

29 May 2020

**ASSET MANAGEMENT PLAN
STORMWATER DRAINAGE
2019/20 to 2048/49**

Adopted: 22nd October 2020 Minute No. 226.10.20

File Ref: A13-2,

Table of Contents	
Executive summary	2
1 Introduction and strategic objectives	5
1.1 Introduction	5
1.2 Strategic objective for the stormwater drainage assets	5
1.3 Definitions	6
2 Services provided and classification	7
2.1 Stormwater drainage: categories and value	7
2.2 Managing future demand for the Shire’s stormwater drainage assets	7
3 Levels of service	9
4 Condition of our assets	10
5 Operations	12
5.1 Lifecycle costs	12
5.2 Operational activities	12
6 Maintenance	13
7 Capital renewal / rehabilitation	14
8 Capital expansion – upgrades and new assets	16
9 Disposal plan	17
10 Financial plan	18
10.1 Stormwater drainage assets asset lifecycle expenditure	18
10.2 Funding plan for stormwater drainage assets	20
10.3 Summary of expenditure and funding sources	21
11 Key performance benchmarks	22
12 Risk management plan	23
12.1 Critical risks	23
12.2 Critical assets	23
13 Asset management improvement program	24

Executive summary

The town of Warren has a network of stormwater drainage assets. The purpose of this network is to help in avoiding the pooling of water throughout the town during heavy storms or in times of flood.

The estimated gross replacement cost of the stormwater drainage assets is \$4.0m.

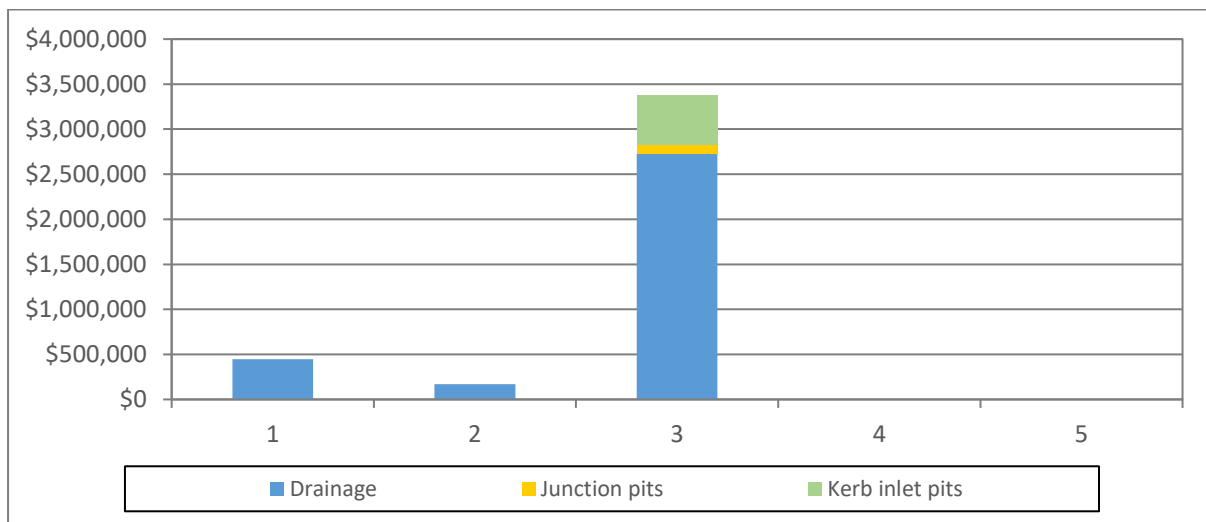
Council’s strategic objective for its stormwater drainage assets is to manage environmentally responsible drainage works.

Council has recently installed some stormwater drains in Nevertire and Collie. No stormwater drainage infrastructure previously existed in these villages. This will significantly reduce the inconvenience caused to the villages during wet weather events by ensuring that water is properly dispersed from the roads. No significant additional stormwater drainage capital expansion projects are currently planned over the next thirty years.

The community has certain expectations as to the level of service it requires from the stormwater drainage assets. This asset management plan outlines how Council delivers against these expectations and how we measure our performance.

Based on current condition estimates, all of the stormwater drainage assets are in an acceptable condition, i.e., they have a condition rating between 1 and 3 on a scale of 1 to 5. See figure ES1 below.

Figure ES1: Condition ratings, stormwater drainage assets (estimated gross replacement cost) as at 30 June 2019



Condition scale: 1=Excellent; 2=Good; 3=Average; 4=Poor; 5=Very poor

In this asset management plan, the lifecycle costs of the stormwater drainage assets are estimated and projected. There are four lifecycle categories. These categories are operations, maintenance, capital renewal and capital expansion.

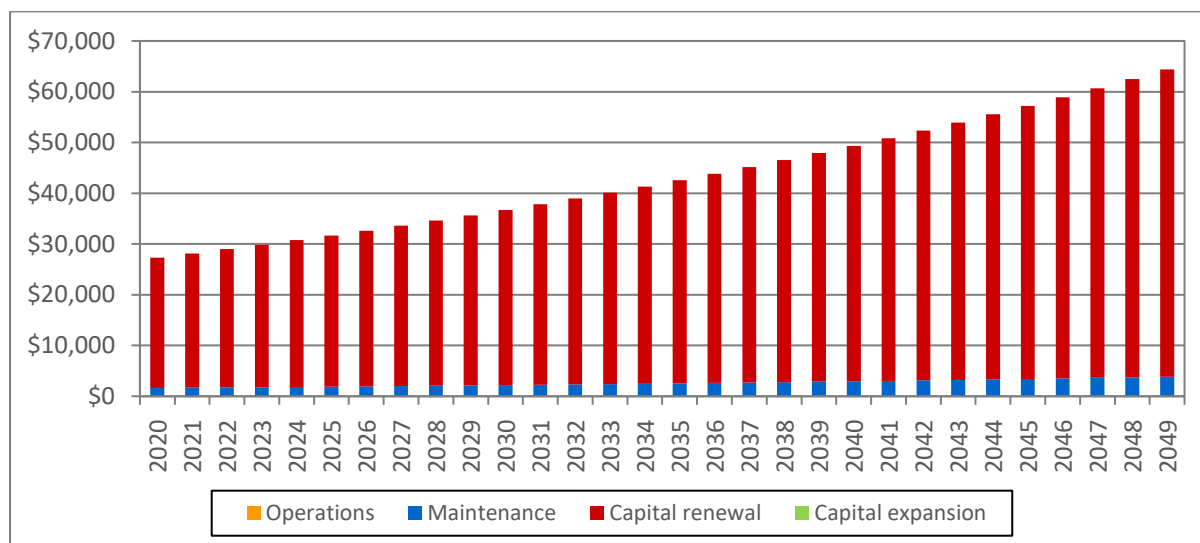
A summary of the operational and maintenance activities which are undertaken is provided together with the frequency in which these activities are undertaken.

An analysis of the capital renewal funding needs over the next thirty years has been undertaken. Council will be allocating funds to an asset renewal reserve each year to ensure that it is saving money from the day it purchases an asset to allow it to replace the asset at the end of its life.

No significant stormwater drainage capital expansion projects are currently planned over the next thirty years.

The projected lifecycle expenditure on operations, maintenance, renewal and expansion activities for our stormwater drainage assets over the next thirty years is shown in the following graph.

Figure ES2: Thirty-year projected lifecycle expenditure on Council’s stormwater drainage assets, 2020 to 2049



Our annual operations and maintenance costs are not expected to fluctuate significantly over the next thirty years as the quantity of our stormwater drainage assets is not expected to change due to our relatively stable population. However, these costs have been indexed by 3.0% p.a. for inflation.

Our stormwater drainage assets have long estimated useful lives. Most of these assets will not need to be renewed over the next thirty years. However, the projected lifecycle expenditure includes funds to be allocated to an asset renewal reserve each year to ensure that assets can be replaced when they reach the end of their life. As with operations and maintenance costs, this asset renewal reserve allocation has been indexed by 3.0% p.a. for inflation.

Funding for our stormwater drainage assets is derived from various sources. These include:

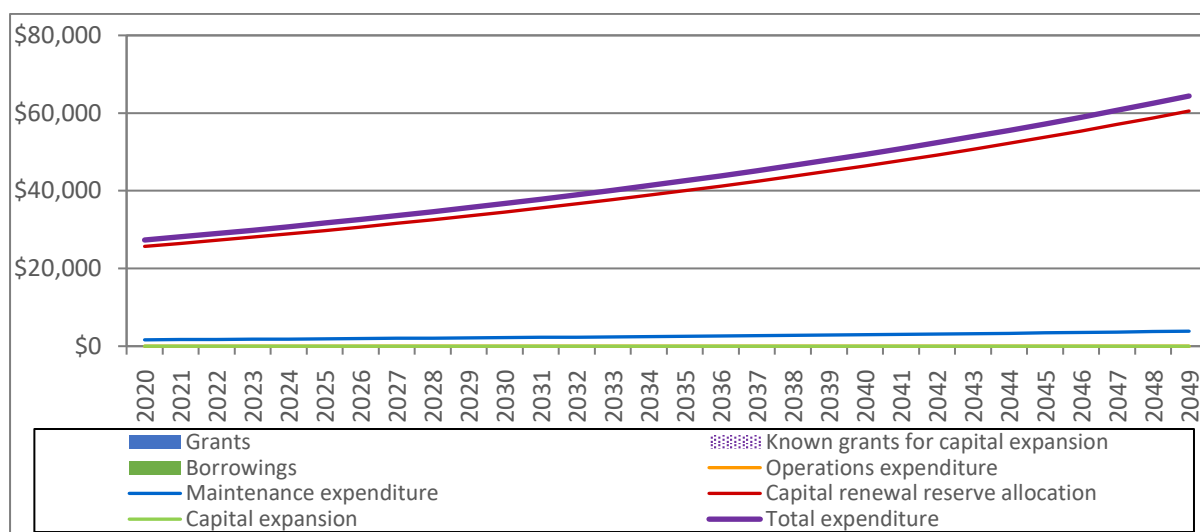
- Grants
- General funds
- Borrowings.

Grant funding is required when major projects need to be undertaken.

General funds are used in two ways for our stormwater drainage assets. Firstly, they are used to support the maintenance of our stormwater drainage assets. Secondly, they are used to build an asset renewal reserve each year. This will help in reducing Council’s reliance on grant funding for renewal projects.

Council also has the option of borrowing to support investments in stormwater drainage assets.

The projected expenditure and funding picture for our stormwater drainage assets over the next thirty years is shown in figure ES3 below.

Figure ES3: Thirty-year financial plan for Council’s stormwater drainage assets, 2020 to 2049

This graph highlights the gap in the required funding for stormwater drainage assets over the next thirty years.

It is anticipated that there will be a shortfall, i.e. total income (which is zero) will be less than our operations, maintenance and capital expenses. This is shown in figure ES3. Total expenditure increases as it is indexed at 3.0% p.a. for inflation.

Council has developed a series of performance benchmarks to help in assessing how well it is meeting the community’s expectations in relation to the condition of its assets.

Critical risks have been identified for the stormwater drainage assets. The primary risk is that the stormwater drain pipes become blocked, causing flooding within the town of Warren. Risk treatment plans have been developed to reduce the likelihood of this risk and to limit its impact.

Several initiatives have been identified to improve Council’s asset management capabilities in relation to its stormwater drainage assets. These include:

- Implementing an integrated asset management system and associated processes to support Council’s engineering and finance functions; this will also provide Council with much needed predictive capabilities to assist with decisions on where it should be allocating asset funding or if it should be seeking additional funding
- Regularly capturing accurate and complete asset condition data
- Tracking Council’s performance against relevant community expectation benchmarks
- Implementing a productivity improvement program.

1 Introduction and strategic objectives

1.1 Introduction

Warren Shire is located in Central West NSW and covers an area of 10,860 square kilometres. Within the Shire is the town of Warren and the villages of Nevertire and Collie. According to the 2016 census, the total population for the Shire is 2,732 with 1,530 people living in Warren. In 2019 it is estimated that 92 people live in Nevertire and 46 people live in Collie.

The town of Warren is situated on the banks of the Macquarie River and is located 120 km from the regional centre of Dubbo and 515 km from Sydney. Nevertire is 20 km to the south west of Warren. Collie is located 51 km to the east of Warren.

Warren Shire Council owns and maintains \$247.0m (estimated gross replacement cost as at 30 June 2019) of community assets including roads, bridges, public buildings, the water supply network, the sewerage network and recreational assets. Council's stormwater drainage assets comprise \$4.0m of this asset base. The stormwater drainage assets include pipes of various sizes, junction pits and kerb inlet pits in the town of Warren. Recently, Council installed some stormwater drains in the villages of Nevertire and Collie.

The efficient management of our assets is vital to ensure that Council provides safe and reliable services for the community. To achieve this, Council has developed several integrated tools. These tools form the Integrated Planning and Reporting (IP&R) framework which includes Council's:

- Community strategic plan (CSP)
- Resourcing strategy
 - Long-term financial planning (LTFP)
 - Asset management planning
 - Asset management policy
 - Asset management strategy
 - Asset management plans (of which this is one).

Together, these tools guide Council and hold it to account with respect to delivering on its asset management strategic objectives.

Council has developed asset management plans for each class of asset under its control. This asset management plan for our stormwater drainage assets identifies our asset service standards and contains the long-term projected costs for the operations, maintenance, renewal and expansion of our assets.

1.2 Strategic objective for the stormwater drainage assets

The strategic objective of Council in operating, maintaining and improving its stormwater drainage assets is as follows.

Table 1.1: Strategic objective for the stormwater drainage assets

No.	Strategic objective for the stormwater drainage assets	Link with the CSP
1	Manage environmentally responsible drainage works in accordance with Council's program	Strategy 4.3.1

1.3 Definitions

To ensure consistency between this document and the other documents in Council's IP&R framework, the following definitions are used.

Accumulated depreciation – The total depreciation of an asset's estimated replacement cost. Depreciation of an asset will continue to be accumulated until it is replaced. At this point, the original asset will be written off and the depreciation of the new asset will commence from zero.

Asset – A physical facility, which has value, and enables services to be provided to the community. The economic life of an asset is greater than twelve months.

Asset management – The combination of management, financial, economic and engineering practices applied to a physical asset with the objective of providing the required levels of service in the most cost-effective manner.

Estimated gross replacement cost – The estimated cost of replacing an asset calculated by multiplying estimated unit rates for each component of an asset by the size of the asset. Estimated gross replacement costs are calculated every five years when Council's assets are revalued.

Expansion – Activities associated with upgrading or improving an asset or creating a new asset.

Level of service – The ability of an asset to provide services to the community. A minimum level of service is set by Council for each asset. Community levels of service are based around the minimum required condition rating of an asset. Technical levels of service refer to the frequency in which maintenance and capital works are undertaken on an asset by Council.

Lifecycle – The phases in the life of an asset from acquisition, operations, maintenance, renewal and disposal.

Maintenance – Planned or unplanned activities required to ensure that the asset can continue to deliver the services required of it by the community.

Net carrying value – Estimated gross replacement cost minus accumulated depreciation. This is the equivalent of the written down value of an asset.

Operations – Regular, planned activities to keep the asset in service.

Renewal – Activities which involve restoring, refurbishing or replacing an asset to bring it back to its original capacity and performance capability. Renewal costs are treated as capital expenditure.

Renewal backlog – The cost to renew those assets within the Shire that do not achieve the required minimum level of service.

Useful life – The period over which an asset is expected to be available for use by Council (in the context of its service to Council, not to its actual physical life). The useful life of each asset is used by Council to determine the depreciation of the asset.

2 Services provided and classification

2.1 Stormwater drainage: categories and value

The stormwater drainage assets in the Warren Shire are comprised of pipes of various sizes, junction pits and kerb inlet pits in the town of Warren. Recently, Council installed some stormwater drains in the villages of Nevertire and Collie. The purpose of the network of stormwater drainage assets is to help in avoiding the pooling of water throughout the town during heavy storms in times of flood. The components of the stormwater drainage assets are summarised in the following table.

Table 2.1: Council's stormwater drainage assets (and value) as at 30 June 2019

Stormwater drainage assets category	Net carrying value \$	Estimated gross replacement cost \$
150 mm pipes	1,171	2,419
225 mm pipes	87,445	135,993
250 mm pipes	6,543	13,666
300 mm pipes	54,446	85,866
375 mm pipes	224,455	453,856
450 mm pipes	503,796	903,756
500 mm pipes	6,896	14,333
525 mm pipes	98,194	204,688
600 mm pipes	453,941	678,784
675 mm pipes	113,491	236,419
750 mm pipes	72,906	151,894
900 mm pipes	10,991	22,848
1050 mm pipes	140,855	293,475
1200 mm pipes	69,446	144,690
Junction pits	48,384	100,800
Kerb inlet pits	263,723	549,360
Total stormwater drainage assets	2,156,683	3,992,847
Total all Council assets	179,662,545	247,025,077
Percent of all Council assets	1.2%	1.6%

2.2 Managing future demand for the Shire's stormwater drainage assets

2.2.1 Drivers of demand for the stormwater drainage assets

A flat or declining demographic trend

Until recently, stormwater drainage infrastructure was only provided in the town of Warren. Some stormwater drainage has now been installed in the villages of Nevertire and Collie.

The main driver affecting the demand for our stormwater drainage assets would be any change in the population of Warren and the two villages of Nevertire and Collie. As is the case with the majority of rural inland local government areas, the population of the Warren Shire has been declining steadily for several years as a result of outward migration from the Shire (especially amongst young adults). Over the long-term, this flat to declining population is likely to result in little change in the demand on our stormwater drainage assets.

2.2.2 Factors affecting the supply of the stormwater drainage assets

Funding uncertainties

Warren Shire Council is highly reliant on grant funding and its rates revenues are limited.

Based on the size of our communities, it is difficult to fund the provision of our stormwater drainage assets. We need to seek ongoing government funding, where available, to maintain and enhance our stormwater drainage assets.

Council's asset renewal backlog

Assets that are below the minimum condition rating do not meet Council's minimum levels of service. Such assets will require renewal. These assets form part of Council's renewal backlog and Council should be ensuring that these assets are brought up to the agreed levels of service.

Council's asset renewal backlog will need to be funded.

Staff and resource shortages

As with financial constraints on the provision of our stormwater drainage assets, difficulties in recruiting and retaining staff has been a challenge for Council in recent years. Council, as a western rural Council, often faces challenges in filling technical and managerial positions. When technical or managerial positions are vacant it can affect Council's ability to provide some of the services expected by the community.

3 Levels of service

The strategic objective for our stormwater drainage assets is to manage environmentally responsible drainage works in accordance with Council’s program.

Council has defined a set of measurable levels of service that are used to assess its performance in meeting this objective. Levels of service are grouped into:

- **Community levels of service** – These relate to what the community wants from our stormwater drainage assets in terms of the minimum required condition rating for each asset
- **Technical levels of service** – These refer to how the services will be delivered to the community.

Table 3.1 outlines what the community desires from our stormwater drainage assets and how Council will deliver against this. Key performance benchmarks are also provided. These benchmarks will enable us to determine whether we are delivering on what the community wants.

Table 3.1: Community expectations, stormwater drainage assets

The community wants (Community level of service)	How Council delivers this (Technical level of service)	Key performance benchmark
Pipes, junction pits and kerb inlet pits Stormwater assets are in good order and remain clear of blockages to ensure that flooding within Warren is minimised	Damage to stormwater assets is repaired within 30 days of notification	Flooding events do not occur more than once in 20 years 95% of repair work is completed on time

4 Condition of our assets

The condition of Council’s assets is currently assessed every five years. This asset condition information is then used to plan the timing of our maintenance and capital renewal activities.

The current condition of Council’s stormwater drainage assets is provided in this section of this plan.

Assets are rated from condition 1 to condition 5, as shown in table 4.1 below.

Table 4.1: Condition ratings for assessing the condition of our assets

Condition rating	Condition	Description
1	Excellent	No work required (normal maintenance)
2	Good	Only minor maintenance work required
3	Average	Maintenance work required
4	Poor	Renewal required
5	Very poor	Urgent renewal / upgrading required

The intent of Council is not to undertake renewal on an asset until it reaches its intervention level. The intervention level is the condition level below which renewal is required based on the community’s level of service expectations.

Typically, stormwater drainage assets in condition 4 will provide a poor level of service and will need to be renewed in the short- to medium- term. Assets in condition 5 may require urgent and immediate renewal or replacement. Funding may be needed to support the required level of renewals each year. Council will be allocating funds to an asset renewal reserve each year to help in managing these funding needs. This is discussed further in section 7 of this plan.

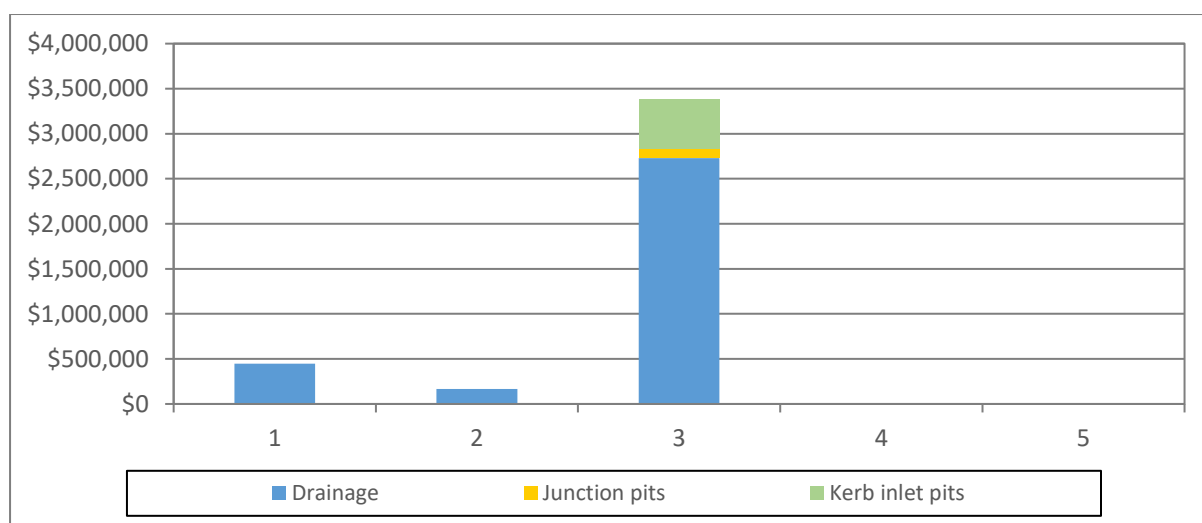
The condition of each stormwater drainage asset has been assessed by estimating the proportion of each asset’s expected useful life that has been consumed.

The estimated current condition ratings of Council’s stormwater drainage assets are summarised in the table and graph below.

Table 4.2: Condition ratings, stormwater drainage assets (estimated gross replacement cost) as at 30 June 2019

Stormwater drainage assets category	Condition rating \$					Total \$
	1	2	3	4	5	
150 mm pipes	-	-	2,419	-	-	2,419
225 mm pipes	30,240	44,352	61,401	-	-	135,993
250 mm pipes	-	-	13,666	-	-	13,666
300 mm pipes	37,834	-	48,032	-	-	85,866
375 mm pipes	12,474	6,930	434,452	-	-	453,856
450 mm pipes	111,605	106,785	685,366	-	-	903,756
500 mm pipes	-	-	14,333	-	-	14,333
525 mm pipes	-	-	204,688	-	-	204,688
600 mm pipes	255,004	10,080	413,700	-	-	678,784
675 mm pipes	-	-	236,419	-	-	236,419
750 mm pipes	-	-	151,894	-	-	151,894
900 mm pipes	-	-	22,848	-	-	22,848
1050 mm pipes	-	-	293,475	-	-	293,475
1200 mm pipes	-	-	144,690	-	-	144,690
Junction pits	-	-	100,800	-	-	100,800
Kerb inlet pits	-	-	549,360	-	-	549,360
Total stormwater drainage assets	447,157	168,147	3,377,543	-	-	3,992,847

Figure 4.1: Condition ratings, stormwater drainage assets (estimated gross replacement cost) as at 30 June 2019



The table and graph above show that, based on current condition estimates, all of the stormwater drainage assets are in an acceptable condition, i.e., they have a condition rating between 1 and 3.

5 Operations

5.1 Lifecycle costs

Council allocates the costs associated with the provision of its assets into four lifecycle categories:

Table 5.1: Lifecycle cost allocation for the provision of asset services

Activity	Description
Operations	Regular, planned activities to keep the asset in service
Maintenance	Planned or unplanned activities to ensure that the asset reaches its useful life
Renewal	The like-for-like replacement of an asset or asset component
Expansion	The upgrade or improvement of an asset The creation of a new asset

Operations and maintenance costs are current-year expenditure. Renewal and expansion costs are treated as capital expenditure.

5.2 Operational activities

Operational activities are those regular activities that are required to continuously provide the service expected of the asset. For our stormwater drainage assets, these activities include the following.

Table 5.2: Operational activities, stormwater drainage assets

Activity	Frequency
Inspecting infrastructure	Monthly
Responding to customer complaints	When received

The costs associated with these activities is considered to be minimal. There is no operational expenditure on stormwater drainage assets projected for the next thirty years, as shown in table 10.1.

6 Maintenance

Routine maintenance is the regular ongoing work that is necessary to keep assets operating to ensure they reach their useful life. It includes work on an asset where a portion may fail and needs immediate repair to make it operational again.

Council's maintenance activities for our stormwater drainage assets include the following.

Table 6.1: Maintenance activities, stormwater drainage assets

Activity	Frequency
Inspecting and maintaining stormwater drainage assets	Annually

In addition to planned maintenance, which is defined and scheduled over the medium-term, Council must also repair unforeseen damage caused by storms or accidents. This type of maintenance is referred to as either unplanned or reactive maintenance.

Council's unplanned maintenance work is often carried out because of issues identified through customer requests.

Projected maintenance expenditure for the next thirty years is provided in table 10.2.

7 Capital renewal / rehabilitation

Capital renewal activities involve restoring, refurbishing or replacing an asset to bring it back to its original capacity and performance capability.

Renewal costs are treated as capital expenditure.

The annual required renewal costs reflect the amount needed to be spent on assets that have deteriorated to a point at which renewal is required based on the community's level of service expectations.

Typically, stormwater drainage assets in condition 4 will provide a poor level of service and will need to be renewed in the short-to medium-term and assets in condition 5 may require urgent and immediate renewal or replacement.

Assessing the condition of our assets is not easy and is based on broad assumptions and the quality of the currently available data. Work will continue to improve the quality of our asset registers and systems to increase the accuracy of our condition data.

The process of assessing the condition of our assets starts by estimating the expected remaining useful life of each asset. This is done using long-term averages and the age of the asset. Useful lives are based on industry standards and are then adjusted, where relevant, to align with local conditions (e.g. ground movements). The range of expected useful lives for our stormwater drainage asset components is shown below.

Table 7.1: Expected useful life of stormwater drainage asset components (years)

Stormwater drainage asset category	Expected useful life (years) of asset components
Pipes	100
Junction pits	100
Kerb inlet pits	100

We supplement remaining useful life data with an assessment of each asset's actual condition. This is done through visible inspections and analysing whether there has been a history of failure.

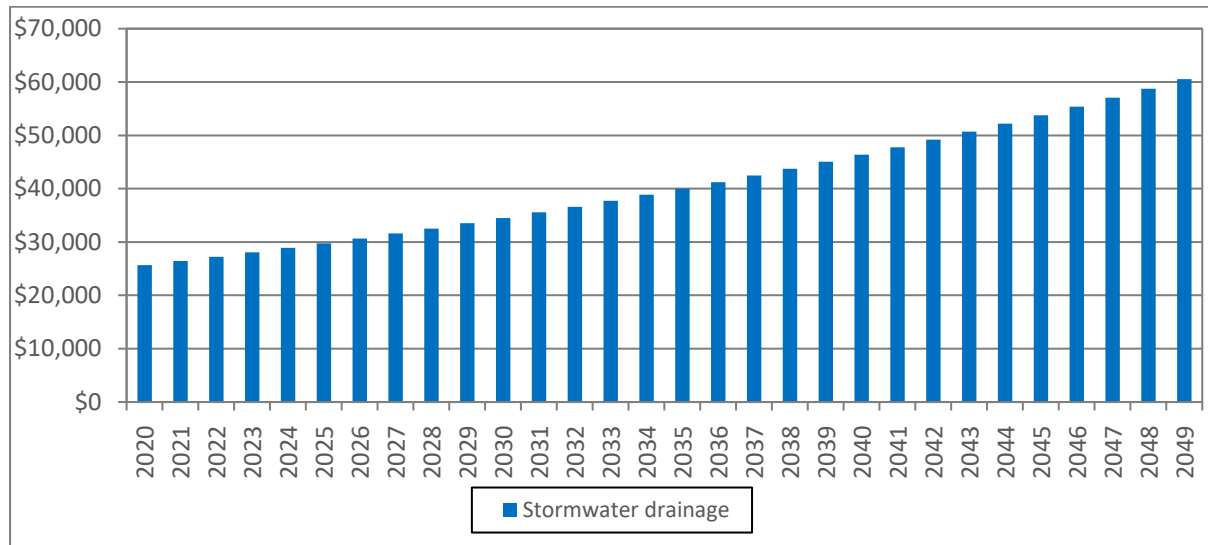
To manage the funding needs for renewing or replacing assets that are in condition 4 or 5 each year, Council will be allocating funds to an asset renewal reserve each year. This will ensure that we are saving money from the day we purchase an asset to allow us to replace the asset at the end of its life. The allocation will be made against each asset on a sliding scale basis. Assets that are in condition 1 will have a small asset renewal allocation and assets that are in condition 5 will have the highest asset renewal allocation as these assets need urgent renewal or replacement. The sliding scale for the allocation of funds to the asset renewal reserve is shown below.

Table 7.2: Allocation of funds to the asset renewal reserve each year, stormwater drainage assets

Useful life	Condition rating \$				
	1	2	3	4	5
100	0.500%	0.556%	0.667%	5.000%	16.667%

Using this analysis, Council has identified an asset renewal allocation for each year over the next thirty years. This is summarised in the graph below. Detailed numbers are provided in table 10.3. The asset renewal reserve allocations are indexed by 3.0% p.a. for inflation.

Figure 7.1: Estimated annual required asset renewal reserve allocation for Council’s stormwater drainage assets, 2020 to 2049



8 Capital expansion – upgrades and new assets

Capital expansion can refer to either the upgrade of existing assets or the acquisition of new assets.

Upgrades are improvements of existing assets to provide a higher level of service.

New assets are assets that have been built to support growth, new social or environmental needs or to create additional service level capacity.

Council is not anticipating any significant changes in the populations of Warren, Nevertire or Collie. Therefore, there will be little change in the demand for our stormwater drainage assets.

Council has recently installed some stormwater drains in Nevertire and Collie. No stormwater drainage infrastructure previously existed in these villages. This will significantly reduce the inconvenience caused to the villages during wet weather events by ensuring that water is properly dispersed from the roads.

No significant additional stormwater drainage capital expansion projects are currently planned over the next thirty years, as shown in table 10.4.

9 Disposal plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.

No stormwater drainage assets are identified for possible decommissioning and disposal.

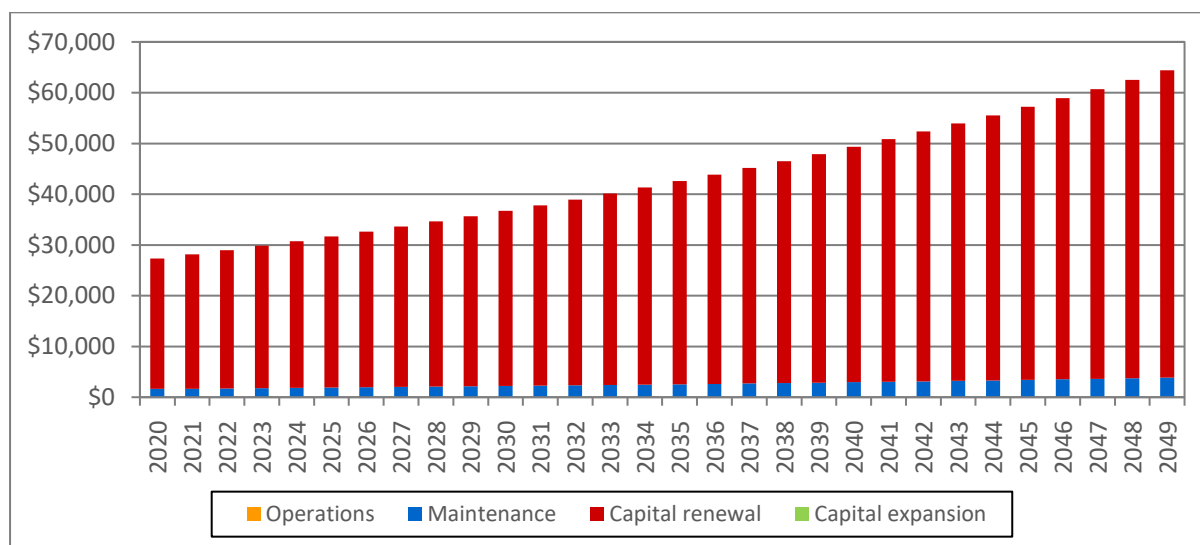
10 Financial plan

The financial plan for our stormwater drainage assets projects the lifecycle expenditure for these assets over the next thirty years and considers a funding plan to support these costs.

10.1 Stormwater drainage assets asset lifecycle expenditure

The projected lifecycle expenditure on operations, maintenance, renewal and expansion activities for our stormwater drainage assets over the next thirty years is shown in the following graph.

Figure 10.1: Thirty-year projected lifecycle expenditure on Council’s stormwater drainage assets, 2020 to 2049



This graph shows where our funds will be allocated to our stormwater drainage assets over the next thirty years.

Our annual operations and maintenance costs are not expected to fluctuate significantly over the next thirty years as the quantity of our stormwater drainage assets is not expected to change due to our relatively stable population. However, these costs have been indexed by 3.0% p.a. for inflation.

Our stormwater drainage assets have long estimated useful lives. Most of these assets will not need to be renewed over the next thirty years. However, the projected lifecycle expenditure includes funds to be allocated to an asset renewal reserve each year to ensure that assets can be replaced when they reach the end of their life. As with operations and maintenance costs, this asset renewal reserve allocation has been indexed by 3.0% p.a. for inflation.

No significant stormwater drainage capital expansion projects are currently planned over the next thirty years.

The detailed projected lifecycle costs for our stormwater drainage assets over the next thirty years are shown in the following tables.

Table 10.1: Operations costs for Council’s stormwater drainage assets, 2020 to 2049 (\$000)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Operations (1)																														
Stormwater drainage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total operations	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Operations costs are indexed by 3.0% p.a. for inflation

Table 10.2: Maintenance costs for Council’s stormwater drainage assets, 2020 to 2049 (\$000)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Maintenance (1)																														
Stormwater drainage	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
Total maintenance	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4

(1) Maintenance costs are indexed by 3.0% p.a. for inflation

Table 10.3: List of capital renewal reserve allocations for Council’s stormwater drainage assets, 2020 to 2049 (\$000)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Capital renewal (1)																														
Stormwater drainage	26	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44	45	46	48	49	51	52	54	55	57	59	61
Total capital renewal	26	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44	45	46	48	49	51	52	54	55	57	59	61

(1) Capital renewal reserve allocations are indexed by 3.0% p.a. for inflation

Table 10.4: List of capital expansion projects for Council’s stormwater drainage assets, 2020 to 2049 (\$000)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Capital expansion																														
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total capital expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

10.2 Funding plan for stormwater drainage assets

Funding for our stormwater drainage assets is derived from various sources. These include:

- Grants
- General funds
- Borrowings.

Grant funding is required when major projects need to be undertaken.

General funds are used in two ways for our stormwater drainage assets. Firstly, they are used to support the maintenance of our stormwater drainage assets. Secondly, they are used to build an asset renewal reserve each year. This will help in reducing Council's reliance on grant funding for renewal projects.

Council also has the option of borrowing to support investments in stormwater drainage assets. This option requires careful monitoring of Council's debt service ratio.

10.3 Summary of expenditure and funding sources

Table 10.5 is the financial plan for stormwater drainage assets for the next thirty years. It summarises the projected asset lifecycle expenditure and projected funding.

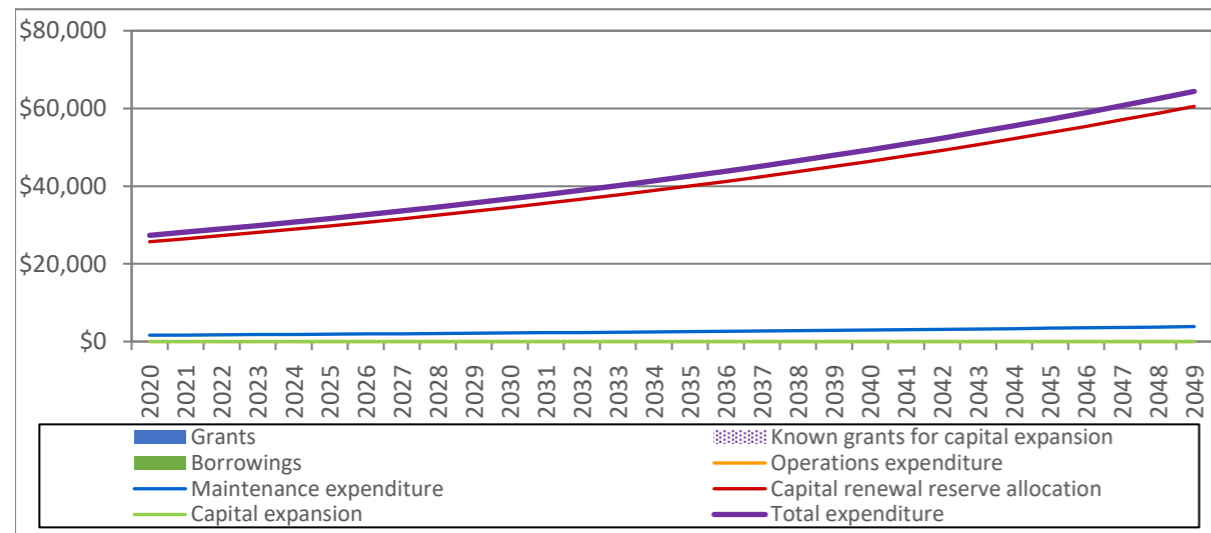
Table 10.5: Thirty-year financial plan for Council’s stormwater drainage assets, 2020 to 2049 (\$000)

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Income																														
Grants (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Known grants for capital expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Borrowings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expenditure																														
Operations (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maintenance (3)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
Capital renewal (4)	26	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	44	45	46	48	49	51	52	54	55	57	59	61
Capital expansion (5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total expenditure	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	43	44	45	47	48	49	51	52	54	56	57	59	61	63	64
Surplus / (shortfall)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(43)	(44)	(45)	(47)	(48)	(49)	(51)	(52)	(54)	(56)	(57)	(59)	(61)	(63)	(64)

- (1) Income is indexed at 3.0% p.a. for inflation
- (2) Details of operations costs are provided in table 10.1 above
- (3) Details of maintenance costs are provided in table 10.2 above
- (4) Details of specific capital renewal reserve allocations are provided in table 10.3 above
- (5) Details of specific capital expansion projects are provided in table 10.4 above

Figure 10.2 summarises the projected expenditure and funding picture for our stormwater drainage assets over the next thirty years.

Figure 10.2: Thirty-year financial plan for Council’s stormwater drainage assets, 2020 to 2049



The table and graph above highlight the gap in the required funding for stormwater drainage assets over the next thirty years.

It is anticipated that there will be a shortfall, i.e. total income (which is zero) will be less than our operations, maintenance and capital expenses. This is shown in the last line of table 10.5 and in figure 10.2. Total expenditure increases as it is indexed at 3.0% p.a. for inflation.

11 Key performance benchmarks

Council monitors and assesses its performance with respect to maintaining and renewing its assets using key performance benchmarks. These benchmarks are used to measure how well Council is meeting the community's expectations in relation to the condition of its assets.

Council recognises the importance of working with the local community when managing the Shire's assets on behalf of the community. Council works with the community in two important ways. Firstly, it creates community service expectations. These summarise what the community wants. Secondly, it measures its progress in meeting these community service expectations against key performance benchmarks.

By using community-focussed performance benchmarks, Council can ensure that everything it does in maintaining and improving its stormwater drainage assets is directly relevant to the community.

The key performance benchmarks that have been established for the stormwater drainage assets are outlined in table 3.1.

Council will be incorporating these benchmarks into its Customer Relationship Management (CRM) system so that performance against these benchmarks can be tracked, measured and improved.

12 Risk management plan

12.1 Critical risks

Council is committed to the identification and elimination or reduction of risks associated with hazards that arise throughout Council's operations as far as reasonably practicable. Our risk assessment process:

- Identifies credible risks
- Analyses the likelihood of the risk event occurring
- Assesses the consequences should the event occur
- Develops a risk rating ('likelihood' times 'consequences')
- Evaluates the risk
- Details a risk treatment plan for non-acceptable risks.

The critical risks identified for our stormwater drainage assets are summarised in the following table. The table includes the risk treatment plans that have been developed to reduce the likelihood of these risks and to limit their impact.

Table 12.1: Critical risks for our stormwater drainage assets

No.	Description	Likelihood / frequency	Consequence	Risk rating	Risk treatment plan
1	Stormwater drain pipes become blocked	Possible / yearly	<ul style="list-style-type: none"> • The town of Warren floods 	High	<ul style="list-style-type: none"> • Inspect and clear stormwater drain pipes quarterly • Conduct routine maintenance • Conduct renewal work as required • Allocate funds to an asset renewal reserve

12.2 Critical assets

Critical assets are specific assets which have a high consequence of failure. For example, failure would cause a financial loss within the community or a marked reduction of service. Generally, critical assets do not necessarily have a high likelihood of failure.

By identifying critical assets and critical failure modes, Council can appropriately target and refine inspection regimes, maintenance plans and capital expenditure plans.

Operations and maintenance activities may also be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency and higher maintenance intervention levels.

Given the importance of avoiding flooding within the town of Warren during heavy storms, Council has determined that all of our stormwater drainage assets are critical assets.

13 Asset management improvement program

Council has identified several initiatives to improve its asset management capabilities in relation to its stormwater drainage assets. These are outlined below.

Table 13.1: Asset management improvement program, stormwater drainage assets

Area	Task	Who	When
1. Systems and processes	<p>Implement an integrated asset management system and associated processes. This will enable Council to:</p> <ul style="list-style-type: none"> Integrate its engineering and finance functions Store and access all asset management data from a single source Manage, upload and retrieve asset condition ratings more regularly and in a consistent format Track patterns of asset deterioration Produce timely and accurate reports including: <ul style="list-style-type: none"> The annual financial reports Detailed asset costing and valuation reports Asset component reports Financial and sustainability benchmark reports Reports supporting the LTFP Simplify all asset management decision making Enhance Council's predictive capabilities (using up-to-date condition data and unit rates) to assist with decisions on where it should be allocating its asset funding or if it should be seeking additional funding Support the engineering services division by producing and tracking work orders and then transferring the costs of this work to the general ledger in real time 	Divisional Manager Finance and Administration Services / Divisional Manager Engineering Services	December 2021
2. Accuracy and completeness of asset condition data	<p>Capture accurate and complete asset condition data regularly. This will allow Council to:</p> <ul style="list-style-type: none"> Improve its understanding of asset deterioration patterns over time Allocate capital renewal funding according to the actual condition of Council's assets 	Divisional Manager Engineering Services	May 2021
3. Community expectation benchmarks	<p>Track Council's performance against its community expectation benchmarks. This will ensure that it will:</p> <ul style="list-style-type: none"> Maintain its assets at the level that is required by the community 	Divisional Manager Engineering Services	May 2021
4. Productivity improvements	<p>Implement a productivity improvement program to:</p> <ul style="list-style-type: none"> Reduce Council's unit rate costs for asset renewal Increase the time between rehabilitation work Ensure that Council is only renewing assets that need renewing 	Divisional Manager Engineering Services	December 2021