plan completed per annum	Renewal program based on latest condition assessment and general Council administration inspections	Identifying renewals from the Asset Management system at a component level based on recent condition assessments
		Number of non-compliance items with the legislation per annual inspection	Council has consideration to the legislation	National Construction Code (NCC) & Buildings Code of Australia (BCA) compliant.
		Number of upgrades identified in Upgrade Plan	Upgrade of building components based on latest condition assessment and reviewed by Council administration to determine if upgrade is recommended (else renewal)	Upgrade plans approved by Council and funded through the Long Term Financial Plan

Risk Management

Critical Assets

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Buildings	Structural Failure	Personal Injury & potential loss of life
Buildings	Fire	Personal Injury & potential loss of life

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
All High Use & Medium Use Buildings	Disability Discrimination Act (DDA) Audit Compliance review for all buildings to be undertaken

Various other deficiencies were identified from the building inspections undertaken by Council administration and have been logged into the asset management system Conquest. The service deficiencies will allow Council to compile capital renewal programs for each financial year using the asset management system. The renewal cost has been captured in the required capital expenditure within this asset management plan.

Critical risks and treatment plants

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Natural Disaster / Ageing	Structural collapse and damage of assets	H	Develop Emergency Management Plan for unfortunate weather events. New, upgrade and replacement works to consider possible effects of weather change
Electrical Fault / Arson	Electrical fire	H	Testing and Tagging contractor to inspect every 6 months including RCD testing Chubb Fire Extinguisher maintenance
Asbestos / Chemical Hazard	Risk of building occupant exposure to hazardous materials	H	Ensure correct identification and storage of all hazardous materials Ensure SDS read & understood

CWMS

Background

CWMS comprises of an extensive network of gravity mains, rising mains, flushing points, inspection points, lagoons and pump stations. As many of these assets are buried underground, the only indication of an underground wastewater network in most cases is where manholes and flushing points are raised to the surface for inspection and maintenance.

It is not financially feasible to condition assess all CWMS assets due to accessibility of underground pipe network. The pipe network is considered to be a long-life asset, and therefore is not considered to be a high priority to assess. However, Council is currently planning to undertake a CCTV condition assessment of manholes and known areas where steel pipes are likely used as opposed to PVC pipes. It is assumed that steel pipes have a higher probability of failure and therefore a visual condition assessment will be required to plan future upgrade works of the pipe network. Treatment plants and associated assets are also scheduled for a condition assessment in 2022. The renewal plan will be revised following the outcomes from the condition assessment.

At this stage all assets planned for replacement are based on their age and expiry date..

Lifecycle Management Plan

Renewal and Upgrade

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year.

Capital Renewal forecast on existing assets is a total of **$223,000** over the 10-year period.

Various upgrade projects are planned to be undertaken, including the following:

- Crystal Brook pump station and treatment site.

Capital Upgrade forecast for assets is a total of **$10,000** over the 10-year period.

For further details on the development of the Renewal and Upgrade plan, refer to 'Capital Works Plan' section on the following page

Operational and Maintenance

PPRC are obliged under the Environment Protection Act 1987 to provide a general duty of care and to protect public and environmental health in accordance with the Public and Environmental Health Act 1987.

It is best practice that a CWMS Management Team be assembled and charged with the ongoing management of the systems. The CWMS Management team ensure that there are appropriately trained personnel, who are familiar with the operation and maintenance of all components of the CWMS to implement maintenance program.

Future operations and maintenance expenditure is forecasted to be **$166,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

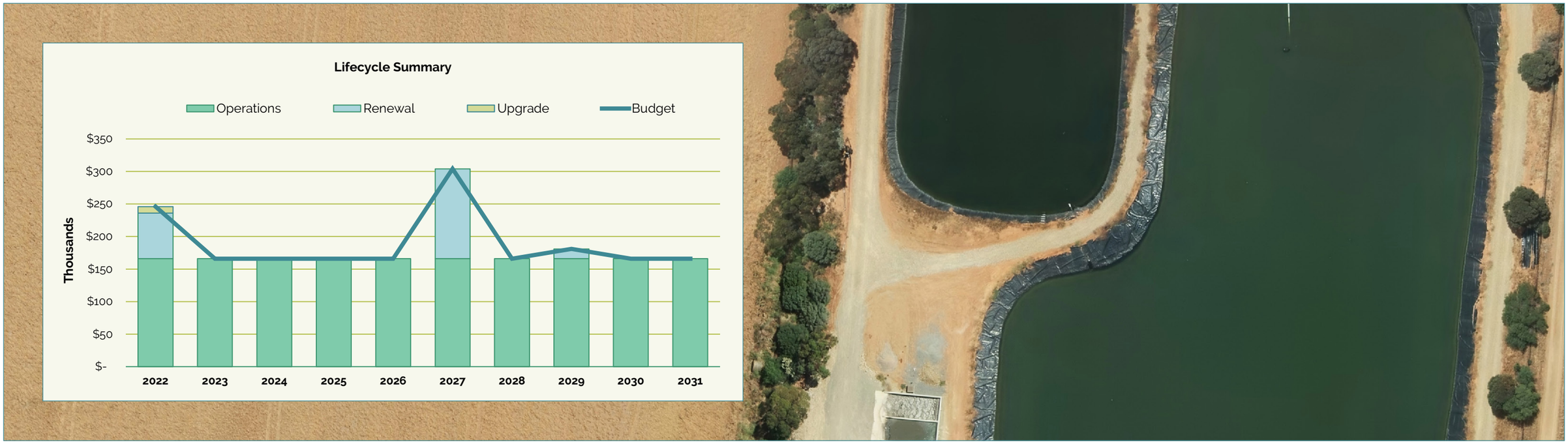
The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets.

It is recommended that the LTFP is adjusted to suit the capital renewal plan.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$189,300** on average per year.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$189,300** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.



Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Crystal Brook - 1,324 Napperby – 284 (ABS 2016 Census QuickStats)	The population projections indicate a very small, but steady increase in population	Low impact on existing CWMS service
Demographics	Middle aged population & Long standing families	Growing Families & few moving out to cities Minor change in waste water production	No impact
Increase in no. of Allotments	Crystal Brook - 587 properties are connected of which 565 are live connections Napperby - 136 properties are connected of which 113 are live connections	Crystal Brook – Minimal no of possible new connections/ allotments within the catchment area Napperby – Currently operating just over 50% capacity	Little to no impact as the current capacity of system is capable of foreseeable increase in usage

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service. The renewal plan was developed based on the expiry of assets over the 10 year period stored within Councils Asset Management System, Conquest.

Conquest holds information on all of Council's CWMS assets including length/size, value, useful life, condition, construction year and expiry date. Conquest was utilised to determine the future renewal costs of the CWMS system.

The 2022 capital demand is due to the mechanical and electrical assets that require replacement at Napperby Treatment Plant. The 2027 capital demand is due to HDPE lagoon liner and access ladder at Crystal Brook Treatment Plan. All assets are expected to require replacement due to age.

PPRC undertook a planning workshop with the CWMS Management Team to refine the program, however is subject to change depending on funding.

Levels of Service

Community Levels of Service

Service Objective: Provide a functional and safe CWMS system to the community that treats the wastewater to acceptable levels and is able to be reused.

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Provide CWMS network that is accessible and meets the current standards and volume requirements	Number of service requests from users per annum Compliance reports	< 2 service requests per annum	< 2 service requests per annum
Function	Provide a CWMS network that is fit for purpose and meet community user requirements	Regular contact with users and proactive inspections	< 2 service requests per annum	< 2 service requests per annum
Capacity / Utilisation	Provide a CWMS network with a design capacity matched to the current and possible future demand of its local community	Capacity meets and exceeds current community requirements	System will allow for future development within design capacity	System will allow for future development within design capacity
Accessibility	Provide a CWMS network that is accessible and safe to all users	CWMS network is fit for purpose	Compliant system	Compliant system
Safety	Provide a safe suitable CWMS network that is free of hazards	Number of injury/ incident reports	Zero incidents per year	Zero incidents per year

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Maintenance	Routine flushing of gravity drains	Use a large volume of water to create a cleansing velocity. The use of a 50 mm diameter hose connected to a fire hydrant standpipe is preferable	Minimal to no sediment currently in gravity drains. No routine flushing is currently programmed	Review sediment in pipes to revaluate whether routine flushing is reviewed
	Repairing broken pipes	Reactive replacement of broken pipe	36 hour turn around time to repair	36 hour turn around time to repair
	Pump Stations mechanical maintenance	Maintenance procedures associated with pumps and pumping station equipment is detailed in the manufacturer documentation	Full inspection annually	Full inspection annually
	Brief inspection of pump station	Check alarm, leaks, flow rates, and valves	Inspection undertaken fortnightly	Inspection undertaken fortnightly
	Detailed inspection of pump station	Wash down the internal surfaces, check structural features, de-sludge if required	Inspection undertaken fortnightly	Inspection undertaken fortnightly
	Inspection of treatment systems	Crystal Brook - oxidation lagoons. Napperby - intermittent aeration	The operation and maintenance requirements for both of the Regions CWMS are different given they employ totally different treatment methods. Each system has separate operational procedures that should be followed to keep it running properly	Follow operational procedures
Operations	Septic tanks are pumped out as part of the de-sludging program	Management of successfully pumping tanks within desired timeframe Costs are covered through an annual levy charged by Council to all those connected	De-sludge each tank once every 4 years	De-sludge each tank once every 4 years
Renewal	Replacement of existing pipes/nodes prior to failure of system	Replacement of pipes/nodes based on expiry date	Expiry date of assets determined based from standard life of assets and installation dates	Undertake condition assessment to determine condition of asset. Condition data to determine the replacement date
Upgrade / New	Ensure CWMS network is upgraded to meet all relevant legislation, new standards and modern needs	Review legislation and system capacity	No upgrade required presently and in near future	Review system and determine if upgrade is required based on future capacity and changes in legislation

Risk Management

Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Rising and gravity mains	Blockages / breakages	Disruption to service delivery

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Crystal Brook	Unauthorised stormwater incursion to CWMS pipe network, however has minimal to no impact on efficiency of system

The above service deficiencies were identified from OTR CWMS Operation and Maintenance Report 2015.

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

Critical assets and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Treatment Costs
Pump Station	Service affected by power failure. Sufficient tank capacity to retain effluent without overflows for several days of power failure	H	SCADA monitoring, Emergency Response Plan, Business Continuity Plan and Management Plan	Cost will be budgeted in Capital Plan
Capacity of Treatment Plants	Discharge to environment from inadequate capacity	H	Emergency Flow Storages / Upgrade plant capacity. Inspect stormwater incursion	Cost will be evaluated in the future plans
Pump Station	Pumps Malfunctioning	H	Place back up pumps where possible and replace failing equipment	Back up pumps are available and included in the replacement costs
Aging / Blockage / Failure of Assets	Corrosion of components / Cracking by environmental impacts affecting the performance	H	Condition rating of assets and replace failing components	Cost for condition rating and replacement expenditure
Flow to Treatment plants (Quality & Quantity)	Collapse of chambers	H	Regular Inspections and replacement where required	Inspections are included in the budget.
Effluent Lines	Infrastructure damaged by excavation	H	Dial Before You Dig Enquiries	Administration cost included in the budget
Disposal Path	Damage to, or pollution of, the system through vandalism or improper use by customers	H	Regular Inspections and replacement where required	Inspections are included in the budget

DRAINAGE

Background

The marine infrastructure assets covered by this asset management plan are:

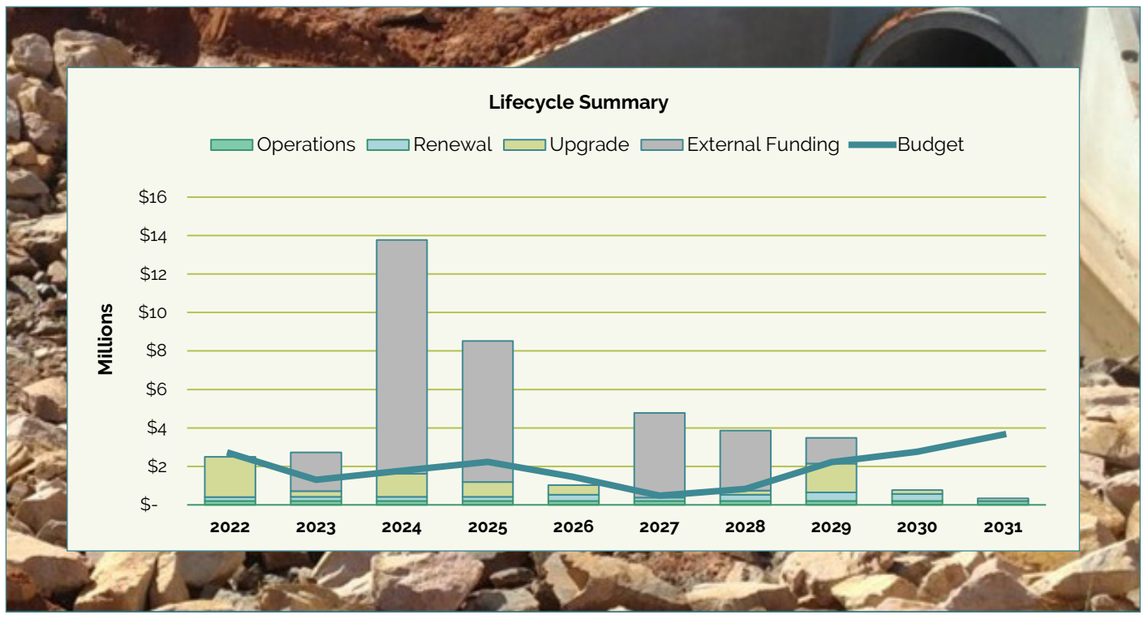
- Drains – Pipes & Box culverts
- Nodes – Pits, Headwalls & GPT's
- Pump Stations
- Basins & Open Drains.

Collectively, stormwater drainage assets provide an appropriate point of discharge for rainwater during and after rain events to:

- Keep other infrastructure such as roads, buildings, pathways, parks usable and free from flooding,
- Maintain an appropriate level of access to property during rain events,
- Minimise damage to public and private property,

Port Pirie has a history of flooding due to high tides and rainfall events. The threat of inundation is exacerbated by ageing infrastructure, inappropriate development and the topographical features of the city.

The provision of stormwater drainage services is a significant infrastructure challenge for Council, although in the short to medium term it is the provision of additional infrastructure that is required more so than the renewal of the existing infrastructure.



Lifecycle Management Plan

Renewal

Financing needs can be large for the renewal and upgrade of drainage assets, requiring planning for large peaks and troughs in expenditure for renewing and replacing such assets. The demand for new and improved services adds to the planning and financing complexity.

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year.

CCTV inspections undertaken in 2018 assessed the Structural and Serviceability condition of the pipes and pits located within Port Pirie. Approximately 23% of the underground pipe network was assessed. The condition data was processed to support a 10 year replacement plan. Assets that had expired within Councils asset register within the next 10 years have also been included in the 10 year replacement plan.

The replacement plan includes the following actions based on the above findings:

- Repair damage - patch/lining
- Repair damage - patch/lining & Repair connection
- Repair damage - patch/lining
- Repair connection
- Construct Maintenance hole
- Replace pipe.

Capital Renewal forecast on existing assets is a total of **$2,500,000** over the 10-year period, based on the condition assessment and expiry dates.

Upgrade

The upgrade plan has been sourced from the following stormwater studies undertaken by Council:

- Dead Horse Creek & City Catchment Design Report - 20141376FR6A
- Dead Horse Creek & City Catchment Design Report - 20141376FR6A
- Alpha Terrace Design Report - 20141376FR8B
- Wandearah Road Design Report - 20141376FR7B
- Harris Road Catchment Drainage Study - S21468 - 230840
- Redhill Stormwater Management Plan - 15020-2B
- South West Drainage Scheme - 20080559
- Napperby Stormwater Management Plan - 15019-2B
- Flood Inundation Mapping Report - 20130090RA1
- Port Pirie Stormwater Management Plan - 20070144RA2
- Port Pirie Stormwater Management Plan - 20070144RA2
- Crystal Brook Stormwater Management Plan - 20070714RA1.

A preliminary plan has been developed, encompassing the required upgrade work the above studies, and has been accounted for in the required expenditure over the next 10 years.

Capital Upgrade forecast for assets is a total of **$6,890,00** over the 10-year period, based on the recommendation from the stormwater studies and associated risk exposure.

An additional **$30,350,000** of renewal and upgrade works are proposed to be undertaken within the 10 year plan, however are not currently accounted for in the LTFP due to budget constraints. To fund these works, Council will seek external funding (such as grants or loans). The works will continue to be deferred until the funding is available.

Operational and Maintenance

The operation and maintenance activities include:

- Undertaking maintenance activities through a planned maintenance system. As part of the CCTV inspections, various pipes and pits have been actioned to be cleaned to remove any blockages.
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Develop and regularly review appropriate emergency response capability,

Future operations and maintenance expenditure is forecasted to be **$200,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets. This financial indicator excludes projects that require external funding

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$1,139,000** on average per year, excluding external funding.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$1,937,480** on average per year giving a 10 year funding surplus of **$798,480** per year. This indicates **170%** of the projected expenditures needed to provide the services documented in the asset management plan.

However, it should be noted that an additional total of **$30,350,000** of work is currently not funded in the LTFP. Council will seek external funding, such as grants or loans, to fund these works. The surplus available in the LTFP, as noted above, will be allocated to the unfunded projects. The projects will continue to be deferred until the funding is available, therefore it is recommended that Asset Management Committee undertake a workshop and risk assessment to determine the required upgrade works and accept the risk trade-off should any works go unfunded.

Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service and upgrade the system to meet the demand.

The renewal plan was developed based on the expiry of assets over the 10 year period stored within Councils Asset Management System, Conquest. Conquest holds information on all of Council's Stormwater assets including length/size, value, useful life, condition, construction year and expiry date. Conquest was utilised to determine the future renewal costs of the Stormwater assets. Additional CCTV inspections were undertaken for the underground drainage in Port Pirie to visually assess the condition and determine rectification activities.

Various Stormwater Management Plans have been undertaken by PPRC to determine the upgrade requirements to provide flood protection to the community and decrease the demand on the existing network. The recommendations from the studies formed the upgrade plan.

The 10 year Capital Works Plan will need to be reviewed overtime in line with Council's risk appetite to ensure that the existing assets can be renewed while carrying out upgrades to ensure that the documented Levels of Service can be met.

Demand Drivers	Present Position	Projection	Impact on Services
Residential & Commercial Development	Development approval reliant on stormwater upgrade for retention storage to mitigate flooding	Increasing demand on services and infrastructure. Higher density housing and commercial areas will likely increase impervious areas and localized concentration of storm water, impacting on the quantity and quality of the storm water to be managed by the Council's assets and services	Ensure existing infrastructure is working as efficiently as possible. Implement cleaning program to clean debris in critical stormwater systems. Upgrade when asset does not meet agreed service levels. Stormwater Management Plans to form the basis of stormwater upgrades
Property Protection	PPRC has undertaken various Stormwater Management studies	The impact of flooding will increase the demand for improvements to the storm water systems and flood mitigation	Fund priority works. Continue to seek grant funding for projects identified in the Strategic Plan and Asset Management Plans. Improve understanding of costs and capacity to maintain current service levels Continue to analyse the cost of providing services and the capacity to fund at the current level of service
Regulatory Requirement to Improve Stormwater Quality	Maintain assets in accordance with regulatory requirements	Greater operational expenses to maintain and clean additional water quality improving devices	Comply with any regulatory requirements where required and where a budget exists to construct Gross Pollutant Traps of other water polishing devices
Community Expectations	Parts of the existing network are not fit for purpose	Increasing pressure to upgrade storm water networks	Fund priority works. Continue to seek grant funding for projects identified in the Strategic Plan and Asset Management Plans Improve understanding of costs and capacity to maintain current service levels Continue to analyse the cost of providing services and the capacity to fund at the current level of service

Levels of Service

Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Condition	Drainage infrastructure meets intended service level	Customer service requests relating to drainage infrastructure	2019 – 32 requests 2018 – 42 requests 2017 – 54 requests This indicates an improvement in customer requests each year	Continual decrease in customer requests per year Target >10 requests
		Proportion of assets in: Good to Very Good, Fair, and Poor to Very Poor Condition	80 % Good/Very Good 14 % Fair 6 % Poor to Very Poor	>80 % Good/Very Good
Function	Drainage infrastructure is 'fit for purpose'	Review of drainage infrastructure function undertaken part of Stormwater Management Plan	Various networks require upgrade to provide additional protection to existing communities and proposed developments. Upgrade plan to be reviewed by the Asset Management Committee and risk assessment to be undertaken to determine priority	To be developed in future revisions of this Plan
Capacity / Utilisation	Drainage infrastructure has the capacity to meet service needs	Review of drainage infrastructure capacity undertaken part of Stormwater Management Plan	Various networks require upgrade to provide additional protection to existing communities and proposed developments. Upgrade plan to be reviewed by the Asset Management Committee and risk assessment to be undertaken to determine priority	To be developed in future revisions of this Plan

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Drainage assets are suitable for purpose with no critical defects that affect the function and capacity	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System. Requests to be documented in the Asset Management System
Maintenance	Drainage system is free of blockages that impact the capacity of the system	Drainage assets are inspected for debris building up and blockages and documented in a register	Drainage inspection program has been undertaken for critical assets in Port Pirie and program developed for annual cleaning	Annual cleaning program developed and implemented, with documentation of cleaned drain assigned to asset in Asset Management System
Renewal	Ensure assets are replaced when due so that they continue to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on latest condition assessment undertaken in 2018 and expired assets in Asset Register	Condition inspections undertaken for all drainage assets. Identifying renewals from the Asset Management System based on condition and structural assessments
Upgrade / New	Drainage infrastructure has the capacity to meet service needs of PPRC	Review Stormwater Management Plan and determine critical drainage upgrades required	Prioritising upgrades critical for service needs of Council based on the results from the Stormwater Management Plan. Review various upgrade options and determine the most cost-effective and beneficial upgrade for the community	Prioritising upgrades critical for service needs of Council based on the results from the Stormwater Management Plan. Review various upgrade options and determine the most cost-effective and beneficial upgrade for the community

Risk Management

Critical Assets

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 their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Drainage, pits, inlet and outlet	Blockage, breach, collapse, undersized	Ongoing routine condition inspections and reporting. Program of scheduled pipeline inspections
Pipes	Tree roots egressing pipe joints	Inspect & jet pipes where deficiencies occur

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Various Locations	PPRC has developed a Stormwater Management Plan (SMP) to review capacity of the existing infrastructure, recommend upgrade of existing network and propose designs for areas within Council that require new stormwater systems. The SMP is currently under review and PPRC are proposing a priority upgrade plan

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

Critical risks and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Drainage Network	Property damage and localised flooding	H	Assess adequacy of catchment, monitor and report frequency of problems
	Structural and capacity failures	H	Data Collection and Improvement of Inventory and condition information
	Damage to assets as a consequence of a significant natural event	H	Catchment Analysis and liaising/advocating with Regional Water Authority
	Flooding caused by inadequate or lack of storm water systems	H	Review/update storm water management program.
	Poor water quality	H	Consider Water Sensitive Urban Design initiatives
Pipes	Blockage by debris and/or tree root intrusion	H	Inspect (manual/CCTV) & develop response/repair plan
	Collapse	H	
Pits	Blocked entry points	H	Repair to current standards
Gross Pollutant Traps	Vegetation/debris reducing effectiveness	M	Inspect and develop proactive maintenance cleaning program

MARINE

Background

The marine infrastructure assets covered by this asset management plan are:

- Yacht Club Pontoon
- Solomontown Boat Ramp
- Germein Bay Boat Ramp
- Pt Davis Boat Ramp
- Solomontown Revetment Wall
- Sheet Pile Wall Stair
- Solomontown Jetty
- Fishermans Jetty
- Pt Germein Boardwalk/Jetty
- Pt Davis Jetty
- Berth 3 Jetty
- Dry Dock.

The construction date for many marine assets has not been captured. For the purposes of the plan, the renewal planning is based on the latest condition data, community requests, and engineering inspections.

A condition assessment (at the component level) of Councils marine assets including boat ramps, jetties, retaining walls and a dry dock was undertaken in 2018 using the Ports Australia, Wharf Structures Condition Assessment Manual, June 2014 as the basis.

Lifecycle Management Plan

Renewal and Upgrade

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year. A structural assessment was undertaken for Solomontown Beach Jetty and Fishermans Jetty, and the recommended remediation works has been included in the renewal plan. Community requests have also been considered in the plan.

Capital Renewal forecast on existing assets is a total of **$1,112,000** over the 10-year period.

Various upgrade projects are planned to be undertaken, including the following:

- Solomontown Boat Ramp - reorganising of car park to imrpove rigging/unrigging and upgrade of fish cleaning station
- Fishermans Jetty Mooring Facility - installation of solar lighting, power and water for travelling boats to use.

Capital Upgrade forecast for assets is a total of **$415,000** over the 10-year period.

$2,000,000 has been proposed for the renewal of Fishermans Jetty floating pontoon. This is currently not funded in Councils LTFP, therefore Council will seek external funding (such as grants or loans) to undertake these works. Council will continue to defer the works until external funding has been secured.

For further details on the development of the Renewal and Upgrade plan, refer to 'Capital Works Plan' section on the following page.

Operational and Maintenance

PPRC undertake regular inspections of marine assets to ensure they are suitable for purpose with no critical defects that affect the function and safety.

Future operations and maintenance expenditure is forecasted to be **$57,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

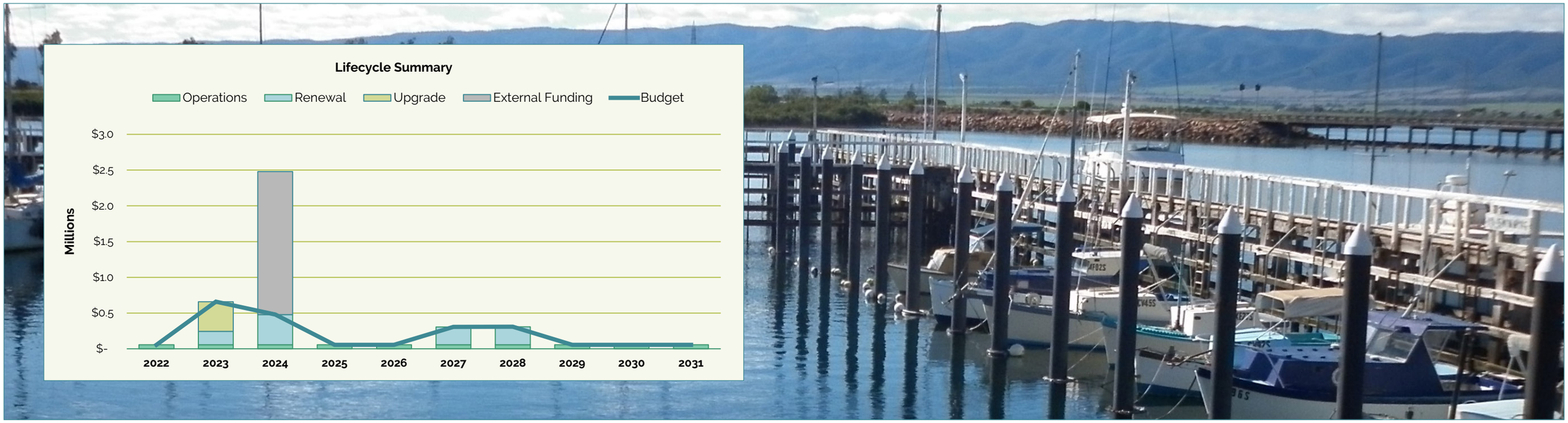
The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets, excluding external funding.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$209,700** on average per year, excluding external funding.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$209,700** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

However, it should be noted that an additional total of **$2,000,000** of work is currently not funded in the LTFP. Council will seek external funding, such as grants or loans, to fund these works. The projects will continue to be deferred until the funding is available, therefore it is recommended that Asset Management Committee undertake a workshop and risk assessment to determine the required upgrade works and accept the risk trade-off should any works go unfunded.



Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Port Pirie Region – 17,364 (ABS 2016 Census QuickStats)	The population is forecast to have low but steady growth	Minimal impact
Demographics	Ageing population and long standing families	Growing Families & few moving out to cities	Minimal impact
Environmental Sustainability	New Marine assets are constructed to complement today's environment	Adverse climatic conditions. (e.g. flood, power outage, sea level rise)	Temporary disruption to services for existing facilities

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service. The renewal plan was developed based on the expiry of assets over the 10 year period stored within Councils Asset Management System, Conquest.

Conquest holds information on all of Council's Marine assets including length/size, value, useful life, condition, construction year and expiry date. Conquest was utilised to determine the future renewal costs of the Marine assets.

Structural inspections were undertaken for Solomontown Beach Jetty and Fishermans Jetty to determine the optimal course of action to provide the community with a safe and functional jetty. The assessment included a recommendation for remediation works. The recommended works have been included in the 10 year plan. Community requests have also been considered in the 10 year plan.

Council will need to consider the potential tourism opportunities presented by improving its Marine assets in the longer term and whether the existing assets are fit for purpose and need to be replaced in a different form.

Levels of Service

Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Marine infrastructure is to be kept and maintained to a functional standard within budgets	Undertake structural assessment	Structural report completed for Fishermans and Solomontown Beach Jetty	Infrastructure inspected annually Structural condition inspection report to be completed every 5-7 years
	Apply appropriate useful life and replacement cost for assets	Useful life and rate review	Review annually	Annual review of useful life as per accounting standards
Function	Marine assets are fit for purpose	Visual inspections completed by Council's Asset Officer or Delegated officer	Data collated and inputted into database. 10 Year Capital Plan completed from these inspections and included in the LTFP	Inspection data stored in Conquest and actions assigned to each asset component for renewal/ upgrade/maintenance
	Marine infrastructure to meet community expectations	Number of complaints	Customer complaints are logged in a register. Aim is to reduce the number of complaints	Marine infrastructure complaints registered with Council's Customer Complaints requests software and actioned within a given time frame
Capacity / Utilisation	Minimise lifecycle expenditure to maximise asset life	Minimise lifecycle expenditure to maximise asset life	Develop Capital Works based on structural inspections and condition assessment	Capital works are listed in order of urgency so Marine infrastructure remain safe for the public to use
Accessibility	Council provides a facility that is safe and compliant	Jetty to be safe and compliant to AS4997 and any other relevant standards	Inspection undertaken for Fishermans and Solomontown Beach Jetty and list of upgrade developed	Review all jettys and marine assets for safety compliance and develop program
Safety	Provide a safe suitable marine asset that is free of hazards	Number of injury/ incident reports	Zero incidents per year	Zero incidents per year

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Marine assets are safe for public use	Regular inspections with records of inspections	Number of jetties with safety concerns that will be rectified as part of the 10-year capital works plan	All jetties are safe for public use
Maintenance	Marine assets are suitable for purpose with no critical defects that affect the function and safety	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System. Requests to be documented in the AM system
Renewal	Ensure assets are replaced when due so that they continue to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on latest condition assessment, structural inspection reports and general Council administration inspections	Identifying renewals from the Asset Management system at a component level based on recent condition and structural assessments
Upgrade / New	Ensure marine assets are upgraded to meet all relevant legislation, new standards and modern needs	Number of non-compliance items with the legislation subsequent to the inspections	Compliance inspection undertaken for Solomontown Beach Jetty and Fishermans Jetty	All marine assets meet all requirements

Risk Management

Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences. For Marine assets, Solomontown Beach Jetty and Fishermans Jetty were determined to be in poor condition from the previous condition inspections. The poor condition impacts the structural integrity of the asset and therefore higher probability of failure, therefore the two jetties are nominated as Critical Assets.

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Solomontown Beach Jetty	Not DDA compliant, deterioration/failure of structure	Restricted access, Closure of jetty
Fishermans Jetty	Not DDA compliant, deterioration/failure of structure	Restricted access, Closure of jetty

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Solomontown Beach Jetty	A structural assessment was undertaken by Mace Engineering in 2019. The outcome of the assessment was that the basic structure is considered to be structurally sound except in the areas of badly deteriorated piles, connections between some members and bracing. However, there is significant maintenance work required for all components of the structure
Fisherman's Jetty	A structural assessment was undertaken by Mace Engineering in 2014. The outcome of the assessment was that the basic structure is considered to be structurally sound except in the areas of badly deteriorated piles and bracing. However, there is significant maintenance work required for all components of the structure

The above service deficiencies were identified from Mace Engineering Jetty Assessment (Fishermans Jetty 2014 & Solomontown Beach Jetty 2019).

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

Critical risks and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Jetties	Falling through platform	H	Consult for Specific Engineering Controls from a Designated Marine Consultant. Develop and prioritise a maintenance program in Conquest
Jetties	Loose Ladders	H	Consult for Specific Engineering Controls from a Designated Marine Consultant. Develop and prioritise a maintenance program in Conquest
Mooring Piles	Corrosion	H	Consult for Specific Engineering Controls from a Designated Marine Consultant. Develop and prioritise a maintenance program in Conquest
Boat Ramps	Deterioration	H	Consult for Specific Engineering Controls from a Designated Marine Consultant. Develop and prioritise a maintenance program in Conquest

STRUCTURES & SITE IMPROVEMENTS

Background

The structures and site improvement infrastructure assets covered by this asset management plan are:

- Playgrounds
- Furniture
- Bins
- Park Facilities
- Garden Beds
- Memorials
- Hard Surfaces
- Structures
- Signs
- Sport Assets
- Services
- Swimming Pools
- Shelter Assets
- Lighting Assets
- Irrigation Systems
- Internal Road Asests
- Carparks.

The construction date for many assets has not been captured. For the purposes of the plan, the renewal planning is based on the latest condition data, community requests, and engineering inspections.

A condition assessment of Councils assets was previously undertaken in 2017. A site inspection of all structure assets is planned to be undertaken in 2021 to determine the current condition, improve the asset register, and record defects.

The new site inspection data will be used to develop the renewal and defect remediation plan in the future. However, this plan is currently based on the 2017 condition data until the new data is collected.

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Lifecycle Management Plan

Renewal and Upgrade

Assets requiring renewal/replacement were identified from Councils Asset Register data. The method involved projection of the renewal costs using acquisition year and useful life to determine the asset renewal year.

Allowances have been made for various annual renewal/upgrade programs, including the following:

- Irrigation Renewal Program
- Playground Renewal Program
- Park Furniture Renewal Program
- Park Lighting Renewal Program
- Sport Precinct Renewal Program
- Bus Shelter Repair Program
- Lawn Beams Construction Program
- New Subsurface Irrigation Program
- Barbeque Replacement
- Shelters/Structures - Removal
- Shelters/Structures – Renewal Program
- Fencing - Renewal Program
- Carparks/Internal Roads Program.

Capital Renewal forecast on existing assets is a total of **$5,640,000** over the 10-year period.

The upgrade plan is based on the annual upgrade program, as described within this section, and a number of proposed masterplans, including Aerodrome Masterplan, Riverbank Precinct upgrade and Cycle Tourism Masterplan.

Various projects, including Senate Road Sporting Complex and Foreshore Master Plan, have been nominated in the Upgrade plan, with funding planned through Council and external sources.

The external funding has not been accounted for in the Long Term Financial Plan. Council will continue to seek external funding and defer works until funding is received. Should Council not be successful, the proposed upgrade works will likely not be undertaken.

Capital Upgrade forecast for assets is a total of **$1,787,000** over the 10-year period.

An additional **$3,791,707** of renewal and upgrade works are proposed to be undertaken within the 10 year plan, however are not currently accounted for in the LTFP due to budget constraints. To fund these works, Council will seek external funding (such as grants or loans). The works will be continue to be deferred until the funding is available.

For further details on the development of the Renewal and Upgrade plan, refer to 'Capital Works Plan' section on the following page.

Operational and Maintenance

There is a need to ensure Structures & Improvements are adequately maintained to avoid expose to liability issues remain fit for their intended purpose.

PPRC undertake various regular inspections of structure assets, such as playgrounds, to ensure they are suitable for purpose and compliant.

Future operations and maintenance expenditure is forecasted to be **$4,218,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

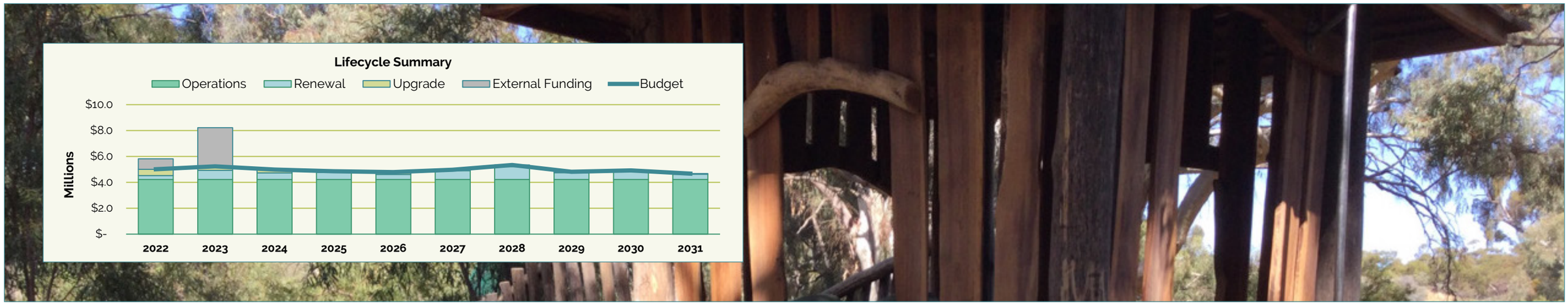
The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets. This financial indicator excludes projects that require external funding.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$4,960,700** on average per year, excluding external funding..

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$4,960,700** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

However, it should be noted that an additional total of **$3,791,707** of work is currently not funded in the LTFP. Council will seek external funding, such as grants or loans, to fund these works. The projects will continue to be deferred until the funding is available. Therefore it is recommended that Asset Management Committee undertake a workshop and risk assessment to determine the required upgrade works and accept the risk trade-off should any works go unfunded



Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Port Pirie Region – 17,364 (ABS 2016 Census QuickStats)	The population is forecast to have low but steady growth	Low population growth may lead to consolidation of built assets as a result may lead to co-habitation
Demographics	Ageing Population and Long standing families	Growing families & few moving out to cities	Minimal Impact
Community Expectations	Grant funding & Council Long Term Financial Plan has been able to meet the required budgets to deliver most components to manage building assets	New Sports Precinct Facility to improve tourism	Increased demand for maintenance & repair works on associated land-improvement structures
Masterplans	Various masterplans in development	Aerodrome Masterplan, Riverbank Precinct upgrade and Cycle Tourism Masterplan in development	Funding required to construct and maintain new open space structures
Environmental Sustainability	New Buildings are constructed to compliment today's environment	Construction design to consider adverse climatic conditions. (eg flood, power outage, sea level rise)	Temporary disruption to services for existing facilities
PPRC Business Needs	Visitor Information Centre, Administration Office Building and Art Gallery needing improvements	Limited revenue growth and reduced size of grants from other tiers of government not matching required capital asset expenditures	Robust business needs cannot be met
PPRC financial sustainability	Maintenance & Capital works have been completed via customer requests and previous inspections	Increased maintenance & operational expenses by new Sports precinct facility completed in 2019	Increased need of fund allocation for operational, timely renewal and upgrade of building assets

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service.

Allowances have been made for various annual renewal/upgrade programs, including the following:

- Irrigation Renewal Program
- Playground Renewal Program
- Park Furniture Renewal Program
- Park Lighting Renewal Program
- Sport Precinct Renewal Program
- Bus Shelter Repair Program
- Lawn Beams Construction Program
- New Subsurface Irrigation Program
- Barbeque Replacement
- Shelters/Structures - Removal
- Shelters/Structures – Renewal Program
- Fencing - Renewal Program
- Carparks/Internal Roads Program.

Conquest holds information on all of Council's structure assets including size, value, useful life, condition, construction year (where available) and expiry date. Conquest will be utilised to prioritise the assets to be replaced as part of the renewal program.

Various individual structures that require replacement have also been included within the 10 year plan based on customer requires or poor condition from the 2017 condition assessment.

The upgrade plan is based on the annual upgrade program, as described within this section, and a number of proposed masterplans, including Aerodrome Masterplan, Riverbank Precinct upgrade, Phoenix Park Wetlands upgrade and Cycle Tourism Masterplan. These upgrades will be subject to funding, and Council may look to seek additional grant funding to support the upgrades.

PPRC undertook a planning workshop with the appropriate Council staff to further develop the program, however is subject to change depending on funding.

Levels of Service

Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Provide structures that are well maintained and functional	Number of customer requests	Not Currently Measured	< 2 service requests per annum/per building
Function	All turf actively growing and green throughout the year	Number of irrigated sites	To be confirmed following current field assessment	All grass areas irrigated
Capacity / Utilisation	Community has sufficient number of bins to dispose of waste at each park	Number of bins per park	Number of bins per site to be confirmed following current field assessment of all open space structures	2 rubbish bins per park
	Community has sufficient seating area at each park	Number of bench seats per park	Number of seats per site to be confirmed following current field assessment of all open space structures	4 bench seats per park
	Community has sufficient number of drinking fountains at each park	Number of fountains per park	Number of water fountains to be confirmed following current field assessment of all open space structures	1 high standard water fountain per park
Accessibility	All reserves are accessible to the public	DDA compliance assessment	To be confirmed	All reserves compliant
Safety	All playgrounds and lighting to be compliant and safe to use	Compliance assessment undertaken quarterly	All playgrounds compliant	All playgrounds compliant

Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	All playgrounds and lighting to be compliant and fit for purpose	Compliance assessment undertaken quarterly	All playgrounds compliant. Lighting under review	All playgrounds and lighting compliant
	Bin waste removal, no overflowing bins	Number of times per week community bin waste is disposed	To be confirmed	Emptied minimum 2 x per week including Friday and Monday
	Graffiti removal	Duration to remove graffiti from time of report	To be reviewed	Offensive graffiti removed within 24 hours, other within 1 week
Maintenance	Turf maintained at an appropriate level	Growth of turf	As per seasonal growth, maintained at 30-50mm, pest and disease control, fertilising	As per seasonal growth, maintained at 30-50mm, pest and disease control, fertilising
	Defect rectification undertaken to provide the community with a functional structure	Duration for defect rectification from time of report	Condition and defect assessment currently undertaken. Defect plan to be developed from assessment	Weekly inspection and repair undertaken within 1 week
	Trees maintained to ensure support health of tree	Annual inspection and maintenance program	Existing trees to be inspected by an arborist and arborist recommendations performed	Existing trees to be inspected by an arborist and arborist recommendations performed
Renewal	Assets are replaced when due so that they continue to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on latest condition assessment undertaken in 2017 and expired assets in Asset Register	Condition inspection currently being undertaken. New condition data to be used to identify renewals
Upgrade / New	New assets are installed to meet the desired level of service as specified in the Parks Strategy	Determine parks that do not align with Councils strategy. Develop upgrade program based on the deficiencies	Currently under review	All parks are compliant and algin with Councils strategy

Risk Management

Critical Assets

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
Playgrounds	Non-compliant playground, asset failure	Personal Injury & potential loss of life
Aerodrome	Non-compliant runway, damaged runway	Unsafe take-off and landing condition
Lighting	Non-compliant illumination standard caused by broken/blown lights or low lux levels	Unsafe conditions at night

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

There are currently no known assets with service or performance deficiencies, however this will be reviewed following the field condition assessment currently being undertaken. The revised plan will include any assets with capacity and performance issues.

Critical risks and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Natural Disaster / Ageing	Structural collapse and damage of assets	H	Develop Emergency Management Plan for unfortunate weather events. New, upgrade and replacement works to consider possible effects of weather change
Electrical Fault / Arson	Electrical fire	H	Testing and Tagging contractor to inspect every 6 months including RCD testing Chubb Fire Extinguisher maintenance
Asbestos / Chemical Hazard	Risk of building occupant exposure to hazardous materials	H	Ensure correct identification and storage of all hazardous materials Ensure SDS read & understood
Aerodrome	Runway does not meet legislative requirements	H	Monitor standards and plan to upgrade the facilities to be inline with these standards if required
Swimming Pools	Deterioration of facility	H	Develop and prioritise Operational & Capital works plans. Review contract for manager of the pools
Playgrounds	Lead contamination	VH	Ensure grounds are planted/greened and areas bark chipped to ensure dust suppression

TRANSPORT

Background

The Transport infrastructure assets covered by this asset management plan are:

- Sealed road network, including surface and pavement
- Unsealed road network, including sheeting material and formation
- Kerb and Watertable
- Footpaths (excluding rubble paths)
- Traffic Control Devices.

This plan summarises the needs, challenges and risks attributed to managing road assets and associated infrastructure assets (such as kerbing and footpath) over the next 10 years.

A condition and defect assessment was undertaken in 2020 by Tonkin for the sealed network and by Council staff for the unsealed network. The condition and defect data has been used to inform the renewal and maintenance requirements over the next 10 year period.

PPRC have recently developed an integrated spatial solution to be used for planning, budgeting, maintenance management, and road hazard inspections for the unsealed road network. The tool provides Council with a workflow that supports proactive management of grading operations.

Since the implementation of the tool, PPRC has reported the following benefits:

- Safer unsealed roads
- More efficient planning of patrol grading
- Better transparency of grading operations
- A higher level of service to rate payers
- Cost savings.

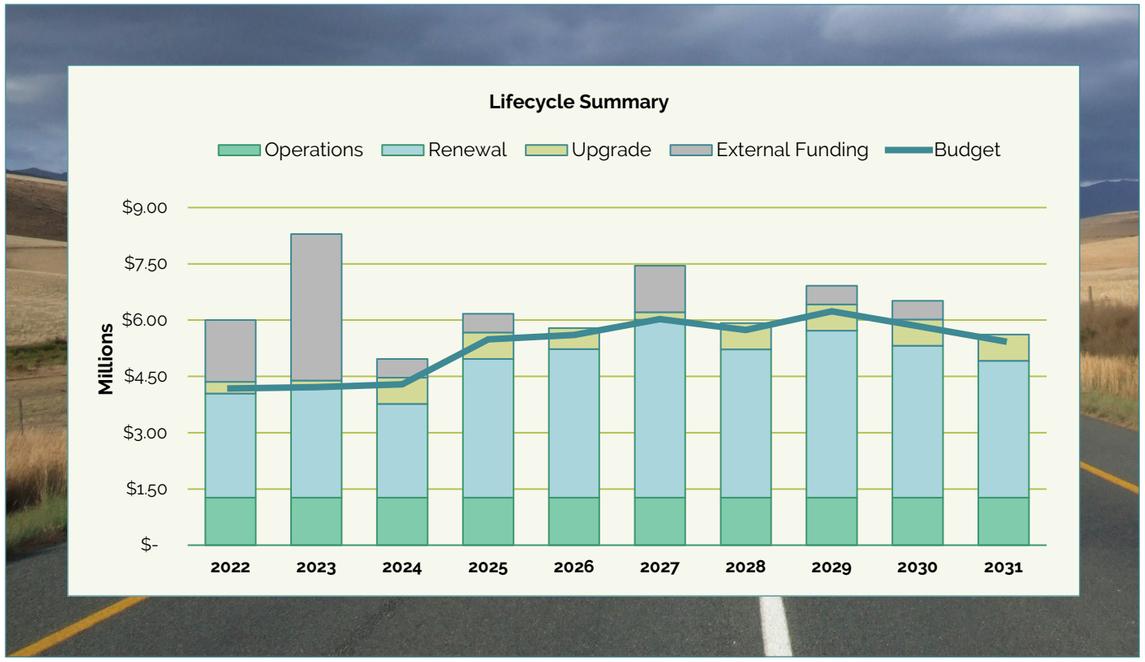
Lifecycle Management Plan

Renewal

Assets requiring reseal/resurfacing and resheeting were identified from a forecasting modelling tool, Road Surface Manager (RSM). The planning strategy is further detailed in the section 'Capital Works Plan'.

The kerb renewal program aligns with the annual reseal program, and an allowance has been included per year to repair the kerb infrastructure prior to resealing the road surface.

The footpath renewal program involves replacement of the existing footpaths due to poor condition or change of material. This is further defined in the Footpath strategy PPRC are currently developing.



An additional allowance to repair and widen shoulders as identified by Council is also included in the renewal plan.

There are currently no plans to renew/upgrade traffic control devices.

Capital Renewal forecast on existing assets is a total of **$36,704,000** over the 10-year period.

Upgrade

Two unsealed roads are programmed to be upgraded to a sealed road due to the traffic movements:

- Younghusband Terrace, Crystal Brook
- Goulter Road, Crystal Brook.

An annual allowance to upgrade various track roads to sheeted roads as identified by Council is included in the upgrade program. This is based on road usage.

An annual allowance to upgrade/construct the full length of kerbing for sealed roads has been included in the upgrade program. This is based on a road priority list, further defined in the section 'Capital Works Plan'.

An annual allowance to construct new hard paved footpaths and provide network linkages is included in the upgrade program. The upgrade program will be based on the Footpath strategy PPRC are currently developing.

New walking and cycling trails within Port Pirie have been nominated in the Renewal and Upgrade plan, with funding planned through Council and external funding sources.

The external funding has not been accounted for in the Long Term Financial Plan.

Capital Upgrade forecast for assets is a total of **$5,470,700** over the 10-year period.

An additional **$4,990,504** of renewal and upgrade works are proposed to be undertaken within the 10 year plan, however are not currently accounted for in the LTFP due to budget constraints. To fund these works, Council will seek external funding (such as grants or loans). The works will be continue to be deferred until the funding is available.

For further details on the development of the Renewal and Upgrade plan, refer to 'Capital Works Plan' section on the following page.

Operational and Maintenance

PPRC undertake inspections of unsealed road network every 3 months to determine the grading requirements and ensure the road is well maintained with no critical defects that affect the function and safety. The patrol grading program is based on the inspection findings and planned accordingly. Hazards that are identified during the inspections are recorded and rectified to maintain road safety.

A defect assessment of the sealed network has also been developed from the previous condition assessment in 2020. PPRC are planning to develop a proactive defect rectification program based on the findings.

Other operational and maintenance duties include reactive services based on customer requests.

Future operations and maintenance expenditure is forecasted to be **$1,267,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100%** of the funds required for the optimal renewal and replacement of assets, excluding external funding.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$5,468,470** on average per year, excluding external funding.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$5,468,470** on average per year giving a 10 year funding shortfall of **$551,477** per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

However, it should be noted that an additional total of **$4,990,504** of work is currently not funded in the LTFP. Council will seek external funding, such as grants or loans, to fund these works. The projects will continue to be deferred until the funding is available, therefore it is recommended that Asset Management Committee undertake a workshop and risk assessment to determine the required upgrade works and accept the risk trade-off should any works go unfunded

Demand Management

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.

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in the following table.

The impact of demand drivers that may affect future service delivery and use of assets are shown in the following table.

Demand Drivers	Present Position	Projection	Impact on Services
Population	Port Pirie Region – 17,364 (ABS 2016 Census QuickStats)	The population is forecast to have low but steady growth	Population growth will necessitate the need to acquire additional assets
Demographics	Ageing Population & Long standing families	Forecast to increase	Disability Discrimination Act (DDA) compliance becomes a requirement for new works. PPRC will be required to maintain a safe walking network, mobility facilities for prams and gophers
Industrial Development & Freight Movement	Nyrstar Redevelopment and CBD Rejuvenation	Redevelopment is forecast to attract more tourists to town. Increase in need for accommodation for workers	Redevelopment works will result in additional vehicle movements on major arterial roads and collector roads. These roads will need to be well planned and maintained to cope with the additional traffic
Rural Region	Majority of rural allotments are used for farming	Expected increase in agricultural produce	Increase in agricultural production will result in increase in heavy vehicles movement requiring additional services and infrastructure requirements in rural localities
Community Expectations	New subdivisions and new residential estates are being formed with new dwellings	Increased quality of life. New road assets will be acquired with increase in expectations	Expectations for a more urban environment will increase pressure on the provision of sealed roads (dust suppression) and kerbing
Environmental Impacts	Roads are constructed based on the current environmental conditions and current environmental standards	Temperature rise, less rainfall, weather events becoming more extreme – likelihood of flooding and drought	Potential for ground movements in reactive soils during periods of drought, washouts of road infrastructure during flooding / burst stormwater pipes during flooding
Council Financial Sustainability	Council Long Term Financial Plan has been able to meet the required budgets to deliver most components to manage the path assets	Limited revenue growth and reduced size of grants from other tiers of government not matching required asset expenditures	Increased need for maintenance and repairs. Decreased ability to fund timely renewal and upgrade of poor/ very poor condition asset

Capital Works Plan

A 10 Year Capital Works plan has been developed to determine the funding requirements to maintain the existing assets at the current level of service. The renewal plan was developed based on the expiry of assets over the 10 year period stored within Councils Asset Management System, Conquest.

Sealed and Unsealed Road Surfaces

Conquest holds information on all of Council's Transport assets including length/size, value, useful life, condition, construction year and expiry date. To develop the renewal plan for resheeting and resealing roads, Council utilises a modelling tool Road Surface Manager (RSM). RSM uses the financial and condition data stored in Conquest to predict the deterioration of the road network and forecast the funding requirements to maintain the network at various levels of service.

A funding scenario that matches the LTFP was used for the RSM modelling. For the sealed road network, this resulted in a steep decrease of the average condition of the road network over the following 5 years, followed by a gradual improvement over the following 10 years. However, after the 15 year period, modelling shows a gradual deterioration in the road condition. PPRC are currently implementing a sealed road maintenance program to address pavement issues identified across the sealed road network. It is expected that the maintenance program will improve the deterioration of the sealed road network.

For the unsealed road network, the LTFP funding is adequate to maintain the desired levels of service based on the modelling parameters.

Kerb

The kerb replacement program aligns with the road resealing/resurfacing program to minimise the impairment to the road pavement caused by replacing the kerb, reduce costs, and streamline capital works. The kerb replacement is programmed to occur the year prior to the resealing/ resurfacing works. To get to this stage, an accelerated program has been planned for the first 2 years of the plan.

An annual allowance to upgrade/construct the full length of kerbing for sealed roads has been included in the upgrade program. This is based on a preliminary road priority list, including the following roads:

- York Road (Anzac to Westley)
- Harris Road (Afford to Simpson)
- Magor Road (Charles to Harris)
- The Terrace (Pelham to Kingston)
- Senate Road (Moppet Road to Kotsoglous Crescent
- Feeley Street (Beach Road to Square Street)
- Beach Road (Spencer Highway to Feeley Street)
- Beach Road(Manders Street to Feeley Street)
- Poynton Street (Federation Road to Frederick Road).

Footpath

The footpath renewal program is developed based on the recent condition data assessed in 2020. Footpaths that have poor condition, or require a change in surface material, are to be programmed.

The footpath upgrade program is developed based on the footpath network linkages. High use footpath routes that have missing hard paved sections will trigger an upgrade.

The renewal and upgrade program are both under development and refinement as part of Councils Footpath Strategy.

PPRC undertook a planning workshop with the appropriate Council staff to refine the program, however is subject to change depending on funding.

Levels of Service

Roads Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Provide roads that are accessible and meet the current Australian standards and aligns with Councils standards	Number of service requests from users per annum	Measured in Synergy Soft through a customer request system	< 2 service requests per annum
Function	Provide a road network that is fit for purpose and meet community user requirements	Regular contact with users and proactive inspections	Two community surveys completed since 2014 Condition assessment undertaken in 2015 Reactive maintenance done as required based on customer requests. Proactive inspection program every 3 months for grading	< 2 service requests per annum/per road annual traffic counting Council inspections • High use roads (annually) • Medium use roads(bi-annual) • Low use (every 5 years)
Capacity / Utilisation	Provide a road network with a capacity matched to the need of the community	Formal reviews of Council's high use roads	No formal reviews	Road category review: • High use 2 years • Medium use 4 years • Low use 6 years
Accessibility	Provide a road network that is accessible and safe to all	The road network is useable for all types of transport systems	Not currently measured	Compliance for high and medium roads
Safety	Provide a safe suitable road network that is free of hazards	Number of injury/ incident reports	Incidents are reported and hazards are rectified if practicable. If not, hazards are identified and signed. Rectifying hazards will be planned in the Capital Works Program	Zero incidents per year

Roads Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Ensure all road components achieve optimum life and have a serviceably performance that meets the communities needs	Review of condition assessment data	Increased deterioration of sealed network since last condition assessment. Condition assessment to be undertaken every 4 years	Development of maintenance program to decrease the road surface deterioration
		Review of internal time and effort to maintain unsealed roads	PPRC are currently undertaking inspections of unsealed road network every 3 months to determine grading requirements and any additional rectification works. Service improvements to be defined after a period of time	Grade unsealed roads at the optimum time based on inspection results
Maintenance	Road networks are suitable for purpose	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System
		Planned maintenance activities completed to schedule	Capital works and maintenance program in Councils enterprise Spatial system, ArcCollector	Capital works and maintenance program utilized in Council's Asset Management System
Renewal	Ensure road components are replaced when due so that the network continues to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on inspection undertaken in 2020	Identifying renewals from the Asset Management System at a component level based on recent condition assessments. Undertake field inspection and scope road prior to undertaking works
Upgrade / New	Ensure road network is upgraded to meet all relevant legislation, new standards and modern needs	Elected member requests Roads to recovery Blackspot funding Crash data	Reporting on project from start to completion	Time frames meet Use of Federal/State funding Road condition average of 3
		Number of upgrades identified in Upgrade Plan	Projects are defined in response to grant funding	Upgrade plans approved by Council and funded through the Long Term Financial Plan

Kerb Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Maintain kerb with sufficient longitudinal grade to allow surface stormwater drainage. Restrict stormwater gutter flow to 1.5m from kerb to ensure flooding does not inundate the vehicular lane	Number of service requests from users per annum Observations from storm events	Measured in Synergy Soft through a customer request system	< 2 service requests per annum
Function	Provide a kerb that is functional to allow stormwater to drain and maintain an inundation free zone during a minor flood event	Regular contact with users and proactive inspections	Two community surveys completed since 2014 Condition assessment undertaken in 2020 Reactive maintenance done as required	< 2 service requests per annum/per road Council inspections • High use roads (annually) • Medium use roads (bi-annual) • Low use (every 5 years)
Capacity / Utilisation	Provide a kerb and water table network with a capacity matched to the need	Formal reviews of Council's high use roads	No formal reviews	Road category review. • High use 2years • Medium use 4 years • Low use 6 years
Accessibility	Provide pram ramps for accessibility to the wider community	The kerb network is passable for all in the community including mobility aids	Not currently measured	Compliance for high and medium roads
Safety	Provide a safe suitable kerb network that is free of hazards	Number of injury/ incident reports	Incidents are reported and hazards are rectified if practicable. If not, hazards are identified and signed. Rectifying hazard will be planned in the Capital Works Program	Zero incidents per year

Kerb Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Ensure all kerb components achieve optimum life and have a serviceably performance that meets the communities needs	Review of condition assessment data	Approximately 33% of kerb value consumed, based on 2020 condition assessment	Development of maintenance program to improve the consumption of kerb infrastructure
		Review of internal time and effort to maintain kerbing	PPRC currently undertake minor kerb patching based on community requests	Capital and maintenance set up and operational in Conquest – Asset Management System
Maintenance	Kerb networks are suitable for purpose	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System
		Planned maintenance activities completed to schedule	Capital works and maintenance program in Council's enterprise Spatial system, ArcCollector	Capital works and maintenance program utilised in Council's Asset Management System
Renewal	Ensure kerb components are replaced when due so that the network continues to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on condition, community needs and requests	Identifying renewals to align with the resealing of roads. Works to be undertaken year prior to resealing works. Undertake field inspection and scope road prior to undertaking works
Upgrade / New	Ensure road network is upgraded to meet all relevant legislation, new standards and modern needs	Elected member requests Roads to recovery Blackspot funding Crash data	Reporting on project from start to completion	Time frames met Use of Federal/State funding
		Number of upgrades identified in Upgrade Plan	Use of Federal/State funding	Upgrade plans approved by Council and funded through the Long Term Financial Plan

Footpath Community Levels of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years Based on the Current Budget
Quality	Provide footpaths that are accessible and meet the current Australian standards and aligns with Councils standards	Number of service requests from users per annum	Measured in Synergy Soft through a customer request system	< 2 service requests per annum/per foot path
Function	Provide a footpath network that enables the user to get from one point to another in a continuous path	Regular contact with users and proactive inspections. Meet AS1428.1 for DDA Insurance claims	Two community surveys completed since 2014 Condition assessment completed in 2020 10 year foot path capital works plan allocation Reactive maintenance done as required	< 2 service requests per annum/per foot path Conduct Pedestrian Access Mobility Study Council inspections • High use footpaths(annually) • Medium use footpaths(bi-annual) • Low use (every 5 years) Useful life review
Capacity / Utilisation	Provide a footpath network with a capacity matched to the need of the community	Formal reviews of Council's high use footpaths	No formal reviews	Footpath category review. • High use 2 years. • Medium use 4 years • Low use 6 years
Accessibility	Provide a footpath network that is accessible and DDA compliant	The footpath network is useable for all including mobility aids	Not currently measured	Compliance for high and medium footpaths
Safety	Provide a safe suitable footpath network that is free of hazards	Number of injury/ incident reports	Incidents are reported and hazards are rectified if practicable. If not, hazards are identified and signed. Rectifying hazard will be planned in the Capital Works Program	Zero incidents per year

Footpath Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance	Desired for Optimum Lifecycle Cost
Operations	Ensure all footpath components achieve optimum life and have a serviceably performance that meets the communities needs	Review of condition assessment data	Approximately 30% of footpath value consumed, based on 2020 condition assessment	Development of maintenance program to improve the consumption of footpath infrastructure
		Review of internal time and effort to maintain rubble footpaths	PPRC currently maintain the rubble footpaths under the operational budget	Optimise the renewal of rubble footpaths and minimise re-work. Compare undertaking work via capital funding
Maintenance	Footpath networks are suitable for purpose	Reactive service requests completed within timeframes	All requests are logged and actioned in line with policy	All requests are logged and actioned in line with policy within Council's Asset Management System
		Planned maintenance activities completed to schedule	Capital works and maintenance program in Councils enterprise Spatial system, ArcCollector	Capital works and maintenance program utilised in Council's Asset Management System
Renewal	Ensure footpath components are replaced when due so that the network continues to be fit for purpose	Number of renewals identified in renewal plan completed per annum	Renewal program based on inspection undertaken in 2020 and the footpath strategy currently under development	Identifying renewals from the Asset Management System at a component level based on recent condition assessments. Undertake field inspection and scope road prior to undertaking works
Upgrade / New	Ensure road network is upgraded to meet all relevant legislation, new standards and modern needs	Elected member requests Roads to recovery Blackspot funding Crash data	Reporting on project from start to completion	Time frames met Use of Federal/State funding
		Number of upgrades identified in Upgrade Plan	Projects are defined in response to grant funding	Upgrade plans approved by Council and funded through the Long Term Financial Plan

Risk Management

Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Critical Asset(s)	Failure Mode	Impact
High order collector and arterial seals and pavements	Rutting, cracking and local surface defects	Road hazard for vehicles Increased funding requirements to rectify structural issues
Footpath	Trip hazards	Hazard to pedestrians resulting in injury

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in the following table.

Location	Service Deficiency
Roads North of Frederick Road, Port Pirie	Aged pavement, kerbing and footpath with major structural issues throughout. Council to consider lowering the service level of road due to low usage
Younghusband Tce and Goulter Rd, Crystal Brook	Currently unsealed road requiring upgrade to sealed road due to traffic movements
Shoulder Widening – various locations	A Road Safety Audit previously conducted by Mace Engineering recommended widening of the road shoulder to 8m sealed width to extend the carrying capacity of Abattoirs Road to handle this heavy vehicle traffic and reduce the risk of accidents. This works is now completed Shoulder repair works and widening to be undertaken to various roads similar in nature
Failure of the pavement due to soil movement and weather – various locations	Rutting, crocodile cracking, localised depressions, and potholing or deformation. These roads will require reconstruction earlier than anticipated
Failure of the seal due to high watertable – various locations	Rutting, crocodile cracking, localised depressions, and potholing. These roads will require reconstruction earlier than anticipated
Failure of the seal due to continuous excessive loading – various locations	Depression, rutting. These roads will require reconstruction earlier than anticipated

Critical risks and treatment plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Sealed Roads	Surface distress, potholes, cracking, edge break	H	Increase inspection of roads and include assessment in 5 year capital plan. Pick up and manage defect collection in mobile field solutions
Unsealed Roads	Washout of roads due to floods or high rain fall	H	Assess defects as part of 3-monthly inspections. Manage defects in field solutions tool developed by Council
Unsealed Roads	Corrugation, roughness, potholes and gravel loss	H	Assess defects as part of 3-monthly inspections. Manage defects in field solutions tool developed by Council
Kerb & Gutter	Subsidence and ponding, may cause pavement damage	H	Inspect kerb replacement required one year prior to road resealing. Determine extent of kerb patching required and program works

PLANT & EQUIPMENT

Background

The plant and equipment assets covered by this asset management plan are:

- Graders
- Loaders
- Tractors
- Trucks
- Utilities
- Sweepers
- Mowers
- Cars
- and other general equipment.

Council has an extensive fleet of plant and equipment albeit an ageing one. It is important that the plant and equipment is suitable to deliver the capital and operational works programs. Break downs of major plant can impact significantly on works delivery and increase costs due to repairs and also having to hire substitute plant if required.

Lifecycle Management Plan

Renewal and Upgrade

Over time through changes in legislation and work practices, some plant and equipment is no longer suitable and needs to be replaced by more modern models. Modern machinery also performs more effectively and efficiently due to improvements in technology and performance. This is considered for the annual allowance for plant and equipment renewal.

Capital Renewal forecast on existing assets is a total of **$10,261,000** over the 10-year period.

All works are considered to be renewal, and therefore no upgrade plan is included for the purposes of this plan.

For further details on the development of the Renewal plan, refer to 'Capital Works Plan' section in the following section.

Operational and Maintenance

Break downs of major plant can impact significantly on works delivery and increase costs due to repairs. Regular servicing and maintenance of plant and equipment is critical to reliably deliver the capital and operational works programs cost effectively, such as unsealed road resheeting.

Future operations and maintenance expenditure is forecasted to be **$1,310,000** per year, based on the historic operational and maintenance costs.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have **100**% of the funds required for the optimal renewal and replacement of assets.

Financial Summary

The projected operations, maintenance, upgrade and capital renewal expenditure required over the 10 year planning period is **$2,336,100** on average per year.

Estimated (LTFP budget) operations, maintenance, upgrade and capital renewal funding is **$2,336,100** on average per year. This indicates **100%** of the projected expenditures needed to provide the services documented in the asset management plan.

Capital Works Plan

A 10 Year Capital Works plan replacement program has been developed to ensure that a reasonable outcome can be achieved to maximise trade in values and minimise the need for major costly repairs on ageing machinery.

APPENDIX A 10 YEAR CAPITAL PLAN

Asset Class	Expenditure Type	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	Total
Bridges	**Replacement/Renewal**	$35,000	$35,000	$-	$-	$-	$-	$25,000	$-	$-	$-	**$95,000**
	New/Upgrade	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	**$-**
	Grant/Loan Funded	$-	$495,000	$-	$-	$-	$-	$-	$-	$-	$-	**$495,000**
Buildings	**Replacement/Renewal**	$245,000	$388,000	$150,000	$430,000	$-	$350,000	$285,000	$420,000	$260,000	$106,500	**$2,634,500**
	New/Upgrade	$25,000	$100,000	$-	$-	$-	$-	$-	$-	$-	$-	**$125,000**
	Grant/Loan Funded	$-	$-	$-	$-	$400,000	$-	$-	$-	$-	$-	**$400,000**
CWMS	**Replacement/Renewal**	$70,000	$-	$-	$-	$-	$138,000	$-	$15,000	$-	$-	**$223,000**
	New/Upgrade	$10,000	$-	$-	$-	$-	$-	$-	$-	$-	$-	**$10,000**
	Grant/Loan Funded	$-	$-	$-	$-	$-	$-	$-	$-	$-	$-	**$-**
Drainage	**Replacement/Renewal**	$200,000	$220,000	$220,000	$220,000	$330,000	$170,000	$330,000	$450,000	$360,000	$-	**$2,500,000**
	New/Upgrade	$2,090,000	$300,000	$1,200,000	$760,000	$490,000	$-	$210,000	$1,500,000	$210,000	$130,000	**$6,890,000**
	Grant/Loan Funded	$-	$2,000,000	$12,150,000	$7,340,000	$-	$4,410,000	$3,120,000	$1,330,000	$-	$-	**$30,350,000**
Marine	**Replacement/Renewal**	$-	$187,000	$423,000	$-	$-	$250,000	$252,000	$-	$-	$-	**$1,112,000**
	New/Upgrade	$-	$415,000	$-	$-	$-	$-	$-	$-	$-	$-	**$415,000**
	Grant/Loan Funded	$-	$-	$2,000,000	$-	$-	$-	$-	$-	$-	$-	**$2,000,000**
Plant & Equipment	**Replacement/Renewal**	$866,000	$1,242,000	$1,242,000	$1,170,000	$971,000	$1,068,000	$744,000	$952,000	$1,001,000	$1,005,000	**$10,261,000**
Structures & Site Improvements	**Replacement/Renewal**	$310,000	$715,000	$510,000	$535,000	$400,000	$680,000	$980,000	$520,000	$585,000	$405,000	**$5,640,000**
	New/Upgrade	$480,000	$305,000	$260,000	$97,000	$175,000	$80,000	$145,000	$80,000	$115,000	$50,000	**$1,787,000**
	Grant/Loan Funded	$809,650	$2,982,057	$-	$-	$-	$-	$-	$-	$-	$-	**$3,791,707**
Footpath	**Replacement/Renewal**	$250,000	$500,000	$-	$250,000	$250,000	$500,000	$250,000	$250,000	$250,000	$250,000	**$2,750,000**
	New/Upgrade	$-	$-	$500,000	$500,000	$200,000	$-	$500,000	$500,000	$500,000	$500,000	**$3,200,000**
	Grant/Loan Funded	$834,029	$-	$-	$-	$-	$500,000	$-	$-	$-	$-	**$1,334,029**
Kerb	**Replacement/Renewal**	$400,000	$400,000	$400,000	$250,000	$250,000	$300,000	$300,000	$300,000	$300,000	$300,000	**$3,200,000**
	New/Upgrade	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	**$1,500,000**
Sealed Roads	**Replacement/Renewal**	$1,279,000	$1,025,000	$1,100,000	$2,200,000	$2,460,000	$2,940,000	$2,400,000	$2,900,000	$2,500,000	$2,100,000	**$20,904,000**
	New/Upgrade	$82,700	$-	$-	$-	$160,000	$-	$-	$-	$-	$-	**$242,700**
	Grant/Loan Funded	$-	$916,475	$500,000	$500,000	$-	$740,000	$-	$500,000	$500,000	$-	**$3,656,475**
Unsealed Roads	**Replacement/Renewal**	$850,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	**$9,850,000**
	New/Upgrade	$78,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	**$528,000**
Total	**Replacement/Renewal**	**$4,505,000**	**$5,712,000**	**$5,045,000**	**$6,055,000**	**$5,661,000**	**$7,396,000**	**$6,566,000**	**$6,807,000**	**$6,256,000**	**$5,166,500**	**$59,169,500**
	New/Upgrade	**$2,915,700**	**$1,320,000**	**$2,160,000**	**$1,557,000**	**$1,225,000**	**$280,000**	**$1,055,000**	**$2,280,000**	**$1,025,000**	**$880,000**	**$14,697,700**
	External Funding	**$1,643,679**	**$6,393,532**	**$14,650,000**	**$7,840,000**	**$400,000**	**$5,650,000**	**$3,120,000**	**$1,830,000**	**$500,000**	**$-**	**$42,027,211**

GLOSSARY

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

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

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management

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

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an Asset Management Plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Capital expenditure

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

Capital expenditure - new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

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

Carrying amount

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

Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Depreciated replacement cost (DRC)

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

Depreciation

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

Expenditure

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

Expenses

Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction. Where there is a reliable market this will equal the carrying amount and where there is no reliable market, the depreciated current replacement cost of an asset will be used (see Replacement Cost definition).

Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset

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

Infrastructure assets

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

Lifecycle Cost

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

Lifecycle Expenditure

The Lifecycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Lifecycle Expenditure may be compared to average Lifecycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Maintenance expenditure

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

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/ maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Remaining useful life

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

Replacement Cost

The current cost to replace an item of property, plant and equipment on a like for like basis.

Section or segment

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

Useful life

Either:

(a) the period over which an asset is expected to be available for use by an entity, or

(b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Source: IPWEA, 2009, Glossary