2022-2031

Asset Management Plan Stormwater Drainage

Randwick City Council
a sense of community

June 2022

Contents

1.0 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

Asset Management planning is a comprehensive process to ensure infrastructure benefits are optimised to meet community needs in a financially sustainable manner.

This Stormwater Drainage Asset Management Plan (Stormwater Drainage AMP) details information about stormwater drainage assets with actions required to provide an agreed level of service in the most cost-effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and funding requirements over the 10-year planning period. The Stormwater Drainage AMP funding model supports the development of the Long-Term Financial Plan and overall Resourcing Strategy of the Integrated Planning and Reporting Framework.

1.2 Asset Description

This plan covers Randwick City Council's stormwater drainage network which comprise of various components including:

- Stormwater Pits
- Stormwater Conduits
- Headwalls
- Gross Pollutant Traps

The above infrastructure assets have a replacement value estimated at $380,912,235.

1.3 Levels of Service

The allocation in the planned budget for stormwater drainage assets is sufficient to continue providing services at agreed levels of service for the planning period.

The main objectives of the planned funding budget are:

- There is sufficient budget allocated for renewal of assets as they reach the end of life.
- There is sufficient budget in maintenance and operations with minor increase in the future years.
- There is sufficient budget to acquire new assets to meet community needs.

1.4 Future Demand

The factors influencing future demand and the impacts they have on service delivery are created by:

- The need to construct new stormwater lines to address localised flooding.
- The need for major trunk drainage upgrades or drainage structures for flood mitigation.
- Projected increase in population of 23% by the NSW Department of Planning and Environment by 2036.
- New private development to accommodate a projected increase in population of 23% by 2036 as estimated by the NSW Department of Planning, Industry and Environment.

These demands will be approached using a combination of managing existing assets, upgrading existing assets and providing new assets to meet demand. Demand management practices may

also include a combination of non-asset solutions, insuring against risks and managing failures. To manage demand effectively, consideration must be given to:

- Balancing priorities for infrastructure with what the community is prepared to pay
- Assess capacity to fund current and improved levels of service
- Timing of renewal projects with acquisition projects through effective project management

1.5 Lifecycle Management Plan

1.5.1 What does it Cost?

The forecast lifecycle costs necessary to provide the services covered by this Stormwater Drainage AMP includes operation, maintenance, renewal, acquisition, upgrade of existing assets and construction of new assets. This AMP has been developed to inform the Long-Term Financial Plan over a period of 10 years. The 10-year forecast total funding required for stormwater drainage assets is estimated a $28,821,000 or on average $2,882,100 per year.

Stormwater drainage assets have a long life. The age profile of this asset class results in the requirement for only a small amount of renewal work during the planning period. Overall, our stormwater assets are depreciating by $2,788,066 annually.

Budget allocation over and above the projected renewals covered by this AMP is required to ensure the future sustainability of this asset class beyond the 10-year planning period.

1.6 Financial Summary

1.6.1 What we will do

The forecast funding budget for the 10-year period is $29,260,000 or an annual average of $2,926,000 as per the Long-Term Financial plan or Planned Budget. This is 101.5% of the cost to sustain the current level of service at the lowest lifecycle cost.

To manage infrastructure, we can only manage assets based on what is funded in the long-term financial plan. The Informed decision making depends on the Stormwater Drainage AMP emphasising the consequences of planned funding on the service levels provided and risks.

The planned funding budget for stormwater drainage assets is $43,900 more, on average, per year of the forecast lifecycle costs required to provide services in the AMP. This is shown in the figure below.

It is proposed that the forecast budget amount be included in the Long-Term Financial Plan for the Stormwater Drainage asset class.

Forecast Lifecycle Costs and Planned Budgets

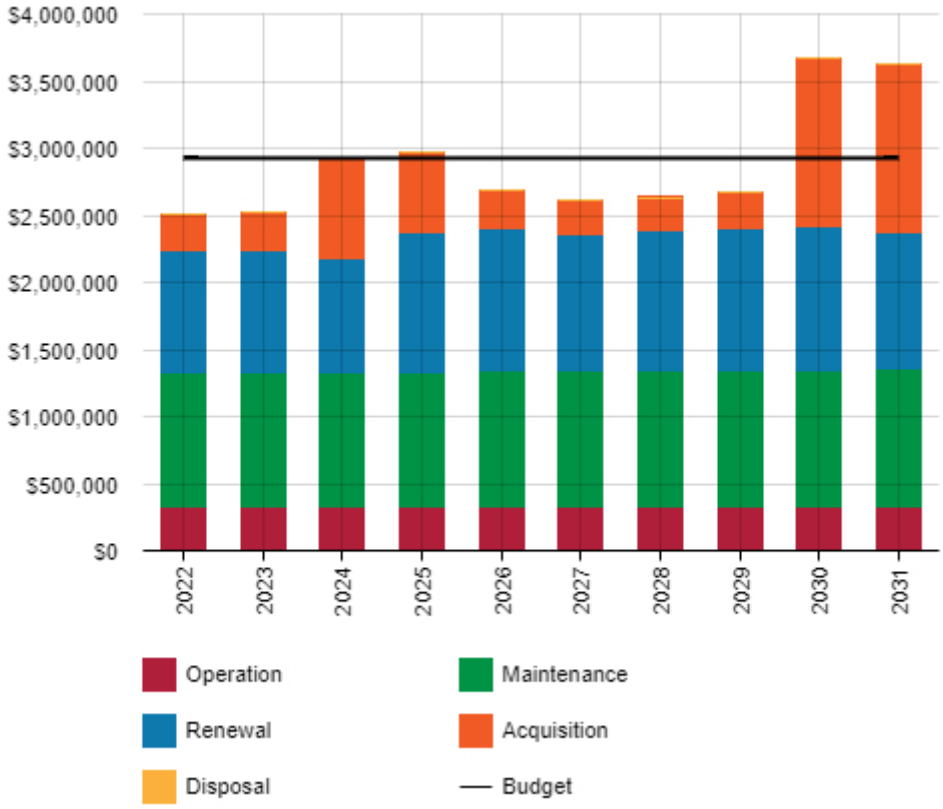


Figure values are in current dollars.

We plan to provide funding for stormwater drainage assets to undertake:

- Operation, maintenance, renewal and acquisition of stormwater assets to meet service levels.
- Construct new drainage lines to address localised flooding

1.6.2 What we cannot do

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

- Expansion of the stormwater network faster than the currently planned rate
- Address major flooding impacts by constructing new trunk drainage as flood mitigation

1.6.3 Managing the Risks

Our present budget levels are sufficient to continue to manage risks in the medium term. The main risks associated with this asset class are:

- Council staff unable to meet service levels due to inadequate funding
- Dilapidated stormwater assets due to lack of planning
- Public safety risks due to failure to undertake operational maintenance

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

- Ensuring asset management practice as set-out by this AMP

- Funding requirements are appropriately allocated, and programs developed
- Continual focus on asset condition assessment and validation
- Ongoing dialogue and consultation with the community

1.7 Asset Management Planning Practices

Key assumptions made in this Stormwater Drainage AMP are:

- Asset values and dimensions are correct
- 100% of council's stormwater assets have been inspected and updated accordingly
- The estimates used for current rates of renewal will remain constant
- Assets requiring renewal are identified from the asset register method

The Asset Register was used to forecast the renewal lifecycle costs for this AMP.

This Stormwater Drainage AMP is based on highly reliable confidence level of information.

1.8 Monitoring and Improvement Program

The next steps to improve asset management practices for the Stormwater Drainage AMP are:

- Improve asset register data confidence.
- Review resilience of service delivery
- Include priority weighting methodology in maintenance and operation of assets. The four categories include: Condition, Functionality, Usage and Criticality
- Improve proactive maintenance planning and reporting mechanisms
- Establish a Strategic Asset Management system
- Improve Council staff awareness of asset management principles

2.0 Introduction

2.1 Background

This Stormwater Drainage AMP details the requirements for the sustainable delivery of services through management of assets, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the 10-year planning period.

The AMP is to be read in conjunction with the Randwick City Council planning documents. This should include the Asset Management Policy and Asset Management Strategy, along with other key planning documents including:

- Randwick City Plan - Community Strategic Plan (CSP)
- Informing Strategies – Arts and Culture, Economic Development, Environment, Housing, Inclusive Randwick, Integrated Transport and Open Space and Recreation
- Randwick Local Environmental Plan
- Randwick Council Resourcing Strategy including the Asset Management Strategy, Long Term Financial Plan, Workforce Management Plan and Digital Strategy
- Delivery Plan and Annual Operational Plans
- Asset Management Plans
- Randwick City Council Community Consultation Principles and Consultation Planning Guide.

The infrastructure assets covered by this AMP include Stormwater pits, conduits, headwalls, gross pollutant traps and other stormwater related assets. For a detailed summary of the assets covered in this AMP refer to Section 5.

The stormwater network collects and conveys stormwater runoff via an underground network and discharges it into a receiving water way. The network has capacity to cater for more frequent and lower intensity storm events. This system provides a safer urban environment to our local community.

The infrastructure assets included in this plan have a total replacement value of $380,912,235.

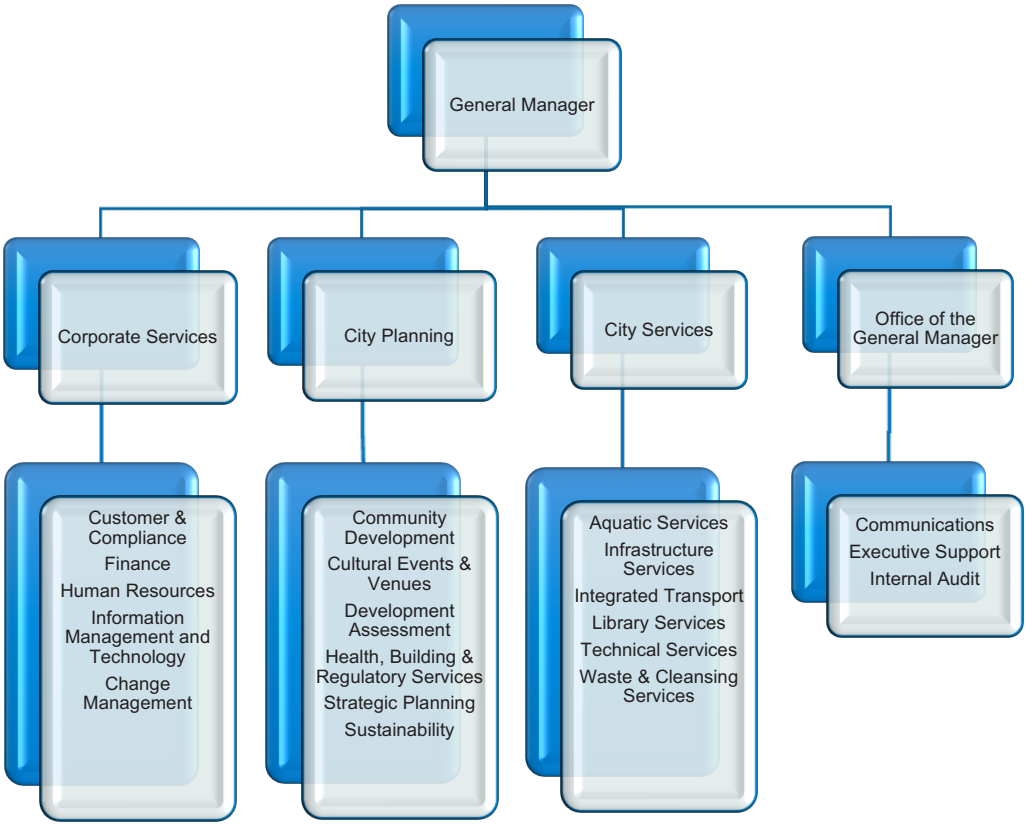
Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.

Table 2.1: Key Stakeholders in the AMP

Key Stakeholder	Role in Asset Management Plan
Council Representatives	Represent needs of community/shareholders. Allocate resources to meet planning objectives in providing services while managing risks. Ensure service is sustainable.
Council Officers	Manage stormwater assets throughout the lifecycle. Ensure level of service provided meets needs of residents and visitors. Implement the components identified in the Stormwater Drainage AMP.

Key Stakeholder	Role in Asset Management Plan
Residents	Primary beneficiaries of stormwater assets. Their needs, wants and expectations are conveyed to the Council and should be reflected in desired levels of service
Visitors	Second largest group of beneficiaries from stormwater assets. Their needs, wants and expectations drive the replacement in areas of the highest visitor usage and commercial areas.
Insurers	Insurers have interest in implementation of systems which allow Council to gain better knowledge of the condition of their assets. Systems should be reflected in the number of claims made against each asset group.

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Ownership

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

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,

- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing, and appropriately controlling risks, and
- Linking to a Long-Term Financial Plan which identifies required, affordable forecast costs and how it will be allocated.

Key elements of the planning framework are:

- Levels of service – specifies the services and levels of service to be provided,
- Risk Management – utilise Council's Risk Management Framework to effectively mitigate risks arise,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Lifecycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

Other references to the benefits, fundamentals principles and objectives of asset management are:

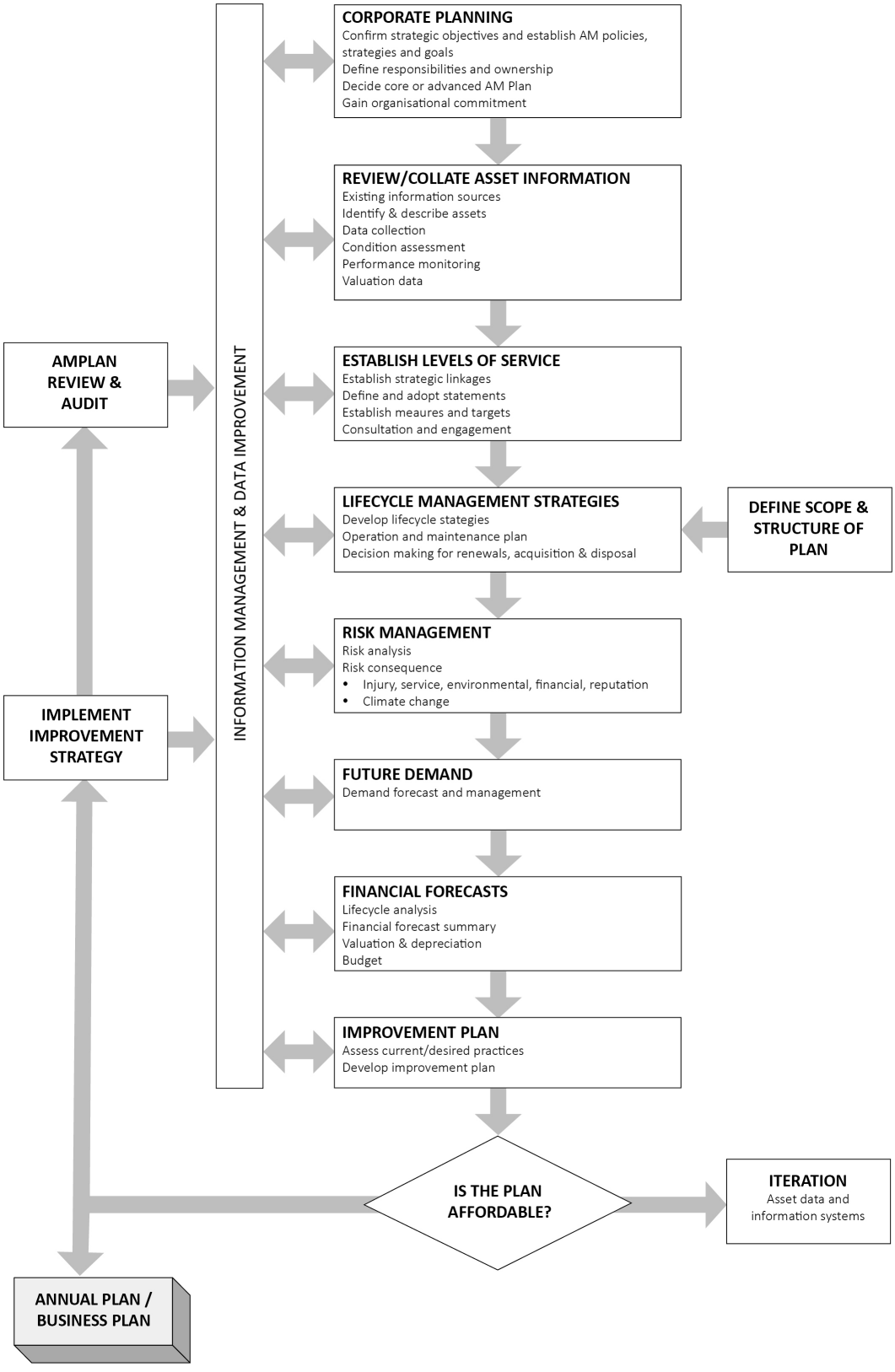
- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13

[2] ISO 55000 Overview, principles and terminology

A road map for preparing an AMP is shown below.

Road Map for preparing an Asset Management Plan
Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11



3.0 LEVELS OF SERVICE

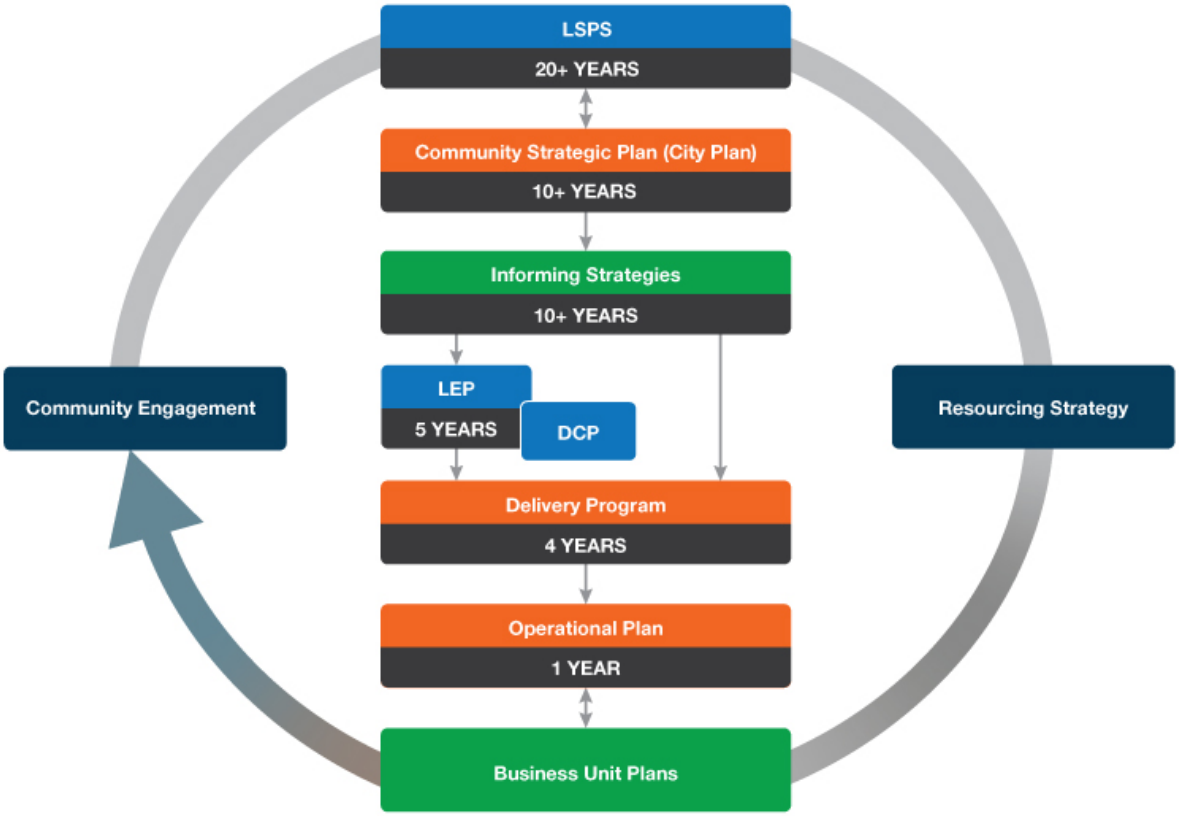
3.1 Customer Research and Expectations

Levels of service should be developed in consultation with the community. Future revisions of the AMP will incorporate customer consultation on service levels and costs of providing the service. This will assist the Councillors and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

We currently have historic understanding of customer expectations. Community satisfaction information has been used in developing the 10-year Randwick City Plan and in the allocation of resources in the budget.

3.2 Strategic and Corporate Goals

This AMP is prepared under the direction of the 10-year Community Strategic Plan and Informing Strategies within the Integrated Planning and Reporting (IPR) framework. This AMP forms a part of the Resourcing Strategy.



Strategic goals have been set by the Randwick City Plan (CSP). The relevant goals and objectives and how these are addressed in this AMP are summarised in Table 3.2.

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

Randwick City Plan Outcome	Direction	Objective	How Goal and Objectives are addressed in the AMP
Outcome 1. Leadership in Sustainability	Direction 1a: Council has a long-term vision based on sustainability.	Ensure financial strategies underpin Council's asset management policies and strategic vision.	The Stormwater Drainage Asset Management Plan aligns with Council's Resourcing Strategy, including the Asset Management Strategy, Workforce Plan and Long-Term Financial Plan.
Outcome 6: A Liveable City	Direction 6a: Our public infrastructure and assets are planned, managed, and funded to meet the community expectations and defined levels of service.	Plan asset renewals and construct or accept dedication of new assets in accordance with adopted service levels.	The Stormwater Drainage AMP includes funding for renewal and new assets including provisions for performance monitoring against adopted service level.
		Implement the strategic asset management system to deliver intergenerational equity and meet the Council's obligations as the custodian of our community's assets.	The implementation of a Strategic Asset Management System is a part of the monitoring and improvement program within this Asset Management Plan.
Outcome 6: A Liveable City	Direction 6c: The safety of our community is paramount and is acknowledged and supported through proactive policies, programs, and strategies.	Conduct programmed maintenance and minor reactive maintenance management in accordance with adopted service levels.	Conduct regular condition assessment to plan maintenance Respond to customer requests within service level agreements Identify High and Extreme risk stormwater assets Planned inspections for High and Extreme risk stormwater assets Develop an operational and maintenance plan and allocate funding to carry out remediation work as required.

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the stormwater assets are outlined in Table 3.3.

Table 3.3: Legislative Requirements

Legislation	Requirement
NSW Local Government Act 1993	Sets out role, purpose, responsibilities, and powers of local government including the preparation of a long-term financial plan supported by asset management plans for sustainable service delivery.
Australian Accounting Standard	Reporting on asset condition and consumption to Councillors, management, and the community.
NSW Roads Act 1993	Sets out role, purpose, responsibilities and powers of local roads authority.
Protection of the Environment Operations Act 1997	This Act aims to protect, restore and enhance the quality of the environment in New South Wales though the application of a rational and simple regulatory framework.
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the court to consider the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards.
Environmental Planning and Assessment Act 1979	This act aims to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.
Coastal Protection Act 1979	The objects of this Act are to manage the coastal environment of New South Wales in a manner consistent with the principles of ecologically sustainable development for the social, cultural and economic well-being of the people of the State.
Stormwater Levy Guidelines	This is a state government initiative allowing Local Government to allocate a charge to ratepayers that benefit from Council's Stormwater infrastructure. For Council to continue charging the current rate, drainage funds must be maintained at the current level.
Workplace Health and Safety Act 2011	Protecting Works and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work.
Water Management Act 2000	The objects of this Act are to provide for the sustainable and integrated management of the water sources of the State for the benefit of both present and future generations

3.4 Customer Values

Service levels are defined in three ways: customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer?
- whether they see value in what is currently provided, and
- the likely trend over time based on the current budget provision

Table 3.4: Customer Values

Service Objective: **Effective stormwater management to minimise impact on flooding.**			
Customer Values	**Customer Satisfaction Measure**	**Current Feedback**	**Expected Trend Based on Planned Budget**
Effective flood management	No. of claims made to Council	A small number of claims are made to Council.	Number of claims is reducing.
Good quality water discharged from stormwater systems	Satisfaction survey results	Previous survey related to customer service request response time is 95% resolved within SLA.	Increase in satisfaction score
Minimal disruption to local residents	Satisfaction survey results	'Above average' satisfaction for Transport, Roads and Drainage in 2021 survey.	Increase in community satisfaction

3.5 Customer Levels of Service

The Customer Levels of Service are considered in terms of:

Function The stormwater system must be fit for purpose and the intention of stormwater asset shall be well defined;

Quality How good is the service… *what is the condition or quality of the service*;

Capacity/Use Is the stormwater network capacity adequate?… *do we need increased capacity?*

Safety Is it safe for intended purpose?

In Table 3.5 under each of the service measure types (Function, Quality, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Table 3.5: Customer Level of Service Measures

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Capacity and use	Continue catchment study and floodplain management to assess the current capacity of the drainage network	Number of Floodplain Risk Management Plans completed.	Flood Studies completed for all 7 catchments. Floodplain Risk Management Plans completed for 4 catchments, with 1 underway.	Floodplain Risk Management Plans be completed for all catchments before the end of the planning period.
	Confidence levels		High	High
Function	Stormwater events cause minimal disruption to community.	Customer satisfaction survey results	'Above average' satisfaction for Transport, Roads and Drainage in 2021 survey.	Customer satisfaction be improved.
		Reduction in stormwater damage claims made against Council	0 claims made to Council in 2017-2021	Maintain current approach.
	Confidence levels		Medium	Medium
Quality	Water quality discharged from stormwater systems meet environmental standards.	Water quality monitoring data from Beach watch program	All Council beaches water quality are trending towards good condition between 2018-2021	Water quality continues to improve
	Confidence levels		High	Medium

3.6 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance. These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance.

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

- **Acquisition** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).
- **Operation** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally provided (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement)

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.[3]

Table 3.6 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the forecast activity requirements being recommended in this AMP.

Table 3.6: Technical Levels of Service

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
TECHNICAL LEVELS OF SERVICE				
Acquisition	Network upgrade to reduce flooding impact to properties	Based on flood studies and complaints from residents	Resolve issues case by case as they arise.	Maintain current approach.
		Budget	$500,000	$545,000
Operation	Routine cleaning of stormwater assets in town centres.	Frequency of cleaning	Scheduled Street cleaning program	Maintain Current performance
	Apply a risk management approach to Stormwater inspections	20% of network to be inspected annually.	20% inspected annually.	Maintain Current performance
		Budget	$321,000	$324,177
Maintenance	Stormwater Repairs	Respond to CRMs within SLA timeframe.	95.8% of Service Requests actioned within allocated time frames.	Proactive repairs achieved
		Budget	$1,005,000	$1,014,884

[3] IPWEA, 2015, IIMM, p 2|28.

Lifecycle Activity	Purpose of Activity	Activity Measure	Current Performance*	Recommended Performance **
Renewal	Renew existing Stormwater assets in poor condition	Renewal program included in capital works budget	Stormwater assets renewed as required	Satisfied with current performance.
		Budget	$1,100,000	$998,039

Note: * Current activities related to Planned Budget.

** Expected performance related to forecast lifecycle costs.

It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

4.0 FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

4.3 Demand Impact and Demand Management Plan

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

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.3. Further opportunities will be developed in future revisions of this AMP.

Table 4.3: Demand Management Plan

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Population	154,265 (As per Randwick Housing Strategy 2021	NSW DPIE projects a 23% increase in population by 2036 within the Randwick Local Government Area.	An increase in population will require an increase in community and infrastructure services. Existing services may require amendment to cater for changes in use or increased patronage.	This AMP allows Council to continue to construct stormwater assets as required per year to help meet future demand. As new developments are completed, there will also be donated assets to help meet the demand created.
	Pollutants in our stormwater system	Higher population will lead to more gross pollutants in the stormwater system with a potential impact on our natural waterways	Reduced water quality within the Randwick LGA.	This AMP allows for a continuation of our commitment to install 1 GPT per year over 10 years which will allow GPTs on all the major water outlets.

Demand driver	Current position	Projection	Impact on services	Demand Management Plan
Demographics	Randwick City Council has: 18% over 60 YO 43% in the 20-45 YO group (As of 30 June 2016, ABS)	Greater proportion of 10-20 YO (>35% growth) Greater proportion of over 60 YO (>45% growth) Low proportion of 25-45 YO (<10% growth)	Greater need for aged and disability access. Increase in population will require improvements to public transport infrastructure and accessible recreational infrastructure including beaches.	This AMP allows Council to budget for various floodplain mitigation projects. Renewal Priority criteria has built-in mechanisms to ensure that Council's Stormwater network is constructed to cater for stormwater requirements.
Technology Changes	Materials used for Stormwater network are typically reinforced concrete structures	Use of more environmentally friendly materials, cheaper to construct and components that provide longer asset life and reduced maintenance requirements.	Potential to reduce maintenance and resource requirements.	New and emerging technologies should be assessed for both performance, abilities to improve service and whole of life costs.

4.4 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated, or constructed. Additional assets are discussed in Section 5.4.

Acquiring new assets will commit Randwick City Council to ongoing operations, maintenance, and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance, and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

4.5 Climate Change Adaptation

The impacts of climate change may have a significant impact on the assets we manage and the services they provide. In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which we respond and manage those impacts.[4]

As a minimum we consider how to manage our existing assets given potential climate change impacts for our region.

Risk and opportunities identified to date are shown in Table 4.5.1

[4] IPWEA Practice Note 12.1 Climate Change Impacts on the Useful Life of Infrastructure

Table 4.5.1 Managing the Impact of Climate Change on Assets and Services

Climate Change Description	Projected Change	Potential Impact on Assets and Services	Management
Increased Rainfall Intensity	Higher Chances of flash flooding.	Stormwater assets reach the full capacity faster	Study to identify solutions to allow time delays to provide reduced impact of conduit capacity.
More extreme weather events	Increase in rain intensity, longer drought period	Stormwater conduits will collect more sand/silt during dry periods, impacting receiving waters and reducing performance of the system	Increased frequency of inspections and additional operational maintenance of stormwater conduits and pits to ensure performance
Need to be carbon neutral	Civil works are high carbon emitting activities. Seek to reduce carbon emission from civil works	The need to increase asset lives and seek alternatives to traditional construction activities (e.g use of structural liners).	Structural pipe relining is one of the many trenchless methods of renewing stormwater assets without excavation reducing environmental impact

Additionally, the way in which we construct new assets should recognise that there is opportunity to build resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change.
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

Table 4.5 summarises some asset climate change resilience opportunities.

Table 4.5 Building Asset Resilience to Climate Change

New Asset Description	Climate Change impact These assets?	Build Resilience in New Works
Concrete Stormwater Structures	Salt attack from sea breeze	Inspect every 5 years from construction, assess if coating of the surface is required to help assets achieve their design life span.
	Severe weathering from coastal winds	Inspect every 5 years from construction, assess if coating of the surface is required to help assets achieve their design life span.

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this asset management plan.

5.0 LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how Randwick City Council plans to manage and operate stormwater drainage assets at the agreed levels of service (Refer to Section 3) while managing life cycle costs.

5.1 Background Data

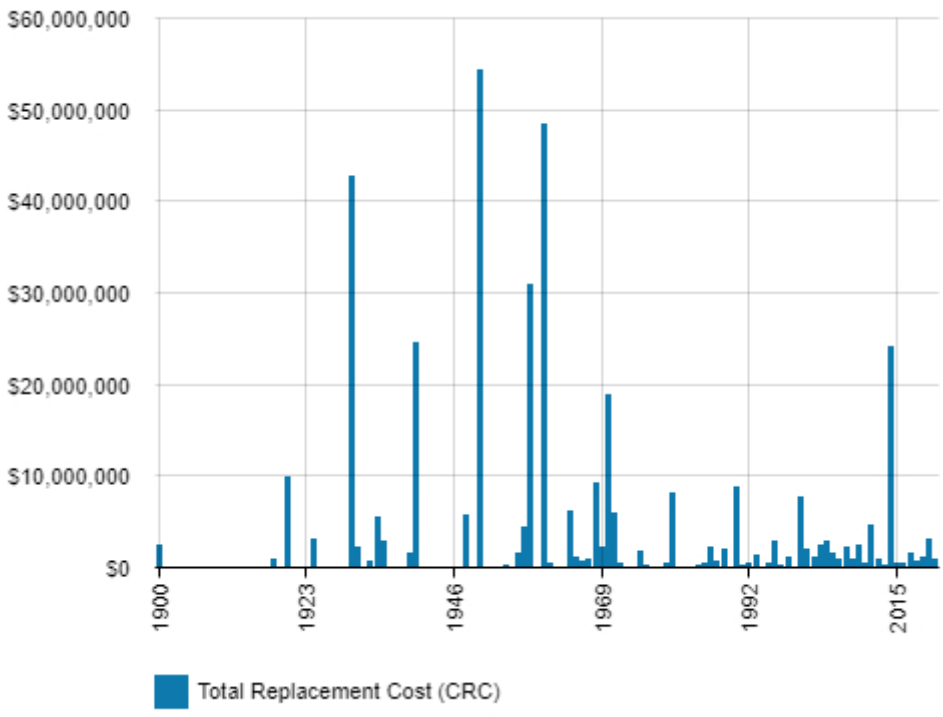
5.1.1 Physical parameters

The assets covered by this AMP are shown in Table 5.1.1. The age profile of the assets included in this AMP are shown in Figure 5.1.1.

Table 5.1.1: Assets covered by this Plan

Asset Components	Quantity	Replacement Value
Stormwater Pits	9,850 Nos	$58,586,573
Stormwater Conduits	275.1km	$322,325,662
Stormwater Headwall / Outlets	285 Nos	$843,125
GPTs	42 Nos	$6,412,156
TOTAL		$380,912,235

Figure 5.1.1: Asset Age Profile



All figure values are shown in current day dollars.

According to Figure 5.1.1, the majority of stormwater assets were built between 1930 and 1960. Based on asset lives for stormwater assets, a significant amount of renewal work will need to be planned around 2040 to 2050.

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Various	Asphalt stormwater assets in poor condition. High risk segments are identified during inspections and included for replacement into capital works programs
Various	Significantly undersized conduits / pits. These assets are identified during inspections and included for replacement into capital works programs

The above service deficiencies were identified from Stormwater inspections undertaken by asset consultants utilising a new type of high definition zoom camera system.

5.1.3 Asset condition

Condition assessment is generally planned for 20 percent of the network every year. With new technology in Stormwater inspections, Council may undertake up to 95% inspection of the network every second year for the same cost. These inspection of Stormwater assets is encompassed within the current funding program.

Condition is measured using a 1 – 10 grading system[5] as detailed in Tables 5.1.3.1 to 5.1.3.3. It is important that a consistent approach is used in reporting asset performance enabling effective decision support.

Table 5.1.3.1: Conduit Condition Grading System

Condition	Grading	Description of Condition
1	New	New, no problems. No defects. Assume less than 5yrs old. (If there is no age information)
2	Excellent	No problems. No defects. Assume 5-10 years old (If there is no age information)
3	Very Good	No problems. Slight Surface wear. No joint defects. Assume 10- 25 years old (If there is no age information)
4	Good	Minor consistent invert wear, Insignificant joint defects or hydraulic pressure impacts. Assume 25-50 years old (If there is no age information)
5	Average	Minor consistent invert wear. Insignificant joint defects or hydraulic pressure impacts. Assume 25-50 years old (If there is no age information)

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

Condition	Grading	Description of Condition
6	Satisfactory	< 5% obstruction to flow due to pipe defects such as calcite build-ups, lateral protrusions, no structural problems. Some surface wear, some seeping joints, or individual fine root intrusion. Assume 70-80 years old (If there is no age information)
7	Unsatisfactory	5-10% obstruction to flow due to pipe defects, or minor structural problems such as cracking, slight joint displacement (Less than thickness of pipe) or minor fine root infestation. Pipe wears existing, many seeping joints or gushing joint. Water can ingress and seep from pipeline. Consider for relining. Assume 80-100 years old (If there is no age information)
8	Poor	<15% obstruction to flow due to pipe defects or significant protrusions, with structural problems and constructional deficiencies such as cracking, joint displacement (thickness of pipe) and/or significant root infestation. Pipe wear severe, many seeping joints or gushing joints. Water can ingress and seep from pipeline. Relining required. Assume 100-120 years old (If there is no age information)
9	Consider Reconstruction	>15% obstruction to flow due to pipe defects or severe protrusions, major structural problems, cracking, joint displacement (> 1.2 thickness), pipe deformation (<10 %), severe pipe wear and/or major root infestation. Significant flows can ingress and seep from pipeline. Relining not an option. Assume greater than 120 years old (If there is no age
10	Imminent Failure/Failed	Urgent reconstruction, Pipe is/will shortly be non functioning. Pipe Deformation (>10%) or collapsed. Significant tree roots or other obstructions present. Relining not an option. Assume greater than 120 years old (If there is no age information)

Table 5.1.3.2: Pit Condition Grading System

Condition	Grading	Description of Condition
1	New	New. No problems. No defects. Assume less than 5yrs old. (If there is no age information)
2	Excellent	No problems. No defects. Assume 5-10 years old (If there is no age information)
3	Very Good	No problems. Surface wear in pit, lintel or grate only. No signs of cracks or water seeping from pit. Assume 10-30 years old (If there is no age information)
4	Good	Minor wear in invert. No structural problems. Minor protrusions that may act as snag points that may result in intermittent obstructions to flow at times (may be due to shape of pit etc.)

Condition	Grading	Description of Condition
5	Average	Some wear in invert. < 5% obstruction to flow due to protrusions. No structural problems. Assume 50-80 years old (If there is no age information)
6	Satisfactory	Minor cracks and protrusions due to less than ideal construction methods or small amounts of dumped concrete etc. Outlet pipe may not be flush with pit wall but sealed. Assume 80-100 years old (If there is no age information)
7	Unsatisfactory	Structural problems such as small open cracks. Protrusions present that encourage blockages. Severe invert wear. Outlet pipe not flush with pit wall and not sealed. Sump does not drain. Assume 100-120 years old (If there is no age
8	Poor	Structural problems such as open cracks. Protrusions present that encourage blockages. Severe invert wear. Inlet and outlet pipe not flush with pit wall and not sealed. Sump does not drain. Cracking around connections. Assume 120+ years old (If there is no age information)
9	Consider Reconstruction	Significant structural problems such as large cracks missing bricks and wall deformations. Protrusions present that cause blockages. Severe invert wear or invert missing. Inlet and outlet pipe not flush with pit wall and not sealed. Cracking around connections. Assume 120+ years old (If there is no age information)
10	Imminent Failure/Failed	Urgent reconstruction, Pit is/will shortly be non-functioning (Due to structural reasons). Pit walls deformed or collapsed. Reinforcement exposed and corroded. Major obstructions present such as concrete, or protruding bricks. Assume 120+ years old (If there is no age information)

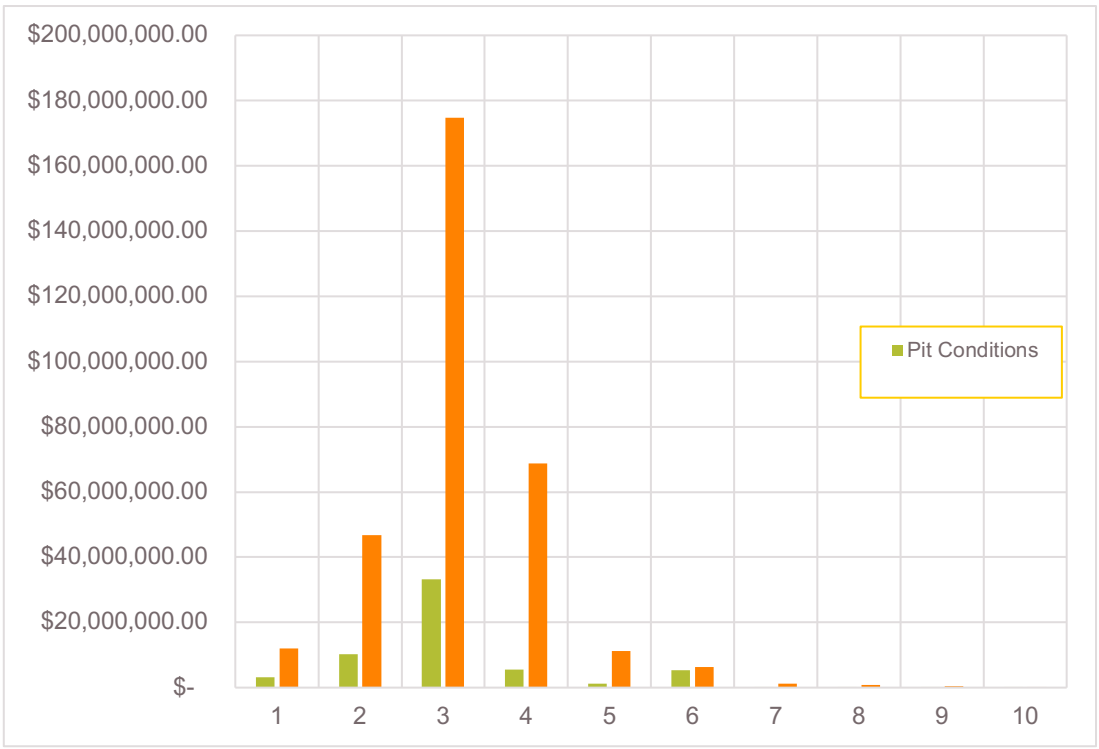
Table 5.1.3.3: Lintel & Grate/Lid Condition Grading System

Condition	Grading	Description of Condition
1	New	New. No problems. No defects. Assume less than 5yrs old. (If there is no age information)
2	Excellent	No problems. No defects. Assume 5-10 years old (If there is no age information)
3	Very Good	No problems. Surface wear in pit, lintel or grate only. No influence to water tightness. Assume 10-30 years old (If there is no age information)
4	Good	Good condition. Surface wear only. Assume 30-50 years old (If there is no age information)
5	Average	Showing some wear and tear. Assume 50-80 years old (If there is no age information)

Condition	Grading	Description of Condition
6	Satisfactory	Lintel may be cracked but functioning and not blocked. Grate may be damaged but not a danger to public nor any reduction in functionality. Assume 80-100 years old (If there is no age information)
7	Unsatisfactory	Lintel may be damaged and partially blocked or grate may be damaged, and functionality reduced. Consider lintel replacement. Assume 100-120 years old (If there is no age information)
8	Poor	Lintel is damaged and blocked and grate is damaged, and functionality reduced. Required lintel replacement. Consider grate replacement. Assume 120+ years old (If there is no age information)
9	Consider Reconstruction	Lintel is damaged and blocked and grate is damaged, and functionality reduced. Required lintel and grate replacement. Consider pit reconstruction. Assume 120+ years old (If there is no age information)
10	Imminent Failure/Failed	Grate is damaged and lintel crushed. Part replacement not an option. Danger to public. Assume 120+ years old (If there is no age information)

The condition profile of our assets is shown in Figure 5.1.3.

Figure 5.1.3: Asset Condition Profile



All figure values are shown in current (real) dollars.

The current asset conditions are good with most asset conditions assessed to be condition 3 to 4. The distribution is skewed towards the very good condition.

Should these good conditions not be maintained, there will be a progressive deterioration in overall condition leading to unsustainable renewal requirement in the long term. Management of these assets to spread, extend the lifespan may change the asset renewal timeframe. Other lifecycle methods would be to bring forward or delay some of the renewal times based on a risk assessment approach.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services. Examples of typical operational activities include cleaning, street sweeping, asset inspection, and utility costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include pipe repairs, asphalt patching, and equipment repairs.

The trend in maintenance budgets is shown in Table 5.2.1.

Table 5.2.1: Maintenance Budget Trends

Year	Maintenance Budget $
2020	$834,233
2021	$909,543
2022	$1,004,954 (projected)

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

Assessment and priority of reactive maintenance is currently undertaken by staff using experience and sound professional judgement. There is an inherent risk in depending on staff to use experience. The risk is identified in the Section 6 under Risk Management. The improvement plan in Section 8.2 also indicates an improvement on the prioritisation methodology.

5.2.1 Asset hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.2.2.

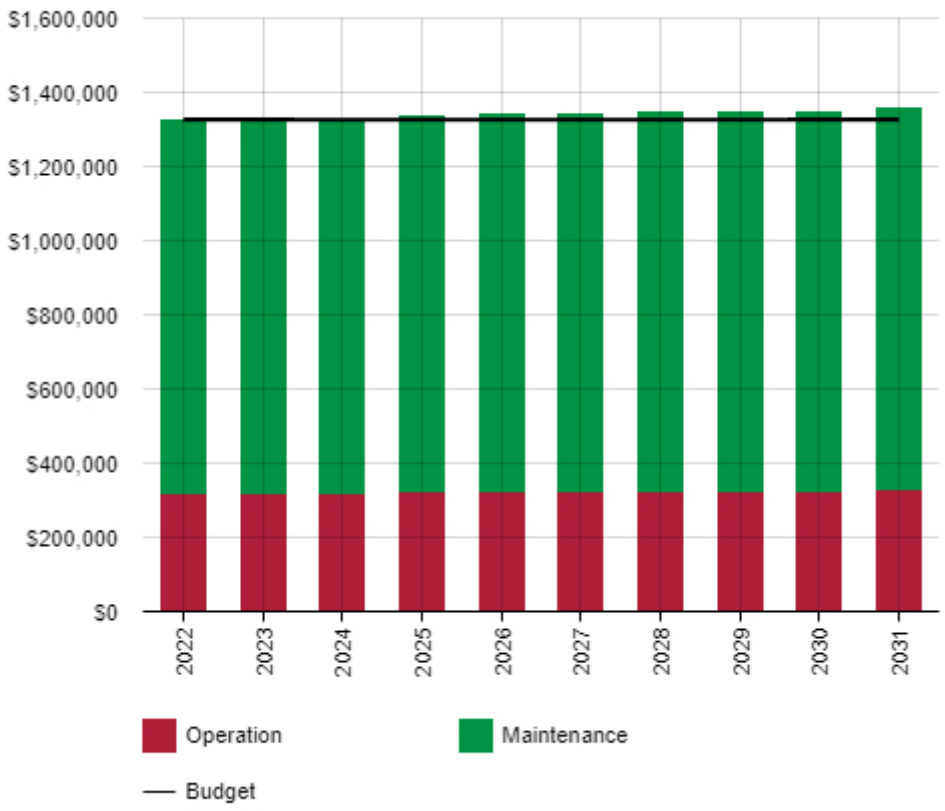
Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Stormwater Pits	To inspect, assess, make the asset safe within 24 hours of reporting. Plan the rectification to reduce reconstruction costs.
Stormwater Pipes	To inspect, assess, make the asset safe within 24 hours of reporting. Plan the rectification to reduce reconstruction costs.
GPTs	To inspect, assess, make the asset safe within 24 hours of reporting. Plan the rectification to reduce reconstruction costs.
Headwall	To inspect, assess, make the asset safe within 24 hours of reporting. Plan the rectification to reduce reconstruction costs.

5.2.2 Summary of forecast operations and maintenance costs

Forecast operations and maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations and maintenance costs are forecast to increase. If assets are disposed, the forecast operation and maintenance costs are expected to decrease. Figure 5.2 shows the forecast operations and maintenance costs relative to the proposed operations and maintenance Planned Budget.

Figure 5.2: Operations and Maintenance Summary



All figure values are shown in current day dollars.

The forecast operations and renewal costs are in line with the proposed operations budget. However, with the growing cost of material, labour, and new acquisitions, it is likely that the budget for future operations and maintenance will require review every 5 years to keep up with the growing cost. The increase in maintenance cost while insignificant, will create deferred maintenance items causing increased deterioration and a potential shorter lifespan of assets.

5.3 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces, or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses Asset Register data to project the renewal costs (current replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an alternative approach to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in Table 5.3. Asset useful lives were last reviewed on 30 June 2021.[6]

Table 5.3: Useful Lives of Assets

Asset (Sub)Category	Useful life
Concrete Stormwater Pits	100 years
Concrete Stormwater Conduits	120 years
Relined Stormwater Conduits	100 years
Stormwater Headwalls	100 years
GPTs	100 years
Reedbed	15 years
Surface Channel	100 years
Trench Grates	80 years
Edge Kerb Inlet / Outlet (Lintels)	80 years

The estimates for renewals in this AMP were based on the asset register method.

5.3.1 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a bridge that has a 5t load limit), or

[6] D03483347

- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a playground).[7]

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant,
- Have higher than expected operational or maintenance costs, and
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[8]

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

Table 5.3.1: Renewal Priority Ranking Criteria

	Criteria	Wt	Range	Score	Comments
Rating E.g.	BCR High BCR = High Rating e.g. BCR > 1 = rating of 4-5	3	1-5	X	BCR = 0 No Property Damage
Q to ask? **Rating E.g.**	Likelihood of Damage What is the Annual Exceedance Probability? Is the Area in a sag point? Is the area a known flood prone area? High probability of damage = High Rating (e.g. Floods in a 1 in 2 year storm = rating of 4-5)	2	1-5	X	From comments in letter. May be often but no damage.
Q to ask? **Rating E.g.**	Consequences of Damage Is the area a known flood prone area? Has there been a history of complaints in the area? Is there potential for injuries to occur? Is there potential for property damage to occur? Is the potential property damage above ground or above floor flooding? Catastrophic consequences of damage = High Rating (e.g. drainage line under house = rating of 4-5)	4	1-5	X	No property damage Potential slip hazard but mostly nuisance
Q to ask? **Rating E.g.**	Total Cost of Works Is the cost prohibitive? Can the work be done under maintenance? Low Cost Solution = High Rating (e.g. cost only under $5,000 can do under maintenance = rating of 4-5)	2	1-5	X	Low cost solution
Q to ask? **Rating E.g.**	No. of Complaints What is the number of complaints? What is the number of persons complaining? Has there been a history of complaints in the area? No complaints = 1, Council staff = 3, Petition = 5	3	1-5	X	Written complaint from Councillor

[7] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.

[8] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

	Criteria	Wt	Range	Score	Comments
Q to ask? Rating E.g.	Effectiveness of Works Proposed Will the work reduce flooding significantly? Reduction in risk is significant, reduce to almost zero = High Rating (e.g. Flooding reduced to an insignificant level in 1% AEP storm = rating of 4-5)	2	1-5	X	Expect to be effective
Q to ask? Rating E.g.	Current condition of existing infrastructure – if any Is there any infrastructure that is in need of repair anyway? If condition of infrastructure is poor = High Rating	3	1-5	X	Good
Q to ask? Rating E.g.	Likelihood of Development in area Is there a chance a developer requiring the reconstruction/upgrade/relocation of infrastructure due to works? Is there an opportunity to upgrade infrastructure on a demolition site? e.g. If it is likely that a developer will commence and will be conditioned to upgrade system = High Rating	1	1-5	X	No chance of development
	Total Score as Percentage (Min 20% - Max 100%)			**Xxx**	

Table 5.3.2: Removal and Replacement Priority Scores

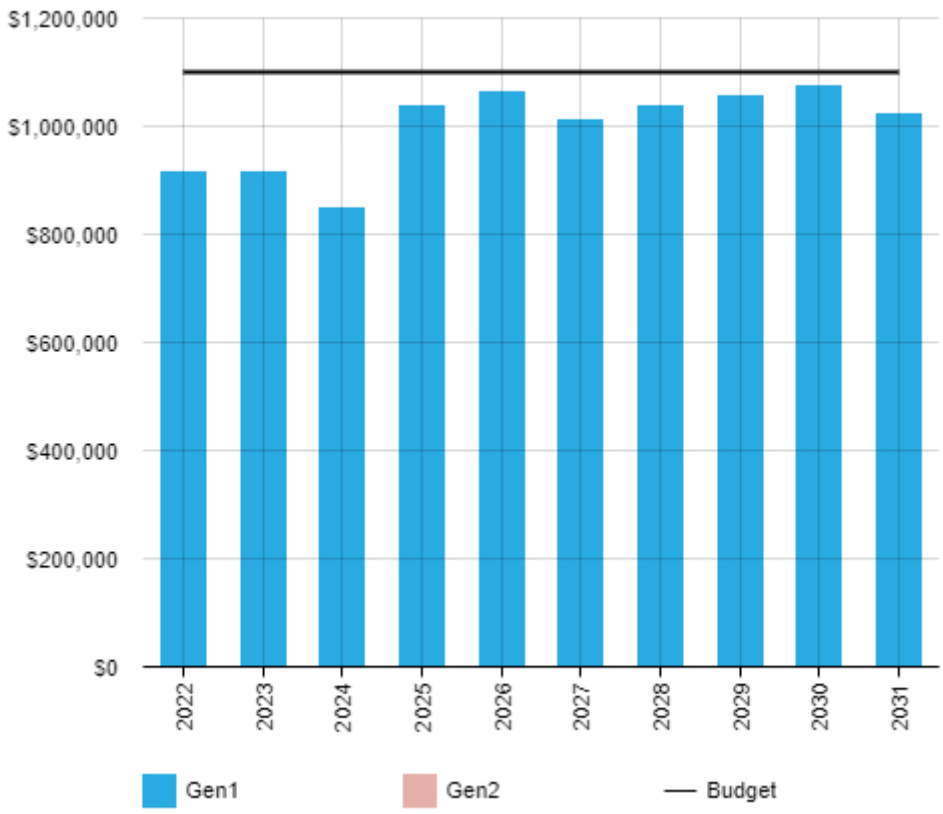
Priority	Score
Very Low Priority	20-40
Low Priority	41-50
Low – Medium Priority	51-60
Medium Priority	61-70
Medium – High Priority	71-80
High Priority	81-90
Extreme Urgency	91-100

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost. Examples of low cost renewal include relining or flow redirection with new pits and short sections of pipeline.

5.4 Summary of future renewal costs

Forecast renewal costs are projected to increase over time with the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in Figure 5.4.1. A detailed summary of the forecast renewal costs is shown in Appendix D.

Figure 5.4.1: Forecast Renewal Costs



All figure values are shown in current day dollars.

The forecast renewal costs are generally below the proposed renewal budget. As an average, this is an indicator that there is sufficient funding for renewal of assets in the next 10 years. This renewal plan captures the renewal requirement for assets near the end of their life and in accordance with the selection criteria identified.

5.5 Acquisition Plan

Acquisition is the practice of creating new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated / dedicated to Randwick City Council.

5.5.1 Selection criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the services are sustainable over the longer term. Verified proposals can then be ranked by priority, available funds and scheduled in future works programmes. The priority ranking criteria is detailed in Table 5.5.1.

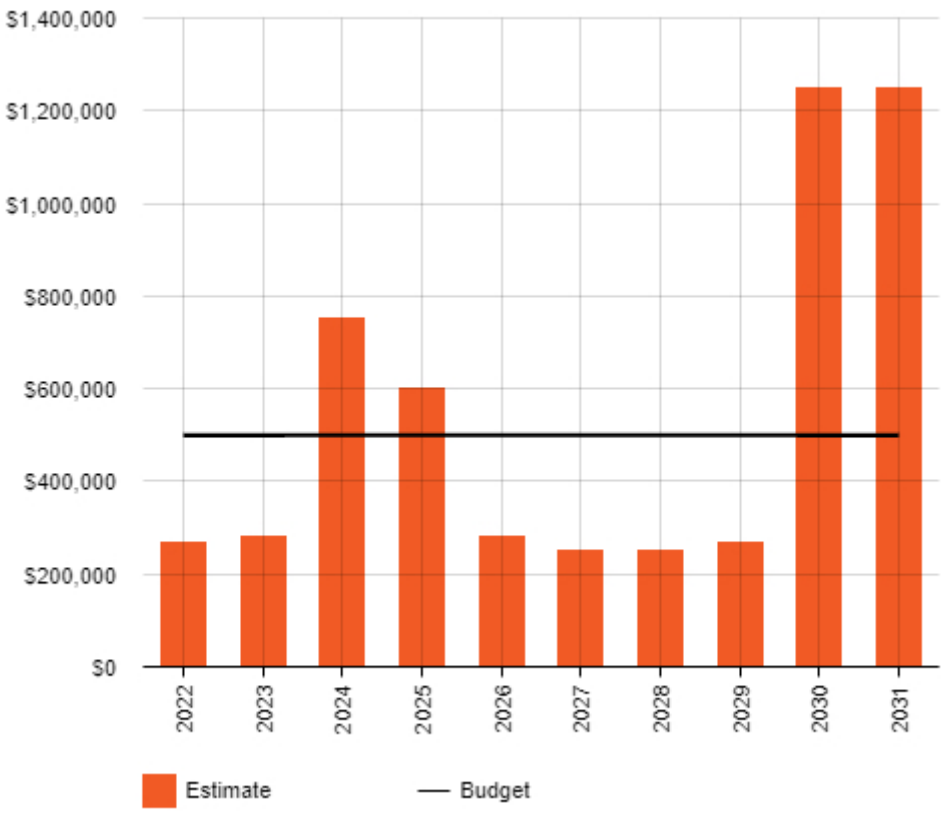
Table 5.5.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Community – Function	30%
Community – Quality	5%
Technical – Condition	10%
Technical – Risk of Failure	40%
Technical – Operating/Maintenance and Lifecycle Cost	15%
Total	100%

Summary of future asset acquisition costs

Forecast asset acquisition costs are summarised in Figure 5.5.1 and shown relative to the proposed acquisition budget. The forecast acquisition capital works program is shown in Appendix A.

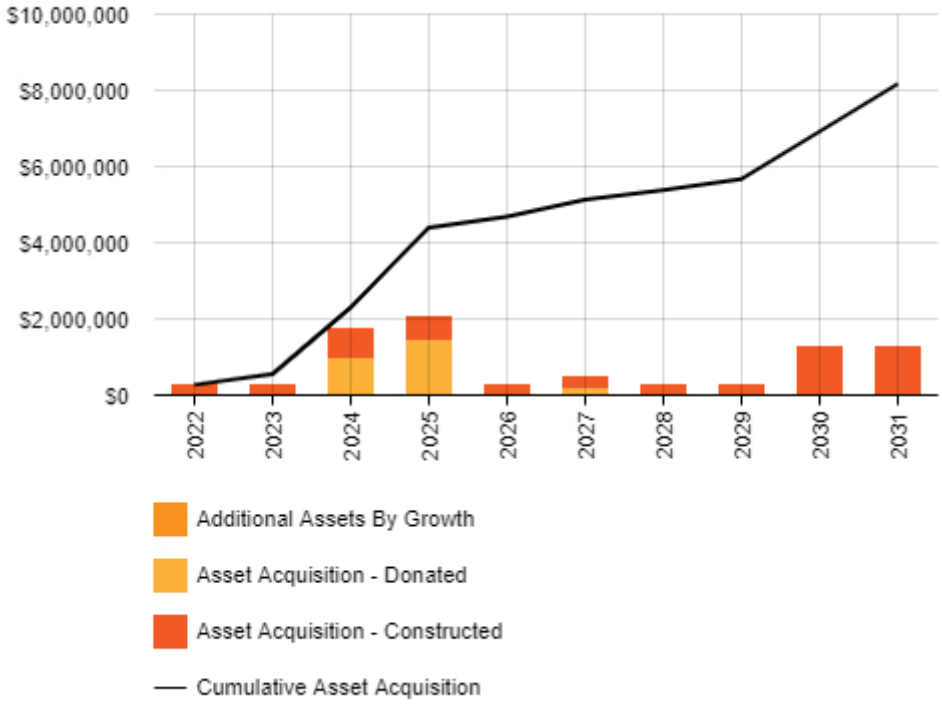
Figure 5.5.1: Acquisition (Constructed) Summary



All figure values are shown in current day dollars.

When Council commits to new assets, we must be prepared to fund future operations, maintenance and renewal costs. We must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by Council. The cumulative value of all acquisition work, including assets that are constructed and contributed shown in Figure 5.5.2.

Figure 5.5.2: Acquisition Summary



All figure values are shown in current dollars.

Expenditure on new assets and services in the capital works program will be accommodated in the long-term financial plan, but only to the extent that there is available funding.

The planned acquisition will be constructed stormwater assets from Council's capital works program. There will be some donated / dedicated assets by means of federally funded assistance program to structurally improve flooding situations.

The sustained increase in planned acquisition is mainly due to Council's commitment to construct 1 GPT per year over 10 years, to improve stormwater quality as per council's Environment Strategy.

5.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition, or relocation. There are currently no assets being identified for decommissioning and disposal. Costs incurred from early disposal of assets were not included in this asset management plan. The cost incurred will be the residual values of the assets being renewed prior to the end of life. Depending on the performance of such assets, their values can be fully actualised prior to the end of life.

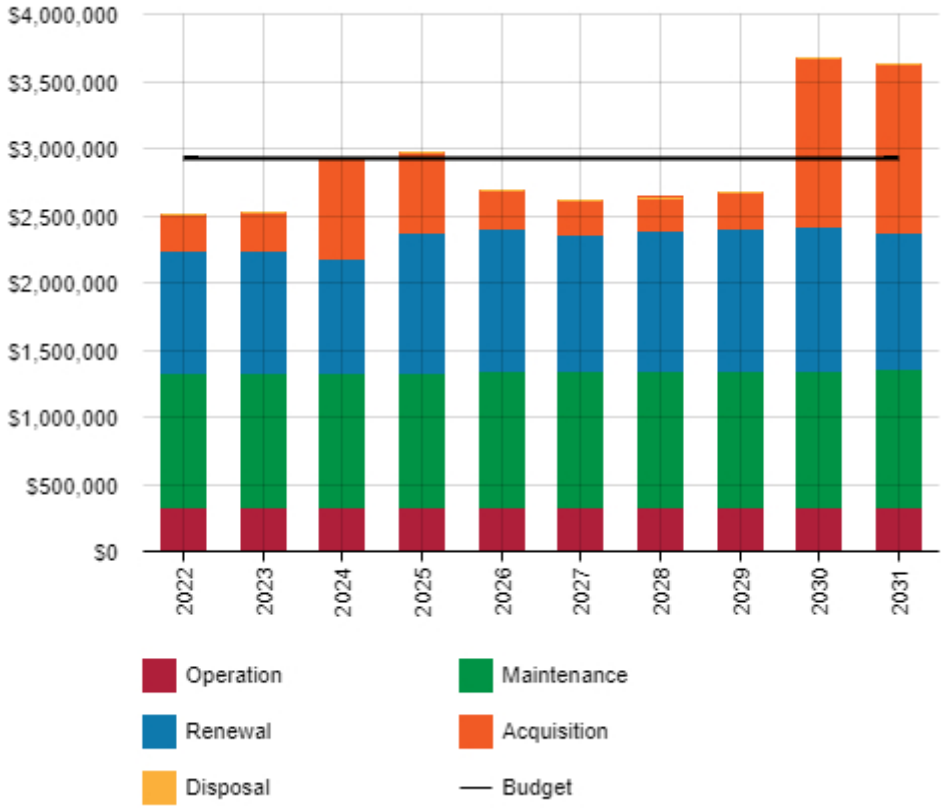
5.7 Summary of asset forecast costs

The financial projections from this asset plan are shown in Figure 5.7.1. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.

The bars in the graphs represent the forecast costs needed to minimise the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available

funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

Figure 5.7.1: Lifecycle Summary



All figure values are shown in current day dollars.

The forecast costs of the asset class are generally in line or below the proposed budget except for the last 2 years of the planning period with a substantial project planned. However, the proposed budget is currently providing approximately 111.65% of the forecast costs over the 10-year planning period. The budget seems to be sustainable with some small surplus. The surplus can be set aside in preparation for Town Centre upgrades in the near future.

6.0 RISK MANAGEMENT PLANNING

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

Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'[9].

An assessment of risks[10] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarised in Table 6.1. Failure modes may include physical failure, collapse or essential service interruption.

Table 6.1 Critical Assets

Critical Asset(s)	Failure Mode	Impact
Major Stormwater Conduits under buildings	Blockage, displacement, damage, or distresses	Loss or reduction of service, injuries to residents or property damage, huge financial implication
Stormwater Pits within private properties	Blockage, displacement, damage, or distresses	Loss or reduction of service, injuries to residents or property damage, huge financial implication
Pollution Control Devices	Damage to the device or pollution spill due to lack of maintenance	Water quality and environmental pollution

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

[9] ISO 31000:2009, p 2

[10] D03410905 RCC Enterprise Risk Management Framework

6.2 Risk Assessment

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

It is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of International Standard ISO 31000:2018.

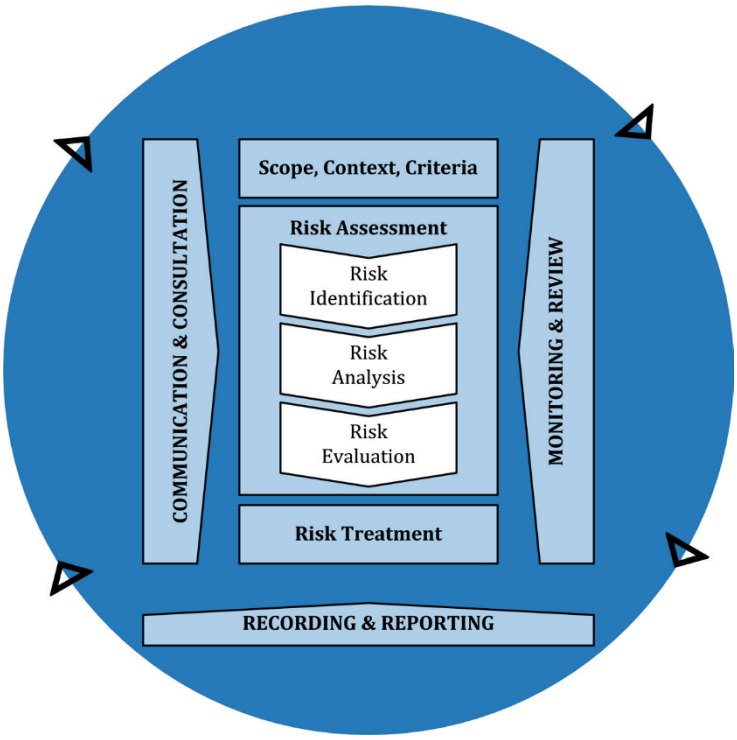


Fig 6.2 Risk Management Process – Abridged
Source: ISO 31000:2018, Figure 1, p9

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

An assessment of risks[11] associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment costs of implementing the selected treatment plan is shown in Table 6.2.1. It is essential that these critical risks and costs are reported to management and the Council.

[11] D03410905 RCC Enterprise Risk Management Framework

Table 6.2.1: Risks and Treatment Plans

Risk Assessment

Risk Factors	Consequence	Likelihood
Personal Injury		*Please note likelihood is based on condition assessment*
Financial Implications		
Environmental		
Political		

Consequence	Risk Descriptions
Catastrophic	Death, toxic release off site with detrimental effect, huge financial loss (>$100,000), sustained comprehensive negative national media coverage with major loss in community trust
Major	Extensive injuries, loss of production capability, off site release with no detrimental effects, major financial loss (>$50,000 & <$100,000), Ongoing negative media coverage in local and metro press with minimal community trust
Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss (>$10,000 & <$50,000), Short period negative media coverage with rigorous community discussion
Minor	First aid treatment, on-site release immediately contained, medium financial loss (>$1000 & <$10,000), little or no impact on community's perception of Council
Insignificant	No injuries, low financial loss (<$1000), no effect to normal operations

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

Table 6.2.2: Risks Matrix

	CONSEQUENCE				
LIKELIHOOD	Insignificant (2)	Minor (3)	Moderate (7)	Major (13)	Catastrophic (20) Major (13)
Almost Certain (5)	Medium (10)	High (15)	High (35)	Extreme (65)	Extreme (100)
Likely (4)	Medium (8)	Medium (12)	High (28)	High (52)	Extreme (80)
Possible (3)	Low (6)	Medium (9)	High (21)	High (39)	Extreme (60)
Unlikely (2)	Low (4)	Low (6)	Medium (14)	High (26)	High (40)
Rare (1)	Low (2)	Low (3)	Medium (7)	Medium (13)	High (20)

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.

Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Our current measure of resilience is shown in Table 6.3 which includes the type of threats and hazards and the current measures that the organisation takes to ensure service delivery resilience.

Table 6.3: Critical Risks and Treatment Plans

Service or Asset at Risk	What Can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Stormwater Conduits	Pipe failure causing damage to private property and may cause injuries to residents.	High	Condition assessment to identify pipes requiring renewal. Renewal of pipes in poor condition.	Medium	Contractor inspection Staff time Maintenance Capital Works
Stormwater Conduits	Heavy rain overwhelming stormwater drainage capacity causing flooding and erosion to natural watercourses, private properties etc.	High	On site detention policy to ensure that maximum flow does not increase with development. Catchment studies and Floodplain Risk Management Plans including education, Capital Works, and development controls.	High	Funding for studies Staff time Capital Works
Stormwater Pits	Failure of pit lids leading to public safety risk.	High	Condition assessment of pit lids and supporting rings. Maintenance and capital works	Low	Inspections Staff time Maintenance Capital works
Pollution Control Devices	Pollution spill event.	Medium	Maintain pollution control devices so that they perform as designed.	Low	Inspections Maintenance Capital works

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

6.4 Service and Risk Trade-Offs

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

6.4.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- We cannot continually undertake reactive maintenance only
- We cannot expand the current Stormwater network without consideration of lifecycle cost of the stormwater asset class.

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- Council staff unable to meet service level agreements
- Dilapidated stormwater assets
- Reduced safety to operations of the stormwater network

6.4.3 Risk trade-off

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

- Risk of causing harm to the public or damage to property from dilapidated stormwater assets e.g. sink holes, damaged pit lids and localised flooding from blockages in the stormwater network
- Extended time stormwater assets not performing as intended, leading to flooding impacts.

These actions and expenditures are considered and included in the forecast costs and the Risk Management Plan, refer to Table 6.3 above.

7.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this AMP. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

7.1 Financial Sustainability and Projections

7.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the AMP for this service area. The two indicators are the:

- asset renewal funding ratio (proposed renewal budget for the next 10 years / forecast renewal costs for next 10 years), and
- medium term forecast costs/proposed budget (over 10 years of the planning period).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[12] 110%

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years, we expect to have 110% of the funds required for the optimal renewal of assets.

The forecast renewal work along with the proposed renewal budget is illustrated in Appendix D.

Medium term – 10 year financial planning period

This AMP identifies the forecast operations, maintenance and renewal costs required to provide an agreed level of service to the community over a 10-year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.

The forecast operations, maintenance and renewal costs over the 10-year planning period is $2,337,100 average per year.

The proposed (budget) operations, maintenance and renewal funding is $2,426,000, on average per year over the 10-year plan. This indicates that 104% of the forecast costs needed to provide the services documented in this AMP are accommodated in the proposed budget.

Providing sustainable services from infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the AMP and ideally over the 10-year life of the Long-Term Financial Plan.

7.1.2 Forecast Costs (outlays) for the long-term financial plan

Table 7.1.2 shows the forecast costs (outlays) required for consideration in the 10-year long-term financial plan.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the long-term financial plan.

Forecast costs are shown in 2021 dollar values.

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

Table 7.1.2: Forecast Costs (Outlays) for the Long-Term Financial Plan

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2022	$270,000	$321,000	$1,005,000	$913,075	0
2023	$280,000	$321,243	$1,005,756	$916,415	0
2024	$750,000	$321,495	$1,006,540	$848,843	0
2025	$600,000	$323,070	$1,011,440	$1,038,111	0
2026	$280,000	$324,960	$1,017,320	$1,061,864	0
2027	$250,000	$325,212	$1,018,104	$1,012,269	0
2028	$250,000	$325,617	$1,019,364	$1,038,433	0
2029	$270,000	$325,842	$1,020,064	$1,054,994	0
2030	$1,250,000	$326,103	$1,020,876	$1,073,371	0
2031	$1,250,000	$327,228	$1,024,376	$1,023,015	0

7.2 Funding Strategy

The proposed funding for assets is outlined in the Entity's budget and Long-Term financial plan.

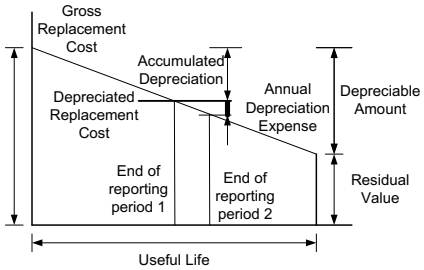
The financial strategy of the entity determines how funding will be provided, whereas the AMP communicates how and when this will be spent, along with the service and risk consequences of various service alternatives.

7.3 Valuation Forecasts

7.3.1 Asset valuations

The best available estimate of the value of assets included in this AMP are shown below. The assets are valued using fair value to determine cost to replace service capacity:

Replacement Cost (Current/Gross)	$380,912,235
Depreciable Amount	$472,480,482
Depreciated Replacement Cost[13]	$228,405,344
Depreciation	$2,788,066



7.3.2 Valuation forecast

Asset funding costs and values are forecast to increase as additional assets are added to the asset class.

[13] Also reported as Written Down Value, Carrying or Net Book Value.

Additional assets will generally add to the operations and maintenance needs in the longer term. Any additional assets will also require additional costs due to future renewals and add to future depreciation forecasts.

Under the AASB requirements, Council is required to revaluate assets at a rate of minimum once every 4 years. This will help align the values of the existing assets with the addition of the acquired assets to a current day value.

7.4 Key Assumptions Made in Financial Forecasts

In compiling this AMP, it was necessary to make some assumptions. This section details the key assumptions made in the development of this AMP and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this AMP are:

Asset values and dimensions are correct. Changes to asset values and dimensions will have an effect on resources required to operate, maintain and renew the stormwater assets.

- Council's stormwater assets have been inspected and the stormwater asset conditions have been updated accordingly. Monitoring of change of condition may show change in the asset's useful life which is likely to have an impact on funding required to maintain the level of service.
- The estimates used for current rates of renewal will remain constant at the current 2021 values for the next 10 years. Any increase to the renewal costs may reduce the amount of work budgeted with possible reduction in the service level for stormwater drainage assets.

7.5 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this AMP are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on a A - E level scale[14] in accordance with Table 7.5.1.

Table 7.5.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%

[14] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Confidence Grade	Description
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this AMP is shown in Table 7.5.2.

Table 7.5.2: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	C. Medium	The demand drivers are based on NSW DPIE forecasts and Council's LSPS.
Growth projections	B. High	Growth from private development and flood mitigation works.
Acquisition forecast	B. High	Based on development data to establish a trend for Randwick City Council over the past 5 years.
Operation forecast	B. High	Based on data over 5 years to establish a trend.
Maintenance forecast	B. High	Based on data over 5 years to establish a trend.
Renewal forecast - Asset values	B. High	The data is based on a recent modelling of asset data after completion of asset condition assessment.
- Asset useful lives	B. High	The data is based on a recent modelling of asset data after completion of asset condition assessment.
- Condition modelling	B. High	The data is based on a recent modelling of asset data after completion of asset condition assessment.

The estimated confidence level for and reliability of data used in this AMP is considered to be High.

8.0 PLAN IMPROVEMENT AND MONITORING

8.1 Status of Asset Management Practices[15]

8.1.1 Accounting and financial data sources

In 2010 Council implemented the financial system, Technology One. This system contains a Works and Assets Module in which works orders or tasks can be raised and costings tracked against a particular asset.

Council's finance system is managed by its Finance section. The system is reported on and audited annually. The audited report is present to Council, who then refers the report onto the Office of Local Government.

Council's Asset Management Services team provides input into the asset registers including condition, useful life, unit rates, capitalisation data and physical attributes.

8.1.2 Asset management data sources

Randwick Council's Asset Register is currently located within the Technology One software package. This dataset contains information to physically describe the asset including its makeup, age, condition, useful life, CRC and other financial data. The register is also linked to other systems including GIS.

The Technology One software used for asset management is currently controlled/managed by Council's Finance section.

Data maintenance is undertaken by Council's Asset Management section who review data/assets on an annual program and advise the Finance section of any updates, new or disposed assets as they arise.

Council is currently reviewing options for a Strategic Asset Management Systems.

8.2 Improvement Plan

It is important that an entity recognise areas of their AMP and planning process that require future improvements to ensure effective asset management and informed decision making. The improvement plan generated from this AMP is shown in Table 8.2.

Table 8.2: Improvement Plan

Task	Task	Responsibility	Resources Required	Timeline
1	Improve asset register data confidence.	Asset Management Services	Asset Team	Ongoing
2	Review resilience of service delivery	Asset Management Services	Asset Team	The next AMP
3	Continue to improve asset condition assessment methods – CCTV, Zoom camera	Asset Management Services	Asset Team	Ongoing

[15] ISO 55000 Refers to this as the Asset Management System

Task	Task	Responsibility	Resources Required	Timeline
4	Establish a strategic asset management system for all infrastructure asset	Asset Management Services	Asset Team	2022-23
5	Improve proactive maintenance planning and reporting mechanism	Infrastructure Services	Asset Team	Ongoing
6	Improve asset management principles awareness within Council staff	Asset Management Services	Asset Team	Ongoing

8.3 Monitoring and Review Procedures

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

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

The AMP has a maximum life of 4 years and is due for complete revision and updating within 6 months of each Council election.

8.4 Performance Measures

The effectiveness of this AMP can be measured in the following ways:

- The degree to which the required forecast costs identified in this AMP are incorporated into the long-term financial plan,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the AMP,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organisational target (this target is often 90 – 100%).

9.0 REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
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- IPWEA, 2018, Practice Note 12.1, 'Climate Change Impacts on the Useful Life of Assets', Institute of Public Works Engineering Australasia, Sydney
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- ISO, 2014, ISO 55000:2014, Overview, principles and terminology
- ISO, 2018, ISO 31000:2018, Risk management – Guidelines
- Randwick City Plan 2018 – 2028,
- 'Annual Operational Plan and Budget'.
- Randwick City Council, 2021 Enterprise Risk Management Framework

10.0 APPENDICES

Appendix A Acquisition Forecast

A.1 – Acquisition Forecast Assumptions and Source

- The acquisition forecast includes 1 new Gross Pollutant Trap per annum over the 10-year life of the plan to meet council's commitment in the Environment Strategy.
- The projects listed follow the recommendations in Council's Floodplain Management Plan.
- A few of the planned projects are subject to grant funding approvals.

A.2 – Acquisition Project Summary

Year	Acquisition Project	Budget	Donated
2022	Perry Street Drainage Upgrade - Investigation	$20,000	$0
2023	West Kensington Flood Study Update	$30,000	$0
2024	Coogee Beach Stormwater Condition Improvement - Stage 1	$1,000,000	Grant Funding Approved
2025	Coogee Beach Stormwater Condition Improvement - Stage 2	$1,500,000	Grant Funding Approved
2026	West Kensington Blockage Protection Study & Plan	$30,000	$0
2027	West Kensington Blockage Protection Implementation	$200,000	Pending Grant Funding Approval
2028	White Avenue Drainage Line duplication	$350,000	Pending Grant Funding Approval
2029	Brook Street Flood Mitigation Study & Plan	$30,000	Pending Grant Funding Approval
2030	Perry Street Drainage Upgrade - Stage 1	$1,000,000	$0
2031	Perry Street Drainage Upgrade - Stage 2	$1,000,000	$0

A.3 – Acquisition Forecast Summary

Table A3 - Acquisition Forecast Summary

Year	Constructed	Donated	Growth
2022	$270,000	$0	$0
2023	$280,000	$0	$0
2024	$750,000	$1,000,000	$0
2025	$600,000	$1,500,000	$0
2026	$280,000	$0	$0
2027	$250,000	$200,000	$0
2028	$250,000	$0	$0
2029	$270,000	$20,000	$0
2030	$1,250,000	$0	$0
2031	$1,250,000	$0	$0

Appendix B Operation Forecast

B.1 – Operation Forecast Assumptions and Source

Operational forecast is assumed to be increasing yearly due to the increase of material and labour cost. Additional operation forecast increase is due to the increase in acquisition forecast.

B.2 – Operation Forecast Summary

Table B2 - Operation Forecast Summary

Year	Operation Forecast	Additional Operation Forecast	Total Operation Forecast
2022	$321,000	$243	$321,000
2023	$321,000	$252	$321,243
2024	$321,000	$1,575	$321,495
2025	$321,000	$1,890	$323,070
2026	$321,000	$252	$324,960
2027	$321,000	$405	$325,212
2028	$321,000	$225	$325,617
2029	$321,000	$261	$325,842
2030	$321,000	$1,125	$326,103
2031	$321,000	$1,125	$327,228

Appendix C Maintenance Forecast

C.1 – Maintenance Forecast Assumptions and Source

Maintenance forecast is assumed to be increasing yearly due to the increase of material and labour cost. Additional maintenance forecast increase is due to the increase in acquisition forecast.

C.2 – Maintenance Forecast Summary

Table C2 - Maintenance Forecast Summary

Year	Maintenance Forecast	Additional Maintenance Forecast	Total Maintenance Forecast
2022	$1,005,000	$756	$1,005,000
2023	$1,005,000	$784	$1,005,756
2024	$1,005,000	$4,900	$1,006,540
2025	$1,005,000	$5,880	$1,011,440
2026	$1,005,000	$784	$1,017,320
2027	$1,005,000	$1,260	$1,018,104
2028	$1,005,000	$700	$1,019,364
2029	$1,005,000	$812	$1,020,064
2030	$1,005,000	$3,500	$1,020,876
2031	$1,005,000	$3,500	$1,024,376

Appendix D Renewal Forecast Summary

D.1 – Renewal Forecast Assumptions and Source

Renewal forecast is based on the asset register. The general assumption of the asset register is that the condition of the assets are assessed appropriately and that the physical data of the asset are correct.

D.2 – Renewal Forecast Summary

Table D3 - Renewal Forecast Summary

Year	Renewal Forecast	Renewal Budget
2022	$913,075	$1,100,000
2023	$916,415	$1,100,000
2024	$848,843	$1,100,000
2025	$1,038,111	$1,100,000
2026	$1,061,864	$1,100,000
2027	$1,012,269	$1,100,000
2028	$1,038,433	$1,100,000
2029	$1,054,994	$1,100,000
2030	$1,073,371	$1,100,000
2031	$1,023,015	$1,100,000

D.4 –Renewal Plan

Projected 10 Year Capital Renewal and Replacement Works Program

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
CRPK01P6120	Drainage\Pit	BROMPTON RD	JP	2022
CRPK01P6180	Drainage\Pit	TODMAN AVE	JP	2022
MDON02C59105900	Drainage\Conduit	US Pit 5910 to DS Pit 5900	Pipe	2022
MDON02C59605950	Drainage\Conduit	US Pit 5960 to DS Pit 5950	Pipe	2022
CRPK0126802660	Drainage\Conduit	US Pit 2680 to DS Pit 2660	Pipe	2022
CRPK0161806160	Drainage\Conduit	US Pit 6180 to DS Pit 6160	Pipe	2022
CRPK0161606130	Drainage\Conduit	US Pit 6160 to DS Pit 6130	Pipe	2022
CRPK0161206110	Drainage\Conduit	US Pit 6120 to DS Pit 6110	Pipe	2022
CRPK0126402630	Drainage\Conduit	US Pit 2640 to DS Pit 2630	Pipe	2022
CRPK0126902680	Drainage\Conduit	US Pit 2690 to DS Pit 2680	Pipe	2022
CRPK0126902680	Drainage\Conduit	US Pit 2690 to DS Pit 2680	Pipe	2022
CRPK0161306120	Drainage\Conduit	US Pit 6130 to DS Pit 6120	Pipe	2022
CRPK0161906180	Drainage\Conduit	US Pit 6190 to DS Pit 6180	Pipe	2022
CRPK0126702660	Drainage\Conduit	US Pit 2670 to DS Pit 2660	Pipe	2022
EGOR10C13601350	Drainage\Conduit	US Pit 1360 to DS Pit 1350	Culvert	2022
CRPK01P6110	Drainage\Pit	TODMAN AVE	JP	2022
ECOB16C37703730	Drainage\Conduit	US Pit 3770 to DS Pit 3730	Pipe	2022
MDON02C78607850	Drainage\Conduit	US Pit 7860 to DS Pit 7850	Pipe	2022
CRPK0102500240	Drainage\Conduit	US Pit 250 to DS Pit 240	Pipe	2022
CRPK0110601050	Drainage\Conduit	US Pit 1060 to DS Pit 1050	Pipe	2022
CRPK0110501040	Drainage\Conduit	US Pit 1050 to DS Pit 1040	Pipe	2022
CRPK0109300920	Drainage\Conduit	US Pit 930 to DS Pit 920	Pipe	2022
CRPK0126002590	Drainage\Conduit	US Pit 2600 to DS Pit 2590	Pipe	2022
CRPK01C24722470	Drainage\Conduit	US Pit 2590 to DS Pit 2470	Pipe	2022
CRPK0156105600	Drainage\Conduit	US Pit 5610 to DS Pit 5600	Pipe	2022
CRPK0161106090	Drainage\Conduit	US Pit 6110 to DS Pit 6090	Pipe	2022
MMAR20C01800160	Drainage\Conduit	US Pit 0180 to DS Pit 0160	Pipe	2022
CRPK0162306180	Drainage\Conduit	US Pit 6230 to DS Pit 6180	Pipe	2022
MHEF24C19101900	Drainage\Conduit	US Pit 1910 to DS Pit 1900	Pipe	2022
MHEF24C24402420	Drainage\Conduit	US Pit 2440 to DS Pit 2420	Pipe	2022
MHEF24C23602350	Drainage\Conduit	US Pit 2360 to DS Pit 2350	Pipe	2022
MHEF24C23302310	Drainage\Conduit	US Pit 2330 to DS Pit 2310	Pipe	2022
MJER29C07900780	Drainage\Conduit	US Pit 0790 to DS Pit 0780	Pipe	2022
MCPW05C04700460	Drainage\Conduit	US Pit 470 to DS Pit 460	Culvert	2022
MCPW05C05500470	Drainage\Conduit	US Pit 550 to DS Pit 470	Culvert	2022
MDON02C59005890	Drainage\Conduit	US Pit 5900 to DS Pit 5890	Culvert	2022
MDON02C58905870	Drainage\Conduit	US Pit 5890 to DS Pit 5870	Culvert	2022

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MDON02C58705850	Drainage\Conduit	US Pit 5870 to DS Pit 5850	Culvert	2022
BYBY36P0055	Drainage\Pit	Bunnerong Rd	Pipe Junction	2022
ECOB16C50505030	Drainage\Conduit	US Pit 5050 to DS Pit 5030	Pipe	2022
MCPW05C08500840	Drainage\Conduit	US Pit 850 to DS Pit 840	Pipe	2022
ECOB16C68476846	Drainage\Conduit	US Pit 6847 to DS Pit 6846	Pipe	2022
ECOB16C93809370	Drainage\Conduit	US Pit 9380 to DS Pit 9370	Pipe	2022
ECOB16C10050100	Drainage\Conduit	US Pit 10050 to DS Pit 10040	Pipe	2022
ECOB16C92409270	Drainage\Conduit	US Pit 9240 to DS Pit 9210	Pipe	2023
MDON02C58805870	Drainage\Conduit	US Pit 5880 to DS Pit 5870	Pipe	2023
MELK12C07200710	Drainage\Conduit	US Pit 720 to DS Pit 710	Pipe	2023
MELK12C06300620	Drainage\Conduit	US Pit 630 to DS Pit 620	Pipe	2023
CRPK0106500640	Drainage\Conduit	US Pit 650 to DS Pit 640	Pipe	2023
CRPK0107600750	Drainage\Conduit	US Pit 760 to DS Pit 750	Pipe	2023
CRPK0107200700	Drainage\Conduit	US Pit 720 to DS Pit 700	Pipe	2023
CRPK0107000690	Drainage\Conduit	US Pit 700 to DS Pit 690	Pipe	2023
CRPK0106800670	Drainage\Conduit	US Pit 680 to DS Pit 670	Pipe	2023
CRPK0106700650	Drainage\Conduit	US Pit 670 to DS Pit 650	Pipe	2023
CRPK0150105000	Drainage\Conduit	US Pit 5010 to DS Pit 5000	Pipe	2023
EBUN22C77207740	Drainage\Conduit	US Pit 7720 to DS Pit 7740	Pipe	2023
CRPK0106900680	Drainage\Conduit	US Pit 690 to DS Pit 680	Pipe	2023
CRPK0107400720	Drainage\Conduit	US Pit 740 to DS Pit 720	Pipe	2023
CRPK0107500740	Drainage\Conduit	US Pit 750 to DS Pit 740	Pipe	2023
MPER30C24000090	Drainage\Conduit	US Pit 2400 to DS Pit 0090	Pipe	2023
ELUR23C15401530	Drainage\Conduit	US Pit 1540 to DS Pit 1530	Pipe	2023
ELUR23C15301520	Drainage\Conduit	US Pit 1530 to DS Pit 1520	Pipe	2023
CRPK0150105000	Drainage\Conduit	US Pit 5010 to DS Pit 5000	Pipe	2023
ELOB32C27202710	Drainage\Conduit	US Pit 2720 to DS Pit 2710	Pipe	2023
ECOB16C70807070	Drainage\Conduit	US Pit 7080 to DS Pit 7070	Culvert	2023
EBUN22C20102000	Drainage\Conduit	US Pit 2010 to DS Pit 2000	Culvert	2023
EMRB25C00200010	Drainage\Conduit	US Pit 0020 to DS Pit 0010	Culvert	2023
ESC17C06600650	Drainage\Conduit	US Pit 0660 to DS Pit 0650	Culvert	2023
BFBY39C0040	Drainage\Conduit	US Pit 0040 to DS Pit	Watercourse	2023
BYBY36C16801670	Drainage\Conduit	US Pit 1680 to DS Pit 1670	Watercourse	2023
MDON02P2770	Drainage\Pit	BARKER ST	Kerb Inlet Pit	2023
ECOB16P4330	Drainage\Pit	Mount St	Kerb Inlet Pit	2023
MPER30P2230	Drainage\Pit	Milne Av	Kerb Inlet Pit	2023

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MDON02P2090	Drainage\Pit	MOORAMIE AV	Kerb Inlet Pit	2023
MELK12P0690	Drainage\Pit	COOK STREET	Grate Only Pit	2023
CRPK01P5850	Drainage\Pit	SALISBURY RD	Grate Only Pit	2023
CRPK01P5860	Drainage\Pit	BALFOUR RD	Grate Only Pit	2023
EBUN22P5820	Drainage\Pit	Avoca St	JP	2023
BPBY38P0470	Drainage\Pit	Kooringai Av	Headwall	2023
CRPK01P5950	Drainage\Pit	BLACK LION PL	Grate Only Pit	2023
MCPN07C02400230	Drainage\Conduit	US Pit 240 to DS Pit 230	Pipe	2023
ECOB16C25502530	Drainage\Conduit	US Pit 2550 to DS Pit 2530	Pipe	2023
ECOB16C104703700	Drainage\Conduit	US Pit 10470 to DS Pit 3700	Pipe	2023
ECOB16C51105090	Drainage\Conduit	US Pit 5110 to DS Pit 5090	Pipe	2023
ECOB16C67206710	Drainage\Conduit	US Pit 6720 to DS Pit 6710	Pipe	2023
ECOB16C21802170	Drainage\Conduit	US Pit 2180 to DS Pit 2170	Pipe	2023
ECOB16C56805670	Drainage\Conduit	US Pit 5680 to DS Pit 5670	Pipe	2023
ECOB16C94109400	Drainage\Conduit	US Pit 9410 to DS Pit 9400	Pipe	2023
ECOB16C51005090	Drainage\Conduit	US Pit 5100 to DS Pit 5090	Pipe	2023
ECOB16C68406830	Drainage\Conduit	US Pit 6840 to DS Pit 6830	Pipe	2024
MELK12C00900080	Drainage\Conduit	US Pit 90 to DS Pit 80	Pipe	2024
CRPK0102601070	Drainage\Conduit	US Pit 260 to DS Pit 1070	Pipe	2024
CRPK0122402230	Drainage\Conduit	US Pit 2240 to DS Pit 2230	Pipe	2024
CRPK0160606050	Drainage\Conduit	US Pit 6060 to DS Pit 6050	Pipe	2024
CRPK0118001790	Drainage\Conduit	US Pit 1800 to DS Pit 1790	Pipe	2024
CRPK0118201810	Drainage\Conduit	US Pit 1820 to DS Pit 1810	Pipe	2024
CRPK0111101115	Drainage\Conduit	US Pit 1110 to DS Pit	Pipe	2024
CRPK0158505840	Drainage\Conduit	US Pit 5850 to DS Pit 5840	Pipe	2024
EMPL26C03100300	Drainage\Conduit	US Pit 0310 to DS Pit 0300	Pipe	2024
EMPL26C01300110	Drainage\Conduit	US Pit 0130 to DS Pit 0110	Pipe	2024
EMRB25C28002780	Drainage\Conduit	US Pit 2800 to DS Pit 2780	Pipe	2024
CRPK0110301020	Drainage\Conduit	US Pit 1030 to DS Pit 1020	Pipe	2024
CRPK0117901780	Drainage\Conduit	US Pit 1790 to DS Pit 1780	Pipe	2024
BYBY36C00550050	Drainage\Conduit	US Pit 0055 to DS Pit 0050	Pipe	2024
BYBY36C00550050	Drainage\Conduit	US Pit 0055 to DS Pit 0050	Pipe	2024
MPOW15C51305120	Drainage\Conduit	US Pit 5130 to DS Pit 5120	Pipe	2024
MPOW15C75407530	Drainage\Conduit	US Pit 7540 to DS Pit 7530	Pipe	2024
MPOW15C38103790	Drainage\Conduit	US Pit 3810 to DS Pit 3790	Tonkin	2024
MHEF24C39803970	Drainage\Conduit	US Pit 3980 to DS Pit 3970	Pipe	2024

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MHEF24C71507140	Drainage\Conduit	US Pit 7150 to DS Pit 7140	Pipe	2024
MHEF24C23502340	Drainage\Conduit	US Pit 2350 to DS Pit 2340	Pipe	2024
MHEF24C23202310	Drainage\Conduit	US Pit 2320 to DS Pit 2310	Pipe	2024
ECOB16C371010470	Drainage\Conduit	US Pit 3710 to DS Pit 10470	Pipe	2024
MJER29C04000390	Drainage\Conduit	US Pit 0400 to DS Pit 0390	Pipe	2024
ESC17C08400820	Drainage\Conduit	US Pit 0840 to DS Pit 0820	Pipe	2024
ESC17C14801470	Drainage\Conduit	US Pit 1480 to DS Pit 1470	Pipe	2024
ESC17C12201030	Drainage\Conduit	US Pit 1220 to DS Pit 1030	Pipe	2024
ETRS18C10201000	Drainage\Conduit	US Pit 1020 to DS Pit 1000	Pipe	2024
ESC17C12401220	Drainage\Conduit	US Pit 1240 to DS Pit 1220	Pipe	2024
ELOB32C34503440	Drainage\Conduit	US Pit 3450 to DS Pit 3440	Pipe	2024
ELOB32C34403430	Drainage\Conduit	US Pit 3440 to DS Pit 3430	Pipe	2024
ECLO09C22402180	Drainage\Conduit	US Pit 2240 to DS Pit 2180	Pipe	2024
ESML34C07600750	Drainage\Conduit	US Pit 0760 to DS Pit 0750	Pipe	2024
ELIT37C14201410	Drainage\Conduit	US Pit 1420 to DS Pit 1410	Pipe	2025
MCPN07C02700260	Drainage\Conduit	US Pit 270 to DS Pit 260	Pipe	2025
MUNI13C2598	Drainage\Conduit	US Pit MUNI13P2537 to DS Pit MUNI13P2538	Rubber Ringed Joint	2025
MUNI13C2599	Drainage\Conduit	US Pit MUNI13P2538 to DS Pit MUNI13P2540	Rubber Ringed Joint	2025
MUNI13C2600	Drainage\Conduit	US Pit MUNI13P2539 to DS Pit MUNI13P2540	Rubber Ringed Joint	2025
MCPW05P0370	Drainage\Pit	Prince St	Outlet Converter	2025
MELK12P0800	Drainage\Pit	FRANCES STREET	Outlet Converter	2025
MDON02P0940	Drainage\Pit	GARDENERS RD	Pipe End	2025
MCPE08P0400	Drainage\Pit	CLOVELLY RD	Sealed End	2025
MCPE08P0420	Drainage\Pit	CASTLE LANE	Sealed End	2025
MPOW15P8160	Drainage\Pit	Barker St	Pipe Outlet	2025
ECLO09P4650	Drainage\Pit	Clifton Rd	Sealed End	2025
ECLO09P4680	Drainage\Pit	Burnie St	Sealed End	2025
EGOR10P1650	Drainage\Pit	Oak St	Pipe Outlet	2025
EGOR10P1680	Drainage\Pit	Oak St	Pipe Inlet	2025
ESML34P1840	Drainage\Pit	Dacre St	Pipe Outlet	2025
ESCO17P1470	Drainage\Pit	Neptune St	Pipe Outlet	2025
MDON02P2570	Drainage\Pit	KOORINDA AVE	Pipe Outlet	2025
CRPK01P1860	Drainage\Pit	AUSTRALIAN GOLF CLUB	Pipe Inlet	2025
CRPK01P1850	Drainage\Pit	AUSTRALIAN GOLF CLUB	Pipe Outlet	2025
EMPL26P0030	Drainage\Pit	Marine Parade	Pipe Outlet	2025
EBUN22P2430	Drainage\Pit	Gale Rd	Sealed End	2025

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P4510	Drainage\Pit	Barker St	Pipe Inlet	2025
MHEF24P3100	Drainage\Pit	Shepherd St	Sealed End	2025
MHEF24P7210	Drainage\Pit	Hinkler St	Sealed End	2025
MHEF24P7450	Drainage\Pit	Maroubra Rd	Sealed End	2025
MMAT31P1275	Drainage\Pit	Moorina Ave	Sealed End	2025
ECLO09P0010	Drainage\Pit	Clovelly Rd	Pipe Outlet	2025
ECLO09P2200	Drainage\Pit	Surfside Ave	Sealed End	2025
ECLO09P4060	Drainage\Pit	Alan St	Sealed End	2025
ECLO09P4070	Drainage\Pit	Alan St	Sealed End	2025
ECLO09P4110	Drainage\Pit	Clifton Rd	Sealed End	2025
ELUR23P1430	Drainage\Pit	Malabar Rd	Sealed End	2025
MHEF24P1900	Drainage\Pit	Maroubra Rd	Sealed End	2025
MHEF24P4610	Drainage\Pit	Garden St	Sealed End	2025
ECOB16P2640	Drainage\Pit	Alison Rd	Pipe Outlet	2025
ECOB16P6846	Drainage\Pit	Coogee Bay Rd	Pipe Outlet	2025
ECOB16P6848	Drainage\Pit	Coogee Bay Rd	Pipe Outlet	2025
ELUR23P3570	Drainage\Pit	Marine Pde	Pipe Outlet	2025
MHEF24P0840	Drainage\Pit	Holden St	Sealed End	2025
MHEF24P4790	Drainage\Pit	Fitzgerald Ave	Sealed End	2025
MHEF24P6150	Drainage\Pit	Jersey Rd	Sealed End	2025
MHEF24P6750	Drainage\Pit	Beauchamp Rd	Sealed End	2025
ECOB16P7930	Drainage\Pit	Glen Ave	Pipe Outlet	2025
EBUN22P1340	Drainage\Pit	Storey St	Pipe Outlet	2025
EBUN22P2540	Drainage\Pit	Metcalfe St	Sealed End	2025
EBUN22P3340	Drainage\Pit	Moverly Rd	Sealed End	2025
ESC17P1550	Drainage\Pit	Neptune St	Sealed End	2025
ETRS18P1690	Drainage\Pit	Oberon St	Sealed End	2025
EGAR19P0010	Drainage\Pit	Wolseley Rd	Pipe Outlet	2025
EGAR19P0100	Drainage\Pit	Rainbow St	Pipe Outlet	2025
MMAT31P4340	Drainage\Pit	Franklin St	Pipe Outlet	2025
MMAT31P5221	Drainage\Pit	Larose St	Pipe Outlet	2025
ELOB32P0790	Drainage\Pit	Franklin St	Sealed End	2025
ELOB32P2710	Drainage\Pit	Pozieres Ave	Pipe Outlet	2025
ECLO09P1540	Drainage\Pit	Ocean St	Pipe Outlet	2025
ECLO09P1690	Drainage\Pit	Ocean St	Pipe Outlet	2025
EGOR10P1730	Drainage\Pit	Lowe St	Pipe Outlet	2025
ELUR23P0310	Drainage\Pit	Wisdom St	Pipe Outlet	2025
ELUR23P3370	Drainage\Pit	Lurline St	Pipe Outlet	2025
ELUR23P3720	Drainage\Pit	Marine Pde	Pipe Outlet	2025
ELUR23P3820	Drainage\Pit	Marine Pde	Pipe Outlet	2025

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ESML34P0720	Drainage\Pit	Bay Pde	Pipe Outlet	2025
BYBY36P0800	Drainage\Pit	Mirrabooka Crescent	Sealed End	2025
BYBY36P2680	Drainage\Pit	Little Bay Rd	Sealed End	2025
BYBY36P4260	Drainage\Pit	Anzac Pde	Sealed End	2025
ELIT37P0610	Drainage\Pit	Coast Hospital Rd	Pipe Outlet	2025
BYBY36P0290	Drainage\Pit	Bunnerong Rd	Pipe Outlet	2025
BPBY38P0440	Drainage\Pit	Kooringai Av	Pipe Outlet	2025
ELIT37P1456	Drainage\Pit	Pine Av	Sealed End	2025
MRRC03P0970	Drainage\Pit	FRANCES STREET	Pipe Outlet	2025
MDON02P2680	Drainage\Pit	HOUSTON RD	Pipe Outlet	2025
CRPK01P1840	Drainage\Pit	AUSTRALIAN GOLF CLUB	Pipe Inlet	2025
ESMA28P0960	Drainage\Pit	Malabar Road	Sealed End	2025
ESMA28P0130	Drainage\Pit	Byrne Crescent	Sealed End	2025
MPOW15P1700	Drainage\Pit	Bunnerong Rd	Pipe Outlet	2025
ETRS18P0200	Drainage\Pit	Dundas St	Sealed End	2025
ELOB32P2410	Drainage\Pit	Kain Ave	Sealed End	2025
ELOB32P3130	Drainage\Pit	Anzac Pde	Sealed End	2025
ELOB32P3180	Drainage\Pit	Anzac Pde	Sealed End	2025
EGOR10P0180	Drainage\Pit	Major St	Pipe Outlet	2025
EGOR10P0230	Drainage\Pit	Major St	Pipe Outlet	2025
ELUR23P0370	Drainage\Pit	Wisdom St	Pipe Outlet	2025
ESML34P0480	Drainage\Pit	Bay Pde	Pipe Outlet	2025
ESML34P1540	Drainage\Pit	Prince Edward St	Pipe Outlet	2025
ESML34P1750	Drainage\Pit	Prince Edward St	Pipe Outlet	2025
EBUN22P0960	Drainage\Pit	Storey St	Sealed End	2025
EBUN22P9470	Drainage\Pit	Moverly Rd	Sealed End	2025
EBUN22P0730	Drainage\Pit	Moverly Rd	Sealed End	2025
EBUN22P4360	Drainage\Pit	Avoca St	Sealed End	2025
EBUN22P9790	Drainage\Pit	Moverly Rd	Sealed End	2025
EBUN22P9840	Drainage\Pit	Popplewell Pl	Sealed End	2025
ELOB32P0250	Drainage\Pit	Fishermans Rd	Sealed End	2025
ECOB16P5990	Drainage\Pit	Chatham St	Pipe Outlet	2025
MDON02P2720	Drainage\Pit	HOUSTON RD	Pipe Outlet	2025
MDON02P2700	Drainage\Pit	HOUSTON RD	Pipe Outlet	2025
MHEF24P1560	Drainage\Pit	Walsh Ave	Sealed End	2025
MHEF24P6680	Drainage\Pit	Robey St	Sealed End	2025
MMAT31P5740	Drainage\Pit	Wilkes Ave	Pipe Outlet	2025
MMAT31P6930	Drainage\Pit	Lone Pine Pde	Pipe Outlet	2025
MMAT31P6970	Drainage\Pit	Lone Pine Pde	Pipe Outlet	2025
ECLO09P1650	Drainage\Pit	Ocean St	Pipe Outlet	2025

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ELUR23P3550	Drainage\Pit	Marine Pde	Pipe Outlet	2025
EMRB25P2270	Drainage\Pit	Malabar Rd	Sealed End	2025
ESMA28P0090	Drainage\Pit	Bernie Kelly Drive	Pipe Inlet	2025
MDON02P2630	Drainage\Pit	COTTENHAM AV	Pipe Outlet	2025
ECLO09P3200	Drainage\Pit	Arden St	Pipe Outlet	2025
MCPE08P1490	Drainage\Pit	CLOVELLY RD	Pipe Outlet	2025
EBUN22P0250	Drainage\Pit	Hampson Ave	Pipe Outlet	2025
MPER30P0210	Drainage\Pit	McCauley St	Pipe Outlet	2025
MMAT31P6370	Drainage\Pit	Flanders St	Pipe Outlet	2025
ECLO09P1760	Drainage\Pit	Eastbourne Ave	Pipe Outlet	2025
ECLO09P1830	Drainage\Pit	Eastbourne Ave	Pipe Outlet	2025
ECLO09P0360	Drainage\Pit	Clovelly Rd	Sealed End	2025
MPOW15P1375	Drainage\Pit	Meeks St	Pipe Outlet	2025
EBUN22P7435	Drainage\Pit	Gumara St	Sealed End	2025
EGOR10P0250	Drainage\Pit	Gordon Ave	Pipe Outlet	2025
EGOR10P0270	Drainage\Pit	Gordon Ave	Pipe Outlet	2025
EGOR10P0360	Drainage\Pit	Gordon Ave	Pipe Outlet	2025
EBUN22P7020	Drainage\Pit	Mundah St	Sealed End	2025
EBUN22P8884	Drainage\Pit	Argyle St	Pipe Outlet	2025
ELIT37P2720	Drainage\Pit	Pine Av	Sealed End	2025
MCON40P0550	Drainage\Pit	Anzac Parade	Pipe Outlet	2025
MDON02C59205900	Drainage\Conduit	US Pit 5920 to DS Pit 5900	Culvert	2025
MDON02C59805970	Drainage\Conduit	US Pit 5980 to DS Pit 5970	Culvert	2025
MDON02C60805980	Drainage\Conduit	US Pit 6080 to DS Pit 5980	Culvert	2025
BYBY36C00300020	Drainage\Conduit	US Pit 0030 to DS Pit 0020	Culvert	2026
EBUN22C89108900	Drainage\Conduit	US Pit 8910 to DS Pit 8900	Culvert	2026
ECOB16P4990	Drainage\Pit	Mount St	Buried JP	2026
ECOB16P5030	Drainage\Pit	Dudley St	Buried JP	2026
ECOB16P0490	Drainage\Pit	Dolphin St	Buried JP	2026
MPOW15P7830	Drainage\Pit	Eurimbla St	Buried JP	2026
MPOW15P8020	Drainage\Pit	Botany St	Buried JP	2026
ESC17P0350	Drainage\Pit	Carr St	Buried JP	2026
ESC17P0360	Drainage\Pit	Beach St	Buried JP	2026
ESC17P0820	Drainage\Pit	Havelock Ave	Buried JP	2026
ESC17P1270	Drainage\Pit	Dudley St	Buried JP	2026
ECLO09P3850	Drainage\Pit	Simeon St	Buried JP	2026
EGOR10P0060	Drainage\Pit	Major St	Buried JP	2026
EGOR10P1060	Drainage\Pit	Arden St	Buried JP	2026
EGOR10P1130	Drainage\Pit	Arden St	Buried JP	2026
EGOR10P1420	Drainage\Pit	Clovelly Rd	Buried JP	2026

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EGOR10P1500	Drainage\Pit	Fern St	Buried JP	2026
ELUR23P1950	Drainage\Pit	Seaside Pde	Buried JP	2026
ETRS18P0940	Drainage\Pit	Marian St	Buried JP	2026
ETRS18P1340	Drainage\Pit	Rainbow St	Buried JP	2026
ECOB16P6710	Drainage\Pit	St Luke St	Buried JP	2026
ECOB16P6720	Drainage\Pit	Gray St	Buried JP	2026
ECOB16P7030	Drainage\Pit	Woodlands Av	Buried JP	2026
MCPW05P0810	Drainage\Pit	Church St	Buried JP	2026
MCPW05P0840	Drainage\Pit	Cowper St	Buried JP	2026
ECOB16P2350	Drainage\Pit	Bream St	Buried JP	2026
MCPE08P1930	Drainage\Pit	CARRINGTON RD	Buried JP	2026
MCPW05P0120	Drainage\Pit	Alison Rd	Channel Junction	2026
MCPW05P0130	Drainage\Pit	Darley Rd	Channel Junction	2026
EMRB25P1030	Drainage\Pit	Marine Pde	Buried JP	2026
EMRB25P3030	Drainage\Pit	Malabar Rd	Buried JP	2026
MPOW15P1130	Drainage\Pit	Willis St	Buried JP	2026
EBUN22P2030	Drainage\Pit	Storey St	Buried JP	2026
EBUN22P2140	Drainage\Pit	Storey St	Buried JP	2026
MPOW15P1930	Drainage\Pit	Jacques St	Buried JP	2026
MPOW15P2310	Drainage\Pit	Jacques St	Buried JP	2026
MPOW15P2900	Drainage\Pit	Botany St	Buried JP	2026
MPOW15P3550	Drainage\Pit	Rigney Ave	Buried JP	2026
MPOW15P4440	Drainage\Pit	Barker St	Buried JP	2026
EBUN22P2750	Drainage\Pit	Cooper St	Buried JP	2026
EBUN22P4470	Drainage\Pit	Avoca St	Buried JP	2026
EBUN22P4630	Drainage\Pit	Avoca St	Buried JP	2026
EBUN22P4640	Drainage\Pit	Ainslie St	Buried JP	2026
MHEF24P5590	Drainage\Pit	Ferguson St	Buried JP	2026
MHEF24P7140	Drainage\Pit	Hinkler St	Buried JP	2026
MHEF24P7220	Drainage\Pit	Paine St	Buried JP	2026
MMAT31P1150	Drainage\Pit	Murrabin Ave	Buried JP	2026
ECLO09P0410	Drainage\Pit	Clovelly Rd	Buried JP	2026
ECLO09P0860	Drainage\Pit	Surfside St	Buried JP	2026
ECLO09P1010	Drainage\Pit	Shackel Ave	Buried JP	2026
ECLO09P2180	Drainage\Pit	Surfside Ave	Buried JP	2026
ECLO09P2280	Drainage\Pit	Surfside Ave	Buried JP	2026
ECLO09P3820	Drainage\Pit	Simeon St	Buried JP	2026
ECLO09P4080	Drainage\Pit	Alan St	Buried JP	2026
ELUR23P1220	Drainage\Pit	Malabar Rd	Buried JP	2026

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ELUR23P1360	Drainage\Pit	Malabar Rd	Buried JP	2026
ESML34P0550	Drainage\Pit	Victoria St	Buried JP	2026
ESML34P1320	Drainage\Pit	Bay Pde	Buried JP	2026
MPOW15P0110	Drainage\Pit	Anzac Pde	Buried JP	2026
MCPC06P0600	Drainage\Pit	Stephen St	Buried JP	2026
ECOB16P0760	Drainage\Pit	Arden St	Buried JP	2026
ECOB16P2750	Drainage\Pit	Alison Rd	Buried JP	2026
ECOB16P2560	Drainage\Pit	Alison Rd	Buried JP	2026
ECOB16P3060	Drainage\Pit	Abbott St	Buried JP	2026
ECOB16P4480	Drainage\Pit	Coogee Bay Rd	Buried JP	2026
ECOB16P4590	Drainage\Pit	Carr St	Buried JP	2026
ECOB16P6680	Drainage\Pit	St Luke St	Buried JP	2026
ECOB16P6780	Drainage\Pit	St Luke St	Buried JP	2026
ECOB16P9240	Drainage\Pit	Albert St	Buried JP	2026
ECOB16P1810	Drainage\Pit	Brook St	Buried JP	2026
BFBY39P0280	Drainage\Pit	Endeavour St	Buried JP	2026
ECOB16P8470	Drainage\Pit	St Marks Rd	Buried JP	2026
ECOB16P8820	Drainage\Pit	Judge St	Buried JP	2026
MDON02P0990	Drainage\Pit	DONCASTER AV	Buried JP	2026
MDON02P1200	Drainage\Pit	HOUSTON RD	Buried JP	2026
MDON02P1270	Drainage\Pit	HOUSTON RD	Buried JP	2026
MDON02P0960	Drainage\Pit	BORRODALE RD	Buried JP	2026
MDON02P1460	Drainage\Pit	HOUSTON RD	Buried JP	2026
MDON02P6450	Drainage\Pit	Alison Rd	Buried JP	2026
MDON02P6850	Drainage\Pit	Prince St	Buried JP	2026
EMRB25P2760	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
EMRB25P2780	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
EMRB25P2800	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
EMRB25P6550	Drainage\Pit	Mons Ave	Buried JP	2026
ESC17P1300	Drainage\Pit	Dudley St	Buried JP	2026
ETRS18P0800	Drainage\Pit	Rainbow St	Buried JP	2026
MHEF24P4800	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
MHEF24P4860	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
MHEF24P4930	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
MHEF24P6510	Drainage\Pit	Jersey Rd	Buried JP	2026
MHEF24P8870	Drainage\Pit	Storey St	Well	2026
MHEF24P9500	Drainage\Pit	Robey St	Buried JP	2026
ECOB16P7950	Drainage\Pit	Glen Ave	Buried JP	2026
MCPC06P1480	Drainage\Pit	Hodgson St	Buried JP	2026
CRPK01P2300	Drainage\Pit	TODMAN AVENUE	Buried JP	2026

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
CRPK01P0320	Drainage\Pit	VIRGINIA ST	Buried JP	2026
CRPK01P0420	Drainage\Pit	McDOUGALL ST	Buried JP	2026
EMRB25P0590	Drainage\Pit	Wride St	Buried JP	2026
EMRB25P5100	Drainage\Pit	Malabar Rd	Buried JP	2026
EMRB25P2930	Drainage\Pit	Mons Ave	Buried JP	2026
EMRB25P2090	Drainage\Pit	Fitzgerald Ave	Buried JP	2026
EMRB25P5270	Drainage\Pit	Yorktown Pde	Buried JP	2026
EMRB25P5370	Drainage\Pit	Yorktown Pde	Buried JP	2026
EMRB25P5410	Drainage\Pit	Yorktown Pde	Buried JP	2026
EMRB25P5880	Drainage\Pit	Yorktown Pde	Buried JP	2026
EMRB25P8370	Drainage\Pit	Anzac Parade	Buried JP	2026
EMRB25P8110	Drainage\Pit	Chester Avenue	Buried JP	2026
EBUN22P1280	Drainage\Pit	Storey St	Buried JP	2026
EBUN22P1700	Drainage\Pit	Storey St	Buried JP	2026
MPOW15P2590	Drainage\Pit	Hayward St	Buried JP	2026
EBUN22P3090	Drainage\Pit	Boyce Rd	Buried JP	2026
EBUN22P5990	Drainage\Pit	Rainbow St	Buried JP	2026
EBUN22P6020	Drainage\Pit	Rainbow St	Buried JP	2026
EBUN22P6050	Drainage\Pit	Rainbow St	Buried JP	2026
EBUN22P6060	Drainage\Pit	Rainbow St	Buried JP	2026
EBUN22P6070	Drainage\Pit	Rainbow St	Buried JP	2026
MPER30P0440	Drainage\Pit	McCauley St	Buried JP	2026
MMAT31P1160	Drainage\Pit	Murrabin Ave	Buried JP	2026
MMAT31P1200	Drainage\Pit	Australia Ave	Buried JP	2026
MMAT31P1890	Drainage\Pit	Bunnerong Rd	Buried JP	2026
MMAT31P1900	Drainage\Pit	Bunnerong Rd	Buried JP	2026
MMAT31P1940	Drainage\Pit	Kemp Ave	Buried JP	2026
MMAT31P2500	Drainage\Pit	Brisbane St	Buried JP	2026
MMAT31P2880	Drainage\Pit	Brisbane St	Buried JP	2026
MMAT31P2930	Drainage\Pit	Brisbane St	Buried JP	2026
MMAT31P3000	Drainage\Pit	Macquarie St	Buried JP	2026
MMAT31P3780	Drainage\Pit	Franklin St	Buried JP	2026
MMAT31P4170	Drainage\Pit	Paterson	Buried JP	2026
MMAT31P4190	Drainage\Pit	Namoi Rd	Buried JP	2026
MMAT31P5390	Drainage\Pit	Lawson St	Buried JP	2026
MMAT31P6570	Drainage\Pit	Combles Pde	Buried JP	2026
MMAT31P6760	Drainage\Pit	Menin Rd	Buried JP	2026
MMAT31P6790	Drainage\Pit	Menin Rd	Buried JP	2027
ELOB32P0730	Drainage\Pit	Franklin St	Buried JP	2027
ELOB32P1070	Drainage\Pit	Franklin St	Buried JP	2027

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P1300	Drainage\Pit	Ocean St	Buried JP	2027
ECLO09P1520	Drainage\Pit	Ocean St	Buried JP	2027
ECLO09P3920	Drainage\Pit	Seaview St	Channel Junction	2027
EGOR10P1320	Drainage\Pit	Knox St	Buried JP	2027
EGOR10P1600	Drainage\Pit	Tower St	Channel Junction	2027
EGOR10P1770	Drainage\Pit	Pepper Ln	Buried JP	2027
ELUR23P0320	Drainage\Pit	Wisdom St	Buried JP	2027
ELUR23P1590	Drainage\Pit	Palmer St	Buried JP	2027
ELUR23P2090	Drainage\Pit	Liguria St	Buried JP	2027
ELUR23P2110	Drainage\Pit	Liguria St	Buried JP	2027
ESML34P0210	Drainage\Pit	Raglan St	Buried JP	2027
ESML34P0750	Drainage\Pit	Bay Pde	Buried JP	2027
ESML34P0760	Drainage\Pit	Victoria St	Buried JP	2027
ESML34P1400	Drainage\Pit	Howe St	Buried JP	2027
EMRB25P4760	Drainage\Pit	Malabar Rd	Buried JP	2027
EMRB25P4920	Drainage\Pit	Malabar Rd	Buried JP	2027
EMRB25P7870	Drainage\Pit	Minneapolis Crescent	Buried JP	2027
EMRB25P7950	Drainage\Pit	Minneapolis Crescent	Buried JP	2027
EMRB25P5120	Drainage\Pit	Yorktown Pde	Buried JP	2027
ELUR23P2450	Drainage\Pit	Malabar Rd	Buried JP	2027
ELUR23P3000	Drainage\Pit	Gregory St	Buried JP	2027
ELUR23P3040	Drainage\Pit	Gregory St	Buried JP	2027
BYBY36P0650	Drainage\Pit	Binda Crescent	Buried JP	2027
BYBY36P0980	Drainage\Pit	Mirrabooka Crescent	Buried JP	2027
BYBY36P1040	Drainage\Pit	Mirrabooka Crescent	Buried JP	2027
BYBY36P1220	Drainage\Pit	Anzac Pde	Buried JP	2027
BYBY36P2340	Drainage\Pit	Mirrabooka Crescent	Buried JP	2027
BYBY36P2780	Drainage\Pit	Anzac Pde	Buried JP	2027
BYBY36P4480	Drainage\Pit	Bunnerong Rd	Buried JP	2027
BYBY36P2470	Drainage\Pit	Anzac Pde	Buried JP	2027
BYBY36P1020	Drainage\Pit	Mirrabooka Crescent	Buried JP	2027
BYBY36P1200	Drainage\Pit	Mirrabooka Crescent	Buried JP	2027
BYBY36P0550	Drainage\Pit	Yarra Rd	Buried JP	2027
BYBY36P4610	Drainage\Pit	Hastings Ave	Buried JP	2027
BFBY39P0490	Drainage\Pit	Elaroo St	Buried JP	2027
BYBY36P1090	Drainage\Pit	Goora St	Buried JP	2027
BYBY36P1210	Drainage\Pit	Anzac Pde	Buried JP	2027
BLAP41P0240	Drainage\Pit	Anzac Pde	Buried JP	2027
BPBY38P0340	Drainage\Pit	Yarra Rd	Buried JP	2027

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
BYBY36P2800	Drainage\Pit	Little Bay Rd	Buried JP	2027
BYBY36P3810	Drainage\Pit	Anzac Pde	Buried JP	2027
BYBY36P0320	Drainage\Pit	Bunnerong Rd	Buried JP	2027
BPBY38P0350	Drainage\Pit	Yarra Rd	Buried JP	2027
BLAP41P0170	Drainage\Pit	Anzac Pde	Buried JP	2027
BPBY38P0390	Drainage\Pit	Yarra Rd	Buried JP	2027
ELIT37P1390	Drainage\Pit	Coast Hospital Rd	Channel Junction	2027
BYBY36P0190	Drainage\Pit	Military Rd	Buried JP	2027
BYBY36P1720	Drainage\Pit	Anzac Pde	Buried JP	2027
ECOB16P1580	Drainage\Pit	Brook St	Buried JP	2027
MCPE08P0470	Drainage\Pit	CARTER ST	Buried JP	2027
ECOB16P0880	Drainage\Pit	Arden St	Buried JP	2027
MDON02P7380	Drainage\Pit	Addison St	Buried JP	2027
EMRB25P0490	Drainage\Pit	Wride St	Buried JP	2027
MPOW15P0360	Drainage\Pit	Anzac Pde	Buried JP	2027
MPOW15P4260	Drainage\Pit	Young St	DGGP	2027
MHEF24P1140	Drainage\Pit	Cobham St	Buried JP	2027
MHEF24P1150	Drainage\Pit	Bunnerong Rd	Buried JP	2027
MHEF24P5770	Drainage\Pit	Wise St	Buried JP	2027
MPER30P1920	Drainage\Pit	Pillars Pl	Buried JP	2027
ETRS18P0060	Drainage\Pit	Wolseley Rd	Buried JP	2027
ETRS18P0070	Drainage\Pit	Wolseley Rd	Buried JP	2027
MMAT31P0040	Drainage\Pit	Bumborah Pt Rd	Buried JP	2027
MMAT31P0140	Drainage\Pit	Bumborah Pt Rd	Buried JP	2027
MMAT31P2760	Drainage\Pit	Mitchell St	Buried JP	2027
ELOB32P1690	Drainage\Pit	Anzac Pde	Buried JP	2027
ELOB32P1880	Drainage\Pit	Austral St	Buried JP	2027
ELOB32P1920	Drainage\Pit	Anzac Pde	Buried JP	2027
ELOB32P2880	Drainage\Pit	Flers Way	Buried JP	2027
ELOB32P2980	Drainage\Pit	Anzac Pde	Buried JP	2027
ELOB32P3430	Drainage\Pit	Bullecourt Way	Buried JP	2027
EGOR10P0020	Drainage\Pit	Major St	Channel Junction	2027
EGOR10P0030	Drainage\Pit	Major St	Channel Junction	2027
EGOR10P1170	Drainage\Pit	Clovelly Rd	Buried JP	2027
ELUR23P0070	Drainage\Pit	Alexandria Pde	Buried JP	2027
ELUR23P0380	Drainage\Pit	Wisdom St	Buried JP	2027
ELUR23P0810	Drainage\Pit	Malabar Rd	Buried JP	2027
ELUR23P0820	Drainage\Pit	Malabar Rd	Buried JP	2027

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ELUR23P0880	Drainage\Pit	Nymboida St	Buried JP	2027
ELUR23P1020	Drainage\Pit	Malabar Rd	Buried JP	2027
ELUR23P1060	Drainage\Pit	Malabar Rd	Buried JP	2027
ELUR23P1070	Drainage\Pit	Coldstream St	Buried JP	2027
ELUR23P1130	Drainage\Pit	Moverly Rd	Buried JP	2027
ESML34P1770	Drainage\Pit	Prince Edward St	Buried JP	2027
ESML34P1780	Drainage\Pit	Prince Edward St	Buried JP	2027
ECLO09P0280	Drainage\Pit	Clovelly Rd	Buried JP	2027
MMAT31P3570	Drainage\Pit	Anzac Pde	Buried JP	2027
MMAT31P3590	Drainage\Pit	Anzac Pde	Buried JP	2027
MMAT31P3620	Drainage\Pit	Anzac Pde	Buried JP	2027
EBUN22P3240	Drainage\Pit	Garden St	Buried JP	2027
EBUN22P9880	Drainage\Pit	Johnston Pde	Buried JP	2027
EBUN22P9890	Drainage\Pit	Johnston Pde	Buried JP	2027
EBUN22P10070	Drainage\Pit	Johnston Pde	Buried JP	2027
CRPK01P1000	Drainage\Pit	DOWLING LANE	Buried JP	2027
CRPK01P0950	Drainage\Pit	DOWLING LANE	Buried JP	2027
CRPK01P0970	Drainage\Pit	DOWLING LANE	Buried JP	2027
CRPK01P1170	Drainage\Pit	DOWLING ST	Buried JP	2027
ECOB16P0150	Drainage\Pit	Baden St	Buried JP	2027
MDON02P2280	Drainage\Pit	MOORAMIE AV	Buried JP	2027
MDON02P2380	Drainage\Pit	DAY AV	Buried JP	2027
MDON02P6660	Drainage\Pit	Cowper St	Buried JP	2027
MMAT31P2700	Drainage\Pit	Mitchell St	Buried JP	2027
MMAT31P5780	Drainage\Pit	Wilkes Ave	Buried JP	2027
MMAT31P6840	Drainage\Pit	Lone Pine Pde	Buried JP	2027
MMAT31P6910	Drainage\Pit	Lone Pine Pde	Buried JP	2027
ELOB32P2010	Drainage\Pit	Anzac Pde	Buried JP	2027
ELOB32P2150	Drainage\Pit	Manwaring Ave	Buried JP	2027
ELOB32P2170	Drainage\Pit	Manwaring Ave	Buried JP	2027
ELOB32P2320	Drainage\Pit	Malabar Rd	Buried JP	2027
ECLO09P2340	Drainage\Pit	Donellan Cct	Channel Junction	2027
ECLO09P2360	Drainage\Pit	Donellan Cct	Channel Junction	2027
ECLO09P2910	Drainage\Pit	Burnie St	Buried JP	2027
ECLO09P2950	Drainage\Pit	Burnie St	Buried JP	2027
EMRB25P2540	Drainage\Pit	Tyrwhitt St	Buried JP	2027
ESMA28P0020	Drainage\Pit	Bernie Kelly Drive	Buried JP	2027
MMAT31P1430	Drainage\Pit	Botany Rd	Buried JP	2027
MMAT31P1520	Drainage\Pit	Bunnerong Rd	Buried JP	2027

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MMAT31P1590	Drainage\Pit	Bunnerong Rd	Buried JP	2027
MMAT31P1610	Drainage\Pit	Moorina Ave	Buried JP	2027
ELOB32P0830	Drainage\Pit	Franklin St	Buried JP	2027
MMAT31P2120	Drainage\Pit	Wassell St	Buried JP	2027
ELOB32P3600	Drainage\Pit	Chelmsford Ave	Buried JP	2027
ELOB32P3620	Drainage\Pit	Chelmsford Ave	Buried JP	2027
ELOB32P3680	Drainage\Pit	Anzac Pde	Buried JP	2027
ELOB32P3750	Drainage\Pit	Chelmsford Ave	Buried JP	2027
ECLO09P1270	Drainage\Pit	Ocean St	Buried JP	2027
MDON02P7230	Drainage\Pit	Lorne Ave	Buried JP	2027
MDON02P7130	Drainage\Pit	Lorne Ave	Buried JP	2027
MPOW15P7360	Drainage\Pit	Middle St	Buried JP	2027
MMAT31P0280	Drainage\Pit	Bumborah Pt Rd	Buried JP	2027
MHEF24P8720	Drainage\Pit	Storey St	Buried JP	2027
MHEF24P9160	Drainage\Pit	Anzac Pde	Buried JP	2027
ELUR23P0140	Drainage\Pit	Alexandria Pde	Buried JP	2027
EMRB25P1140	Drainage\Pit	Marine Pde	Buried JP	2027
EMRB25P1050	Drainage\Pit	Marine Pde	Buried JP	2027
MCPE08P0980	Drainage\Pit	CLOVELLY RD	Channel Junction	2027
ESC17P1560	Drainage\Pit	Beach St	Buried JP	2027
EMGC35P0090	Drainage\Pit	Eucla Cr	DGGP	2027
EMGC35P0160	Drainage\Pit	Bilga Cr	Channel Junction	2027
EMGC35P0280	Drainage\Pit	Bilga Cr	Buried JP	2027
MCON40P0340	Drainage\Pit	Abbe Receveur	Buried JP	2027
BYBY36C15600610	Drainage\Conduit	US Pit 1560 to DS Pit 0610	Watercourse	2027
BYBY36C16301610	Drainage\Conduit	US Pit 1630 to DS Pit 1610	Watercourse	2027
BYBY36C4920	Drainage\Conduit	US Pit 4920 to DS Pit	Watercourse	2027
BYBY36C44700400	Drainage\Conduit	US Pit 4470 to DS Pit 0400	Watercourse	2027
BFBY39C0190	Drainage\Conduit	US Pit 0190 to DS Pit	Watercourse	2027
CRPK0118501840	Drainage\Conduit	US Pit 1850 to DS Pit 1840	Watercourse	2027
BYBY36C51200280	Drainage\Conduit	US Pit 5120 to DS Pit 0280	Watercourse	2027
BYBY36C06100600	Drainage\Conduit	US Pit 0610 to DS Pit 0600	Watercourse	2027
BPBY38C01000060	Drainage\Conduit	US Pit 0100 to DS Pit 0060	Watercourse	2027
BPBY38C01400100	Drainage\Conduit	US Pit 0140 to DS Pit 0100	Watercourse	2027
CRPK0118701860	Drainage\Conduit	US Pit 1870 to DS Pit 1860	Watercourse	2027
BYBY36C00500040	Drainage\Conduit	US Pit 0050 to DS Pit 0040	Watercourse	2027
BYBY36C02900050	Drainage\Conduit	US Pit 0290 to DS Pit 0050	Watercourse	2027
BYBY36C03400330	Drainage\Conduit	US Pit 0340 to DS Pit 0330	Watercourse	2027
ECOB16C78907880	Drainage\Conduit	US Pit 7890 to DS Pit 7880	Watercourse	2027

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECOB16C79307890	Drainage\Conduit	US Pit 7930 to DS Pit 7890	Watercourse	2027
ECOB16C79907930	Drainage\Conduit	US Pit 7990 to DS Pit 7930	Watercourse	2027
BPBY38C04100620	Drainage\Conduit	US Pit 0410 to DS Pit 0620	Bush	2027
BYBY36C16101590	Drainage\Conduit	US Pit 1610 to DS Pit 1590	Watercourse	2027
MRRC03P1060	Drainage\Pit	BOTANY STREET	Kerb Inlet Pit	2027
MELK12P0140	Drainage\Pit	ARTHUR STREET	Kerb Inlet Pit	2027
MELK12P0560	Drainage\Pit	FRANCES STREET	Kerb Inlet Pit	2027
MELK12P0770	Drainage\Pit	FRANCES STREET	Kerb Inlet Pit	2027
MRRC03P0490	Drainage\Pit	CHURCH STREET	Kerb Inlet Pit	2027
ECOB16P7050	Drainage\Pit	Woodlands Av	Kerb Inlet Pit	2027
MCPE08P0030	Drainage\Pit	DARLEY RD	Kerb Inlet Pit	2027
MCPC06P1430	Drainage\Pit	Randwick St	Kerb Inlet Pit	2027
MELK12P0740	Drainage\Pit	ABBEY STREET	Kerb Inlet Pit	2028
MRRC03P0750	Drainage\Pit	ABBEY STREET	Kerb Inlet Pit	2028
MELK12P0380	Drainage\Pit	Aboud Ave	Kerb Inlet Pit	2028
EMRB25P8500	Drainage\Pit	Anzac Parade	Kerb Inlet Pit	2028
ELUR23P0580	Drainage\Pit	Pearce St	Kerb Inlet Pit	2028
MRRC03P1510	Drainage\Pit	BELMORE ROAD	Kerb Inlet Pit	2028
MRRC031460	Drainage\Pit	BELMORE ROAD	Kerb Inlet Pit	2028
MELK12P0210	Drainage\Pit	Tunstall Ave	Kerb Inlet Pit	2028
MPER30P2300	Drainage\Pit	Milne Av	Kerb Inlet Pit	2028
MPER30P2310	Drainage\Pit	Stewart St	Kerb Inlet Pit	2028
MPER30P2750	Drainage\Pit	Beauchamp Rd	Kerb Inlet Pit	2028
ECOB16P10320	Drainage\Pit	Arden St	kerb Outlet	2028
ECOB16P10380	Drainage\Pit	Arden St	kerb Outlet	2028
MRRC03P1110	Drainage\Pit	Silver Street	Kerb Inlet Pit	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MRRC03P1130	Drainage\Pit	BOTANY STREET	Kerb Inlet Pit	2028
MELK12P0710	Drainage\Pit	Eastern Ave	Kerb Inlet Pit	2028
MPER30P1410	Drainage\Pit	Baird Av	Kerb Inlet Pit	2028
ELIT37P2320	Drainage\Pit	Jenner St	Kerb Inlet Pit	2028
ELIT37P2740	Drainage\Pit	Pine Av	Kerb Inlet Pit	2028
EMGC35P0070	Drainage\Pit	Bilga Cr	Kerb Inlet Pit	2028
EMGC35P0370	Drainage\Pit	Eucla Cr	Kerb Inlet Pit	2028
MMAR20P0300	Drainage\Pit	Botany St	Not Applicable	2028
MMAR20P0380	Drainage\Pit	Snape St	Not Applicable	2028
ECOB16P5090	Drainage\Pit	Byron St	Pipe Junction	2028
ECOB16P4710	Drainage\Pit	Mount St	Pipe Junction	2028
ECOB16P4720	Drainage\Pit	Mount St	Pipe Junction	2028
ECOB16P4940	Drainage\Pit	Carr St	Pipe Junction	2028
ECOB16P4970	Drainage\Pit	Mount St	Blind Pit	2028
ECOB16P5070	Drainage\Pit	Dudley St	Pipe Junction	2028
ECOB16P0480	Drainage\Pit	Beach st	Pipe Junction	2028
ECOB16P9370	Drainage\Pit	Alison Rd	Pipe Junction	2028
ECOB16P9870	Drainage\Pit	Avoca St	Pipe Junction	2028
ECOB16P9890	Drainage\Pit	Avoca St	Pipe Junction	2028
MCPE08P0360	Drainage\Pit	CLOVELLY RD	Pipe Junction	2028
MCPW05P0900	Drainage\Pit	King St	JP	2028
ECOB16P2340	Drainage\Pit	Bream St	Pipe Junction	2028
MCPC06P0660	Drainage\Pit	Dangar St	Pipe Junction	2028
MCPE08P0620	Drainage\Pit	AVOCA ST	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MCPE08P1020	Drainage\Pit	CLOVELLY RD	Pipe Junction	2028
MCPC06P0430	Drainage\Pit	Wentworth St	Pipe Junction	2028
MCPE08P2230	Drainage\Pit	MARKET ST	Pipe Junction	2028
MCPE08P2270	Drainage\Pit	MARKET ST	Pipe Junction	2028
MELK12P0580	Drainage\Pit	Shaw Ave	Grate Only Pit	2028
MCPE08P1810	Drainage\Pit	FRENCHMANS RD	Pipe Junction	2028
MCPE08P2050	Drainage\Pit	CENTENNIAL AV	Pipe Junction	2028
MCPE08P2410	Drainage\Pit	PARK AV	Pipe Junction	2028
MCPE08P2600	Drainage\Pit	PARK AV	Pipe Junction	2028
MDON02P5270	Drainage\Pit	Roma Avenue	Pipe Junction	2028
MDON02P5320	Drainage\Pit	Roma Avenue	Pipe Junction	2028
MDON02P5350	Drainage\Pit	Roma Avenue	Pipe Junction	2028
MDON02P6900	Drainage\Pit	Anzac Parade	Pipe Junction	2028
MPOW15P7150	Drainage\Pit	Waratah Ave	Pipe Junction	2028
MPOW15P7630	Drainage\Pit	Magill St	Pipe Junction	2028
MPOW15P7720	Drainage\Pit	Magill St	Pipe Junction	2028
MPOW15P7950	Drainage\Pit	Botany St	Pipe Junction	2028
MPOW15P7990	Drainage\Pit	Middle St	Pipe Junction	2028
MPOW15P8080	Drainage\Pit	Botany Lane	Pipe Junction	2028
MPOW15P8120	Drainage\Pit	Kenneth Lane	Pipe Junction	2028
MPOW15P8190	Drainage\Pit	Barker St	Pipe Junction	2028
EBUN22P7580	Drainage\Pit	Hendy Ave	Pipe Junction	2028
EBUN22P7600	Drainage\Pit	Hendy Ave	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EBUN22P7700	Drainage\Pit	Rainbow St	Pipe Junction	2028
EBUN22P7720	Drainage\Pit	Rainbow St	Pipe Junction	2028
EBUN22P7730	Drainage\Pit	Rainbow St	Grate Only Pit	2028
EBUN22P7740	Drainage\Pit	Rainbow St	Pipe Junction	2028
ESC17P0090	Drainage\Pit	Beach St	Pipe Junction	2028
ESC17P0440	Drainage\Pit	Carr St	Pipe Junction	2028
ESC17P0470	Drainage\Pit	Carr St	Pipe Junction	2028
ESC17P0990	Drainage\Pit	Havelock Ave	Pipe Junction	2028
ESC17P1010	Drainage\Pit	Dudley St	Pipe Junction	2028
ESC17P1220	Drainage\Pit	Dudley St	Pipe Junction	2028
ETRS18P0190	Drainage\Pit	Oberon St	Pipe Junction	2028
ETRS18P0300	Drainage\Pit	Neptune St	Pipe Junction	2028
ECLO09P2530	Drainage\Pit	Keith St	Pipe Junction	2028
ECLO09P3090	Drainage\Pit	Greville St	Pipe Junction	2028
ECLO09P4630	Drainage\Pit	Albion St	Pipe Junction	2028
EGOR10P0860	Drainage\Pit	Beach St	Pipe Junction	2028
EGOR10P0880	Drainage\Pit	Beach St	Pipe Junction	2028
EGOR10P1070	Drainage\Pit	Arden St	Pipe Junction	2028
EGOR10P1540	Drainage\Pit	Arden St	Pipe Junction	2028
EGOR10P1560	Drainage\Pit	Clovelly Rd	Pipe Junction	2028
EGOR10P1615	Drainage\Pit	Tower St	Pipe Junction	2028
ETRS18P0510	Drainage\Pit	Beach St	Pipe Junction	2028
ETRS18P0690	Drainage\Pit	Beach St	Blind Pit	2028
ETRS18P0700	Drainage\Pit	Rainbow St	Blind Pit	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ETRS18P0790	Drainage\Pit	Rainbow St	Pipe Junction	2028
ETRS18P0900	Drainage\Pit	Marian St	Pipe Junction	2028
ETRS18P1080	Drainage\Pit	Malabar Rd	JP	2028
ETRS18P1580	Drainage\Pit	Clifford St	Pipe Junction	2028
ETRS18P1650	Drainage\Pit	Oberon St	JP	2028
ETRS18P1660	Drainage\Pit	Oberon St	JP	2028
ECOB16P0060	Drainage\Pit	Beach St	Pipe Junction	2028
ECOB16P3590	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P3600	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P1370	Drainage\Pit	Arden St	Pipe Junction	2028
ECOB16P2370	Drainage\Pit	Bream St	Pipe Junction	2028
ECOB16P2450	Drainage\Pit	Smithfield Ave	Pipe Junction	2028
ECOB16P2860	Drainage\Pit	Mount St	Pipe Junction	2028
ECOB16P2940	Drainage\Pit	Mount St	Pipe Junction	2028
ECOB16P2950	Drainage\Pit	Mount St	Pipe Junction	2028
ECOB16P3490	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P4110	Drainage\Pit	Conway Ave	Pipe Junction	2028
ECOB16P4120	Drainage\Pit	Carey Lane	Pipe Junction	2028
ECOB16P5250	Drainage\Pit	Dolphin St	Pipe Junction	2028
ECOB16P5280	Drainage\Pit	Dolphin St	Pipe Junction	2028
ECOB16P5580	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P5590	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P5630	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P5330	Drainage\Pit	Dolphin St	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECOB16P5380	Drainage\Pit	Dolphin St	Pipe Junction	2028
ECOB16P6240	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P6280	Drainage\Pit	Carrington Rd	Pipe Junction	2028
ECOB16P9430	Drainage\Pit	Dutruc St	Pipe Junction	2028
ECOB16P8290	Drainage\Pit	Clovelly Rd	Pipe Junction	2028
MCPN07P0190	Drainage\Pit	Wentworth St	Pipe Junction	2028
MCPN07P0200	Drainage\Pit	Wentworth St	Pipe Junction	2028
ECOB16P7100	Drainage\Pit	Brook St	Pipe Junction	2028
ECOB16P9750	Drainage\Pit	Judge St	JP	2028
ECOB16P9780	Drainage\Pit	Judge St	Pipe Junction	2028
ECOB16P7120	Drainage\Pit	Brook St	Pipe Junction	2028
ECOB16P7160	Drainage\Pit	Brook St	Pipe Junction	2028
ECOB16P7430	Drainage\Pit	Farnham Ave	Pipe Junction	2028
MCPW05P0820	Drainage\Pit	Cowper St	Pipe Junction	2028
ECOB16P8670	Drainage\Pit	Dolphin St	JP	2028
ECOB16P8680	Drainage\Pit	Coogee St	Pipe Junction	2028
ECOB16P8480	Drainage\Pit	St Marks Rd	Pipe Junction	2028
MCPC06P0120	Drainage\Pit	Govett St	Pipe Junction	2028
MCPC06P0140	Drainage\Pit	Govett St	Pipe Junction	2028
MCPE08P0240	Drainage\Pit	AVOCA ST	Pipe Junction	2028
MCPE08P0270	Drainage\Pit	AVOCA ST	Pipe Junction	2028
ECOB16P8610	Drainage\Pit	Dolphin St	Pipe Junction	2028
ECOB16P9100	Drainage\Pit	Pitt St	Pipe Junction	2028
ECOB16P9980	Drainage\Pit	Judge St	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECOB16P9990	Drainage\Pit	Judge St	Pipe Junction	2028
MCPC06P0190	Drainage\Pit	Govett Lane	Pipe Junction	2028
MCPE08P1870	Drainage\Pit	GILDERTHORPE AVE	Pipe Junction	2028
MCPC06P0210	Drainage\Pit	Govett Lane	Pipe Junction	2028
MCPC06P0240	Drainage\Pit	Govett Lane	Pipe Junction	2028
MCPC06P0020	Drainage\Pit	Darley Rd	Pipe Junction	2028
MCPC06P0080	Drainage\Pit	Govett St	Pipe Junction	2028
MCPE08P0040	Drainage\Pit	DARLEY RD	Pipe Junction	2028
MCPW05P0730	Drainage\Pit	King St	Pipe Junction	2028
MCPW05P0780	Drainage\Pit	Church St	Pipe Junction	2028
MCPW05P0330	Drainage\Pit	Prince St	Pipe Junction	2028
MCPW05P0460	Drainage\Pit	Darley Rd	Pipe Junction	2028
EMRB25P0270	Drainage\Pit	Mckeon St	Pipe Junction	2028
EMRB25P0320	Drainage\Pit	Mckeon St	Pipe Junction	2028
EMRB25P4000	Drainage\Pit	Malabar Rd	Pipe Junction	2028
EMRB25P4120	Drainage\Pit	Malabar Rd	Blind Pit	2028
EMRB25P0820	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
EMRB25P3830	Drainage\Pit	Malabar Rd	Pipe Junction	2028
EMRB25P3960	Drainage\Pit	Bent Lane	Pipe Junction	2028
EMPL26P0070	Drainage\Pit	Marine Parade	Blind Pit	2028
EMPL26P0110	Drainage\Pit	Marine Parade	Pipe Junction	2028
EBON27P0420	Drainage\Pit	Bona Vista Avenue	Pipe Junction	2028
EMPL26P0130	Drainage\Pit	Marine Parade	Blind Pit	2028
EMPL26P0220	Drainage\Pit	Marine Parade	Blind Pit	2028
EMPL26P0300	Drainage\Pit	Torrington Road	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMPL26P0310	Drainage\Pit	Torrington Road	Pipe Junction	2028
EBON27P0080	Drainage\Pit	Bond Street	Pipe Junction	2028
EBON27P0210	Drainage\Pit	Marine Parade	Pipe Junction	2028
MPOW15P0450	Drainage\Pit	Meeks St	Pipe Junction	2028
MPOW15P1000	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P1280	Drainage\Pit	Meeks St	Pipe Junction	2028
MPOW15P1310	Drainage\Pit	Meeks St	Pipe Junction	2028
MPOW15P1330	Drainage\Pit	Meeks St	Pipe Junction	2028
MPOW15P1340	Drainage\Pit	Meeks St	Pipe Junction	2028
MPOW15P1380	Drainage\Pit	Meeks St	Pipe Junction	2028
EBUN22P2050	Drainage\Pit	Storey St	Pipe Junction	2028
EBUN22P2700	Drainage\Pit	Cooper St	JP	2028
MMAR20P0560	Drainage\Pit	Leonora Ave	Not Applicable	2028
MMAR20P0640	Drainage\Pit	Walenore Ave	Not Applicable	2028
MPOW15P1880	Drainage\Pit	Jacques St	Pipe Junction	2028
MPOW15P2210	Drainage\Pit	Jacques St	Pipe Junction	2028
MPOW15P2220	Drainage\Pit	Hayward St	Pipe Junction	2028
MPOW15P2250	Drainage\Pit	Jacques St	Pipe Junction	2028
MPOW15P2300	Drainage\Pit	Jacques St	Pipe Junction	2028
MPOW15P2910	Drainage\Pit	Botany St	Pipe Junction	2028
MPOW15P2930	Drainage\Pit	Botany St	Pipe Junction	2028
MPOW15P2950	Drainage\Pit	Botany St	Pipe Junction	2028
MPOW15P2970	Drainage\Pit	Botany St	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P3340	Drainage\Pit	Sturt St	Pipe Junction	2028
MPOW15P3380	Drainage\Pit	Sturt St	Pipe Junction	2028
MPOW15P3480	Drainage\Pit	Sturt St	Pipe Junction	2028
MPOW15P3520	Drainage\Pit	Rigney Ave	Pipe Junction	2028
MPOW15P3570	Drainage\Pit	Rigney Ave	Pipe Junction	2028
MPOW15P3600	Drainage\Pit	Rigney Ave	Pipe Junction	2028
MPOW15P3790	Drainage\Pit	Byrd Ave	Pipe Junction	2028
MPOW15P3810	Drainage\Pit	McNair Ave	Pipe Junction	2028
MPOW15P3830	Drainage\Pit	Byrd Ave	Pipe Junction	2028
MPOW15P3840	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P3930	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P3990	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P4400	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4410	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4460	Drainage\Pit	Barker St	Pipe Junction	2028
MPOW15P4490	Drainage\Pit	Barker St	Pipe Junction	2028
MPOW15P4530	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4580	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4600	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4650	Drainage\Pit	Avoca Lane	Pipe Junction	2028
MPOW15P4720	Drainage\Pit	Kara St	Pipe Junction	2028
MPOW15P4750	Drainage\Pit	Howard St	Pipe Junction	2028
MPOW15P4830	Drainage\Pit	Howard St	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P5110	Drainage\Pit	Ivy St	Pipe Junction	2028
MPOW15P5120	Drainage\Pit	Ivy St	Pipe Junction	2028
MPOW15P5140	Drainage\Pit	Ivy St	Pipe Junction	2028
MPOW15P5180	Drainage\Pit	Howard St	Pipe Junction	2028
MPOW15P5860	Drainage\Pit	Avoca St	Pipe Junction	2028
MPOW15P5890	Drainage\Pit	Avoca St	Pipe Junction	2028
MPOW15P5920	Drainage\Pit	St Pauls Lane	Pipe Junction	2028
MPOW15P6450	Drainage\Pit	Barker St	Pipe Junction	2028
MPOW15P6490	Drainage\Pit	Barker St	Pipe Junction	2028
MPOW15P6550	Drainage\Pit	Barker St	Pipe Junction	2028
MPOW15P6640	Drainage\Pit	Magill St	Pipe Junction	2028
MPOW15P6660	Drainage\Pit	Magill St	Pipe Junction	2028
MPOW15P6690	Drainage\Pit	Eurimbla St	Pipe Junction	2028
MPOW15P6700	Drainage\Pit	Eurimbla St	Pipe Junction	2028
MPOW15P7200	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P7210	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P7250	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P7280	Drainage\Pit	Rainbow St	Pipe Junction	2028
MPOW15P7310	Drainage\Pit	Young St	Not Applicable	2028
MPOW15P7400	Drainage\Pit	Young St	Pipe Junction	2028
MPOW15P7410	Drainage\Pit	Middle St	Pipe Junction	2028
MPOW15P7450	Drainage\Pit	Middle St	Pipe Junction	2028
MPOW15P7460	Drainage\Pit	Barker St	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P7610	Drainage\Pit	Hay St	Pipe Junction	2028
EBUN22P4450	Drainage\Pit	Avoca St	Pipe Junction	2028
EBUN22P4510	Drainage\Pit	Avoca St	Pipe Junction	2028
EBUN22P4560	Drainage\Pit	Avoca St	Pipe Junction	2028
EBUN22P4610	Drainage\Pit	Avoca St	Pipe Junction	2028
EBUN22P4650	Drainage\Pit	Jellicoe St	Pipe Junction	2028
EBUN22P4660	Drainage\Pit	Jellicoe St	Pipe Junction	2028
EBUN22P4760	Drainage\Pit	Jellicoe St	Pipe Junction	2028
MHEF24P2330	Drainage\Pit	Hannan St	Blind Pit	2028
MHEF24P2360	Drainage\Pit	Hannan St	Pipe Junction	2028
MHEF24P2850	Drainage\Pit	Mason St	Pipe Junction	2028
MHEF24P3110	Drainage\Pit	Shepherd St	Pipe Junction	2028
MHEF24P3970	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
MHEF24P4010	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
MHEF24P4110	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
MHEF24P5490	Drainage\Pit	Robey St	Grate Only Pit	2028
MHEF24P7390	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
MHEF24P7440	Drainage\Pit	Maroubra Rd	Pipe Junction	2028
MHEF24P8460	Drainage\Pit	Percival St	Pipe Junction	2028
ESC17P0660	Drainage\Pit	Carr St	Pipe Junction	2028
MMAT31P1230	Drainage\Pit	Moorina Ave	Pipe Junction	2028
MMAT31P1260	Drainage\Pit	Partanna Ave	Pipe Junction	2028
ECLO09P0080	Drainage\Pit	Clovelly Rd	Pipe Junction	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P0100	Drainage\Pit	Clovelly Rd	Pipe Junction	2028
ECLO09P0140	Drainage\Pit	Clovelly Rd	Pipe Junction	2028
ECLO09P0850	Drainage\Pit	Park St	Pipe Junction	2028
ECLO09P0960	Drainage\Pit	Bruce Ave	Pipe Junction	2028
ECLO09P1420	Drainage\Pit	Ocean St	Pipe Junction	2028
ECLO09P1440	Drainage\Pit	Ocean St	Pipe Junction	2028
ECLO09P1480	Drainage\Pit	Ocean St	Pipe Junction	2028
ECLO09P2210	Drainage\Pit	Surfside Ave	Pipe Junction	2028
ECLO09P2240	Drainage\Pit	Surfside Ave	Pipe Junction	2028
ECLO09P2250	Drainage\Pit	Surfside Ave	Pipe Junction	2028
ECLO09P2300	Drainage\Pit	Andrew St	Pipe Junction	2028
ECLO09P2390	Drainage\Pit	Surfside Ave	Pipe Junction	2028
ECLO09P2840	Drainage\Pit	Burnie St	Pipe Junction	2028
ECLO09P3450	Drainage\Pit	Brandon St	Pipe Junction	2028
ECLO09P3510	Drainage\Pit	Varna St	Pipe Junction	2028
ECLO09P3960	Drainage\Pit	Varna St	Pipe Junction	2028
ECLO09P3990	Drainage\Pit	Varna St	Pipe Junction	2028
ECLO09P4030	Drainage\Pit	Keith St	Pipe Junction	2028
ECLO09P4210	Drainage\Pit	Keith St	Pipe Junction	2028
ECLO09P4220	Drainage\Pit	Keith St	Pipe Junction	2028
ECLO09P4360	Drainage\Pit	St Thomas St	Pipe Junction	2028
EGOR10P1590	Drainage\Pit	Tower St	Channel Outlet	2028
EGOR10P1720	Drainage\Pit	Lowe St	Channel Outlet	2028

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ELUR23P0500	Drainage\Pit	Pearce St	Pipe Junction	2028
ELUR23P0610	Drainage\Pit	Denning St	Pipe Junction	2028
ELUR23P0620	Drainage\Pit	Denning St	Pipe Junction	2028
ELUR23P0670	Drainage\Pit	Denning St	Pipe Junction	2028
ELUR23P0740	Drainage\Pit	Bedford Place	Pipe Junction	2028
ELUR23P0960	Drainage\Pit	Bedford Place	Pipe Junction	2028
ELUR23P0990	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1190	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1210	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1320	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1390	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1410	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1420	Drainage\Pit	Malabar Rd	Pipe Junction	2028
ELUR23P1450	Drainage\Pit	Malabar Rd	Pipe Junction	2028
MMAR20P0590	Drainage\Pit	Marville Ave	Blind Pit	2028
MMAR20P0620	Drainage\Pit	Marville Ave	Blind Pit	2028
MMAR20P0760	Drainage\Pit	Irvine St	Pipe Junction	2028
MMAR20P1000	Drainage\Pit	Fischer Lane	Pipe Junction	2028
EMRB25P3160	Drainage\Pit	Duncan St	Pipe Junction	2028
EMRB25P4180	Drainage\Pit	Maroubra Rd	Blind Pit	2028
EMRB25P4270	Drainage\Pit	Maroubra Rd	Blind Pit	2028
EMRB25P3840	Drainage\Pit	Malabar Rd	Pipe Junction	2029
EMRB25P3570	Drainage\Pit	Haig St	Blind Pit	2029
EMRB25P3600	Drainage\Pit	Haig St	Blind Pit	2029
EMRB25P3610	Drainage\Pit	Haig St	Blind Pit	2029
EMRB25P3620	Drainage\Pit	Haig St	Blind Pit	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P0950	Drainage\Pit	Rainbow St	Pipe Junction	2029
MPOW15P1200	Drainage\Pit	Rainbow St	Pipe Junction	2029
MPOW15P2490	Drainage\Pit	Byrd Ave	Pipe Junction	2029
MPOW15P2780	Drainage\Pit	Jacques St	Pipe Junction	2029
MPOW15P2880	Drainage\Pit	Botany St	Pipe Junction	2029
MPOW15P3370	Drainage\Pit	Sturt St	Pipe Junction	2029
MPOW15P3740	Drainage\Pit	Sturt St	Pipe Junction	2029
MPOW15P3900	Drainage\Pit	Rainbow St	Pipe Junction	2029
MPOW15P3910	Drainage\Pit	Rainbow St	Pipe Junction	2029
MPOW15P3920	Drainage\Pit	Rainbow St	Pipe Junction	2029
MHEF24P2500	Drainage\Pit	Maroubra Rd	Pipe Junction	2029
MHEF24P2550	Drainage\Pit	Bruce Bennetts Place	Pipe Junction	2029
MHEF24P3320	Drainage\Pit	Anzac Pde	Pipe Junction	2029
MHEF24P4280	Drainage\Pit	Boyce Rd	Pipe Junction	2029
MHEF24P4470	Drainage\Pit	Gale Rd	Pipe Junction	2029
MHEF24P4620	Drainage\Pit	Gale Rd	Pipe Junction	2029
MCPC06P0680	Drainage\Pit	Dangar St	Pipe Junction	2029
MCPC06P0250	Drainage\Pit	Dangar St	Pipe Junction	2029
MCPC06P0300	Drainage\Pit	White St	Pipe Junction	2029
MCPC06P0320	Drainage\Pit	White St	Pipe Junction	2029
MCPC06P0350	Drainage\Pit	White St	Pipe Junction	2029
MCPC06P0390	Drainage\Pit	White St	Pipe Junction	2029
MCPC06P0630	Drainage\Pit	Dangar St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MCPC06P0790	Drainage\Pit	King St	Pipe Junction	2029
MCPC06P0940	Drainage\Pit	Barden Lane	Pipe Junction	2029
MCPC06P0950	Drainage\Pit	Barden Lane	Blind Pit	2029
MCPC06P1040	Drainage\Pit	Barden Lane	Pipe Junction	2029
MCPC06P1070	Drainage\Pit	Cowper St	Pipe Junction	2029
MCPC06P1100	Drainage\Pit	Cowper St	Pipe Junction	2029
MCPC06P1120	Drainage\Pit	Cowper St	Pipe Junction	2029
MCPC06P1240	Drainage\Pit	Barden Lane	Pipe Junction	2029
MCPC06P1260	Drainage\Pit	King Lane	Pipe Junction	2029
MPOW15P4290	Drainage\Pit	Barker St	Pipe Junction	2029
MPOW15P6420	Drainage\Pit	Barker St	Pipe Junction	2029
ELIT37P1380	Drainage\Pit	Coast Hospital Rd	Channel Outlet	2029
MCPE08P1190	Drainage\Pit	MARKET ST	Pipe Junction	2029
MCPE08P0970	Drainage\Pit	CLOVELLY RD	Pipe Junction	2029
MPOW15P5690	Drainage\Pit	Avoca St	Pipe Junction	2029
ECOB16P5140	Drainage\Pit	Dudley St	Pipe Junction	2029
ECOB16P5150	Drainage\Pit	Dudley St	Pipe Junction	2029
ECOB16P0470	Drainage\Pit	Beach St	Pipe Junction	2029
ECOB16P0590	Drainage\Pit	Beach St	Pipe Junction	2029
ECOB16P3250	Drainage\Pit	Pauling Ave	Pipe Junction	2029
ECOB16P3280	Drainage\Pit	Pauling Ave	Pipe Junction	2029
ECOB16P3560	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P1450	Drainage\Pit	Dolphin St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECOB16P1470	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P2590	Drainage\Pit	Alison Rd	JP	2029
ECOB16P2030	Drainage\Pit	Brook St	Pipe Junction	2029
ECOB16P2050	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P2080	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P2460	Drainage\Pit	Leeton Ave	Pipe Junction	2029
ECOB16P2480	Drainage\Pit	Leeton Ave	Blind Pit	2029
ECOB16P2530	Drainage\Pit	Leeton Ave	Pipe Junction	2029
ECOB16P2870	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P2990	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P3010	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P3080	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P3160	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P3790	Drainage\Pit	Marcel Ave	Pipe Junction	2029
ECOB16P3830	Drainage\Pit	Clovelly Rd	Pipe Junction	2029
ECOB16P3480	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P5510	Drainage\Pit	Melody St	Pipe Junction	2029
ECOB16P5670	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P5710	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P4270	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P4280	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P4340	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P4360	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P5310	Drainage\Pit	Powell St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECOB16P5340	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P5480	Drainage\Pit	Melody St	Pipe Junction	2029
ECOB16P8080	Drainage\Pit	Bligh Place	JP	2029
ECOB16P8130	Drainage\Pit	Chapel St	Pipe Junction	2029
MCPC06P1440	Drainage\Pit	Randwick St	Pipe Junction	2029
ECOB16P6750	Drainage\Pit	Gray St	Pipe Junction	2029
ECOB16P5740	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P6440	Drainage\Pit	Daintrey Crescent	JP	2029
ECOB16P5900	Drainage\Pit	Carrington Rd	Pipe Junction	2029
ECOB16P6992	Drainage\Pit	Coogee St	Pipe Junction	2029
ECOB16P7020	Drainage\Pit	Leeton Av	Pipe Junction	2029
ECOB16P7420	Drainage\Pit	Oswald St	Pipe Junction	2029
ECOB16P9210	Drainage\Pit	Albert St	Pipe Junction	2029
ECOB16P8690	Drainage\Pit	Coogee St	Pipe Junction	2029
ECOB16P1780	Drainage\Pit	Brook St	Pipe Junction	2029
ECOB16P1790	Drainage\Pit	Brook St	Pipe Junction	2029
ECOB16P1900	Drainage\Pit	Arcadia St	Pipe Junction	2029
ECOB16P2260	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P2280	Drainage\Pit	Bream St	Pipe Junction	2029
ECOB16P8360	Drainage\Pit	Clovelly Rd	Blind Pit	2029
ECOB16P8930	Drainage\Pit	Clyde St	Pipe Junction	2029
ECOB16P10080	Drainage\Pit	Judge St	Pipe Junction	2029
ECOB16P10230	Drainage\Pit	Ada St	Blind Pit	2029
MCPW05P0750	Drainage\Pit	King St	Pipe Junction	2029
MDON02P7920	Drainage\Pit	Boronia St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MDON02P6360	Drainage\Pit	Alison Rd	Pipe Junction	2029
MDON02P6410	Drainage\Pit	Alison Rd	Pipe Junction	2029
MDON02P1020	Drainage\Pit	BORRODALE RD	SGGP	2029
MKPD00P9950	Drainage\Pit	BARKER ST	Pipe Junction	2029
MKPD00P9980	Drainage\Pit	BARKER ST	Pipe Junction	2029
MUNI13P3240	Drainage\Pit	HOUSTON LANE	Grate Only Pit	2029
MDON02P1240	Drainage\Pit	HOUSTON RD	Pipe Junction	2029
MDON02P0620	Drainage\Pit	BORRODALE RD	Pipe Junction	2029
MDON02P2760	Drainage\Pit	BARKER ST	Pipe Junction	2029
MDON02P2830	Drainage\Pit	BARKER ST	Pipe Junction	2029
MDON02P2790	Drainage\Pit	BARKER ST	Pipe Junction	2029
MDON02P0790	Drainage\Pit	EDWARD ST	Pipe Junction	2029
MDON02P1100	Drainage\Pit	BORRODALE RD	Pipe Junction	2029
MDON02P1440	Drainage\Pit	HOUSTON RD	Pipe Junction	2029
MUNI13P3160	Drainage\Pit	BARKER ST	Pipe Junction	2029
MDON02P5360	Drainage\Pit	Anzac Parade	Pipe Junction	2029
MDON02P5370	Drainage\Pit	Anzac Parade	Pipe Junction	2029
MDON02P6870	Drainage\Pit	Anzac Parade	Pipe Junction	2029
MDON02P6390	Drainage\Pit	Alison Rd	Pipe Junction	2029
MDON02P7030	Drainage\Pit	Addison St	Pipe Junction	2029
MDON02P8120	Drainage\Pit	Salisbury Rd	Pipe Junction	2029
EMRB25P3250	Drainage\Pit	Mons Ave	Pipe Junction	2029
EMRB25P5620	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P1590	Drainage\Pit	Barker St	Pipe Junction	2029
MPOW15P1620	Drainage\Pit	Barker St	Pipe Junction	2029
EBUN22P2670	Drainage\Pit	Cooper St	Pipe Junction	2029
EBUN22P2720	Drainage\Pit	Cooper St	Pipe Junction	2029
MMAR20P0920	Drainage\Pit	Irvine St	Pipe Junction	2029
MHEF24P0250	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
MHEF24P0270	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
MHEF24P4120	Drainage\Pit	Garden St	Pipe Junction	2029
ECOB16P10470	Drainage\Pit	Ritchard Ave	Pipe Junction	2029
ESC17P1050	Drainage\Pit	Dudley St	Pipe Junction	2029
ESC17P1280	Drainage\Pit	Dudley St	Pipe Junction	2029
ESC17P1310	Drainage\Pit	Dudley St	Pipe Junction	2029
ESC17P1360	Drainage\Pit	Dudley St	Pipe Junction	2029
ESC17P1380	Drainage\Pit	Brook St	Pipe Junction	2029
ETRS18P0540	Drainage\Pit	Beach St	Pipe Junction	2029
ETRS18P0560	Drainage\Pit	Neptune St	Pipe Junction	2029
ETRS18P0650	Drainage\Pit	Arden St	Pipe Junction	2029
ECLO09P0500	Drainage\Pit	Melrose Pde	Pipe Junction	2029
ECLO09P0550	Drainage\Pit	Melrose Pde	Pipe Junction	2029
ECLO09P0900	Drainage\Pit	Park St	Pipe Junction	2029
ECLO09P2610	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2660	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2690	Drainage\Pit	Burnie St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P2720	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2740	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2780	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2970	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P2980	Drainage\Pit	Burnie St	Pipe Junction	2029
ECLO09P68C3	Drainage\Pit	Arden St	Pipe Junction	2029
ECLO09P3140	Drainage\Pit	Arden St	Pipe Junction	2029
ECLO09P4470	Drainage\Pit	Boundary St	Pipe Junction	2029
ECLO09P4540	Drainage\Pit	Boundary St	Pipe Junction	2029
EGOR10P0010	Drainage\Pit	Major St	Channel Outlet	2029
EGOR10P0170	Drainage\Pit	Major St	Channel Outlet	2029
EGOR10P0220	Drainage\Pit	Major St	Channel Outlet	2029
MHEF24P4960	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
MHEF24P5040	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
MHEF24P5240	Drainage\Pit	Paine St	Pipe Junction	2029
MHEF24P6160	Drainage\Pit	Gainford Ave	Pipe Junction	2029
MHEF24P6190	Drainage\Pit	Gainford Ave	Pipe Junction	2029
MHEF24P6210	Drainage\Pit	Gainford Ave	Pipe Junction	2029
MHEF24P6220	Drainage\Pit	Gainford Ave	Pipe Junction	2029
MHEF24P7150	Drainage\Pit	Hinkler St	Pipe Junction	2029
MHEF24P7730	Drainage\Pit	Glanfield St	Pipe Junction	2029
MHEF24P7830	Drainage\Pit	Boyce Rd	Pipe Junction	2029
MHEF24P8250	Drainage\Pit	Eastmore Pl	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MHEF24P9020	Drainage\Pit	Storey St	Pipe Junction	2029
ECOB16P5200	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P5540	Drainage\Pit	Melody St	Pipe Junction	2029
ECOB16P4310	Drainage\Pit	Mount St	Pipe Junction	2029
ECOB16P5390	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P9450	Drainage\Pit	Dutruc St	Pipe Junction	2029
ECOB16P9540	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P9270	Drainage\Pit	Pitt St	Blind Pit	2029
ECOB16P9290	Drainage\Pit	Pitt St	Blind Pit	2029
MCPE08P0510	Drainage\Pit	AVOCA ST	JP	2029
ECOB16P2100	Drainage\Pit	Dolphin St	Pipe Junction	2029
ECOB16P2180	Drainage\Pit	Dolphin St	Grate Only Pit	2029
ECOB16P2210	Drainage\Pit	Dolphin St	Grate Only Pit	2029
ECOB16P9560	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P9600	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P9610	Drainage\Pit	Alison Rd	Pipe Junction	2029
ECOB16P10200	Drainage\Pit	Ada St	Blind Pit	2029
MCPE08P2380	Drainage\Pit	FIGTREE	Pipe Junction	2029
MCPW05P0380	Drainage\Pit	Prince St	Pipe Junction	2029
MDON02P0570	Drainage\Pit	WURLEY AV	Pipe Junction	2029
CRPK01P2030	Drainage\Pit	SHERWOOD ST	Pipe Junction	2029
EMRB25P0040	Drainage\Pit	Marine Pde	Pipe Junction	2029
CRPK01P0180	Drainage\Pit	LENTHALL ST	Pipe Junction	2029
CRPK01P0110	Drainage\Pit	LENTHALL ST	Pipe Junction	2029
MDON02P6720	Drainage\Pit	Cowper St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
CRPK01P0260	Drainage\Pit	VIRGINIA ST	Pipe Junction	2029
CRPK01P0370	Drainage\Pit	McDOUGALL ST	Pipe Junction	2029
CRPK01P0650	Drainage\Pit	MILROY AVENUE	Pipe Junction	2029
CRPK01P0610	Drainage\Pit	MILROY AVENUE	Pipe Junction	2029
CRPK01P2040	Drainage\Pit	MILROY AVENUE	JP	2029
EMRB25P0660	Drainage\Pit	Maroubra Rd	Pipe Junction	2029
EMRB25P0300	Drainage\Pit	Mckeon St	Pipe Junction	2029
EMRB25P0330	Drainage\Pit	Mckeon St	Pipe Junction	2029
EMRB25P0350	Drainage\Pit	Mckeon St	Pipe Junction	2029
EMRB25P0380	Drainage\Pit	Mckeon St	Pipe Junction	2029
EMRB25P0400	Drainage\Pit	Mckeon St	Pipe Junction	2029
EMRB25P0450	Drainage\Pit	Duncan St	Pipe Junction	2029
EMRB25P3170	Drainage\Pit	Duncan St	Pipe Junction	2029
EMRB25P0680	Drainage\Pit	Maroubra Rd	Pipe Junction	2029
EMRB25P0730	Drainage\Pit	The Causeway	Pipe Junction	2029
EMRB25P0790	Drainage\Pit	Maroubra Rd	Pipe Junction	2029
EMRB25P3130	Drainage\Pit	Little St	Pipe Junction	2029
EMRB25P5110	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P2700	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
EMRB25P2750	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2029
EMRB25P1170	Drainage\Pit	Marine Pde	Pipe Junction	2029
EMRB25P1200	Drainage\Pit	Marine Pde	Pipe Junction	2029
EMRB25P1290	Drainage\Pit	Fenton St	Blind Pit	2029
EMRB25P1310	Drainage\Pit	Fenton St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMRB25P1380	Drainage\Pit	Maxwell Ave	Pipe Junction	2029
EMRB25P1420	Drainage\Pit	Fenton St	Pipe Junction	2029
EMRB25P1490	Drainage\Pit	Chapman Ave	Pipe Junction	2029
EMRB25P2980	Drainage\Pit	Malabar Rd	Pipe Junction	2029
EMRB25P3710	Drainage\Pit	Maroubra Rd	Pipe Junction	2029
EMRB25P6120	Drainage\Pit	Anzac Pde	Blind Pit	2029
EMRB25P6160	Drainage\Pit	Anzac Pde	Pipe Junction	2029
EMRB25P4360	Drainage\Pit	Malabar Rd	Blind Pit	2029
EMRB25P2830	Drainage\Pit	Malabar Rd	Pipe Junction	2029
EMRB25P2860	Drainage\Pit	Malabar Rd	Pipe Junction	2029
EMRB25P1750	Drainage\Pit	Marine Pde	Pipe Junction	2029
EMRB25P5220	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5240	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5260	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5280	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P3540	Drainage\Pit	French Lane	Pipe Junction	2029
EMRB25P5320	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5350	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5380	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5390	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5770	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5840	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P5890	Drainage\Pit	Yorktown Pde	Pipe Junction	2029
EMRB25P8360	Drainage\Pit	Wade Street	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMRB25P6080	Drainage\Pit	Kitchener St	Pipe Junction	2029
EMRB25P6440	Drainage\Pit	Beatty St	Pipe Junction	2029
MPOW15P0505	Drainage\Pit	Meeks St	Pipe Junction	2029
MPOW15P0820	Drainage\Pit	Anzac Pde	Pipe Junction	2029
MPOW15P1160	Drainage\Pit	Meeks St	Pipe Junction	2029
MPOW15P1170	Drainage\Pit	Meeks St	Pipe Junction	2029
MPOW15P1470	Drainage\Pit	Willis Lane	Pipe Junction	2029
MPOW15P1500	Drainage\Pit	Middle St	Pipe Junction	2029
MPOW15P1510	Drainage\Pit	Middle St	Pipe Junction	2029
MPOW15P1650	Drainage\Pit	Anzac Pde	Pipe Junction	2029
MPOW15P1790	Drainage\Pit	Anderson St	Pipe Junction	2029
EBUN22P1090	Drainage\Pit	Storey St	Pipe Junction	2029
MMAR20P0210	Drainage\Pit	Lancaster Crescent	Pipe Junction	2029
MMAR20P0390	Drainage\Pit	Snape St	Pipe Junction	2029
MMAR20P0450	Drainage\Pit	Snape St	Pipe Junction	2029
MMAR20P0500	Drainage\Pit	Snape St	Blind Pit	2029
MMAR20P0950	Drainage\Pit	Irvine St	Pipe Junction	2029
MMAR20P0960	Drainage\Pit	Irvine St	Pipe Junction	2029
MPOW15P2190	Drainage\Pit	Botany St	Pipe Junction	2029
MPOW15P2230	Drainage\Pit	Jacques St	Pipe Junction	2029
MPOW15P2260	Drainage\Pit	Anzac Pde	Pipe Junction	2029
MPOW15P2320	Drainage\Pit	Botany St	Pipe Junction	2029
MPOW15P2380	Drainage\Pit	Anzac Pde	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MPOW15P2470	Drainage\Pit	Byrd Ave	Pipe Junction	2029
MPOW15P2570	Drainage\Pit	Hayward St	Pipe Junction	2029
MPOW15P2620	Drainage\Pit	Hayward St	Pipe Junction	2029
MPOW15P2650	Drainage\Pit	Hayward St	Pipe Junction	2029
MPOW15P3160	Drainage\Pit	Anzac Pde	JP	2029
MPOW15P3970	Drainage\Pit	Rainbow St	Pipe Junction	2029
MPOW15P4540	Drainage\Pit	Titania St	Pipe Junction	2029
MPOW15P4560	Drainage\Pit	Avoca Lane	Pipe Junction	2029
MPOW15P7530	Drainage\Pit	Barker St	Pipe Junction	2029
MPOW15P7600	Drainage\Pit	Barker St	Pipe Junction	2029
EBUN22P5360	Drainage\Pit	Canberra St	Pipe Junction	2029
EBUN22P5920	Drainage\Pit	Bundock St	Pipe Junction	2029
EBUN22P5940	Drainage\Pit	Bundock St	Pipe Junction	2029
EBUN22P5970	Drainage\Pit	Bundock St	Pipe Junction	2029
EBUN22P7570	Drainage\Pit	Hendy Ave	Pipe Junction	2029
MHEF24P2350	Drainage\Pit	Hannan St	Pipe Junction	2029
MHEF24P2530	Drainage\Pit	Bruce Bennetts Place	Pipe Junction	2029
MJER29P0400	Drainage\Pit	Jersey Rd	Pipe Junction	2029
MJER29P0460	Drainage\Pit	Jersey Rd	Blind Pit	2029
MJER29P0610	Drainage\Pit	Jersey Rd	JP	2029
MJER29P0770	Drainage\Pit	Dive St	Pipe Junction	2029
MPER30P0910	Drainage\Pit	Harold St	Pipe Junction	2029
ESC17P0560	Drainage\Pit	Carr St	Pipe Junction	2029
ESC17P0590	Drainage\Pit	Arden St	Pipe Junction	2029

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ESC17P0740	Drainage\Pit	Waltham St	Pipe Junction	2029
ESC17P0890	Drainage\Pit	Havelock Ave	Pipe Junction	2029
ESC17P0910	Drainage\Pit	Havelock Ave	Pipe Junction	2029
ESC17P0960	Drainage\Pit	Havelock Ave	Pipe Junction	2029
ETRS18P1350	Drainage\Pit	Rainbow St	Pipe Junction	2029
ETRS18P1470	Drainage\Pit	Oberon St	Pipe Junction	2029
MPER30P2780	Drainage\Pit	Botany Rd	Pipe Junction	2029
EGAR19P0110	Drainage\Pit	Rainbow St	Pipe Junction	2029
MMAT31P1550	Drainage\Pit	Bunnerong Rd	Headwall	2029
MMAT31P1910	Drainage\Pit	Kemp Ave	JP	2029
MMAT31P2840	Drainage\Pit	Brisbane St	Pipe Junction	2029
MMAT31P4300	Drainage\Pit	Norfolk Pde	Pipe Junction	2029
MMAT31P4450	Drainage\Pit	Franklin St	Pipe Junction	2029
MMAT31P6480	Drainage\Pit	Combles Pde	Pipe Junction	2029
MMAT31P6530	Drainage\Pit	Combles Pde	Pipe Junction	2029
MMAT31P7010	Drainage\Pit	Pozieres Ave	Pipe Junction	2029
ELOB32P0260	Drainage\Pit	Fishermans Rd	Pipe Junction	2029
ELOB32P0310	Drainage\Pit	Dacre St	Pipe Junction	2029
ELOB32P0380	Drainage\Pit	Dacre St	Pipe Junction	2029
ELOB32P0510	Drainage\Pit	Ireton St	Pipe Junction	2029
ELOB32P2670	Drainage\Pit	Anzac Pde	Pipe Junction	2030
ECLO09P1220	Drainage\Pit	Warner Ave	Pipe Junction	2030
ECLO09P1350	Drainage\Pit	Ocean St	Pipe Junction	2030
ECLO09P1510	Drainage\Pit	Ocean St	JP	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P2040	Drainage\Pit	Surfside Ave	Pipe Junction	2030
ECLO09P2130	Drainage\Pit	Surfside Ave	Pipe Junction	2030
ECLO09P2420	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
ECLO09P2450	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
ECLO09P3060	Drainage\Pit	Greville St	Pipe Junction	2030
ECLO09P3270	Drainage\Pit	Arden St	Pipe Junction	2030
ECLO09P3480	Drainage\Pit	Varna St	Pipe Junction	2030
ECLO09P3530	Drainage\Pit	Varna St	Pipe Junction	2030
ECLO09P3880	Drainage\Pit	Simeon St	Pipe Junction	2030
ECLO09P3940	Drainage\Pit	Seaview St	Pipe Junction	2030
EGOR10P0550	Drainage\Pit	Beach St	Pipe Junction	2030
EGOR10P1360	Drainage\Pit	Knox St	Pipe Junction	2030
EGOR10P1490	Drainage\Pit	Fern St	Pipe Junction	2030
ELUR23P0650	Drainage\Pit	Denning St	Pipe Junction	2030
ELUR23P0750	Drainage\Pit	Bedford Place	Pipe Junction	2030
ELUR23P1280	Drainage\Pit	Malabar Rd	Pipe Junction	2030
ELUR23P1710	Drainage\Pit	Cuzco St	Pipe Junction	2030
ELUR23P1780	Drainage\Pit	Cuzco St	Pipe Junction	2030
ELUR23P3140	Drainage\Pit	Mermaid Ave	JP	2030
ELUR23P3310	Drainage\Pit	Waterside Way	Pipe Junction	2030
ELUR23P3620	Drainage\Pit	Marine Pde	JP	2030
ELUR23P3790	Drainage\Pit	Marine Pde	Headwall	2030
ELUR23P3920	Drainage\Pit	Wilson St	Pipe Junction	2030
ELUR23P3930	Drainage\Pit	Wilson St	Pipe Junction	2030
ESML34P1110	Drainage\Pit	Napier St	Blind Pit	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMRB25P4400	Drainage\Pit	Maroubra Rd	Blind Pit	2030
EMRB25P7740	Drainage\Pit	Midway drive	Pipe Junction	2030
EMRB25P7810	Drainage\Pit	Midway drive	Pipe Junction	2030
EMRB25P7830	Drainage\Pit	Midway drive	Pipe Junction	2030
EMRB25P7890	Drainage\Pit	Minneapolis Crescent	Pipe Junction	2030
EMRB25P7570	Drainage\Pit	Minneapolis Crescent	Pipe Junction	2030
EMRB25P7710	Drainage\Pit	Minneapolis Crescent	Pipe Junction	2030
EMRB25P5180	Drainage\Pit	Yorktown Pde	Pipe Junction	2030
EMRB25P5200	Drainage\Pit	Yorktown Pde	Pipe Junction	2030
EBUN22P7990	Drainage\Pit	Elphinstone Rd	Blind Pit	2030
ETRS18P1010	Drainage\Pit	Malabar Rd	Pipe Junction	2030
ETRS18P1100	Drainage\Pit	Malabar Rd	Pipe Junction	2030
ELUR23P2310	Drainage\Pit	Malabar Rd	JP	2030
ELUR23P2620	Drainage\Pit	Gregory St	JP	2030
ELUR23P2800	Drainage\Pit	Jensen Place	JP	2030
EMRB25P7360	Drainage\Pit	New Orleans Crescent	Blind Pit	2030
EMRB25P7170	Drainage\Pit	New Orleans Crescent	Blind Pit	2030
EMRB25P7180	Drainage\Pit	Morris Place	Blind Pit	2030
EMRB25P7230	Drainage\Pit	Portland Crescent	Pipe Junction	2030
EMRB25P7270	Drainage\Pit	Portland Crescent	Pipe Junction	2030
EMRB25P7320	Drainage\Pit	Portland Crescent	Pipe Junction	2030
BYBY36P0390	Drainage\Pit	Bunnerong Rd	Pipe Junction	2030
BYBY36P0420	Drainage\Pit	Bunnerong Rd	Pipe Junction	2030
BYBY36P1070	Drainage\Pit	Goora St	Pipe Junction	2030
BYBY36P3910	Drainage\Pit	Little Bay Rd	Pipe Junction	2030
ELIT37P1690	Drainage\Pit	Meyler Cl	JP	2030
BYBY36P0400	Drainage\Pit	Bunnerong Rd	Headwall	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
BYBY36P0750	Drainage\Pit	Nurla Ave	Pipe Junction	2030
BYBY36P1790	Drainage\Pit	Clonard Way	Pipe Junction	2030
BYBY36P1960	Drainage\Pit	Hastings Ave	Pipe Junction	2030
BYBY36P4230	Drainage\Pit	Anzac Pde	Blind Pit	2030
ELIT37P0130	Drainage\Pit	Calga Av	Pipe Junction	2030
BYBY36P4400	Drainage\Pit	Mawson Pde	Blind Pit	2030
BYBY36P4550	Drainage\Pit	Hall St	Blind Pit	2030
BYBY36P4850	Drainage\Pit	Forest St	Pipe Junction	2030
BYBY36P3180	Drainage\Pit	Anzac Pde	Pipe Junction	2030
ELIT37P0830	Drainage\Pit	Pine Av	JP	2030
ELIT37P0950	Drainage\Pit	Pine Av	Pipe Junction	2030
BYBY36P0030	Drainage\Pit	Kooringai Ave	Pipe Junction	2030
BYBY36P3870	Drainage\Pit	Jennifer St	Pipe Junction	2030
ELIT37P1530	Drainage\Pit	Pine Av	Pipe Junction	2030
BYBY36P4330	Drainage\Pit	Nyan St	Pipe Junction	2030
BYBY36P0150	Drainage\Pit	Military Rd	Pipe Junction	2030
BYBY36P1670	Drainage\Pit	Mirrabooka Crescent	Headwall	2030
BYBY36P4410	Drainage\Pit	Anzac Pde	Blind Pit	2030
BYBY36P4830	Drainage\Pit	Dampier St	Pipe Junction	2030
ELIT37P0440	Drainage\Pit	Gubbuteh Rd	Pipe Junction	2030
ELIT37P0740	Drainage\Pit	Coast Hospital Rd	Pipe Junction	2030
BLAP41P0100	Drainage\Pit	Anzac Pde	Pipe Junction	2030
BYBY36P0240	Drainage\Pit	Military Rd	Pipe Junction	2030
BYBY36P1680	Drainage\Pit	Mirrabooka Crescent	Headwall	2030
ELIT37P0690	Drainage\Pit	Coast Hospital Rd	Pipe Junction	2030
MMAT31P5340	Drainage\Pit	Flinders St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
BPBY38P0150	Drainage\Pit	Elaroo Av	JP	2030
BPBY38P0480	Drainage\Pit	Kooringai Av	Pipe Junction	2030
BPBY38P0570	Drainage\Pit	Kooringai Av	Pipe Junction	2030
ELIT37P1550	Drainage\Pit	Pine Av	Pipe Junction	2030
ECOB16P0680	Drainage\Pit	Dolphin St	Pipe Junction	2030
ECOB16P3870	Drainage\Pit	Clovelly Rd	Blind Pit	2030
ECOB16P1240	Drainage\Pit	Arden St	Pipe Junction	2030
ECOB16P1520	Drainage\Pit	Brook St	Pipe Junction	2030
ECOB16P3840	Drainage\Pit	Clovelly Rd	Blind Pit	2030
ECOB16P7610	Drainage\Pit	Alison Rd	Pipe Junction	2030
ECOB16P5930	Drainage\Pit	Alison Rd	Pipe Junction	2030
ECOB16P7510	Drainage\Pit	Farnham Ave	Pipe Junction	2030
MCPE08P0430	Drainage\Pit	CASTLE LANE	JP	2030
ECOB16P1190	Drainage\Pit	Dolphin St	Pipe Junction	2030
ECOB16P2220	Drainage\Pit	Dolphin St	Pipe Junction	2030
ECOB16P2270	Drainage\Pit	Bream St	Pipe Junction	2030
ECOB16P8940	Drainage\Pit	Pitt St	Blind Pit	2030
ECOB16P8960	Drainage\Pit	Pitt St	Pipe Junction	2030
MELK12P0160	Drainage\Pit	ARTHUR STREET	Grate Only Pit	2030
MCPE08P1750	Drainage\Pit	FRENCHMANS RD	Pipe Junction	2030
MELK12P0520	Drainage\Pit	Inglethorpe Ave	Pipe Junction	2030
MDON02P0530	Drainage\Pit	GARDENERS RD	Pipe Junction	2030
MDON02P2750	Drainage\Pit	BARKER ST	Pipe Junction	2030
MDON02P0540	Drainage\Pit	MINYA AV	Pipe Junction	2030
MDON02P0860	Drainage\Pit	EDWARD ST	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MDON02P0120	Drainage\Pit	COTTENHAM AV	Pipe Junction	2030
MDON02P0090	Drainage\Pit	COTTENHAM AV	Pipe Junction	2030
MDON02P0110	Drainage\Pit	COTTENHAM AV	Pipe Junction	2030
MDON02P0850	Drainage\Pit	EDWARD ST	Pipe Junction	2030
CRPK01P1900	Drainage\Pit	AUSTRALIAN GOLF CLUB	Pipe Junction	2030
EMRB25P0480	Drainage\Pit	Duncan St	Pipe Junction	2030
EMRB25P0550	Drainage\Pit	Wride St	Pipe Junction	2030
EMRB25P4050	Drainage\Pit	Malabar Rd	Pipe Junction	2030
EMRB25P4230	Drainage\Pit	Bell St	Pipe Junction	2030
EMRB25P4110	Drainage\Pit	Malabar Rd	Blind Pit	2030
ESMA28P0880	Drainage\Pit	Malabar Road	Pipe Junction	2030
EMRB25P6490	Drainage\Pit	Byng St	Pipe Junction	2030
MMAR20P0240	Drainage\Pit	Botany St	Pipe Junction	2030
MMAR20P0700	Drainage\Pit	Walenore Ave	Pipe Junction	2030
MMAR20P0730	Drainage\Pit	Walenore Ave	Pipe Junction	2030
MMAR20P0790	Drainage\Pit	Irvine St	Pipe Junction	2030
MMAR20P0800	Drainage\Pit	Irvine St	Blind Pit	2030
MMAR20P0820	Drainage\Pit	Irvine St	Pipe Junction	2030
MMAR20P0840	Drainage\Pit	Beulah St	Pipe Junction	2030
MPOW15P1900	Drainage\Pit	Jacques St	Pipe Junction	2030
MPOW15P2340	Drainage\Pit	Anzac Pde	Pipe Junction	2030
MPOW15P3760	Drainage\Pit	Byrd Ave	Pipe Junction	2030
EBUN22P2820	Drainage\Pit	Cooper St	Pipe Junction	2030
EBUN22P5420	Drainage\Pit	Oberon St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EBUN22P5440	Drainage\Pit	Oberon St	Pipe Junction	2030
EBUN22P5460	Drainage\Pit	Perouse Rd	Pipe Junction	2030
EBUN22P5520	Drainage\Pit	Oberon St	Pipe Junction	2030
EBUN22P5610	Drainage\Pit	Henry St	Pipe Junction	2030
EBUN22P5680	Drainage\Pit	Meymott St	Pipe Junction	2030
MHEF24P1280	Drainage\Pit	Kingsford St	Pipe Junction	2030
MHEF24P1570	Drainage\Pit	Paine St	Pipe Junction	2030
MHEF24P1670	Drainage\Pit	Walsh Ave	Pipe Junction	2030
MHEF24P4040	Drainage\Pit	Maroubra Rd	Pipe Junction	2030
MHEF24P4200	Drainage\Pit	Maroubra Rd	Pipe Junction	2030
MHEF24P8640	Drainage\Pit	Snape St	Pipe Junction	2030
MHEF24P8780	Drainage\Pit	Storey St	Pipe Junction	2030
MHEF24P9390	Drainage\Pit	Robey St	JP	2030
MPER30P1160	Drainage\Pit	Perry St	JP	2030
MPER30P1340	Drainage\Pit	Perry St	Pipe Junction	2030
MPER30P1345	Drainage\Pit	Perry St	JP	2030
MPER30P1620	Drainage\Pit	Perry St	Blind Pit	2030
MPER30P1870	Drainage\Pit	Bunnerong Rd	JP	2030
MPER30P2040	Drainage\Pit	Beauchamp Rd	Pipe Junction	2030
MPER30P2090	Drainage\Pit	Beauchamp Rd	Pipe Junction	2030
MPER30P2130	Drainage\Pit	Beauchamp Rd	Pipe Junction	2030
MPER30P2290	Drainage\Pit	Stewart St	Pipe Junction	2030
MPER30P2380	Drainage\Pit	Baird Av	SGGP	2030
MPER30P2740	Drainage\Pit	Beauchamp Rd	JP	2030
ETRS18P0030	Drainage\Pit	Neptune St	Pipe Junction	2030
ETRS18P0040	Drainage\Pit	Neptune St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ETRS18P0110	Drainage\Pit	Wolseley Rd	Blind Pit	2030
ETRS18P0370	Drainage\Pit	Oberon St	Pipe Junction	2030
MPER30P2790	Drainage\Pit	Botany Rd	Pipe Junction	2030
MPER30P2820	Drainage\Pit	Botany Rd	JP	2030
MPER30P3020	Drainage\Pit	Botany Rd	JP	2030
MMAT31P0510	Drainage\Pit	Military Rd	Pipe Junction	2030
MMAT31P1020	Drainage\Pit	Botany Rd	Pipe Junction	2030
MMAT31P3110	Drainage\Pit	Brisbane St	Pipe Junction	2030
MMAT31P6270	Drainage\Pit	Knowles Ave	Pipe Junction	2030
ELOB32P1850	Drainage\Pit	Anzac Pde	Pipe Junction	2030
ELOB32P2770	Drainage\Pit	Anzac Pde	Blind Pit	2030
ELOB32P3250	Drainage\Pit	Somme Way	JP	2030
ELOB32P3290	Drainage\Pit	Somme Way	Blind Pit	2030
ELOB32P3360	Drainage\Pit	Bullecourt Way	Pipe Junction	2030
ECLO09P0580	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
ECLO09P3730	Drainage\Pit	Knox St	JP	2030
ECLO09P3750	Drainage\Pit	Knox St	Pipe Junction	2030
EGOR10P0040	Drainage\Pit	Major St	Headwall	2030
EGOR10P0080	Drainage\Pit	Major St	Pipe Junction	2030
EGOR10P0140	Drainage\Pit	Moore St	Pipe Junction	2030
EGOR10P0150	Drainage\Pit	Moore St	Pipe Junction	2030
EGOR10P0710	Drainage\Pit	Beach St	JP	2030
EGOR10P1140	Drainage\Pit	Arden St	Pipe Junction	2030
EGOR10P1450	Drainage\Pit	Barry St	Pipe Junction	2030
ELUR23P0830	Drainage\Pit	Nymboida St	Pipe Junction	2030
ESML34P0500	Drainage\Pit	Bay Pde	Pipe Junction	2030
ESML34P1240	Drainage\Pit	Bay Pde	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MELK12P0770	Drainage\Pit	Goodrich Ave	Pipe Junction	2030
MELK12P0850	Drainage\Pit	Winburn Ave	Pipe Junction	2030
ECLO09P0640	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
ECLO09P0730	Drainage\Pit	Denellan Circuit	Pipe Junction	2030
MUNI13P3120	Drainage\Pit	BARKER ST	Pipe Junction	2030
EBUN22P1230	Drainage\Pit	Storey St	Pipe Junction	2030
EBUN22P1270	Drainage\Pit	Storey St	Pipe Junction	2030
EBUN22P2890	Drainage\Pit	Garden St	Pipe Junction	2030
MELK12P0360	Drainage\Pit	Shaw Ave	Pipe Junction	2030
EBUN22P9360	Drainage\Pit	Moverly Rd	Pipe Junction	2030
EMRB25P2100	Drainage\Pit	Fitzgerald Ave	Pipe Junction	2030
EBUN22P0670	Drainage\Pit	Moverly Rd	Pipe Junction	2030
EBUN22P0700	Drainage\Pit	Moverly Rd	Pipe Junction	2030
EBUN22P8910	Drainage\Pit	Argyle St	Pipe Junction	2030
EBUN22P8920	Drainage\Pit	Argyle St	Blind Pit	2030
EBUN22P10060	Drainage\Pit	Molloy Ave	Pipe Junction	2030
EBUN22P10080	Drainage\Pit	Johnston Pde	Blind Pit	2030
CRPK01P0930	Drainage\Pit	INGRAM ST	Pipe Junction	2030
ELOB32P0070	Drainage\Pit	Fishermans Rd	JP	2030
ELOB32P0080	Drainage\Pit	Fishermans Rd	JP	2030
ELOB32P0280	Drainage\Pit	Dacre St	Pipe Junction	2030
ELOB32P0540	Drainage\Pit	Dacre St	Pipe Junction	2030
ECOB16P6140	Drainage\Pit	Carrington Rd	Pipe Junction	2030
ECOB16P6940	Drainage\Pit	Courland St	Pipe Junction	2030
MCPC06P0290	Drainage\Pit	Dangar St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MCPE08P2830	Drainage\Pit	HOOPER ST	Headwall	2030
MDON02P0670	Drainage\Pit	COURT AV	Pipe Junction	2030
MPOW15P1850	Drainage\Pit	Jacques St	Pipe Junction	2030
MMAR20P0360	Drainage\Pit	Snape St	Pipe Junction	2030
MMAR20P0370	Drainage\Pit	Snape St	JP	2030
MPOW15P2280	Drainage\Pit	Jacques St	Pipe Junction	2030
EBUN22P5790	Drainage\Pit	Avoca St	Pipe Junction	2030
MHEF24P1530	Drainage\Pit	Walsh Ave	Pipe Junction	2030
MHEF24P1550	Drainage\Pit	Paine St	Pipe Junction	2030
MHEF24P6630	Drainage\Pit	Robey St	Pipe Junction	2030
MHEF24P6790	Drainage\Pit	Beauchamp Rd	Pipe Junction	2030
MMAT31P3720	Drainage\Pit	Franklin St	Headwall	2030
MMAT31P6830	Drainage\Pit	Lone Pine Pde	Pipe Junction	2030
MMAT31P6950	Drainage\Pit	Lone Pine Pde	Pipe Junction	2030
MMAT31P6980	Drainage\Pit	Lone Pine Pde	Pipe Junction	2030
ECLO09P1600	Drainage\Pit	Ocean St	Pipe Junction	2030
ECLO09P1620	Drainage\Pit	Ocean St	JP	2030
ECLO09P1660	Drainage\Pit	Ocean St	Pipe Junction	2030
ECLO09P2350	Drainage\Pit	Donellan Cct	Culvert Junction	2030
ECLO09P2370	Drainage\Pit	Donellan Cct	Culvert Junction	2030
ECLO09P3330	Drainage\Pit	Arden St	Pipe Junction	2030
ECLO09P3350	Drainage\Pit	Varna St	Pipe Junction	2030
EGOR10P1270	Drainage\Pit	Susan Ln	Pipe Junction	2030
ELUR23P1300	Drainage\Pit	Roper Ave	Pipe Junction	2030
ELUR23P3390	Drainage\Pit	Lurline St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMRB25P2220	Drainage\Pit	Malabar Rd	Blind Pit	2030
MPOW15P7100	Drainage\Pit	Arthur St	Pipe Junction	2030
MMAT31P1540	Drainage\Pit	Bunnerong Rd	Headwall	2030
MMAT31P1560	Drainage\Pit	Bunnerong Rd	Pipe Junction	2030
ECOB16P5000	Drainage\Pit	Mount St	Blind Pit	2030
ECOB16P4610	Drainage\Pit	Byron St	Pipe Junction	2030
ECOB16P4690	Drainage\Pit	Mount St	Pipe Junction	2030
ECOB16P7220	Drainage\Pit	Mount St	Pipe Junction	2030
MCPE08P2680	Drainage\Pit	DARLEY RD	Pipe Junction	2030
MDON02P0480	Drainage\Pit	BORRODALE RD	Pipe Junction	2030
MDON02P0630	Drainage\Pit	BORRODALE RD	Pipe Junction	2030
EMRB25P6580	Drainage\Pit	Haig St	Pipe Junction	2030
MPOW15P7980	Drainage\Pit	Middle St	Pipe Junction	2030
MHEF24P2040	Drainage\Pit	Maroubra Rd	Pipe Junction	2030
MHEF24P2670	Drainage\Pit	Glanfield Rd	Pipe Junction	2030
MPER30P0530	Drainage\Pit	Australia St	Pipe Junction	2030
MPER30P0560	Drainage\Pit	Australia St	Pipe Junction	2030
MPER30P0650	Drainage\Pit	Australia St	Pipe Junction	2030
MPER30P1020	Drainage\Pit	Perry St	Pipe Junction	2030
ESCO17P1410	Drainage\Pit	Brook St	JP	2030
ECOB16P10330	Drainage\Pit	Arden St	Pipe Junction	2030
ECOB16P10350	Drainage\Pit	Arden St	Pipe Junction	2030
ECOB16P10390	Drainage\Pit	Arden St	Pipe Junction	2030
ECOB16P10410	Drainage\Pit	Arden St	Pipe Junction	2030
ECOB16P10430	Drainage\Pit	Arden St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P3640	Drainage\Pit	Varna St	Pipe Junction	2030
ECOB16P2440	Drainage\Pit	Mount St	Blind Pit	2030
ELOB32P3630	Drainage\Pit	Strickland Ave	Pipe Junction	2030
ECOB16P0510	Drainage\Pit	Beach St	Pipe Junction	2030
ECOB16P1434	Drainage\Pit	Dolphin St	Pipe Junction	2030
MDON02P5020	Drainage\Pit	Roma Avenue	Pipe Junction	2030
ESC17P0170	Drainage\Pit	Beach St	Pipe Junction	2030
ESC17P0180	Drainage\Pit	Beach St	Pipe Junction	2030
ESC17P0200	Drainage\Pit	Beach St	Pipe Junction	2030
ESC17P0290	Drainage\Pit	Beach St	Pipe Junction	2030
ESC17P0420	Drainage\Pit	Carr St	Pipe Junction	2030
ESC17P1490	Drainage\Pit	Neptune St	Pipe Junction	2030
ESC17P1520	Drainage\Pit	Neptune St	Pipe Junction	2030
ECOB16P3090	Drainage\Pit	Alison Rd	Pipe Junction	2030
ECOB16P3100	Drainage\Pit	Alison Rd	Pipe Junction	2030
ECOB16P3180	Drainage\Pit	Alison Rd	Pipe Junction	2030
ECOB16P5230	Drainage\Pit	Dolphin St	Pipe Junction	2030
ECOB16P5240	Drainage\Pit	Dolphin St	Pipe Junction	2030
ECOB16P8730	Drainage\Pit	Coogee St	Pipe Junction	2030
MDON02P6570	Drainage\Pit	Alison Rd	Pipe Junction	2030
MHEF24P3880	Drainage\Pit	Green St	Blind Pit	2030
MPER30P1280	Drainage\Pit	Perry St	Pipe Junction	2030
MMAT31P6680	Drainage\Pit	Pozieres Ave	Pipe Junction	2030
ELOB32P1040	Drainage\Pit	Ireton St	Pipe Junction	2030

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ECLO09P0600	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
ECLO09P0620	Drainage\Pit	Clovelly Rd	Pipe Junction	2030
EGOR10P1740	Drainage\Pit	Lowe St	Pipe Junction	2030
ELUR23P0560	Drainage\Pit	Close St	Pipe Junction	2031
MMAT31P1070	Drainage\Pit	Partanna Ave	Pipe Junction	2031
MCPE08P1110	Drainage\Pit	MARKET ST	Pipe Junction	2031
EBON27P0310	Drainage\Pit	Maroubra Road	Pipe Junction	2031
CRPK01P2220	Drainage\Pit	TODMAN AVENUE	Pipe Junction	2031
MHEF24P2090	Drainage\Pit	Glanfield Rd	Pipe Junction	2031
MHEF24P9140	Drainage\Pit	Anzac Pde	Pipe Junction	2031
MCPC06P0720	Drainage\Pit	Dangar St	Pipe Junction	2031
MCPC06P0760	Drainage\Pit	Dangar St	Pipe Junction	2031
ECOB16P0600	Drainage\Pit	Dolphin St	Pipe Junction	2031
ECOB16P0630	Drainage\Pit	Dolphin St	Pipe Junction	2031
ECOB16P7440	Drainage\Pit	Farnham Ave	Pipe Junction	2031
ECOB16P7470	Drainage\Pit	Farnham Ave	Pipe Junction	2031
ECOB16P7490	Drainage\Pit	Farnham Ave	Pipe Junction	2031
CRPK01P1550	Drainage\Pit	DOWLING ST	Pipe Junction	2031
ECOB16P0330	Drainage\Pit	Beach St	Pipe Junction	2031
ECOB16P1250	Drainage\Pit	Arden St	Pipe Junction	2031
ECOB16P1270	Drainage\Pit	Arden St	JP	2031
MHEF24P2280	Drainage\Pit	Mason St	Pipe Junction	2031
MHEF24P4310	Drainage\Pit	Alma Rd	Pipe Junction	2031

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
MHEF24P4330	Drainage\Pit	Alma Rd	Pipe Junction	2031
MHEF24P8010	Drainage\Pit	Mason St	Pipe Junction	2031
MHEF24P9530	Drainage\Pit	Ferguson St	Pipe Junction	2031
MMAT31P6140	Drainage\Pit	Gwydir Ave	Grate Only Pit	2031
ELOB32P0700	Drainage\Pit	Anzac Pde	Pipe Junction	2031
ELOB32P0750	Drainage\Pit	Franklin St	Pipe Junction	2031
ELOB32P0770	Drainage\Pit	Franklin St	Pipe Junction	2031
ECLO09P1720	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P1790	Drainage\Pit	Eastbourne Ave	Pipe Junction	2031
ECLO09P0170	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P0180	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P0210	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P0230	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P0250	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
ECLO09P0370	Drainage\Pit	Clovelly Rd	JP	2031
ECLO09P0380	Drainage\Pit	Clovelly Rd	JP	2031
EMRB25P1080	Drainage\Pit	Marine Pde	Pipe Junction	2031
EMRB25P1110	Drainage\Pit	Marine Pde	Pipe Junction	2031
EMRB25P1040	Drainage\Pit	Marine Pde	Pipe Junction	2031
EMRB25P1850	Drainage\Pit	Marine Pde	Pipe Junction	2031
EMRB25P1950	Drainage\Pit	Marine Pde	Pipe Junction	2031
EMRB25P2010	Drainage\Pit	Marine Pde	Pipe Junction	2031
MCPW05P0880	Drainage\Pit	King St	Pipe Junction	2031
MCPW05P0890	Drainage\Pit	King St	Pipe Junction	2031

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
EMRB25P0170	Drainage\Pit	Mckeon St	Pipe Junction	2031
MDON02P5760	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5750	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5780	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5790	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5850	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
EMRB25P0100	Drainage\Pit	Marine Pde	Pipe Junction	2031
MPOW15P1376	Drainage\Pit	Meeks St	Pipe Junction	2031
EBUN22P8210	Drainage\Pit	Mundah St	Pipe Junction	2031
ESC17P0220	Drainage\Pit	Beach St	Pipe Junction	2031
ESC17P0230	Drainage\Pit	Beach St	Pipe Junction	2031
ESC17P0260	Drainage\Pit	Beach St	Pipe Junction	2031
ESC17P0410	Drainage\Pit	Carr St	Pipe Junction	2031
ETRS18P0210	Drainage\Pit	Neptune St	Pipe Junction	2031
ECOB16P3440	Drainage\Pit	Ritchard Ave	Pipe Junction	2031
ESMA28P0140	Drainage\Pit	Byrne Crescent	Pipe Junction	2031
MHEF24P3920	Drainage\Pit	Green St	Pipe Junction	2031
ELOB32P0350	Drainage\Pit	Dacre St	Pipe Junction	2031
ELUR23P2260	Drainage\Pit	Malabar Rd	Pipe Junction	2031
MPOW15P4130	Drainage\Pit	Helena St	Pipe Junction	2031
EGOR10P0850	Drainage\Pit	Beach St	Pipe Junction	2031
ECOB16P0370	Drainage\Pit	Arcadia St	JP	2031
EBUN22P7120	Drainage\Pit	Hendy Ave	Pipe Junction	2031

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ETRS18P0590	Drainage\Pit	Arden St	Pipe Junction	2031
ETRS18P0640	Drainage\Pit	Arden St	Pipe Junction	2031
ECLO09P4240	Drainage\Pit	St Thomas St	Pipe Junction	2031
ELUR23P1750	Drainage\Pit	Cuzco St	Pipe Junction	2031
ESML34P0660	Drainage\Pit	Prince Edward St	Pipe Junction	2031
ECLO09P0800	Drainage\Pit	Denellan Circuit	Pipe Junction	2031
ECLO09P2000	Drainage\Pit	Denellan Circuit	Pipe Junction	2031
EGOR10P0280	Drainage\Pit	Gordon Ave	Pipe Junction	2031
EGOR10P1390	Drainage\Pit	Clovelly Rd	Pipe Junction	2031
EBUN22P8887	Drainage\Pit	Argyle St	Pipe Junction	2031
ECOB16P7620	Drainage\Pit	Alison Rd	Pipe Junction	2031
MCPC06P1410	Drainage\Pit	Gordon St	Pipe Junction	2031
MCPN07P0070	Drainage\Pit	Dangar Lane	Pipe Junction	2031
MCPN07P0100	Drainage\Pit	Dangar Lane	Pipe Junction	2031
MCPE08P0020	Drainage\Pit	AVOCA ST	Pipe Junction	2031
MCPE08P1000	Drainage\Pit	CLOVELLY RD	Pipe Junction	2031
MDON02P5510	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5890	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5920	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5930	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5950	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P5980	Drainage\Pit	Doncaster Ave	Pipe Junction	2031
MDON02P6080	Drainage\Pit	Doncaster Ave	Pipe Junction	2031

Asset ID	Asset Category	Description	Asset Component	Planned Renewal Year
ELIT37P3470	Drainage\Pit	Harvey St	Pipe Junction	2031
ELIT37P3080	Drainage\Pit	Meyler Close	Pipe Junction	2031
EMGC35P0180	Drainage\Pit	Bilga Cr	Pipe Junction	2031
EMGC35P0410	Drainage\Pit	Bilga Cr	JP	2031
EMGC35P0420	Drainage\Pit	Bilga Cr	JP	2031
EMGC35P0770	Drainage\Pit	Bilga Cr	JP	2031
EMGC35P1020	Drainage\Pit	Bilga Cr	Pipe Junction	2031
EMGC35P1120	Drainage\Pit	Austral St	Pipe Junction	2031
MCON40P0620	Drainage\Pit	Gipps St	JP	2031
MCON40P0750	Drainage\Pit	Cnr Reservoir St & Dawes St	JP	2031
ECOB16C80408030	Drainage\Conduit	US Pit 8040 to DS Pit 8030	Pipe	2031
MCPE08C2670	Drainage\Conduit	US Pit 2670 to DS Pit	Pipe	2031
MDON02C50905080	Drainage\Conduit	US Pit 5090 to DS Pit 5080	Pipe	2031
ECOB16C14601450	Drainage\Conduit	US Pit 1460 to DS Pit 1450	Pipe	2031
ECOB16C34903480	Drainage\Conduit	US Pit 3490 to DS Pit 3480	Pipe	2031
ECOB16C49904980	Drainage\Conduit	US Pit 4990 to DS Pit 4980	Pipe	2031
ECOB16C49804970	Drainage\Conduit	US Pit 4980 to DS Pit 4970	Pipe	2031
ECOB16C22102200	Drainage\Conduit	US Pit 2210 to DS Pit 2200	Pipe	2031
ECOB16C31003090	Drainage\Conduit	US Pit 3100 to DS Pit 3090	Pipe	2031
ECOB16C33803350	Drainage\Conduit	US Pit 3380 to DS Pit 3350	Pipe	2031
ECOB16C38003790	Drainage\Conduit	US Pit 3800 to DS Pit 3790	Pipe	2031
ECOB16C92309210	Drainage\Conduit	US Pit 9230 to DS Pit 9210	Pipe	2031
ECOB16C86208610	Drainage\Conduit	US Pit 8620 to DS Pit 8610	Pipe	2031
ECOB16C10000999	Drainage\Conduit	US Pit 10000 to DS Pit 9990	Pipe	2031
ECOB16C34003390	Drainage\Conduit	US Pit 3400 to DS Pit 3390	Pipe	2031
MCPE08C16801670	Drainage\Conduit	US Pit 1680 to DS Pit 1670	Pipe	2031

Appendix F Budget Summary by Lifecycle Activity

The planned budget for the relevant lifecycle activities is sufficient. There is no disposal cost considered as the assets will be renewed.

Table F1 – Budget Summary by Lifecycle Activity

Year	Acquisition	Operation	Maintenance	Renewal	Disposal	Total
2022	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2023	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2024	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2025	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2026	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2027	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2028	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2029	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2030	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000
2031	$500,000	$321,000	$1,005,000	$1,100,000	$0	$2,926,000

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