

Kingston District Council

INFRASTRUCTURE & ASSET MANAGEMENT PLAN 2023/24 - 2032/33



May 2023

Contents

Introduction	3
Goals & Objectives	3
Brightly System	3
Financial Summary	4
Asset Management Plan Structure	7
1 Transport Assets	9
2 MARINE Infrastructure.....	11
3 Buildings & Other Structures.	12
4 Sewer	13
5 Stormwater	14
6 Plant & Equipment.....	15
7 Non Specific Capital	16
Improvement Plan	17

Appendices

Buildings and Other Structures Strategic Asset Management Framework

Footpath Strategic Asset Management Framework

Kerbs Strategic Asset Management Framework

Roads Strategic Asset Management Framework

Unsealed Roads Strategic Asset Management Framework

Stormwater Assets Strategic Asset Management Framework

Sewer Assets Strategic Asset Management Framework

Marine Structures Strategic Asset Management Framework

Introduction

The current asset stock of the Kingston District Council, consists of some 2,669 individual assets including Transport Assets (roads, footpaths, kerb, carparks and bridges), Building Assets, Sewer Assets (CWMS reticulation and treatment), Marine Assets (structures & facilities), Open Space Assets (structures furniture & facilities) Plant and Equipment and Land.

In total this asset portfolio has a “Fair Value” of \$148.2 Million (excluding land) and a “Carrying Amount” (less accumulated depreciation) of \$127 Million (excluding land).

The effective and efficient management of the portfolio will ensure the services provided by the assets to Council and the community are delivered at an appropriate level and at a cost the community can afford.

Goals & Objectives

The primary objective of this Plan is to ensure that the current assets owned and operated by the Kingston District Council are managed in terms of ongoing maintenance and renewal activity and expenditure such that all desired levels of service are met now and into the future.

Achieving this objective will require the meeting of a number of goals in line with Councils Vision including:

- The effective management of Council’s assets in line with corporate policies, strategies and objectives, statutory and legislative requirements and regulations;
- Ensuring that assets are safe, appropriately accessible, well maintained and meet customers needs in a manner that is sustainable;
- Recognising appropriate levels and sources of capital investment required to meet Council’s asset renewal and replacement needs;
- Maximising the service potential of current assets by ensuring they are used and maintained appropriately;
- Achieving better value for money through evaluation processes that take into account lifecycle costing;
- Minimising Council’s exposure to risk as a result of asset failures;
- Providing funding for the renewal of assets, rather than prioritising initiatives which involve new or upgraded infrastructure;
- Monitoring community priorities regarding desired service levels for different assets;
- Including community engagement outcomes in the infrastructure and asset management plan.

Brightly System

All of Council’s asset data is held in the Brightly system, which is cloud based. The Brightly system generates financial, renewal and maintenance requirements based on asset values, condition assessments and useful life. Council has access to the Brightly system through a consultant for the renewal and maintenance requirements based on asset values, condition assessments and useful life.

Renewal	Nil	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Maintenance										
Marine Structures										
Renewal	Nil	Nil	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000
Maintenance	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000
Plant & Equipment										
Renewal	\$569,000	\$190,000	\$508,000	\$391,000	\$318,000	\$128,000	\$461,000	\$88,000	\$88,000	\$231,000
Maintenance	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000	\$390,000
Other New										
Footpaths MacDonnell & Wilhelmina	\$25,000		\$2,500,000							
Project CapEx Seawall	\$2,605,000									
Stormwater	\$242,650				\$348,450			\$363,400		
Roller Doors Machinery Shed	\$15,100									
CWMS Chlorination Pond	\$40,000									
Faun Trackway Deployment Attachment	\$92,018									
Skid Steer Loader	\$120,000									
Sale of replaced assets	(\$215,000)	(\$135,000)	(\$165,000)	(\$165,000)	(\$110,000)	(\$70,000)	(\$225,000)	(\$60,000)	(\$55,000)	(\$135,000)
Capital Expenditure Renewal	\$2,019,000	\$1,800,000	\$2,306,000	\$2,189,000	\$2,116,000	\$1,926,000	\$2,259,000	\$1,886,000	\$1,886,000	\$2,029,000

Capital Expenditure New	\$3,139,768		\$2,500,000		\$348,450			\$363,400		
Total Capital Expenditure Doesn't include Sale of Replaced Assets	\$5,158,768	\$1,800,000	\$4,806,000	\$2,189,000	\$2,464,450	\$1,926,000	\$2,259,000	\$2,249,400	\$1,886,000	\$2,029,000
Maintenance	\$2,196,000	\$2,196,000	\$2,196,000	\$2,196,000	\$2,496,000	\$2,196,000	\$2,196,000	\$2,196,000	\$2,196,000	\$2,496,000

Asset Management Plan Structure

The Asset Management Plan is structured to support the Asset Management Planning timeline shown in the table below.

	Year 1 2023/24	Year 2 2024/25	Year 3 2025/26	Year 4 2026/27
Asset Management Plan	Review & update for new Council	Review	Review	Review
Cap EX Project (Rolling 4 year)	Review & update	Review & update	Review & update	Review & update
LTFP	Review & update	Review & update	Review & update	Review & update
10 Year Plan	Develop 10 year plan for major asset categories	Review & update	Review & update	Review & update
Revaluation	Nil	Nil	Transport & Marine	Buildings, CWMS, Stormwater
Condition Assessment	Unsealed Roads depths	Unsealed Roads depths	Unsealed Roads depths	Unsealed Roads depths

The Plan comprises 6 sections each relating to a specific grouping or class of assets according to function and / or type. Each section Includes:

- Details of what asset stock Council currently owns and operates, the current state of that stock, and how much it costs to own, operate, and maintain them.
- An overview of the levels of service provided by these assets.
- A summary of the expenditure required and planned for over the next 10 years to ensure assets continue to provide the appropriate level of service.
- An improvement Plan that outlines what actions will be taken to improve the content &/or outcomes of the plan.

Sections

1. Transport
 - Roads & carparks
 - Footpaths
 - Kerbs
 - Bridges
2. Civil Infrastructure
 - Marine Assets
 - Breakwaters & seawalls
 - Marina walls & paths
 - Boat ramps and facilities
3. Buildings & other structures
 - All buildings including sheds, public toilets etc.
 - Other Structures
 - Open space structures – shelters etc.

- Open space furniture including sport & play equipment
- Other structures (lighting & aviation)
- 4. Sewer (CWMS)
 - Reticulation (mains & inspection points)
 - Pump stations
 - Treatment plant & ponds
- 5. Stormwater Drainage
 - Pipes & culverts
 - Sumps pits and other structures
- 6. Plant and Equipment
 - Light vehicles
 - Heavy plant & equipment
 - Office equipment

1 TRANSPORT ASSETS

The transport asset class comprises asset categories of roads, kerbs, footpaths, bridges and carparks. Roads are further split into sealed and unsealed and classified as urban or rural.

Footpaths, Kerbs & stormwater are generally associated with the urban roads.

Road	Replacement Cost
Sealed	\$56,254,149
Unsealed	\$34,605,693
Total	\$90,859,842
Footpaths	\$3,875,213
Kerb	\$1,330,807
Carparks	\$613,164
Bridges **	\$515,296
Grand Total	\$97,194,322

** Bridges are maintained under the Buildings & Other structures Plan.

10 Year Transport Plan

	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Sealed Roads										
Renewal	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Maintenance	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000	\$157,000
New /Upgrade										
Unsealed Roads										
Renewal	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000	\$795,000
Maintenance	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000	\$339,000
Upgrade										
New /Upgrade										
Footpaths & Kerb										
Renewal	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000
Footpath Maintenance	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Kerb Maintenance	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
New /Upgrade										

Treatments applicable to roads are:

Renewal Reseals and associated preparation, rehabilitations, unsealed resheeting.

Maintenance Seal patching, grading, ripping & reshaping, sign & delineation maintenance.

Upgrade Unsealed road sealing.

Long Term Planning:

Sealed Roads Based on Brightly asset information using 2022 data. The renewal program has increased inline with the significant increase in replacement cost as per the 30 June 2021 revaluation.

Unsealed Roads Based on Brightly asset information using 2022 condition data & gravel depths. The renewal program has increased inline with the significant increase in replacement cost as per the 30 June 2021 revaluation.

Footpath Based on Brightly asset information using 2022 data. The renewal program has increased inline with an increase in replacement cost as per the 30 June 2021 revaluation.

Kerb Based on Brightly asset information using 2022 data. The renewal program has increased inline with an increase in replacement cost as per the 30 June 2021 revaluation.

2 MARINE INFRASTRUCTURE

Marine Infrastructure	Replacement Cost
Marina Structures	\$21,908,858
Total	\$21,908,858

Marine Infrastructure	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Marine Structures										
Renewal	Nil	Nil	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000	\$188,000
Maintenance	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000	\$900,000
New /Upgrade	\$2,605,000									

Based on Brightly asset information using 2021 data, no renewal works are forecast in the first two years due to the condition assessment of the marine infrastructure. The renewal program has increased inline with an increase in replacement cost as per the 30 June 2021 revaluation. Maintenance includes annual Cape Jaffa sand dredging allocations of \$650,000.

Seawall

Council in January 2022 adopted the final Wyomi Beach Adaptation Pathways Project, Community Engagement Report and endorsed the seawall (defend) pathway adaptation option for Wyomi Beach and authorised administration to investigate funding options for the preferred pathway.

Council has received confirmation of \$1.953M funding towards the estimated \$2.605M cost to extend the existing seawall and the cost of \$2,605,000 is included under 2023/24 (new).

3 BUILDINGS & OTHER STRUCTURES.

Building	Replacement Cost
All Buildings	\$17,586,400
Other Structures	Replacement Cost
Open space	\$604,134
Structures	\$217,000
Recreation	\$71,000
Aviation	\$193,010
Furniture	\$188,259
Marine lights	\$23,680
Miscellaneous	\$553,000
Total	\$19,436,483

	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Buildings										
Renewal	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Maintenance	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000	\$39,000
New /Upgrade										
Other Structures										
Renewal	Nil	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Maintenance										
New /Upgrade										

Based on Brightly asset information using 30 June 2022 revaluation data, maintenance updated to include cleaning & other costs.

4 SEWER (CWMS)

Asset Type	Replacement Cost
Mains & Inspection Points	\$7,390,327
Pump stations	\$1,952,688
Treatment Plant	\$2,782,320
Irrigation Systems	\$114,030
Total	\$12,239,365

	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Renewal	Nil	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000	\$130,000
Maintenance	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000	\$265,000
New /Upgrade										

Based on Brightly asset information using 30 June 2022 revaluation data and allows for items such as pumps & motors to be replaced with life remaining rather than running to failure. Maintenance includes cyclical desludging of connected properties as well as day to day maintenance.

CWMS Ponds

Council will need to engage engineers to undertake a condition assessment of the CWMS ponds as it is likely the ponds will need desludging and will require new liners, at this time an amount has not been incorporated into the above table due to uncertainties with condition of the ponds and the value/timing of the potential works.

CWMS Extension

Council has received funding from the LGA CWMS Committee to prepare a concept design with costings for the expansion of the current Kingston CWMS to Rosetown in the north and Pinks Beach in the south. At this stage the costs for the expanded Kingston CWMS are unknown and Council has not made a decision on the project.

5 STORMWATER

Asset Type		Replacement Cost								
Pipes & Culverts		\$850,516								
Sumps Pits and Other structures		\$478,719								
Drains		\$516,118								
Total		\$1,845,353								
	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Stormwater										
Renewal	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Maintenance	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000	\$51,000
New /Upgrade	\$242,650				\$348,450			\$363,400		

Based on Brightly asset information using 30 June 2022 revaluation data and the renewal is primarily to reline or renew sump bores, little other renewal is anticipated within the next 10 years.

Maintenance is primarily cleaning and replacement of damaged pit lids.

Council engaged Tonkin (engineers) in 2021 to undertake an assessment of deficient drainage areas and provide costed mitigation options and prepare a Kingston Township Drainage Study. The study prioritised 3 locations as “high priorities” and provided estimated costs to undertake drainage mitigation works. The 3 “high priority” works (listed below) are included in the “New/Upgrade” section above:

1. Janet Street Pump Station \$242,650
2. MacDonnell Street Storage \$348,450 (surface option) \$679,650 (underground option)
3. Cooke Street Pump and Storage \$363,400

6 PLANT & EQUIPMENT

Asset Type		Replacement Cost								
Fleet		\$3,630,283								
Equipment		\$3,275,506								
Total		\$6,905,789								
Plant & Equipment	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Light Vehicles	\$149,000	\$190,000	\$88,000	\$191,000	\$88,000	\$88,000	\$191,000	\$88,000	\$88,000	\$191,000
Heavy Plant	\$420,000	Nil	\$420,000	\$200,000	\$190,000	\$40,000	\$270,000	Nil	Nil	Nil
Office Equipment					\$40,000					\$40,000
Total	\$569,000	\$190,000	\$508,000	\$391,000	\$318,000	\$128,000	\$461,000	\$88,000	\$88,000	\$191,000
Maintenance	\$390,000	\$390,000	\$390,000	\$390,000	\$690,000	\$390,000	\$390,000	\$390,000	\$390,000	\$690,000

Renewal budget allocation is in line with Council life cycle of plant and equipment. Dredge requires the completion of a five year, out of water survey (2027/28 & 2032/33) at an estimated cost of \$300,000. Office server \$40,000 to be replaced every five years.

Plant	Life Cycle
Grader	15 years
Truck	12 years
Loader	15 years
Ride on mower	10 years
Tractor	15 years
Roller	15 – 30 years
Light vehicles	3 years or 80,000 Km's

7 NON SPECIFIC CAPITAL

Non specific	Year 23/24	Year 24/25	Year 25/26	Year 26/27	Year 27/28	Year 28/29	Year 29/30	Year 30/31	Year 31/32	Year 32/33
Discretionary New Works	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Project Works			\$2,500,000							

Discretionary Works Unidentified works to create new assets or upgrade/renew existing assets at Council's discretion.

Project Works Foreshore development project \$2,500,000 is planned for 2025/26 and subject to 50% grant funding.

IMPROVEMENT PLAN

Overall:

1. Implement an Asset Management system.
2. Develop updated Infrastructure and Asset Management Plan based on asset information held in Brightly.
3. Consider developing separate asset management plans for unique and complex assets such as Cape Jaffa Marina.
4. Finalise & adopt asset management planning & revaluation cycle to align with 4 year Council terms.

Buildings

1. Undertake condition assessment and revaluation of Transport and Marine assets in 2025/26.

Sewer

1. Undertake condition assessment of key CWMS infrastructure (e.g. ponds including the liners).

Buildings and Other Structures Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's Building asset portfolio, by developing a simulation model using predictive modelling software.

This process typically involves setting up life cycle paths for each building component, along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising the above this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's Building portfolio renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

For the purpose of predictive life cycle modelling, all building components have been assessed on a 1 to 5 rating scale with 1 representing an asset/component in very good condition and 5 representing an asset/component in very poor condition. Condition state 0 represents an asset/component in brand new condition, while condition state 6 represents an asset/component nearing end of useful life.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's Building portfolio under varying funding scenarios. This strategic modelling analysis predicts the deterioration of Building portfolio by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is recently revalued as at June 2022. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its 10-year long-term financial budget, in line with industry asset management best practice.

RULE BASE

All building components are renewed when at **condition 4** if the building **hierarchy** is assigned as **High** and at **condition 5** if the building **hierarchy** is assigned as **Medium and Low**.

Treatment Name	Situation Name	Condition	Component Type	Hierarchy	
Electrical Component Renewal	Hierarchy = High; Condition >= 4	>=4	Electrical	High	^
	Hierarchy = Med,Low; Condition >= 5	>=5	Electrical	Medium;Low	
Fire Component Renewal	Hierarchy = High; Condition >= 4	>=4	Fire	High	v
	Hierarchy = Med,Low; Condition >= 5	>=5	Fire	Medium;Low	
Fitout and Fittings Renewal	Hierarchy = High; Condition >= 4	>=4	Fitout and Fittings	High	

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$130K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the building portfolio over the next 10 years, Average \$700K per annum.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

Buildings and Other Structures Asset Management Dashboard High Level Summary

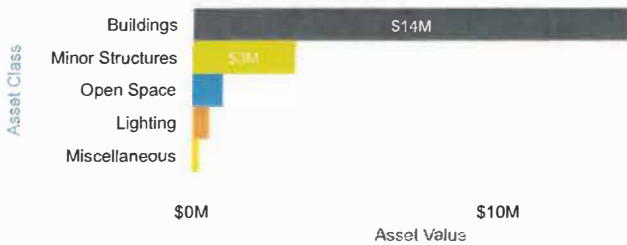
Asset Portfolio Value **\$19.4M**

Asset Value

Asset Value by Asset Group



Asset Value by Asset Class



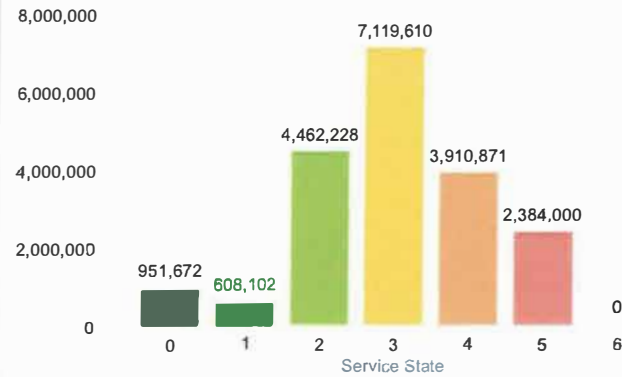
Asset Value by Component Type



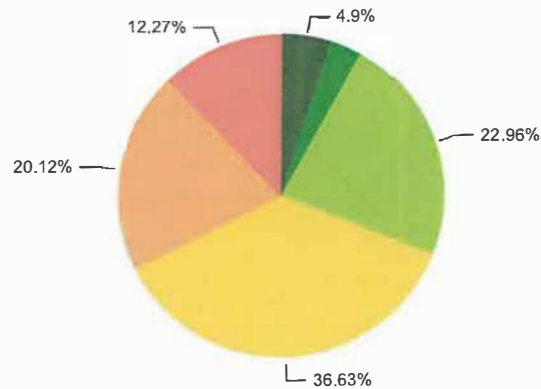
Asset Portfolio Condition **3.01**

Average Condition

Condition Distribution By Network Measure (Replacement Value)



Overall Condition



Asset Portfolio Current Capital Budget **\$1.3M**

Treatment Cost

Treatment Cost by Year



Digital Asset Management Dashboard

State of Assets Report

Asset Group
All

Asset Class
All

Asset Type
All

Asset SubType
All

Component Type
All

Hierarchy
All

Asset Name
All

Unique Asset ID
All

19.44M
Replacement Value

613
Asset Quantity

3.01
Average Condition

6.29M
PVP Value

Report Type

Asset Quantity

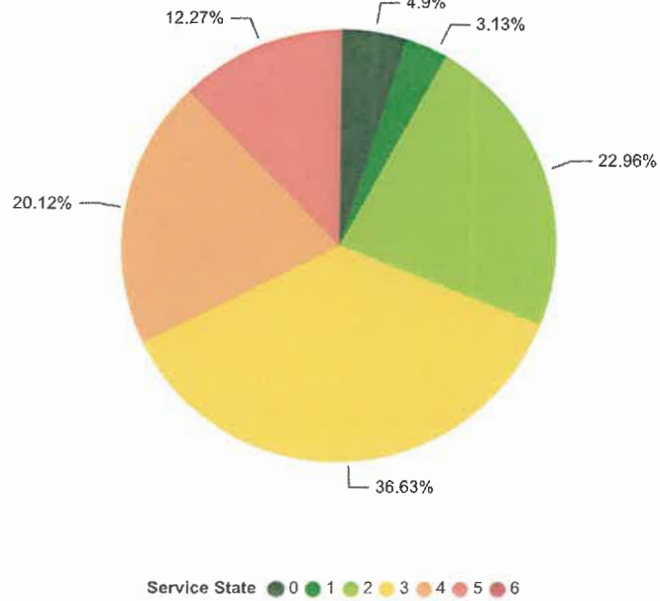
Network Measure

Service Criteria

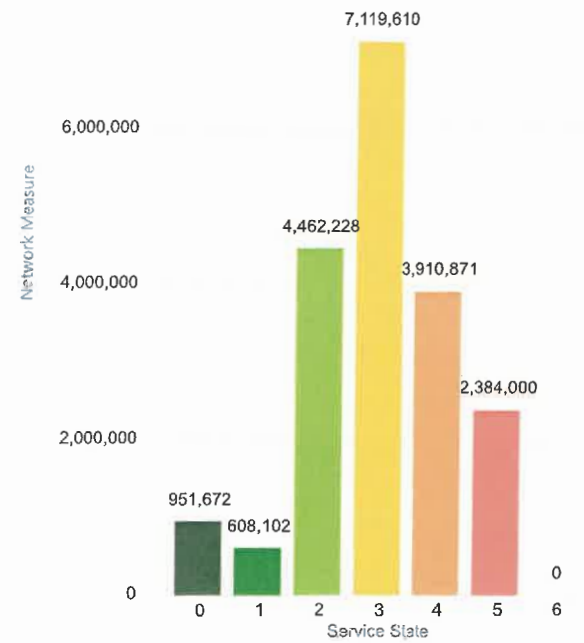
OSI

Condition

Overall Condition



Condition Distribution



Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Class

All

Hierarchy

All

Component Type

All

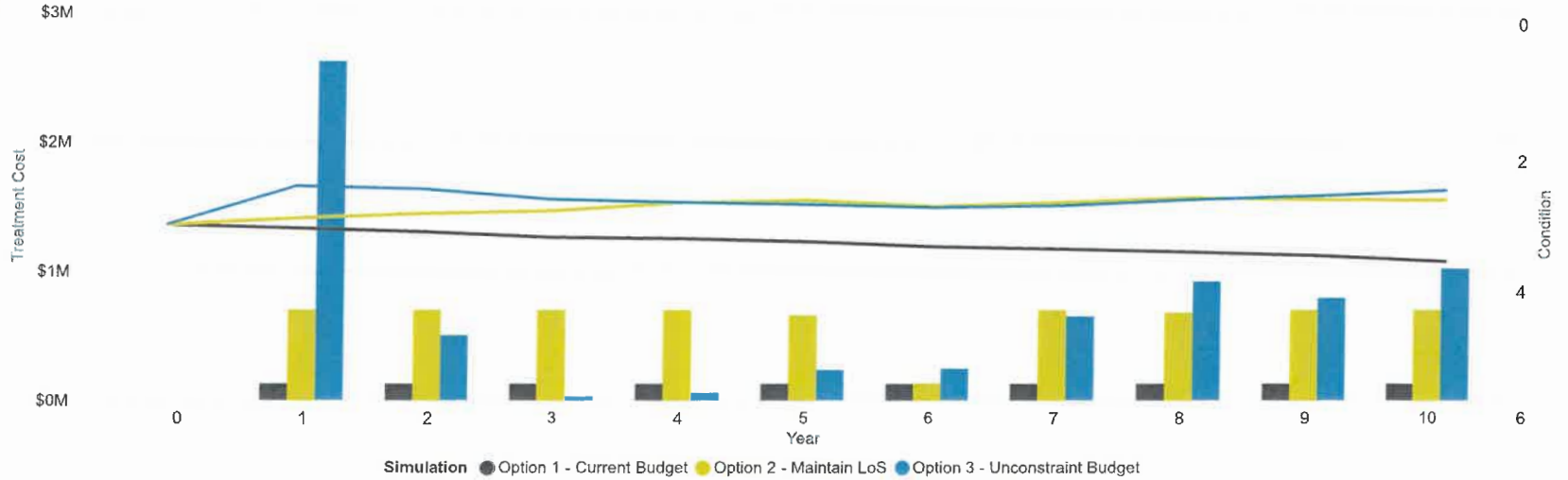
Asset Name

All

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget		
	Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0		\$0	3.01	\$0	3.01	\$0	3.01
1		\$129,400	3.05	\$699,800	2.91	\$2,620,800	2.41
2		\$130,000	3.11	\$699,400	2.83	\$505,600	2.46
3		\$129,300	3.19	\$699,700	2.79	\$31,900	2.62
4		\$129,900	3.21	\$699,776	2.67	\$61,776	2.66
5		\$129,900	3.26	\$658,400	2.63	\$237,000	2.70
6		\$129,700	3.34	\$134,708	2.72	\$245,400	2.74
7		\$129,900	3.37	\$699,858	2.66	\$650,779	2.71
8		\$130,000	3.42	\$678,672	2.59	\$921,345	2.62
9		\$129,850	3.48	\$699,590	2.62	\$794,316	2.56
10		\$129,920	3.57	\$700,000	2.63	\$1,022,695	2.48
Total		\$1,297,870	3.27	\$6,369,904	2.73	\$7,091,611	2.63

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Class

All

Hierarchy

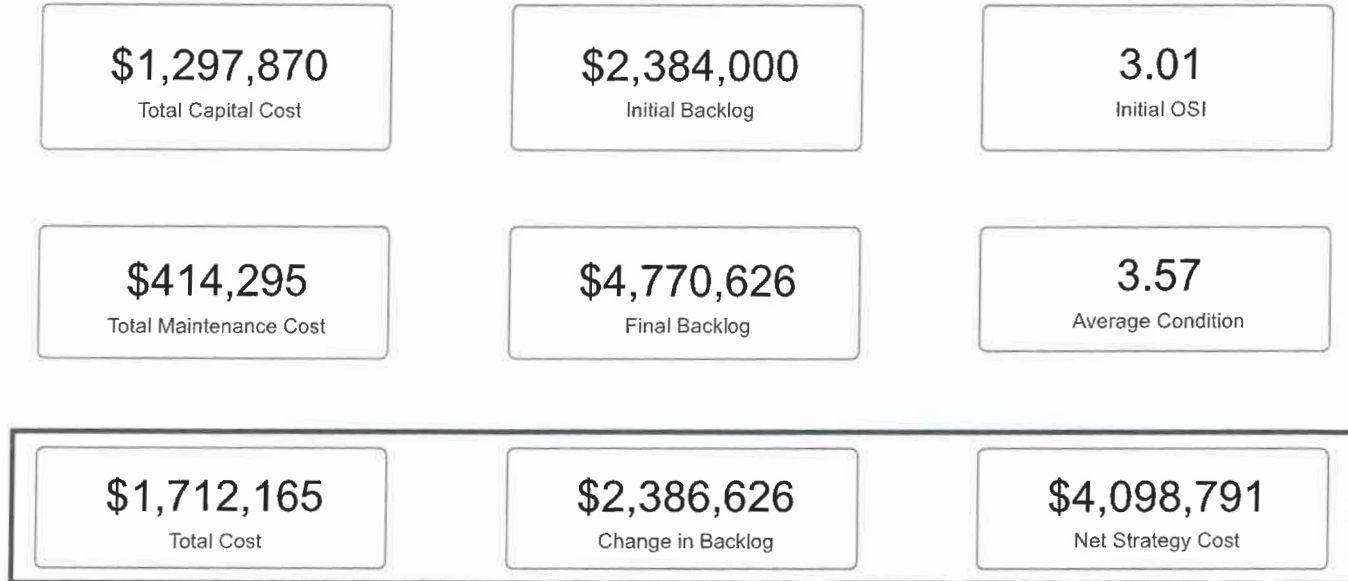
All

Component Type

All

Asset Name

All



Service Criteria
OSI

Year
0 10

Asset Group
All

Asset Class
All

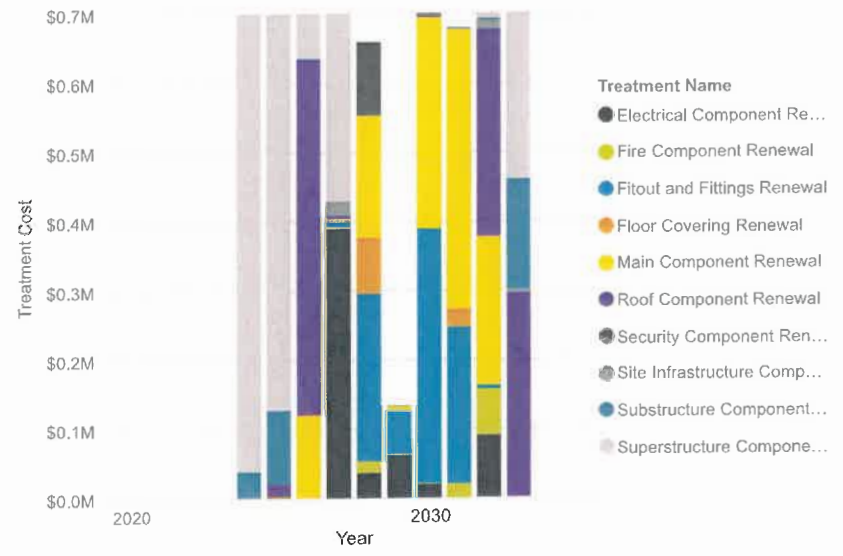
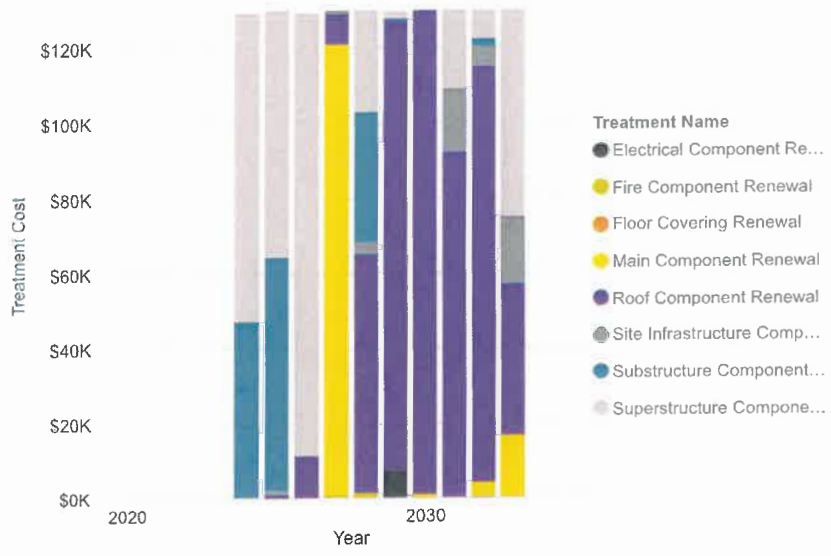
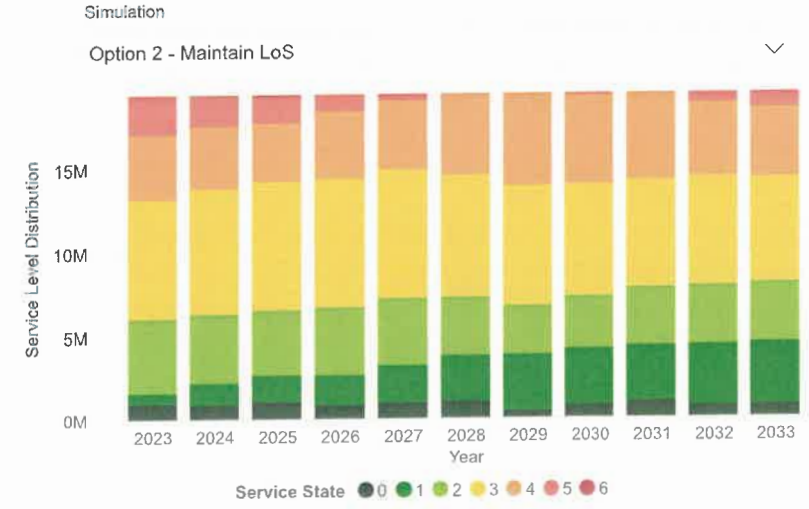
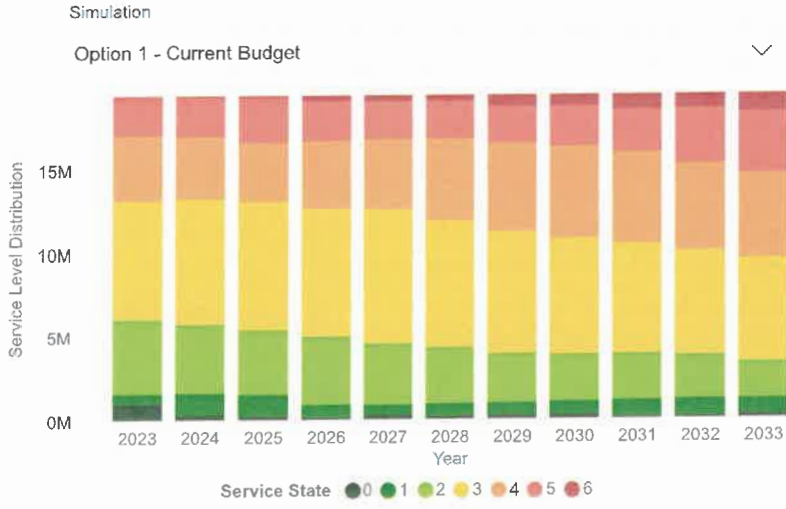
Hierarchy
All

Unique Asset ID
All

Asset Name
All

Data Format
Absolute Percentage

Report Type
Asset Quantity Network Measure



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

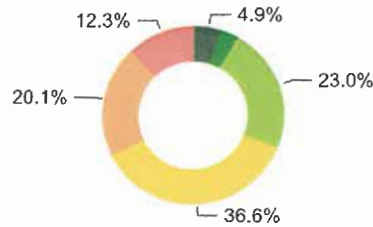
Hierarchy	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
High	2.73	2.82	2.88	2.91	2.93	2.96	3.00	3.02	3.09	3.12	3.22
Low	3.92	3.92	3.92	3.92	3.93	3.93	3.82	3.83	3.87	3.92	3.96
Medium	3.07	3.10	3.16	3.26	3.28	3.33	3.42	3.46	3.50	3.56	3.65

327
No Buildings or Structures

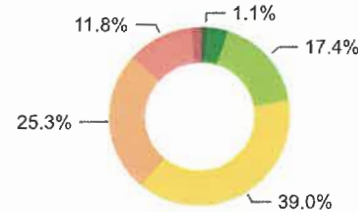
\$19.44M
Asset Value

613
No of Components

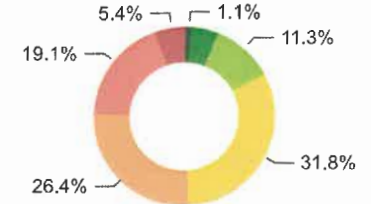
Condition Distribution % (Year 0)



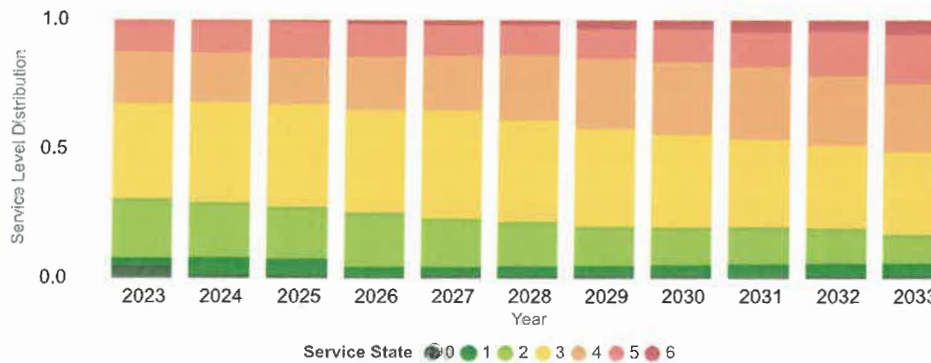
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5	6
0	4.90%	3.13%	22.96%	36.63%	20.12%	12.2...	0.00%
1	1.58%	6.62%	21.21%	38.67%	19.30%	12.4...	0.17%
2	1.26%	6.48%	19.98%	39.58%	18.16%	14.0...	0.47%
3	0.88%	3.73%	20.95%	39.57%	20.82%	12.4...	1.58%
4	1.31%	3.22%	18.85%	41.44%	21.52%	11.8...	1.83%
5	1.05%	3.71%	17.41%	38.96%	25.34%	11.7...	1.76%
6	1.15%	3.87%	15.19%	37.70%	27.31%	11.2...	3.53%
7	1.40%	3.94%	14.53%	35.69%	28.39%	12.4...	3.57%
8	0.87%	4.78%	14.33%	33.82%	28.21%	13.3...	4.63%
9	0.90%	5.04%	13.55%	32.08%	26.95%	17.2...	4.24%
10	1.15%	4.79%	11.29%	31.79%	26.44%	19.1...	5.42%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Class

All

Hierarchy

All

Component Type

All

Asset Name

All

Unique Asset ID

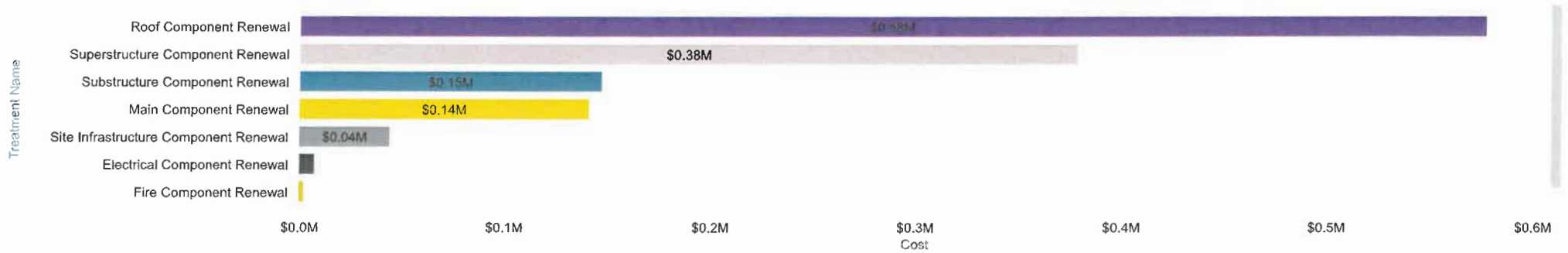
All

Asset Name	Asset Group	Asset Class	Asset Type	Hierarchy	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Airport	Other Structures	Aviation		Medium	0.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
Airport Clubrooms	Buildings	Buildings	Other	Low	5.00	5.00	5.00	5.00	5.00	5.00	0.00	0.00	1.00	1.00	1.00
				Medium	4.74	4.72	4.72	2.33	2.37	1.88	1.89	2.08	2.08	2.08	2.08
Airport Shed 1	Buildings	Buildings	Hangar	Medium	4.83	4.83	4.33	1.89	1.99	1.99	2.50	1.36	1.58	1.67	1.23
Anchorage, Cape Jaffa - Beach shelter	Other Structures	Minor Structures	Other Structures	Medium	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	3.00	3.00
Anchorage, Cape Jaffa - Toilet block	Buildings	Buildings	Buildings	Medium	2.99	2.99	3.00	3.00	3.00	3.16	3.27	3.27	3.37	3.37	3.37
Anchorage, Cape Jaffa -Replica Signal Mast	Other Structures	Minor Structures	Site Improvements	Medium	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00
Anchorage, Cape Jaffa -Ticket Machines	Other Structures	Minor Structures	Site Improvements	Medium	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	4.00	5.00
Apex Park - Fencing, Memorials, Lighting, Watering System and Control Units	Other Structures	Minor Structures	Site Improvements	Medium	2.00	2.00	2.00	2.00	2.00	3.00	4.00	4.00	4.00	5.00	5.00
Apex Park - Playground equipment, basketball half court and outdoor seating.	Other Structures	Minor Structures	Other Structures	Medium	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
Apex Park - Shed	Buildings	Buildings	Buildings	Medium	4.85	4.85	5.00	5.60	5.60	4.86	4.86	5.01	5.01	5.01	0.30
Apex Park - Shelter and bbq	Other Structures	Minor Structures	Other Structures	Medium	0.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00
		Open Space	Other Structures	Medium	0.00	0.00	0.44	0.88	1.44	2.00	2.00	2.00	2.00	2.44	2.44
Apex Toilets	Buildings	Buildings	Public Toilet	Medium	2.99	3.10	3.10	3.10	3.12	3.12	3.12	3.13	3.13	3.13	3.24
Cape Jaffa Anchorage Washdown Bay	Other Structures	Open Space	Washdown Bay	Medium	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cape Jaffa Channel Lights	Other Structures	Lighting	Navigation Lighting	Medium	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	5.00
Cape Jaffa Toilets	Buildings	Buildings	Public Toilet	Medium	2.99	2.99	2.99	2.99	3.00	3.01	3.02	3.12	3.12	3.17	3.17
Caravan Park - Ablutions Block	Buildings	Buildings	Ablutions	Medium	4.81	4.93	4.69	4.74	4.74	4.74	4.75	4.24	4.36	4.52	4.53
Caravan Park - Amenities Block	Buildings	Buildings	Amenities	Medium	4.67	4.43	4.49	5.14	5.14	5.15	5.33	5.34	5.01	4.95	4.97
Caravan Park Signs	Other Structures	Open Space	Sign	Medium	2.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00
Commemorative Walls - Site Improvements	Other Structures	Minor Structures	Other Structures	Medium	1.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
Control System for RunWay Lights at Kingston Airport	Other Structures	Aviation		Medium	0.00	1.00	1.00	1.00	1.00	2.00	3.00	3.00	4.00	4.00	4.00
Council Depot - Fuel Tanker Shelter	Other Structures	Minor Structures	Other Structures	Medium	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Council Depot - Shed at rear of Lunch Room	Other Structures	Minor Structures	Buildings	Medium	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Council Depot - Storage 3 Red cross	Buildings	Buildings	Buildings	Medium	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.30	2.40	2.40	2.40

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
1	Airport Clubrooms	Build00010_CP00102505	Medium	Buildings	Clubrooms	Other	Substructure Component Renewal	\$4,500.00	
	Caravan Park - Amenities Block	Build00025_CP00102547	Medium	Buildings	Amenities	Amenities	Substructure Component Renewal	\$12,000.00	
	Council Depot 2	Build00003_CP00102460	Medium	Buildings	Building / Shed	Shed	Substructure Component Renewal	\$12,000.00	
	Kingston Cemetery Toilet	Build00040_CP00102729	Medium	Buildings	Public Toilets	Public Toilet	Superstructure Component Renewal	\$12,000.00	
		Build00040_CP00102702	Medium	Buildings	Public Toilets	Public Toilet	Substructure Component Renewal	\$1,200.00	
	Kingston SE Cementary Pump Shed	Build00042_CP00102696	Medium	Buildings	Building / Shed	Sewer Services	Substructure Component Renewal	\$500.00	
		Build00042_CP00102634	Medium	Buildings	Building / Shed	Sewer Services	Superstructure Component Renewal	\$2,300.00	▼

← Indicative Works Prioritisation Details

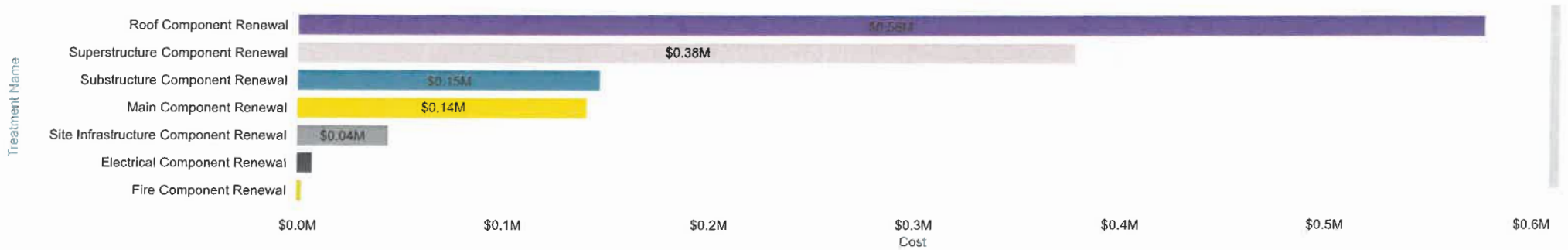
5
Year

\$1.30M
Treatment Cost

\$1.30M
Asset Value

74
Treatments

Treatment Cost by Surface Type



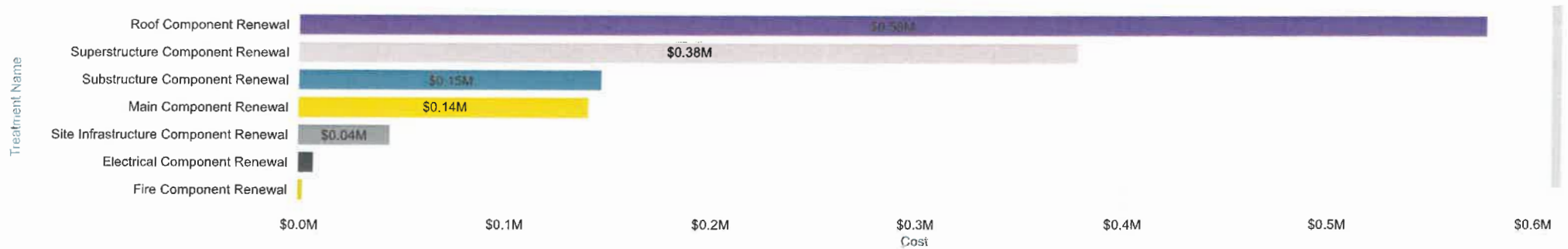
List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
1	Old School Building - Mens Shed Building 2	Build00036_CP00102620	Medium	Buildings	Clubrooms	Other	Substructure Component Renewal	\$11,000.00	
	Power Engine Cottage	Build00037_CP00102665	Medium	Buildings	Museum	Other	Substructure Component Renewal	\$4,700.00	
		Build00037_CP00102621	Medium	Buildings	Museum	Other	Superstructure Component Renewal	\$56,000.00	
	Waste Transfer Station Toilets	Build00047_CP00102755	Medium	Buildings	Public Toilets	Public Toilet	Substructure Component Renewal	\$1,200.00	
		Build00047_CP00102727	Medium	Buildings	Public Toilets	Public Toilet	Superstructure Component Renewal	\$12,000.00	
2	Airport Clubrooms	Build00010_CP00102458	Medium	Buildings	Clubrooms	Other	Site Infrastructure Component Renewal	\$900.00	
	Airport Shed 1	Build00011_CP00102605	Medium	Buildings	Hangars	Hangar	Substructure Component	\$15,000.00	

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



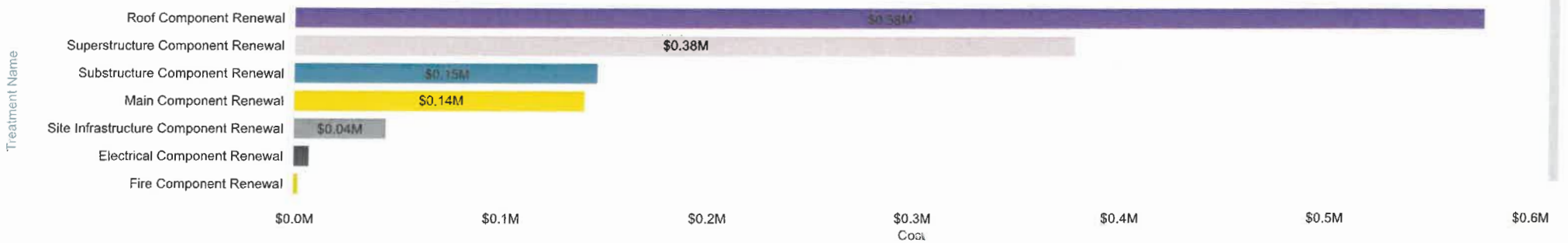
List of Assets

Asset ID	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
2	Caravan Park - Ablutions Block	Build00026_CP00102486	Medium	Buildings	Amenities	Ablutions	Substructure Component Renewal	\$20,000.00	
	Council Depot 2	Build00003_CP00102470	Medium	Buildings	Building / Shed	Shed	Superstructure Component Renewal	\$27,000.00	
	Kingston SE Cementary Pump Shed	Build00042_CP00102668	Medium	Buildings	Building / Shed	Sewer Services	Roof Component Renewal	\$1,000.00	
	Lacepede Bay Sailing Club - Lookout	Build00049_CP00102749	Medium	Buildings	Lookout	Other	Substructure Component Renewal	\$2,300.00	
		Build00049_CP00102625	Medium	Buildings	Lookout	Other	Superstructure Component Renewal	\$7,800.00	
	Old Council Chambers	Build00031_CP00102430	High	Buildings	Civic Centres	Civic Centre	Substructure Component Renewal	\$25,000.00	
	Old School Building - Mens Shed Building 2	Build00036_CP00102686	Medium	Buildings	Clubrooms	Other	Superstructure Component Renewal	\$31,000.00	▼

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
3	Airport Clubrooms	Build00010_CP00102472	Medium	Buildings	Clubrooms	Other	Superstructure Component Renewal	\$43,000.00	
	Airport Shed 1	Build00011_CP00102532	Medium	Buildings	Hangars	Hangar	Superstructure Component Renewal	\$75,000.00	
4	Kingston Cemetery Toilet	Build00040_CP00102715	Medium	Buildings	Public Toilets	Public Toilet	Roof Component Renewal	\$3,700.00	
	Lacedede Bay Sailing Club - Lookout	Build00049_CP00102647	Medium	Buildings	Lookout	Other	Roof Component Renewal	\$3,900.00	
	Waste Transfer Station Toilets	Build00047_CP00102657	Medium	Buildings	Public Toilets	Public Toilet	Roof Component Renewal	\$3,700.00	
	Council Depot 2	Build00003_CP00102542	Medium	Buildings	Building / Shed	Shed	Site Infrastructure Component Renewal	\$800.00	
	Kingston Caravan Park - Disabled Toilet/Dump Point	Build00003_CP00102509	Medium	Buildings	Building / Shed	Shed	Fire Component Renewal	\$800.00	
5	OSS0014	BLD102591_CP00104824 OSS0014_CP00103546	Medium	Buildings	Public Toilets	Buildings	Roof Component Renewal	\$8,300.00	
	Airport Clubrooms	Build00010_CP00102488	Medium	Buildings	Clubrooms	Other	Main Component Renewal	\$120,000.00	▼
							Roof Component Renewal	\$14,000.00	

← Indicative Works Prioritisation Details

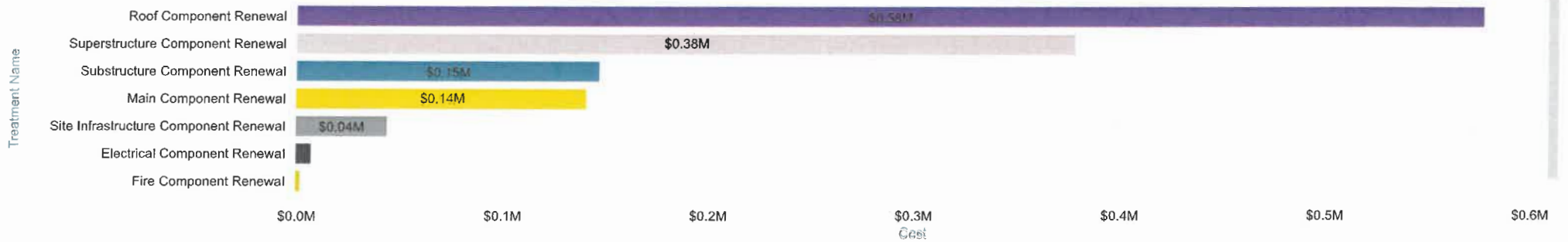
5
Year

\$1.30M
Treatment Cost

\$1.30M
Asset Value

74
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost
5							Renewal	
	Council Depot 2	Build00003_CP00102520	Medium	Buildings	Building / Shed	Shed	Roof Component Renewal	\$20,000.00
	Lacepede Bay Sailing Club - Shed	Build00048_CP00102633	Medium	Buildings	Pavilions & Sports Clubs	Shed	Superstructure Component Renewal	\$27,000.00
	Old School Building - Mens Shed Building 1	Build00035_CP00102512	Medium	Buildings	Clubrooms	Other	Substructure Component Renewal	\$35,000.00
	Old School Building - Mens Shed Building 2	Build00036_CP00102681	Medium	Buildings	Clubrooms	Other	Roof Component Renewal	\$15,000.00
	Pinks Beach Toilets	Build00020_CP00104885	Medium	Buildings	Public Toilets	Public Toilet	Fire Component Renewal	\$500.00
	Power Engine Cottage	Build00037_CP00102672	Medium	Buildings	Museum	Other	Roof Component Renewal	\$15,000.00
	Wyomi Beach Toilets	Build00019_CP00104886	Medium	Buildings	Public Toilets	Public Toilet	Fire Component Renewal	\$700.00
6	Airport Clubrooms	Build00010_CP00102604	Low	Buildings	Clubrooms	Other	Electrical Component Renewal	\$7,200.00
	Kingston Senior Citizens Club	Build00038_CP00102740	Medium	Buildings	Senior Citizens Centres	Other	Roof Component Renewal	\$120,000.00
	Kingston Senior Citizens Station 04	Build00005_CP00102700	Medium	Buildings	Building / Shed	Senior Citizens	Superstructure Component	\$3,000.00

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



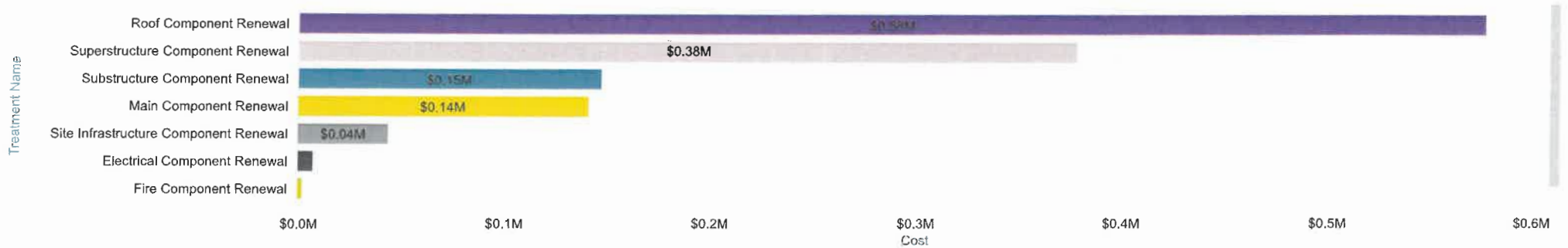
List of Assets

Asset ID	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost
6	Kingston Sewer Pump Station 12	Build00063_CP00102757	Medium	Buildings	Building / Shed	Sewer Services	Substructure Component Renewal	\$500.00
7	Airport Shed 1	Build00011_CP00102456	Medium	Buildings	Hangars	Hangar	Roof Component Renewal	\$34,000.00
	Caravan Park - Ablutions Block	Build00026_CP00102548	Medium	Buildings	Amenities	Ablutions	Roof Component Renewal	\$40,000.00
	Old Council Chambers	Build00031_CP00102445	High	Buildings	Civic Centres	Civic Centre	Roof Component Renewal	\$55,000.00
	OSF0059	OSF0059_CP00103338	Medium	Open Space	Furniture	Bin	Main Component Renewal	\$900.00
8	Caravan Park - Amenities Block	Build00025_CP00102552	Medium	Buildings	Amenities	Amenities	Roof Component Renewal	\$25,000.00
	Kingston Caravan Park - Disabled Toilet/Dump Point	BLD102591_CP00104745	Medium	Buildings	Public Toilets	Buildings	Superstructure Component Renewal	\$21,000.00
	Kingston SE Cementary Pump Shed	Build00042_CP00102708	Medium	Buildings	Building / Shed	Sewer Services	Site Infrastructure Component Renewal	\$500.00
	Kingston Sewer Pump Station 09	Build00060_CP00102675	Medium	Buildings	Building / Shed	Sewer Services	Roof Component Renewal	\$3,300.00
	Old Council Chambers	Build00031_CP00102445	High	Buildings	Civic Centres	Civic Centre	Site Infrastructure Component	\$4,200.00

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



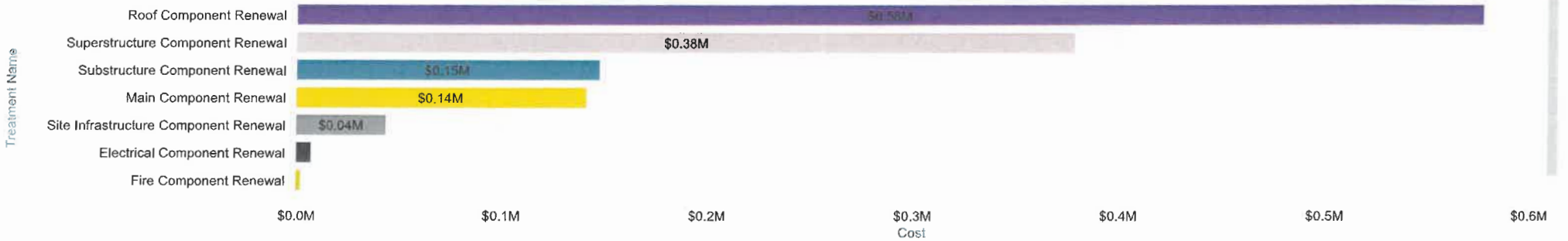
List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost
8	Old Council Chambers	Build0001_CP00102010	High	Buildings	Civic Centres	Civic Centre	Site Infrastructure Component Renewal	\$7,200.00
	Old School Building - Mens Shed Building 1	Build00035_CP00102595	Medium	Buildings	Clubrooms	Other	Site Infrastructure Component Renewal	\$12,000.00
9	Caravan Park - Amenities Block	Build00035_CP00102534	Medium	Buildings	Clubrooms	Other	Roof Component Renewal	\$64,000.00
		Build00025_CP00102435	Medium	Buildings	Amenities	Amenities	Site Infrastructure Component Renewal	\$2,500.00
	Kingston Caravan Park - 3 Bedroom House (owner residence)	BLD102594_CP00104747	Medium	Buildings	Accommodation	Buildings	Roof Component Renewal	\$34,000.00
	Kingston Caravan Park - Office/Shop Building & 1 Bedroom Unit (attached to rear of shop)	BLD102593_CP00104759	Medium	Buildings	Accommodation	Buildings	Roof Component Renewal	\$58,000.00
	Kingston Caravan Park - Shed/Workshop	BLD102576_CP00104805	Medium	Buildings	Shed	Buildings	Roof Component Renewal	\$19,000.00
	Kingston Cemetery Toilet	Build00040_CP00102701	Medium	Buildings	Public Toilets	Public Toilet	Site Infrastructure Component Renewal	\$1,200.00
	Kingston Sewer Pump Station 09	Build00060_CP00102671	Medium	Buildings	Building / Shed	Sewer Services	Superstructure Component	\$7,600.00

← Indicative Works Prioritisation Details

5 Year \$1.30M Treatment Cost \$1.30M Asset Value 74 Treatments

Treatment Cost by Surface Type



List of Assets

ID	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
9	Kingston Sewer Pump Station 1U	Build00061_CP00102622	Medium	Buildings	Building / Shed	Sewer Services	Substructure Component Renewal	\$2,300.00	
	Kingston Sewer Treatment Plant 1	Build00064_CP00104899	Medium	Buildings	Building / Shed	Sewer Services	Floor Covering Renewal	\$300.00	
	OSF0030	OSF0030_CP00103334	Medium	Open Space	Furniture	Picnic Setting	Main Component Renewal	\$1,875.00	
	OSF0038	OSF0038_CP00103357	Medium	Open Space	Furniture	Picnic Setting	Main Component Renewal	\$1,875.00	
	Waste Transfer Station Toilets	Build00047_CP00102677	Medium	Buildings	Public Toilets	Public Toilet	Site Infrastructure Component Renewal	\$1,200.00	
10	Airport Shed 1	Build00011_CP00102563	Medium	Buildings	Hangars	Hangar	Site Infrastructure Component Renewal	\$13,000.00	
	Apex Park - Shed	BLD102602_CP00104814	Medium	Buildings	Shed	Buildings	Superstructure Component Renewal	\$11,000.00	
		BLD102602_CP00104771	Medium	Buildings	Shed	Buildings	Roof Component Renewal	\$4,600.00	
	Caravan Park - Ablutions Block	Build00026_CP00102517	Medium	Buildings	Amenities	Ablutions	Site Infrastructure Component Renewal	\$4,000.00	

← Indicative Works Prioritisation Details

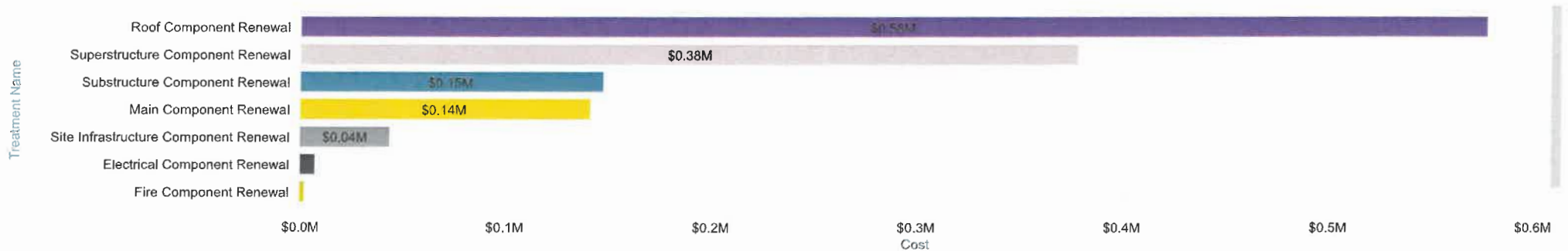
5
Year

\$1.30M
Treatment Cost

\$1.30M
Asset Value

74
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Hierarchy	Asset Class	Asset SubClass	Asset Type	Treatment Name	Treatment Cost	
10	Apex Park - Shed	BLD102602_CP00104814	Medium	Buildings	Shed	Buildings	Superstructure Component Renewal	\$11,000.00	
	Caravan Park - Ablutions Block	Build00026_CP00102517	Medium	Buildings	Amenities	Ablutions	Site Infrastructure Component Renewal	\$4,000.00	
	Kingston Caravan Park - Shed/Workshop	BLD102576_CP00104780	Medium	Buildings	Shed	Buildings	Superstructure Component Renewal	\$44,000.00	
	Kingston Sewer Pump Station 06	Build00057_CP00104888	Medium	Buildings	Building / Shed	Sewer Services	Floor Covering Renewal	\$200.00	
	Lions Park Toilets	Build00033_CP00102485	Medium	Buildings	Public Toilets	Public Toilet	Roof Component Renewal	\$36,000.00	
	LT0167	LT0167_CP00103168	Medium	Lighting	Open Space	Park Light	Main Component Renewal	\$16,320.00	
	Old School Building - Mens Shed Building 2	Build00036_CP00102664	Medium	Buildings	Clubrooms	Other	Site Infrastructure Component Renewal	\$800.00	▼

Footpaths Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's footpath network, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each footpath segment along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's road network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify footpath defects that will enable Council to develop and plan for its forward capital renewal programs. Within the predictive modelling software, the asset condition for footpaths will be reported as OSI (Overall Score Index).

The OSI is scored on a 0 to 6 rating scale with 1 representing a footpath segment in very good condition and 5 representing footpath segment in very poor condition (nearing end of useful life). 0 Represents a brand new footpath segment and 6 a footpath that has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's footpath network under varying funding scenarios. This strategic modelling analysis predicts the deterioration of footpath asset within the network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is current as at June 2021. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted footpath network behaviour when all poor to very poor footpaths (depending on hierarchy) are renewed like for like.

Treatment Name	No	Situation Name	Condition	Criticality	Surface Type
Concrete Renewal	1	S1 - High Crit, Condition >=3	>=3	High	Concrete
	2	S2 - Med Crit, Condition >=4	>=4	Medium	Concrete
	3	S3 - Low Crit, Condition >=5	>=5	Low	Concrete
Gravel Renewal	1	S1 - High Crit, Condition >=3	>=3	High	Gravel
	2	S2 - Med Crit, Condition >=4	>=4	Medium	Gravel

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$110K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the network over the next 10 years, Average \$140K per annum.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

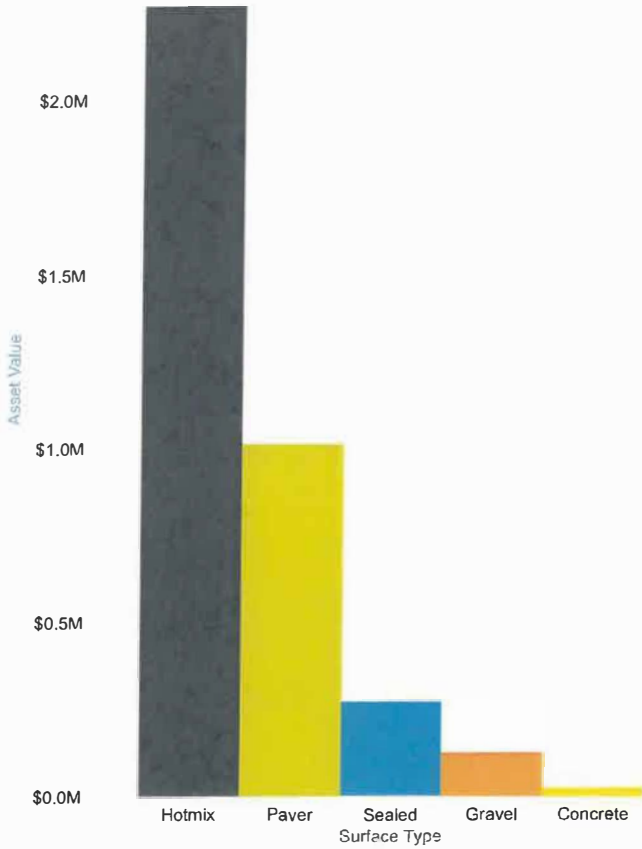
Footpaths Asset Management Dashboard High Level Summary

Asset Portfolio Value

\$3.71M

Asset Value

Asset Value by Surface Type

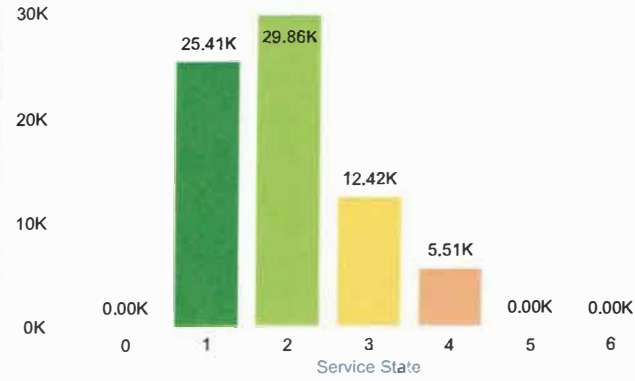


Asset Portfolio Condition

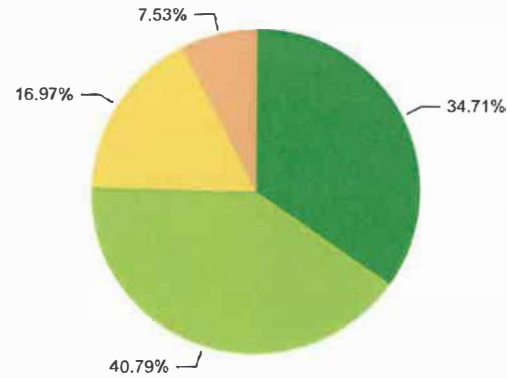
1.97

Average Condition

Condition Distribution By Network Measure (Area)



Overall Condition

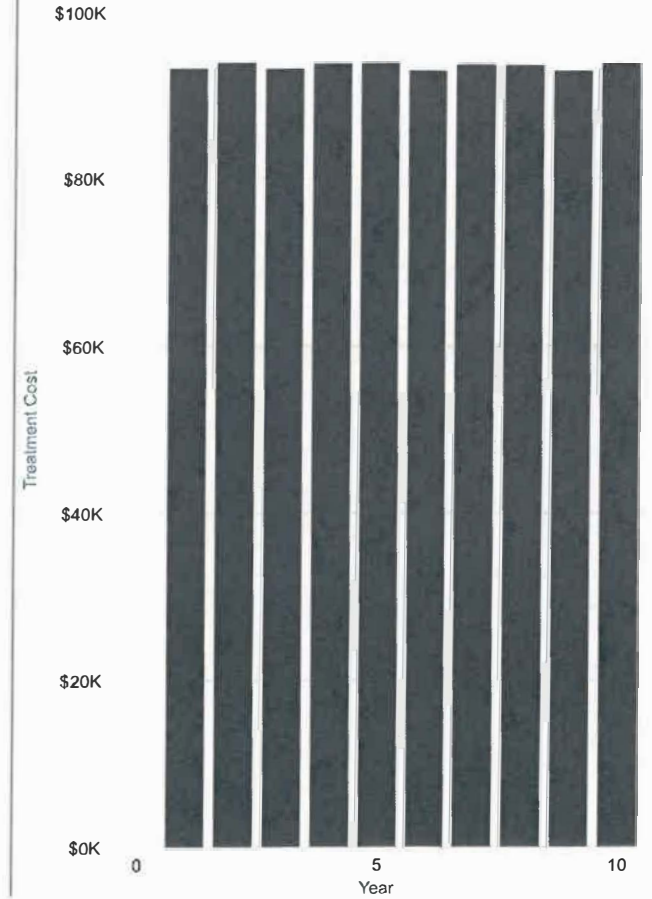


Asset Portfolio Required Expenditure

\$933.15K

Treatment Cost

Treatment Cost by Year



Digital Asset Management Dashboard GIS

Report Type

Asset Quantity

Network Measure

Simulation
Option 1 - Current Budget

0

Surface Type
All

Criticality
All

Side
All

Criticality
All

Location Description
All

Asset Name
All

Unique Asset ID
All



\$3.71M

Asset Value

\$0.00

Backlog

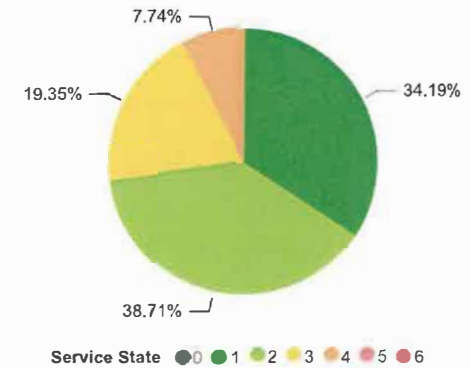
155

Asset Quantity

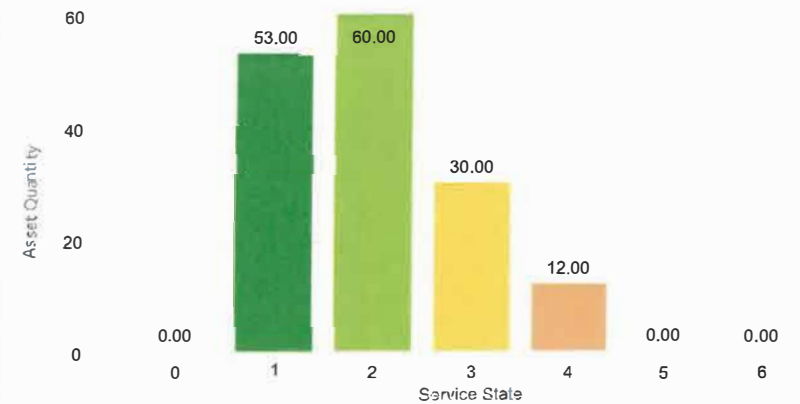
2.01

Average Condition

Overall Condition



Condition Distribution



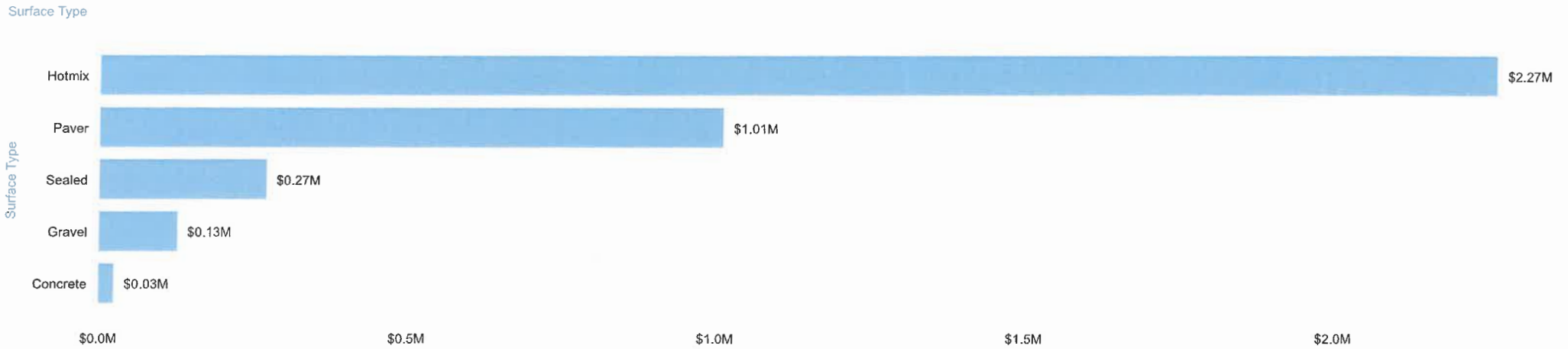
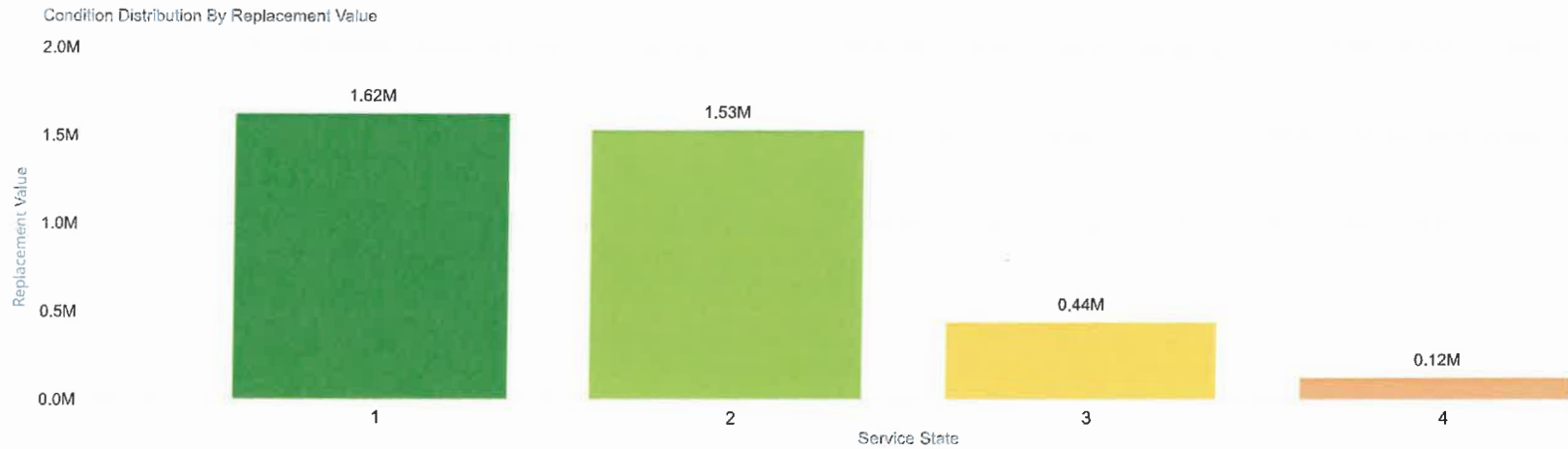
Digital Asset Management Dashboard

State of Assets Report

155
Number of Assets

\$3.7M
Asset Value

1.75
Average Condition



Service Level Analysis

Funding Distribution

Asset Life Cycle

Year-level Comparison

Service-level Comparison

Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Criticality

All

Side

All

Criticality

All

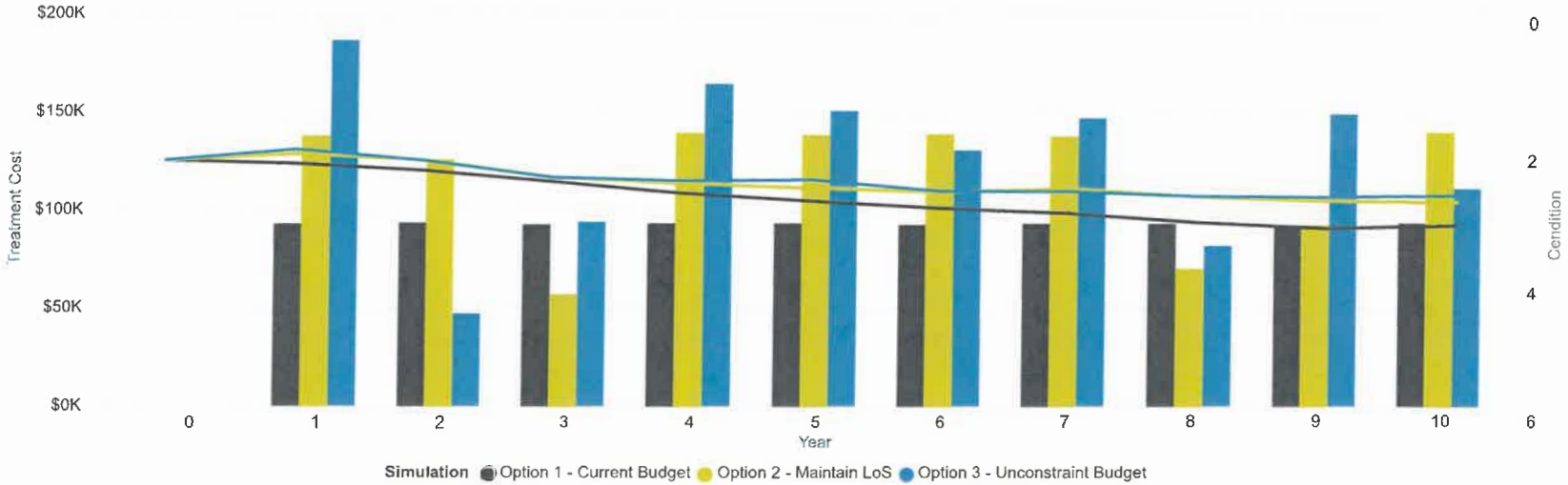
Asset Name

All

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget		
	Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0		\$0	1.97	\$0	1.97	\$0	1.97
1		\$93,086	2.02	\$137,947	1.87	\$186,537	1.81
2		\$93,760	2.12	\$125,858	1.97	\$47,536	1.98
3		\$93,020	2.28	\$57,420	2.22	\$94,285	2.23
4		\$93,635	2.46	\$139,434	2.31	\$164,473	2.28
5		\$93,665	2.58	\$138,530	2.38	\$150,600	2.26
6		\$92,770	2.69	\$138,796	2.44	\$130,665	2.43
7		\$93,496	2.77	\$137,812	2.40	\$146,920	2.44
8		\$93,421	2.90	\$70,495	2.51	\$82,067	2.51
9		\$92,720	3.00	\$92,639	2.58	\$148,906	2.52
10		\$93,575	2.95	\$139,785	2.60	\$111,386	2.50
Total		\$933,147	2.52	\$1,178,715	2.30	\$1,263,374	2.27

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Criticality

All

Side

All

Criticality

All

Location Description

All

Asset Name

All

Unique Asset ID

All

\$933,147
Total Capital Cost

\$0
Initial Backlog

1.97
Initial OSI

\$429,020
Total Maintenance Cost

\$94,402
Final Backlog

2.95
Average Condition

\$1,362,167
Total Cost

\$94,402
Change in Backlog

\$1,456,569
Net Strategy Cost

Service Criteria

OSI

Year

Surface Type

Criticality

Side

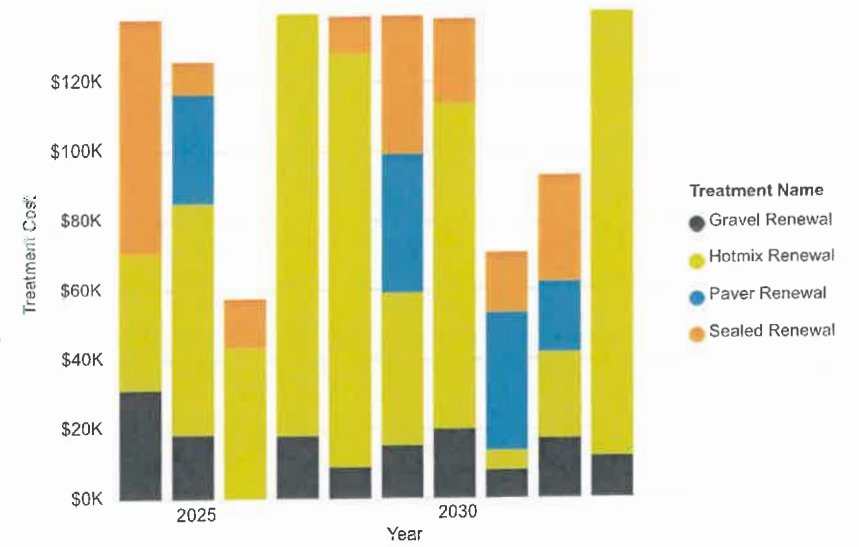
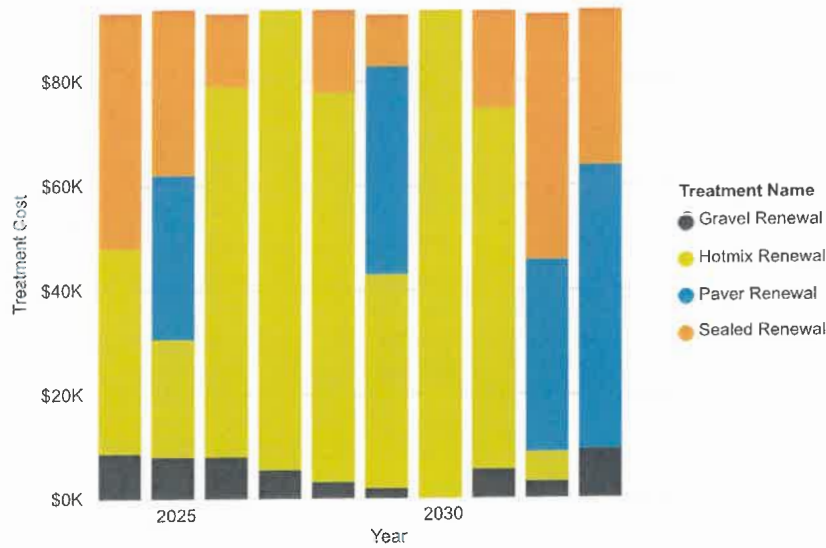
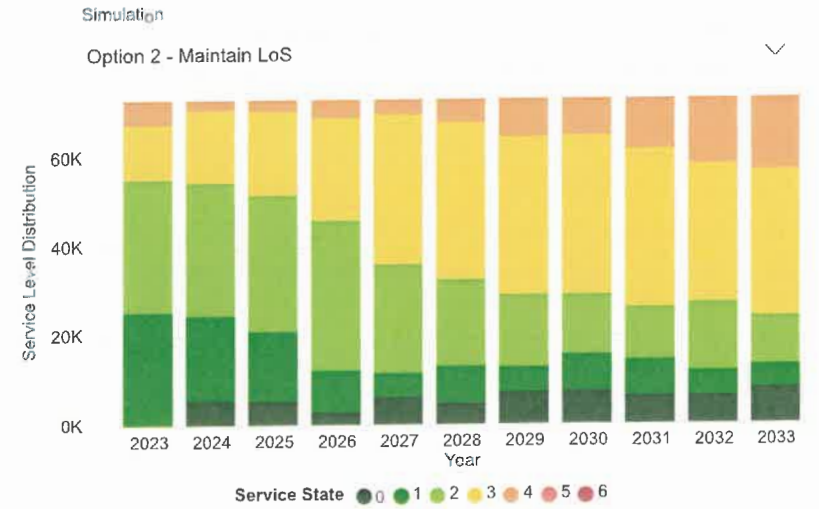
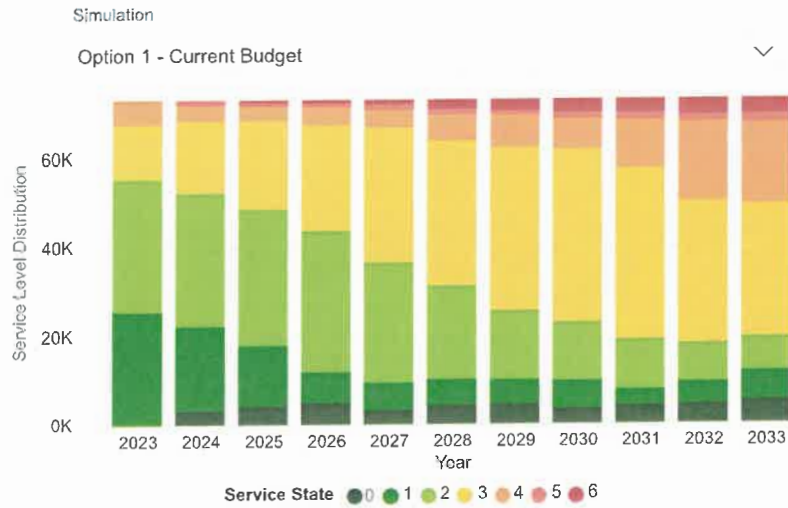
Criticality

Location Description

Asset Name

Data Format

Report Type



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Surface Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Concrete	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	3.00
Gravel	3.30	3.33	3.43	3.49	3.68	4.12	4.25	4.50	4.43	4.51	4.34
Hotmix	1.72	1.83	2.07	2.24	2.37	2.46	2.59	2.57	2.73	2.94	3.00
Paver	1.54	1.64	1.51	1.70	1.95	1.98	1.89	2.11	2.35	2.31	1.99
Sealed	2.33	2.14	1.84	2.00	2.34	2.38	2.48	2.75	2.85	2.59	2.41

\$3.71M

Asset Value

73,199

Network Measure Per ...

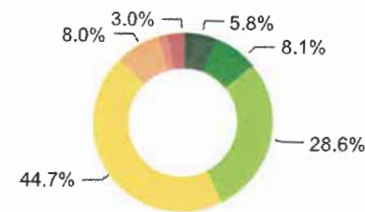
155

Number of Segments

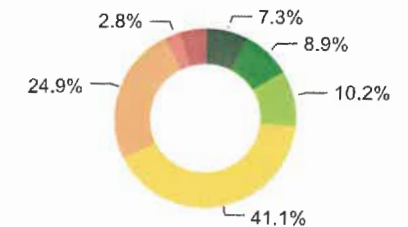
Condition Distribution % (Year 0)



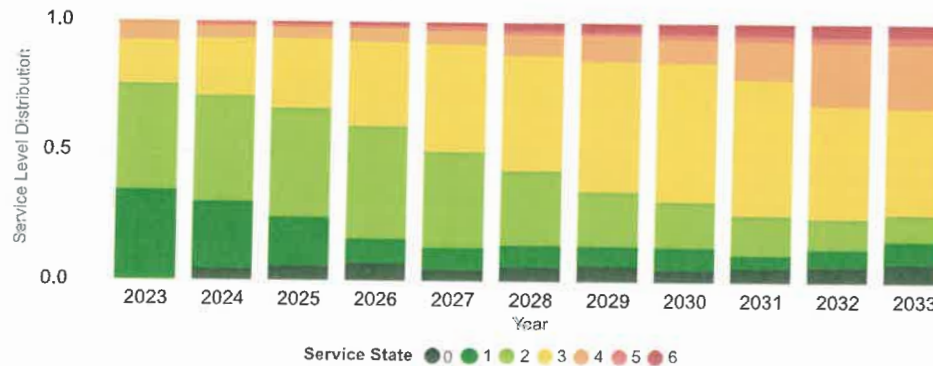
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5	6
0	0.00%	34.71%	40.79%	16.97%	7.53%	0.00%	0.00%
1	4.44%	25.87%	40.98%	22.07%	5.05%	1.60%	0.00%
2	5.79%	18.70%	41.94%	27.18%	4.31%	1.31%	0.77%
3	6.65%	9.54%	43.53%	32.47%	5.56%	1.24%	1.00%
4	4.51%	8.45%	36.88%	41.57%	5.32%	1.92%	1.35%
5	5.83%	8.13%	28.64%	44.71%	8.00%	1.71%	2.98%
6	6.15%	7.62%	21.04%	50.31%	10.01%	1.37%	3.49%
7	4.72%	8.64%	17.81%	53.34%	9.35%	2.06%	4.09%
8	5.67%	4.92%	15.32%	52.63%	14.78%	2.29%	4.39%
9	6.22%	6.74%	11.76%	43.67%	24.40%	2.34%	4.87%
10	7.32%	8.85%	10.22%	41.11%	24.93%	2.83%	4.74%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Asset Name	Side	Surface Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Acraman - North 1	North	Hotmix	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00
Agnes - North 10	North	Paver	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes - North 11	North	Paver	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
Agnes - North 12	North	Paver	2.00	3.00	0.00	0.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00
Agnes - North 7	North	Gravel	3.00	4.00	0.00	1.00	2.00	3.00	3.00	3.00	3.00	4.00	0.00
Agnes - North 8	North	Paver	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - North 9	North	Paver	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00
Agnes - South 1	South	Hotmix	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - South 13	South	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - South 2	South	Paver	2.00	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	1.00	1.00
Agnes - South 3	South	Paver	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	3.00	0.00
Agnes - South 4	South	Paver	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	0.00
Agnes - South 5	South	Paver	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	0.00	0.00
Agnes - South 6	South	Paver	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cameron - North 1	North	Hotmix	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cameron - North 2	North	Hotmix	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
Cameron - North 3	North	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cameron - North 4	North	Hotmix	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cameron - North 5	North	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00
Cameron - South 10	South	Hotmix	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00
Cameron - South 11	South	Paver	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cameron - South 6	South	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00
Cameron - South 7	South	Hotmix	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Cameron - South 8	South	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cameron - South 9	South	Hotmix	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00
Charles - North 1	North	Gravel	4.00	5.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00

- Simulation
- Option 1 - Current Budget
 - Option 2 - Maintain LoS
 - Option 3 - Unconstraint Budget

Year

0 10



Surface Type

All

Criticality

All

Side

All

Criticality

All

Location Description

All

Asset Name

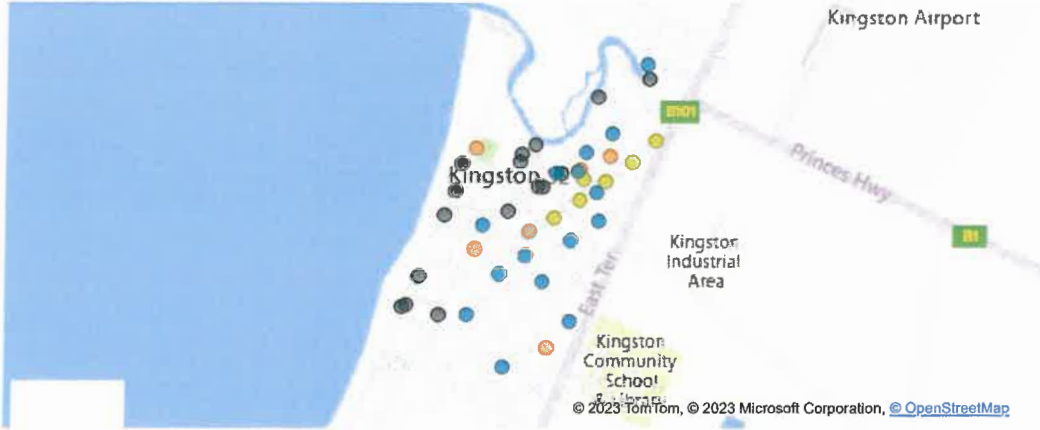
All

Unique Asset ID

All

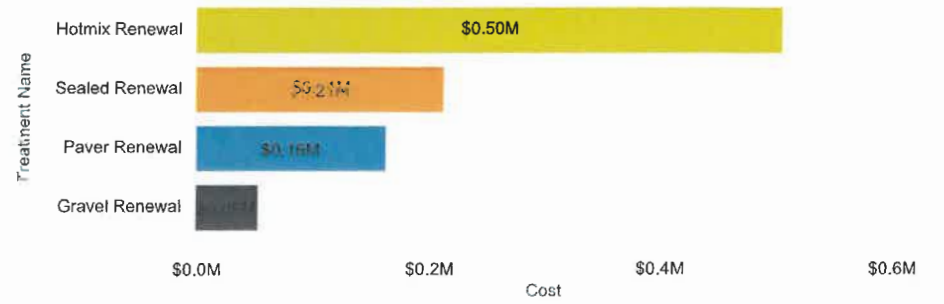
← Works Prioritisation Details

Surface Type ● Gravel ● Hotmix ● Paver ● Sealed



6 Year
 \$933.15K Treatment Cost
 \$1.10M Asset Value
 54 Treatments

Treatment Cost by Surface Type

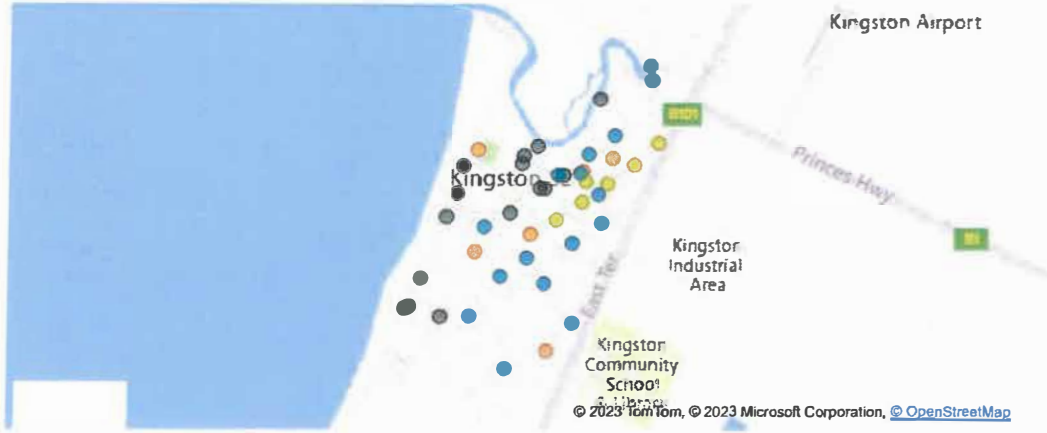


List of Assets

Year	Surface Type	Criticality	Site Name	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
1	Gravel	High	Janet - South 1	Janet	PTH0122	Gravel Renewal	\$3,196.91
			Marine Parade - South 6	MARINE PARADE	PTH0123	Gravel Renewal	\$5,510.34
	Hotmix	High	Cooke - South 6	Cooke	PTH0014	Hotmix Renewal	\$39,269.04
	Sealed	High	Charles - North 2	Charles	PTH0080	Sealed Renewal	\$1,666.22
			North - North 1	NORTH	PTH0106	Sealed Renewal	\$29,841.00
			Wilhelmina - North 1	Wilhelmina	PTH0105	Sealed Renewal	\$5,066.88
2	Gravel	Medium	Macdonnell - North 1	Macdonnell	PTH0092	Sealed Renewal	\$8,535.74
			Agnes - North 7	Agnes	PTH0109	Gravel Renewal	\$8,015.04
	Hotmix	High	Cooke - North 3	Cooke	PTH0012	Hotmix Renewal	\$15,106.42
			James - South 9	JAMES	PTH0038	Hotmix Renewal	\$7,354.88
	Paver	High	Agnes - North 12	Agnes	PTH0133	Paver Renewal	\$31,493.54
	Sealed	High	McFarlane - North 5	McFarlane	PTH0099	Sealed Renewal	\$9,536.94
Macdonnell - North 2			Macdonnell	PTH0093	Sealed Renewal	\$10,913.28	

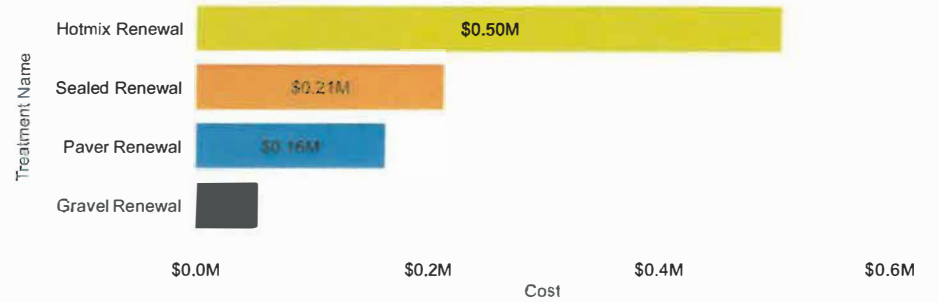
← Works Prioritisation Details

Surface Type ● Gravel ● Hotmix ● Paver ● Sealed



6 Year
\$933.15K Treatment Cost
\$1.10M Asset Value
54 Treatments

Treatment Cost by Surface Type

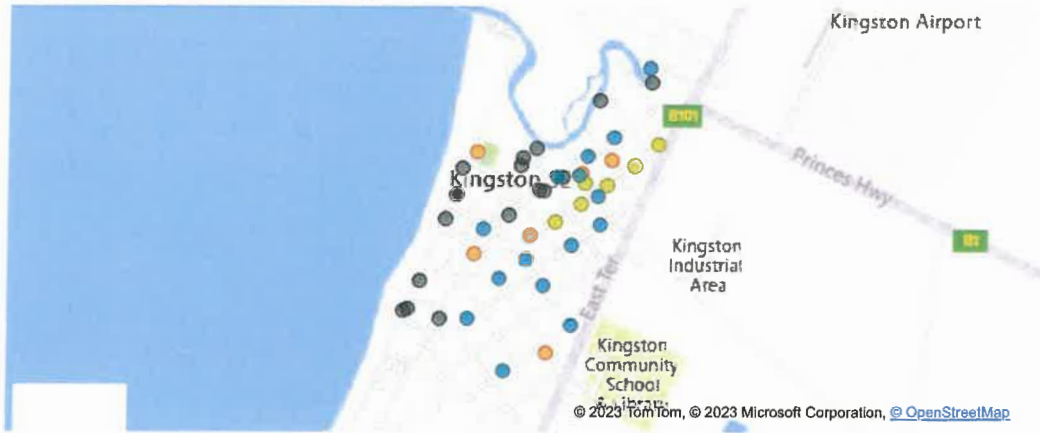


List of Assets

Order	Surface Type	Category	Site Name	Location Description	Unique Asset ID	Treatment Value	Treatment Cost
2	Sealed	High	Macdonnell - North 2	Macdonnell	PTH0093	Gravel Renewal	\$3,196.91
		Medium	McFarlane - North 3	McFarlane	PTH0097	Gravel Renewal	\$5,510.34
		Medium	Gough - North 2	Gough	PTH0117	Hotmix Renewal	\$39,269.04
3	Hotmix	High	Cooke - South 5	Cooke	PTH0013	Sealed Renewal	\$1,666.22
		High	Marine Parade - North 3	MARINE PARADE	PTH0045	Sealed Renewal	\$29,841.00
	Sealed	High	Charles - South 7	Charles	PTH0082	Sealed Renewal	\$5,066.88
		High	James - North 4	JAMES	PTH0087	Sealed Renewal	\$8,535.74
		High	Marine Parade - South 6	MARINE PARADE	PTH0123	Gravel Renewal	\$8,015.04
4	Hotmix	High	Walkway Marine Parade - Princes - Central 2	Walkway Marine Parade - Princes	PTH0075	Hotmix Renewal	\$15,106.42
	5	Gravel	High	Janet - South 1	Janet	PTH0122	Hotmix Renewal
High			James - South 10	JAMES	PTH0037	Paver Renewal	\$31,493.54
Hotmix		High	Marine Parade - North 1	MARINE PARADE	PTH0043	Sealed Renewal	\$9,536.94
		High	Marine Parade - South 11	MARINE PARADE	PTH0051	Sealed Renewal	\$10,913.28
		High	Marine Parade - South 11	MARINE PARADE	PTH0051	Sealed Renewal	\$11,222.00

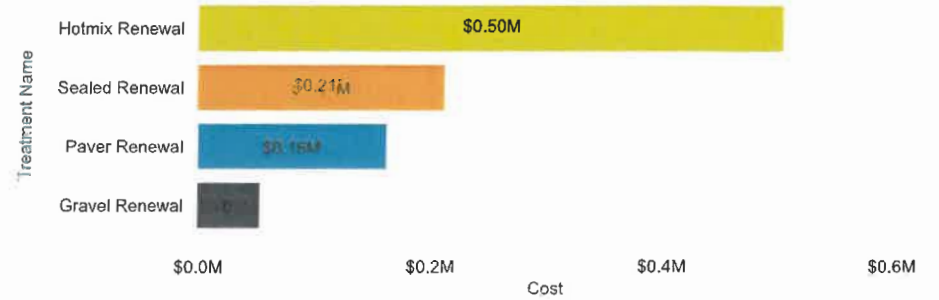
← Works Prioritisation Details

Surface Type ● Gravel ● Hotmix ● Paver ● Sealed



6 Year
\$933.15K Treatment Cost
\$1.10M Asset Value
54 Treatments

Treatment Cost by Surface Type

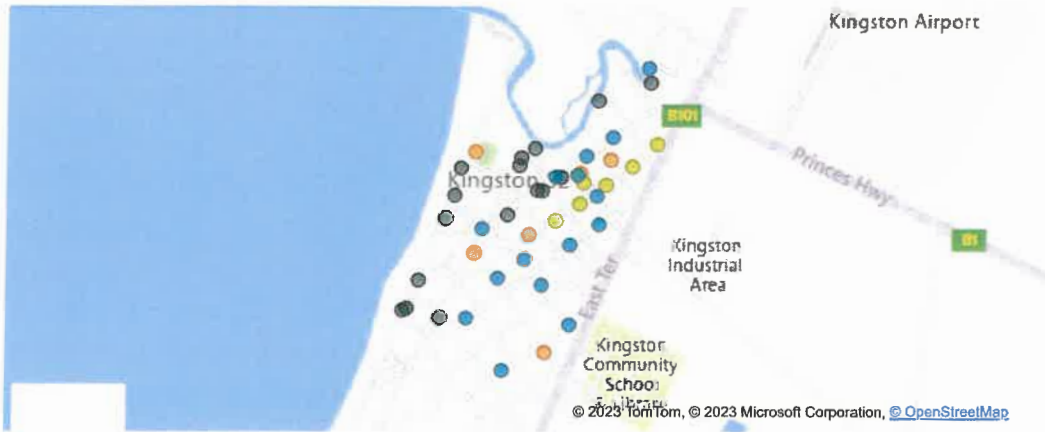


List of Assets

Year	Surface Type	Criticality	Site Name	Location Description	Unique Asset ID	Treatment Name	Treatment Cost	
5	Hotmix	High	Marine Parade - South 9	MARINE PARADE	PTH0049			^
	Sealed	High	Wilhelmina - North 1	Wilhelmina	PTH0105			
		Medium	Macdonnell - North 3	Macdonnell	PTH0094			
6	Gravel	Medium	MacFarlane - New 1	MacFarlane	PTH0152			
	Hotmix	High	James - South 1	JAMES	PTH0036			
			Marine Parade - South 4	MARINE PARADE	PTH0046			
	Paver	High	Agnes - South 2	Agnes	PTH0134			
7	Sealed	Medium	James - North 5	JAMES	PTH0088			
	Hotmix	High	James - North 3	JAMES	PTH0034			
			Walkway Marine Parade - Princes - Central 3	Walkway Marine Parade - Princes	PTH0076			
	Gravel	High	Marine Parade - South 6	MARINE PARADE	PTH0123			
	Hotmix	High	Walkway Marine Parade - Princes - Central 1	Walkway Marine Parade - Princes	PTH0074			
8	Sealed	High	James - North 4	JAMES	PTH0087			v
			McFarlane - North 5	McFarlane	PTH0099			

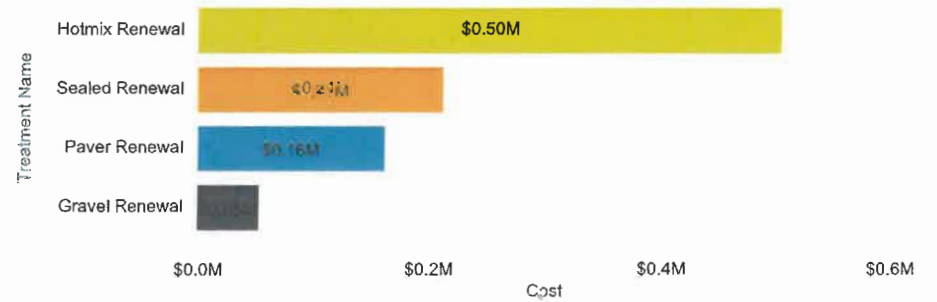
← Works Prioritisation Details

Surface Type ● Gravel ● Hotmix ● Paver ● Sealed



6 Year \$933.15K Treatment Cost \$1.10M Asset Value 54 Treatments

Treatment Cost by Surface Type

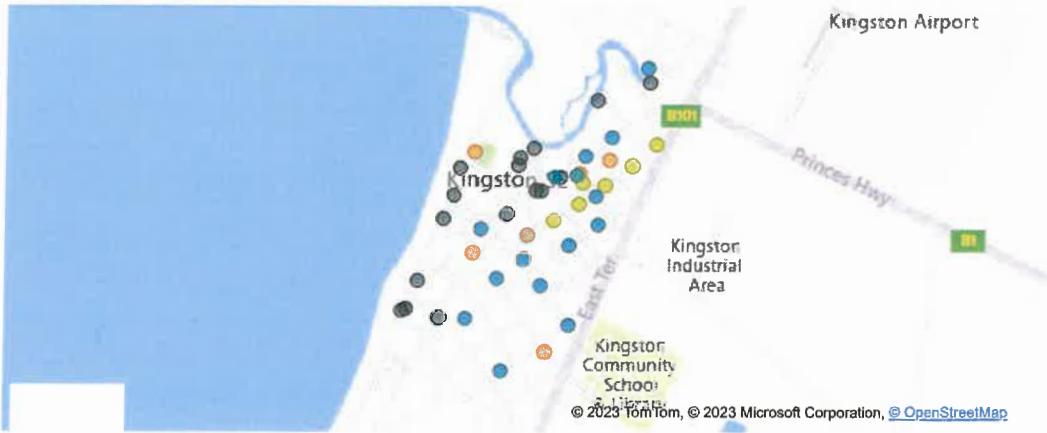


List of Assets

Area	Surface Type	Criticality	Site Name	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
9	Gravel	High	Janet - South 1	Janet	PTH0122		
	Hotmix	High	Marine Parade - South 8	MARINE PARADE	PTH0048		
	Paver	High	Agnes - South 5	Agnes	PTH0137		
	Sealed	High	North - North 1	NORTH	PTH0106		
10		Medium	Cooke - North 9	Cooke	PTH0086		
			Janet - North 2	Janet	PTH0091		
	Gravel	Low	Cooke - South 10	Cooke	PTH0128		
	Paver	Medium	Agnes - North 7	Agnes	PTH0109		
		High	Agnes - South 3	Agnes	PTH0135		
			Agnes - South 4	Agnes	PTH0136		
			Charles - South 8	Charles	PTH0139		
	Sealed	High	Charles - South 7	Charles	PTH0082		
			Wilhelmina - North 1	Wilhelmina	PTH0105		

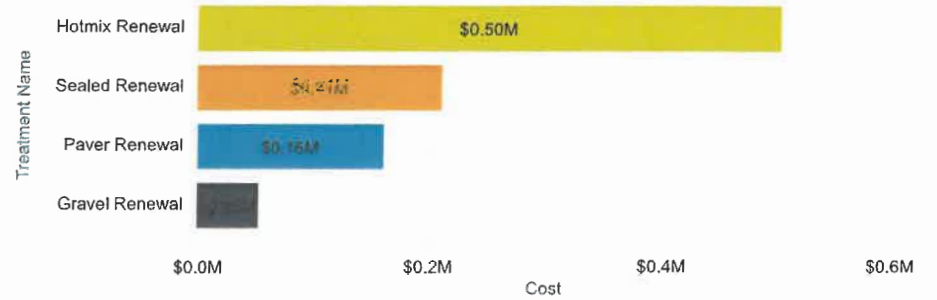
← Works Prioritisation Details

Surface Type ● Gravel ● Hotmix ● Paver ● Sealed



6 Year
\$933.15K Treatment Cost
\$1.10M Asset Value
54 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Surface Type	Criticality	Site Name	Location Description	Unique Asset ID	Treatment Name	Treatment Cost	
9	Hotmix	High	Agnes - South 5	AGNES	PTH0095			^
	Paver	High	North - North 1	NORTH	PTH0106			
	Sealed	High	Cooke - North 9	Cooke	PTH0086			
10	Gravel	Medium	Janet - North 2	Janet	PTH0091			v
		Low	Cooke - South 10	Cooke	PTH0128			
	Paver	Medium	Agnes - North 7	Agnes	PTH0109			
		High	Agnes - South 3	Agnes	PTH0135			
		High	Agnes - South 4	Agnes	PTH0136			
	Sealed	High	Charles - South 8	Charles	PTH0139			
		High	Charles - South 7	Charles	PTH0082			
		Medium	Wilhelmina - North 1	Wilhelmina	PTH0105			
		Medium	James - North 6	JAMES	PTH0089			
		Medium	McFarlane - North 2	McFarlane	PTH0096			

Kerbs Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's kerb network, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each kerb segment along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's kerb network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify kerb defects that will enable Council to develop and plan for its forward capital renewal programs. Within the predictive modelling software, the asset condition for kerbs will be reported as OSI (Overall Score Index).

The OSI is scored on a 0 to 6 rating scale with 1 representing a kerb segment in very good condition and 5 representing kerb segment in very poor condition (nearing end of useful life). 0 Represents a brand new kerb segment and 6 a kerb that has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's kerb network under varying funding scenarios. This strategic modelling analysis predicts the deterioration of kerbs within the network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is current as at June 2021. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted kerb network behaviour when all poor to very poor kerbs (depending on hierarchy) are renewed like for like.

Treatment Name	Nr	Situation Name	Condition
Major Renewal	1	Condition >=4	>=4

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$46K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the network over the next 10 years.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

Kerbs Asset Management Dashboard High Level Summary

Asset Portfolio Value

\$1.83M

Asset Value

Asset Value by Kerb Type

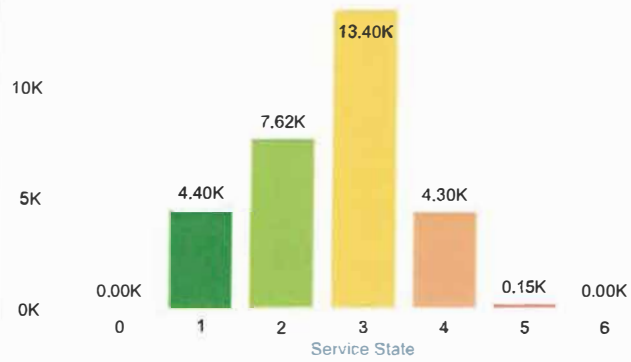


Asset Portfolio Condition

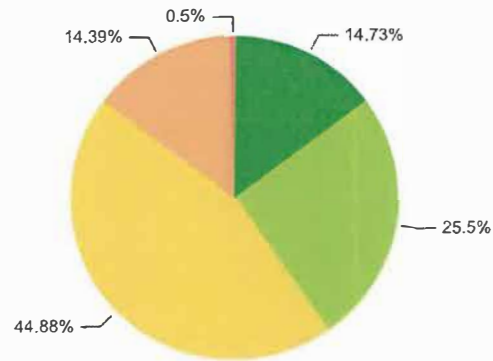
2.60

Average Condition

Condition Distribution By Network Measure (Length)



Overall Condition

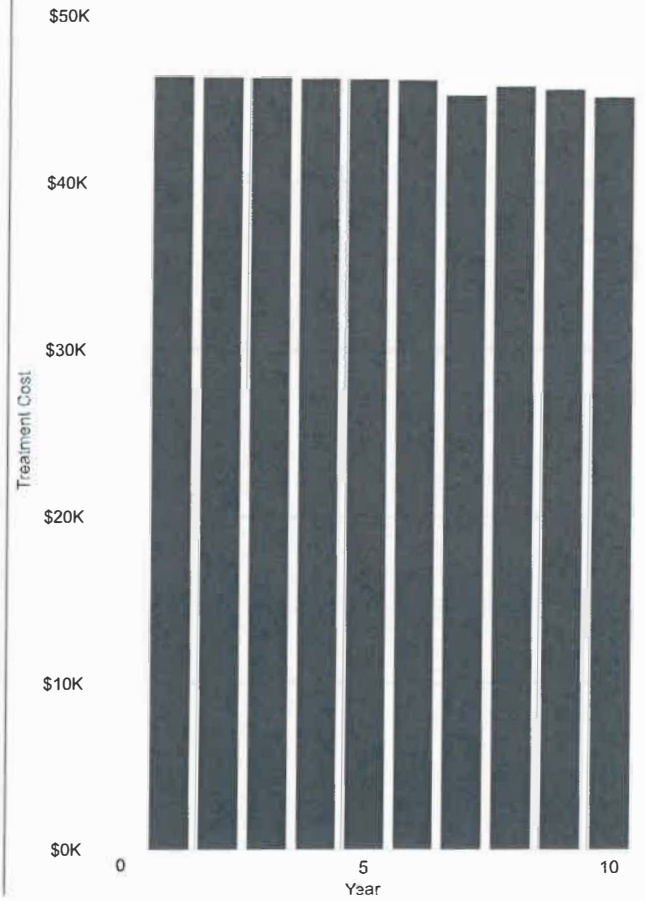


Asset Portfolio Required Expenditure

\$458.21K

Treatment Cost

Treatment Cost by Year



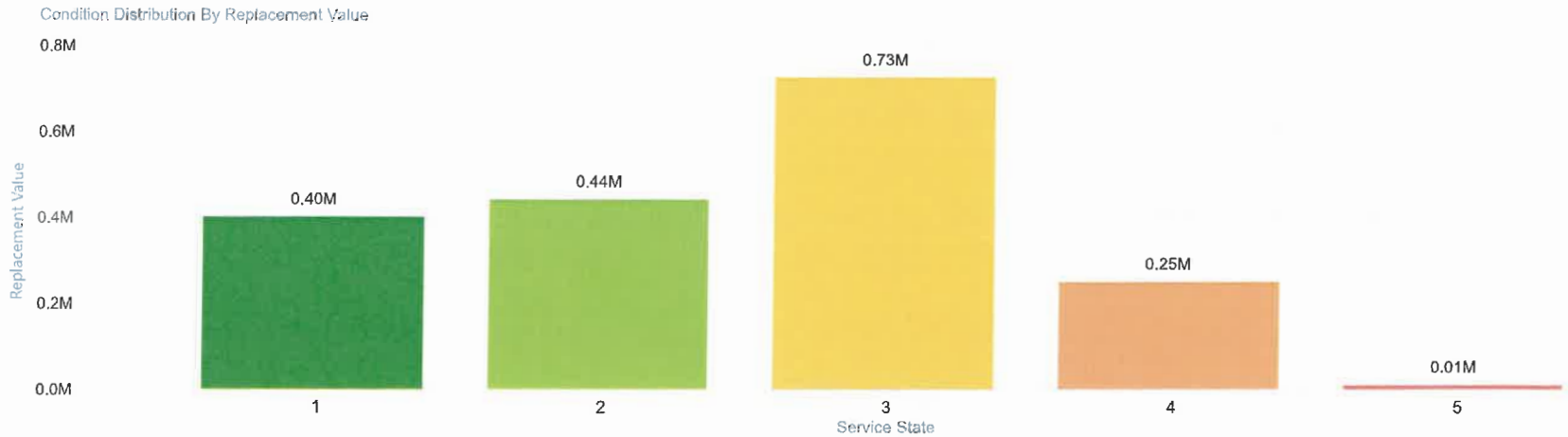
Digital Asset Management Dashboard

State of Assets Report

288
Number of Assets

\$1.8M
Asset Value

2.47
Average Condition



Surface Type



Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Side

All

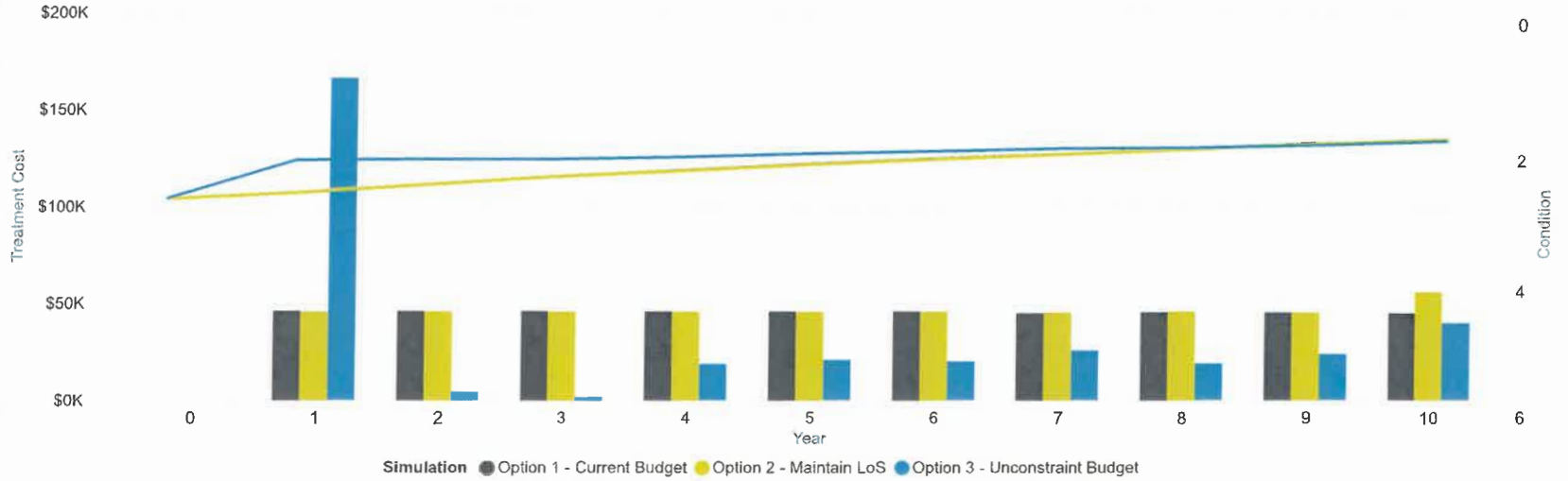
Asset Name

All

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget	
Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0	\$0	2.60	\$0	2.60	\$0	2.60
1	\$46,281	2.50	\$45,947	2.51	\$166,515	2.01
2	\$46,233	2.38	\$45,994	2.38	\$4,533	2.00
3	\$46,185	2.26	\$45,947	2.26	\$2,011	2.00
4	\$46,138	2.17	\$45,851	2.17	\$18,846	1.96
5	\$46,090	2.07	\$45,708	2.07	\$20,891	1.91
6	\$46,042	1.99	\$45,851	1.99	\$20,141	1.88
7	\$45,129	1.92	\$45,470	1.92	\$25,730	1.84
8	\$45,660	1.84	\$45,899	1.84	\$18,983	1.83
9	\$45,463	1.76	\$45,463	1.77	\$23,856	1.79
10	\$44,992	1.72	\$55,823	1.70	\$39,874	1.73
Total	\$458,212	2.11	\$467,952	2.11	\$341,379	1.96

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Side

All

Location Description

All

Asset Name

All

Unique Asset ID

All

\$458,212
Total Capital Cost

\$10,156
Initial Backlog

2.60
Initial OSI

\$151,460
Total Maintenance Cost

\$0
Final Backlog

1.72
Average Condition

\$609,672
Total Cost

(\$10,156)
Change in Backlog

\$599,517
Net Strategy Cost

Service Criteria

OSI

Asset Type

All

Side

All

Location Description

All

Asset Name

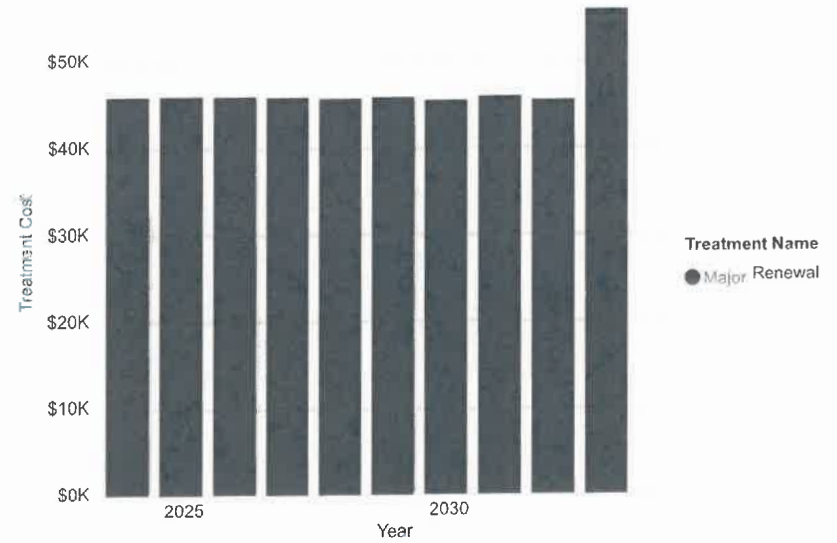
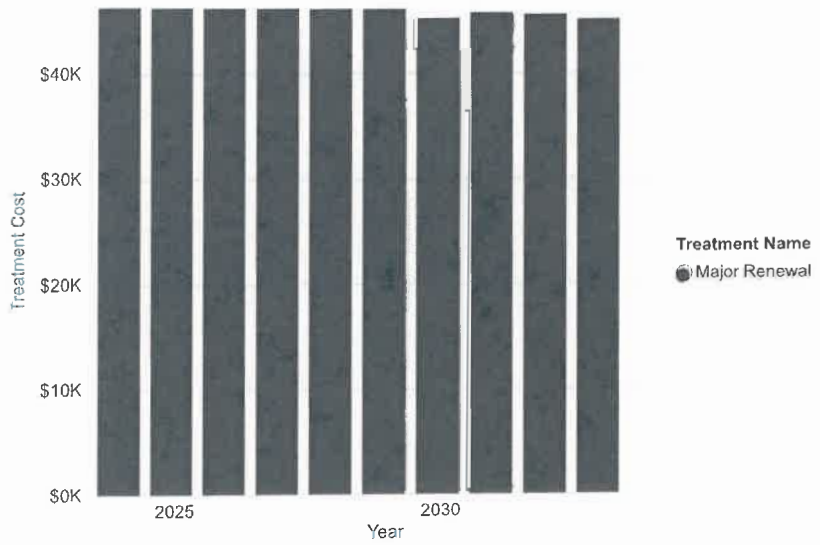
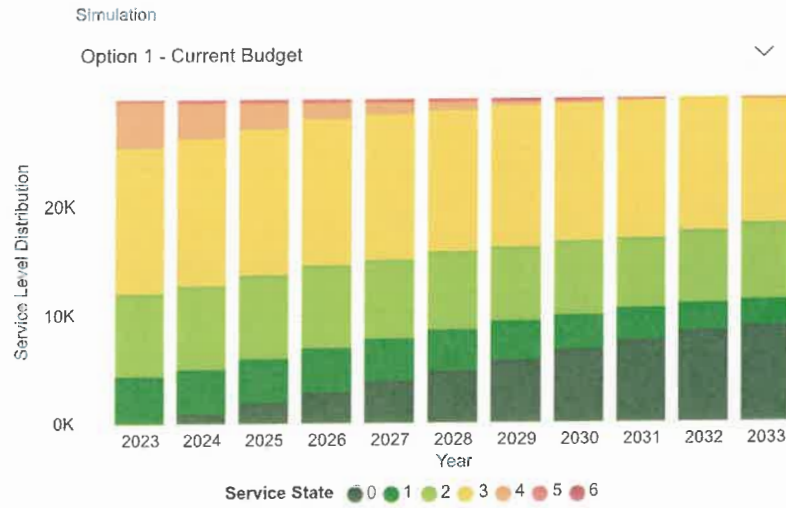
All

Data Format

Absolute Percentage

Report Type

Asset Quantity Network Measure



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Asset Typ	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Kerb	2.61	2.51	2.38	2.26	2.17	2.07	1.99	1.92	1.84	1.76	1.72
Kerb Ramp	1.00	1.04	1.06	1.11	1.19	1.33	1.48	1.57	1.69	1.81	1.96

\$1.83M
Asset Value

29,858
Length (m)

288
Number of Segments

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Side

All

Location Description

All

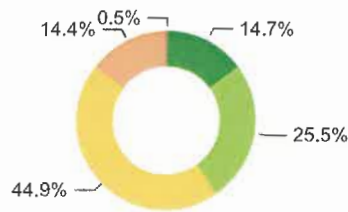
Asset Name

All

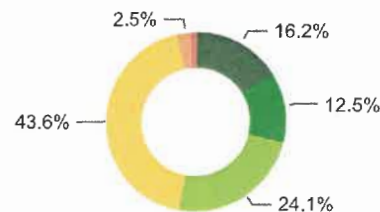
Unique Asset ID

All

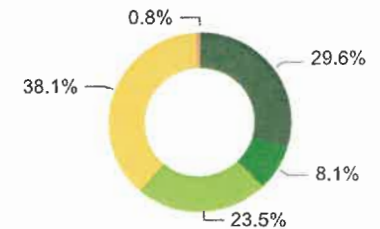
Condition Distribution % (Year 0)



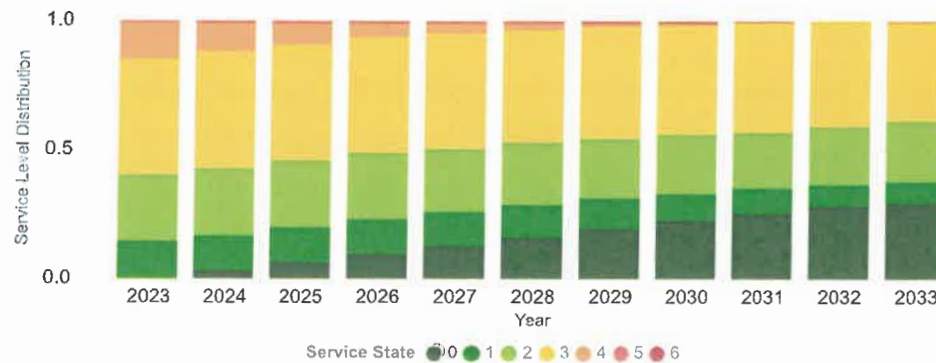
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5	6
0	0.00%	14.73%	25.50%	44.88%	14.39%	0.50%	0.00%
1	3.25%	13.56%	25.76%	45.41%	10.93%	1.09%	0.00%
2	6.49%	13.55%	25.76%	44.97%	8.13%	1.09%	0.00%
3	9.74%	13.54%	25.46%	45.08%	5.09%	1.09%	0.00%
4	12.97%	13.07%	24.17%	44.99%	3.70%	1.09%	0.00%
5	16.21%	12.52%	24.09%	43.57%	2.52%	1.04%	0.05%
6	19.44%	11.95%	22.74%	43.51%	1.27%	0.59%	0.50%
7	22.59%	10.43%	22.89%	42.35%	0.70%	0.59%	0.45%
8	25.39%	9.75%	21.53%	42.74%	0.00%	0.59%	0.00%
9	28.33%	8.21%	22.40%	41.06%	0.00%	0.00%	0.00%
10	29.56%	8.09%	23.50%	38.09%	0.76%	0.00%	0.00%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Side

All

Location Description

All

Asset Name

All

Unique Asset ID

All

Asset Name	Asset Type	Side	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Acraman - North 1	Kerb	North	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00
Acraman - North 2	Kerb	North	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
Acraman - South 1	Kerb	South	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Acraman - South 2	Kerb	South	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes - lane - South 1	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00	0.00
Agnes - North 1	Kerb	North	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00	0.00	0.00
Agnes - North 2	Kerb	North	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Agnes - North 3	Kerb	North	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes - North 4	Kerb	North	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
Agnes - North 5	Kerb	North	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - North 6	Kerb	North	4.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agnes - North 7	Kerb	North	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00
Agnes - North 8	Kerb	North	4.00	4.00	4.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agnes - South 1	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - South 2	Kerb	South	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes - South 3	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00
Agnes - South 4	Kerb	South	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes - South 5	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - South 6	Kerb	South	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agnes - South 7	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	0.00	0.00	0.00
Agnes - South 8	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes - South 9	Kerb	South	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Agnes parking - South 1	Kerb	South	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Agnes Street Kerb Ramp North 1	Kerb Ramp	North	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Agnes Street Kerb Ramp North 10	Kerb Ramp	North	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00
Agnes Street Kerb Ramp North 2	Kerb Ramp	North	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

← Works Prioritisation Details

5 Year \$458.21K Treatment Cost \$530.07K Asset Value 78 Treatments

Treatment Cost by Treatment Type



List of Assets

ID	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
1	Agnes - South 6	Kerb	Agnes	KG00025	Major Renewal	\$6,536.54
	Cameron - North 2	Kerb	Cameron	KG00101	Major Renewal	\$6,584.26
	Cameron - North 3	Kerb	Cameron	KG00102	Major Renewal	\$6,488.83
	Kerry - South 1	Kerb	Kerry	KG00216	Major Renewal	\$5,630.02
	Macdowell - North 2	Kerb	Macdowell	KG00083	Major Renewal	\$6,488.83
	Maria court - North 1	Kerb	MARIA COURT	KG00107	Major Renewal	\$2,194.75
	Maria court - South 1	Kerb	MARIA COURT	KG00106	Major Renewal	\$2,719.58
	McFarlane - South 1	Kerb	McFarlane	KG00137	Major Renewal	\$6,631.97
	McFarlane - South 5	Kerb	McFarlane	KG00141	Major Renewal	\$3,005.86
	2	Agnes - North 6	Kerb	Agnes	KG00030	Major Renewal
Fergusson - North 8		Kerb	Fergusson	KG00224	Major Renewal	\$2,862.72
Gough - South 1		Kerb	Gough	KG00008	Major Renewal	\$3,292.13
Jarman - North 1		Kerb	Jarman	KG00040	Major Renewal	\$6,584.26

← Works Prioritisation Details

5 \$458.21K \$530.07K 78
 Year Treatment Cost Asset Value Treatments

Treatment Cost by Treatment Type



List of Assets

Asset ID	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
2	Kerry - North 1	Kerb	Kerry	KG00217	Major Renewal	\$5,534.59
	Matheson - South 1	Kerb	MATHESON	KG00203	Major Renewal	\$2,528.74
	McFarlane - North 1	Kerb	McFarlane	KG00143	Major Renewal	\$6,679.68
	Strickland - North 3	Kerb	Strickland	KG00020	Major Renewal	\$8,874.43
	Todd - South 1	Kerb	Todd	KG00186	Major Renewal	\$3,339.84
3	Cameron - South 2	Kerb	Cameron	KG00096	Major Renewal	\$6,441.12
	Charles - North 1	Kerb	Charles	KG00005	Major Renewal	\$6,584.26
	Cooke - North 4	Kerb	Cooke	KG00171	Major Renewal	\$7,490.78
	Holland - South 3	Kerb	Holland	KG00087	Major Renewal	\$6,584.26
	Janet - South 4	Kerb	Janet	KG00071	Major Renewal	\$6,488.83
	Joseph - South 1	Kerb	Joseph	KG00108	Major Renewal	\$1,192.80
	Marine Parade - South 3	Kerb	MARINE PARADE	KG00195	Major Renewal	\$4,914.34
	Wilhelmina - South 2	Kerb	Wilhelmina	KG00118	Major Renewal	\$6,488.83

← Works Prioritisation Details

5 \$458.21K \$530.07K 78
 Year Treatment Cost Asset Value Treatments

Treatment Cost by Treatment Type



List of Assets

ID	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost	
4	Agnes - North 8	Kerb	Agnes	KG00032	Major Renewal	\$5,630.02	^
	Duncan - South 3	Kerb	Duncan	KG00062	Major Renewal	\$6,584.26	
	Gough - South 4	Kerb	Gough	KG00011	Major Renewal	\$3,960.10	
	Janet - South 3	Kerb	Janet	KG00070	Major Renewal	\$6,584.26	
	Macdowell - North 3	Kerb	Macdowell	KG00084	Major Renewal	\$6,536.54	
	Marine Parade - South 8	Kerb	MARINE PARADE	KG00200	Major Renewal	\$5,964.00	
	Strickland - South 1	Kerb	Strickland	KG00015	Major Renewal	\$3,101.28	
	Todd - South 2	Kerb	Todd	KG00187	Major Renewal	\$5,486.88	
5	Trevor - North 1	Kerb	Trevor	KG00211	Major Renewal	\$2,290.18	v
	Charles - North 3	Kerb	Charles	KG00007	Major Renewal	\$2,815.01	
	Fergusson - North 7	Kerb	Fergusson	KG00134	Major Renewal	\$3,005.86	
	Fergusson - South 8	Kerb	Fergusson	KG00230	Major Renewal	\$2,671.87	
	James - North 1	Kerb	JAMES	KG00160	Major Renewal	\$6,345.70	
	Janet - North 4	Kerb	Janet	KG00076	Major Renewal	\$6,441.12	

← Works Prioritisation Details

5 \$458.21K \$530.07K 78
 Year Treatment Cost Asset Value Treatments

Treatment Cost by Treatment Type



List of Assets

Year	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost	
5	Marine Parade - South 1	Kerb	MARINE PARADE	KG00233	Major Renewal	\$7,967.90	^
	McFarlane - North 2	Kerb	McFarlane	KG00144	Major Renewal	\$6,536.54	
	Paterson lane - North 1	Kerb	PATERSON LANE	KG00044	Major Renewal	\$5,582.30	
6	Barrowman - South 1	Kerb	Barrowman	KG00218	Major Renewal	\$9,208.42	
	Cameron - South 6	Kerb	Cameron	KG00174	Major Renewal	\$7,061.38	
	Gough - South 3	Kerb	Gough	KG00010	Major Renewal	\$6,631.97	
	Green - North 1	Kerb	Green	KG00115	Major Renewal	\$3,101.28	
	McFarlane - South 7	Kerb	McFarlane	KG00021	Major Renewal	\$6,488.83	
	Simone - South 1	Kerb	Simone	KG00213	Major Renewal	\$13,550.21	
7	Duncan - South 2	Kerb	Duncan	KG00061	Major Renewal	\$6,584.26	v
	Fergusson - South 5	Kerb	Fergusson	KG00125	Major Renewal	\$6,584.26	
	Gough - North 2	Kerb	Gough	KG00013	Major Renewal	\$6,488.83	
	Maddowell - North 1	Kerb	Maddowell	KG00082	Major Renewal	\$10,258.08	
	Marine Parade - South 4	Kerb	MARINE PARADE	KG00198	Major Renewal	\$7,596.91	



Works Prioritisation Details

5 Year \$458.21K Treatment Cost \$530.07K Asset Value 78 Treatments

Treatment Cost by Treatment Type



List of Assets

ID	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
7	Marine Parade - South 4	Kerb	MARINE PARADE	KG00196	Major Renewal	\$7,586.21
	Randall parking - South 1	Kerb	Randall parking	KG00227	Major Renewal	\$1,090.56
	Wihelmina - South 1	Kerb	Wihelmina	KG00117	Major Renewal	\$6,536.54
8	Agnes - North 1	Kerb	Agnes	KG00153	Major Renewal	\$6,250.27
	Agnes - South 7	Kerb	Agnes	KG00026	Major Renewal	\$6,488.83
	Fergusson - North 10	Kerb	Fergusson	KG00231	Major Renewal	\$2,719.58
	Janet - North 2	Kerb	Janet	KG00074	Major Renewal	\$9,065.28
	Joseph - South 2	Kerb	Joseph	KG00109	Major Renewal	\$6,488.83
	Marine Parade - Median strip - Central 1	Kerb	Marine Parade - Median strip	KG00232	Major Renewal	\$5,009.76
	Marine Parade - South 6	Kerb	MARINE PARADE	KG00198	Major Renewal	\$5,009.76
	Otter - South 1	Kerb	Otter	KG00221	Major Renewal	\$4,628.06
9	Agnes - lane - South 1	Kerb	Agnes - lane	KG00229	Major Renewal	\$1,097.38
	Cooke - North 6	Kerb	Cooke	KG00173	Major Renewal	\$12,064.32

← Works Prioritisation Details

5 \$458.21K \$530.07K 78
 Year Treatment Cost Asset Value Treatments

Treatment Cost by Treatment Type



Asset ID	Road Name	Asset Type	Location Description	Unique Asset ID	Treatment Name	Treatment Cost
9	Agnes - lane - South 1	Kerb	Agnes - lane	KG00229	Major Renewal	\$1,097.38
	Cooke - North 6	Kerb	Cooke	KG00173	Major Renewal	\$12,064.32
	James - South 4	Kerb	JAMES	KG00033	Major Renewal	\$6,441.12
	Janet - South 2	Kerb	Janet	KG00069	Major Renewal	\$6,536.54
	Macdowell - South 3	Kerb	Macdowell	KG00080	Major Renewal	\$6,584.26
	McFarlane - North 3	Kerb	McFarlane	KG00145	Major Renewal	\$6,488.83
	McFarlane - North 7	Kerb	McFarlane	KG00024	Major Renewal	\$6,250.27
10	Agnes - North 7	Kerb	Agnes	KG00031	Major Renewal	\$6,631.97
	Agnes - South 3	Kerb	Agnes	KG00150	Major Renewal	\$6,584.26
	Cameron - North 5	Kerb	Cameron	KG00104	Major Renewal	\$4,389.50
	Cooke - North 5	Kerb	Cooke	KG00172	Major Renewal	\$6,727.39
	Fergusson - South 3	Kerb	Fergusson	KG00123	Major Renewal	\$6,631.97
	Trevor - North 2	Kerb	Trevor	KG00212	Major Renewal	\$14,027.33

Roads Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's road network, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each road segment within the road network, along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's road network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

The industry best practice elements of road condition ratings are as follows:

- The type of defect;
- The severity of the defect; and
- The extent to which the asset is affected by the defect.

Council has adopted a detailed condition assessment methodology to identify road defects that will enable Council to develop and plan for its forward capital renewal programs.

For the purpose of predictive life cycle modelling, all roads within Council's boundary have been assessed using detailed condition criteria, which have been configured in the predictive modelling software to drive the rule base (i.e. when a particular defect is present and meets a certain extent, what treatment will we deliver).

The detailed condition criteria comprises of linear cracking, crocodile cracking, ravelling, local surface defects, rutting and roughness.

Typically within road asset management, as more than one defect indicator is used to assess the road network condition, the results of these condition distresses are normalised and converted into an Overall Score Index (OSI),

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's road network under varying funding scenarios. This strategic modelling analysis predicts the deterioration of road segment within the road network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is current as at December 2020. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

Treatment Name	No	Linear Cracking Condition	Surface Texture Condition	Active Defects Condition	Passive Defects Condition	Croc Cracking Condition	Pavement Defect Condition	Critical Defects Condition	All Road Defects Condition	Surface Type	
AC Overlay	1	>=4	all	all	all	<=3	<=3	<=3	all	Asphalt	Urban Heav
	2	all	>=4	all	all	<=3	<=3	<=3	all	Asphalt	Urban Heav
	3	all	all	all	>=4	<=3	<=3	<=3	all	Asphalt	Urban Heav
	4	all	all	>=4	all	<=3	<=3	<=3	all	Asphalt	Urban Heav
	5	>=4	all	all	all	<=3	<=3	<=3	all	Asphalt	Urban Light
	6	all	>=4	all	all	<=3	<=3	<=3	all	Asphalt	Urban Light
	7	all	all	all	>=4	<=3	<=3	<=3	all	Asphalt	Urban Light
	8	all	all	>=4	all	<=3	<=3	<=3	all	Asphalt	Urban Light

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI, PCI & SCI by Road hierarchy) if Council allocates over the next 10 years, \$560K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI, PCI & SCI by Road hierarchy) if Council wants to maintain levels of service across the road network over the next 10 years, Average \$650K per annum.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI, PCI & SCI by Road hierarchy) if capital funding each year is unconstrained.

Option 4 - Avg 400K PA - What is the predicted future LoS (OSI, PCI & SCI by Road hierarchy) if Council allocates over the next 10years, \$400k per annum.

Sealed Roads Asset Management Dashboard High Level Summary

Asset Portfolio Value

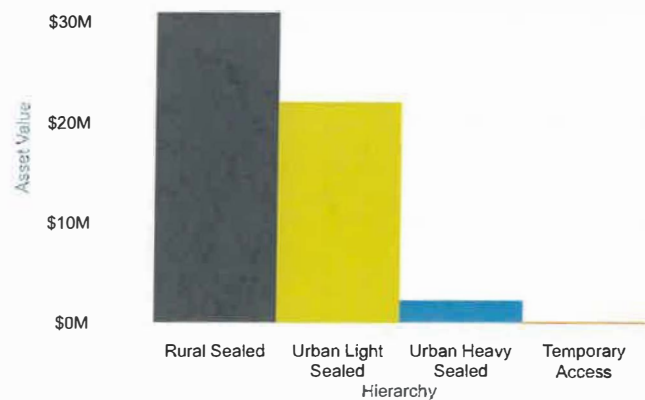
\$55.3M

Asset Value

Asset Value by Surface Type



Asset Value by Hierarchy

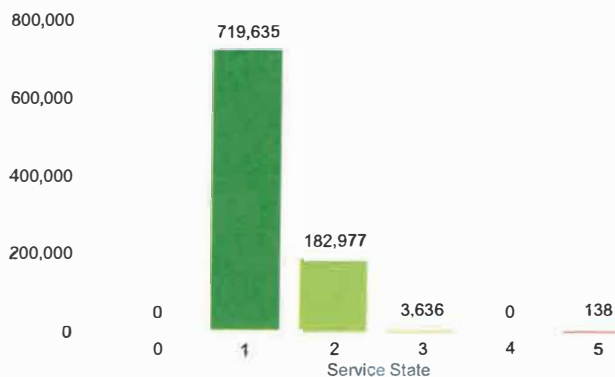


Asset Portfolio Condition

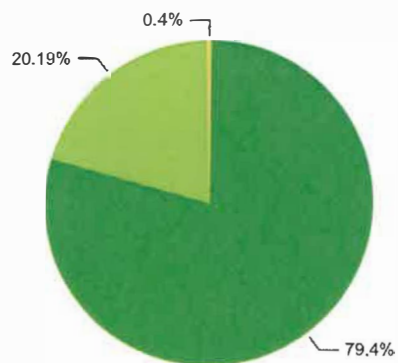
1.21

Average Condition

Condition Distribution By Network Measure (Area)



Overall Condition



Asset Portfolio Current Capital Budget

\$5.6M

Treatment Cost

Treatment Cost by Year



Digital Asset Management Dashboard GIS

Report Type

Asset Quantity

Network Measure

Simulation
Option 4 - Avg 400K PA

0

Surface Type
All

Hierarchy
All

Pavement Class
All

Asset Name
All

Unique Asset ID
All



\$55.25M

Asset Value

\$8.56K

Backlog

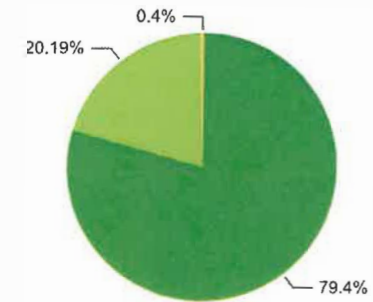
349

Asset Quantity

1.21

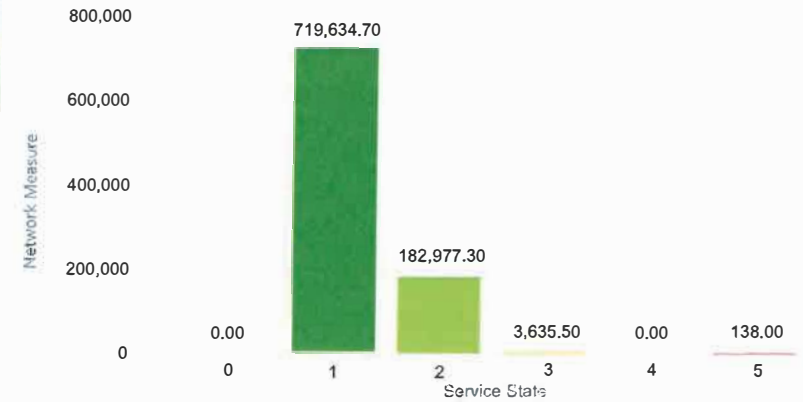
Average Condition

Overall Condition:



Service State ● 0 ● 1 ● 2 ● 3 ● 4 ● 5

Condition Distribution



Digital Asset Management Dashboard

State of Assets Report

Surface Type
All

Hierarchy
All

Pavement Class
All

Asset Name
All

Unique Asset ID
All

130.75K
Length (m)

906.39K
Area (m²)

349
Asset Quantity

1.21
Average Condition

138.00
PVP Value

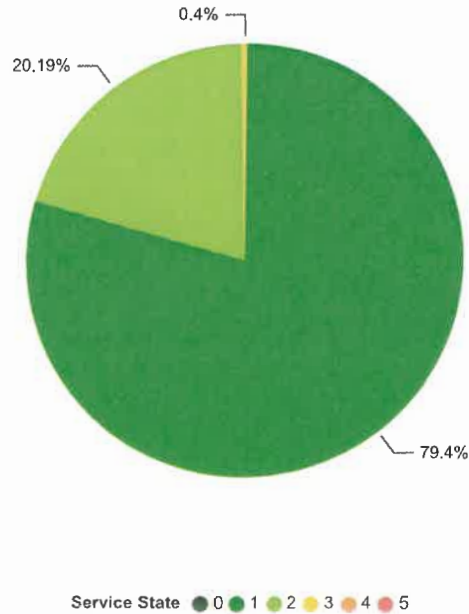
Report Type

- Asset Quantity
- Network Measure

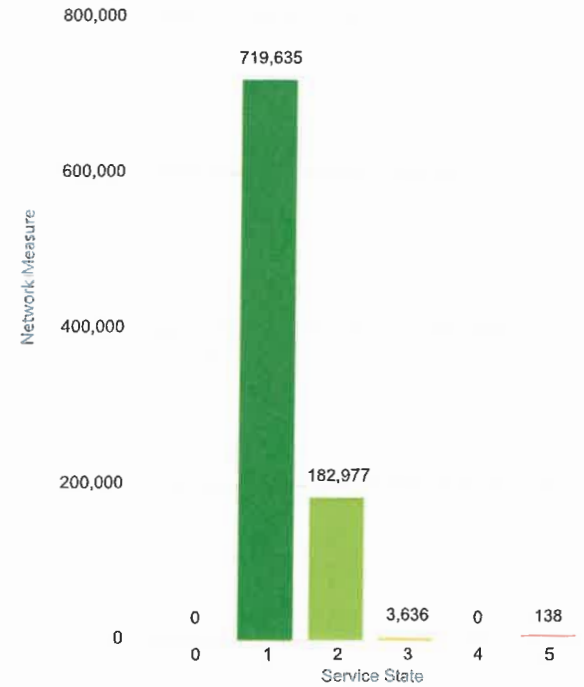
Service Criteria

- SCI
- PCI
- OSI

Overall Condition



Condition Distribution



- Service Level Analysis
- Funding Distribution
- Asset Life Cycle
- Year-level Comparison
- Service-level Comparison

Simulation

Select all

Option 1 - Current Budget

Option 2 - Maintain LoS

Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All v

Hierarchy

All v

Pavement Class

All v

Unique Asset ID

All v

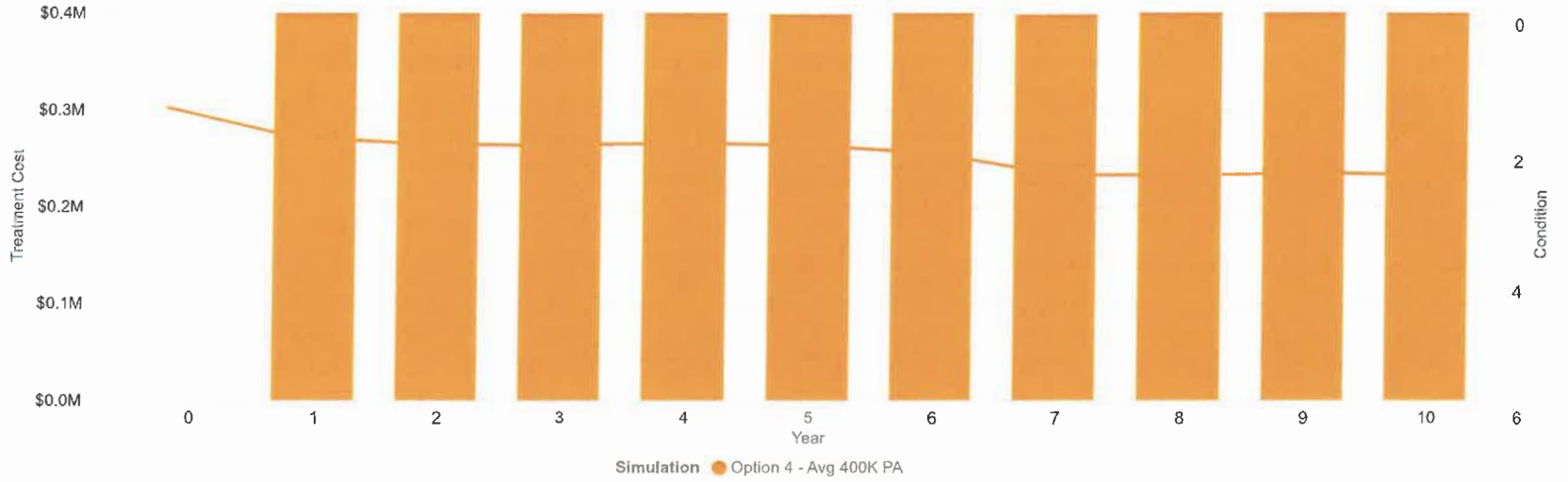
Asset Name

All v

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 4 - Avg 400K PA	
Year	Cost (\$)	Index Score
0	\$0	1.21
1	\$399,680	1.67
2	\$399,787	1.77
3	\$399,376	1.79
4	\$399,974	1.75
5	\$398,693	1.78
6	\$399,937	1.90
7	\$398,343	2.24
8	\$399,969	2.24
9	\$399,979	2.20
10	\$399,691	2.25
Total	\$3,995,427	1.89

Digital Asset Management Dashboard


Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget
- Option 4 - Avg 400K PA

Year

0 10



Surface Type

All

Hierarchy

All

Pavement Class

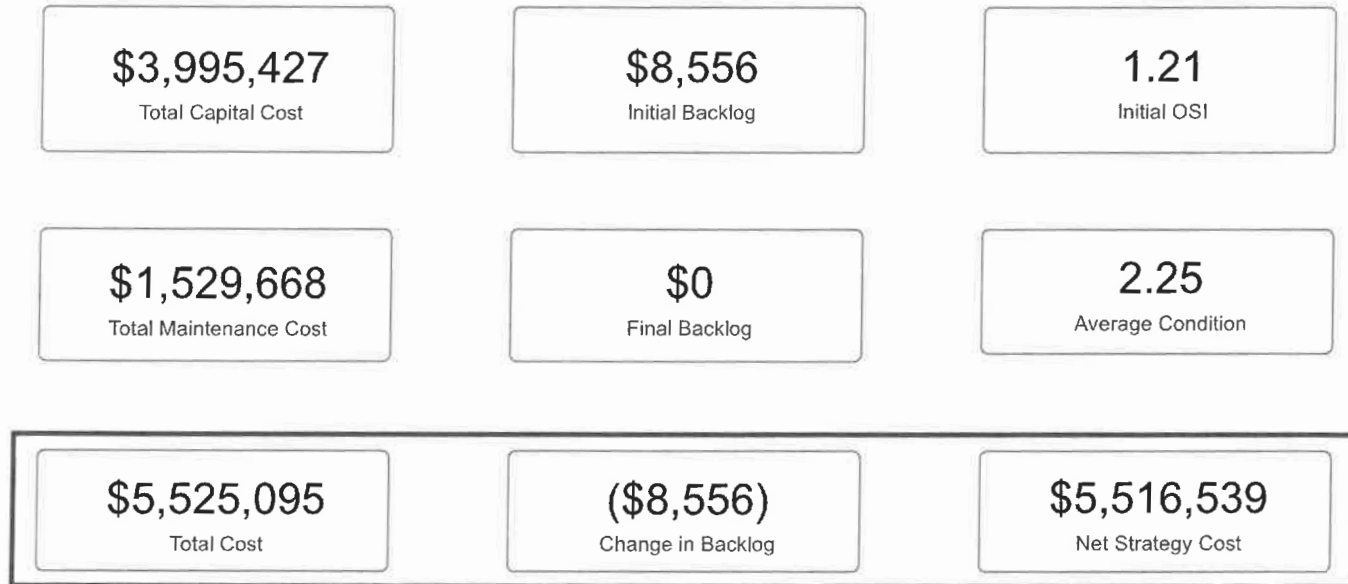
All

Asset Name

All

Unique Asset ID

All



Service Criteria

OSI

Year

Surface Type

Hierarchy

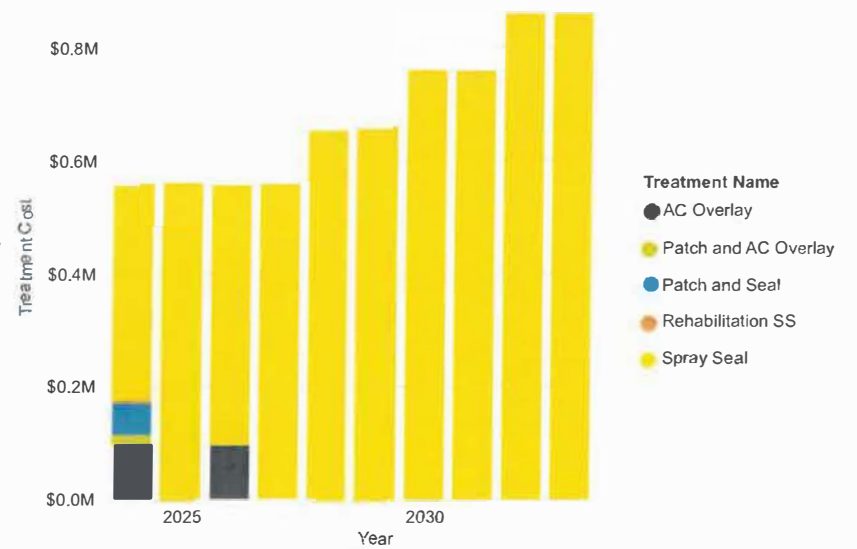
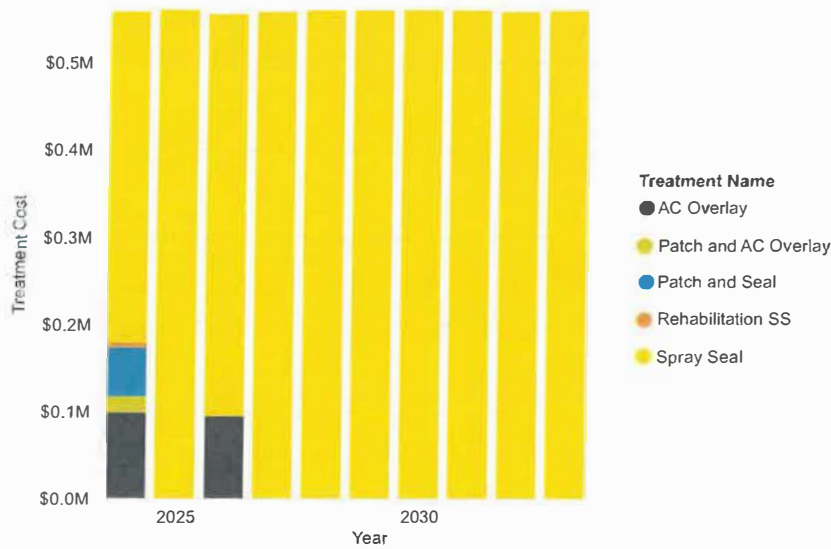
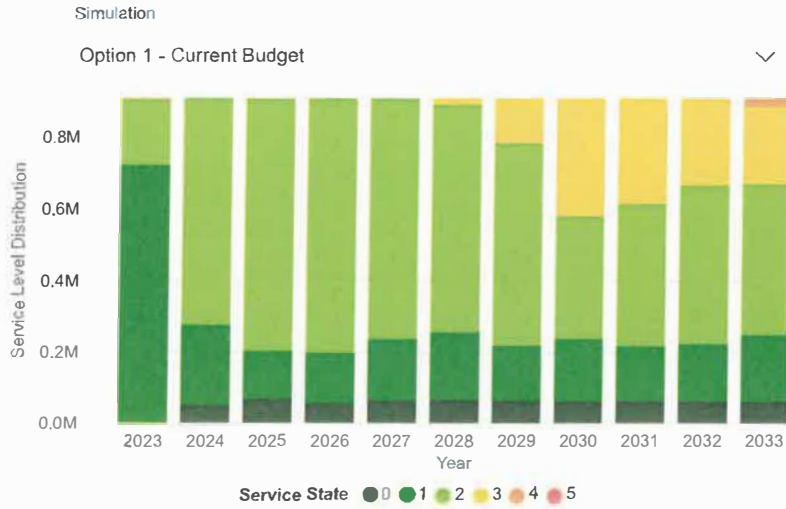
Pavement Class

Unique Asset ID

Asset Name

Data Format

Report Type



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Report Type

OSI

PCI

SCI

Average Condition Scores by Year

Hierarchy	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Rural Sealed	1.12	1.76	1.79	1.89	1.81	1.79	1.92	2.33	2.28	2.27	2.26
Temporary Access	2.00	2.00	3.00	0.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00
Urban Heavy Sealed	1.41	1.41	1.70	1.82	1.82	1.91	2.03	2.08	2.13	2.17	2.17
Urban Light Sealed	1.31	1.57	1.74	1.65	1.68	1.77	1.86	2.14	2.20	2.12	2.24

\$55.25M

Asset Value

906K

Network Measure (M2)

349

Number of Segments

130.75K

Length (Km)

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget
- Option 4 - Avg 400K PA

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

All

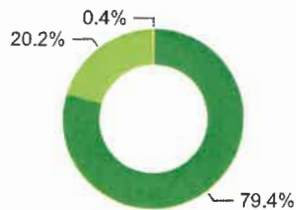
Asset Name

All

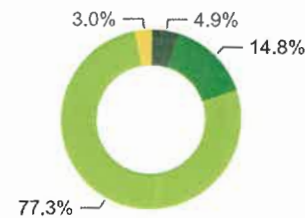
Unique Asset ID

All

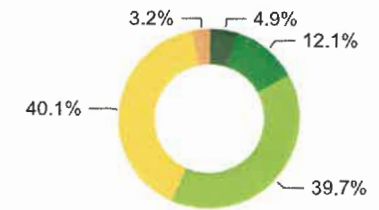
Condition Distribution % (Year 0)



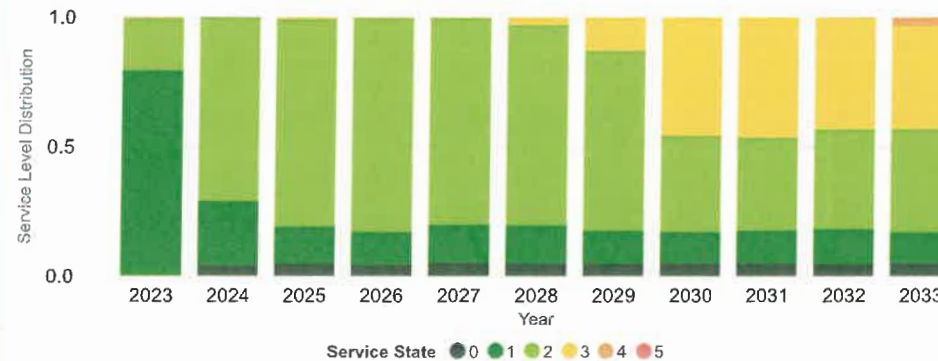
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5
0	0.00%	79.40%	20.19%	0.40%	0.00%	0.02%
1	4.30%	24.77%	70.93%	0.00%	0.00%	0.00%
2	4.95%	14.21%	79.98%	0.86%	0.00%	0.00%
3	4.54%	12.56%	82.63%	0.27%	0.00%	0.00%
4	5.11%	14.81%	79.74%	0.34%	0.00%	0.00%
5	4.89%	14.80%	77.28%	3.03%	0.00%	0.00%
6	4.90%	12.68%	69.46%	12.97%	0.00%	0.00%
7	4.88%	12.19%	37.11%	45.82%	0.00%	0.00%
8	4.90%	12.73%	35.83%	46.54%	0.00%	0.00%
9	4.90%	13.36%	38.29%	43.24%	0.20%	0.00%
10	4.90%	12.07%	39.71%	40.11%	3.21%	0.00%

Digital Asset Management Dashboard

Asset Heatmap

Report Type

- OSI
- PCI
- SCI

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget
- Option 4 - Avg 400K PA

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

All

Asset Name

All

Unique Asset ID

All

Asset Name	Hierarchy	Surface Type	Asset ID	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
ACRAMAN STREET	Urban Light Sealed	Asphalt	RD00001	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	
			RD00002	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00
ADAM ROAD	Urban Heavy Sealed	Asphalt	RD00003	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	3.00	
AGNES STREET	Urban Heavy Sealed	Asphalt	RD00004	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
			RD00005	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
			RD00006	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00
			RD00007	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
			RD00008	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
			RD00009	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00
			RD00010	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
			RD00011	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			RD00012	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
			RD00013	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
AIRPORT DRIVE	Urban Light Sealed	Spray Seal	RD00014	1.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	0.00	
Apex Park Access Road	Urban Light Sealed	Spray Seal	RD00107	4.00	0.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	
ARTHUR STREET	Urban Light Sealed	Spray Seal	RD00015	1.00	2.00	2.00	2.00	2.00	3.00	0.00	1.00	1.00	1.00	1.00	
BANISTER DRIVE	Urban Light Sealed	Spray Seal	RD00016	1.00	1.00	1.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	
			RD00017	1.00	2.00	2.00	2.00	3.00	3.00	3.00	0.00	1.00	1.00	2.00	
BARBER STREET	Urban Light Sealed	Spray Seal	RD00018	2.00	3.00	3.00	0.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	
			RD00019	2.00	0.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	3.00	
BARROWMAN DRIVE	Urban Light Sealed	Spray Seal	RD00020	1.00	2.00	3.00	3.00	0.00	1.00	1.00	1.00	2.00	2.00	3.00	
			RD00021	2.00	2.00	3.00	0.00	1.00	1.00	2.00	2.00	2.00	2.00	3.00	
BELLEVUE DRIVE	Urban Light Sealed	Spray Seal	RD00022	1.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	
			RD00023	2.00	3.00	3.00	0.00	1.00	1.00	2.00	2.00	2.00	3.00	3.00	
			RD00024	2.00	2.00	2.00	0.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	
			RD00025	1.00	1.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	4.00	4.00	

Digital Asset Management Dashboard

Capital Works Program

Show Details By Year

Show Details by Asset Name

Simulation
Option 4 - Avg 400K PA

Surface Type
All

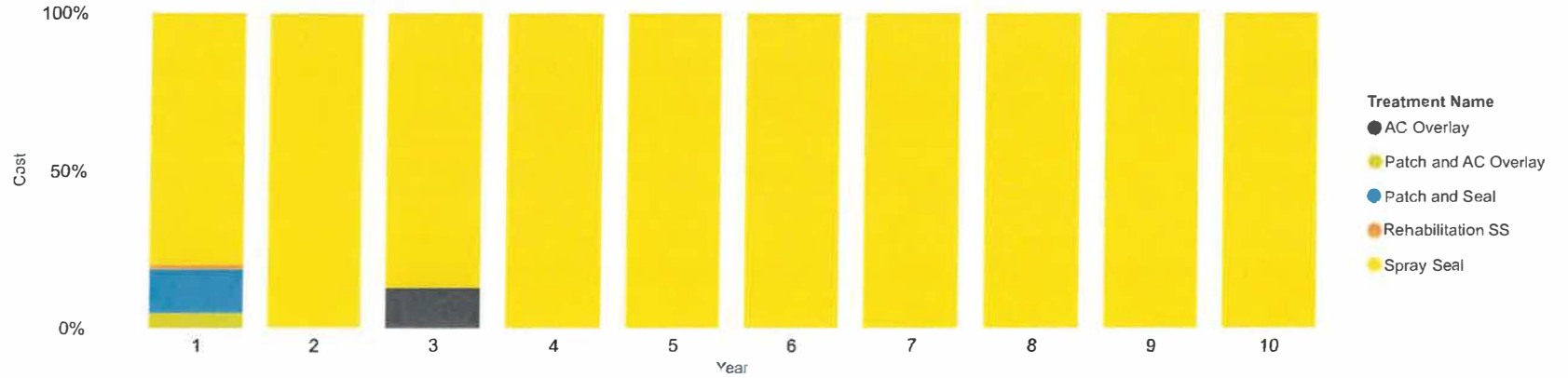
Hierarchy
All

Pavement Class
All

Asset Name
All

Unique Asset ID
All

CAPEX / OPEX
All



Treatment Cost and Percentage by Year and Treatment Name

Year	Treatment Name	Treatment Cost	Percentage
1	Patch and AC Overlay	\$18,265.81	4.57%
	Patch and Seal	\$56,181.44	14.06%
	Rehabilitation SS	\$5,602.80	1.40%
	Spray Seal	\$319,629.60	79.97%
	Annual Total	\$399,679.65	100.00%
2	Spray Seal	\$399,787.20	100.00%
	Annual Total	\$399,787.20	100.00%
3	AC Overlay	\$50,764.56	12.71%
	Spray Seal	\$348,611.40	87.29%
	Annual Total	\$399,375.96	100.00%
4	Spray Seal	\$399,973.50	100.00%
	Annual Total	\$399,973.50	100.00%
5	Spray Seal	\$398,692.80	100.00%
	Annual Total	\$398,692.80	100.00%

Unsealed Roads Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's unsealed road network, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each unsealed road segment within the road network, along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's road network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify unsealed road defects that will enable Council to develop and plan for its forward capital renewal programs. Unsealed road service criteria driver for modelling is unsealed road condition.

Typically within road asset management, as more than one defect indicator is used to assess the road network condition, the results of these condition distresses are normalised and converted into an Overall Score Index (OSI), Pavement Condition Index (PCI) and Surface Condition Index (SCI) to ensure that there is consistency across the asset network portfolio. For unsealed roads only OSI will be reported on.

The OSI, PCI and SCI are scored on a 0 to 6 rating scale with 1 representing an road segment in very good condition and 5 representing road segment in very poor condition (nearing end of useful life). 0 Represents a brand new road segment and 6 a road that has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's road network under varying funding scenarios. This strategic modelling analysis predicts the deterioration of road segment within the road network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is current as at November 2021. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted unsealed road network behaviour when all poor to very poor segments are renewed like for like.

Treatment/Name	No	Condition	Surface Type	Hierarchy
Gravel Resheet	1	>=4	Gravel	Urban & Rural Unsealed

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$795K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the road network over the next 10 years, Average \$1.2M per annum.

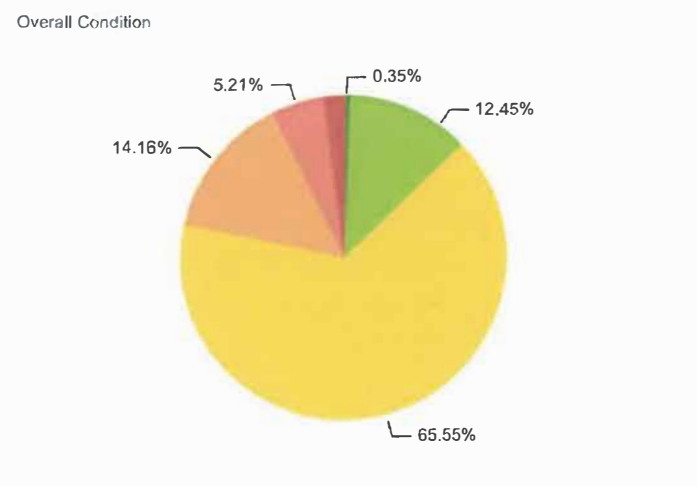
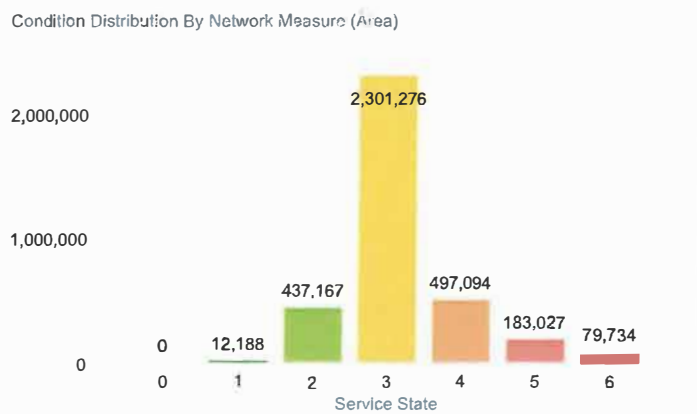
Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

Unsealed Roads Asset Management Dashboard High Level Summary

Asset Portfolio Value **\$34.6M**
Asset Value



Asset Portfolio Condition **3.18**
Average Condition



Asset Portfolio Current Capital Budget **\$7.9M**
Treatment Cost



Digital Asset Management Dashboard

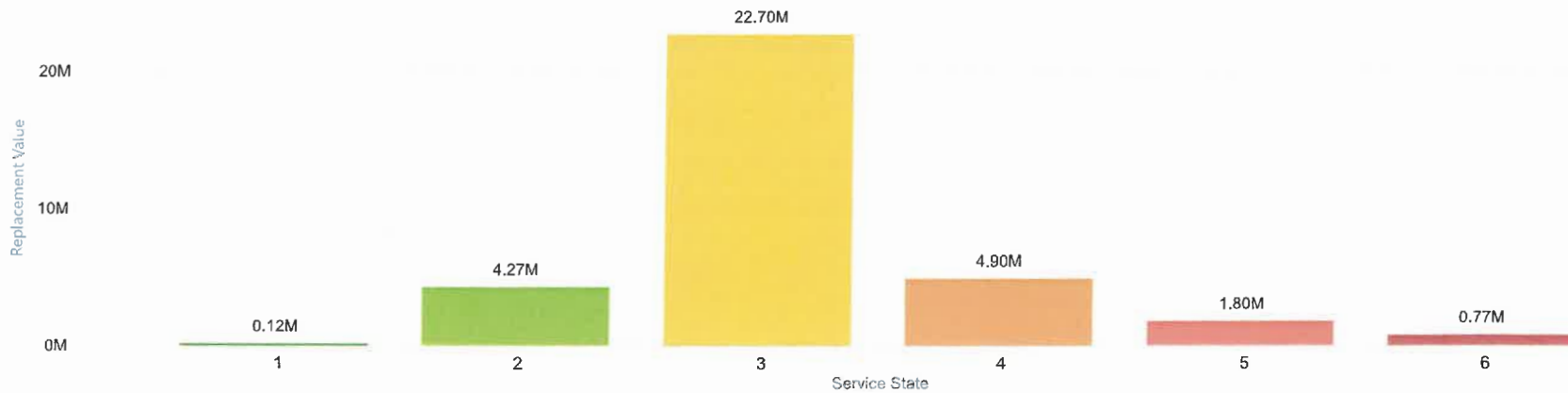
State of Assets Report

429
Number of Assets

\$34.6M
Asset Value

3.18
Average Condition

Condition Distribution By Replacement Value



Road Hierarchy



Service Level Analysis

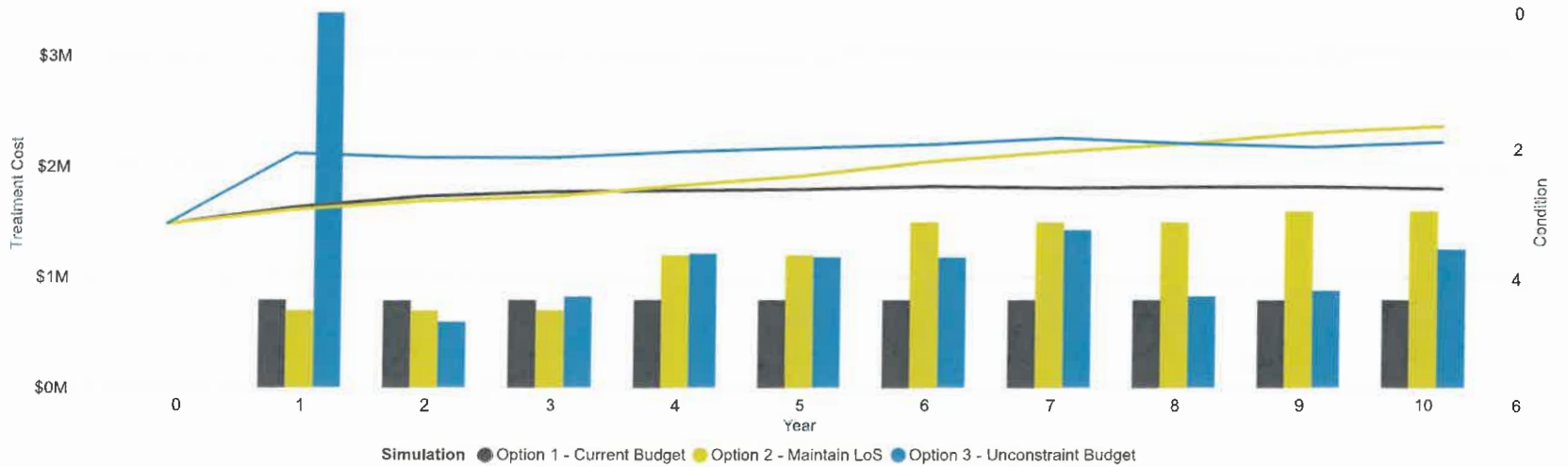
Funding Distribution

Asset Life Cycle

Year-level Comparison

Service-level Comparison

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget		
	Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0		\$0	3.18	\$0	3.18	\$0	3.18
1		\$794,419	2.92	\$698,747	2.96	\$3,393,136	2.10
2		\$791,178	2.76	\$698,739	2.82	\$597,390	2.16
3		\$794,963	2.68	\$699,471	2.76	\$825,650	2.16
4		\$794,207	2.67	\$1,199,839	2.59	\$1,213,913	2.07
5		\$794,975	2.64	\$1,199,880	2.44	\$1,182,195	2.02
6		\$794,078	2.60	\$1,498,281	2.21	\$1,179,666	1.96
7		\$794,991	2.62	\$1,499,379	2.07	\$1,429,874	1.86
8		\$794,601	2.61	\$1,499,558	1.94	\$827,568	1.95
9		\$793,809	2.61	\$1,597,943	1.78	\$875,994	2.00
10		\$794,628	2.64	\$1,599,813	1.68	\$1,253,537	1.93
Total		\$7,941,851	2.72	\$12,191,850	2.40	\$12,778,923	2.13

Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

All

Unique Asset ID

All

Asset Name

All

Report Type

Asset Quantity | Network Measure

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

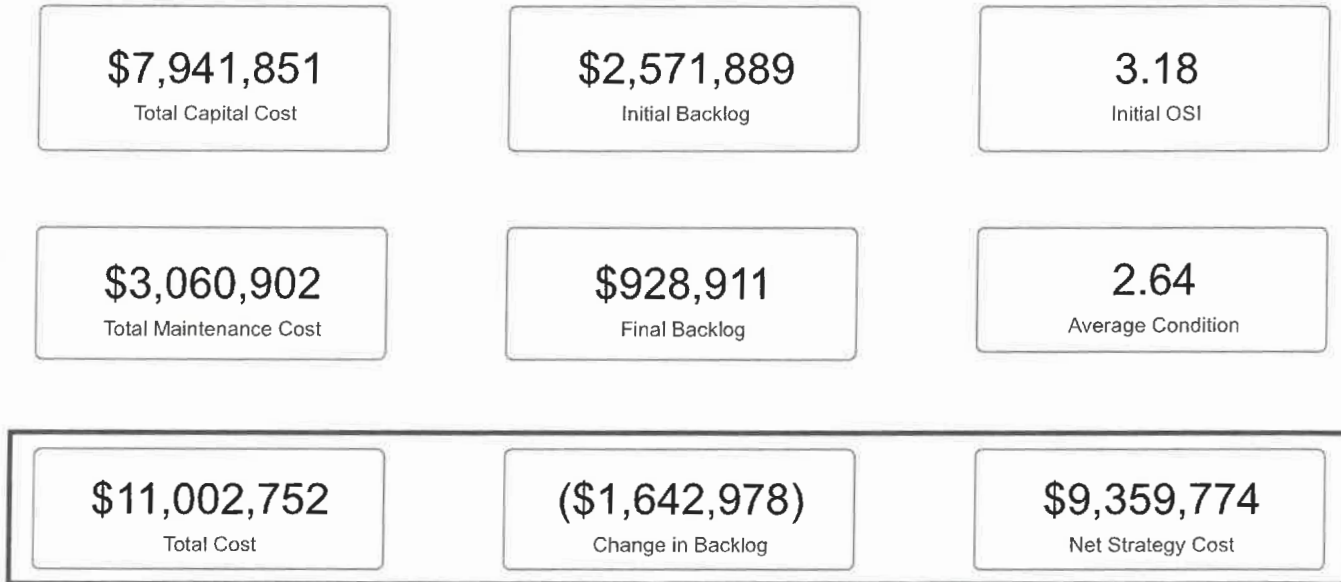
All

Asset Name

All

Unique Asset ID

All



Service Criteria
 OSI

Year

Surface Type

Hierarchy

Pavement Class

Unique Asset ID

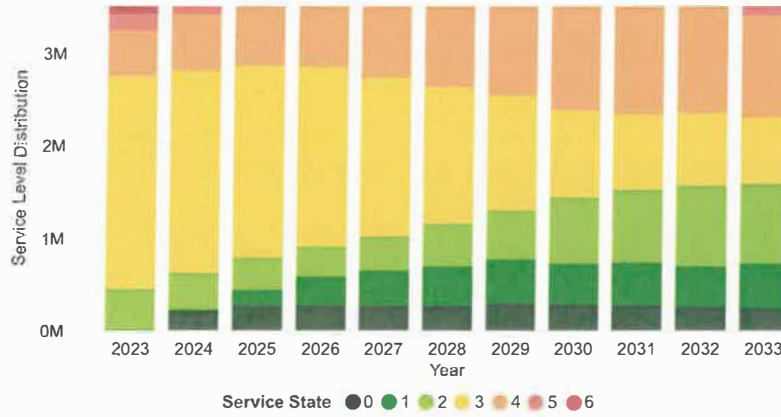
Asset Name

Data Format
 Absolute Percentage

Report Type
 Asset Quantity Network Measure

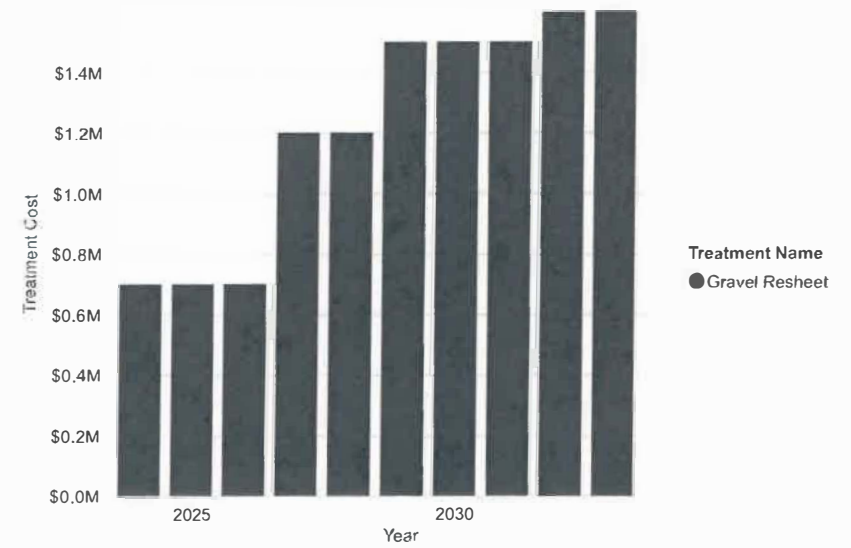
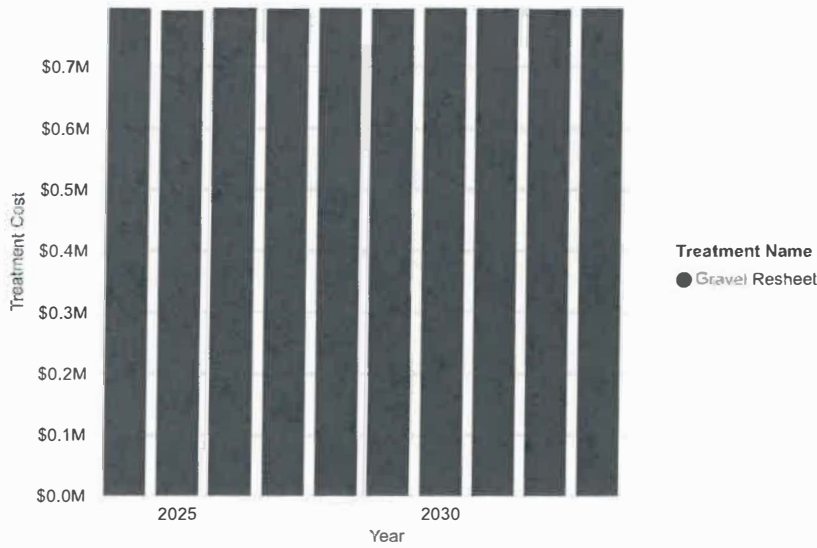
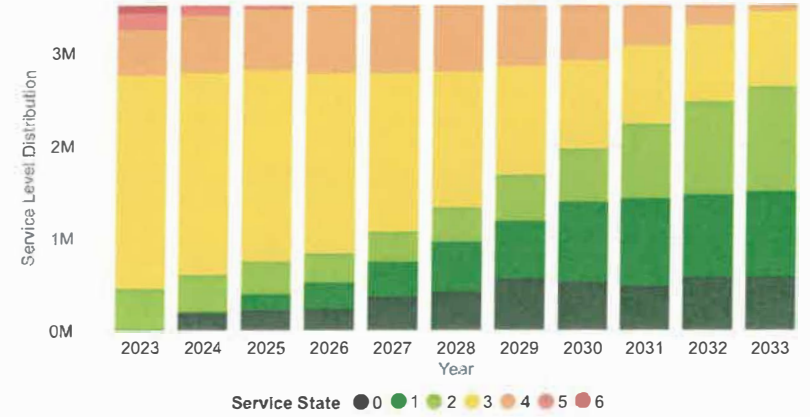
Simulation

Option 1 - Current Budget



Simulation

Option 2 - Maintain LoS



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Hierarchy	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Rural Unsealed	3.18	2.92	2.76	2.69	2.67	2.65	2.60	2.62	2.61	2.61	2.63
Urban Unsealed	3.21	3.08	2.12	2.30	2.16	2.47	2.53	2.52	2.66	2.58	3.17

\$34.56M

Asset Value

3,510K

Network Measure (M2)

429

Number of Segments

566.04K

Length (M)

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

All

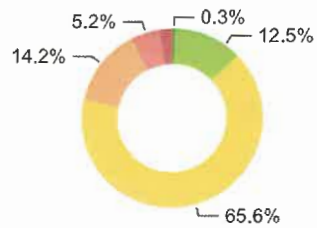
Asset Name

All

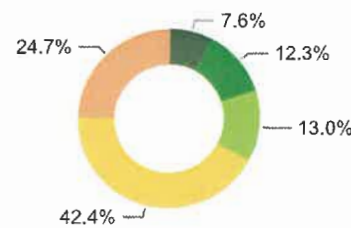
Unique Asset ID

All

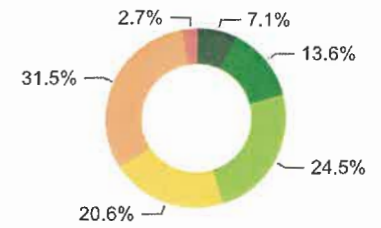
Condition Distribution % (Year 0)



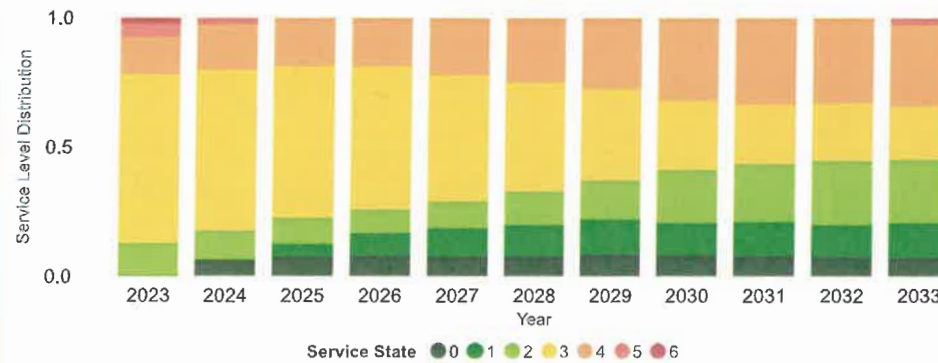
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5	6
0	0.00%	0.35%	12.45%	65.55%	14.16%	5.21%	2.27%
1	6.10%	0.35%	11.31%	62.29%	17.41%	2.54%	0.00%
2	7.74%	4.78%	10.09%	58.92%	18.47%	0.00%	0.00%
3	7.99%	8.78%	9.06%	55.48%	18.70%	0.00%	0.00%
4	7.71%	10.90%	10.39%	49.07%	21.92%	0.00%	0.00%
5	7.60%	12.28%	13.02%	42.35%	24.74%	0.00%	0.00%
6	8.49%	13.51%	15.02%	35.48%	27.50%	0.00%	0.00%
7	8.14%	12.58%	20.36%	26.94%	31.98%	0.00%	0.00%
8	7.83%	13.20%	22.40%	23.27%	33.30%	0.00%	0.00%
9	7.44%	12.43%	24.84%	22.38%	32.91%	0.00%	0.00%
10	7.11%	13.60%	24.50%	20.64%	31.45%	2.70%	0.00%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Surface Type

All

Hierarchy

All

Pavement Class

All

Asset Name

All

Unique Asset ID

All

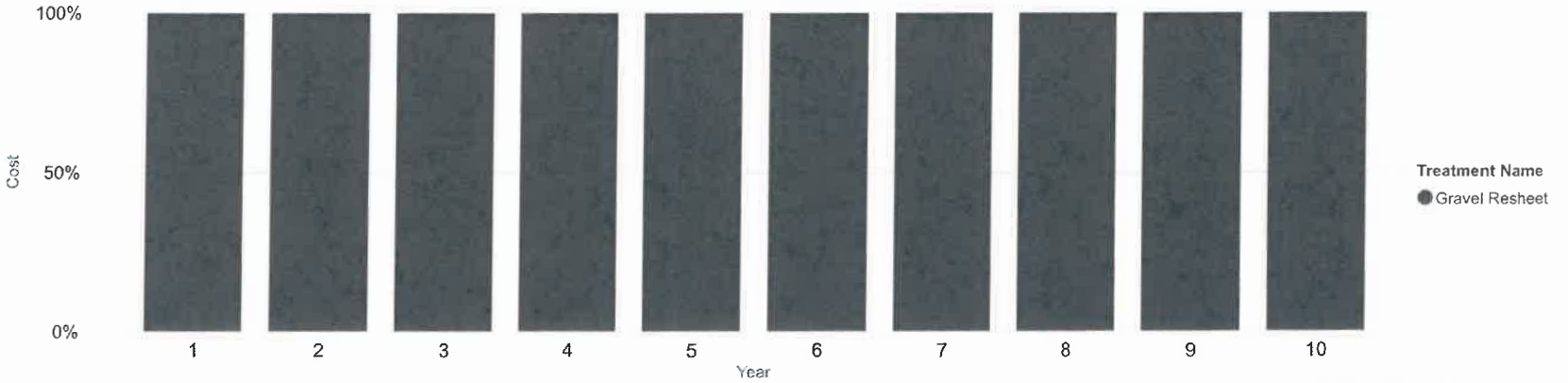
Asset Name	Hierarchy	Surface Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
ADAM 1	Rural Unsealed	Gravel	3.00	3.00	3.00	4.00	4.00	4.00	0.00	1.00	1.00	2.00	2.00
ADAM 2	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	4.00	3.00	1.00	1.00	1.00	2.00	2.00
ANNIE 1	Urban Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	0.00	0.00
ANNIE 2	Urban Unsealed	Gravel	3.00	3.00	3.00	4.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00
ANNIE 3	Urban Unsealed	Gravel	3.00	3.00	0.00	1.00	1.00	1.00	2.00	2.00	3.00	3.00	3.00
ARCHIBALD 1	Urban Unsealed	Gravel	3.00	3.00	3.00	4.00	0.00	1.00	1.00	1.00	2.00	2.00	2.00
ARCHIBALD 2	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00
Ashmore 1	Rural Unsealed	Gravel	3.00	3.00	3.00	4.00	4.00	3.00	1.00	1.00	2.00	2.00	3.00
BALD HILL 1	Rural Unsealed	Gravel	3.00	3.00	4.00	4.00	0.00	1.00	1.00	1.00	1.00	2.00	3.00
BALD HILL 10	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	0.00
BALD HILL 11	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00
BALD HILL 12	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00
BALD HILL 13	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	0.00
BALD HILL 14	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	4.00	0.00	0.00	1.00	2.00
BALD HILL 2	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00
BALD HILL 3	Rural Unsealed	Gravel	3.00	4.00	4.00	4.00	0.00	1.00	2.00	2.00	2.00	2.00	2.00
BALD HILL 4	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	0.00	1.00	2.00
BALD HILL 5	Rural Unsealed	Gravel	3.00	3.00	3.00	4.00	4.00	0.00	1.00	1.00	1.00	1.00	2.00
BALD HILL 6	Rural Unsealed	Gravel	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	0.00
BALD HILL 7	Rural Unsealed	Gravel	3.00	4.00	4.00	4.00	4.00	4.00	0.00	1.00	1.00	1.00	1.00
BALD HILL 8	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
BALD HILL 9	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	4.00	0.00	1.00	1.00	1.00
BALD HILL EAST LANE 1	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00
BALLATER 1	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	0.00	1.00
BALLATER 10	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00
BALLATER 2	Rural Unsealed	Gravel	3.00	3.00	3.00	3.00	4.00	4.00	4.00	0.00	0.00	1.00	2.00

Digital Asset Management Dashboard

Capital Works Program

Show Details By
Year

Show Details by
Asset Name



Show Details

Treatment Cost and Percentage by Year and Treatment Name

Year	Treatment Name	Treatment Cost	Percentage
1	Gravel Resheet	\$794,419.33	100.00%
	Annual Total	\$794,419.33	100.00%
2	Gravel Resheet	\$791,177.91	100.00%
	Annual Total	\$791,177.91	100.00%
3	Gravel Resheet	\$794,963.22	100.00%
	Annual Total	\$794,963.22	100.00%
4	Gravel Resheet	\$794,207.49	100.00%
	Annual Total	\$794,207.49	100.00%
5	Gravel Resheet	\$794,975.46	100.00%
	Annual Total	\$794,975.46	100.00%
6	Gravel Resheet	\$794,077.64	100.00%
	Annual Total	\$794,077.64	100.00%
7	Gravel Resheet	\$794,991.04	100.00%
	Annual Total	\$794,991.04	100.00%

Simulation
Option 1 - Current Budget

Surface Type
All

Hierarchy
All

Pavement Class
All

Asset Name
All

Unique Asset ID
All

CAPEX / OPEX
All

Stormwater Assets Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's stormwater assets, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each stormwater asset along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's stormwater network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify stormwater asset defects that will enable Council to develop and plan for its forward capital renewal programs. Within the predictive modelling software, the asset condition for stormwater will be reported as OSI (Overall Score Index).

The OSI is scored on a 0 to 6 rating scale with 1 representing very good condition and 5 representing very poor condition (nearing end of useful life). 0 Represents a brand new and 6 means an asset has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's stormwater assets under varying funding scenarios. This strategic modelling analysis predicts the deterioration of stormwater asset within the network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is revalued as at June 2022. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted stormwater network behaviour when all poor to very poor stormwater assets are renewed like for like.

Treatment Name	Situation Name	Condition
Major Renewal	Condition >= 4	>=4
Minor Renewal	Condition = 3	3

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$15.1K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the network over the next 10 years, Average \$15.1K per annum which is similar to Option 1. This verifies that the current budget is sufficient to maintain the levels of service for stormwater assets.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

Stormwater Asset Management Dashboard

High Level Summary

Asset Portfolio Value

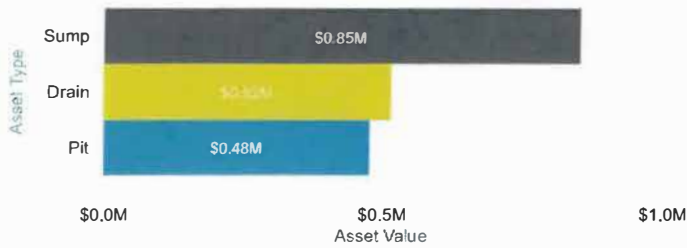
\$1.8M

Asset Value

Asset Value by Asset Group



Asset Value by Asset Type



Asset Value by Asset SubType

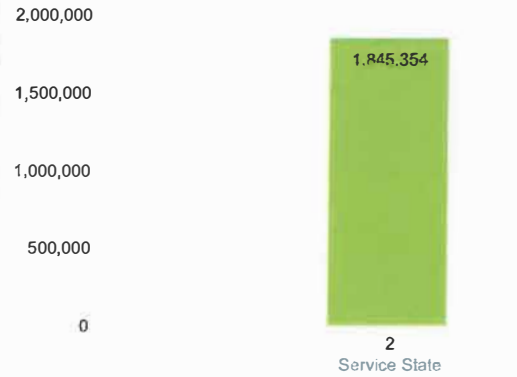


Asset Portfolio Condition

2.00

Average Condition

Condition Distribution By Network Measure (Replacement Value)



Overall Condition

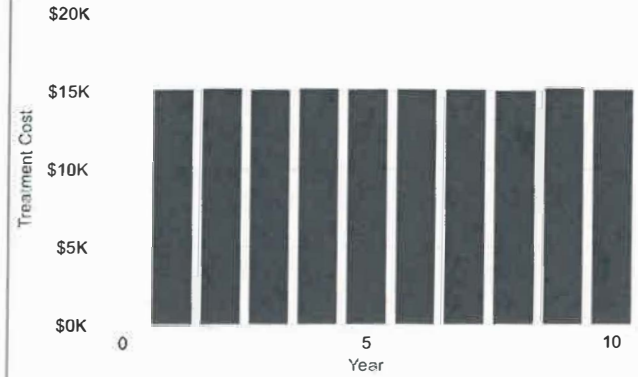


Asset Portfolio Current Capital Budget

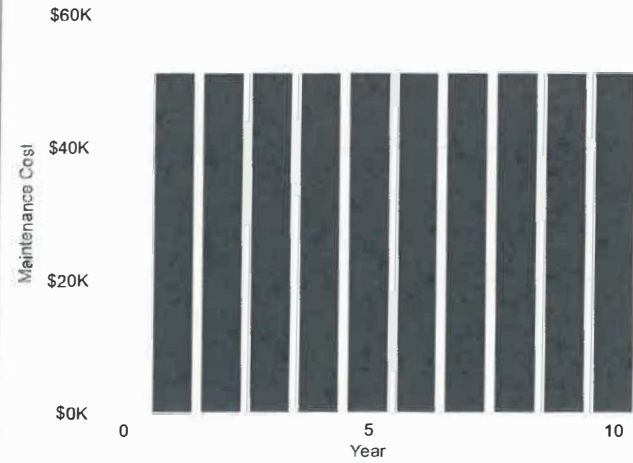
\$150.3K

Treatment Cost

Treatment Cost by Year



Maintenance Cost by Year



Digital Asset Management Dashboard

State of Assets Report

Asset Group
All

Asset Class
All

Asset SubClass
All

Asset Type
All

Asset SubType
All

Asset Category
All

Asset Name
All

Unique Asset ID
All

1.85M

Replacement Value

111

Asset Quantity

2.00

Average Condition

0.00

PVP Value

Report Type

Asset Quantity

Network Measure

Service Criteria

OSI

Condition

Overall Condition



100%

Service State 1 2

Condition Distribution

2,000,000

1,845,354

Network Measure

1,500,000

1,000,000

500,000

0



2
Service State

Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

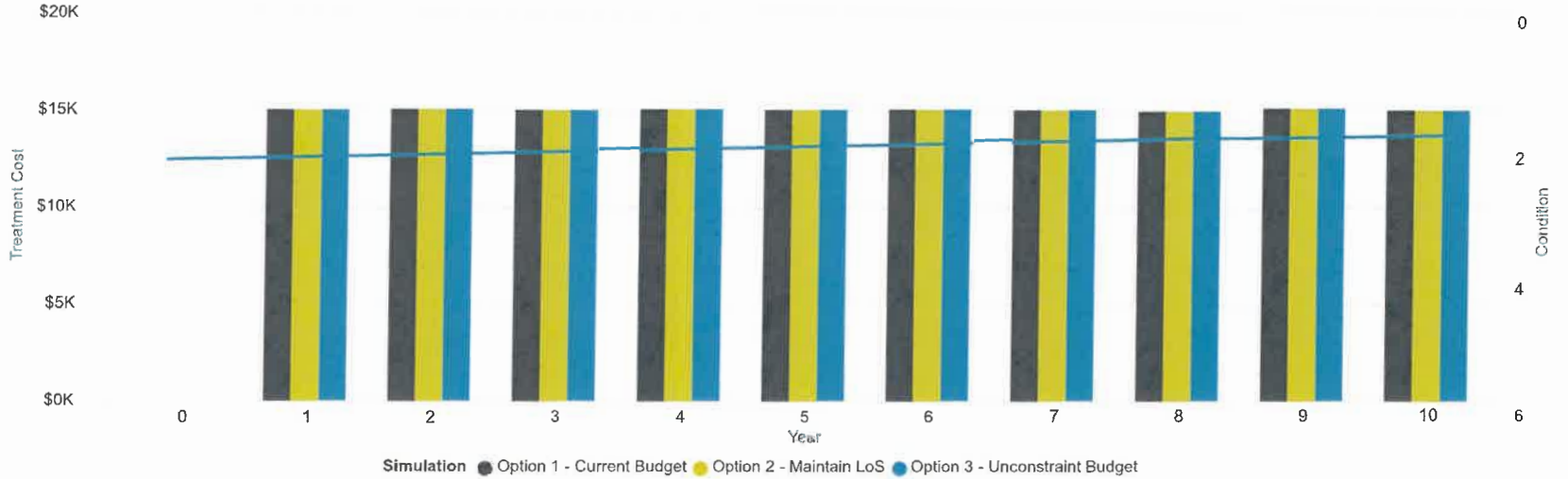
Asset Name

All

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget		
	Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0		\$0	2.00	\$0	2.00	\$0	2.00
1		\$15,026	1.96	\$15,026	1.96	\$15,026	1.96
2		\$15,067	1.92	\$15,067	1.92	\$15,067	1.92
3		\$15,019	1.88	\$15,019	1.88	\$15,019	1.88
4		\$15,069	1.84	\$15,069	1.84	\$15,069	1.84
5		\$15,041	1.80	\$15,041	1.80	\$15,041	1.80
6		\$15,043	1.76	\$15,043	1.76	\$15,043	1.76
7		\$15,018	1.71	\$15,018	1.71	\$15,018	1.71
8		\$14,936	1.67	\$14,936	1.67	\$14,936	1.67
9		\$15,094	1.66	\$15,094	1.66	\$15,094	1.66
10		\$15,005	1.62	\$15,005	1.62	\$15,005	1.62
Total		\$150,318	1.80	\$150,318	1.80	\$150,318	1.80

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

Asset Name

All

\$150,318
Total Capital Cost

\$0
Initial Backlog

2.00
Initial OSI

\$510,524
Total Maintenance Cost

\$0
Final Backlog

1.62
Average Condition

\$660,842
Total Cost

\$0
Change in Backlog

\$660,842
Net Strategy Cost

Service Criteria
 OSI

Year

Asset Group

Asset Type

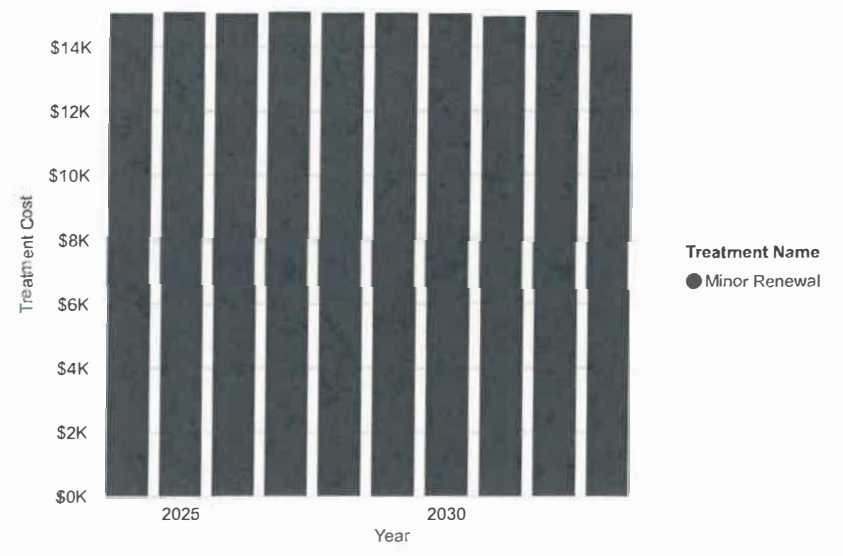
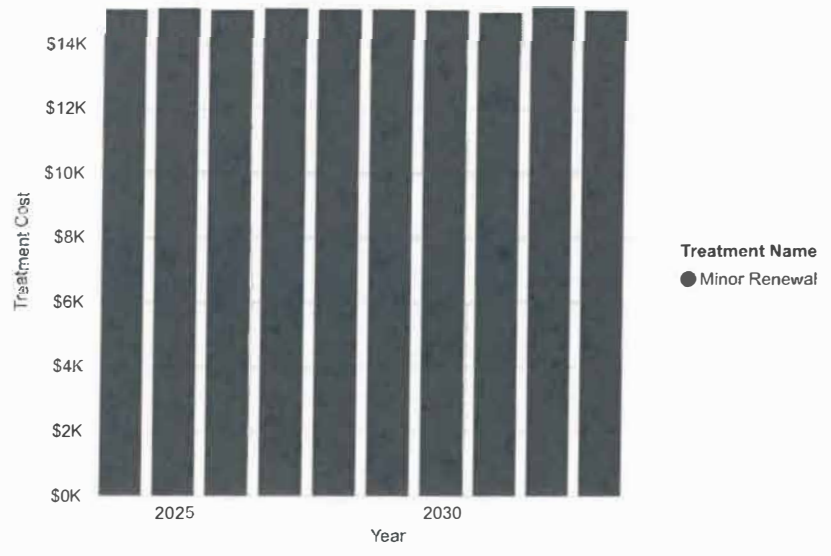
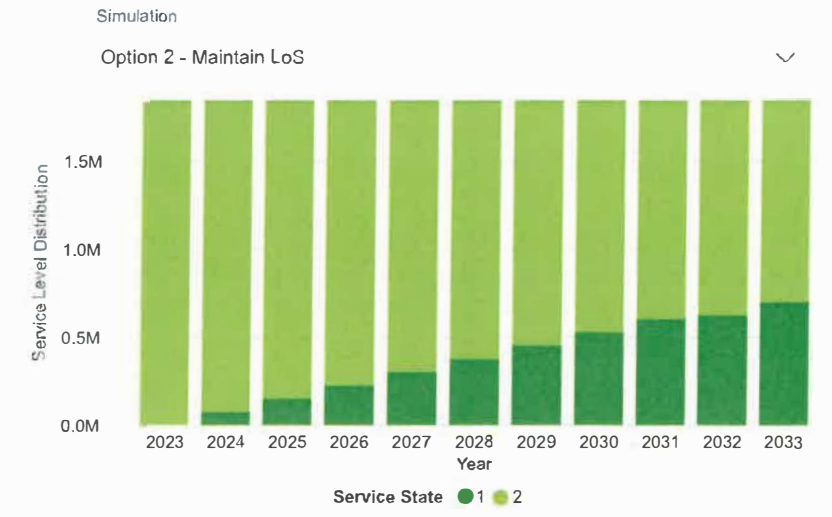
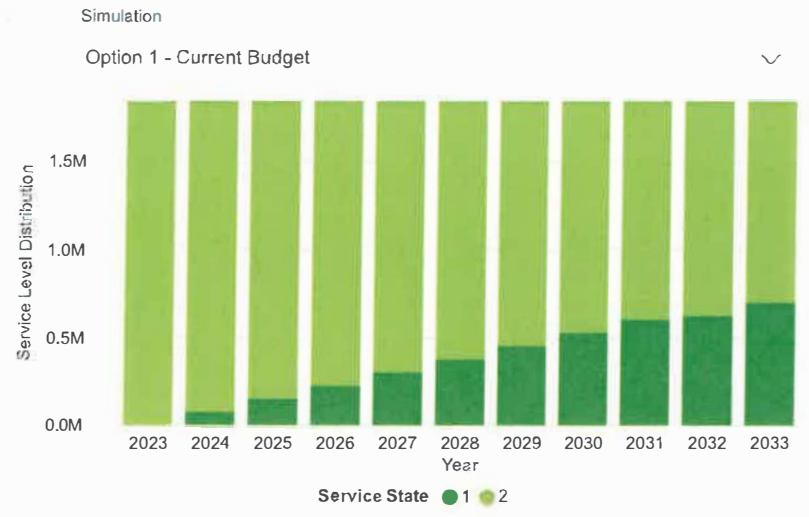
Asset SubType

Asset Category

Asset Name

Data Format
 Absolute Percentage

Report Type
 Asset Quantity Network Measure



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Asset Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Drain	2.00	1.85	1.77	1.62	1.59	1.48	1.41	1.31	1.29	1.25	1.16
Pit	2.00	2.00	1.98	1.98	1.91	1.87	1.83	1.83	1.74	1.74	1.72
Sump	2.00	2.00	1.97	1.97	1.95	1.95	1.92	1.89	1.87	1.87	1.84

\$1.85M

Asset Value

111

No of Components

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

Asset Name

All

Unique Asset ID

All

Condition Distribution % (Year 0)



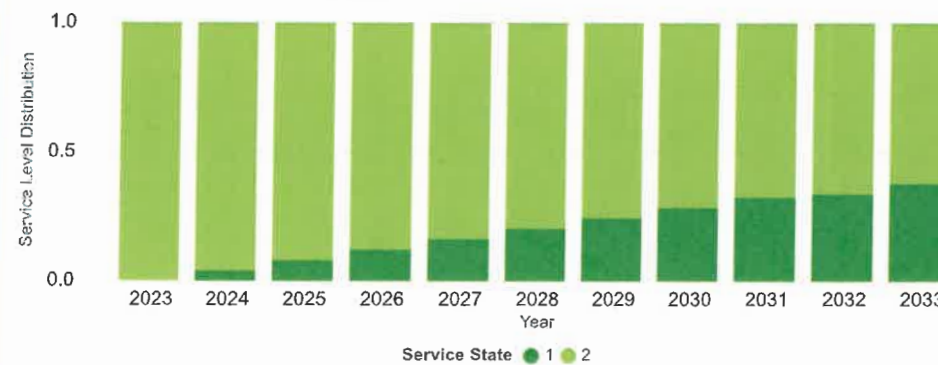
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	1	2
0	0.00%	100.00%
1	4.07%	95.93%
2	8.15%	91.85%
3	12.22%	87.78%
4	16.31%	83.69%
5	20.38%	79.62%
6	24.46%	75.54%
7	28.53%	71.47%
8	32.57%	67.43%
9	33.76%	66.24%
10	37.82%	62.18%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

Asset Name

All

Unique Asset ID

All

Asset Group	Asset Type	Asset SubType	Asset Name	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033				
Drains	Drain	Box Culvert	300mm x 150mm Box Culvert	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
			450mm x 300mm Box Culvert	2.00	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.00	1.00			
			900mm x 300mm Box Culvert	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
			Agnes Street (between Charles Street and Gough Street) box culvert	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
			Gough Street (between Agnes Street and James Street) box culvert	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
	Concrete Pipe			225mm Concrete Pipe	2.00	2.00	1.40	1.40	1.40	1.40	1.40	1.40	1.00	1.00	1.00			
				300mm Concrete Pipe	2.00	1.93	1.85	1.70	1.65	1.65	1.61	1.49	1.46	1.46	1.28			
				450mm Concrete Pipe	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	2.00	2.00			
				Agnes Street (between Cameron Street and Charles Street) pipe	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00			
				Agnes Street (between Charles Street and Gough Street) pipe	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
				Agnes Street (portion between Gough Street and Strickland Street) pipe	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00			
				Agnes Street (portion between Holland Street and Cameron Street) pipe	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00			
				assumed 300 Concrete Pipe	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
				Gough Street (between Agnes Street and James Street) pipe	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00		
				Gough Street (James Street to Reserve) pipe	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
				James Street (portion between Gough Street and Charles Street) pipe	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
				Ribloc Pipe			225mm Ribloc Pipe	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00
							300mm Ribloc pipe	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00
450mm Ribloc pipe	2.00	2.00	2.00				2.00	2.00	2.00	2.00	2.00	1.12	1.12	1.12	1.12			
Pits	Pit	Manholes	Manholes	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00				
		Pits	Pits	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00				
		Side Entry Pit	Side Entry Pit	2.00	2.00	1.98	1.98	1.90	1.86	1.82	1.82	1.78	1.78	1.76				
Sump Bores	Sump	Bore	Sump Bore 1	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
			Sump Bore 10	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00				
			Sump Bore 11	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00				
			Sump Bore 12	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00				

Sewer Assets Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's sewer assets, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each sewer asset along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's sewer network renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify sewer asset defects that will enable Council to develop and plan for its forward capital renewal programs. Within the predictive modelling software, the asset condition for sewer will be reported as OSI (Overall Score Index).

The OSI is scored on a 0 to 6 rating scale with 1 representing very good condition and 5 representing very poor condition (nearing end of useful life). 0 Represents a brand new and 6 means an asset has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's sewer assets under varying funding scenarios. This strategic modelling analysis predicts the deterioration of sewer asset within the network, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is revalued as at June 2022. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted sewer network behaviour when all poor to very poor sewer assets are renewed like for like.

Treatment Name	Situation Name	Condition
Major Renewal	Condition >= 4	>=4
Minor Renewal	Condition = 3	3

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$130K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the network over the next 10 years, Average \$200K per annum.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

Sewer Asset Management Dashboard High Level Summary

Asset Portfolio Value

\$12.2M

Asset Value

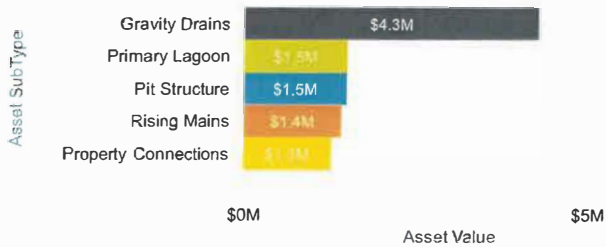
Asset Value by Asset Group



Asset Value by Asset Type



Asset Value by Asset SubType

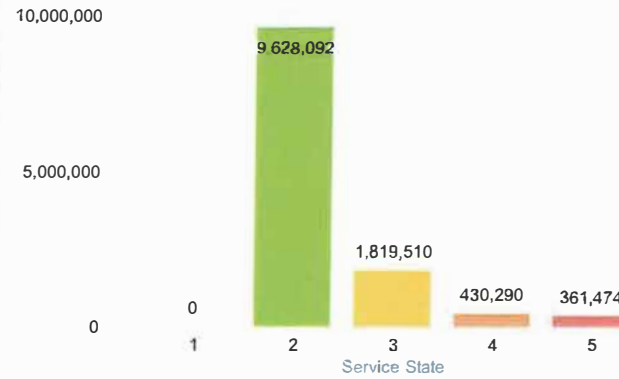


Asset Portfolio Condition

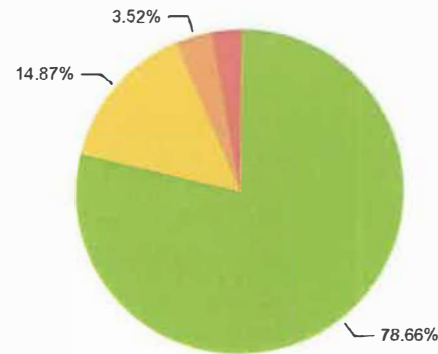
2.31

Average Condition

Condition Distribution By Network Measure (Replacement Value)



Overall Condition

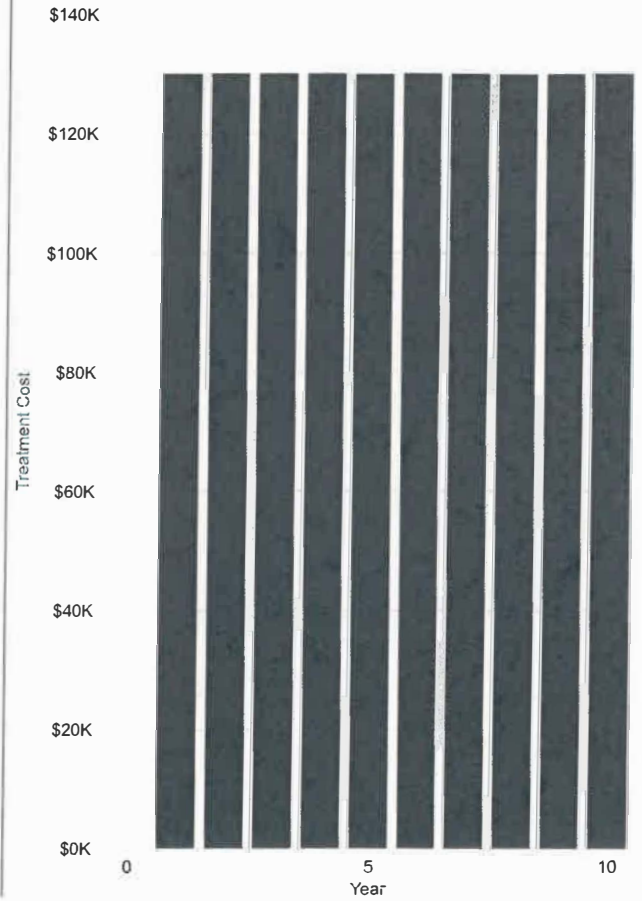


Asset Portfolio Current Capital Budget

\$1.3M

Treatment Cost

Treatment Cost by Year



Digital Asset Management Dashboard

State of Assets Report

Asset Group
All

Asset Class
All

Asset SubClass
All

Asset Type
All

Asset SubType
All

Asset Category
All

Asset Name
All

Unique Asset ID
All

12.24M
Replacement Value

144
Asset Quantity

2.31
Average Condition

791.76K
PVP Value

Report Type

Asset Quantity

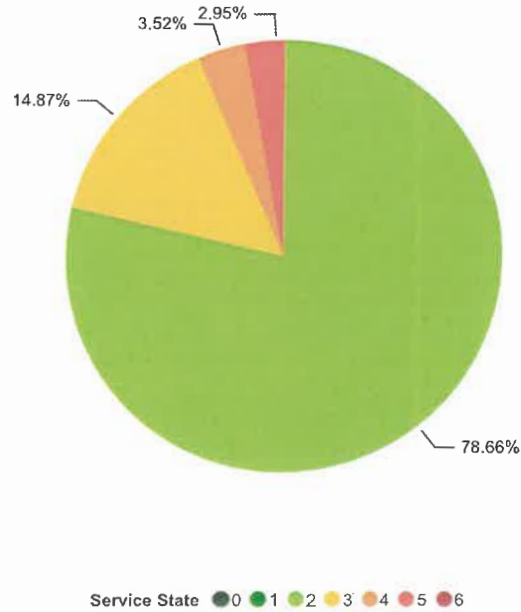
Network Measure

Service Criteria

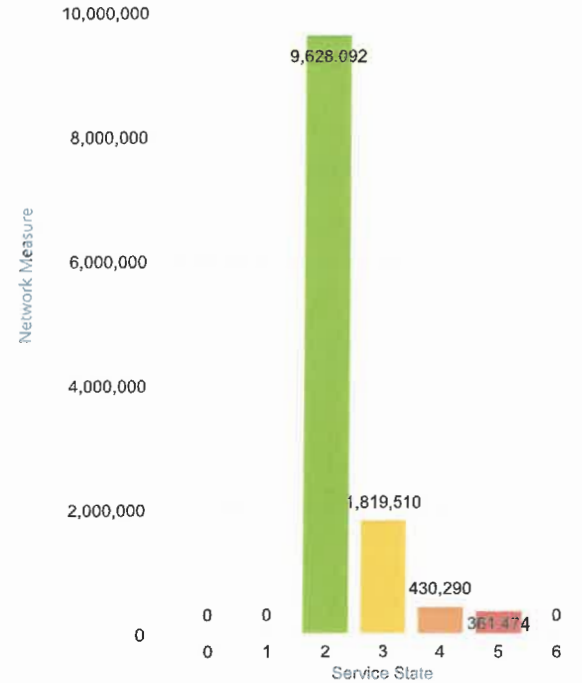
OSI

Condition

Overall Condition



Condition Distribution



Simulation

- Select all
- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

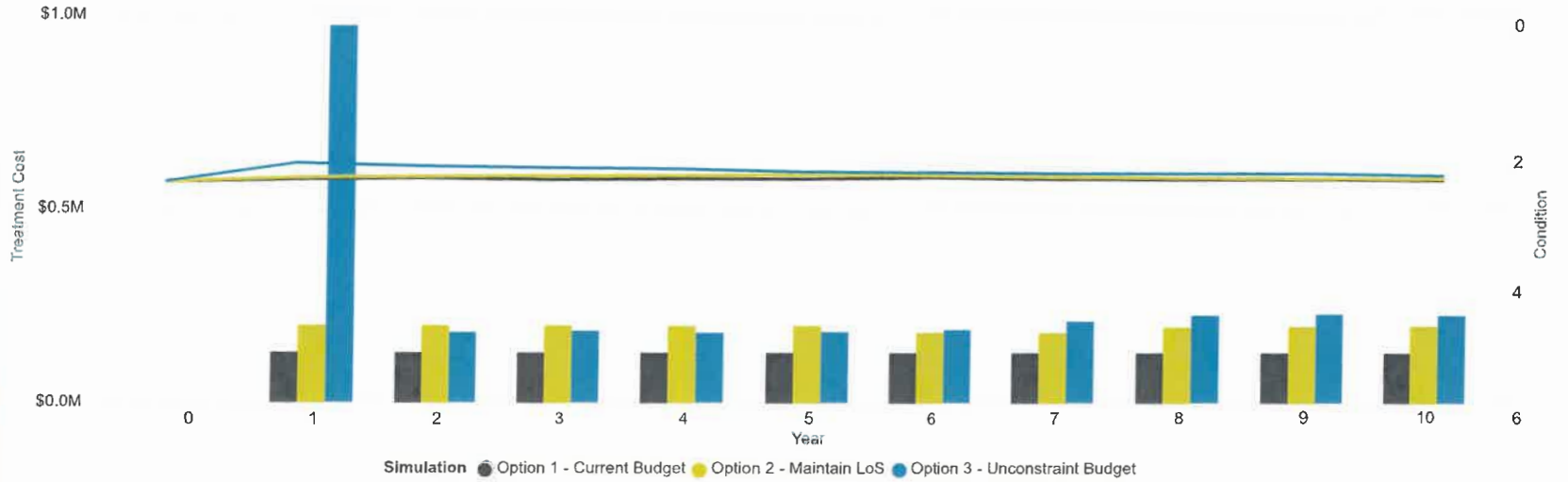
Asset Name

All

Report Type

Asset Quantity Network Measure

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget		
	Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0		\$0	2.31	\$0	2.31	\$0	2.31
1		\$129,948	2.27	\$199,930	2.24	\$973,715	2.02
2		\$129,969	2.24	\$199,839	2.22	\$181,951	2.07
3		\$129,965	2.27	\$199,932	2.21	\$185,731	2.09
4		\$129,972	2.25	\$199,612	2.20	\$181,531	2.11
5		\$129,888	2.25	\$199,852	2.18	\$183,576	2.15
6		\$129,998	2.23	\$181,951	2.20	\$188,934	2.16
7		\$129,905	2.25	\$182,454	2.22	\$211,562	2.17
8		\$129,830	2.25	\$196,830	2.23	\$227,555	2.17
9		\$129,889	2.26	\$198,447	2.24	\$230,164	2.17
10		\$129,947	2.27	\$199,995	2.25	\$227,705	2.20
Total		\$1,299,311	2.26	\$1,958,842	2.23	\$2,792,424	2.15

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

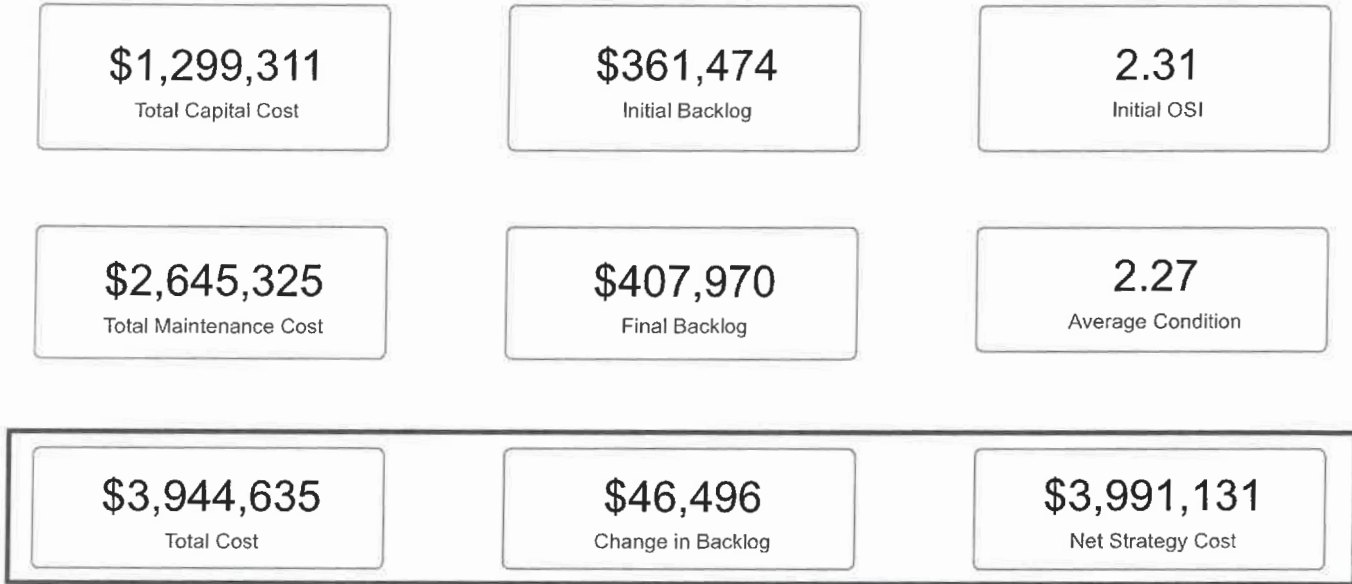
All

Asset Category

All

Asset Name

All



Service Criteria
OSI

Year
0 10

Asset Group
All

Asset Type
All

Asset SubType
All

Asset Category
All

Asset Name
All

Data Format
Absolute Percentage

Report Type
Asset Quantity Network Measure

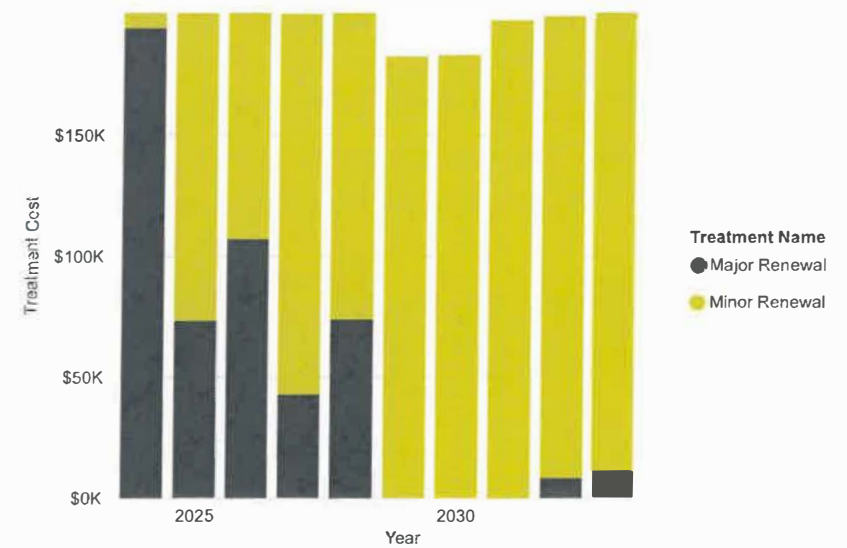
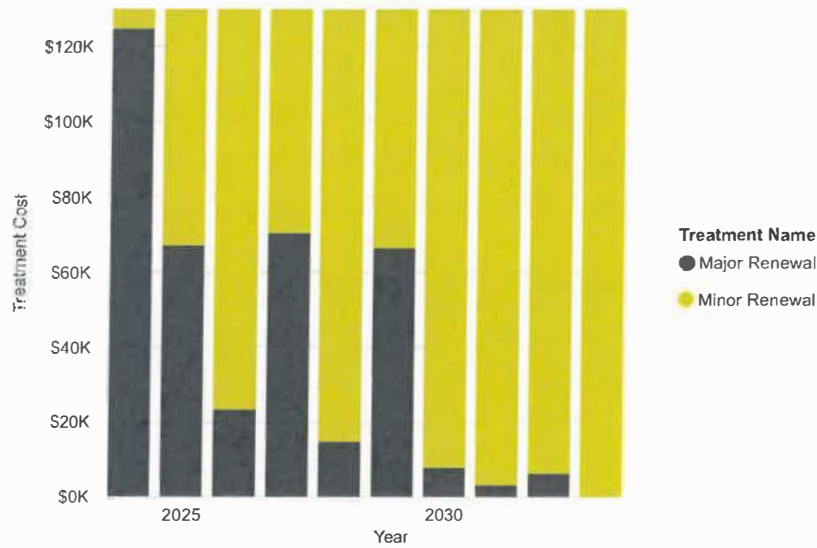
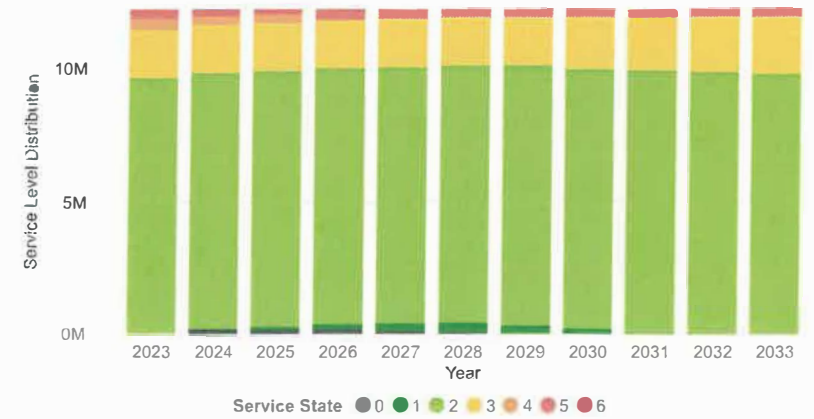
Simulation

Option 1 - Current Budget



Simulation

Option 2 - Maintain LoS



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Asset Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
All Pumps	4.93	5.06	5.06	5.21	4.55	3.93	0.79	1.24	1.24	1.74	1.84
All Sewer Fittings	4.58	4.63	4.69	4.63	4.64	4.87	4.88	5.00	4.99	4.81	4.85
All Valves	5.00	5.12	4.78	3.45	0.20	0.93	1.20	1.73	1.87	1.93	2.07
Fittings	5.00	5.00	5.00	5.00	0.00	1.00	2.00	2.00	2.00	2.00	2.00

\$12.24M

Asset Value

144

No of Components

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

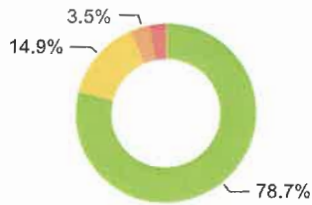
Asset Name

All

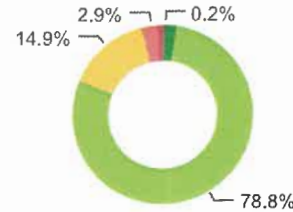
Unique Asset ID

All

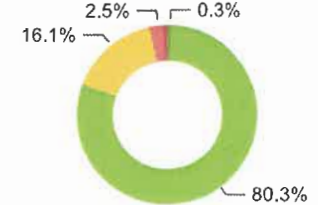
Condition Distribution % (Year 0)



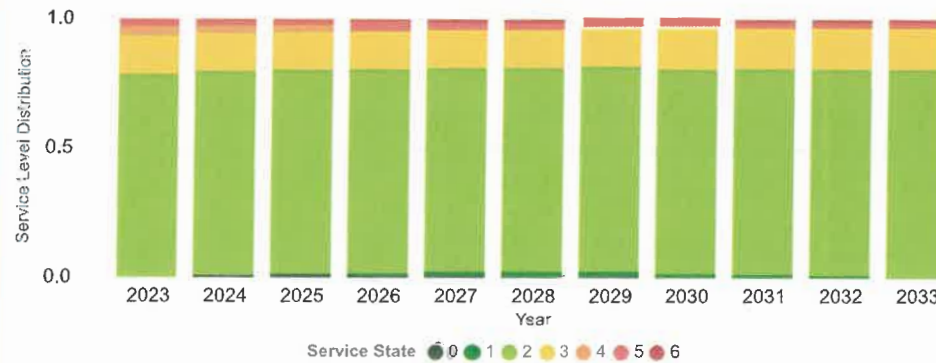
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5	6
0	0.00%	0.00%	78.66%	14.87%	3.52%	2.95%	0.00%
1	1.02%	0.00%	78.66%	14.87%	2.74%	2.44%	0.28%
2	1.40%	0.17%	78.66%	14.87%	2.59%	1.96%	0.34%
3	0.85%	0.90%	78.66%	14.87%	0.06%	4.21%	0.44%
4	0.70%	1.63%	78.66%	14.87%	0.06%	3.15%	0.92%
5	0.22%	2.09%	78.81%	14.87%	0.06%	2.87%	1.08%
6	0.58%	1.93%	79.15%	14.87%	0.00%	2.79%	0.68%
7	0.06%	1.54%	79.08%	15.90%	0.00%	2.60%	0.81%
8	0.09%	1.33%	79.29%	15.90%	0.00%	2.46%	0.92%
9	0.05%	0.87%	79.74%	16.00%	0.00%	2.46%	0.87%
10	0.00%	0.26%	80.27%	16.14%	0.00%	2.46%	0.87%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Asset Group	Asset Type	Asset SubType	Asset Name	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Irrigation	Fittings	Emergency Shower	Emergency Shower	5.00	5.00	5.00	5.00	5.00	1.00	2.00	2.00	2.00	2.00
	Irrigation	Sprinklers & Pipe	Cemetery	4.00	5.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
			Old School Oval	4.00	0.00	0.00	0.00	1.00	1.00	1.00	2.00	2.00	2.00
			Grey Water Tanks, 25,000 litres	4.00	4.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tank	Polyethylene	Polyethylene, 2,700 litres	Septic Tank Lions Park	4.00	4.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
		Polyethylene, 5,000 litres	Rainwater Tank Poly 5000 litre	4.00	4.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	3.00
		All	PS1 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Pump Station	All Pipework	All	PS10 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS11 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS12 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS2 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS3 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS4 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS5 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS6 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS7 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS8 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			PS9 All Pipework	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
			All Pumps	All	All	PS1 All Pumps	5.00	5.00	5.00	5.00	5.00	0.00	1.00
PS10 All Pumps	4.00	4.00				4.00	4.00	4.00	4.00	5.00	0.00	0.00	1.00
PS11 All Pumps	5.00	5.00				5.00	5.00	5.00	5.00	0.00	1.00	1.00	2.00
PS12 All Pumps	5.00	5.00				5.00	5.00	5.00	5.00	0.00	1.00	1.00	1.00
PS2 All Pumps	5.00	5.00				5.00	6.00	0.00	1.00	2.00	2.00	2.00	2.00
PS3 All Pumps	5.00	6.00	6.00	6.00	6.00	0.00	1.00	2.00	2.00	2.00			
PS4 All Pumps	5.00	5.00	5.00	5.00	6.00	6.00	0.00	1.00	1.00	1.00			
PS5 All Pumps	5.00	5.00	5.00	6.00	6.00	6.00	1.00	1.00	2.00	2.00	2.00		

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Group

All

Asset Type

All

Asset SubType

All

Asset Category

All

Asset Name

All

Unique Asset ID

All

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
1	Cemetery	SS0003	Sewer	Irrigation	Irrigation	Sprinklers & Pipe	Major Renewal	\$47,700.00
	Old School Oval	SS0002	Sewer	Irrigation	Irrigation	Sprinklers & Pipe	Major Renewal	\$47,700.00
	PS1 All Pipework	SPE00032	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS10 Outlet Wet Well Lids	SPE00046	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS12 All Pipework	SPE00107	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 Outlet Wet Well Lids	SPE00120	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 Outlet Wet Well Lids	SPE00202	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well Lids	SPE00284	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS6 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Pipework	SPE00330	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Asset ID	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
1	PS0 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 Inlet Wet Well Lid Left	SPE00346	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS7 Inlet Wet Well Lid Right	SPE00347	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS8 Inlet Wet Well Lids	SPE00384	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS9 All Pipework	SPE00416	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS9 Wet Well Lids	SPE00448	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	Rv Park Dump Point	SS0014	Sewer	Sewer Mains	Sewer Services	Dump Point	Major Renewal	\$1,336.00
2	Grey Water Tanks, 25,000 litres	SS0010	Sewer	Irrigation	Tank	Polyethylene	Major Renewal	\$12,000.00
	PS1 Wet Well	SPE00021	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS1 Wet Well Lids	SPE00027	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS10 All Pipework	SPE00034	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
2	PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS10 Outlet Wet Well Safety Grate 1 (Left)	SPE00051	Sewer	Pump Station	Wet Well	Safety Grate	Major Renewal	\$1,800.00
	PS10 Outlet Wet Well Safety Grate 1 (Right)	SPE00052	Sewer	Pump Station	Wet Well	Safety Grate	Major Renewal	\$1,800.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 Inlet Wet Well Lids	SPE00079	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS11 Outlet Wet Well Lids	SPE00086	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS2 All Structure Fitting	SPE00143	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 All Valves	SPE00144	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS2 Inlet Wet Well	SPE00146	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 Inlet Wet Well Lids	SPE00149	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS2 Outlet Wet Well Lids	SPF00158	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
2	PS3 All Structure Fitting	SPE00182	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS3 Inlet Wet Well Lids	SPE00194	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS3 Outlet Wet Well	SPE00197	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS4 Inlet Wet Well Lids	SPE00229	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 Outlet Wet Well Lids	SPE00238	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well	SPE00278	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 Inlet Wet Well Lids	SPE00302	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets								
ID	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
2	PS6 Outlet Outlet Wet Well Lids	SPE00306	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS7 Outlet Wet Well Lids	SPE00357	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS8 Inlet Wet Well	SPE00382	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 Outlet Wet Well Lids	SPE00394	Sewer	Pump Station	Wet Well	Pit Lid	Major Renewal	\$3,500.00
	PS9 All Structure Fitting	SPE00418	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	Rainwater Tank Poly 5000 litre	SS0009	Sewer	Irrigation	Tank	Polyethylene, 5,000 litres	Major Renewal	\$1,200.00
	Rising Mains	SM0009	Sewer	Sewer Mains	Sewer Main	Rising Mains	Minor Renewal	\$4,020.00
	Septic Tank Lions Park	SS0013	Sewer	Sewer Mains	Tank	Polyethylene, 2,700 litres	Major Renewal	\$4,200.00
	STP All Structure Fitting	SPE00508	Sewer	Treatment Plant	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6

Year

\$1.30M

Treatment Cost

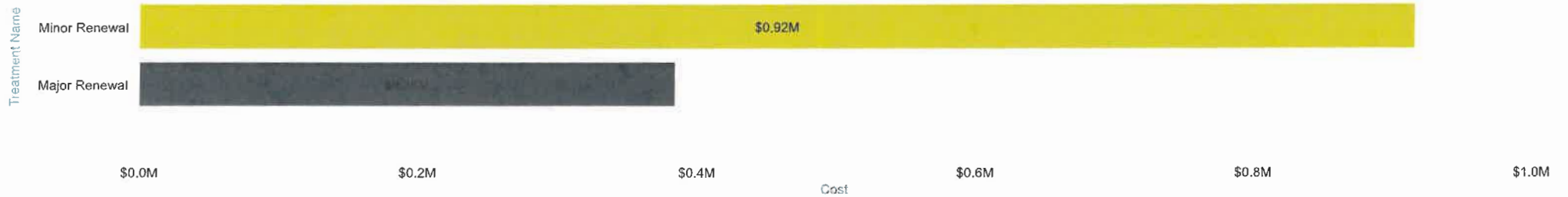
\$9.54M

Asset Value

327

Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
2	PS0 All Structure Fitting	SPE00000	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
3	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 All Valves	SPE00037	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS11 All Pipework	SPE00073	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS11 All Valves	SPE00076	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS11 Inlet Wet Well	SPE00078	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS12 Outlet Wet Well	SPE00113	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 All Structure Fitting	SPE00143	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 Outlet Wet Well	SPE00153	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 Inlet Wet Well	SPE00193	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

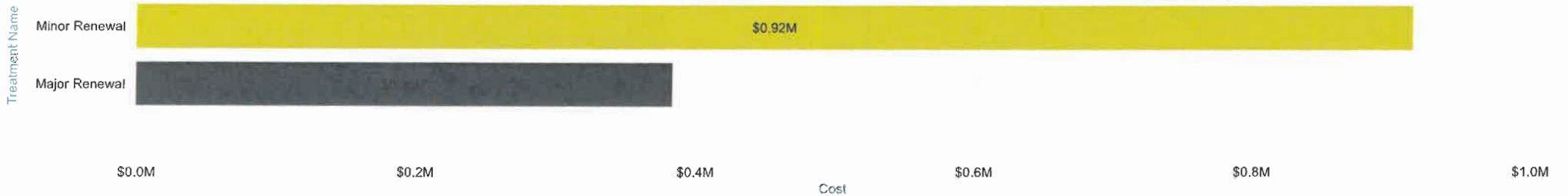
6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
3	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS4 Inlet Wet Well	SPE00227	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Pipework	SPE00257	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS5 All Valves	SPE00260	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS6 All Other Fittings	SPE00291	Sewer	Treatment Plant	All Sewer Fittings	Other	Major Renewal	\$3,250.00
	PS6 All Valves	SPE00295	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 Outlet Outlet Wet Well	SPE00304	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 Inlet Wet Well	SPE00344	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 Outlet Wet Well	SPE00351	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 All Pipework	SPE00377	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
3	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS8 Outlet Wet Well	SPE00388	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS9 Wet Well	SPE00441	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	Septic Tank Lions Park	SS0015	Sewer	Sewer Mains	Tank	Septic	Minor Renewal	\$420.00
	Treatment Plant Fencing	SPE00511	Sewer	Treatment Plant	Lagoons	Fencing	Minor Renewal	\$14,400.00
	Treatment Plant Rainwater Storage Tank	SPE00515	Sewer	Treatment Plant	Wet Well	Holding Tank	Major Renewal	\$4,000.00
4	Dosing Chemical Storage	SPE00464	Sewer	Treatment Plant	Storage Structures	Holding Tank	Major Renewal	\$350.00
	Dosing Chemical Vat	SPE00465	Sewer	Treatment Plant	Storage Structures	Holding Tank	Major Renewal	\$350.00
	Emergency Shower	SS0008	Sewer	Irrigation	Fittings	Emergency Shower	Major Renewal	\$1,230.00
	PS1 All Pipework	SPE00032	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS1 All Valves	SPE00004	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00

← Indicative Works Prioritisation Details

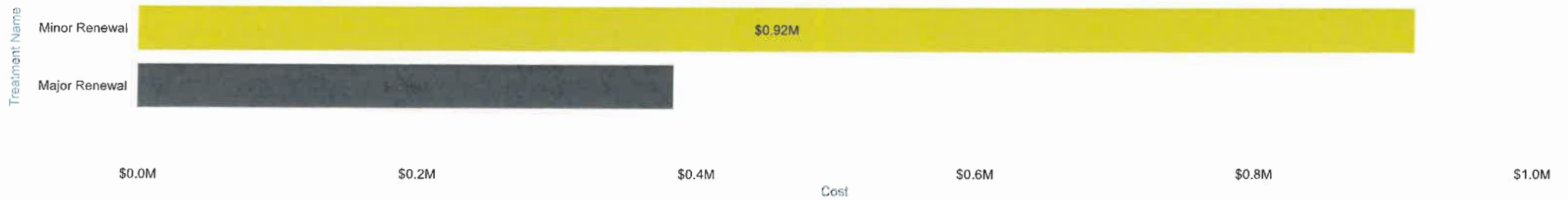
6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
4	PS10 All Pipework	SPE00034	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 All Pipework	SPE00073	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 Outlet Wet Well	SPE00081	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS12 All Pipework	SPE00107	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS12 All Valves	SPE00110	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS2 All Pumps	SPE00142	Sewer	Pump Station	All Pumps	All	Major Renewal	\$7,800.00
	PS3 All Structure Fitting	SPE00182	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type

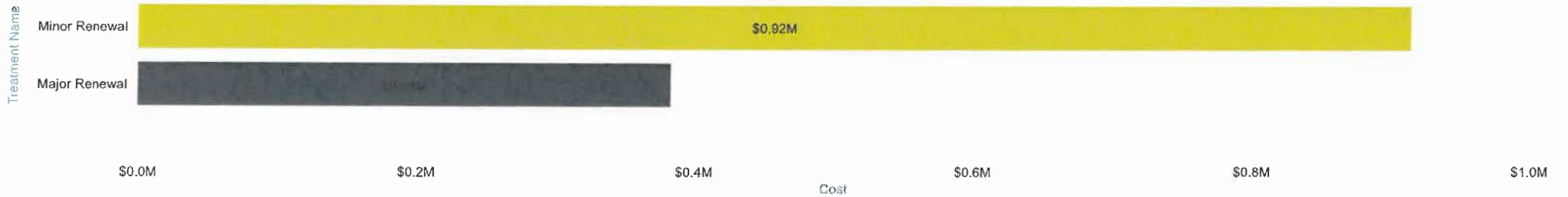


Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
4	PS3 All Valves	SPE00183	Sewer	Pump Station	All Valves	All	Major Renewal	\$7,000.00
	PS3 Outlet Wet Well	SPE00197	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 All Valves	SPE00225	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Pumps	SPE00258	Sewer	Pump Station	All Pumps	All	Major Renewal	\$7,800.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well	SPE00278	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Pumps	SPE00340	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS7 All Valves	SPE00342	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	PS8 All Valves	SPE00380	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
4	PS8 Inlet Wet Well	SPE00382	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS9 All Pipework	SPE00416	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS9 All Pumps	SPE00417	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS9 All Structure Fitting	SPE00418	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS9 All Valves	SPE00419	Sewer	Pump Station	All Valves	All	Major Renewal	\$4,030.00
	Rising Mains	SM0009	Sewer	Sewer Mains	Sewer Main	Rising Mains	Minor Renewal	\$4,020.00
	STP All Other Fittings	SPE00505	Sewer	Treatment Plant	All Sewer Fittings	Other	Major Renewal	\$6,500.00
	STP All Pipework	SPE00506	Sewer	Treatment Plant	All Pipework	All	Minor Renewal	\$832.00
	STP All Structure Fitting	SPE00508	Sewer	Treatment Plant	All Sewer Fittings	Structural	Minor Renewal	\$220.00
STP All Valves	SPE00509	Sewer	Treatment Plant	All Valves	All	Major Renewal	\$9,000.00	
5	PS1 All Pumps	SPE00002	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
5	PS10 All Structure Fitting	SPE00030	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS12 Outlet Wet Well	SPE00113	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 All Structure Fitting	SPE00143	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 Inlet Wet Well	SPE00146	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 Outlet Wet Well	SPE00153	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 All Pumps	SPE00181	Sewer	Pump Station	All Pumps	All	Major Renewal	\$11,700.00
	PS3 Inlet Wet Well	SPE00193	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 Outlet Wet Well	SPE00197	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Asset ID	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
5	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 Outlet Outlet Wet Well	SPE00304	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS8 All Pipework	SPE00377	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS8 Inlet Wet Well	SPE00382	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 Outlet Wet Well	SPE00388	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS9 Wet Well	SPE00441	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	Septic Tank Lions Park	SS0015	Sewer	Sewer Mains	Tank	Septic	Minor Renewal	\$420.00
	Treatment Plant Fencing	SPE00511	Sewer	Treatment Plant	Lagoons	Fencing	Minor Renewal	\$14,400.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
6	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS1 Wet Well	SPE00021	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS10 All Pipework	SPE00034	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 All Pipework	SPE00073	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS11 All Pumps	SPE00074	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 Inlet Wet Well	SPE00078	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS11 Outlet Wet Well	SPE00081	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS12 All Pipework	SPE00107	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 All Pumps	SPE00108	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
6	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 All Other Fittings	SPE00179	Sewer	Treatment Plant	All Sewer Fittings	Other	Major Renewal	\$800.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 All Structure Fitting	SPE00182	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS4 All Pumps	SPE00223	Sewer	Pump Station	All Pumps	All	Major Renewal	\$11,700.00
	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Pipework	SPE00257	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS6 All Mechanical Fittings	SPE00290	Sewer	Treatment Plant	All Sewer Fittings	Mechanical	Major Renewal	\$1,000.00
	PS6 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

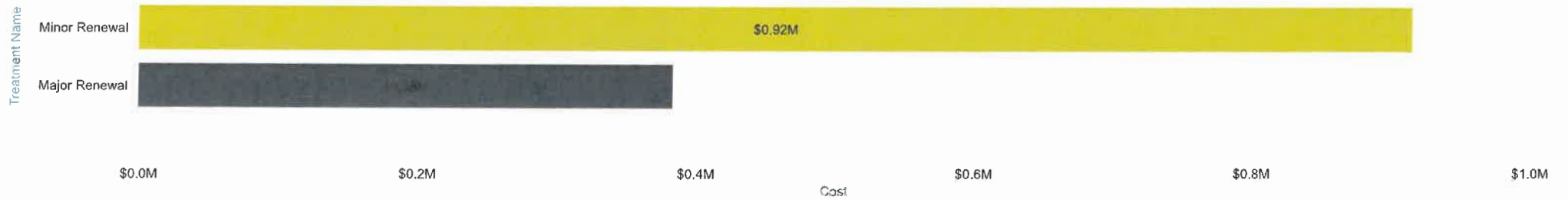
6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
6	PS6 All Pumps	SPE00293	Sewer	Pump Station	All Pumps	All	Major Renewal	\$43,680.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS7 Inlet Wet Well	SPE00344	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 Outlet Wet Well	SPE00351	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 All Pumps	SPE00378	Sewer	Pump Station	All Pumps	All	Major Renewal	\$3,068.00
	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS9 All Pipework	SPE00416	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS9 All Structure Fitting	SPE00418	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	Rising Mains	SM0009	Sewer	Sewer Mains	Sewer Main	Rising Mains	Minor Renewal	\$4,020.00
	STP All Pipework	SPE00506	Sewer	Treatment Plant	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
7	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 All Pumps	SPE00035	Sewer	Pump Station	All Pumps	All	Major Renewal	\$7,800.00
	PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS11 All Pipework	SPE00073	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 Outlet Wet Well	SPE00113	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 All Structure Fitting	SPE00143	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 Inlet Wet Well	SPE00146	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 Outlet Wet Well	SPE00153	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 Inlet Wet Well	SPE00193	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 Outlet Wet Well	SPE00197	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



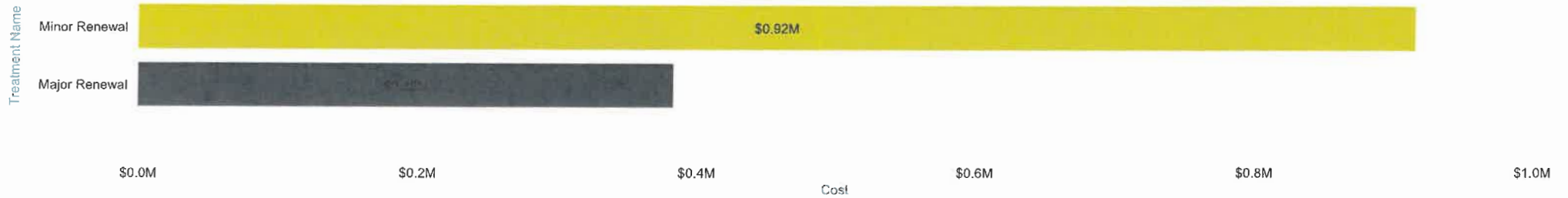
List of Assets

Asset	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
7	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well	SPE00278	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 Outlet Outlet Wet Well	SPE00304	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 Outlet Wet Well	SPE00351	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 All Pipework	SPE00377	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS8 Inlet Wet Well	SPE00382	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS9 Wet Well	SPE00441	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



List of Assets

Asset ID	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
7	Septic Tank Lions Park	SS0015	Sewer	Sewer Mains	Tank	Septic	Minor Renewal	\$420.00
	Treatment Plant Fencing	SPE00511	Sewer	Treatment Plant	Lagoons	Fencing	Minor Renewal	\$14,400.00
8	Maintenance Holes	SN0003	Sewer	Sewer Mains	Sewer Main	Maintenance Holes	Minor Renewal	\$1,200.00
	PS1 All Pipework	SPE00032	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS1 Wet Well	SPE00021	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS10 All Pipework	SPE00034	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 Inlet Wet Well	SPE00078	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
8	PS11 Outlet Wet Well	SPE00081	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS12 All Pipework	SPE00107	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS2 Inlet Wet Well	SPE00146	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Mechanical Fittings	SPE00178	Sewer	Treatment Plant	All Sewer Fittings	Mechanical	Major Renewal	\$3,120.00
	PS3 All Structure Fitting	SPE00182	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS3 Inlet Wet Well	SPE00193	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS4 Inlet Wet Well	SPE00227	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

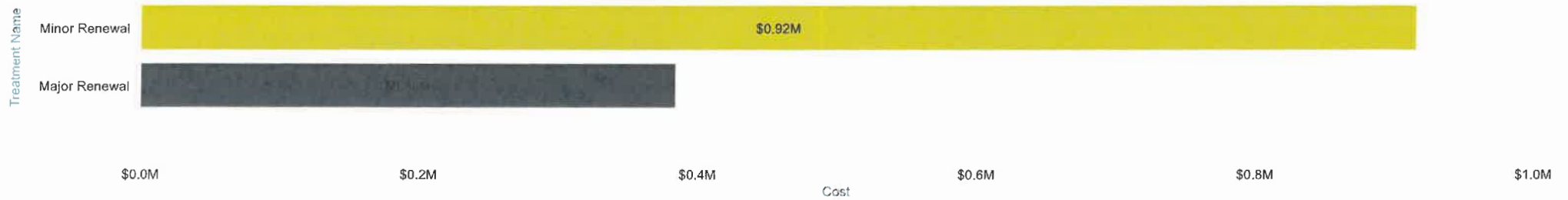
6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
8	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Pipework	SPE00257	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well	SPE00278	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 Outlet Outlet Wet Well	SPE00304	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS7 Inlet Wet Well	SPE00344	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 All Pipework	SPE00377	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



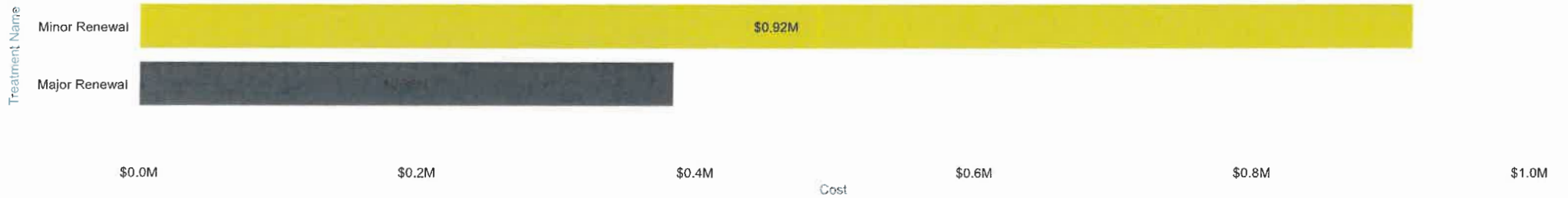
List of Assets

	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
8	PS9 All Pipework	SPE00416	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS9 All Structure Fitting	SPE00418	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS9 Wet Well	SPE00441	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	Rising Mains	SM0009	Sewer	Sewer Mains	Sewer Main	Rising Mains	Minor Renewal	\$4,020.00
	Septic Tank Lions Park	SS0015	Sewer	Sewer Mains	Tank	Septic	Minor Renewal	\$420.00
	STP All Pipework	SPE00506	Sewer	Treatment Plant	All Pipework	All	Minor Renewal	\$832.00
	STP All Structure Fitting	SPE00508	Sewer	Treatment Plant	All Sewer Fittings	Structural	Minor Renewal	\$220.00
9	Gravity Drains	SM0005	Sewer	Sewer Mains	Sewer Main	Gravity Drains	Minor Renewal	\$11,502.80
	Maintenance Holes	SN0003	Sewer	Sewer Mains	Sewer Main	Maintenance Holes	Minor Renewal	\$1,200.00
	PS1 All Pipework	SPE00032	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



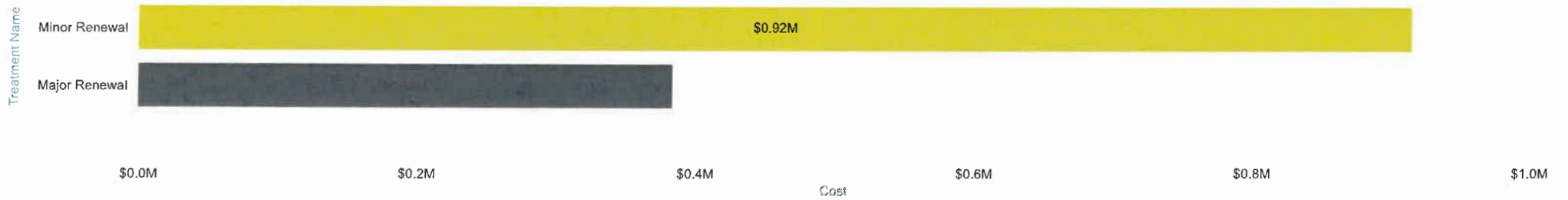
List of Assets

ID	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
9	PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS11 All Pipework	SPE00073	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS11 All Structure Fitting	SPE00075	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS11 Outlet Wet Well	SPE00081	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS12 All Pipework	SPE00107	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS12 Outlet Wet Well	SPE00113	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS2 All Structure Fitting	SPE00143	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS2 Outlet Wet Well	SPE00153	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00

← Indicative Works Prioritisation Details

6 Year \$1.30M Treatment Cost \$9.54M Asset Value 327 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
9	PS4 All Pipework	SPE00222	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS4 All Structure Fitting	SPE00224	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 All Pipework	SPE00257	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS5 Wet Well	SPE00278	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 All Pipework	SPE00292	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS6 Outlet Outlet Wet Well	SPE00304	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 All Pipework	SPE00339	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets								
	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
9	PS7 Outlet Wet Well	SPE00351	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS8 All Pipework	SPE00377	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS8 All Structure Fitting	SPE00379	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS8 Inlet Wet Well	SPE00382	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS9 All Pipework	SPE00416	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS9 All Structure Fitting	SPE00418	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	Rising Mains	SM0009	Sewer	Sewer Mains	Sewer Main	Rising Mains	Minor Renewal	\$4,020.00
	Septic Tank Lions Park	SS0015	Sewer	Sewer Mains	Tank	Septic	Minor Renewal	\$420.00
	STP All Mechanical Fitting	SPE00504	Sewer	Treatment Plant	All Sewer Fittings	Mechanical	Major Renewal	\$6,240.00
	STP All Pipework	SPE00506	Sewer	Treatment Plant	All Pipework	All	Minor Renewal	\$832.00
	STP All Structure Fitting	SPE00508	Sewer	Treatment Plant	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	Treatment Plant Fencing	SPE00511	Sewer	Treatment Plant	Lagoons	Fencing	Minor Renewal	\$14,400.00

← Indicative Works Prioritisation Details

6
Year

\$1.30M
Treatment Cost

\$9.54M
Asset Value

327
Treatments

Treatment Cost by Surface Type



List of Assets

Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
Holes							
PS1 All Structure Fitting	SPE00003	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
PS1 Wet Well	SPE00021	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
PS10 All Pipework	SPE00034	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
PS10 All Structure Fitting	SPE00036	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
PS10 Outlet Wet Well	SPE00040	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
PS11 Inlet Wet Well	SPE00078	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
PS11 Outlet Wet Well	SPE00081	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
PS12 All Structure Fitting	SPE00109	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
PS12 Outlet Wet Well	SPE00113	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
PS2 All Pipework	SPE00141	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
PS2 Inlet Wet Well	SPE00146	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00

← Indicative Works Prioritisation Details

6 \$1.30M \$9.54M 327
 Year Treatment Cost Asset Value Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Unique Asset ID	Asset Class	Asset SubClass	Asset Type	Asset SubType	Treatment Name	Treatment Cost
10	PS2 Outlet Wet Well	SPE00153	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS3 All Pipework	SPE00180	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS3 All Structure Fitting	SPE00182	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS3 Inlet Wet Well	SPE00193	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 Inlet Wet Well	SPE00227	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS4 Outlet Wet Well	SPE00232	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS5 All Pipework	SPE00257	Sewer	Pump Station	All Pipework	All	Minor Renewal	\$832.00
	PS5 All Structure Fitting	SPE00259	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 All Structure Fitting	SPE00294	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00
	PS6 Inlet Wet Well	SPE00300	Sewer	Pump Station	Wet Well	Pit Structure	Minor Renewal	\$7,865.00
	PS7 All Structure Fitting	SPE00341	Sewer	Pump Station	All Sewer Fittings	Structural	Minor Renewal	\$220.00

Marine Structures Strategic Asset Management Framework

BACKGROUND

The objective has been to model the deterioration of Council's marine structures, by developing a simulation models using predictive modelling software.

This process typically involves setting up life cycle paths for each marine structure along with their inspected condition, identifying the appropriate treatments and unit rates to deliver these treatments and configuring the treatment rule base (matrices based on selected condition criteria that when matching will drive a treatment based on the condition).

By utilising this process and setting up the criteria and logic within the predictive modelling software, it has been possible to model the future costs of Council's marine structures renewal requirements and also to predict the future condition of these assets based on the funded expenditure.

SERVICE CRITERIA

Council has adopted a condition assessment methodology to identify marine structure that will enable Council to develop and plan for its forward capital renewal programs. Within the predictive modelling software, the asset condition for marine structure will be reported as OSI (Overall Score Index).

The OSI is scored on a 0 to 6 rating scale with 1 representing a marine structure in very good condition and 5 representing in very poor condition (nearing end of useful life). 0 represents a brand new and 6 a marine structure that has no service potential and/or closed to the public.

MODELLING SCENARIOS & HIGH LEVEL RULE BASE (LEVELS OF SERVICE)

Strategic modelling analysis has been used to predict the deterioration of Council's marine structures under varying funding scenarios. This strategic modelling analysis predicts the deterioration of marine structures, by calculating the results of different intervention levels (levels of service) and funding options, utilising a core dataset that is current as at June 2021. The length of time predicted for each funding option is for a period of 10 years.

The predicted levels of service (LoS) and funding results of the analysis are available in the following reports. These strategic predictive modelling reports recognise that Council has considered multiple scenarios in the process of deriving its long-term financial budget, in line with industry asset management best practice.

RULE BASE

This model serves to illustrate the future predicted marine structures behaviour when all poor to very poor assets (depending on hierarchy) are renewed like for like.

Treatment Name	No	Situation Name	Condition	Cost
Major Renewal	1	Condition >=4	>=4	80% of Replacement Value
Minor Renewal	1	Condition 2 & 3	2 & 3	20% of Replacement Value

FUNDING OPTIONS

Option 1 - Current Budget - What is the predicted future LoS (OSI) if Council allocates over the next 10 years, \$188K per annum. This is similar to capital funding levels provided in the Asset Management Plan 2023-2032

Option 2 - Maintain Levels of Service (LoS) - What is the predicted future LoS (OSI) if Council wants to maintain levels of service across the network over the next 10 years.

Option 3 - Unconstrained Funding - What is the predicted future LoS (OSI) if capital funding each year is unconstrained.

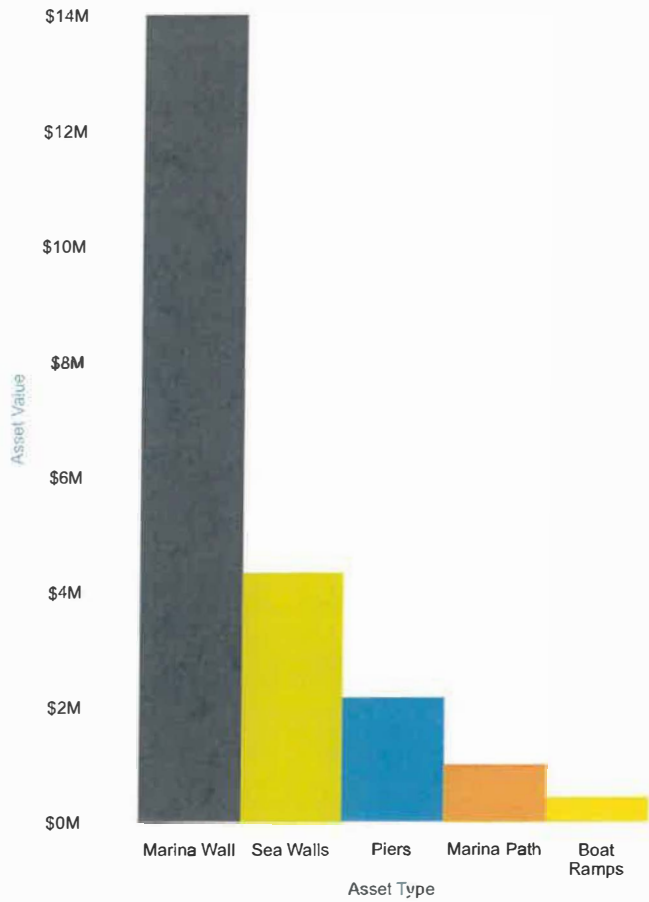
Marine Structures Asset Management Dashboard High Level Summary

Asset Portfolio Value

\$21.91M

Asset Value

Asset Value by Asset Type

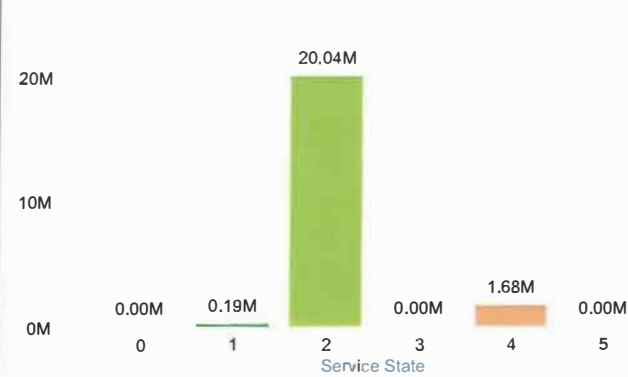


Asset Portfolio Condition

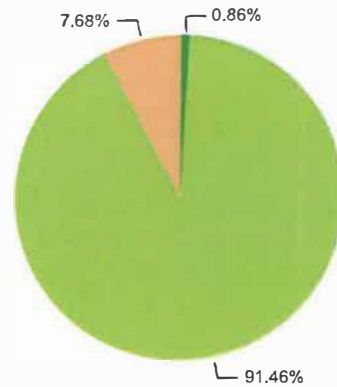
2.14

Average Condition

Condition Distribution By Network Measure (Replacement Value)



Overall Condition



Asset Portfolio Required Expenditure

\$1.88M

Treatment Cost

Treatment Cost by Year



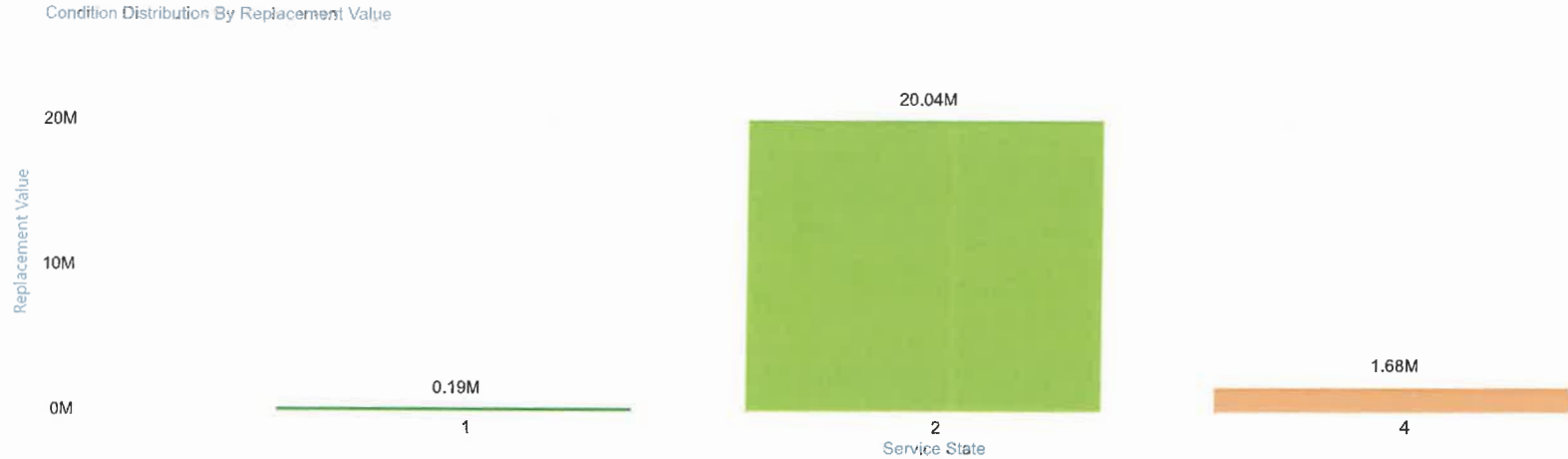
Digital Asset Management Dashboard

State of Assets Report

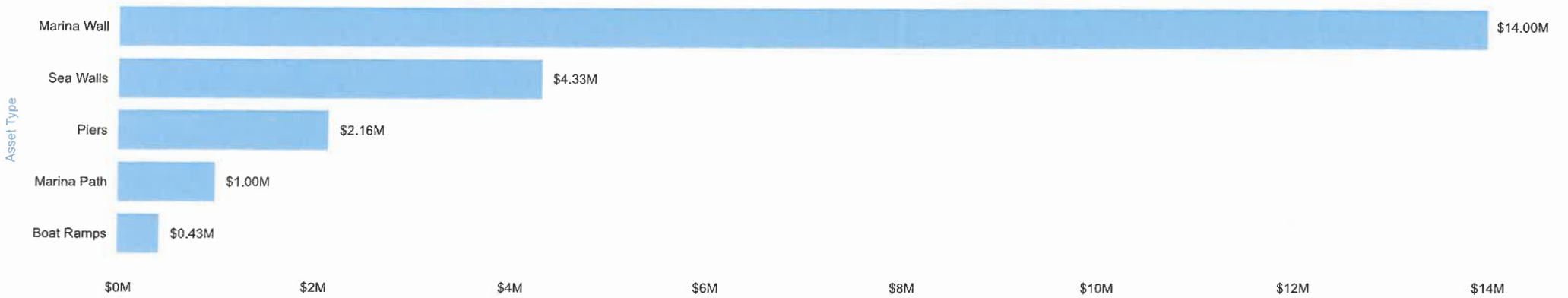
75
Number of Assets

\$21.9M
Asset Value

2.14
Average Condition



Marine Structure Type



Service Level Analysis

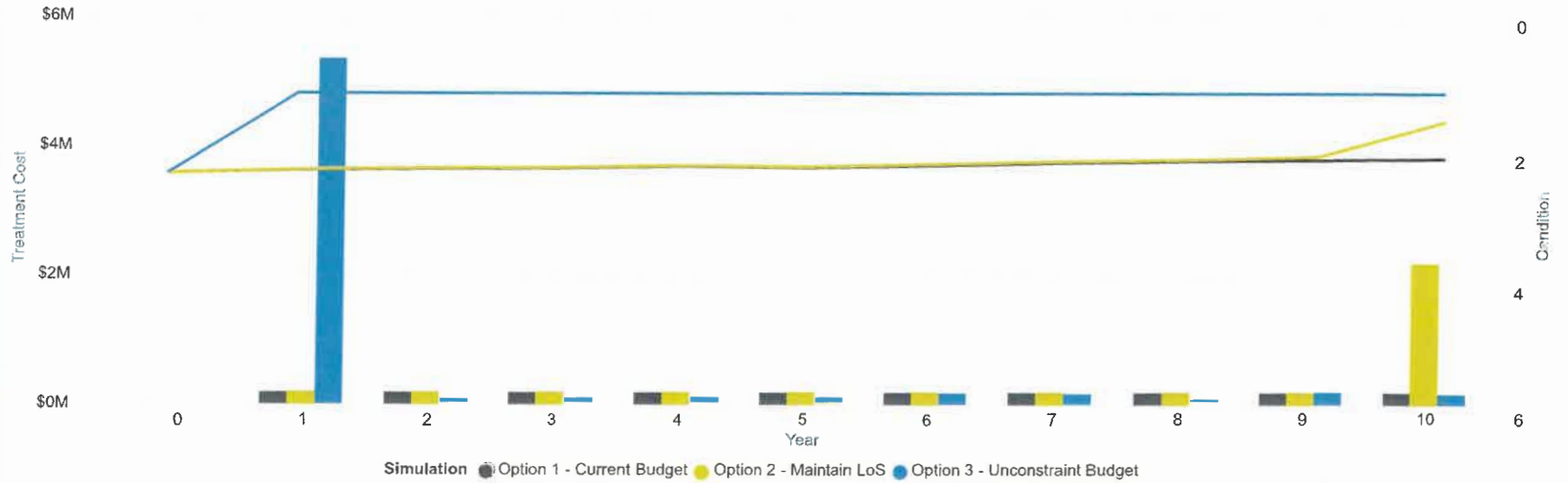
Funding Distribution

Asset Life Cycle

Year-level Comparison

Service-level Comparison

Treatment Cost by Year and Simulation



Service Criteria

OSI

Total Cost and Service Index Score by Year and Simulation

Simulation	Option 1 - Current Budget		Option 2 - Maintain LoS		Option 3 - Unconstraint Budget	
Year	Cost (\$)	Index Score	Cost (\$)	Index Score	Cost (\$)	Index Score
0	\$0	2.14	\$0	2.14	\$0	2.14
1	\$187,796	2.10	\$199,866	2.10	\$5,353,252	0.92
2	\$188,280	2.08	\$199,866	2.07	\$63,065	0.92
3	\$188,280	2.07	\$199,866	2.06	\$71,930	0.92
4	\$188,280	2.04	\$199,866	2.03	\$79,849	0.92
5	\$188,141	2.06	\$199,866	2.05	\$71,930	0.92
6	\$188,280	2.02	\$198,801	2.01	\$180,570	0.92
7	\$187,314	1.98	\$197,935	1.96	\$170,759	0.92
8	\$188,280	1.96	\$197,935	1.94	\$39,996	0.92
9	\$187,920	1.95	\$199,234	1.89	\$200,402	0.92
10	\$187,314	1.93	\$2,199,976	1.35	\$170,196	0.92
Total	\$1,879,825	2.01	\$3,993,214	1.96	\$6,401,948	1.03

Digital Asset Management Dashboard

Net Strategy Analysis

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Asset SubType

All

Asset Class

All

Asset SubClass

All

Asset Name

All

Unique Asset ID

All

\$1,879,885
Total Capital Cost

\$0
Initial Backlog

2.14
Initial OSI

\$9,086,262
Total Maintenance Cost

\$939,649
Final Backlog

1.93
Average Condition

\$10,966,147
Total Cost

\$939,649
Change in Backlog

\$11,905,796
Net Strategy Cost

Service Criteria
 OSI

Year

Asset Type
 All

Asset SubType
 All

Asset Class
 All

Asset SubClass
 All

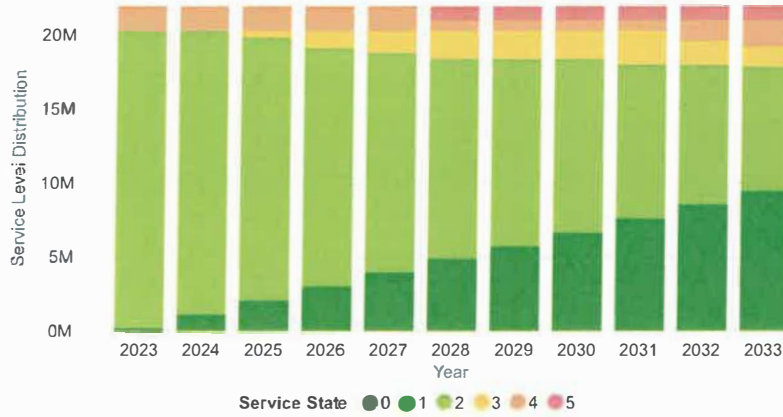
Asset Name
 All

Data Format

Report Type

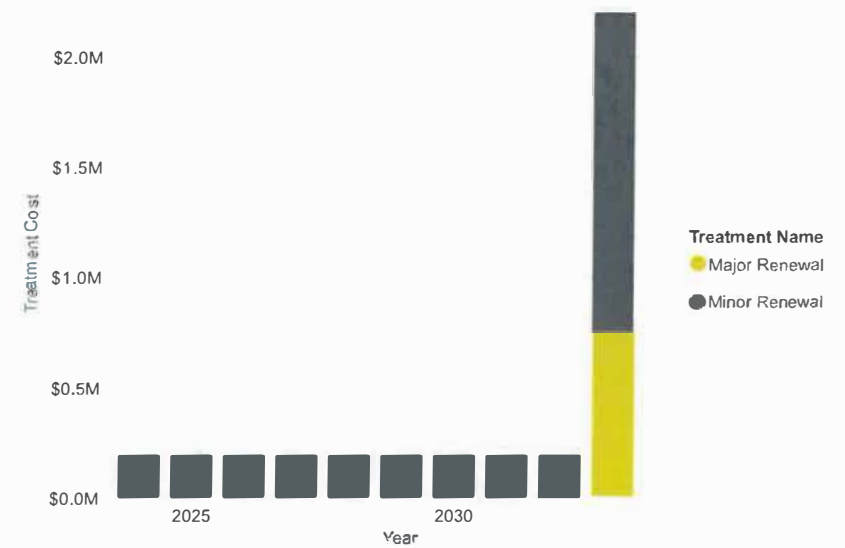
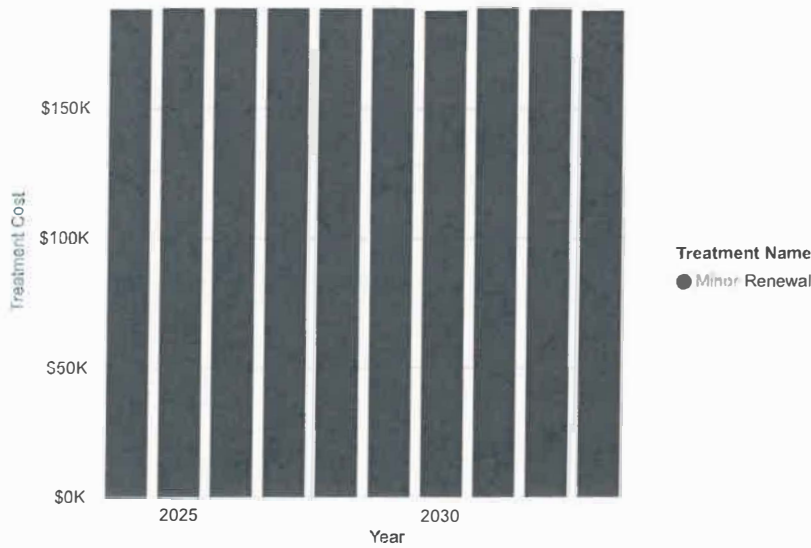
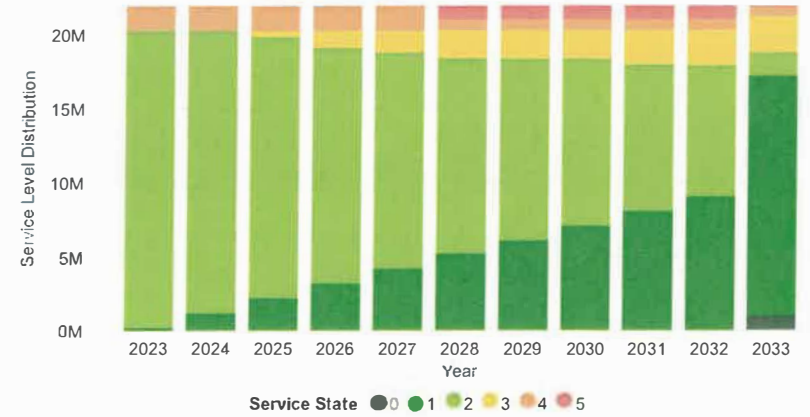
Simulation

Option 1 - Current Budget



Simulation

Option 2 - Maintain LoS



Digital Asset Management Dashboard

Asset Heatmap

Report Type

Asset Quantity

Network Measure

Average Condition Scores by Year

Asset Type	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Boat Ramps	2.00	2.00	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.16	2.32
Marina Path	2.00	1.97	2.00	2.00	2.00	2.00	2.03	2.03	2.03	2.05	2.11
Marina Wall	2.00	1.94	1.87	1.80	1.73	1.67	1.60	1.53	1.47	1.40	1.33
Piers	2.00	2.00	2.16	2.50	2.64	2.83	2.83	2.83	3.00	3.32	3.50
Sea Walls	2.73	2.73	2.73	2.73	2.73	2.95	2.98	2.98	2.98	2.98	2.98

\$21.91M

Asset Value

75

Number of Structures

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Asset SubType

All

Asset Class

All

Asset SubClass

All

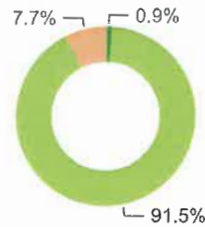
Asset Name

All

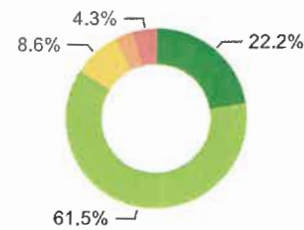
Unique Asset ID

All

Condition Distribution % (Year 0)



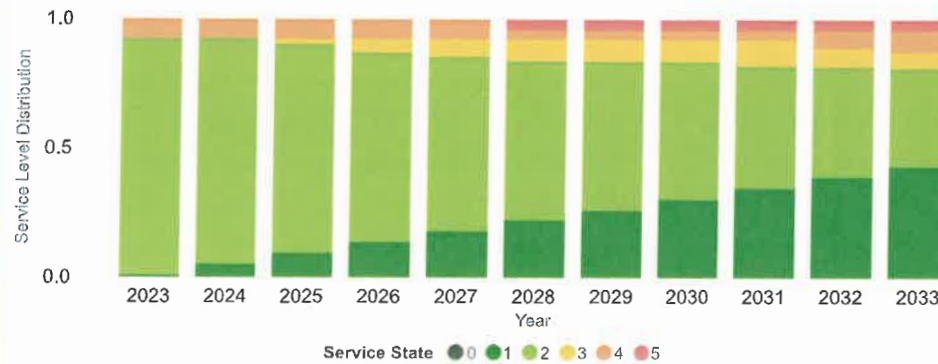
Condition Distribution % (Year 5)



Condition Distribution % (Year 10)



Service Level by Year and Service State



Year	0	1	2	3	4	5
0	0.00%	0.86%	91.46%	0.00%	7.68%	0.00%
1	0.00%	5.14%	87.18%	0.00%	7.68%	0.00%
2	0.00%	9.44%	80.89%	2.00%	7.68%	0.00%
3	0.00%	13.74%	73.22%	5.37%	7.68%	0.00%
4	0.00%	18.04%	67.48%	6.81%	7.68%	0.00%
5	0.00%	22.24%	61.48%	8.60%	3.39%	4.29%
6	0.00%	25.94%	57.64%	8.74%	3.39%	4.29%
7	0.00%	30.22%	53.36%	8.74%	3.39%	4.29%
8	0.00%	34.51%	47.34%	10.47%	3.39%	4.29%
9	0.00%	38.80%	42.82%	7.53%	6.56%	4.29%
10	0.00%	42.94%	38.21%	6.21%	8.35%	4.29%

Digital Asset Management Dashboard

Asset Heatmap

Average Condition Scores by Year

Simulation

- Option 1 - Current Budget
- Option 2 - Maintain LoS
- Option 3 - Unconstraint Budget

Year

0 10

Asset Type

All

Asset SubType

All

Asset Class

All

Asset SubClass

All

Asset Name

All

Unique Asset ID

All

Asset Name	Asset Type	Asset SubType	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Cape Jaffa North Groyne	Sea Walls	Breakwater	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Cape Jaffa Pontoon 1	Piers	Pontoon	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cape Jaffa Pontoon 2	Piers	Pontoon	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00
Cape Jaffa Pontoon 3	Piers	Pontoon	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Cape Jaffa South Groyne	Sea Walls	Breakwater	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Kingston Boat Ramp 1	Boat Ramps	Boat Ramps	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Kingston Boat Ramp 2	Boat Ramps	Boat Ramps	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
Kingston North Groyne	Sea Walls	Breakwater	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Kingston Pontoon 1	Piers	Pontoon	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	4.00
Kingston Pontoon 2	Piers	Pontoon	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
Kingston Pontoon 3	Piers	Pontoon	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
Kingston South Groyne	Sea Walls	Breakwater	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00
Marina (cape Jaffa) Boat Ramp	Boat Ramps	Boat Ramps	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 1	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 10	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 11	Marina Path	Pathway	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Marina Path 12	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 13	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 14	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 15	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 16	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 17	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00
Marina Path 18	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Marina Path 19	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 2	Marina Path	Pathway	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Marina Path 20	Marina Path	Pathway	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

← Works Prioritisation Details

6 Year \$1.88M Treatment Cost \$9.40M Asset Value 28 Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Asset Type	Asset SubType	Suburb	Unique Asset ID	Treatment Name	Treatment Cost
1	Marina Path 11	Marina Path	Pathway	Cape Jaffa	MS0048	Minor Renewal	\$6,274.52
	Marina Wall - 13	Marina Wall	Block Wall	Cape Jaffa	MS0013	Minor Renewal	\$92,691.65
	Marina Wall - 15	Marina Wall	Block Wall	Cape Jaffa	MS0015	Minor Renewal	\$88,829.50
2	Marina Wall - 16	Marina Wall	Block Wall	Cape Jaffa	MS0016	Minor Renewal	\$54,070.13
	Marina Wall - 24	Marina Wall	Block Wall	Cape Jaffa	MS0024	Minor Renewal	\$61,794.43
	Marina Wall - 3	Marina Wall	Block Wall	Cape Jaffa	MS0003	Minor Renewal	\$72,415.35
3	Marina Wall - 19	Marina Wall	Block Wall	Cape Jaffa	MS0019	Minor Renewal	\$60,828.89
	Marina Wall - 34	Marina Wall	Block Wall	Cape Jaffa	MS0034	Minor Renewal	\$47,311.36
	Marina Wall - 4	Marina Wall	Block Wall	Cape Jaffa	MS0004	Minor Renewal	\$80,139.65
4	Marina Wall - 14	Marina Wall	Block Wall	Cape Jaffa	MS0014	Minor Renewal	\$105,243.64
	Marina Wall - 28	Marina Wall	Block Wall	Cape Jaffa	MS0028	Minor Renewal	\$83,036.27
5	Marina Path 29	Marina Path	Pathway	Cape Jaffa	MS0066	Minor Renewal	\$3,723.52
	Marina Wall - 10	Marina Wall	Block Wall	Cape Jaffa	MS0010	Minor Renewal	\$94,622.72
	Marina Wall - 8	Marina Wall	Block Wall	Cape Jaffa	MS0008	Minor Renewal	\$86,705.00

← Works Prioritisation Details

6 Year \$1.88M Treatment Cost \$9.40M Asset Value 28 Treatments

Treatment Cost by Surface Type



List of Assets

Asset ID	Asset Name	Asset Type	Asset SubType	Subsite	Unique Asset ID	Treatment Name	Treatment Cost
5	Marina Wall - 8	Marina Wall	Block Wall	Cape Jaffa	MS0008	Minor Renewal	\$89,795.03
6	Marina Wall - 2	Marina Wall	Block Wall	Cape Jaffa	MS0002	Minor Renewal	\$132,278.71
	Marina Wall - 35	Marina Wall	Block Wall	Cape Jaffa	MS0035	Minor Renewal	\$56,001.20
7	Marina Wall - 18	Marina Wall	Block Wall	Cape Jaffa	MS0018	Minor Renewal	\$82,070.73
	Marina Wall - 27	Marina Wall	Block Wall	Cape Jaffa	MS0027	Minor Renewal	\$105,243.64
8	Marina Wall - 33	Marina Wall	Block Wall	Cape Jaffa	MS0033	Minor Renewal	\$46,345.82
	Marina Wall - 36	Marina Wall	Block Wall	Cape Jaffa	MS0036	Minor Renewal	\$82,070.73
	Marina Wall - 9	Marina Wall	Block Wall	Cape Jaffa	MS0009	Minor Renewal	\$59,863.36
9	Marina Path 18	Marina Path	Pathway	Cape Jaffa	MS0055	Minor Renewal	\$6,126.64
	Marina Path 28	Marina Path	Pathway	Cape Jaffa	MS0065	Minor Renewal	\$1,237.65
	Marina Wall - 22	Marina Wall	Block Wall	Cape Jaffa	MS0022	Minor Renewal	\$135,175.32
	Marina Wall - 7	Marina Wall	Block Wall	Cape Jaffa	MS0007	Minor Renewal	\$45,380.29
10	Marina Wall - 21	Marina Wall	Block Wall	Cape Jaffa	MS0021	Minor Renewal	\$56,001.20



Works Prioritisation Details

6
Year

\$1.88M
Treatment Cost

\$9.40M
Asset Value

28
Treatments

Treatment Cost by Surface Type



List of Assets

Year	Asset Name	Asset Type	Asset SubType	Location	Unique Asset ID	Treatment Name	Treatment Cost	
6	Marina Wall - 35	Marina Wall	Block Wall	Cape Jaffa	MS0035	Minor Renewal	\$56,001.20	
7	Marina Wall - 18	Marina Wall	Block Wall	Cape Jaffa	MS0018	Minor Renewal	\$82,070.73	
	Marina Wall - 27	Marina Wall	Block Wall	Cape Jaffa	MS0027	Minor Renewal	\$105,243.64	
8	Marina Wall - 33	Marina Wall	Block Wall	Cape Jaffa	MS0033	Minor Renewal	\$46,345.82	
	Marina Wall - 36	Marina Wall	Block Wall	Cape Jaffa	MS0036	Minor Renewal	\$82,070.73	
	Marina Wall - 9	Marina Wall	Block Wall	Cape Jaffa	MS0009	Minor Renewal	\$59,863.36	
9	Marina Path 18	Marina Path	Pathway	Cape Jaffa	MS0055	Minor Renewal	\$6,126.64	
	Marina Path 28	Marina Path	Pathway	Cape Jaffa	MS0065	Minor Renewal	\$1,237.65	
	Marina Wall - 22	Marina Wall	Block Wall	Cape Jaffa	MS0022	Minor Renewal	\$135,175.32	
	Marina Wall - 7	Marina Wall	Block Wall	Cape Jaffa	MS0007	Minor Renewal	\$45,380.29	
10	Marina Wall - 21	Marina Wall	Block Wall	Cape Jaffa	MS0021	Minor Renewal	\$56,001.20	
	Marina Wall - 23	Marina Wall	Block Wall	Cape Jaffa	MS0023	Minor Renewal	\$75,311.96	
	Marina Wall - 26	Marina Wall	Block Wall	Cape Jaffa	MS0026	Minor Renewal	\$56,001.20	