

RESORT VILLAGE OF WEE TOO BEACH



Infrastructure / Buildings

Asset Management Plan (Concise)



Version 1

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NAMS.PLUS Asset Management Plan Templates

NAMS.Plus offers two Asset Management Plan templates – ‘Concise’ and ‘Comprehensive’.

The Concise template is appropriate for those entities who wish to present their data and information clearly and in as few words as possible whilst complying with the ISO 55000 Standards approach and guidance contained in the International Infrastructure Management Manual.

The Comprehensive template is appropriate for those entities who wish to present their asset management plan and information in a more detailed manner.

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

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

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

This is the **Concise** Asset Management Plan template.

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INTRODUCTION:

Asset management plans are long-term plans developed to manage infrastructure while ensuring that the assets are capable of meeting the levels of service required to support the resort village's goals. These plans reflect information at a certain point in time; asset management is an ongoing process that requires regular updates to the costs, assets (retired or acquired), asset condition, risk or level of service. Council may use the information in these plans to make the best possible investment decisions for the resort village's infrastructure assets, while continuing to refine and update the information contained in the plan.

1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

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

This Asset Management Plan (AM Plan) details information about infrastructure assets including 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 the services over a 20-year planning period.

This plan covers the infrastructure assets that provide storage, shelter and washroom facilities, hygienic water distribution and roads.

1.2 Asset Description

The infrastructure and building network comprises of:

- New garage, Office/AED room & storage room
- Small garage and new roof
- Gazebo / sun shelter
- Three portapotties
- Roads (3.5 km gravel)
- Hygienic water system (well and pressure system)
- Park irrigation
- Fencing / boat launch gates

These infrastructure assets have significant value estimated at \$202,000.00.

1.3 Levels of Service

Our present funding levels are sufficient to continue to provide existing services at current levels in the medium term.

The main services consequences are:

- Roadway loss/damage
- Hygienic water system failure

1.4 Future Demand

The main demands for new services are created by:

- Campgrounds in the adjacent municipality use of local facilities

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

- Monitor use of facilities

1.5 Lifecycle Management Plan

What does it Cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10-year planning period is \$180,000.

1.6 Financial Summary

What we will do

Estimated available funding for this period is \$15,500 on average per year as per the budget forecast. This is 86% of the cost to sustain the current level of service at the lowest lifecycle cost.

The infrastructure reality is that only what is funded in the long term financial plan can be provided. The 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".

The allocated funding leaves a shortfall of \$2,500 on average per year of the projected expenditure required to provide services in the Asset Management Plan compared with planned expenditure currently included in the Long Term Financial Plan. This is shown in the figure below.

Projected Operating and Capital Expenditure

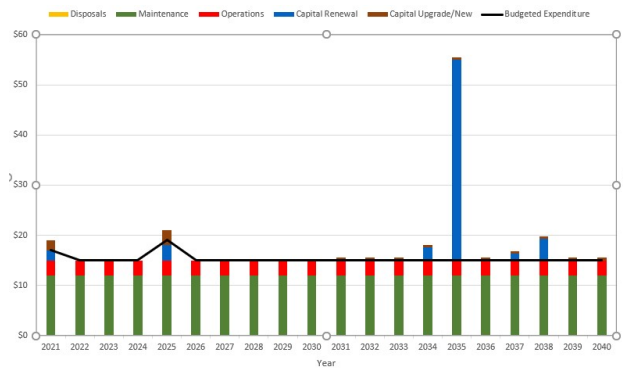


Figure Values are in current (real) dollars.

We plan to provide infrastructure / building services for the following:

- Operation, maintenance, renewal and upgrade of roads, hygienic system and most structures to meet service levels set in annual budgets.
- Upgrade of decking and siding on buildings.

What we cannot do

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

- Upgrade roads to better quality
- Upgrade the water system to a full treated water system

Managing the Risks

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

The main risk consequences are:

- Overuse of facilities will deteriorate roads and buildings

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

- Monitoring the assets in this plan for deterioration and repair as funding is available
- Maintain maintenance at the current level (oiling / dust control on roads & legislated compliance for water system)

1.7 Asset Management Practices

Our systems to manage assets include:

- MuniSoft financial system
- Spreadsheet for PSAB 3150 TCA register

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 1 was used for this asset management plan.

1.8 Monitoring and Improvement Program

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

- More thorough monitoring to maintain quality of assets
- Formal long term financial plan in place to meet future renewals and demands
- Prioritizing of next renewals/replacements

2. INTRODUCTION

2.1 Background

This asset management plan communicates the actions required for the responsive management of assets (and services provided from assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

The asset management plan is to be read with the municipality's planning documents. This should include the Asset Management Policy and Asset Management Strategy where these have been developed along with other key planning documents:

- Asset Management Policy and Strategy

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide access to infrastructure and buildings.

Table 2.1: Assets covered by this Plan

Asset Category	Description/Dimension	Replacement Value
Roads	3.5 km gravel roads	\$50,000
New Garage, Office/AED room & Storage Room	30' x 40' x 10'	\$65,800
Small Garage & New Roof	Single car	\$23,200
Sun Shelter	Gazebo	\$20,000
Hygienic Well & Infrastructure	Well, pump & lines	\$20,000
Fencing	Gates at WTB	\$1,800
Park Irrigation	Lipps & Lasal Bay	\$10,000
Three Portapotties	Beach	\$3,900
Boat launch gates/keys	2 boat launches	\$7,500
TOTAL		\$202,200

2.2 Goals and Objectives of Asset Ownership

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

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

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

2.3 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual³. Core asset management is a 'top down' approach where analysis is applied at the system or network level. An 'advanced' asset management approach uses a 'bottom up' approach for gathering detailed asset information for individual assets.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

We currently have not completed research on customer expectations other than individual ratepayer input. This will be investigated for future updates of the asset management plan.

3.2 Strategic and Corporate Goals

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

Our vision is:

Wee Too Beach is a safe and caring community focused on seasonal living.

Our mission is:

To maintain a "cottage" lifestyle that is sustainable, fiscally responsible and affordable with minimal "urban" type services.

Relevant goals and objectives and how these are addressed in this asset management plan are:

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

Goal	Objective	How Goal and Objectives are addressed in AM Plan
Sustainability	Optimize use of infrastructure to sustain current access	The plan provides information to Council for long term planning with sustainability in mind.
Affordability/Fiscal Responsibility	Plan for future infrastructure/building requirements	The plan offers long term planning to support the current infrastructure and buildings that is fair and affordable.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this Asset Management Plan. Management of infrastructure risks is covered in Section 6.

² ISO 55000 Overview, principles and terminology

³ IPWEA, 2015, IIMM.

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include, but are not limited to:

Table 3.3: Legislative Requirements

Legislation	Requirement
<i>The Municipalities Act</i>	Provides the role, purpose, responsibilities and powers for local governments including long term financial planning for sustainable delivery of service.
PSAB 3150	Public Sector Accounting Board guidelines for accounting and reports of tangible capital assets
<i>The Water Security Agency Act</i>	Provides requirements for managing, administering, developing, controlling and protecting water, watersheds and related land resources

3.4 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by organizational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the asset management plan are:

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

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

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

The current and expected customer service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the expected levels of service based on resource levels in the current long-term financial plan.

Organizational measures are measures of fact related to the service delivery outcome e.g. number of occasions when service is not available, condition percentages of Very Poor, Poor/Average/Good, Very good.

These organizational measures provide a balance in comparison to the customer perception that may be more subjective.

Table 3.4: Customer Level of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years based on the current budget.
Service Objective: Customer Service				
Quality	Infrastructure / Buildings are in good working condition for users	Customer/Council input and requests	Minimal complaints or calls	Likely to increase slightly

	Organizational measure	Quality (%) of infrastructure / buildings in very good / good (1,2) or average (3) condition	90% of infrastructure / buildings are in very good to good condition; 10% of infrastructure / buildings are in average condition	Likely to remain the same
	Confidence levels		High	High
Function	Infrastructure / Buildings meet user needs	Customer/Council input and requests	Minimal complaints	Expected to remain the same or improve slightly
	Organizational measure	% of infrastructure / buildings with a very good / good (1,2) or average (3) functionality	90% of infrastructure / buildings have very good to good functionality 10% of infrastructure / buildings have an average functionality	100% of infrastructure / buildings to have a very good to good functionality Functionally may be reduced as renewal / upgrade is not currently fully funded
	Confidence levels		High	High
Capacity and Use	Infrastructure / buildings have sufficient capacity to meet needs	Customer/Council input and requests	Minimal complaints	Expected to remain the same or improve slightly
	Organizational measure	% of infrastructure / buildings at a very good / good (1,2) or average (3) capacity	90% of infrastructure / buildings have very good to good capacity 10% of infrastructure / buildings have an average capacity	100% of infrastructure / buildings to have a very good to good capacity Capacity may be reduced as additional requirements are not currently fully funded
	Confidence levels		High	High

- Input based on professional judgement and current data. No customer surveys—only customer remarks.

3.5 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

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

- Operations – the regular activities to provide services (e.g. opening hours, cleaning, 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 (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- Upgrade/New – 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).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.⁴

Table 3.5 shows the technical levels of service expected to be provided under this Asset Management Plan. The 'Desired' position in the table documents the position being recommended in this Asset Management Plan.

Table 3.5: Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
TECHNICAL LEVELS OF SERVICE				
Operations				
	Hygienic System testing, start up and shut down	Regular testing, maintenance and annual inspection	As legislated and inspected annually	Continue under current legislated requirements; inspect system monthly
	Buildings/Roads operation	Regular cleaning and inspection	Inspected annually & cleaned as required	Inspected and cleaned on a more frequent basis
		Budget	\$3,000 annually	\$3,500-\$4,500 annually
Maintenance				
	Infrastructure / Buildings are suitable for intended purpose	Planned maintenance is completed on schedule	90% of planned maintenance completed on schedule (including annual application of reclaim/dust control to roads / minor building maintenance)	No anticipated change in service schedule
		Service requests completed within one week	95% of service requests completed on schedule	Service schedule not likely to change
		Budget	\$12,000 annually	\$15,000 annually
Renewal				
	Road maintenance / hygienic system renewal	Renewals not currently required or funded by budget	No anticipated renewal work at this time due to current condition / functionality	Begin a road oiling program to renew or begin road upgrade New equipment for hygienic system
		Budget	No expected renewals budgeted	Consider \$10,000 to renew roads starting 2025
Upgrade/New				
	None planned or required at this time			
		Budget		

Note: * Current activities and costs (currently funded).

** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded).

⁴ IPWEA, 2015, IIMM, p 2|28.

Currently the infrastructure and buildings are well maintained to ensure a level of service expected by ratepayers and provided by the municipality. It is agreed that the current operation and maintenance funding are adequate to maintain the agreed service levels.

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

4. 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 were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

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

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Campground adjacent to Municipality using municipal facilities	No financial support for additional use of facilities	Projected to increase as the campground becomes more populated	Local residents are limited to their use of structures and overuse will impact the useful lives of assets

4.4 Demand Management Plan

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 4.4. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.4: Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Campground adjacent to Municipality using municipal facilities	Local residents have limited use of structures and overuse by non-residents will impact the useful lives of assets	Installation of boat launch controls/limiting parking to minimize use by campgrounds; no current plan for beach and public reserve facilities other than monitoring additional use.

4.5 Asset Programs to meet Demand

The new assets required to meet demand can be acquired, donated or constructed. Additional assets are discussed in Section 5.5. The summary of the cumulative value of additional asset is shown in Figure 1.

Figure 1: Upgrade and New Assets to meet Demand – (Cumulative)

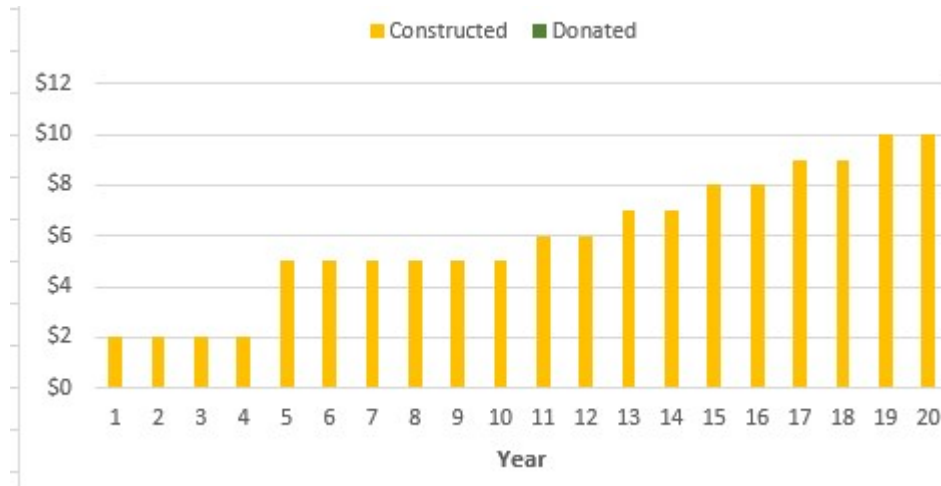


Figure Values are in current (real) dollars.

Council will be upgrading siding and decking to enhance buildings and extend their useful life.

Upgrading the assets will commit 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 in Section 5.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1.

Infrastructure and buildings including: garages, gazebo, hygienic water system, irrigation and portapotties.

The age profile of the assets included in this Asset Management Plan are shown in Figure 2.

Figure 2: Asset Age Profile

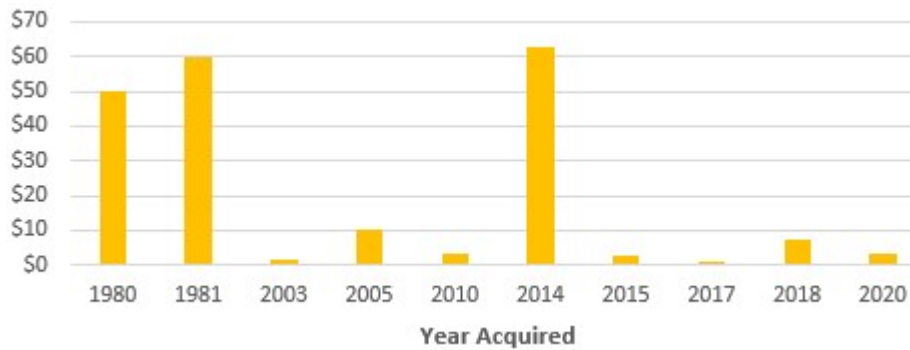


Figure Values are in current (real) dollars.

Most of the assets were contributed in the early 1980's and have been well maintained. Projected renewal should begin in 2030 or later.

5.1.2 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 Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Hygienic Water System	Regulated hygienic system adequate for current legislation that could change or quality of infrastructure may fail with leaks leaving system inoperable.
Roads	Failure through the network where base is not consistent.

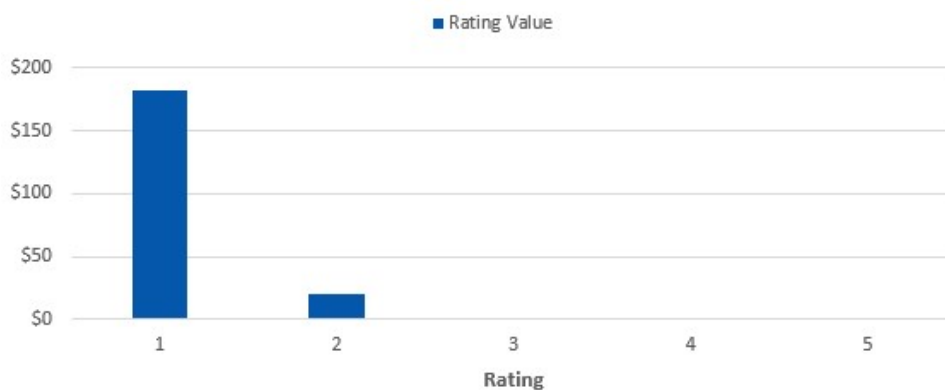
The above service deficiencies were identified from physical examination of assets.

5.1.3 Asset condition

Condition is monitored annually during maintenance and operations by Council members.

The condition profile of our assets is shown in Figure 3.

Figure 3: Asset Condition Profile



Currently assets are in a very good, well maintained condition.

Figure Values are in current (real) dollars.

Condition is measured using a 1 – 5 grading system⁵ as detailed in Table 5.1.3.

Table 5.1.3: Simple Condition Grading Model

Condition Grading	Description of Condition
1	Very Good: only planned maintenance required
2	Good: minor maintenance required plus planned maintenance
3	Fair: significant maintenance required
4	Poor: significant renewal/rehabilitation required
5	Very Poor: physically unsound and/or beyond rehabilitation

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, e.g. utilities costs and street lighting.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. road patching.

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.

Maintenance expenditure is shown in Table 5.2.1.

Table 5.2.1: Maintenance Expenditure Trends

Year	Maintenance Budget
2021	\$12,000
2022	\$12,000
2023	\$12,000

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that they will result in a lesser level of service, the service consequences and service risks have been identified and highlighted in this Asset Management Plan and service risks considered in the Infrastructure Risk Management Plan.

Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4. Note that all costs are shown in current 2021 dollar values (i.e. real values).

⁵ IPWEA, 2015, IIMM, Sec 2.5.4, p 2 | 80.

Figure 4: Projected Operations and Maintenance Expenditure

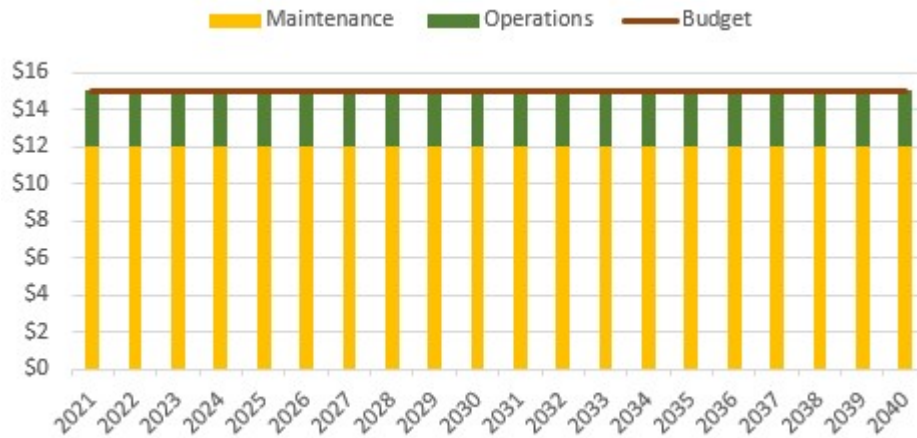


Figure Values are in current (real) dollars.

Funding of the current operations and maintenance needs is in line with what is required.

Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded, are to be included in the risk assessment and analysis in the infrastructure risk management plan.

Maintenance is funded from the operating budget where available. This is further discussed in Section 7.

5.3 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset’s design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal/replacement are identified from one of three methods provided in the ‘Expenditure Template’.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the ‘Expenditure template’.

Method 1 was used for this asset management plan.

5.3.1 Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. roughness of a road).⁶

⁶ IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be greatest,
- Have a total value representing the greatest net value,
- Have the highest average age relative to their expected lives,
- Are identified in the Asset Management Plan as key cost factors,
- Have high operational or maintenance costs, and
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.⁷

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 5.3.1.

Table 5.3.1: Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting
Condition / Age	25%
Capacity	25%
Fit with AM Strategic Plan	50%
Total	100%

5.3.2 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time when the asset stock increases. The expenditure required is shown in Fig 5. Note that all amounts are shown in current (real) dollars.

The projected capital renewal and replacement program is shown in Appendix B.

Figure 5: Projected Capital Renewal and Replacement Expenditure

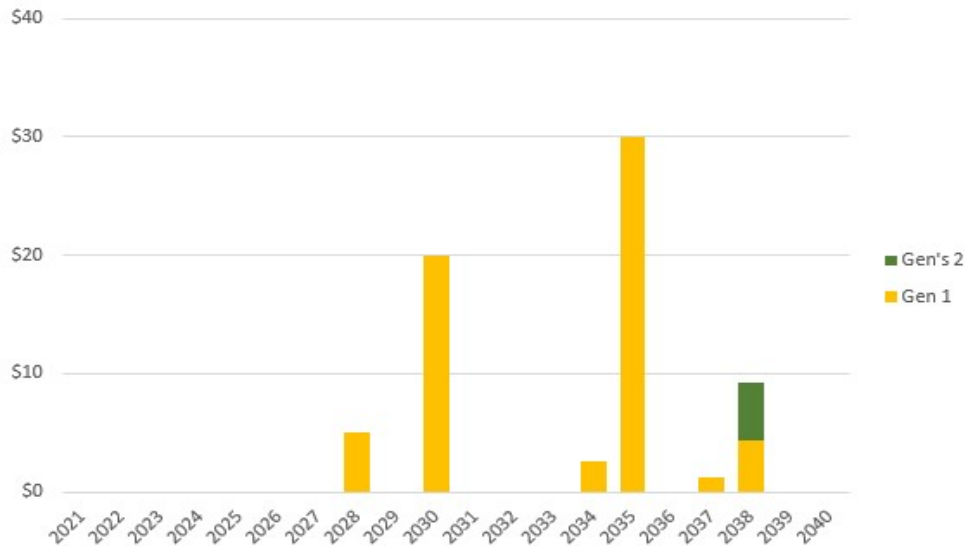


Figure Values are in current (real) dollars.

⁷ Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Due to the quality of the assets, significant renewal may be required in 2030 with budget implications.

Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs, are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in the capital works program will be accommodated in the long term financial plan. This is further discussed in Section 7.

5.4 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost. These additional assets are considered in Section 4.4.

5.4.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programs. The priority ranking criteria is detailed below.

Table 5.4.1: New Assets Priority Ranking Criteria

Criteria	Weighting
Condition / Age	20%
Capacity	20%
Fit with AM Strategic Plan	60%
Total	100%

5.4.2 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarized in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

Figure 6: Projected Capital Upgrade/New Asset Expenditure

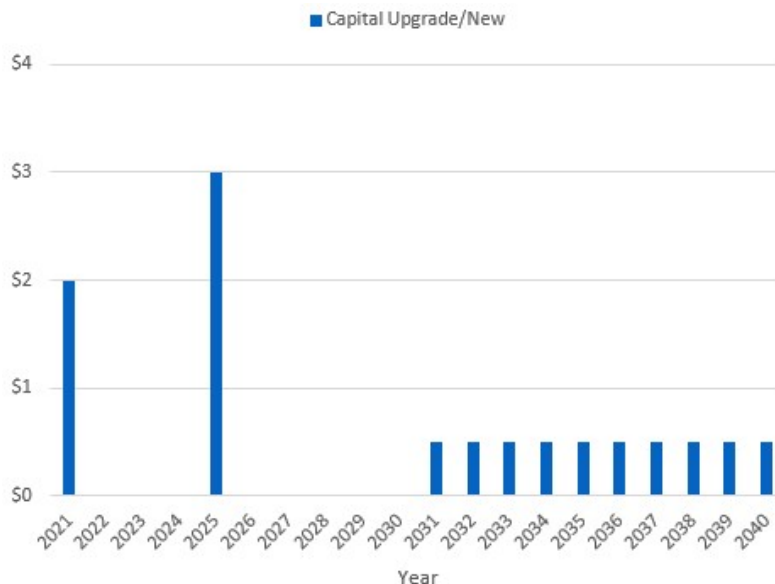


Figure Values are in current (real) dollars.

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 of the available funds.

No planned new assets only upgrading of siding/decking which will have a minimal effect on operating and maintenance budgets.

5.4.3 Summary of asset expenditure requirements

The financial projections from this asset plan are shown in Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

The bars in the graphs represent the anticipated budget needs required to achieve lowest lifecycle costs, the budget line indicates what is currently available. The gap between these informs the discussion on achieving the balance between services, costs and risk to achieve the best value outcome.

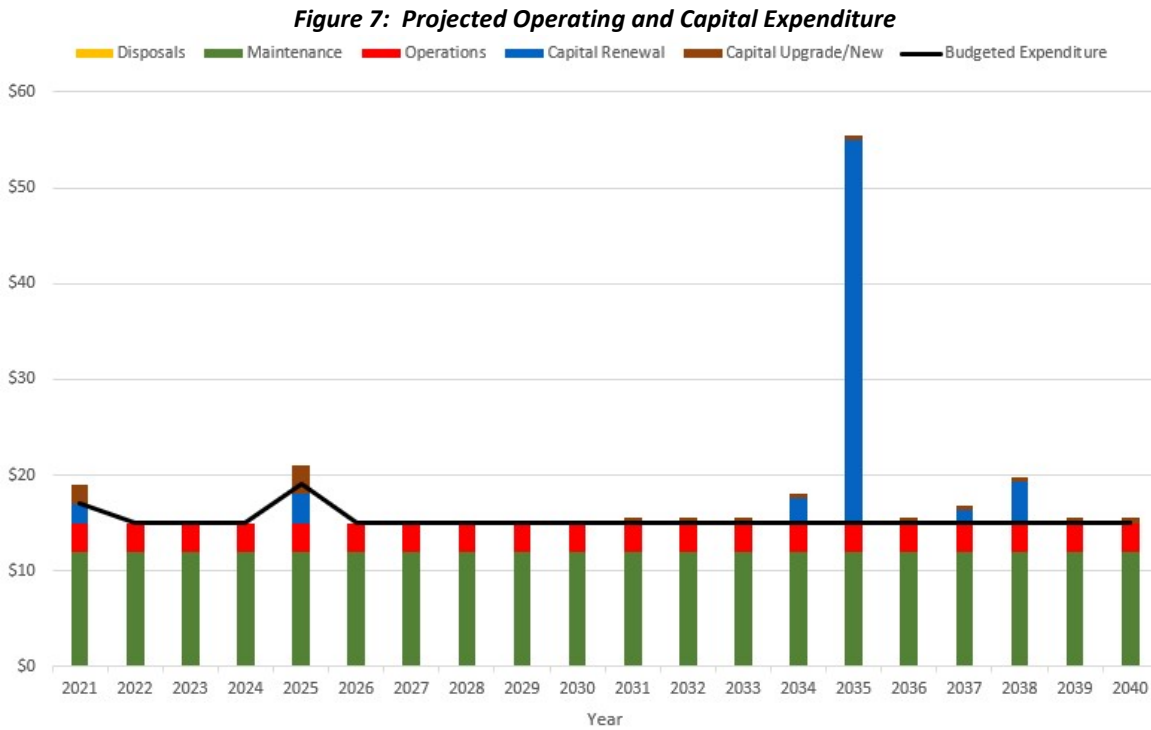


Figure Values are in current (real) dollars.

Current budgeting is adequate for the assets in this plan. Long term financial budgeting will be required for the capital renewal that will be required in 2035 and beyond.

5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.5, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any costs or revenue gained from asset disposals is accommodated in the long term financial plan.

Table 5.5: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings
None planned in next 10 years				

6. RISK MANAGEMENT PLAN

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 31000:2009 as: ‘coordinated activities to direct and control with regard to risk’⁸.

An assessment of risks⁹ 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.

6.1 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:

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Hygienic Water System	Well or line failure	Termination of Hygienic Water System
Roads	Maintenance under funded	Loss of road base

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

6.2 Risk Assessment

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

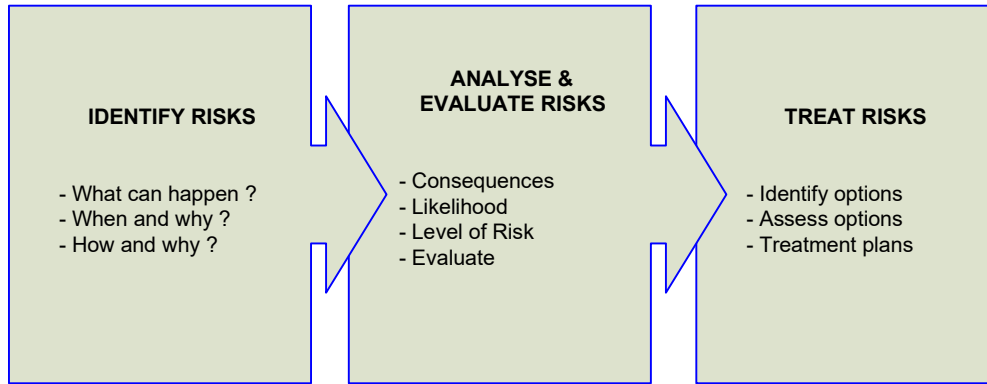
The purpose of the risk management process is to provide a logical framework for the selection of treatment plans and the management actions to protect the community against unacceptable risk.

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

⁸ ISO 31000:2009, p 2

⁹ From WTB Infrastructure Risk Management Plan

Fig 6.2 Risk Management Process – Abridged



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.

An assessment of risks¹⁰ associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, ‘financial shock’ or a reduction in service.

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 cost after the selected treatment plan is implemented is shown in Table 6.2. These risks and costs are reported to management and the Council of the Resort Village of Wee Too Beach.

Table 6.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Roads	Network failure due to under funding	Medium	Maintain with recycled asphalt or dust control to secure base for future oiling or paving	Low	\$10,000 annually
Hygienic Water System	System failure / change in regulations	Medium	Maintain with regulatory compliance and monitoring	Low	\$1,000 annually

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

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

¹⁰ From WTB Infrastructure Risk Management Plan

Our current measure of resilience is shown in Table 6.4 which includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

Table 6.4: Resilience

Threat / Hazard	Resilience LMH	Improvements / Interventions
Road failure	Medium	Continue to maintain with recycled asphalt or dust control to improve base.
Hygienic water system failure	Medium	Maintain the system with regulatory compliance until obsolete.

6.4 Service and Risk Trade-Offs

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

6.4.1 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:

- Increase the operating and maintenance to a higher level due to underfunding. Operating and maintenance is at an adequate but not exceptional level for both the roads and water system.
- Upgrade the hygienic water system to a potable water system due to costs and regulations.

6.4.2 Service trade-off

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Providing access to the hygienic water system for more ratepayers due to regulatory requirements and cost.
- Roads cannot be paved as base is inadequate at this time.

6.4.3 Risk trade-off

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

- Roadway failure
- Loss of hygienic water system
- Building deterioration

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

7. FINANCIAL SUMMARY

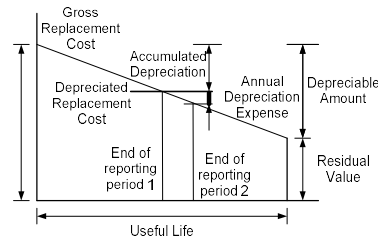
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

7.1 Financial Statements and Projections

7.1.1 Asset valuations

The best available estimate of the value of assets included in this Asset Management Plan are shown below. Assets are valued at a fair value cost to replace in equivalent current replacement values.

Gross Replacement Cost (or CRC)	\$202,000.00
Depreciable Amount	\$202,000.00
Depreciated Replacement Cost ¹¹	\$44,000.00
Annual Average Asset Consumption	\$3,000.00



7.1.1 Sustainability of service delivery

Two key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the:

- asset renewal funding ratio, and
- medium term budgeted expenditures/projected expenditure (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio¹² 0%

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 0% of the funds required for the optimal renewal and replacement of assets.

Medium term – 10 year financial planning period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures 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.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$18,000.00 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$15,500.00 on average per year giving a 10 year funding shortfall of \$-2,500.00 per year. This indicates 86% of the projected expenditures needed to provide the services documented in the asset management plan. This excludes upgrade/new assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 10-year life of the Long Term Financial Plan.

¹¹ Also reported as Written Down Value, Carrying or Net Book Value.

¹² AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

7.1.2 Projected expenditures for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in 2021 real values.

Table 7.1.2: Projected Expenditures for Long Term Financial Plan (\$000)

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2021	\$3	\$14	\$0	\$2	\$0
2022	\$3	\$12	\$0	\$0	\$0
2023	\$3	\$12	\$0	\$0	\$0
2024	\$3	\$12	\$0	\$0	\$0
2025	\$3	\$15	\$0	\$3	\$0
2026	\$3	\$12	\$0	\$0	\$0
2027	\$3	\$12	\$0	\$0	\$0
2028	\$3	\$12	\$5	\$0	\$0
2029	\$3	\$12	\$0	\$0	\$0
2030	\$3	\$12	\$20	\$0	\$0
2031	\$3	\$12	\$0	\$1	\$0
2032	\$3	\$12	\$0	\$1	\$0
2033	\$3	\$12	\$0	\$1	\$0
2034	\$3	\$12	\$3	\$1	\$0
2035	\$3	\$12	\$40	\$1	\$0
2036	\$3	\$12	\$0	\$1	\$0
2037	\$3	\$12	\$1	\$1	\$0
2038	\$3	\$12	\$4	\$1	\$0
2039	\$3	\$12	\$0	\$1	\$0
2040	\$3	\$12	\$0	\$1	\$0

7.2 Funding Strategy

Funding for assets is provided from the budget and long term financial plan.

The financial strategy of the municipality determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts. Additional assets include the boat launch controls (gates) that should have minimal effect on operating and maintenance funding.

7.4 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

Table 7.4: Key Assumptions made in Asset Management Plan and Risks of Change

Key Assumptions	
1	Assets are in good to very good condition due to thorough maintenance.
2	Major upgrades or renewals are not forecast to be required during the next ten years of this plan.
3	There is a good understanding of the quality of the infrastructure and building and their required renewal.

7.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹³ in accordance with Table 7.5.

Table 7.5: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	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 Reliable	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 Uncertain	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 Very Uncertain	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 Unknown	None or very little data held.

The estimated confidence level and reliability of data used in this Asset Management Plan is considered to be reliable. Infrastructure and buildings have been physically inspected and the condition compared to the TCA register data for this plan.

¹³ IPWEA, 2015, IIMM, Table 2.4.6, p 2 | 71.

8. PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices¹⁴

8.1.1 Accounting and financial data sources

MuniSoft Financials and Receivables Software along with the PSAB 3150 Tangible Capital Asset (TCA) compliant spreadsheet.

8.1.2 Asset management data sources

PSAB 3150 Tangible Capital Asset (TCA) register spreadsheet and physical inspection.

8.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

Table 8.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	More thorough inspection of the infrastructure and buildings for damage and deterioration	Council	Contractor if required for inspection	Annually each spring
2	A more formal long term financial plan (LTFP) to be put in place and presented to Council for review and approval	Administration	None	Updated for each annual budget
3	Review Replacement / Renewal priorities for the next renewals in 2030	Council	None	January, 2025
4				
5				
6				
7				
8				
9				
10				

8.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The Asset Management Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

¹⁴ ISO 55000 Refers to this the Asset Management System

The Asset Management Plan has a life of 4 years and is due for complete revision and updating by December 31st after each urban municipal Council election.

8.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into the long term financial plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.

9. REFERENCES

- IPWEA, 2006, '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, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM.
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney.
- Annual Budget.

10. APPENDICES

Appendix A Projected 10 year Capital Renewal and Replacement Works Program.

Appendix B Projected 10 year Capital Upgrade/New Works Program.

Appendix C LTFP Budgeted Expenditures Accommodated in Asset Management Plan.

Appendix A Projected 10-year Capital Renewal and Replacement Works Program

No major renewal or replacement is scheduled during this plan and is handled with annual budget. Next scheduled major replacement/renewal is not until 2035.

Appendix B Projected Upgrade/Exp/New 10-year Capital Works Program

Year	Item	Description	Estimate (\$000)
2028	1	Boat launch locks/keys	\$5
2030	1	Sun Shelter	\$20
2021		Total	\$25

No further capital upgrades/new planned for in the remaining years of the plan and the noted renewals are in good condition and their life may be extended.

Appendix C Budgeted Expenditures Accommodated in LTFP

Infra/Bldgs_S1_V1

Asset Management Plan



Infra/Bldgs First year of expenditure projections 2021 (financial yr ending)

Asset values at start of planning period

Current replacement cost	\$202 (000)
Depreciable amount	\$202 (000)
Depreciated replacement cost	\$44 (000)
Annual depreciation expense	\$3 (000)

Calc CRC from Asset Register
 This is a check for you.

Operations and Maintenance Costs for New Assets

Additional operations costs	1.49%
Additional maintenance	5.94%
Additional depreciation	1.49%
Planned renewal budget (information only)	

You may use these values calculated from your data or overwrite the links.

Planned Expenditures from LTFP

20 Year Expenditure Projections Note: Enter all values in current 2021 values

Financial year ending	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Expenditure Outlays included in Long Term Financial Plan (in current \$ values)										
Operations										
Operations budget	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3
Management budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
AM systems budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total operations	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3
Maintenance										
Reactive maintenance budget	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2	\$2
Planned maintenance budget	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
Specific maintenance items budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total maintenance	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12
Capital										
Planned renewal budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Planned upgrade/new budget	\$2	\$0	\$0	\$0	\$3	\$0	\$0	\$0	\$0	\$0
Non-growth contributed asset value	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Asset Disposals										
Est Cost to dispose of assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Carrying value (DRC) of disposed assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Additional Expenditure Outlays Requirements (e.g from Infrastructure Risk Management Plan)										
Additional Expenditure Outlays required and not included above	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000	2026 \$000	2027 \$000	2028 \$000	2029 \$000	2030 \$000
Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Renewal	to be incorporated into Forms 2 & 2.1 (where Method 1 is used) OR Form 2B Defect Repairs (where Method 2 or 3 is used)									
Capital Upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
User Comments #2										
Forecasts for Capital Renewal using Methods 2 & 3 (Form 2A & 2B) & Capital Upgrade (Form 2C)										
Forecast Capital Renewal from Forms 2A & 2B	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000	2026 \$000	2027 \$000	2028 \$000	2029 \$000	2030 \$000
Forecast Capital Upgrade from Form 2C	\$0	\$0	\$0	\$0	\$3	\$0	\$0	\$0	\$0	\$0