



Stormwater

Asset Management Plan

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1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

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



1.2 Development of the Plan

City of Prospect has challenged its asset management practice and purpose to ensure it is being driven from a pure asset perspective that in the first instance and is supported by industry best practice in relation to service standards and levels. This has necessitated returning to first principles to ensure that Council is not being contained by our Long Term Financial Plan as an asset planning tool.

In reviewing assets and defining a way forward, a conservative approach has been taken to ensure that Council is setting a realistic financial target to keep assets in a functional and workable condition, but not at a level that is not financially supportable by the community.

This plan has been developed to articulate the recent (Feb 2021) development of the Barker Inlet Stormwater Management Plan that details \$26m of required works across the Council Catchment to prevent flooding.

1.3 Asset Description

The stormwater assets comprise the following infrastructure:

- Stormwater Pits: 1052 (no. off)
- Stormwater Conduits: 40.9 (km)

The above infrastructure assets have a valuation replacement value estimated at \$48m.

1.4 Levels of Service

The planned budget (draft long term financial plan) has yet to be developed to implement the recommendations of the findings of the Barker Inlet Stormwater Management Plan and the increased levels of service to the community that this will bring via a reduction in flooding. It is anticipated that this Asset Management Plan will inform the further development of the LTFP.

1.5 Future Demand

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

- Reduction in identified flooding precincts as articulated in the Barker Inlet Stormwater Management

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

1.6 Lifecycle Management Plan

1.6.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. A summary output from the AM Plan is the forecast of 10-year total outlays, which is estimated as \$10,748,520 or \$1,074,852 on average per year.

1.6.2 What we will do

Estimated available funding for the 10 year period is \$4,870,392 or \$487,039 on average per year as per the Long-Term Financial plan or Planned Budget. This is 45.31% of the cost to sustain the current level of service at the lowest lifecycle cost. As previously noted, the existing LTFP has not yet been revised to accommodate the works identified in the Barker Inlet Stormwater Management Plan.

The figure below shows the planned budget against the forecast lifecycle costs.

Forecast Lifecycle Costs and Planned Budgets

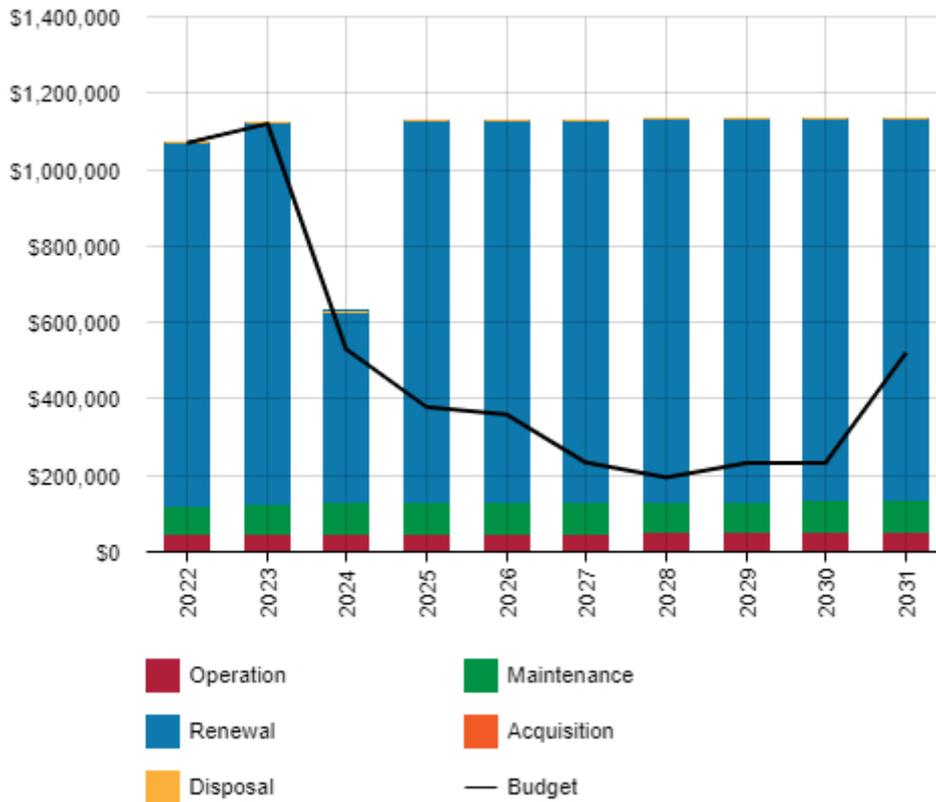


Figure Values are in current dollars.

1.6.3 Managing the Risks

Our draft budget levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Potential for collapse of some stormwater conduits identified in poor condition

- Continuation of flooding problems within the stormwater network

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

- Reviewing the LTFP

1.7 Monitoring and Improvement Program

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

- Monitor project level estimates completed for proposed stormwater projects and review Council budget allocations for renewal v acquisitions
- Proactively seek grant allocations for stormwater upgrades
- Revise LTFP
- Continue to monitor status of stormwater pipes identified in poor condition from the condition audit

2.0 Introduction

2.1 Background

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

The AM Plan is to be read with the City of Prospect's following planning documents.

- Our Community Plan – Towards 2040
- Annual Business Plan & Budget 2021/22

The infrastructure assets covered by this AM Plan include Stormwater Conduits and Pits. For a detailed summary of the assets covered in this AM Plan refer to Table in Section 5.

The infrastructure assets included in this plan have a total replacement value of \$48m.

2.2 Goals and Objectives of Asset Ownership

Our goal for managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined levels of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are:

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

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

- International Infrastructure Management Manual 2015 ¹
- ISO 55000²

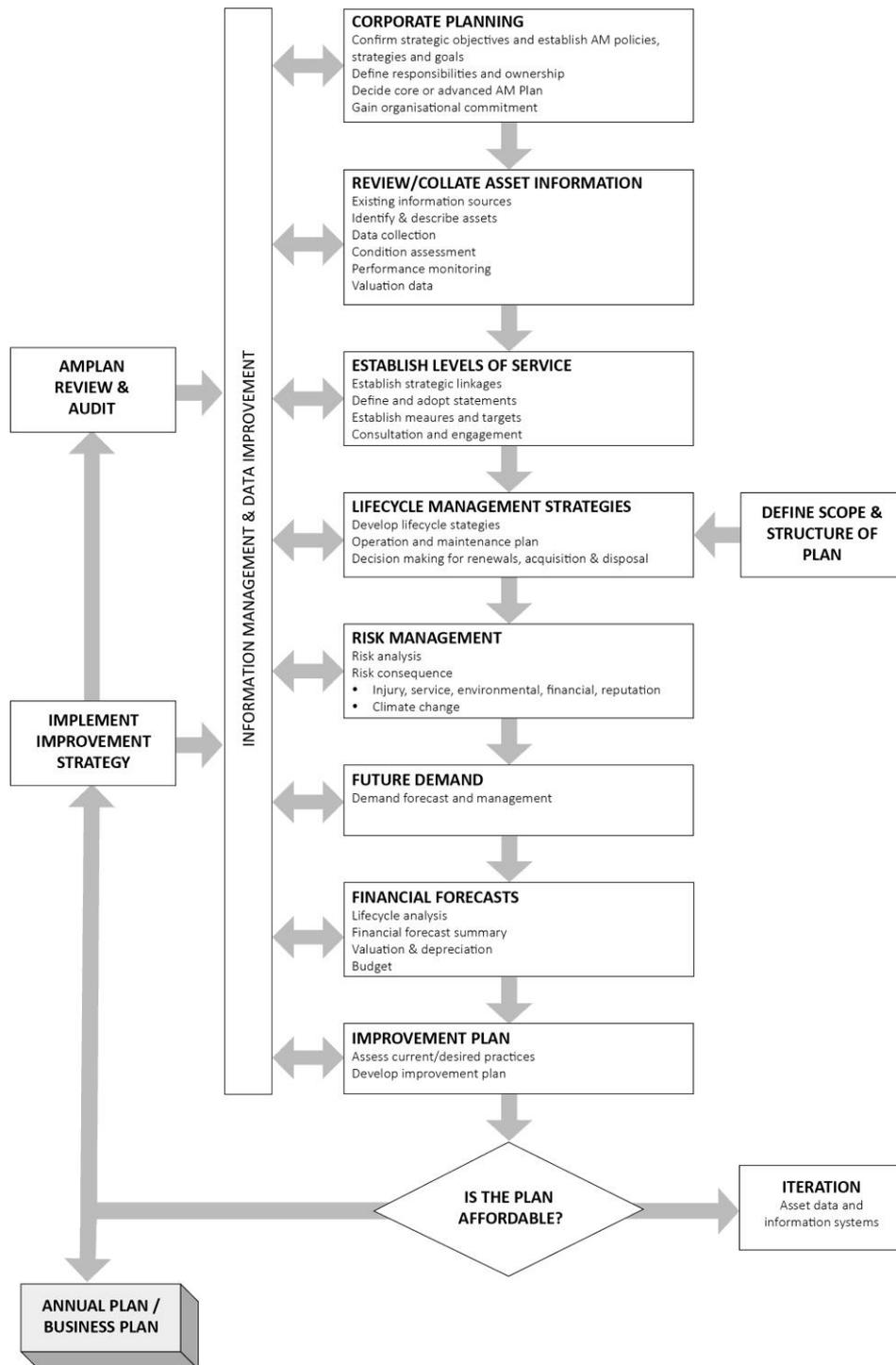
¹ Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2 | 13

² ISO 55000 Overview, principles and terminology

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

Road Map for preparing an Asset Management Plan

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



3.0 LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council has recently undertaken a customer satisfaction survey (November 2020). Respondents to the survey were asked to rank ‘projects’ that Council should concentrate on. The highest ranking was given to:

Asset Management and Renewal

To deliver on key priorities for the renewal of city infrastructure focusing on local roads and laneways, footpaths and streetscapes, as well as improvement’s to stormwater infrastructure and street lighting

3.2 Customer Values

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

Customer Values indicate:

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

Table 3.4: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
No flooding	Extent and frequency of flooding from the major and minor stormwater network	Infrequent flooding in isolated areas of Council and in particular low-lying areas without overland downstream flow path	Stay the same

Council has not been tracking customer service requests with relation to the provision of stormwater services.

3.3 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

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

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

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

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

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %’s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Condition of stormwater pipes	Condition assessment using camera survey (40% of network completed to date)	3% of (40% of) network at condition 4 or 5	Expected to increase since no proactive budget is provided for repair
	Confidence levels		High	High
Function / Capacity	Provide an effective stormwater drainage network	Frequency of property flooding.	Barker Inlet Stormwater Management Plan has identified \$26m of works required to prevent flooding	Potential for isolated properties to become inundated in extreme events until the Stormwater Management Plan is fully funded (beyond the term of this AMP)
	Confidence levels		High	Medium

3.4 Technical Levels of Service

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

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

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

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.³

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this AM Plan.

³ IPWEA, 2015, IIMM, p 2|28.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	To expand the capacity of the stormwater network to prevent flooding	Grants received to support the Barker Inlet Stormwater Management Plan	Grant application process has not commenced	\$7m of grants received over 10 years
		Budget	\$0	\$0
Operation	Ensure stormwater assets functionality & useability	Provision of 'maintenance' services undertaken via Contract	Satisfactory	Satisfactory performance will be maintained via budget growth associated with new assets
		Budget	\$45,000	\$48,695
Maintenance	Ensure stormwater assets functionality & useability	Provision of maintenance services	Satisfactory	Satisfactory performance will be maintained via budget growth associated with new assets
		Budget	\$75,000	\$81,158
Renewal	To supplement the expansion of the stormwater network to prevent flooding	Revision of LTFP to support the development of the stormwater network	Partial only provision of forecast funds	Full provision of funds
		Budget	\$367,039	\$945,000
	To renew assets identified in poor condition	The extent to which assets are renewed following failure	No provision of proactive funds for asset failure	Full provision of funds
		Budget	\$0	\$310,000
Disposal	No disposals are planned over the course of the plan			
		Budget	\$0	\$0

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecasts

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

4.3 Demand Impact and Demand Management Plan

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

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

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

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Reduction in flooding	The Barker Inlet Central Stormwater Management Plan has been prepared and demonstrates and quantifies stormwater flooding within the Council together with proposed solutions via expansion of the network.	Grants together with Council funds will facilitate the implementation of the plan and augmentation of the existing network	Additional budget allocations will be required to meet additional maintenance and operations costs	Review the implementation of the plan alongside Council budget provisions

4.4 Asset Programs to meet Demand

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

Acquiring new / upgraded assets will commit the City of Prospect to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

5.0 LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

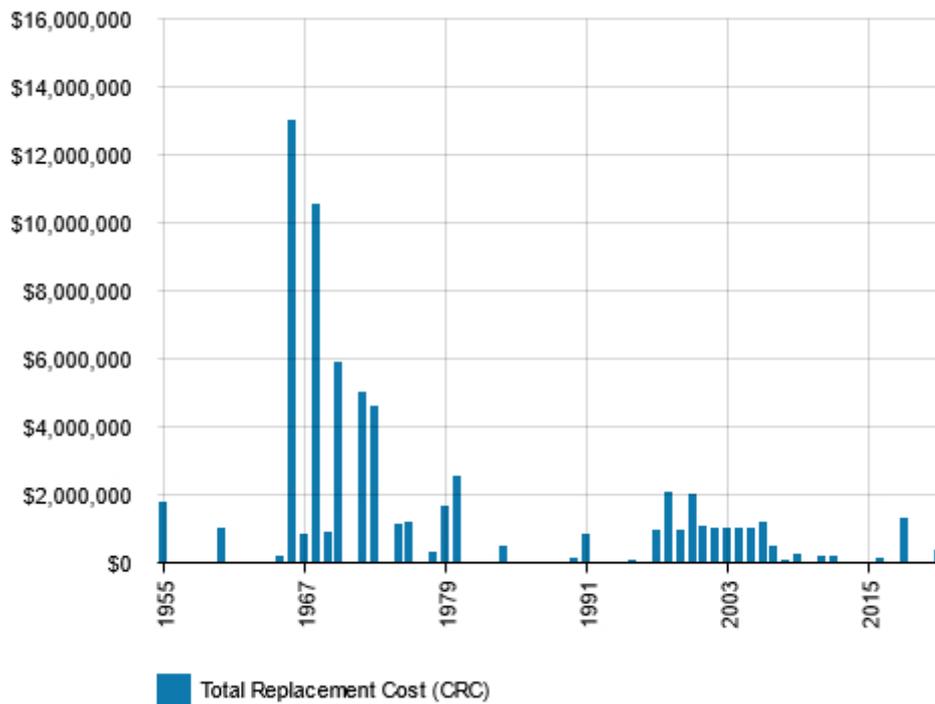
5.1.1 Physical parameters

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

Table 5.1.1: Assets covered by this Plan

Asset Category	Quantity
Stormwater Pits	1052 (no off)
Stormwater Conduits	40.9 (km)

Figure 5.1: Asset Age Profile



All figure values are shown in current day dollars.

As can be seen from the above graph much of the stormwater network was constructed in the 1960's. With a useful life of 100 years (stormwater pipes) it is therefore expected that most of the network will not be due for renewal until a further 40 years.

5.2 Operations and Maintenance Plan

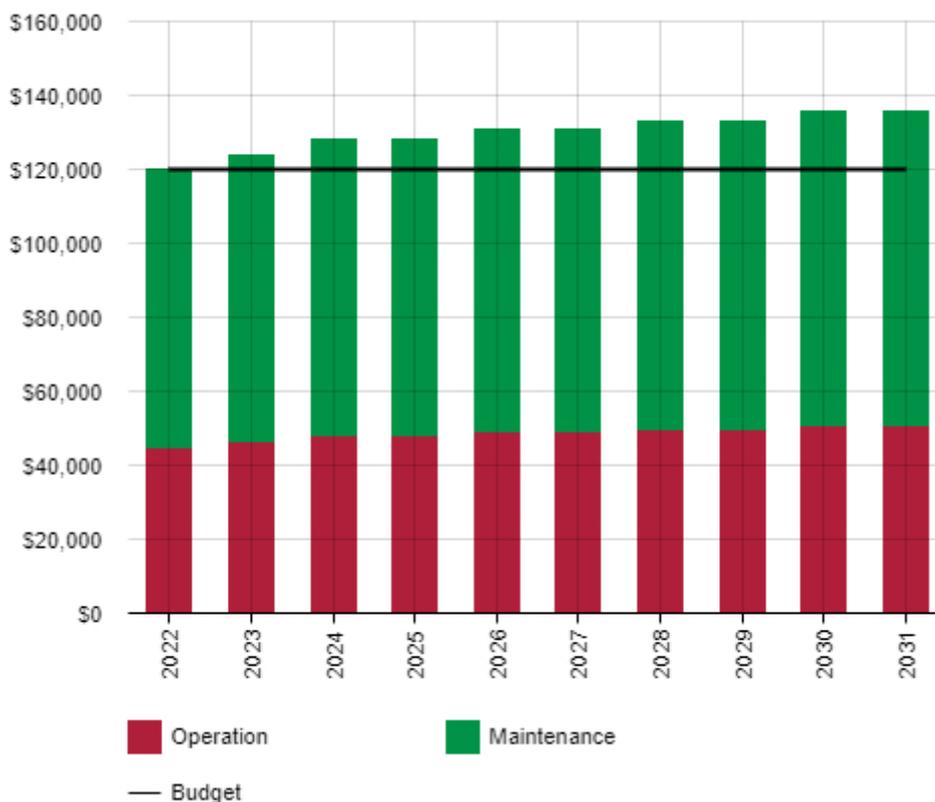
Operations include regular activities to provide services. Examples of typical operational activities include cleaning.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include replacement of pit lids and minor pit repairs.

Summary of forecast operations and maintenance costs

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

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

The percentage of operations and maintenance expenditure for stormwater as a percentage of the current replacement costs is as follows:

Operations	0.09%
Maintenance	0.15%

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

5.4 Summary of future renewal costs

The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

The following is a discussion on how the data has been compiled

Renewal analysis using useful lives: Stormwater assets traditionally have long useful lives. The following useful lives has been used in the compilation of this plan:

- Stormwater reinforced concrete pipes: 100 years
- Stormwater box culverts: 80 years
- Stormwater pits: 80 years

These useful lives are used as an estimate of when the asset will require renewal. An analysis using these principles has determined that no renewals are required over the 10 years of the plan.

Renewal analysis using condition survey: In 2019 a condition survey of 40% (only) of Council's pipe network was undertaken. Using pipes identified in poor condition or worse a renewal program has been identified that totals approximately \$3.1m. Council currently however has a philosophy of only replacing stormwater assets when full failure is observed, for this reason this is considered in the AMP from a risk management perspective only.

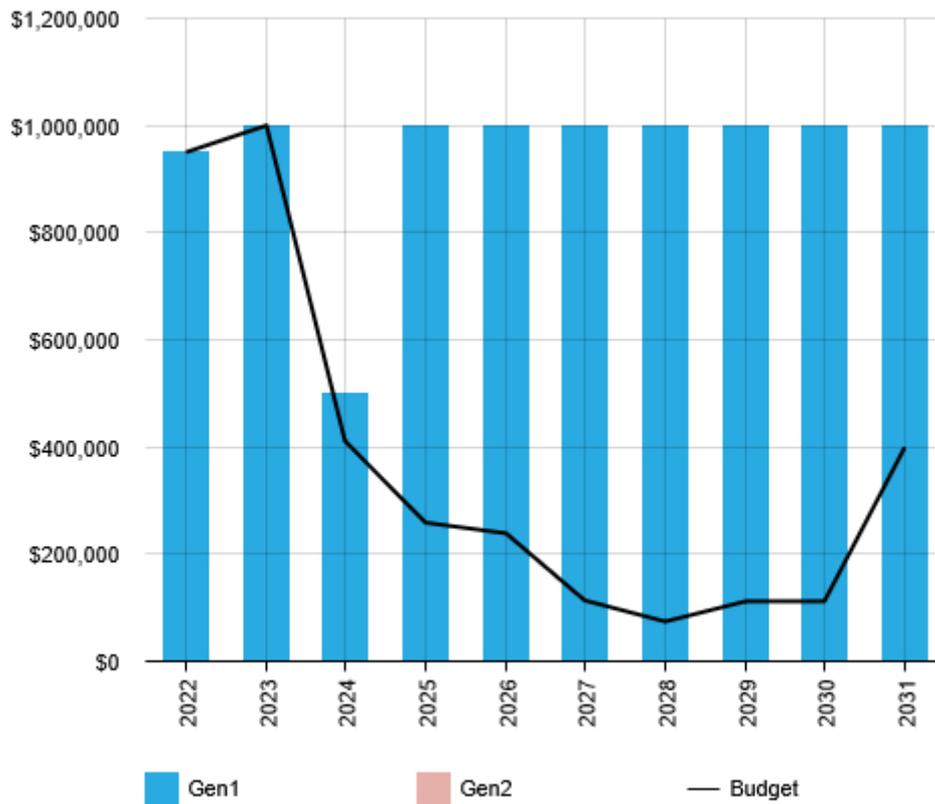
Barker Inlet Central Stormwater Management Plan: Together with the City of Port Adelaide Enfield, Prospect has developed a draft Stormwater Management Plan (2021) for the Barker Inlet Central Catchment. The report has identified approximately \$26m of required upgrades to the network within the City of Prospect that involves funding by Council together with potential grants from State and Federal Government. The following points document the broad assumptions using in articulation of this report into the AMP:

- Funds will be received from state / federal government grants of \$7,000,000 over the 10 years of the plan
- A forecast of \$9,000,000 of Council funds is required over the 10 years of the plan. **It is assumed that this will be for renewal works on Councils existing network to supplement the acquisition / upgrade works undertaken using state / federal funds.** Note this is an assumption only subject to project level determination of the split between renewals / acquisitions.

Local Drainage Network: \$900k of required expenditure has been identified as being required for the Hillsdale St / Livingstone Av project. Of this it has been assumed that grants will comprise \$450k with the remaining funds provided by Council for **renewal works to support the acquisition / upgrade works undertaken using state / federal funds.** Note this is an assumption only subject to project level determination of the split between renewals / acquisitions.

Long Term Financial Plan: \$3.67m of funding is available from Council's current LTFP to support renewal associated with the Barker Inlet Stormwater Management Plan and the Hillsdale St / Livingstone Av project.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

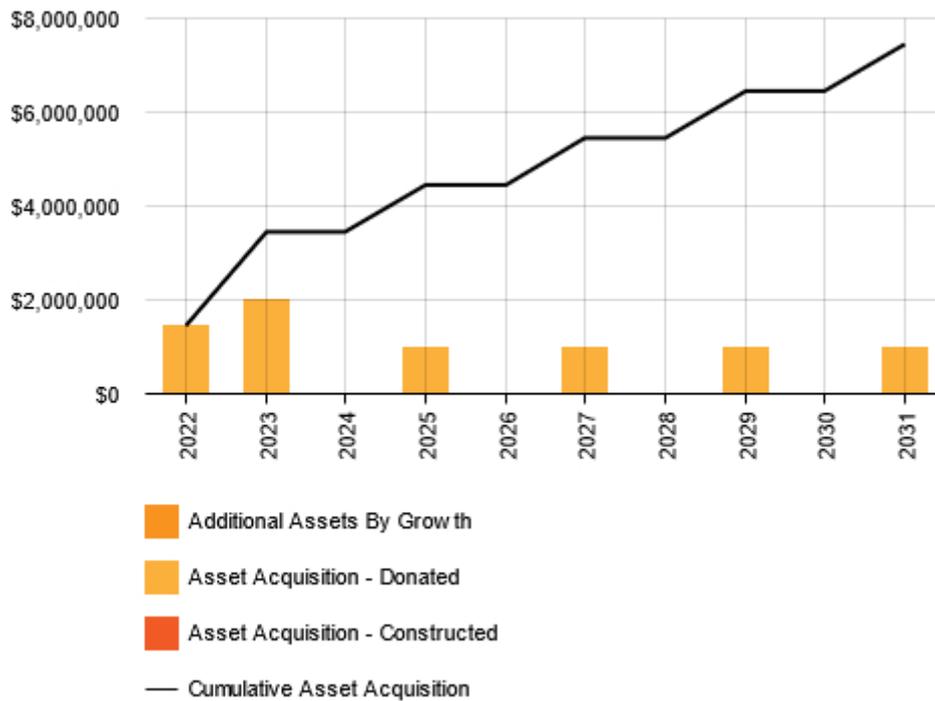
5.5 Acquisition Plan

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

Summary of future asset acquisition costs

Forecast acquisition asset costs are summarised / summarized in Figure 5.5.1. The forecast acquisition capital works program is shown in Appendix A.

Figure 5.5.1: Acquisition Summary (grants)



All figure values are shown in current day dollars.

The acquisitions included in the graph above relate to **anticipated** grant funding associated with the Barker Inlet Central Stormwater Management Plan and the Hillsdale St / Livingstone Av project. No Council funds are proposed toward acquisitions since Council funds will be directed toward renewals associated with facilitating these projects. Note this is an assumption only subject to project level determination of the split between renewals / acquisitions.

When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability.

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

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.

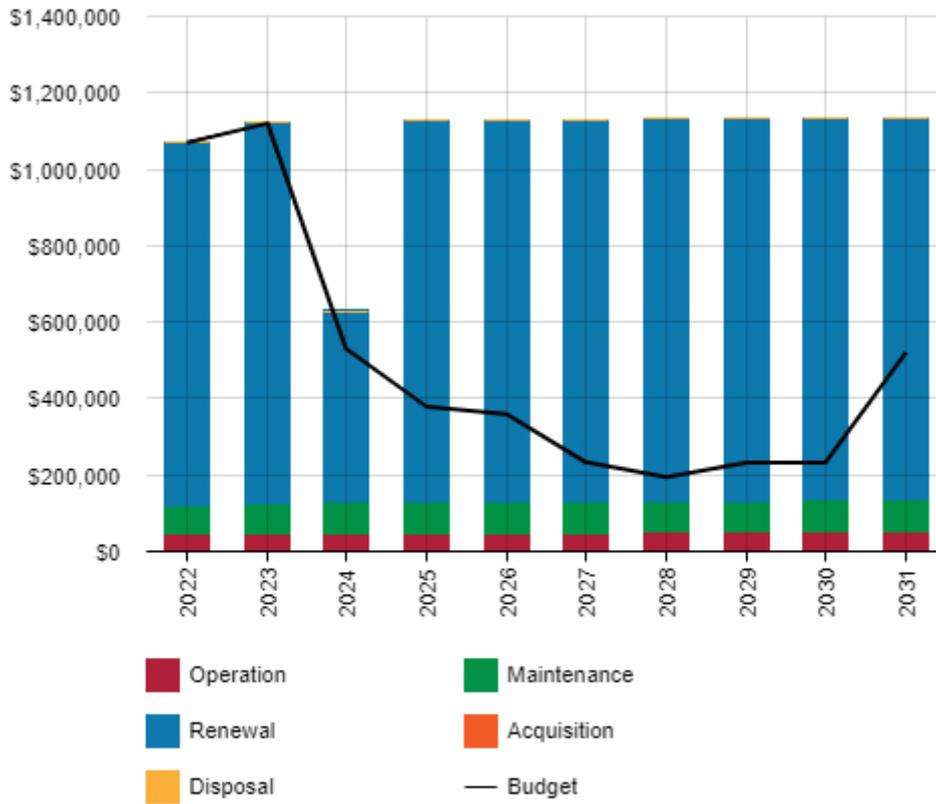
No disposal of stormwater assets are proposed over the course of the plan.

5.7 Summary of Asset Forecast Costs

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

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

Figure 5.5.3: Lifecycle Summary



All figure values are shown in current day dollars.

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2018 as: ‘coordinated activities to direct and control with regard to risk’⁴.

An assessment of risks⁵ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 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 along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Stormwater Pipes identified as condition 4/5 in condition audit	Potential collapse	Litigation & potential injury Flooding Unplanned disruption to community

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

6.2 Risk Assessment

The risk management process used is shown in Figure 6.2 below.

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

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

⁴ ISO 31000:2009, p 2

⁵ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

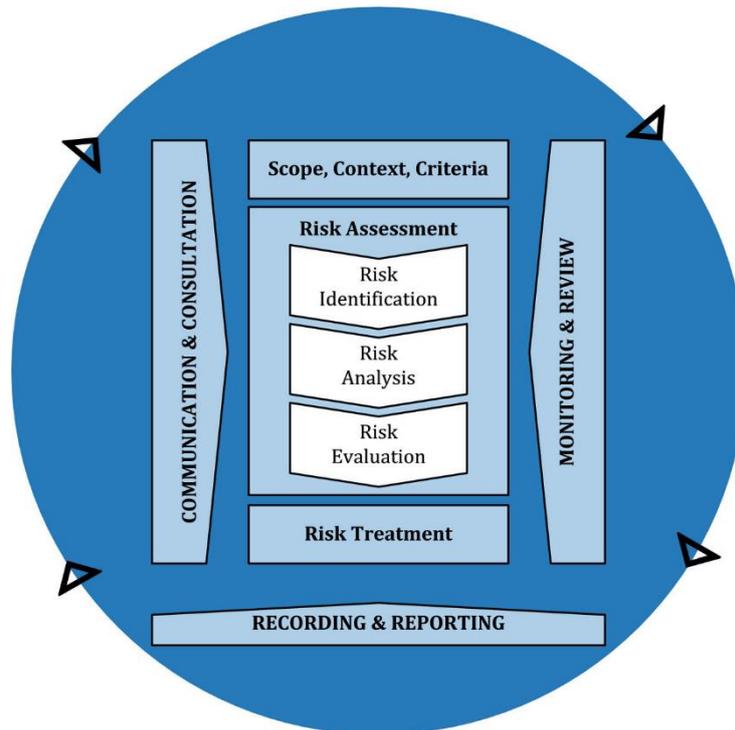


Fig 6.2 Risk Management Process – Abridged
 Source: ISO 31000:2018, Figure 1, p9

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks⁶ associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a ‘financial shock’, reputational impacts, or other consequences.

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2.

⁶ REPLACE with Reference to the Corporate or Infrastructure Risk Management Plan as the footnote

Table 6.2: Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs (\$)
Stormwater Pipes	Potential collapse	H	Council has undertaken a condition assessment (via camera survey) of 40% of its drainage network. This audit has found approximately \$3.1m of pipes in condition 4 or 5. Funds are not yet available via Council's LTFP for renewal of these conduits.	H	\$3.1m
Stormwater network	Flooding of properties	H	Council has developed the Barker Inlet Stormwater Management Plan which details required works (\$26m) across the network to mitigate flooding.	L	\$26m

Note * The residual risk is the risk remaining after the selected risk treatment plan is implemented.

6.3 Service and Risk Trade-Offs

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

6.3.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Cannot renew pipes in condition 4 or 5 as detailed in the condition audit
- Cannot implement all of the Barker Inlet Stormwater Management Plan which details required works (\$26m) across the network to mitigate flooding.

6.3.2 Service trade-off

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

- Disruption to community
- Ongoing potential for flooding

6.3.3 Risk trade-off

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

- Potential for stormwater pipe collapse
- Potential for ongoing flooding of properties

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 FINANCIAL SUMMARY

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

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

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

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

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio⁷ 39%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years we expect to have 39% of the funds required for the optimal renewal of assets.

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

Medium term – 10 year financial planning period

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

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

The forecast operations, maintenance and renewal costs over the 10 year planning period is \$1,074,852 average per year.

The proposed (budget) operations, maintenance and renewal funding is \$487,039 on average per year giving a 10 year funding shortfall of \$587,813 per year. This indicates that 45% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude assets funded through grants.

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

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

Table 7.1.3 shows the forecast costs (outlays) used in the development of the current 10 year long-term financial plan.

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

⁷ AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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

Forecast costs are shown in 2020/21 dollar values.

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

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2022	0	45,000	75,000	950,000	0
2023	0	46,305	77,175	1,000,000	0
2024	0	48,105	80,175	500,000	0
2025	0	48,105	80,175	1,000,000	0
2026	0	49,005	81,675	1,000,000	0
2027	0	49,005	81,675	1,000,000	0
2028	0	49,905	83,175	1,000,000	0
2029	0	49,905	83,175	1,000,000	0
2030	0	50,805	84,675	1,000,000	0
2031	0	50,805	84,675	1,000,000	0

7.2 Funding Strategy

The proposed funding for assets is outlined in the Council’s budget and Long-Term financial plan.

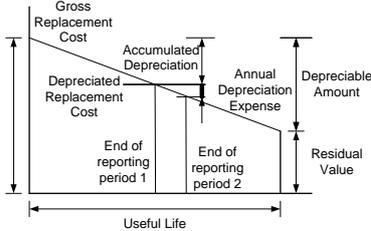
The financial strategy of the Council determines how funding will be provided, whereas the AM Plan communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AM Plan are shown below:

Replacement Cost (Current/Gross)	\$48,427,458
Depreciable Amount	\$48,427,458
Depreciated Replacement Cost ⁸	\$22,627,001
Depreciation	\$545,713



7.4 Key Assumptions Made in Financial Forecasts

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

Key assumptions made in this AM Plan are:

- Council funds will be spent on renewals rather than acquisitions when works are undertaken on expansion of the existing stormwater network
- Availability of grant funding
- Broad based estimated costs only have been used in the development of the estimates associated with the Barker Inlet Central Stormwater Management Scheme

⁸ Also reported as Written Down Value, Carrying or Net Book Value.

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AM Plan are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a C level scale⁹ in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E. Very Low	None or very little data held.

⁹ IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹⁰

8.1.1 Accounting and financial data sources

This AM Plan utilises accounting and financial data. The source of the data is Council June 2020 valuations.

8.1.2 Asset management data sources

This AM Plan also utilises asset management data. The source of the data is revised condition data in Councils Asset Management System 'Conquest'.

8.2 Improvement Plan

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

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Monitor project level estimates completed for proposed stormwater projects and review Council budget allocations for renewal v acquisitions	Mgr. Infrastructure & Assets	Nil	Ongoing
2	Proactively seek grant allocations for stormwater upgrades	Mgr. Infrastructure & Assets	Nil	Ongoing
3	Revise LTFP	Mgr. Infrastructure & Assets	Nil	22/23
4	Continue to monitor status of stormwater pipes identified in poor condition from the condition audit	Mgr. Infrastructure & Assets	Nil	Ongoing

¹⁰ ISO 55000 Refers to this as the Asset Management System

9.0 REFERENCES

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- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
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- Our Community Plan – Towards 2040
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- Barker Inlet Central Stormwater Management Plan, Progress Report, Southfront, 2021

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

Acquisitions comprise **estimated** grant funding that may be received for the expansion of the stormwater network.

A.2 – Acquisition Project Summary

Grant funding will be sought for the following projects:

- Barker Inlet Central Stormwater Management Plan
- Hillsdale St / Livingstone Av project

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2022	0	1,450,000	0
2023	0	2,000,000	0
2024	0	0	0
2025	0	1,000,000	0
2026	0	0	0
2027	0	1,000,000	0
2028	0	0	0
2029	0	1,000,000	0
2030	0	0	0
2031	0	1,000,000	0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

The operations forecast has been prepared using Councils existing operations budget as the base. The forecast has been increased moving forward using a figure of 0.13% of new / upgrade assets.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2022	45,000	1,305	45,000
2023	45,000	1,800	46,305
2024	45,000	0	48,105
2025	45,000	900	48,105
2026	45,000	0	49,005
2027	45,000	900	49,005
2028	45,000	0	49,905
2029	45,000	900	49,905
2030	45,000	0	50,805
2031	45,000	0	50,805

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

The maintenance forecast has been prepared using Councils existing maintenance budget as the base. The forecast has been increased moving forward using a figure of 0.22% of new / upgrade assets.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2022	75,000	2,175	75,000
2023	75,000	3,000	77,175
2024	75,000	0	80,175
2025	75,000	1,500	80,175
2026	75,000	0	81,675
2027	75,000	1,500	81,675
2028	75,000	0	83,175
2029	75,000	1,500	83,175
2030	75,000	0	84,675
2031	75,000	0	84,675

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

The following forms a discussion on how the renewal program has been defined:

Renewal analysis using useful lives: Stormwater assets traditionally have long useful lives. The following useful lives has been used in the compilation of this plan:

- Stormwater reinforced concrete pipes: 100 years
- Stormwater box culverts: 80 years
- Stormwater pits: 80 years

These useful lives are used as an estimate of when the asset will require renewal. An analysis using these principles has determined that no renewals are required over the 10 years of the plan.

Renewal analysis using condition survey: In 2019 a condition survey of 40% (only) of Council's pipe network was undertaken. Using pipes identified in poor condition or worse a renewal program has been identified that totals approximately \$3.1m. Council currently however has a philosophy of only replacing stormwater assets when full failure is observed, for this reason this is considered in the AMP from a risk management perspective only.

Barker Inlet Central Stormwater Management Plan: Together with the City of Port Adelaide Enfield, Prospect has developed a draft Stormwater Management Plan (2021) for the Barker Inlet Central Catchment. The report has identified approximately \$26m of required upgrades to the network within the City of Prospect that involves funding by Council together with potential grants from State and Federal Government. The following points document the broad assumptions using in articulation of this report into the AMP:

- Funds will be received from state / federal government grants of \$7,000,000 over the 10 years of the plan
- A forecast of \$9,000,000 of Council funds is required over the 10 years of the plan. **It is assumed that this will be for renewal works on Councils existing network to supplement the acquisition / upgrade works undertaken using state / federal funds.** Note this is an assumption only subject to project level determination of the split between renewals / acquisitions.

Local Drainage Network: \$900k of required expenditure has been identified as being required for the Hillsdale St / Livingstone Av project. Of this it has been assumed that grants will comprise \$450k with the remaining funds provided by Council for **renewal works to support the acquisition / upgrade works undertaken using state / federal funds.** Note this is an assumption only subject to project level determination of the split between renewals / acquisitions.

D.2 – Renewal Forecast Summary

Recommend using NAMS+ Outputs Summary for Renewal

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2022	950,000	950,000
2023	1,000,000	1,000,000
2024	500,000	410,944
2025	1,000,000	258,723
2026	1,000,000	238,808
2027	1,000,000	113,642
2028	1,000,000	74,203
2029	1,000,000	112,036
2030	1,000,000	112,036
2031	1,000,000	400,000

Appendix E Disposal Summary

No disposals are planned during the term of this Asset Management Plan.

Appendix F Budget Summary by Lifecycle Activity

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2022	0	45,000	75,000	950,000	0	1,070,000
2023	0	45,000	75,000	1,000,000	0	1,120,000
2024	0	45,000	75,000	410,944	0	530,944
2025	0	45,000	75,000	258,723	0	378,723
2026	0	45,000	75,000	238,808	0	358,808
2027	0	45,000	75,000	113,642	0	233,642
2028	0	45,000	75,000	74,203	0	194,203
2029	0	45,000	75,000	112,036	0	232,036
2030	0	45,000	75,000	112,036	0	232,036
2031	0	45,000	75,000	400,000	0	520,000