city of Victor Harbor

Asset Management Plan #01 Bridges, Stormwater, Kerb and Channel

November 2025

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Summary

Overview

This Asset Management Plan provides for effective and responsible management of bridge, stormwater, kerb and channel assets, their replacement cycles and funding requirements. The Plan incorporates information from a variety of sources including data stored in Council's Asset Register and should be read in conjunction with the Asset Management Policy. All financial values within the plan are in present day values (March 2025).

Council has a network of 52 bridges made up of culverts, footbridges, boardwalks, platforms and road bridges with a replacement cost of $29,732,229 as at 30 June 2024. Forecast capital expenditure over the term of this Plan is $2,120,000.

Council has a stormwater network of over 99 kilometres including drains, pipes and other stormwater structures with a replacement cost of $64,292,058 as at 30 June 2024. Forecast capital expenditure over the term of this Plan is $21,656,000

Council has a kerb and channel network made up of over 275 lineal kilometres of kerb, gutter and spoon drains with a replacement cost of $51,856,521 as at 30 June 2024. Forecast capital expenditure over the term of this Plan is $2,800,000

The combined expenditure for all of these asset classes over the period of the Plan is $26,576,000 with the annual breakdown provided in the table below:

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000	**10 year Total $'000**
Renewal and Replacement										
300	350	1,180	360	2,430	2,430	430	1,430	1,430	1,430	**11,770**
New and Upgrade										
1,270	2,184	1,744	3,144	1,144	1,144	744	2,144	644	644	**14,806**
Total Capital Expenditure										
1,570	**2,534**	**2,924**	**3,504**	**3,574**	**3,574**	**1,174**	**3,574**	**2,074**	**2,074**	
TOTAL EXPENDITURE OVER TERM OF PLAN										**$26,576**

The impacts of climate change, including sea level rise, coastal inundation and erosion, extreme temperatures, and flood risk, continue to be assessed as new information is gathered. The Plan will be updated as new data becomes available.

Project Selection

Projects are selected for inclusion in Asset Management Plans (AMPs) based on several factors.

Renewal and replacement projects are determined by risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs.

New and upgrade projects are identified from various sources including strategic plans of Council, community or Council Member requests, grant funding availability and partnership proposals from other organisations.

Council is committed to the replacement of existing assets as per the life cycle and condition rating of the asset. The expectation is that all renewal and replacement projects will be fully funded in Council's Long Term Financial Plan in line with optimal replacement cycles.

New and upgrade projects included in these AMPs exceed Council's ability to fund sustainably without external contributions from grants and/or private partnerships.

An annual review of the projects in the AMPs will be undertaken to re-assess the optimal replacement schedule and re-prioritise works in consideration of community needs, risk assessments, external factors and funding opportunities. This review will form part of the Annual Business Plan and Budget process.

The appendices to this document provide a list of the capital projects under consideration with timing and budget estimates. In line with the review above, these estimates are subject to change and the appendices will remain in draft as they are working documents.

Feedback from public consultation may affect the timing of the projects. Projects will be confirmed once the Annual Business Plan and Budget has been adopted by Council each year.

Bridges

Our Assets

Council provides a bridge network to enable safe, well maintained, fit for purpose crossings in accordance with Council's strategic aspirations:

Aspiration 5

We have services and infrastructure that meet our community's needs

The bridge network comprises 52 bridges and major culverts made up of five asset subclasses:



Culverts x 9
(Mont Rosa Bridge - 1981)



Platform x 3
Boardwalk x 12
Footbridge x 13
(Encounter Bikeway - 2004)



Road Bridge x 15
(Sawpit Road Bridge - 1972

These subclasses are further broken down into a number of components including super structure, sub-structure, surface, deck and rail. Each component has an individual replacement value based on the construction material, utilisation levels and industry pricing.

Levels of Service

Levels of service for bridge assets are defined in relation to both community and technical requirements. The assets are assessed in terms of quality, function and capacity.

The City of Victor Harbor aims to maintain bridge assets at a condition rating of < 3.

Current levels of service and performance measures for each asset per annum (p/a) are provided in the table below:

Service Level *	Description	Measurement Process	Desired Level of Service
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Community Feedback	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Maintenance requirements	< 1 reactive works p/a
Function	Fit for purpose	Meets standards and design specifications	Compliant
Capacity	Traffic Flow	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Flooding	Continued use of vehicle bridges during rain events	< 1 bridge inundation (excluding floodways)

**Major emergencies and disaster events are excluded from the service level measurement*

A service level hierarchy is also used to prioritise competing works dependent on utilisation rates of the assets (how many people are affected) and risk assessments.

Valuation

Bridge assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The last revaluation for Bridge Assets was undertaken in 2023/24.

The bridge subclass recorded in the Asset Register as at 30 June 2024 that are covered by this Plan include:

- Boardwalk
- Culvert
- Footbridge
- Platform
- Road Bridge

The total value of bridge assets recorded in the Asset Register as at 30 June 2024 that are covered by this Plan is shown in the table below:

Replacement Value	Accumulated Depreciation	Written Down Value
$30,568,650	**$9,286,172**	**$21,282,478**

Useful Lives

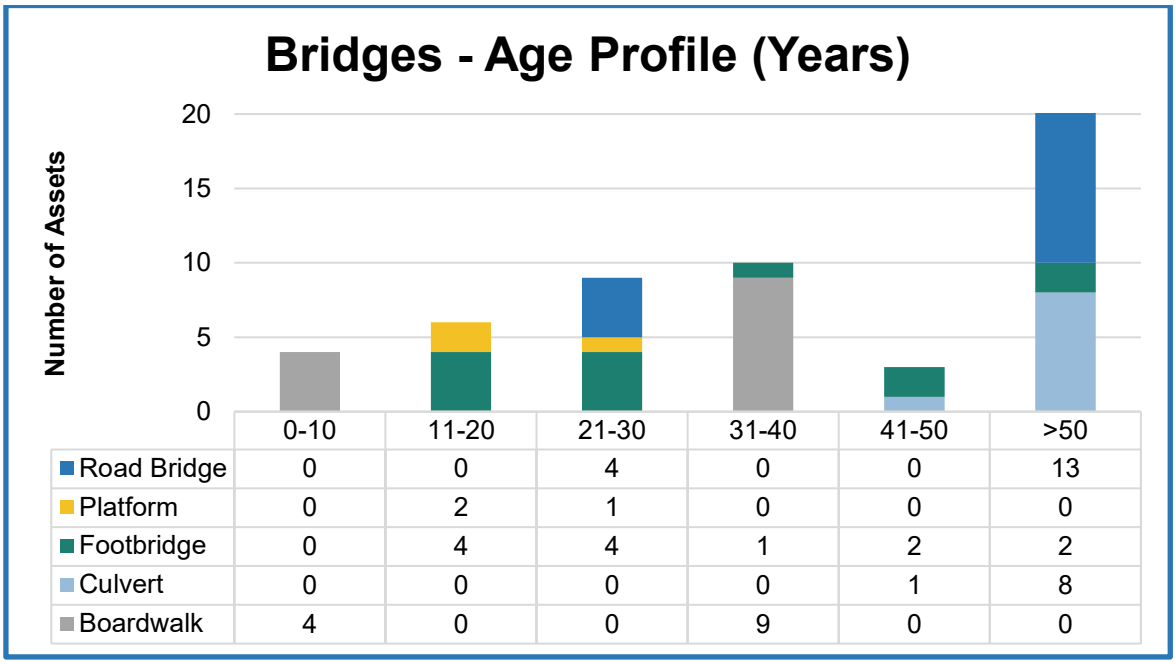
Useful lives of bridge assets are determined at the component level and are provided in the table below:

Component Name	Description (Material)	Useful Life (Years)
Deck Main	PSC Deck unit, RC Deck slab, timber cross	40 to 80
Rail Main	W Beam, Parapet, Pedestrian	25 to 80
Sub Structure Main	Culvert, Columns, Pier Wall	25 to 100
Super Structure Main	RC Slab, Girder, Beam, Deck Unit	25 to 100
Surface Main	Formed Gravel, Spray Seal, Asphalt, Concrete	10 to 30

The useful life sets the depreciation rate, net of any residual values of the asset at end of life. The average useful life for all bridge assets is 50 years, with the minimum useful life set at 10 years and the maximum set at 93 years.

Age Profile

The age profile of bridge assets is determined by the principal component and construction date. The age profile of bridges is provided in the graph below:



	0-10	11-20	21-30	31-40	41-50	>50
Road Bridge	0	0	4	0	0	13
Platform	0	2	1	0	0	0
Footbridge	0	4	4	1	2	2
Culvert	0	0	0	0	1	8
Boardwalk	4	0	0	9	0	0

The average age of all BRIDGE assets is 42 years

Bridge and culvert assets range in age from 11 years to 79 years with the majority of road bridges over 50 years old. The minimum, maximum and average age by subclass is provided in the table below:

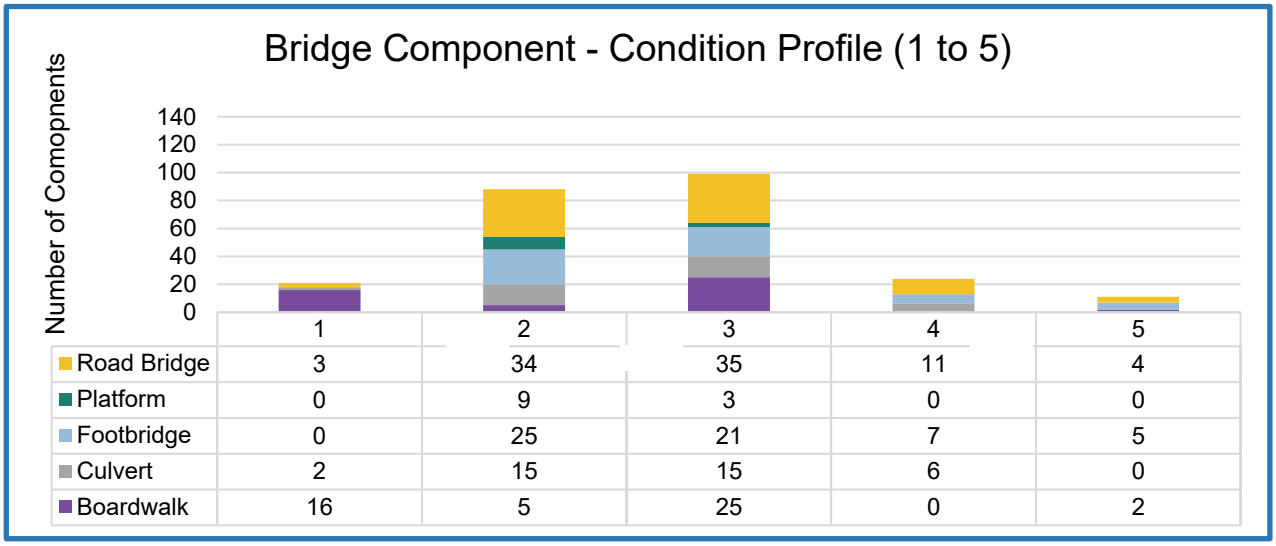
Asset Subclass	Minimum	Maximum	Average
Major Culvert	43	79	66
Footbridge	11	53	28
Road Bridge	25	79	58

Condition Profile

Condition of bridge assets is monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints, as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of bridge assets is determined by the components and the construction materials with the condition ratings demonstrated below:



	1	2	3	4	5
Road Bridge	3	34	35	11	4
Platform	0	9	3	0	0
Footbridge	0	25	21	7	5
Culvert	2	15	15	6	0
Boardwalk	16	5	25	0	2

The average condition rating of BRIDGE assets components is 2.6

Bridges components with a condition rating of 2 or less make up 44% of the components within the asset class, with 41% at condition rating 3 and 4.5% at condition rating 5.

Forecast Expenditure

Forecast expenditure over the next ten years totals $2,120,000. This is made up of 93% renewal and replacement works and 7% new and upgrade works. The average annual spend over the ten-year plan is $212,000 per year.

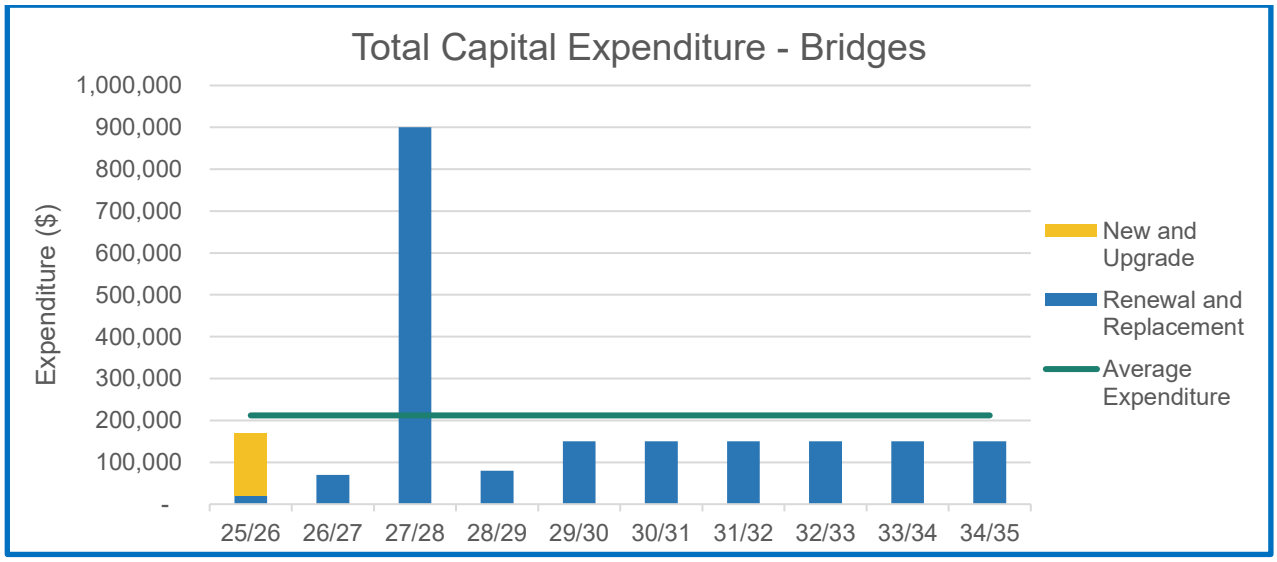
Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes.

Renewal and replacement applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful life does not constitute an increase in capacity.

New and upgrade applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for bridges is length and width (m²).

In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



The 2027/28 financial year spike is due to the replacement of the Keen Road Bridge (# 15) at an estimated cost of $900,000.

Capital - Renewal and Replacement

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of a bridge asset is typically undertaken to ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (i.e. a bridge with a 5t load limit) or to ensure that it is of sufficient quality to meet the service requirements (i.e. roughness of a road).

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting are summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	60%
Risk Rating (residual high or extreme)	30%
Utilisation	10%
Total	**100%**

Forecast expenditure on renewal and replacement of bridge assets over the next ten years totals $1,970,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Bridges at Appendix A.

The most recent condition assessment for bridge assets was undertaken in 2023/24. The renewal and replacement recommendations from the report will inform the forecast expenditure in the next review of the plan.

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
265	72	928	82	155	155	155	155	155	155
								Total Expenditure of Renewal / Replacement	**$2,275**

Capital - New and Upgrade

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or Council Member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting are summarised in the table below:

Criteria	Weighting
Public Need	70%
Risk	10%
Utilisation	20%
Total	**100%**

Forecast expenditure on new and upgrades of bridge assets over the next ten years totals $150,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Bridges at Appendix A.

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
150	-	-	-	-	-	-	-	-	-
								Total Expenditure on New / Upgrade	**$150**

Operating – Repairs and Maintenance

Repairs and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service level and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Operating expenditure on bridge assets has been extracted from a range of accounts to provide approximate spending levels for the previous ten years as below:

2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000	2022/23 $ '000	2023/24 $ '000
35	22	82	-	33	19	17	5	7	15

This represents an average spend over the ten years of $23,335 per year. The bridge maintenance budgets have been reduced over several recent years to finds savings in the operating budget. This historic expenditure is not sufficient to meet the maintenance requirements for these assets as per condition assessment reports.

Forecast operating expenditure for this asset class is as follows:

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
$30	$30	$35	$35	$35	$35	$35	$35	$35	$35

Climate Change

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

Stormwater studies currently being undertaken will identify any bridge assets at risk, from storm events or projected sea level rise, and provide recommendations for actions that may need to be taken within the next 10 years to reduce the impacts of climate change on the bridge assets. These recommendations will be included in the next review of the Asset Management Plan.

Improvement Plan

The asset management improvement tasks identified for bridge asset management maturity are as follows:

Task	Description	Responsibility	Timeline
1	Annually review Council's Strategic Project Register to identify new bridge projects to be incorporated in the Asset Management Plans	Council Administration with Council Members in a briefing session	October/November each year
2	Annually review the 10 year capital works program, renewals and new to consider changes from the current endorsed budget, emerging issues, priorities and grant funding opportunities	Council Administration with Council Members in a briefing session	October/November each year
3	Include confidence levels of bridge data in Asset Management Plans	Council Administration	To be included in 2025/26 review
4	Review Long term Financial Plan to ensure that Asset Management Plans align	Council Administration	Prior to draft documents being presented to Audit and Risk Committee for review in January/February each year
5	Undertake Level 2 bridge assessment and full revaluation of bridge assets every 4 to 5 years in accordance with the asset revaluation schedule	Council Administration undertaken by external consultants	Previous revaluation was undertaken in 2023/24 and next full revaluation is scheduled for 2026/27
6	Identify actions that may need to be taken within the next 10 years to reduce the impacts of climate change on the bridge assets	Council Administration	Ongoing
7	Explore options within the new corporate system Strategic Asset Management (SAM) module to help plan and manage bridge assets	Council Administration	Ongoing

Stormwater

Our Assets

Council provides a stormwater network to enable a safe, well maintained, fit for purpose stormwater system in accordance with Council's strategic aspiration:

Aspiration 5

We have services and infrastructure that meet our community's needs

The stormwater system includes the following asset categories:





Stormwater Drains



Stormwater End Structures





Stormwater Pits

Stormwater assets are made up of 6,583 individual assets (segments) within the register representing a stormwater system of 99 kilometres broken down into asset types as below:

Asset Category	Asset Type
Stormwater Drains	Box, Pipe and Road Culverts, Headwalls, Open Channel and Pipes
Stormwater End Structures	Drop structures and Retention Basins
Stormwater Pits	Field Gully, Gross Pollutant and Storm Traps Grated Inlet, Junction, Letter Box and Side Entry Pits
Levee Banks	Levees

Levels of Service

Levels of service for stormwater assets are defined in relation to both community and technical requirements. The assets are assessed in terms of quality, function and capacity.

The City of Victor Harbor aims to maintain stormwater assets at a condition rating of < 3.

Current levels of service and performance measures for each asset per annum (p/a) are provided in the table below:

Service Level *	Description	Measurement Process	Desired Level of Service
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Community Feedback	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Maintenance requirements	< 1 reactive works p/a (excluding pit lids)
Function	Fit for purpose	Meets standards and design specifications	Compliant
		New subdivision and development impacts investigated during planning approval	Developers contributions required for increased capacity requirements
Capacity	Blockages	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Flooding	Customer service requests and complaints requiring action	< 1 inundation of living space p/a

**Major emergencies and disaster events are excluded from the service level measurement.*

A service level hierarchy is also used to prioritise competing works dependent on utilisation rates of the assets (how many properties are affected) and risk assessments.

Valuation

Stormwater assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The next revaluation of Stormwater Assets is included in the revaluation scheduled to be undertaken in 2024/25.

The assets by stormwater category recorded in the Asset Register include:

- Stormwater Drains
- Stormwater End Structures
- Stormwater Pits
- Levee Banks

The total value of assets by stormwater category recorded in the Asset Register as at 30 June 2024 that are covered by this Plan are shown in the table below:

Replacement Value	Accumulated Depreciation	Written Down Value
$64,292,058	**$17,534,516**	**$46,757,542**

Useful Lives

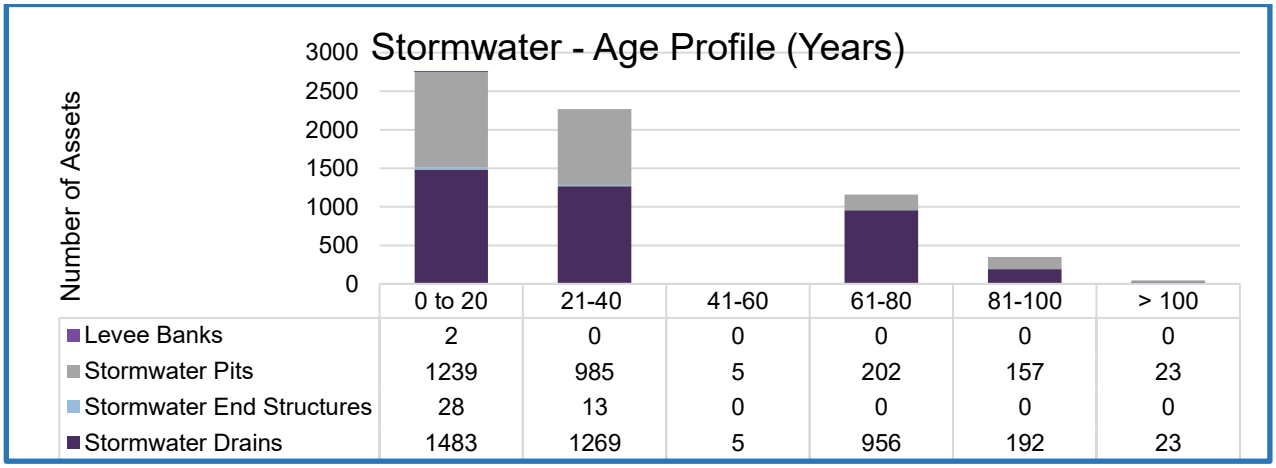
Useful lives of stormwater assets are as shown in the table below:

Asset Type	Useful Life (Years)
Stormwater Drains	120
Stormwater End Structures	100
Stormwater Pits	120
Levee Banks	100

The useful life sets the depreciation rate, net of any residual values of the asset at end of life. The average useful life for all stormwater water assets is 114 years, with the minimum useful life set at 100 years and the maximum set at 125 years.

Age Profile

The age profile of stormwater assets is determined by the construction date, and is illustrated in the graph below:



Stormwater assets range in age from 0 years to 125 years, with minimum, maximum and average ages provided in the table below:

Asset Type	Minimum Age	Maximum Age	Average Age
Stormwater Drains	0	125	36
Stormwater End Structures	8	36	19
Stormwater Pits	0	125	27
Levee Banks	13	13	13

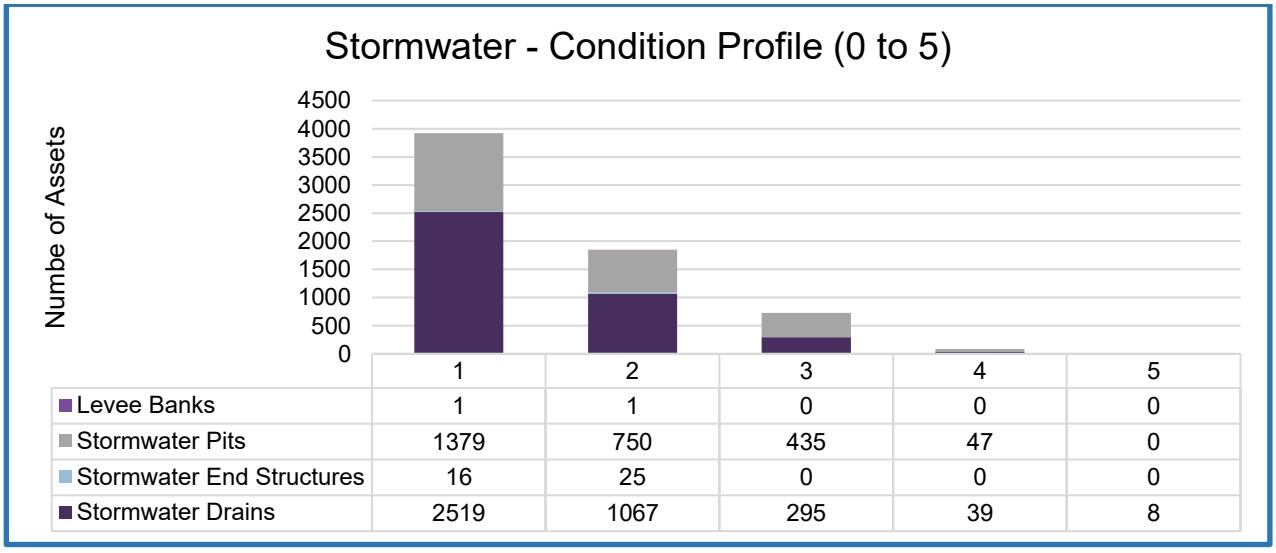
The average age of all STORMWATER assets is 33 years

Condition Profile

The condition of stormwater assets is monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints, as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of stormwater assets is determined by the components and the construction materials with the condition ratings demonstrated in the graphs below:



	1	2	3	4	5
Levee Banks	1	1	0	0	0
Stormwater Pits	1379	750	435	47	0
Stormwater End Structures	16	25	0	0	0
Stormwater Drains	2519	1067	295	39	8

Assets with a condition rating of 3 or less make up 98.6% of the total class with 1.3% at condition rating 4 and 0.1% at condition rating 5.

The average condition rating for STORMWATER assets is 1.8

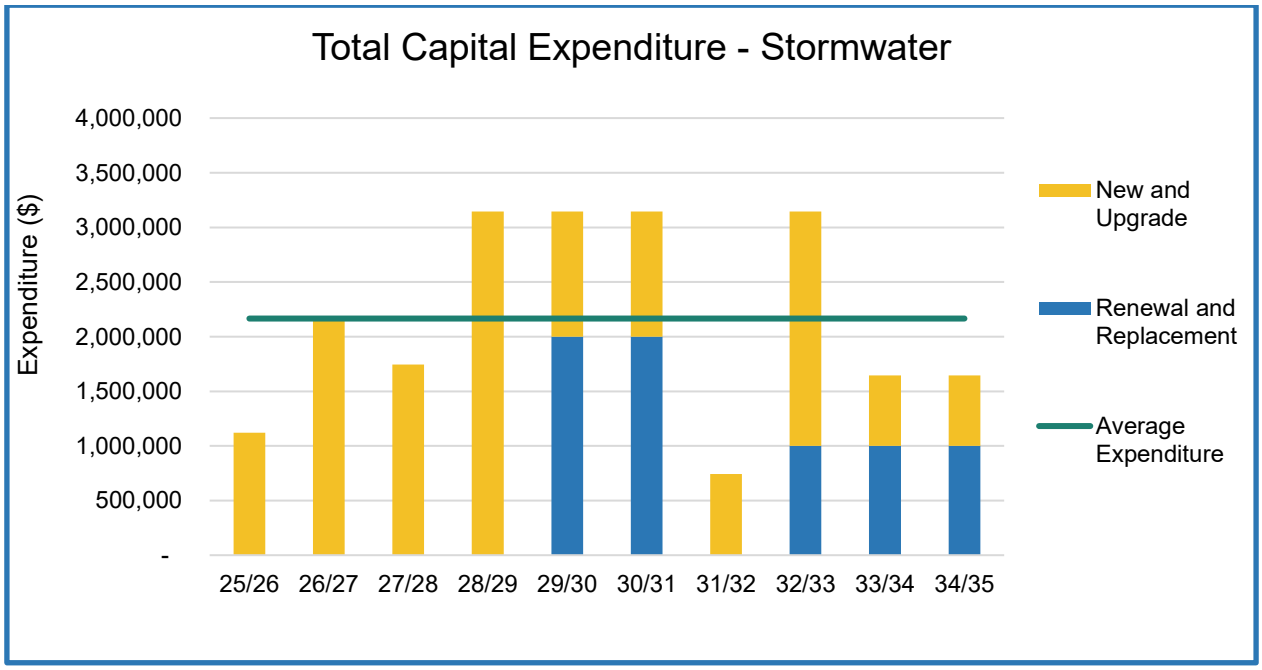
Forecast Expenditure

Forecast expenditure over the next ten years totals $21,656,000. This is made up of 32% renewal and replacement works and 68% new and upgrade works. The average annual spend over the ten-year plan is $2,165,600 per year.

Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes. *Renewal and replacement* applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful lives does not constitute an increase in capacity. *New and upgrade* applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for stormwater is size (pipe diameter, single / double entry pits).

In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



Significantly higher than average expenditure is expected in the following years due to major stormwater construction projects:

- 2028/29 - Fell Street/ Hope Street/ Simpons Avenue - $3,000,000
- 2029/30 and 2030/31 - Acraman Street (Hill St/Hinkler St) - $6,000,000
- 2032/33 – Tabernacle Road - $3,000,000

These high value stormwater expansion projects have been identified in the Urban Stormwater Management Plan and the construction is subject to grant funding.

Capital – Renewal and Replacement

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of a stormwater asset is typically undertaken to ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate or to ensure that it is of sufficient quality to meet the service requirements.

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting are summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	70%
Risk Rating (residual high or extreme)	30%
TOTAL	**100%**

Forecast expenditure on renewal and replacement of stormwater assets over the next ten years totals $7,000,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Stormwater at Appendix B.

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
-	-	-	-	2,000	2,000	-	1,000	1,000	1,000
								Total Expenditure on Renewal / Replacement	**$7,000**

Capital – New and Upgrade

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials used is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or elected member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

The recent endorsement of the Urban Stormwater Management Plan has enable the priorities for Stormwater Upgrades has been reviewed and the 10 year capital works plan has been updated.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting are summarised in the table below:

Criteria	Weighting
Capacity	60%
Risk (residual high or extreme)	30%
Condition	10%
Total	**100%**

Forecast expenditure on new and upgrade of stormwater assets over the next ten years totals $14,656,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Stormwater at Appendix B.

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
1,120	2,184	1,744	3,144	1,144	1,144	744	2,144	644	644
								Total Expenditure on New / Upgrade	**$14,656**

Operating – Repairs and maintenance

Repairs and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service levels and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Operating expenditure on stormwater assets over the previous ten years is provided below:

2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000	2022/23 $ '000	2023/24 $ '000
110	144	93	150	178	155	100	341	120	215

This represents an average spend over the ten years of $161,900 per year. This historic expenditure has been used as a base to forecast the maintenance expenditure requirements for the next ten years as well as an increase for maintenance on new assets.

Forecast operating expenditure for this asset class is as follows:

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
142	150	152	164	169	175	183	195	196	196

Climate Change

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

Stormwater assets are generally underground however there is likely to be a number of inlet pits or outlets that are currently at a lower level than projected sea level rise.

Recent studies have identified stormwater assets at risk, from storm events or projected sea level rise, and provide recommendations for actions that may need to be taken within the next 10 years to reduce the impacts of climate change on the stormwater assets. These recommendations will continue to be included in the future reviews of the Asset Management Plan.

Improvement Plan

The asset management improvement tasks identified for stormwater asset management maturity are as follows:

Task	Description	Responsibility	Timeline
1	Annually review Council's Strategic Project Register to identify new stormwater projects to be incorporated in the Asset Management Plans	Council Administration with Council Members in a briefing session	October/November each year
2	Annually review the 10 year capital works program, renewals and new to consider changes from the current endorsed budget, emerging issues, priorities, recommendations from the Urban Stormwater Management Plan and grant funding opportunities	Council Administration with Council Members in a briefing session	October/November each year
3	Include confidence levels of stormwater data in Asset Management Plans	Council Administration	To be included in 2025/26 review
4	Review Long term Financial Plan to ensure that Asset Management Plans align	Council Administration	Prior to draft documents being presented to Audit and Risk Committee for review in January/February each year
5	Undertake revaluation of stormwater assets every 4 to 5 years in accordance with the asset revaluation schedule	Council Administration undertaken by external consultants	Full revaluation currently being undertaken in 2024/25 and next scheduled for 2028/29
6	Identify actions that may need to be taken within the next 10 years to reduce the impacts of climate change on stormwater assets	Council Administration	Ongoing
7	Explore options within the new corporate system Strategic Asset Management (SAM) module to help plan and manage renewal of stormwater assets	Council Administration	Ongoing

Kerb and Channel

Our Assets

Council provides a kerb and channel network to enable safe, well maintained, fit for purpose road barriers and stormwater diversion in accordance with Council's strategic aspiration:

Aspiration 5
We have services and infrastructure that meet our community's needs

The kerb and channel network comprises 2,513 individual assets made up of 273 lineal kilometres of kerb and channel made up of four asset types:



Barrier Kerb and Gutter
128 lineal kilometres



Mountable Kerb and Gutter
132 lineal kilometres



Median Kerb
4 lineal kilometres



Spoon Drains
9 lineal kilometres

The purpose of each asset type is provided in the table below:

Asset Type	Purpose
Barrier Kerb and Gutter	Channel stormwater runoff towards a stormwater drain
Mountable Kerb and Gutter	Channel stormwater runoff towards a stormwater drain whilst allowing vehicular access to properties
Median Kerb	Physically separate opposing lanes of traffic on a roadway
Spoon Drains	Channel stormwater runoff towards a stormwater drain whilst allowing vehicular movement

Levels of Service

Levels of service for kerb and channel assets are defined in relation to both community and technical requirements. The assets are assessed in terms of quality, function and capacity.

The City of Victor Harbor aims to maintain kerb and channel assets at a condition rating of < 3.

Current levels of service and performance measures for each asset per annum (p/a) are provided in the table below:

Service Level*	Description	Measurement Process	Desired Level of Service
Quality	Asset Maintenance	Condition assessments	Condition Rating < 3
	Community Feedback	Customer service requests and complaints requiring action	< 3 requests and/or complaints p/a
	Structural defects	Maintenance requirements	< 1 reactive works p/a
Function	Fit for purpose	Meets standards and design specifications	Compliant
Capacity	Flooding	Continued use during rain events	< 1 living space inundation p/a

**Major emergencies and disaster events are excluded from the service level measurement*

A service level hierarchy is also used to prioritise competing works dependent on utilisation rates of the assets (how many people are affected) and risk assessments.

Valuation

Kerb and Channel assets are valued in accordance with AASB13 (Fair Value Measurement) with revaluations programmed on a four-year cycle. The latest revaluation for kerb assets was undertaken in 2021/22.

The assets by asset type recorded in the Asset Register as at 30 June 2024 that are covered by this Plan include:

- Barrier Kerb and Gutter
- Mountable Kerb and Gutter
- Median Kerb
- Spoon Drain

The total value of Kerb and Channel assets recorded in the Asset Register as at 30 June 2024 that are covered by this Plan is shown below:

Replacement Value	Accumulated Depreciation	Written Down Value
$51,856,521	**$13,194,721**	**$38,661,799**

Useful Lives

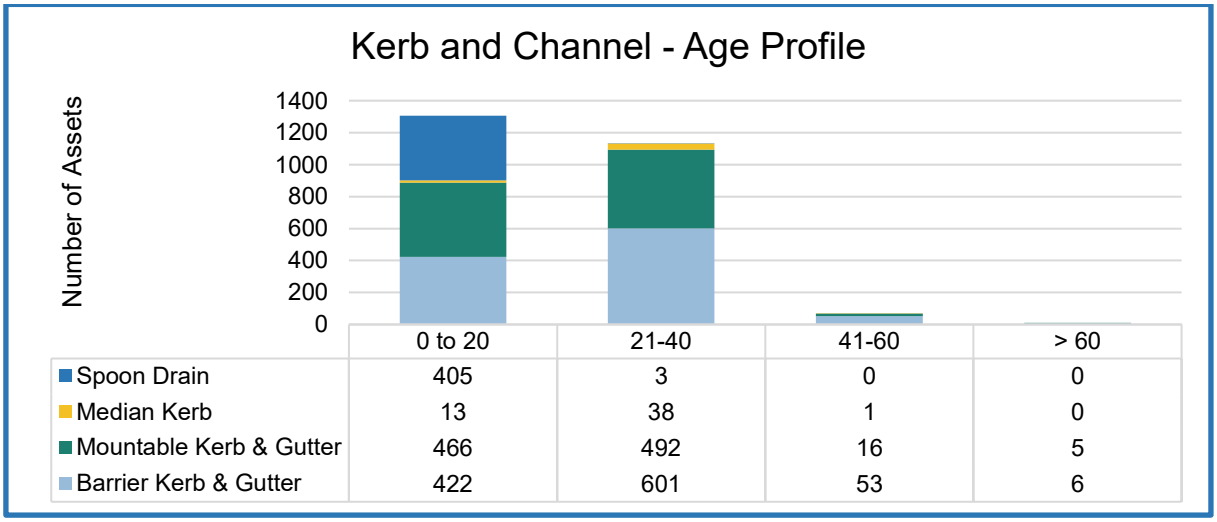
Useful lives of kerb and channel assets are determined by short- and long- life components. These components include the kerb and channel formation (long life) and concrete construction (short life) as provided in the table below:

Component Name	Useful Life – Short (Years)	Useful Life – Long (Years)
Barrier Kerb and Gutter	70	210
Mountable Kerb and Gutter	70	210
Median Kerb	70	210
Spoon Drain	70	210

All kerb and channel assets have the same useful life for short and long-life components. The useful life sets the depreciation rate net of any residual values of the asset at end of life. Depreciation of kerb and channel is 1.4% (Short Life) and 0.5% (Long Life).

Age Profile

The age profile of kerb and channel assets is determined by the principal component and construction date. The age profile of kerb and channel is provided in the graph below:



The minimum, maximum and average age by asset type is provided in the table below:

Asset Type	Minimum Age	Maximum Age	Average Age
Barrier Kerb and Gutter	76	0	22
Mountable Kerb and Gutter	76	0	21
Median Kerb	58	9	26
Spoon Drain	39	0	10

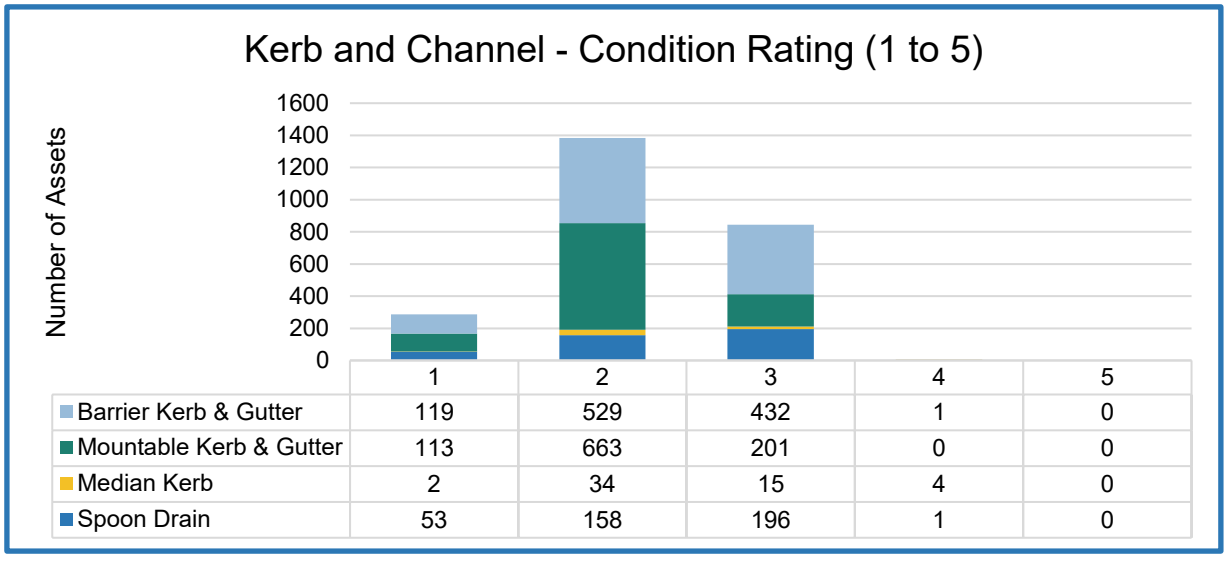
The average age of all KERB AND CHANNEL assets is 21 years

Condition Profile

Condition of bridge assets in monitored through ongoing data collection which is incorporated into relevant attribute criteria within Council's corporate asset software. The data is reviewed and updated during revaluation cycles, after significant weather events, with community feedback or complaints as well as during routine maintenance duties. Condition ratings and descriptions are provided in the table below:

Condition Rating	Summary Description	Detailed Description
0	Brand New	Asset is brand new
1	Very Good	Near as new condition with no defects
2	Good	Superficial deterioration, reliable and no maintenance is required.
3	Fair	Minor deterioration present and routine maintenance may be required
4	Poor	Significant deterioration present, maintenance required to keep the asset serviceable with program for renewal within the next five years
5	Very Poor	Extensive deterioration present, significant maintenance required to keep the asset serviceable with program for renewal within the following year

The condition profile of kerb and channel assets is determined by the principal component and rating as per the asset register. The majority of assets are rated condition 2 or 3 combined making up 88% of the total asset class as shown in the graph below:



	1	2	3	4	5
Barrier Kerb & Gutter	119	529	432	1	0
Mountable Kerb & Gutter	113	663	201	0	0
Median Kerb	2	34	15	4	0
Spoon Drain	53	158	196	1	0

Kerb and channel assets rated condition 3 make up 33% of this asset class with 55% at condition rating 2.

The average condition rating of KERB AND CHANNEL is 2.2

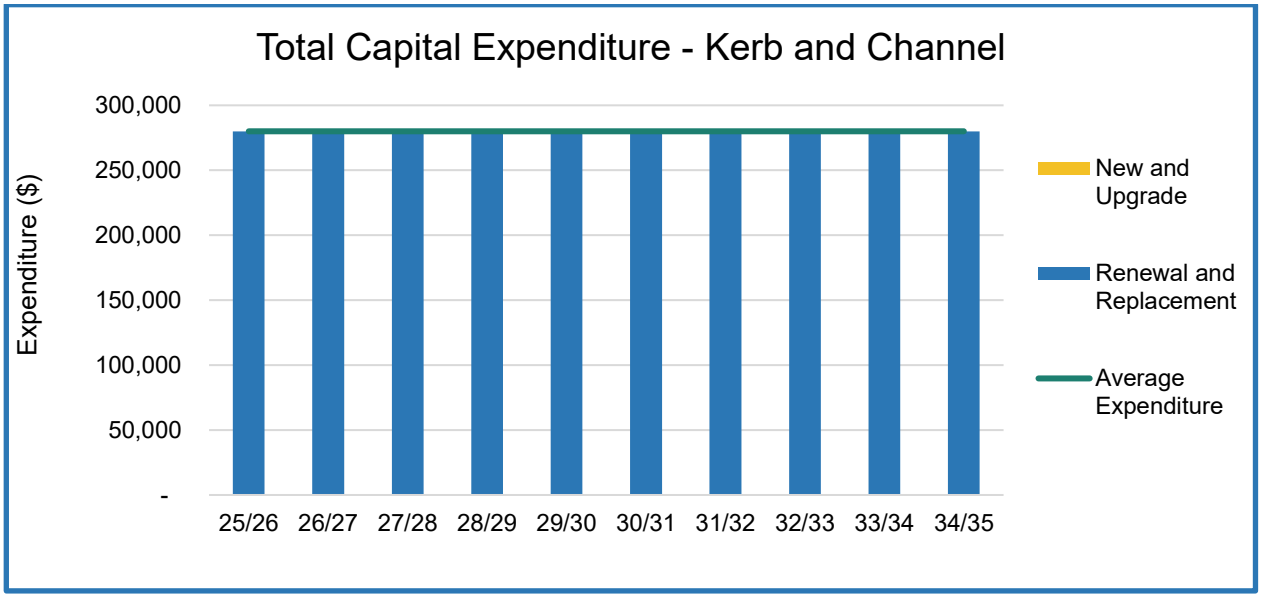
Forecast Expenditure

Forecast expenditure over the next ten years totals $2,800,000. This is made up of 100% renewal and replacement works. New kerb and channel is usually considered as part of a larger construction project involving road and / or stormwater assets. The average annual spend over the ten-year plan is $280,000 per year.

Projects are determined to be renewal / replacement or new / upgrade depending on the project scope and the existing asset attributes. *Renewal and replacement* applies where the asset is reconstructed to the same size / capacity of the existing asset. Changes in the use of materials and/or useful lives does not constitute an increase in capacity. *New and upgrade* applies where the asset did not previously exist or where there is an increase in the size / capacity of the asset. The principal attribute considered for determining whether there is an increase for kerb and channel is size.

In addition to the above, capitalisation thresholds need to be considered in line with Council's Asset Accounting Policy with projects that fall below the financial limits considered to be operating and maintenance rather than capital.

The graph below shows the total expenditure over the ten years of the Plan as well as the breakdown of renewal / replacement and new / upgrade:



Kerb and channel replacement projects are selected each financial year based on condition rating within the asset register and current data.

Capital - Renewal and Replacement

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but returns the asset to its original or required service potential.

Renewal of kerb and channel assets is typically undertaken to ensure the infrastructure can deliver the service it was constructed to facilitate or to ensure that it is of sufficient quality to meet the service requirements.

Renewal schedules are determined by undertaking an assessment based on risk, useful life, age of the asset, condition rating, defect and failure levels, external reports, utilisation, impact on users, operational and maintenance costs. The assessment and weighting is summarised in the table below:

Criteria	Weighting
Condition Rating (4 and 5)	70%
Risk Rating (residual high or extreme)	30%
Total	**100%**

Forecast expenditure on renewal and replacement of kerb and channel assets over the next ten years totals $2,800,000 and is summarised in the table below with a detailed listing provided in the Capital Works Program for Kerb and Channel at Appendix C.

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
280	280	280	280	280	280	280	280	280	280
								Total Expenditure on Renewal / Replacement	**$2,800**

Capital - New and Upgrade

New and upgrade expenditure is major work that creates a new asset or upgrades an existing asset to increased capacity. Increased capacity may be required due to growth, social or environmental needs. Changes to appearance or materials used is not an increase in capacity.

New and upgrade projects are identified from various sources including strategic plans of Council, community or elected member requests, grant funding availability and partnership proposals from other organisations.

Throughout the year, new proposals and requests are added to a Project Register for consideration during the annual budget process and strategic document review.

Inclusions are determined by undertaking an assessment based on risk, community benefit, utilisation, impact on users, future operational and maintenance costs (life cycle costs). The assessment and weighting is summarised in the table below:

Criteria	Weighting
Public Need	30%
Risks (residual high or extreme)	30%
Capacity	40%
Total	**100%**

There is no forecast expenditure on new and upgrade of kerb and channel assets included within this Asset Management Plan. Generally new kerb and channel will be considered within and constructed along with either stormwater or road projects and recognised in the asset register at completion of the project.

Operating – Repairs and Maintenance

Operations and maintenance includes all costs and actions necessary for retaining an asset at the appropriate service levels and includes both planned and reactive works, as well as administrative expenses such as insurance. Regular cyclic replacement may also be included where the capitalisation threshold is not met.

Operating budgets for maintenance are generally driven by historic costs and the Consumer Price Index and do not always allow for variances, peaks and troughs in maintenance cycles, weather and environmental conditions or new / upgraded assets. Increases above these levels are detailed in the annual budget process as separate budget proposals.

Expenditure on kerb and channel assets over the previous ten years is provided in the table below:

2014/15 $ '000	2015/16 $ '000	2016/17 $ '000	2017/18 $ '000	2018/19 $ '000	2019/20 $ '000	2020/21 $ '000	2021/22 $ '000	2022/23 $ '000	2023/24 $ '000
14	27	23	25	18	26	20	49	31	76

This represents an average spend over the ten years of $27,700 per year and is not sufficient to meet the maintenance requirements for these assets.

Forecast operating expenditure for this asset class is as follows:

Year 1 2025/26 $ '000	Year 2 2026/27 $ '000	Year 3 2027/28 $ '000	Year 4 2028/29 $ '000	Year 5 2029/30 $ '000	Year 6 2030/31 $ '000	Year 7 2031/32 $ '000	Year 8 2032/33 $ '000	Year 9 2033/34 $ '000	Year 10 2034/35 $ '000
40	40	50	50	50	60	60	60	70	70

The increase in forecast maintenance expenditure is due to insufficient budgets in previous years as well as a combination of the Consumer Price Index, maintenance and depreciation on new assets.

Climate Change

The impacts of climate change will have consequences for infrastructure assets. Rising sea levels in low lying areas may affect not only individual assets but also connectivity. Higher temperatures are expected to increase heat stress, particularly on transport infrastructure.

Projected sea level rise is unlikely to impact on kerb and channel assets and it is unlikely that any action will need to be taken on existing assets within the next 10 years. Planning for new assets will consider the projected sea level rises.

Improvement Plan

The asset management improvement tasks identified for kerb and channel asset management maturity are as follows:

Task	Description	Responsibility	Timeline
1	Annually review the 10 year capital works program, renewals and new to consider changes from the current endorsed budget, emerging issues, and priorities.	Council Administration with Council Members in a briefing session	October/November each year
2	Include confidence levels of kerb and channel data in Asset Management Plans	Council Administration	To be included in 2025/26 review
3	Review Long term Financial Plan to ensure that Asset Management Plans align	Council Administration	Prior to draft documents being presented to Audit and Risk Committee for review in January/February each year
4	Undertake revaluation of kerb and channel assets every 4/5 years in accordance with the asset revaluation schedule	Council Administration undertaken by external consultants	Previous revaluation was undertaken in 2021/22 and next revaluation is scheduled for 2025/26
5	Identify actions that may need to be taken within the next 10 years to reduce the impacts of climate change on kerb and channel assets	Council Administration	Ongoing
6	Explore options within the new corporate system Strategic Asset Management (SAM) module to help plan and manage renewal of kerb and channel assets.	Council Administration	Ongoing

Appendix A – The appendices have been updated to reflect the actual budget for Year 1 (2025/26) shown in green and include changes endorsed by Council in November 2025 shown in red. A CPI increase of 3.1 % has been added to all expenditure from year 2 onward (not compounding). Changes have not been reflected in the main document but will be as part of next major review of the AMP.

Capital Works Program – potential Bridge projects

DESCRIPTION	Year 1 25/26 $'000	Year 2 26/27 $'000	Year 3 27/28 $'000	Year 4 28/29 $'000	Year 5 29/30 $'000	Year 6 30/31 $'000	Year 7 31/32 $'000	Year 8 32/33 $'000	Year 9 33/34 $'000	Year 10 34/35 $'000
Footbridges										
Canton Place Footbridge (BRG112613) Design (24/25) and Construction (25/26)	244	-	-	-	-	-	-	-	-	-
Wattle Drive (BRG112618) Resurfacing	21	-	-	-	-	-	-	-	-	-
Road Bridges										
Waitpinga Road (BRG112618) Resurfacing and barriers	-	41	-	-	-	-	-	-	-	-
Pitkins Road Bridge (BRG112602) Surface and wing walls	-	31	-	-	-	-	-	-	-	-
Keen Road Bridge (# 15) Replacement	-	-	928	-	-	-	-	-	-	-
Francis Road Bridges (BRG112612 & BRG112615) Barriers	-	-	-	82	-	-	-	-	-	-
Resurfacing of Rural Bridges (Spray Seal) Allowance based on condition rating	-	-	-	-	155	-	-	-	-	-
Allowance for future Bridge Works Allowance based on condition rating	-	-	-	-	-	155	155	155	155	155
ANNUAL TOTALS	**265**	**72**	**928**	**82**	**155**	**155**	**155**	**155**	**155**	**155**

Appendix B – The appendices have been updated to reflect the actual budget for Year 1 (2025/26) shown in green and include changes endorsed by Council in November 2025 shown in red. A CPI increase of 3.1 % has been added to all expenditure from year 2 onward (not compounding). Changes have not been reflected in the main document but will be as part of next major review of the AMP.

Capital Works Program – potential Stormwater projects

DESCRIPTION	Year 1 25/26 $'000	Year 2 26/27 $'000	Year 3 27/28 $'000	Year 4 28/29 $'000	Year 5 29/30 $'000	Year 6 30/31 $'000	Year 7 31/32 $'000	Year 8 32/33 $'000	Year 9 33/34 $'000	Year 10 34/35 $'000
Inlet Program Construction - Annual Allowance	103	148	148	148	148	148	148	148	148	148
Crozier Road Stormwater Design (2024/25) and Construct (2025/26) *Construction subject to grant funding	230	1,856	-	-	-	-	-	-	-	-
Fell Street/ Hope Street/ Simpons Avenue Design (24/25) and Construct (25/26) *Construction subject to grant funding	-	247	1,031	3,093	-	-	-	-	-	-
Acraman Street (Hill St/Hinkler St) Stage 1 (29/30 to 30/31) *Construction subject to grant funding	-	-	-	-	3,093	3,093	-	-	-	-
Tabernacle Rd Construction (Bay Rd to Matthews Flinders Drive)	-	-	-	-	-	-	619	3,093	-	-
Seaview Road/Hindmarsh Road Construction *Construction subject to grant funding	-	-	-	-	-	-	-	-	1,547	1,547
Yandra Terrace Upgrade (From Hindmarsh Road to Yandra Terrace)	-	-	619	-	-	-	-	-	-	-
ANNUAL TOTALS	**333**	**2,252**	**1,798**	**3,241**	**3,241**	**3,241**	**767**	**3,241**	**1,695**	**1,695**

Appendix C – The appendices have been updated to reflect the actual budget for Year 1 (2025/26) shown in green and include changes endorsed by Council in November 2025 shown in red. A CPI increase of 3.1 % has been added to all expenditure from year 2 onward (not compounding). Changes have not been reflected in the main document but will be as part of next major review of the AMP.

Capital Works Program – potential Kerb and channel projects

DESCRIPTION	Year 1 25/26 $'000	Year 2 26/27 $'000	Year 3 27/28 $'000	Year 4 28/29 $'000	Year 5 29/30 $'000	Year 6 30/31 $'000	Year 7 31/32 $'000	Year 8 32/33 $'000	Year 9 33/34 $'000	Year 10 34/35 $'000
Kerb and Channel Replacement Program (as per condition assessments)	287	289	289	289	289	289	289	289	289	289
ANNUAL TOTALS	**287**	**289**	**289**	**289**	**289**	**289**	**289**	**289**	**289**	**289**

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