

TOWN OF BLIND RIVER ASSET MANAGEMENT PLAN STORM WATER SYSTEM

Document Control		Asset Management Plan			
Rev No	Date	Revision Details	Author	Review er	Approv er
1.0	December 2024	Initial Plan	C. Zagar	K. Scott/S.	Council
2.0	August 2025	 Updated to plan to meet 2025 regulatory requirements. Assessed condition and material data was added to the asset register for all culverts. Asset replacement forecasts were updated based on condition where applicable. 	C. Zagar	K. Scott/S. Dent	Council

Table of Contents

1.0	EXECUTIVE SUMMARY	4
1.1	The Purpose of the Plan	4
1.2	Asset Description	4
1.3	Levels of Service	4
1.4	Future Demand	5
1.5 1.5.1	Lifecycle Management Plan What does it Cost?	
1.6 1.6.1 1.6.2	Financial Summary What we will do What we cannot do	6 7
1.6.3	Managing the Risks	
1.7	Asset Management Planning Practices	
1.8 1.9	Financial Summary Monitoring and Improvement Program	
2.0	Introduction	9
2.1	Background	9
2.2	Goals and Objectives of Asset Ownership	.10
3.0	STATE OF THE INFRASTRUCTURE	12
3.1	Asset Inventory & Replacement Cost	.12
3.2	Asset Condition	.13
4.0	Current Approach to Condition Assessment	15
4.1	Age Profile	. 15
5.0	Lifecycle Management Strategy	17
5.1	Forecasted Capital Requirements	.18
5.2	Risk Management	.19
6.0	Levels of Service	24
6.1	Community Levels of Service	.24
6.2	Technical Levels of Service	.24
6.3	Proposed Levels of Service	.25

7.0	PLAN	IMPROVEMENT AND MONITORING	26
7.1	Status	of Asset Management Practices	26
7.1.1	Accounti	ing and financial data sources	26
7.1.2	Asset ma	anagement data sources	26
7.2	Improv	ement Plan	26
7.3	Monito	ring and Review Procedures	27
7.4	Perforr	mance Measures	27
8.0	FINAN	CIAL SUMMARY	28
8.1	Financ	ial Sustainability and Projections	28
8.1.1	Sustaina	ability of service delivery	28
Lifecyc		g Ratio – 10-year financial planning period	
8.1.2	Forecast	t Costs (outlays) for the long-term financial plan	29
8.2	Valuati	ion Forecasts	29
9.0	REFE	RENCES	31
10.0	APPE	NDICES	32
Appe	ndix A	Acquisition Forecast	32
Appe	ndix B	Operation and Maintenance Forecast	33
Appe	pendix C Renewal Forecast Summary		34
Appe	ppendix D Disposal Summary		35
Appe	Appendix E Budget Summary by Lifecycle Activity		36

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 the Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

The Town is responsible for owning and maintaining a stormwater network of 6km storm sewer mains, catch basins, and other supporting infrastructure.

Asset Segment	Asset Count	Unit of Measure	2024 Replacement Cost (\$)
Catch Basin Leads	564	length (m)	\$272,100
Catch Basins	164	each	\$656,000
		Length (m)	
Culverts	597	- , .	\$2,117,700.00
Manholes	82	each	\$615,000.00
Storm Sewer Lines 200-		length (m)	\$9,579,400
300mm	4,789		
Storm Sewer Lines 301-		length (m)	\$711,600
400mm	355		
Storm Sewer Lines 401-		length (m)	\$1,227,600
500mm	613		·
Storm Sewer Lines 501mm and over	318	length (m)	\$636,200

Table 1.2 Stormwater Assets

The above infrastructure assets have replacement value estimated at \$17,248,400.

1.3 Levels of Service

The allocation of funding in the planned budget is will dictate the performance of these assets and whether they continue providing existing services at current levels for the planning period.

The main service consequences of an insufficient Planned Budget are:

- Increased maintenance and repairs costs of stormwater assets.
- Increased replacement costs.
- Disruption to stormwater service.
- Infrastructure and property damage as a result of flooding.

1.4 Future Demand

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

- Population growth and future housing development. 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.
- Regulatory changes which will result in a required increased level of service for stormwater assets.
- Climate change and extreme precipitation events may require the storm water system capacity to be upgraded to accommodate these events.

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.

- Replacements of stormwater assets are completed in conjunction with the replacements of roads, and other underground services.
- Stormwater assets due for replacement will undergo a needs analysis to determine if the replacement can be completed in conjunction with the replacement of other assets to minimize the cost.

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years. Therefore, a summary output from the AM Plan is the forecast over the 10 years planning period, which for Stormwater Assets is estimated as \$4,594,450 or \$459,445 on average per year.

The following factors are reviewed prior to asset replacements:

- Condition and Usability determined through routine inspections and preventative maintenance by Public Works staff.
- Annual operating and repair costs taken from budget and in the future Citywide Maintenance Manager .
- Age/Year of asset vs expected lifecycle.

1.6 Financial Summary

1.6.1 What we will do

The funding made available in the first 10-years' of the LTFP is \$1,151,500 or \$115,150 on average per year which is approximately 21.69% of the cost to undertake the lifecycle activities.

The reality is, only what is funded in the LTFP can be provided. Informed decision making depends on the AM Plan emphasizing the consequences of planned budgets on the service levels provided and communicating the residual risks. It is important to ensure the organization is delivering the services in a financially sustainable manner.

The 10-year LTFP results in a **shortfall of \$415,745** on average per year of the forecast lifecycle costs required to provide services. The total forecasted costs of the lifecycle of stormwater assets at current service levels is summarized in Figure 1.6.

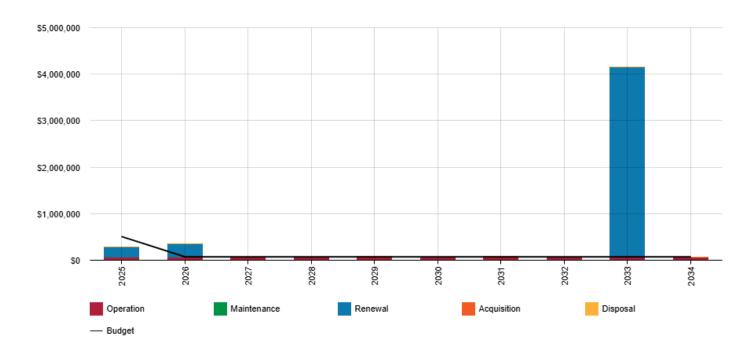


Figure 1.6 Forecast Replacement Costs

Figure Values are in current dollars.

We plan to provide stormwater asset services for the Town of Blind River

- Maintenance and operation of stormwater assets to ensure clean and safe collection and conveyance of storm water is supplied to residents.
- Replacement of assets before their end of usable life to prevent failure and disruption to the storm water system service.

 The total annual cost of this service is \$530,895 including operation, maintenance and forecasted replacements within the 10 year planning period.

1.6.2 What we cannot do

We currently do **not** allocate enough budget to sustain these services at the proposed standard or to provide all new services being sought. Works and services that cannot be provided under present funding levels are:

- Replacement of backlogged stormwater assets which have exceeded their usable life.
- Forecasted replacement of assets which will reach the end of their usable life during the planning period.

1.6.3 Managing the Risks

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

The main risk consequences are:

- Flooding and damage to public and private property.
- Excessive storm flows entering the sanitary system and overwhelming the capacity of the Wastewater treatment facility.

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

- Rehabilitation of ditches as necessary to provide sufficient capacity.
- Prioritization of the replacement of storm sewer lines to minimize potential disruption of service to residents.

1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Service levels during the planning period will remain consistent with current levels.
- Future budgets will remain close to current funding levels.

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

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

The asset register and was used to forecast the renewal lifecycle costs for this AM Plan.

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

1.8 Financial Summary

Providing financially sustainable and affordable services from infrastructure requires the careful management of service levels, costs and risks.

The 10-year LTFP is \$115,150 on average per year giving a 10 year funding shortfall of \$415,745 per year. This indicates that 21.69% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the LTFP.

Asset values are forecast to remain consistent as additional assets are not expected to be acquired within the planned period.

1.9 Monitoring and Improvement Program

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

- Complete rebuild of the stormwater asset register to include material type and GIS information related to wastewater assets.
- Development of a condition assessment tool which will account for the condition of the and other underground assets to prioritize full road reconstructions.
- Revise the estimated useable life of storms sewer assets to account for condition to further refine the age-based condition assessments.
- Incorporate storm sewer line material type into the asset register to further refine the estimated useful life based on material.

2.0 Introduction

2.1 Background

The Town is responsible for owning and maintaining a stormwater network of 6km of storm sewer mains, catch basins, and other supporting infrastructure.

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 Town of Blind River planning documents. This should include the Asset Management Policy and Asset Management Strategy, along with other key planning documents:

2025 Planned Budget

The infrastructure assets covered by this AM Plan includes all stormwater system assets utilized to provide storm water collection and disposal.

The infrastructure assets included in this plan have a total replacement value of \$17,248,400

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

Table 2.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
	 Represent needs of community/shareholders,
Council	 Allocate resources to meet planning objectives in providing services while managing risks,
	■ Ensure service sustainable.
	 Provide leadership with imbedding asset management practices across the organization.
	 Evaluate that adequate resources are available for development and implementation of AM initiatives
CAO	 Ensure consistency of asset management approaches across the Town's Services Areas
	 Approve future plan revisions
	 Suggest budgetary, property tax/rate and Infrastructure Levy to Council.

Key Stakeholder	Role in Asset Management Plan		
	 Ensure they asset inventory for Stormwater Assets is maintained and kept current. 		
Director of Public Services	 Recommend project selection criteria and weightings to Council. 		
	 Report asset deficiencies and condition through routine inspection and preventative maintenance. 		
PUC Staff/Public Works Staff	 Complete maintenance and repair on the system as required. 		
	 Provide replacement recommendations based on condition. 		

2.2 Goals and Objectives of Asset Ownership

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

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

Key elements of the planning framework are

- State of Local Infrastructure current condition at the Town and replacement value of fleet assets
- Levels of Service and continuous improvement
 – specifies the services and levels of service to be provided
- Asset Management Strategies like risk, disposal, lifecycle, and future demand and how this will impact on future service delivery and managing existing and future assets at defined levels of service
- Continuous Improvement and Monitoring how the plan can be continuously improved and then monitored to ensure objectives are met. This also includes increasing the asset management maturity, identifying emerging technologies in fleet like greening of fleet by including electric and hybrid fleet, charging stations and related infrastructure.

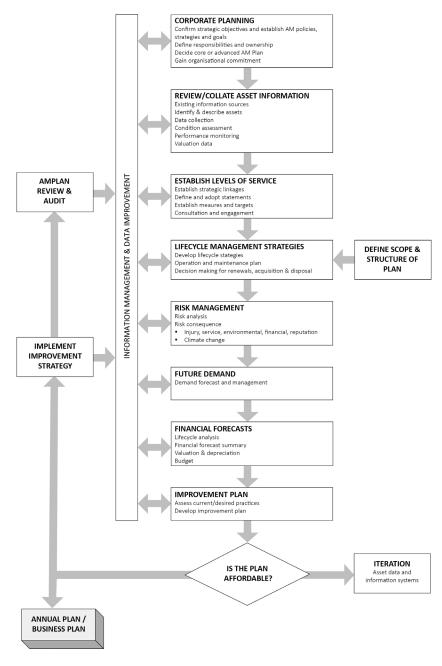
Other references to the benefits, fundamentals principles and objectives of asset management are:

ISO 55000¹

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



¹ ISO 55000 Overview, principles and terminology

3.0 STATE OF THE INFRASTRUCTURE

3.1 Asset Inventory & Replacement Cost

Table 3.1 includes the quantity, replacement cost method and total replacement cost of each asset segment in the Town's Stormwater Network inventory, which includes 6km of storm sewer lines.

The Town is responsible for owning and maintaining a stormwater network of 6km of storm sewer mains, catch basins, and other supporting infrastructure.

Table 3.1 Stormwater Asset Overview

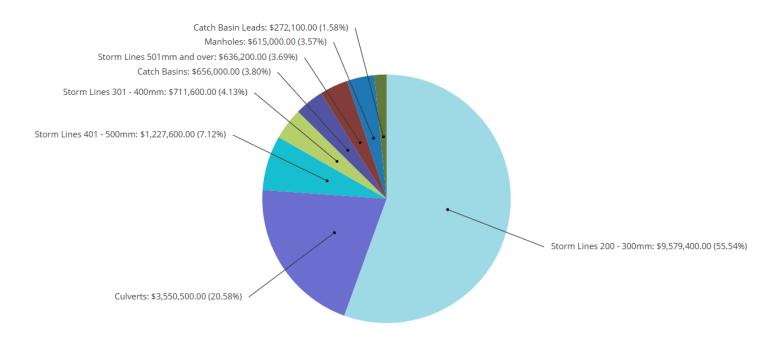
Asset Segment	Asset Count	Unit of Measure	2024 Replacement Cost (\$)
Catch Basin Leads	564	length (m)	\$272,100
Catch Basins	164	each	\$656,000
		Length (m)	
Culverts	597		\$2,117,700.00
Manholes	82	each	\$615,000.00
Storm Sewer Lines 200-		length (m)	\$9,579,400
300mm	4,789		
Storm Sewer Lines 301-		length (m)	\$711,600
400mm	355		
Storm Sewer Lines 401-		length (m)	\$1,227,600
500mm	613		
Storm Sewer Lines 501mm and over	318	length (m)	\$636,200

3.2 Asset Condition

Figure 3.2.1 summarizes the replacement cost for each segment type within the Town's storm network and associated capital assets.

Figure 3.2.2 summarizes the estimated replacement costs of Stormwater assets and separated by condition. The condition of these assets is based primarily on age. The vast majority of the Town's storm infrastructure is aging and in poor or worse condition. These assets may be candidates for replacement in the short term; similarly, assets in fair condition may require rehabilitation or replacement in the medium term and should be monitored for further degradation in condition.

Figure 3.2.1 Stormwater Replacement Cost Distribution Overview



TOTAL: \$17,248,400.00

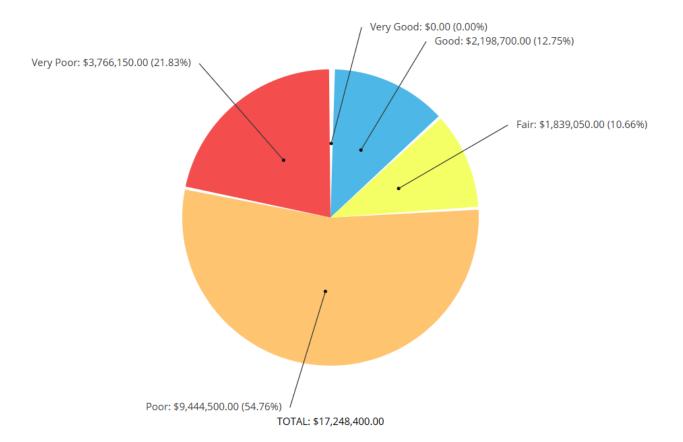


Figure 3.2.2 Stormwater Asset Overview

To ensure that the Town's Stormwater Network continues to provide an acceptable level of service, the Town should monitor the average condition of all assets. If the average condition declines, staff should re-evaluate their lifecycle management strategy to determine what combination of maintenance, rehabilitation and replacement activities is required to increase the overall condition of the Stormwater Network.

4.0 Current Approach to Condition Assessment

Accurate and reliable condition data allows staff to more confidently determine the remaining service life of assets and identify the most cost-effective approach to managing assets. The following describes the municipality's current approach:

- Staff are working on developing an annual inspection program for all catch basins and culverts.
- Some condition assessments are conducted on an annual basis.

4.1 Age Profile

An asset's age profile comprises two key values: estimated useful life (EUL), or design life; and the percentage of EUL consumed. The EUL is the recommended or industry-standard serviceable lifespan of an asset during which it can continue to fulfil its intended purpose and provide value to users, safely and efficiently.

As assets age, their performance diminishes, often more rapidly as they approach the end of their design life. EULs can vary significantly within an asset category, from several years to many decades. The graph below illustrates the remaining useful life for each major segment.

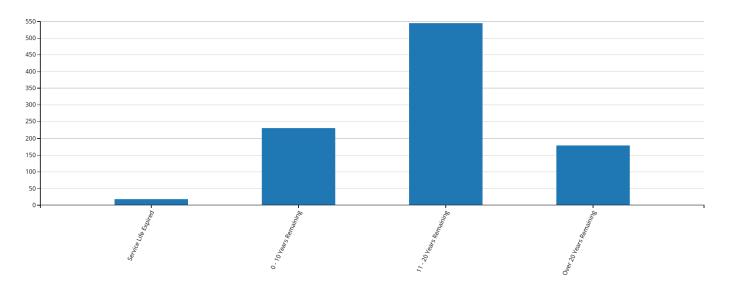


Table 4.1 Stormwater Age Vs. Useful Life

The average age of stormwater system assets is 40 years

The age profile shows that a large number of storm asset will need to be replaced within the planned period or are in the latter stages of their lifecycle and may begin to show further signs of disrepair and degradation. However, the service life for storm sewer lines may be understated. Currently, no material data was available for storm lines with a replacement cost of nearly \$4.6 million, making it difficult to assign estimated useful lives. Since the last planned period storm lines and culvert material data and condition

assessment has been added to our asset inventory improving our ability to assess the EUL of these assets.

Periodically, each asset's EUL should still be reviewed to better align with actual, in-field performance.

5.0 Lifecycle Management Strategy

The condition or performance of most assets will deteriorate over time. To ensure that municipal assets are performing as expected and meeting the needs of customers, it is important to establish a lifecycle management strategy to proactively manage asset deterioration.

The following table outlines the Town's current lifecycle management strategy.

Activity Type	Description of Current Strategy
Maintenance	Maintenance activities, including flushing, catch basin cleaning, and cover adjustments are completed. These are implemented as required; however staff are working on developing an annual inspection program for catch basins that may extend their useful life by five years.
	The cost for flushing is estimated at \$500 per metre.
Rehabilitation	Trenchless re-lining has the potential to reduce total lifecycle costs but would require a formal condition assessment program to determine viability. Currently, renewal and rehabilitation treatments are triggered by site-specific events, and can cost \$1,000 per metre.
Replacement	Without the availability of up-to-date condition assessment information replacement activities are purely reactive in nature and driven by site-specific events.

5.1 Forecasted Capital Requirements

The figure below illustrates the cyclical short-, medium- and long-term infrastructure replacement requirements for the Town's storm network assets. On average, \$459,445 is required each year to remain current with capital replacement needs.

Age-based and condition-based replacement needs will peak in 2033 during the planned period, totalling more than \$ 4,594,420 over the planned period. This represents an annual budget requirement of \$459,445. Given the long lifespan of stormwater lines, capital replacements are forecasted to be over double in the next ten years following the planned period.

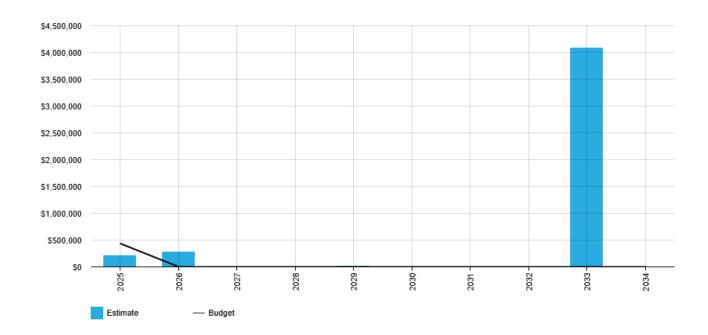


Table 5.1 Stormwater Asset Replacement Forecast

The planned renewal budget is insufficient to meet what is forecasted.

The chart also illustrates a represents a backlog of **\$208,200**; comprising assets that have reached the end of their estimated useful life but remain in service. Condition data may indicate that these assets are still capable of delivering acceptable service standards, in a safe and efficient manner. However, both age and condition will be incorporated for all assets into future plans and used to forecast replacement needs and refine capital expenditure estimates.

5.2 Risk Management

The risk management process used is shown in Figure 5.2.1.

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.

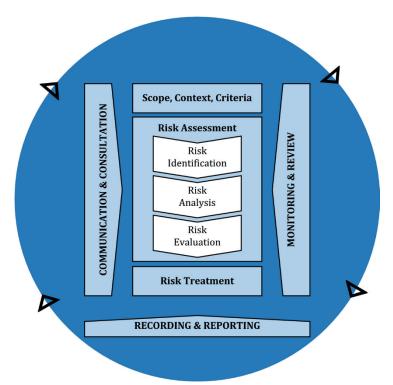


Fig 5.2.1 Risk Management Process – Abridged Source: ISO 31000:2018, Figure 1, p9

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.

The Town's Asset Management Risk Strategy provides a detailed description of consequence and risk scores which have been incorporated into the Town's Asset Management technology; Citywide. The probability of failure is based on the condition of the assets shown in Figure 5.2.2. The consequence of failure helps in determining the impact if failure does occur as shown in Figure 5.2.3. The consequence and probability together provide risk scores for each of the DWS assets. Figure 5.2.4 is the risk matrix for the Town.

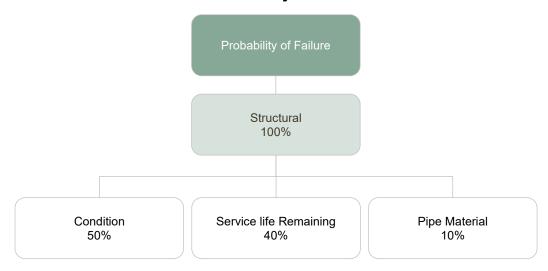
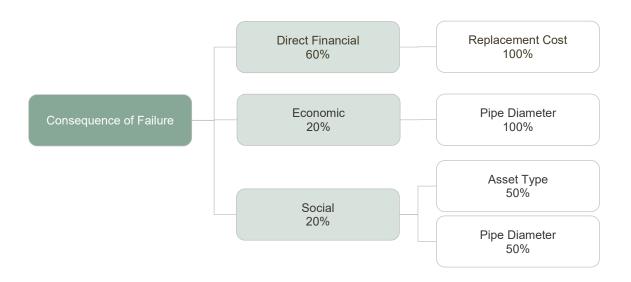


Table 5.2.2 Probability of Failure Model

Table 5.2.3 Consequence of Failure Model



An assessment of risks 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.

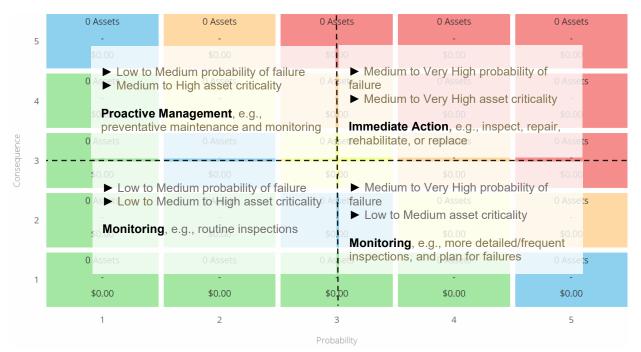


Table 5.2.4 Risk Matrix

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in this plan. The residual risk and treatment costs of implementing the selected treatment plan are reported in each plan. It is essential that these critical risks and costs are reported to management and the Town Council. There are currently no High or Very High risks associated with Stormwater assets.

A complete summary of identified risks is identified in Figure 5.2.5

The preliminary risk matrix below is generated using available asset data. It classifies assets based on their probability of failure and the consequence of failure. The Town is in the process of developing comprehensive risk frameworks for each of its asset classes and major segments. These frameworks will allow the Town to build more robust risk models to refine how risk ratings are established for different asset segments.

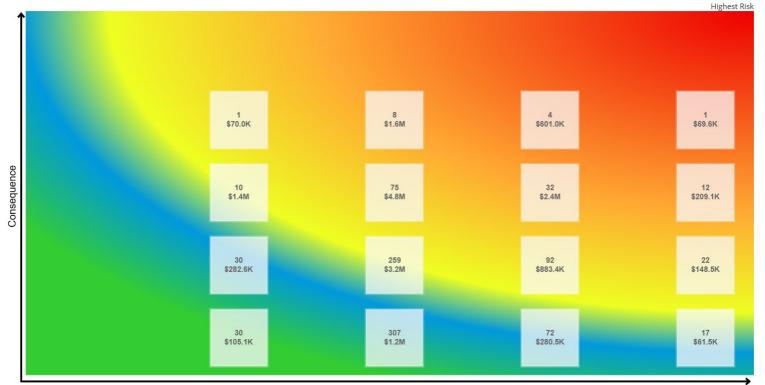


Table 5.2.5 Stormwater Asset Risk Matrix

Lowest Risk Probability

The heatmap illustrates that the majority of stormwater assets currently have a medium or medium-high risk rating.

In addition to asset level risk, the municipality may also face risks associated with not executing key lifecycle activities, including repairs, rehabilitation, and replacement of critical assets. These include:

- Missed opportunities for cost savings and increases in lifecycle costs.
- Deferral of vital projects, or further lending and borrowing.
- Accelerated asset deterioration and premature failure, which may lead to public health and safety hazards, and disruption of services to the Town's residential and commercial base.
- Failure of stormwater assets can be particularly detrimental, causing
 excessive flooding, erosion, backups, road and bridge closures,
 environmental damage, and substantial property damage. Water quality may
 also be jeopardized, further exacerbating public health and safety challenges.
 Increased frequency of extreme weather events has made some communities
 even more vulnerable to flooding. These events can also create legal
 liabilities for the municipality.

• A decline in public satisfaction with the Town's service standards and the resulting reputational damage.

An asset's criticality rating, determined by the nature and magnitude of the consequences of its potential failure should be used to prioritize projects, particularly lifecycle management strategies. Using risk in conjunction with levels of service, and the recommended treatment options can assist in optimizing limited funds.

6.0 Levels of Service

The following tables identify the Town's current level of service for Stormwater Network. These metrics include the technical and community level of service metrics that are required as part of O. Reg. 588/17 as well as any additional performance measures that the Town has selected for this AMP.

6.1 Community Levels of Service

The following table outlines the qualitative descriptions that determine the community levels of service provided by Stormwater Network.

Service Attribute	Qualitative Description	Current LOS
Scope	Description, which may include map, of the user groups or areas of the municipality that are protected from flooding, including the extent of protection provided by the municipal stormwater system	See Figure 6.1

Figure 6.1 Stormwater System Map

6.2 Technical Levels of Service

The following table outlines the quantitative metrics that determine the technical level of service provided by the Stormwater Network.

Service Attribute	Lachnical Matric	
Saana	% of properties in municipality resilient to a 100- year storm	75%
Scope	% of the municipal stormwater management system resilient to a 5-year storm	95%

6.3 Proposed Levels of Service

There are no proposed changes to the current levels of service provided by the Stormwater Network.

7.0 PLAN IMPROVEMENT AND MONITORING

7.1 Status of Asset Management Practices

7.1.1 Accounting and financial data sources

This AM Plan utilizes accounting and financial data. The source of the data is planned budgets and historical expenditures.

7.1.2 Asset management data sources

This AM Plan also utilizes asset management data. The source of the data is the asset register maintained in Citywide.

7.2 Improvement Plan

It is important that an entity recognize 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 9.2.

Table 7.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Integrate condition assessment data with the Town's asset management register to ensure alignment between systems and capital budget development.	Director of Public Services	Staff time	Ongoing – 1 year
2	Implement risk-based decision-making as part of asset management planning and budgeting processes. This should include the regular review of high-risk assets to determine appropriate risk mitigation strategies.	Director of Public Services and Finance	Staff time	Annually
3	Review risk models on a regular basis and adjust according to an evolving understanding of the probability and consequences of asset failure.	Director of Public Services	Staff time	Annually
4	Document and review lifecycle management strategies for the stormwater network on a regular basis to achieve the lowest total cost of ownership while maintaining adequate service levels.	Director of Public Services	Staff time	Annually

5	Align storm water infrastructure in GIS, asset inventory, field inspection and infrastructure	Director of Public Services	Staff time, engineering consultation	1-2 years
	drawings to streamline the handling of asset data.			

7.3 Monitoring and Review Procedures

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

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

The AM Plan has a maximum life of 4 years and is due for complete revision and updating within 1 year of each Town Council election.

7.4 Performance Measures

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

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

8.0 FINANCIAL SUMMARY

This section contains the financial and valuation forecasts resulting from the information presented in the previous sections of this plan. Forecasts will be improved as the discussion on sustainable levels of service, risk and cost matures in line with the financial strategy.

8.1 Financial Sustainability and Projections

8.1.1 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 as follows:

- Asset Renewal Funding Ratio (planned renewal budget for the next 10 years / forecast renewal outlays for the next 10 years identified as warranted in the AM Plan), and
- Lifecycle Funding Ratio (planned lifecycle budget for the next 10 years / forecast lifecycle outlays for the next 10 years identified as warranted in the AM Plan).

Asset Renewal Funding Ratio² 9.51%

The Asset Renewal Funding Ratio illustrates that over the next 10 years we expect to have 9.51% of the funds required for the optimal renewal of assets.

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

Lifecycle Funding Ratio – 10-year financial planning period

This AM Plan identifies the forecast operations, maintenance and renewal costs required to provide the levels of service to the community over a 10 year period. This provides input into 10 year long-term financial plan (LTFP) aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the planned 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 **\$530,895** average per year.

10-year Lifecycle Financial Ratio 22%

The 10-year LTFP is \$115,150 on average per year giving a 10 year funding shortfall of \$415,745 per year. This indicates that 21.69% of the forecast costs needed to provide the services documented in this AM Plan are accommodated in the proposed budget. Note, these calculations exclude depreciation and the acquisition of new and upgrade of existing assets.

Providing sustainable and affordable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a

² AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

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.

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

Table 8.1.2 shows the forecast costs (outlays) required for consideration in the 10 year long-term financial plan.

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

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the AM Plan and/or financial projections in the LTFP.

We will manage any 'gap' by communicating the service performance, cost, and risk implications in consultation with the community and key stakeholders.

Forecast costs are shown in 2025-dollar values.

Table 8.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2025	\$0	\$71,450	\$0	\$208,200	\$0
2026	\$0	\$71,450	\$0	\$280,500	\$0
2027	\$0	\$71,450	\$0	\$0	\$0
2028	\$0	\$71,450	\$0	\$0	\$0
2029	\$0	\$71,450	\$0	\$20,350	\$0
2030	\$0	\$71,450	\$0	\$0	\$0
2031	\$0	\$71,450	\$0	\$4,700	\$0
2032	\$0	\$71,450	\$0	\$0	\$0
2033	\$0	\$71,450	\$0	\$4,080,700	\$0
2034	\$0	\$71,450	\$0	\$0	\$0

8.2 Valuation Forecasts

The best available estimate of the value of assets included in this AM Plan are shown below. The assets are valued at cost to replace service capacity:

Figure 8.2.1: Valuation Terminology

Replacement Cost (Gross) \$17,248,400

Depreciable Amount \$17,248,400

Current Replacement Cost³ \$3,531,943

Depreciation \$395,722

Asset values are forecast to increase as additional assets are expected to remain consistent.

Acquiring new assets will add to existing operations, maintenance, future renewal, and depreciation expenses. No stormwater asset acquisitions are forecasted within the planning period.

_

³ Also reported as Written Down Value, Carrying or Net Book Value.

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2020 'International Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
- IPWEA, 2012, Practice Note 6 Long-Term Financial Planning, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn6
- IPWEA, 2014, Practice Note 8 Levels of Service & Community Engagement, Institute of Public Works Engineering Australasia, Sydney, https://www.ipwea.org/publications/ipweabookshop/practicenotes/pn8
- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management Guidelines
- Asset Management Strategic Plan 2019
- 2025 Planned Budget

10.0 APPENDICES

Appendix A Acquisition Forecast

Table A1 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2025	\$0	\$0	\$0
2026	\$0	\$0	\$0
2027	\$0	\$0	\$0
2028	\$0	\$0	\$0
2029	\$0	\$0	\$0
2030	\$0	\$0	\$0
2031	\$0	\$0	\$0
2032	\$0	\$0	\$0
2033	\$0	\$0	\$0
2034	\$0	\$0	\$0

Appendix B Operation and Maintenance Forecast

Table B1 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2025	\$71,450	\$0	\$71,450
2026	\$71,450	\$0	\$71,450
2027	\$71,450	\$0	\$71,450
2028	\$71,450	\$0	\$71,450
2029	\$71,450	\$0	\$71,450
2030	\$71,450	\$0	\$71,450
2031	\$71,450	\$0	\$71,450
2032	\$71,450	\$0	\$71,450
2033	\$71,450	\$0	\$71,450
2034	\$71,450	\$0	\$71,450

Appendix C Renewal Forecast Summary

Table C1 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget	
2025	\$208,200	\$437,000	
2026	\$280,500	\$0	
2027	\$0	\$0	
2028	\$0	\$0	
2029	\$20,350	\$0	
2030	\$0	\$0	
2031	\$4,700	\$0	
2032	\$0	\$0	
2033	\$4,080,700	\$0	
2034	\$0	\$0	

Appendix D Disposal Summary

Table D1 – Disposal Activity Summary

Year	Disposal Forecast	Disposal Budget
2025	\$0	\$0
2026	\$0	\$0
2027	\$0	\$0
2028	\$0	\$0
2029	\$0	\$0
2030	\$0	\$0
2031	\$0	\$0
2032	\$0	\$0
2033	\$0	\$0
2034	\$0	\$0

Appendix E Budget Summary by Lifecycle Activity

The planned budget estimate is based on the 2025 planned budget. Based on the current estimates, additional funding should be allocated for the replacement of stormwater assets to meet the forecasted renewals within the planning period.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisitio	Operation	Maintenan	Renewal	Disposal	Total
	n		ce			
2025	\$0	\$71,450	\$0	\$437,000	\$0	\$508,450
2026	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2027	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2028	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2029	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2030	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2031	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2032	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2033	\$0	\$71,450	\$0	\$0	\$0	\$71,450
2034	\$0	\$71,450	\$0	\$0	\$0	\$71,450