KINGSTON DISTRICT COUNCIL

MARINE ASSET MANAGEMENT PLAN 2026-27 TO 2036-37

KINGSTON DISTRICT COUNCIL

DOCUMENT CONTROL

Document ID: Kingston District Council – Asset Management Plan - Marine

Version No	Date	Revision Details	Typist	Author	Verifier	Approver
1.0	25/03/2026	Draft for Review	NS	NS	NW	
1.1	2/04/2026	Adjust tables and formatting	NS	NW	NW	
1.2	17/04/2026	Formatting, Corrections & Table Numbering	NS	NW	NW	
1.3	28/04/2026	Minor Corrections	NS	NW	NW	
1.4	30/04/2026	Final	NS	NW	NW	SF

Version Control Protocol:

1. Primary number changes to Versions (e.g. V1.0 to V2.0) apply when the document undergoes its regular review and/or when significant changes are made.
2. Secondary number changes to Versions (e.g. V1.0 to V1.1) apply to minor amendments that do not materially impact the documents and are intended only to clarify or update issues.

Kingston District Council

Asset Management Plan – Marine

2025/2026

Table of Contents

Abbreviations **5**

1 Executive Summary **6**

1.1 The Purpose of the Plan 6

1.2 Asset Description 6

1.3 Levels of Service 6

1.4 Future Demand 6

1.5 Lifecycle Management Plan 6

1.5.1 What does it Cost? 6

1.6 Financial Summary 7

1.6.1 What we will do 7

1.7 Asset Management Planning Practices 7

1.8 Monitoring and Improvement Program 8

2 BACKGROUND **9**

2.1 Purpose of the Plan 9

2.2 Council's Vision and Values 9

2.3 Key Stakeholders 11

2.4 Legislative Requirements 13

2.5 Organisational Structure 15

3 ASSET DESCRIPTION **16**

3.1 Physical Parameters 16

3.2 Asset Valuations 16

3.3 Asset Registers 17

3.4 Asset Useful Life & Condition 17

3.5 Condition Profile 18

4 LEVELS OF SERVICE **19**
4.1 Background 19
4.2 Customer/Community Levels of Service (LOS) 19
4.3 Technical Levels of Service (LOS) 19
4.4 Sustainable Asset Base 21
5 FUTURE DEMANDS **22**
5.1 Demand Drivers 22
5.2 Technological Changes 22
5.3 Demand Impact and Demand Management Plan 22
6 WHOLE OF LIFECYCLE MANAGEMENT PLAN **24**
6.1 Forward Works Plan (FWP) 24
6.2 Operations and Maintenance Expenditure (Opex) 24
6.3 Capital Expenditure (Capex) 24
6.3.1 Future Capital Funding 25
6.4 Asset Sustainability Ratio 26
7 FINANCIAL SUMMARY **27**
7.1 Summary Financial Projections 27
7.2 Future Valuations 28
7.3 Key Assumptions made in Financial Forecasts 28
8 RISK MANAGEMENT **29**
8.1 Critical Assets 29
8.2 Risk Assessment 30
8.3 Risk Register 30
9 IMPROVEMENT PROGRAM AND MONITORING **32**
9.1 Improvement Program 32
9.2 Monitoring and Review Procedures 32
9.3 Performance Measures 33
REFERENCES **34**
APPENDICES 35

Appendix A: Definitions 36
Appendix B: Renewals Planned vs Projected 39
Appendix C: Recommended Renewals (10yrs) 41

Abbreviations

ABS	Australian Bureau of Statistics
AMP	Asset Management Plan
AMS	Asset Management System
AO	Audit Office of New South Wales
CAPEX	Capital Investment Expenditure
CRC	Current replacement cost
DA	Depreciable amount
EP	Equivalent Persons
FWP	Forward Works Plan
KDC	Kingston District Council
GIS	Geographic Information System
IRI	International Roughness Index
IRMP	Infrastructure risk management plan
KIM	Knowledge Information Mapping
KPI	Key Performance Indicator
LCE	Life Cycle Expenditure
LCC	Life Cycle Cost
LGIP	Local Government Infrastructure Plan
LoF	Likelihood of failure
LOS	Levels of Service
MMS	Maintenance management system
RACAS	Road Asset Condition Assessment System
RUL	Remaining Useful Life
RV	Residual value
SL	Service Level

1 Executive Summary

1.1 The Purpose of the Plan

This Marine Asset Management Plan (AMP) details information about infrastructure assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks.

The plan defines the services to be provided, how the services are provided and what funds are required to provide over the 10 year planning period. The AM Plan will link to a Long-Term Financial Plan which typically considers a 10 year planning period.

1.2 Asset Description

This plan covers the infrastructure assets that are included within Councils marine infrastructure class, including:

Marine Assets				
Access Stairs	Block Walls	Pathways	Boat Ramps	Break Water
Pontoon	Rock Wall	Sea Wall	Navigation Lighting	

Table 1 – Asset Types

1.3 Levels of Service

The allocation in the planned budget is sufficient to continue providing existing services at current levels for the planning period.

The above infrastructure assets have replacement value estimated at $40.55M as at the last comprehensive valuation in the 2025/26 financial year.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery can be created by things including: technological advancements, regulatory changes, and changing demographics.

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

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this AM Plan includes operation, maintenance, renewal, acquisition, and disposal of assets. Although the AM Plan may be prepared for a range of time periods, it typically informs a Long-Term Financial Planning period of 10 years.

Therefore, a summary output from the AM Plan is the forecast of 10 year total outlays, which for the Marine Asset class is estimated as $862,340 on average per year which includes asset renewals, and asset maintenance.

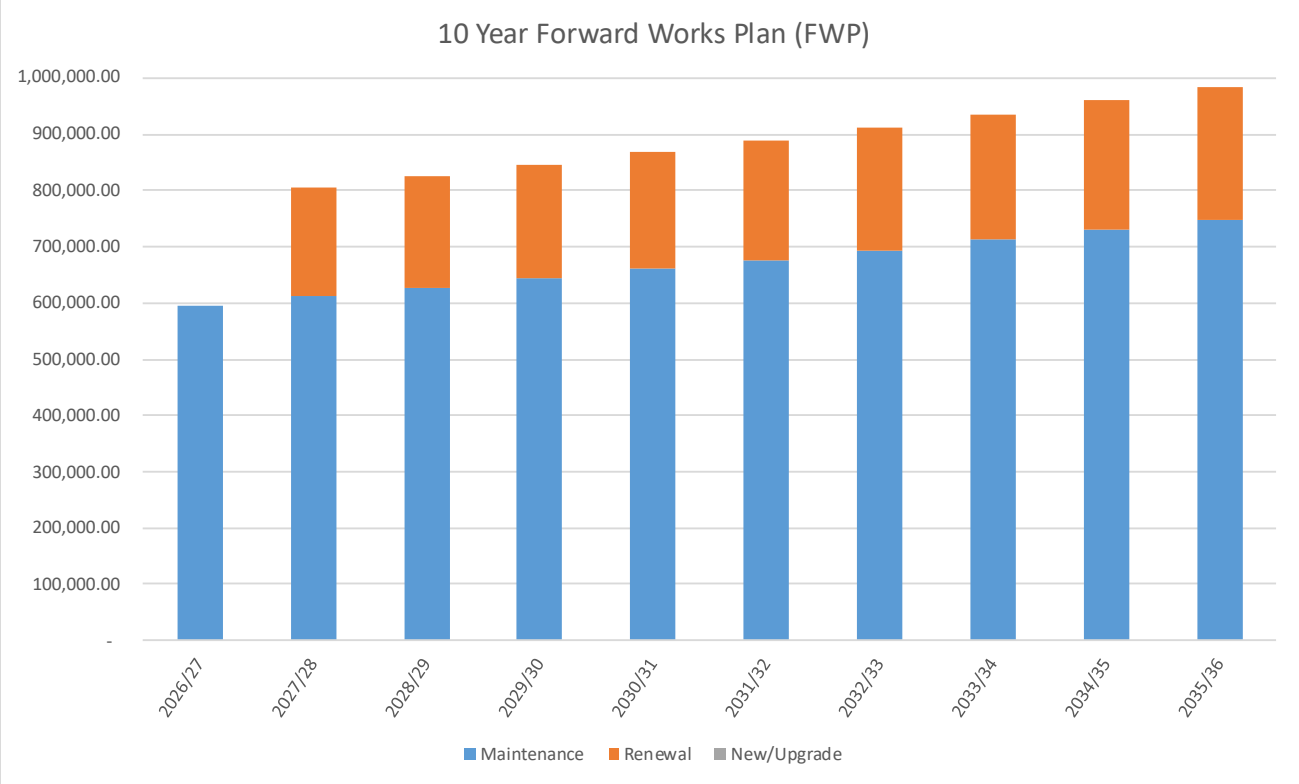
1.6 Financial Summary

1.6.1 What we will do

Estimated available funding for the 10 year period is $1.92M or 192K on average per year as per the Long-Term Financial plan or Planned Budget.

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

Figure 1 -Forecast Lifecycle Costs and Planned Budgets



1.7 Asset Management Planning Practices

Key assumptions made in this AM Plan are:

- Current historic expenditure will cover the technical levels of service
- Remaining useful life in the financial exports depicts the forecast renewals

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 remaining useful life was used to forecast the renewal lifecycle costs for this AM Plan.

1.8 Monitoring and Improvement Program

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

Table 2 – Improvement Program

Task Number	Task	Timeline
1	Organisational decision and communication of 'one place of truth' for asset data storage and management.	Ongoing
2	Works program development (including maintenance) and associated budget allocation, aligned with each yearly Council budget development.	Annually
3	Continue to support the development of a comprehensive GIS mapping system and finance system of marine assets, across both operational bases of the Council.	Ongoing
4	Allocation of funding allocation to continue to undertake regular (3-year maximum interval) condition assessments.	Annually
5	Measure performance against assigned service levels, through collation of customer surveys and/or analysis of customer feedback/complaints received from the community or stakeholders.	Ongoing
6	Undertake review and identify the gaps in the network and costs for the future.	Annually
7	Annual review to identify opportunities for available grant funding for marine projects to narrow the funding gaps.	Annually
8	Comprehensive asset revaluation and review of depreciation and useful lives of sub assets.	As required
9	Review/consideration of work backlog based on current intervention levels and available funding.	Annually

2 BACKGROUND

2.1 Purpose of the Plan

The purpose of this Asset Management Plan (AMP) is to assist Council in:

- Documenting its current management approach of Marine assets;
- Demonstrating responsible management;
- Understanding and managing significant risks; and
- Identifying opportunities to improve the management of Marine assets.

This AMP documents asset management planning information for the Marine assets for the Council. This includes a review of strategic trends facing the Council and potential impacts on the asset stock, asset condition and performance against key indicators, long term financial forecasts, risk register and an improvement plan for managing the asset included within the Transport classification. Financial implications for providing the required levels of service into the future are also provided, based on the associated separate spreadsheet model for the AMP.

The potential benefits are:

- Enables Council to satisfy more community needs at less cost allowing the resources saved to be deployed to provide more services;
- Enables Council to know where to spend funds to get the most value for money spent;
- Protects Council against potential litigation;
- Documentation of asset management processes make it easier for existing and new staff;
- Protects Council against potential litigation; and
- Financial Sustainability.

2.2 Council's Vision and Values

The Strategic Plan 2023-2027 details include a number of strategic objectives, which link to Council's AMP documents.

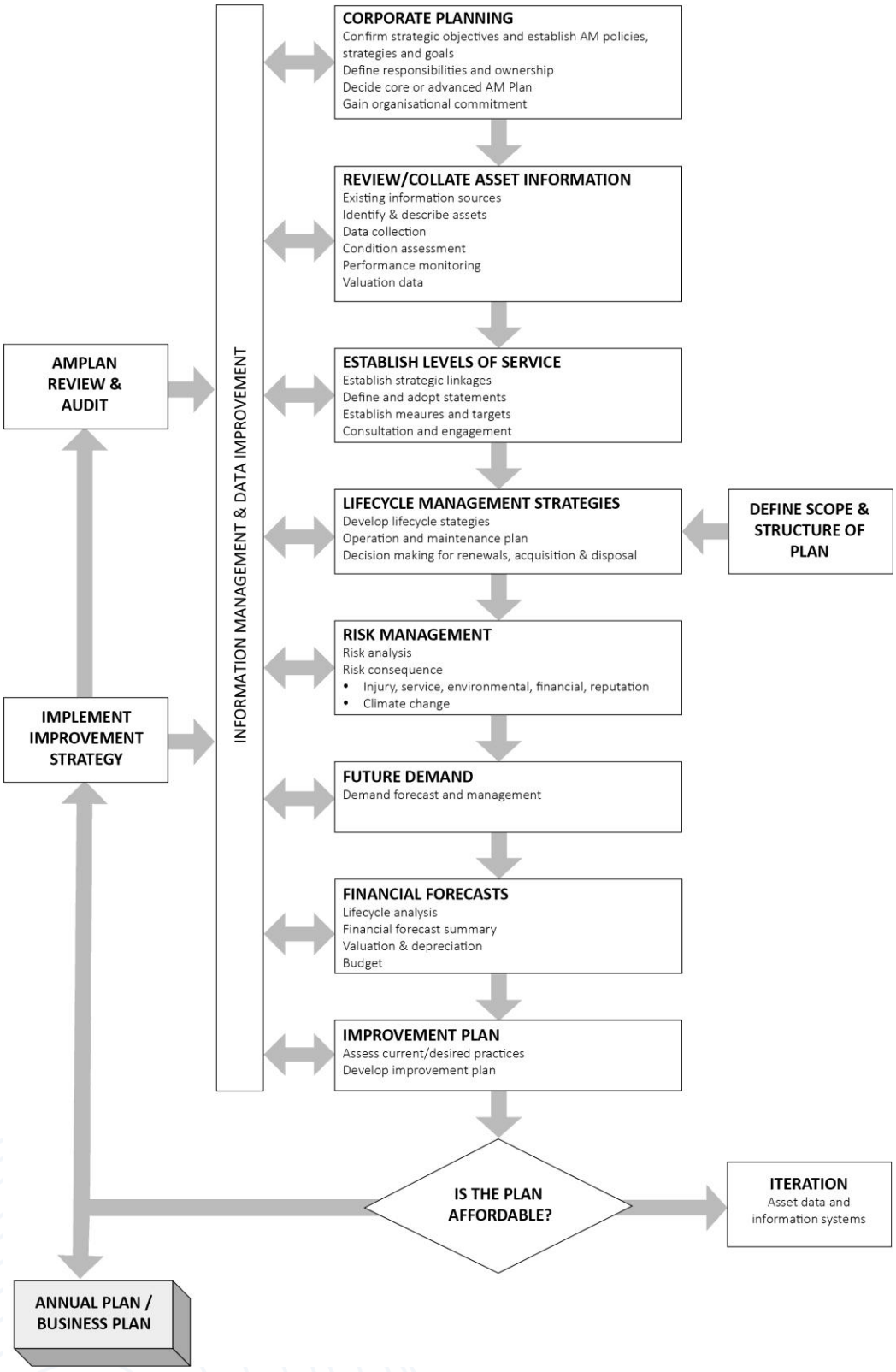
The key vision for Council is simple:

"We want to be a place to call home"

The key values include community, respect and courage.

- Community – As a community, with our community, for our community.
- Respect – Encourage an inclusive and supportive culture, acting with empathy, integrity & honesty in everything we do.
- Courage – Empower leadership through creative innovation and informed, bold & confident decision making.

Figure 2 -Road Map for preparing an Asset Management Plan (IPWEA, 2006)



2.3 Key Stakeholders

Good asset management requires the alignment of resources with all people understanding the objectives and then playing their respective roles in the management of assets and the delivery of services to the community. Table 2 outlines the roles and responsibilities for asset management within Council.

Table 3 - Key Stakeholders and Roles

Role	Who	Responsibilities
Strategic Direction	Councillors	Represent needs of community and service level expectations; Endorsement of the asset management plan; Ensure Council is financially sustainable; and Approval of allocation of resources.
Operational Decision Making	Leadership Team	Overall responsibility for developing asset management plans and procedures and reporting on the status and effectiveness of asset management within Council; Allocate resources to meet the organisation's objectives in providing services while managing risks; Ensuring Council is financially sustainable. Provision of sound organisation structure Lead the organisations culture Managing risks in accordance with adopted appetite Manage Statutory Requirements Develop and Administer Policies Provide Service Strategy Asset management objectives
Strategic Alignment/ Organisational Alignment	Asset Management Working Group	Custodian of the corporate asset register and ensuring the asset valuations are accurate; Preparation of asset sustainability and financial reports incorporating asset depreciation in compliance with current Australian accounting standards; Asset Management System development and administration; Develop 10-Year Capital Works Plans and budgeting; Ensure funds are invested appropriately to ensure best value for money is delivered to the community; and Develop the maintenance standards deployed and Council's ability to meet technical and community levels of service. Championing promotion of adequate resourcing for asset management Whole of Council asset performance monitoring Demonstrate whole of organisation support for sustainable asset management Wider accountability for achieving and reviewing sustainable

Role	Who	Responsibilities
		asset management practices Encourage buy-in and responsibility; Coordinate strategic planning, information technology and asset management activities Promote uniform and fit for purpose asset management practices across the organisation Information sharing across IT hardware and software Pooling of corporate expertise Championing of asset management improvement initiatives
Tactical / Operational	Leadership Team	Service delivery Asset data capture Operational risk management Alignment of service levels to budgets Asset Management Plan Development Development of renewal and upgrade plans Asset specific condition monitoring Asset and resource optimisation Asset Maintenance and Operations Identification of asset disposal opportunities Identification of service efficiency opportunities
Tactical / Operational	Operations Manager and Team Leader	Verify the size, location, and condition of assets; Provide local knowledge detail on all infrastructure assets; Capital Works, Operation and Maintenance management to meet agreed levels of service; and Liaison internally with the Senior Management Team regarding asset prioritisation and planning.
	Community (residents, businesses,property owners)	End users of services provided by assets; Aware of service levels and costs; Participate in consultation processes; and Provide feedback on services.
	Consultants	Engineering expertise input.
	Utility Service Providers	Interaction in service delivery.
	State and Federal Government	Provision of various grants and subsidies; Provide Leadership in promoting Best Practice Asset Management; Facilitate Training and Education; Recognising the importance of LG Assets to community and

Role	Who	Responsibilities
		provide funding; and Other assistance to sustain.

2.4 Legislative Requirements

The management of assets is often driven by complex legislative arrangements. Table 3 provides a list of Legislation that is relevant to the Transport asset class.

Table 4 - Legislation and Requirements

Legislation	Requirement
Local Government Act 19999	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a Long-Term Financial Plan supported by Asset Management Plans for sustainable service delivery.
Work Health and Safety Act 2012	(the WHS Act) provides a framework to protect the health, safety and welfare of all workers at work. It also protects the health and safety of all other people who might be affected by the work.
The National Construction Code of Australia (NCC)	It contains technical provisions for the statutory compliance, design and construction of buildings and other structures throughout Australia.
All relevant Australian Standards and Codes of Practice	Referenced in the Building Code of Australia – regulate design, demolition, painting, pest management, electrical installations, plumbing, design and access for mobility and most other aspects of building construction and management.
Marine Services (Access) Act 2000	To provide access to port facilities and maritime services.
AS 1742 (Traffic)	To ensure compliance and uniformity with traffic control devices.
Australian Road Rules	To ensure compliance and uniformity with road rules in the State and elsewhere in Australia
Plumbers, Gas Fitters and Electricians Act (SA) 1995	Provides a legislative framework for plumbing and drainage.
Environmental Protection Act (SA) 1993	Aims to protect South Australia's environment. Including specific dredging guidelines.
Environmental Protection and Biodiversity Conservation Act (C'wealth) 1999	Aims to protect Australia's environment and biodiversity.
Planning, Development and Infrastructure Act 2016	An Act providing for an efficient, effective, transparent, integrated, coordinated and accountable system of land use planning and development assessment to facilitate the achievement of ecological sustainability.

Legislation	Requirement
Economic Development Act 2012	An Act about economic development and development for community purposes.
Australian Accounting Standards	Sets out the financial reporting standards relating to. Inter alia, the (re)valuation and depreciation of Assets.
Transport Infrastructure Act 1994	To provide public access to roads, to classify roads, to act as the local road authority, to carry out certain functions, e.g. road works and to regulate activities on public roads.
Civil Liability Act 2003 and Civil Liability Regulation 2014	To manage negligence, elements of a claim, duty of care, standard of care and causation and to address the requirements of sections 35 and 37.
Local Government Finance Regulations (SA) 2011	Provides a framework for financial management for local governments.
South Australia Heritage Act (SA) 1978	Protection of historic buildings, structures and precincts.
Public Records Act 2002	The Public Records Act 2002 governs recordkeeping of all public authorities. It aims to ensure the public records are made, managed, kept, and, if appropriate, preserved in a usable form for the benefit of present and future generations.
Airports Act 1996	The Airports Act 1996 establishes a system for the regulation of airports to promote the sound development of civil aviation in Australia, that has due regard to the interests of airport users and the general community.
The Aboriginal and Torres Strait Islander Heritage Protection Act 1984	The Aboriginal and Torres Strait Islander Heritage Protection Act 1984) can protect areas and objects that are of particular significance to Aboriginal people. The ATSIHP Act allows the Environment Minister, on the application of an Aboriginal person or group of persons, to make a declaration to protect an area, object or class of objects from a threat of injury or desecration.
Native Title Act 1993	The Native Title Act 1993 recognises and protects native title. It provides that native title cannot be extinguished contrary to the Act.
Harbours and Navigation Act 1993	Governs administration, safety and management of ports and waterways.
Disability Inclusion Act 2018	Mandates disability access requirements and inclusion plans.
Civil Liability Act 1936	Governs negligence claims, personal injury, property damage and scope of liability.
Marine Parks Act 2007	Protects and conserves marine biological diversity and habitats.

2.5 Organisational Structure

Council's current organisational structure at present is shown below:

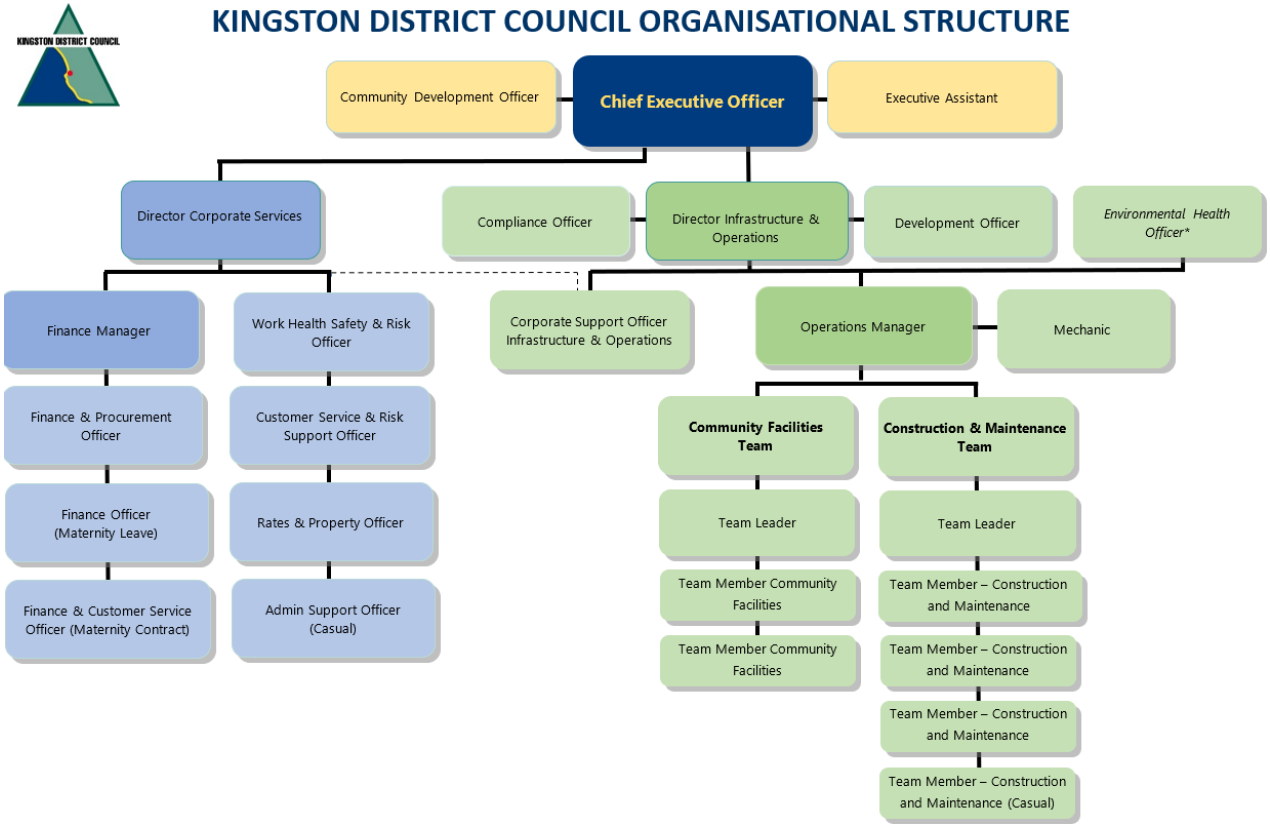


Figure 3 – Council's Organisational Structure

3 ASSET DESCRIPTION

The Kingston District Council owns and maintains the marine assets within the Council area. This AMP is for the Council owned Marine assets, which also includes pathways assets associated with the marine class.

The infrastructure assets covered by this AM Plan include:

Table 5 – Asset Class

Transport Assets				
Access Stairs	Block Wall	Pathways	Boat Ramp	Break water
Pontoon	Rock Wall	Sea Wall	Navigation Lighting	

3.1 Physical Parameters

The assets included in this Asset Management Plan are shown in Table 4 below:

Table 6 – Asset Physical Parameters

Asset Type	Number of Assets	Sum of Asset Dimensions
Access Stairs	1	80
Block Wall	34	20,293
Boat Ramps	3	1,019
Breakwater	4	6,792
Navigation	1	7
Pathway	28	11,542
Pontoon	6	473
Rock Wall	1	190
Seawall	1	325
TOTAL	**79**	**40,720**

3.2 Asset Valuations

Asset valuations for the Marine class were completed in 2026. Table below details the value of assets in the Transport class based on the asset revaluation for all assets.

Table 7 - Asset Valuations by Asset Type

Asset Type	Current Replacement Value	Accumulated Depreciation	Written Down Value	Annual Depreciation
Access Stairs	345,120	172,560	172,560	6,902
Block Wall	16,193,814	8,096,907	8,096,907	202,423
Boat Ramps	1,101,722	461,934	639,788	18,362
Breakwater	17,291,617	10,753,797	6,537,820	172,916
Navigation	55,959	27,979	27,979	2,798
Pathway	1,436,942	718,471	718,471	17,962
Pontoon	2,812,609	1,406,305	1,406,305	46,877
Rock Wall	483,717	241,859	241,859	4,837
Seawall	827,411	206,853	620,558	8,274
Grand Total	**40,548,911**	**22,086,665**	**18,462,247**	**481,351**

3.3 Asset Registers

Council's asset register is maintained in Brightly which is Council's primary ERP (Enterprise Resource Planning) system. This system offers advanced capabilities when it is well configured and data is regularly maintained. There are considerable benefits when data in Brightly and Council's GIS (geographic information system) are well maintained. In addition, having a single point of truth and linking operational information from field teams to assets also offers benefits if the data is maintained.

Improving organisational understanding of data management, maintenance and reporting principles will help progressively improve the data quality in the asset register. Improving other operational registers in a way that aligns with the GIS and Brightly would also assist in improved reporting capabilities and management of assets.

Creating an enduring linkage between the Brightly and mapping systems is of vital importance to improve correct capitalisation of financial assets, allocation of renewal funds and future revaluation works.

3.4 Asset Useful Life & Condition

Council's 2026 asset revaluation had useful life ranges from 20 to 100 years. Use of the Useful Life, Remaining Useful Life and Expiry Date fields within Synergy requires review to improve consistency and reporting.

Table 8 provides details of useful lives from the 2025/2026 asset revaluation.

Table 8 - Asset Useful Life

DESCRIPTION	Average Existing Useful Life	Proposed Useful Life
Lighting - Navigation - Navigation Lighting	20	20
Marine Structures - Access Stairs - Sea Walls	50	50
Marine Structures - Block Wall - Marina Wall	250	80
Marine Structures - Boat Ramps - Boat Ramps	60	60
Marine Structures - Breakwater - Sea Walls	100	100
Marine Structures - Pathway - Marina Path	98.57	80
Marine Structures - Pontoon - Piers	30	60
Marine Structures - Rock Wall - Sea Walls	100	100
Marine Structures - Seawall -	250	100

3.5 Condition Profile

Condition data for transport assets are shown below. The condition based approach uses a score from 1-Excellent to 5-Failure.

Condition Rating

Condition Rating	Description	% Asset Remaining (Based on delivery of future economic benefit)
0	Brand New	100%
1	Excellent (Only normal maintenance required)	95%
2	Good (Minor defects only /minor maintenance required up to 25%)	75%
3	Average (Significant maintenance required 50%)	50%
4	Poor (Requires replacement within next 1-2yrs)	20%
5	Asset Failure (Requires immediate replacement)	5%

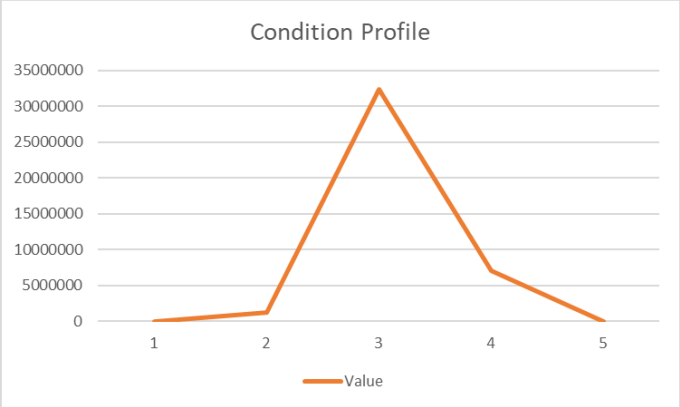
Data comes from Council's 2026 asset revaluation.

Where an asset has been inspected and condition assessed visually, the asset condition is used to determine its remaining useful life. The following calculation was made using the table above to determine the % Asset Remaining once the condition rating was determined:

Remaining Life (Condition based) = Useful Life x % Asset Remaining

The below figure is a representation of the current condition profile of this class. The majority of assets are in "Fair" condition (rating 3).

Figure 4 – Condition Profile



4 LEVELS OF SERVICE

4.1 Background

One of the basic tenets of good asset management practice is to provide the level of service the current and future community want and are prepared to pay for, in the most cost-effective way (NZ NAMS 2007).

4.2 Customer/Community Levels of Service (LOS)

Customer/Community LOS relates to how the customer/community receives the service in terms of safety, quality, quantity, reliability responsiveness, cost efficiency and legislative compliance; Community levels of service measures, commonly used within asset management planning are:

- Quality How good is the service for the user?
- Function Does it meet the users' expected needs?
- Safety Is the service safe for the user?

Table 9 - Community Level of Service

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Provide smooth all weather access	Customer service requests relating to roughness	Satisfactory	90% maintenance request
Function	Access is available all time	Customer service requests relating to usage and availability	Satisfactory	Medium to High
Capacity	Road assets are safe	Reported accidents	Nil	Nil

4.3 Technical Levels of Service (LOS)

Technical LOS are the operational or technical measures of performance, developed to ensure the minimum community levels of service are met. They are related to the allocation of resources and personnel to undertake these activities and are linked to Councils available budgets.

- Operations – the regular activities to provide services,
- Maintenance – the activities necessary to retain an assets as near as practicable to its original condition;
- Renewal – the activities that return the service capability of an asset up to that which it had originally; and
- Upgrade – the activities to provide a higher level of service (e.g. sealing and unsealed road or widening a sealed road) or a new service that did not exist previously (e.g. adding a road onto Council's maintained road network).

Council's currently adopted LOS (as detailed with the previous Transport AMP document, are contained in the below:

Table 10 - Technical Level of Service

Category	Technical LOS	Performance Measure Process
Marine Structures	Provide safe Marine Structures.	Under Development

The current LOS appear to be difficult to measure by those within Council, and thus should be further developed along with the initiation of the performance target details in following table:

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target
Quality	Provide safe Marine Structures.	Under Development	Under Development
Function	Purpose - Meets user requirements.	Under Development	Under Development
Operations	Marine Structures are safe and maintained in condition appropriate for use.	Regular condition & defect inspections.	Under Development
Maintenance	Marine Structures are safe and maintained in condition appropriate for use.	Reactive maintenance requests completed within agreed timeframes.	Under Development
		Planned maintenance activities completed to a documented schedule.	Under Development
Renewal	Marine Structures are safe and maintained in condition appropriate for use.	Reviews are undertaken where high maintenance costs are identified.	Under Development

4.4 Sustainable Asset Base

Based on the financial position of Council ensuring that marine services are priorities and provided adequate funding is essential to ensure the ongoing safety of users and access to support the industries of the region.

Council's marine assets will require considerable maintenance over time before they have to be replaced. This is an increasing challenge for the Council as time progresses. This is an increasing challenge for the Council as time progresses.

Options to generate savings in the marine class include:

- Continue to review marine structures in line with good Asset Management processes and procedures.

5 FUTURE DEMANDS

The Kingston District Council population was 2,375 in the latest ABS Census Data from 2021. The current growth rate is flat (0.40%) and predicted to be maintained or escalate in future years.

It is not expected that future demand (growth) will influence this class of assets over the next 20 years. Any planned upgrades or improvements in the Transport class will be focused on improving network efficiency and resilience, and will generally be funded through external grants obtained by Council.

5.1 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.

There are no known or planned large demographical changes across the Council area that would impact on changing traffic patterns or numbers across Councils transport network. Some projects are planned but it is expected there to have minimum impacts across the transport network.

5.2 Technological Changes

Technology changes are forecast to affect the delivery of services covered by this plan, as outlined in table 11. Historically changes in technology have the effect of reducing whole-of-life costs. Changes in technology will be embraced where possible to reduce future whole of life costs.

Table 11 – Demand Drivers

Technology Change	Implication	Effect on Service Delivery
Increased use of recycled material in marine structures.	Greater use of in-situ recycling materials. Greater use of recycled materials and composites.	Reduced total cost of ownership. Improved environmental sustainability. Reduced maintenance costs Longer useful lives. Better use of existing resources such as quarry materials.

5.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 12.

Demand for new services will be managed through a combination of managing existing transport 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 12

Table 10 -Demand Impact

Demand Driver	Current Position	Impact on Services	Demand Management Plan
Population Change	2,375 (2021 Census data)	A number of subdivisions are in the planning phase of development, which may increase operations and maintenance budgets for these specific links within the network. A low overall population growth rate will have minimal impact on demand for new and upgraded assets.	Continue to manage assets inline with this plan. Continue to apply for available grant funding to support renewal/upgrade.
Customer Values	Residents and other users are expecting a greater demonstration of value from the network.	Increasing capital budget demand, to support upgrades to existing and new assets.	Continue to apply for available grant funding to support renewal/upgrades.

6 WHOLE OF LIFECYCLE MANAGEMENT PLAN

6.1 Forward Works Plan (FWP)

The forward works plan includes budgeted maintenance costs, asset renewals and budgets for new or upgraded assets. These values indicate councils current planned capacity to undertake whole of life asset management. The values are shown in the table below.

Table 13 – FWP Summary

10 Year Forward Works Plan (FWP)	10 Year Total	Average/Year
Maintenance	6,701,420	670,142
Asset Renewal	1,921,980	192,198
New/Upgrades	-	-
TOTAL	**8,623,400**	**862,340**

6.2 Operations and Maintenance Expenditure (Opex)

Current

The forward works planned maintenance budgets are assumed to have been calculated based on historical maintenance and operations expenditure figures and are regarded as the most accurate current measure. Values are normally increased per annum based on the assumptions of increased materials and labour costs as well as the construction of any new or upgraded assets. Table 14 shows the change in time over the course of the 10 year program. Operations costs are not current split from maintenance costs, therefore they are calculated together as one figure.

Table 14 – Operations and Maintenance Costs

Expenditure Type	$
2026/27	595,824
2035/36	748,709
Total OPEX (O & M)	**6,701,980**

6.3 Capital Expenditure (Capex)

Historical

Grant funding has historically funded the renewal and repair of transport assets. This funding is always welcome as it allows Council to restore damaged assets to required standards. This funding has been financially significant and has substantially helped to maintain the condition of the marine network across Councils network.

Forward Works Program

Council's current budget process has a 10 year forward works program which has commenced with works in the 2025/26 year, at the time of producing this AMP. As this AMP begins year 1 in the 2026/27 financial year, estimates for the 10th year (2035/36) have been calculated based on average increases over the remaining periods.

This forward works plan has been developed based on the asset data, input from staff and Infrastructure asset management plan that have been reviewed by staff to suit local conditions. In addition the forward works program also considers:

- Renewals will be prioritised based on condition assessments.
- Upgrades will be limited and will utilise external funding. Council should ensure that the economic and social benefits of upgrades justify the increased costs and/or identify locations in the marine assets class where service levels can be reduced.
- Pathways will be renewed when there are significant safety concerns that cannot be addresses through maintenance.

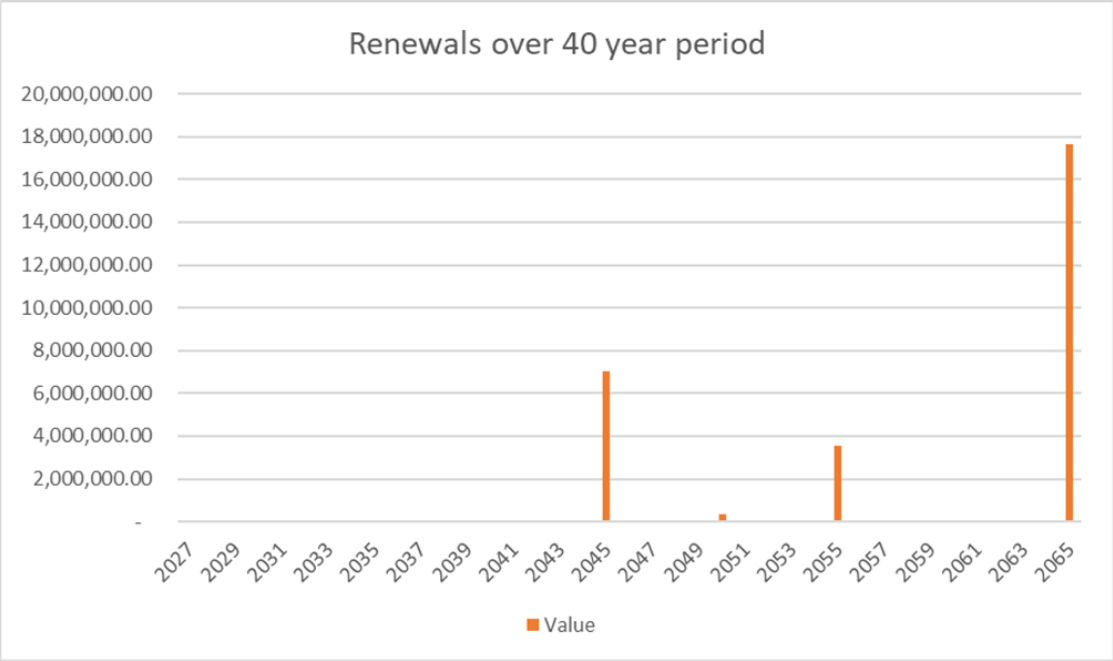
6.3.1 Future Capital Funding

Planned renewals total $ 1.92M for the 10-year period based on the forward works program. Projected renewals total $0.06M for the next 10 years to 2036 derived from valuations data for remaining useful lives. Due to the limited number of assets in this class and their comparatively long lives, it is difficult to accurately determine the appropriateness of current funding when looking at an isolated 10 year period. In this instance, depreciation might be a better indicator of asset deterioration over time.

Figure 5 shows the extended renewal period.

The Projected renewals for the next 20 years is $7.08M. With the current planned renewal funding this results in a shortfall of approximately $516k per year.

Figure 5 -Extended Renewal Period (40 Years)



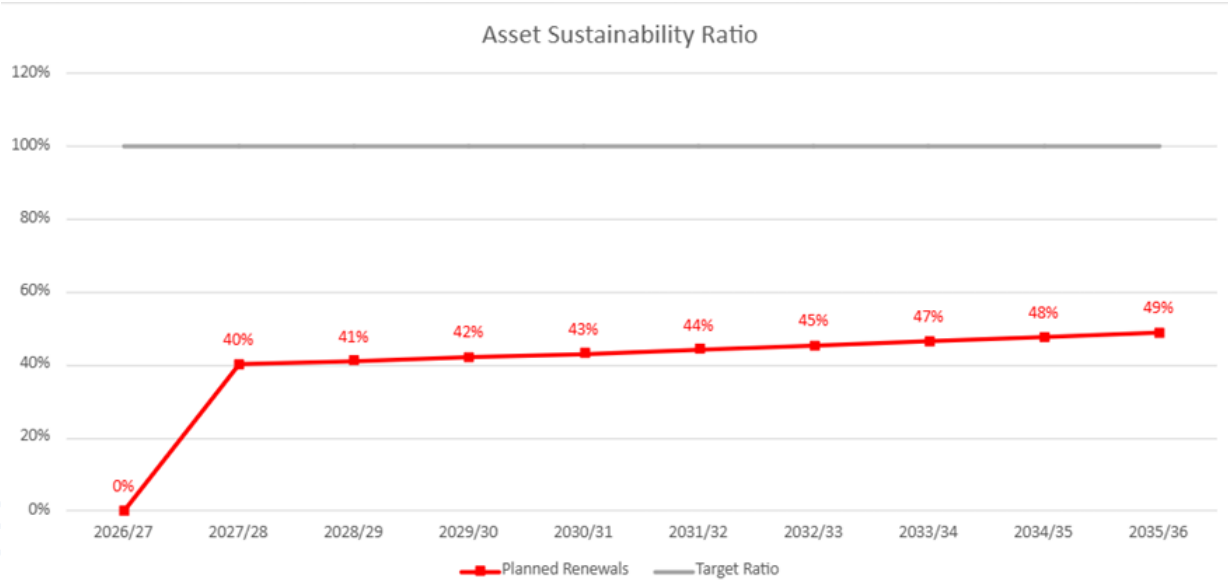
6.4 Asset Sustainability Ratio

A financial measure of satisfactory levels of expenditure on asset replacements is the Asset Sustainability Ratio - the net capital expenditure on replacements as a percentage of the depreciation. It indicates whether the amount of replacement exceeds or is less than the amount of depreciation, that is, whether assets are being replaced at the rate they are wearing out. Although not a true reflection of the required long-term funding, depreciation does indicate the rate of consumption of assets. The Audit Office of South Australia sets a target for renewals that is equal to or greater than 90% of depreciation, Council has set its own target as 100% of depreciation.

The current total annual depreciation is $481K per annum. Projected renewals over the next 10 years average $192K per year (40 %) which indicates a medium to high shortfall. While on face value this ratio is below the target Council should consider the following:

The comprehensive revaluation has only just taken place and council has not yet considered its impact on forward works planning. Useful lives of marine assets need to be reviewed in terms of current works program to ensure alignment with local factors. Maintenance budgets are substantially higher than renewal budgets, Cape Jaffa sand dredging is allocated to maintenance which is a substantial component of the maintenance budget. Depreciation and Projected renewals are also calculated in current year value and have not been adjusted for expected increases.

Figure 6 - Asset Sustainability Ratios

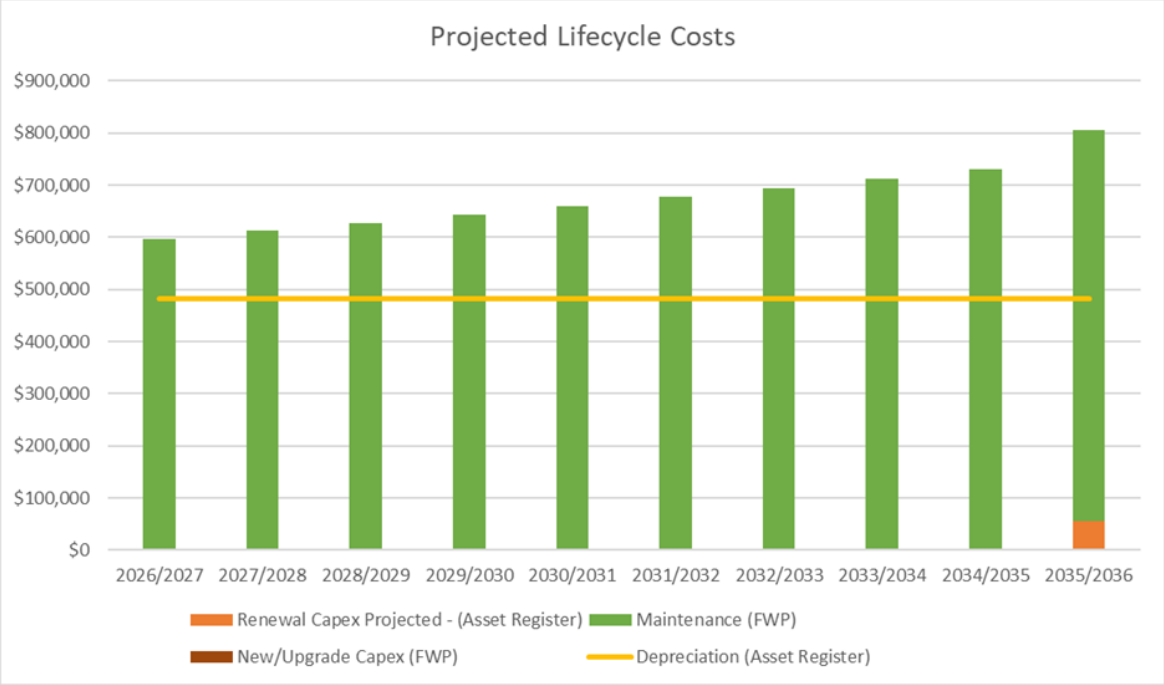


7 FINANCIAL SUMMARY

7.1 Summary Financial Projections

The Life Cycle Cost (LCC) shown in Figure 7 is the projected cost to provide the service over the asset life cycle. It comprises required annual maintenance based on benchmarks and asset consumption expense based on renewal costs and timelines. Average depreciation expense is added for comparative purposes. The average LCC over the forward 10 years to provide the transport network is estimated at approximately $0.68M per annum.

Figure 7 - Life Cycle Cost



7.2 Future Valuations

Over the next 10-years escalation in the cost of materials, labour and services will increase the value of Council's asset based and annual depreciation. Current escalation rates in the Marine class are relatively high as the class has assets that relate to both civil and other heavy engineering indices.

Due to the large size of many of the assets within Council's marine assets the costs associated with the asset class are significant. The indexation will significantly increase the value of the asset class in future years which will increase the challenge to the fund depreciation expense associated with the class in the long term. This demonstrates the importance of ensuring any additional upgrades to the marine assets must create significant benefit as the community will struggle to fund any additional marine assets in the long term.

7.3 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. 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:

- Natural disasters (such as flood), vandalism and other unplanned events are not considered in the asset lifecycles;
- Information within the marine register and values are based on current knowledge only;
- Maintenance and operations allocations are largely based on maintaining current budget levels; and
- Depreciation has been calculated on a straight-line basis.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions:

- Adoption of a more extensive condition score scale. Due to the long lives of the assets and low relative numbers, a condition scale of 1-5 may not provide the most accurate indication of future renewal dates;
- Ensure asset data and condition assessment data, gathered during inspections is progressively updated within the GIS/ asset management system;
- Improved asset revaluation processes that incorporate operational information, increased focus on assets nearing end of life and industry benchmarks to better inform 10-year renewal plans;
- Full Implementation of a single Asset Register that is linked to the GIS; and
- Maintaining the Asset Register and GIS integrity

8 RISK MANAGEMENT

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

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

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. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

8.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have not been identified for this plan.

Failure modes may include physical failure, collapse or essential service interruption.

Table 15 - Critical Assets

Critical Asset(s)	Failure Mode	Impact
Refer Hierarchy of Marine Assets (to be completed)		

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

8.2 Risk Assessment

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

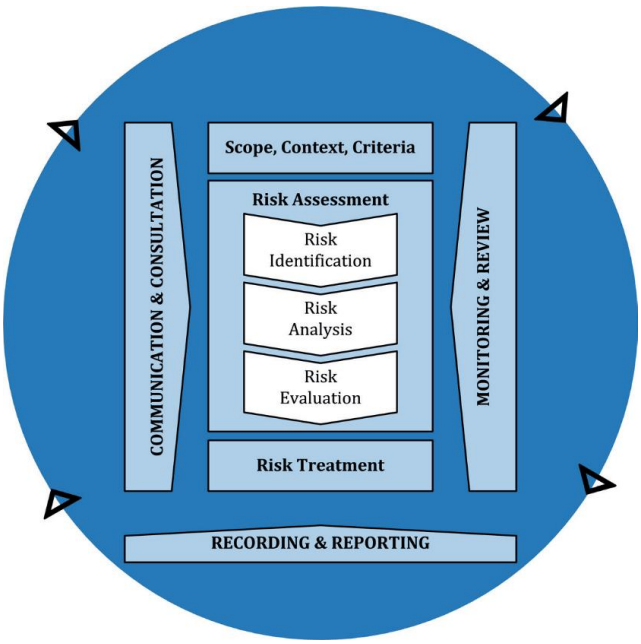


Figure 8 - Risk Management Process (ISO 31000:2018)

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.

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

An assessment of 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.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2. It is essential that these critical risks and costs are reported to management.

8.3 Risk Register

Council does not maintain a risk register at the time of writing this AMP

Strategic level risks for Council to consider in the Transport asset class include:

- Natural Disasters. While disaster relief funding is currently available Council needs to ensure its investing in the maintenance of its assets to ensure this funding continues to be available. Investment also needs to be made into assets that aren't frequently impacted by disasters, while grant funding can appear to be taking the place of asset

renewals this funding is limited to restoring assets damaged by the disaster meaning a significant number of assets have not seen renewal funding for many years.

- Pathways represent the highest portion of public liability claims for local governments. Council's Pathway Inspection Policy sets clear guidelines for inspections and maintenance. If Council's future resourcing and funding does not allow it to meet its policy targets both the policy and scale of the pathway network should be reviewed to reduce risk exposure.

9 IMPROVEMENT PROGRAM AND MONITORING

9.1 Improvement Program

An Asset Improvement Plan is intended to provide improvements in the knowledge of our assets and their management. This plan will ensure that acceptable progress is made on improving asset management processes and procedures and that progress can be verified and quantified. This improvement plan should ensure asset management progresses at an acceptable pace and moves in the "right" direction - that is "improvement" is embedded in the process.

Focus areas for marine assets are related to better understanding the condition of assets so that renewals can be effectively planned into the future.

The below table provides a list of improvements that Council should pursue in the marine asset class as shown earlier in this document.

Table 16: Improvement Program

Task Number	Task	Timeline
1	Organisational decision and communication of 'one place of truth' for asset data storage and management.	Ongoing
2	Works program development (including maintenance) and associated budget allocation, aligned with each yearly Council budget development.	Annually
3	Continue to support the development of a comprehensive GIS mapping system and finance system of marine assets, across both operational bases of the Council.	Ongoing
4	Allocation of funding allocation to continue to undertake regular (3-year maximum interval) condition assessments.	Annually
5	Measure performance against assigned service levels, through collation of customer surveys and/or analysis of customer feedback/complaints received from the community or stakeholders.	Ongoing
6	Undertake review and identify the gaps in the network and costs for the future.	Annually
7	Annual review to identify opportunities for available grant funding for marine projects to narrow the funding gaps.	Annually
8	Comprehensive asset revaluation and review of depreciation and useful lives of sub assets.	As required
9	Review/consideration of work backlog based on current intervention levels and available funding.	Annually

9.2 Monitoring and Review Procedures

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

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

completed.

The AM Plan has a maximum life of 4 years and is due for complete revision and updating in line with comprehensive revaluation cycles.

9.3 Performance Measures

No data on asset management performance measures was available at the time of preparation of this Asset Management Plan. Council should develop performance measures which can include:

- The degree to which the required forecast costs (and necessary cashflows) are incorporated into the long-term financial plan as identified within this AM Plan.
- The degree to which works as recommended by Councils 1-10 year detailed works programs, budgets, business plans and corporate structures are considered within this AM Plan,
- The incorporation of service levels, risks mitigation strategies and improvement tasks are incorporated into Councils Financial Planning processes and Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (100%).

REFERENCES

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMG.

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM.

IPWEA Aotearoa/NZ, NAMS 2007, 'What is Asset Management'.

ISO 31000 Risk Management Standards, International Standards Organisation

ISO 55000 Asset Management Standards, International Standards Organisation

Accounting Standards, Australian Accounting Standards Board

Kingston District Council, Strategic Plan 2023-2027

Kingston District Council, Annual Reports

Kingston District Council, Infrastructure Asset Management Plan

APPENDICES

APPENDIX A

Definitions

Appendix A: Definitions

Asset Condition Assessment	The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.
Asset Management	The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.
Asset Management Plan	A plan developed for the management of one or more infrastructure assets that combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the asset in the most cost effective manner to provide specified level of service. A significant component of the plan is a long term cash flow projection for the activities.
Asset Renewal	Replacement or rehabilitation to original size and capacity of a road or drainage asset or the component of the asset. Renewals are "capitalised", so that the cost can be depreciated over the future life of the asset.
Core Asset Management	Asset management which relies primarily on the use of an asset register, maintenance management systems, job/resource management, condition assessment and defined levels of service, in order to establish alternate treatment options and long term cash flow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than risk analysis and optimised renewal decision making).
Infrastructure Assets	Physical assets of the entity or of another entity that contribute to meeting the public's need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally, the components and hence the assets have long lives. They are fixed in place and are often have no market value.
Level of Service	The defined service quality for a particular service against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental, acceptability and cost).
Life Cycle Cost	The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.
Life Cycle Expenditure	The Life Cycle Expenditure (LCE) is the actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Cost to give an initial indicator of life cycle sustainability.

Maintenance and Renewal Sustainability Index	Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15-years).
Performance Measure	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
Reactive Maintenance	Unplanned repair work carried out in response to service requests and management/supervisory directions.
Scheduled Maintenance	Maintenance carried out in accordance with a routine maintenance schedule e.g. scheduled maintenance grading.
Planned Maintenance	Repair work that is identified and managed through the customer requests system (Dataworks). These activities include inspections, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
Rate of Annual Asset Renewal	A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/ depreciable amount).
Reactive Maintenance	Unplanned repair work carried out in response to service requests & management / supervisory directions.
Recurrent Expenditure	Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operating and maintenance expenditure.
Remaining Life	The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining life is economic life (also useful life).
Renewal Expenditure	Major works which do not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential.
Upgrade/Expansion Expenditure	Work over and above restoring an asset to original service potential.
Useful Life (also economic life)	Either:(a) the period over which an asset is expected to be available for use by an entity, or (b) the number of production or similar units expected to be obtained from the asset by the entity. It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.
New Assets	Activities that create a road or drainage asset that did not exist previously or extend an asset beyond its original size or capacity. New assets are also "capitalised", but they increase the asset base rather than restore its capacity to perform.

SHEPHERD

Driven Different

APPENDIX B

Renewals Planned vs Projected

Appendix B: Renewals Planned vs Projected

	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Renewal Capex Planned - (FWP)	$0	$193,076	$197,903	$202,850	$207,922	$213,120	$218,448	$223,909	$229,507	$235,245
Renewal Capex Projected - (Asset Register)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$55,959
Accumulative Gap (Planned - Projected) Positive is a short fall in funding. Negative is overspend (before condition or service requires).	$0	-$193,076	-$390,979	-$593,829	-$801,751	-$1,014,871	-$1,233,319	-$1,457,228	-$1,686,735	-$1,866,021
Depreciation (Asset Register)	$481,351	$481,351	$481,351	$481,351	$481,351	$481,351	$481,351	$481,351	$481,351	$481,351
Maintenance (FWP)	$595,824	$612,118	$627,719	$643,720	$660,130	$676,961	$694,224	$711,928	$730,087	$748,709
New/Upgrade Capex (FWP)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

SHEPHERD
Driven Different

APPENDIX C

Recommended Renewals (10yrs)

Appendix C: Recommended Renewals (10yrs)

No projected renewals over the next 10 years.

SHEPHERD
Driven Different

GPO Box 422, Brisbane Q 4001

P: (07) 4911 2716
E: info@shepherdservices.com.au
W:shepherdservices.com.au

Shepherd Services Pty ACN 611 140 946

RACAS®
POWERED BY SHEPHERD
road asset condition assessment system