CESSNOCK CITY COUNCIL

Open Space and Other Structures

Asset Management Plan

Planning for Our People

Our Place Our Future

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1. EXECUTIVE SUMMARY

Context

Cessnock City Council provides open space and other structure assets to the community, which serve various functions, some of which include; recreation and sporting fields, play grounds and skate parks, passive space, swimming pools, and cemeteries.

The Open Space Service

The open space and other structures network comprises:

Assets Categories	Area Hectare
Local Parks	29.45
District Parks	56.15
Regional Parks	67.95
Passive Parks	50.36
Assets Categories	**Quantity (No or length)**
Fencing	63,918.72 klm
Irrigation	26 Each
Shelters	224 Each
BBQ's	24 Each
Picnic Tables	181 Each
Seats/bench	521 Each
Bins Enclosures	31 Each
Signs	539 Each
Cricket Wickets	22 Each
Goal Posts/hoops	122 Each
Pools	7 Each
Sports Lighting (Poles)	169 Each
Park Lighting (Poles)	153 Each
Skate parks	3 Each
Tennis Courts	39 Each
Netball Courts	25 Each
Basketball Courts	4 Each
Playgrounds	41 Each

These infrastructure assets have a replacement value of $23,226,000 as at 30th June 2018.

What does it Cost?

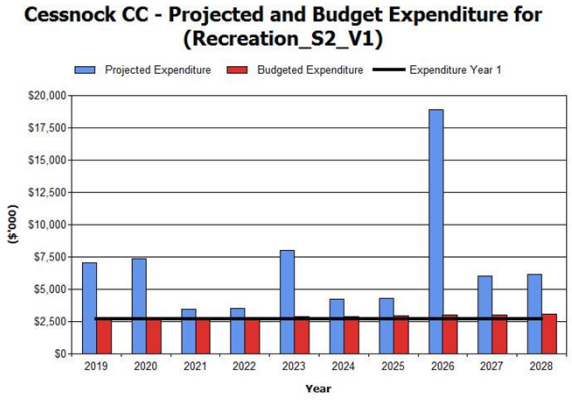
To determine the projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan/AMP) including; operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period, Council has developed two funding scenarios.

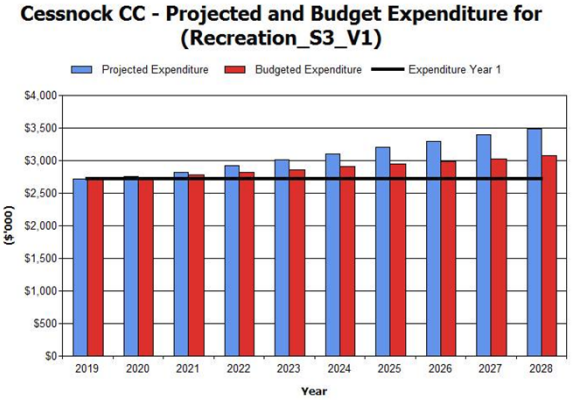
Scenario 2, based on feedback received from Community Consultation undertaken in 2015, is the funding required to keep the asset stock in condition 3 "average" or better. Scenario 3 is developed from the available funds outlined in Councils' Long Term Financial Plan. The following tables highlight Councils' financial position when considering the projected outlays of scenario 2 "S2" or scenario 3 "S3":

Recreation_S2_V1	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$69,007**
10 year average cost	**$6,901**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$28,876**
10 year average LTFP budget	**$2,888**
10 year AM financial indicator	**42%**
10 year average funding shortfall	**$-4,013**

Recreation_S3_V1	
Executive Summary - What does it cost?	**($000)**
10 year total cost [10 yr Ops, Maint, Renewal & Upgrade Proj Exp]	**$30,717**
10 year average cost	**$3,072**
10 year total LTFP budget [10 yr Ops, Maint, Renewal & Upgrade LTFP Budget]	**$28,876**
10 year average LTFP budget	**$2,888**
10 year AM financial indicator	**94%**
10 year average funding shortfall	**$-184**

The following graphs show the projected expenditure required to provide services in this AMP, which have been developed from the outlays of scenario 2 & 3. It should be noted that capital construction/upgrade projects, as well as accounting for contributed assets from development will have an influence on projected expenditure. There has been no consideration given to the potential offset that may be possible from additional revenue that Council could generate from these developments.





What we will do

We plan to provide open space and other structure services for the following:

- On-going operation, maintenance, renewal and upgrade of open space and other structure assets to meet service levels set in annual budgets.

What we cannot do

We do **not** have enough funding to provide all services at the desired service levels. Works and services that cannot be provided under present funding levels are:

- Annual maintenance and renewal of open space and other structure assets to sustain the asset stock in condition 3.

Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- Playgrounds becoming out of service and/or unsafe
- Deterioration of sports field and park furniture, posing potential safety risk to the public – structurally unsound lighting, skate parks, broken seating, fencing etc.
- Swimming pool failure, resulting in injury or shut-down times

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

- Increasing asset inspections
- Increasing response levels to temporarily repair broken assets
- Increasing renewal programs as an early intervention strategy to reduce the need for more expensive replacement programs.

Confidence Levels

This AMP is based on medium-high level of confidence information.

The Next Steps

The actions resulting from this asset management plan are:

- Engage the community on Levels of Service (LoS) and funding matters identified in this AMP
- Incorporate the agreed LoS into the future planning, design, operational, maintenance and construction activities relating to Open space Assets.
- Incorporate into the LTFP.

Questions you may have:

What is this plan about?

This asset management plan covers the infrastructure assets that serve the Cessnock City Council community's open space and other structure needs. These assets include 123 open spaces, 9 cemeteries, and 7 swimming pools over a total area of about 203.91 hectares, categorised into local, district, regional, passive, and undeveloped parks, and cemeteries, aquatic facilities and other open space. Council also owns infrastructure that provides a service to those who frequent these locations (BBQ's, Seats, Picnic Tables etc.).

What is an Asset Management Plan?
Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner. An asset management plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

Why is there a funding shortfall?
In some instances Council's open space assets have been constructed by developers and from government grants, which are often provided and accepted without consideration of ongoing operations, maintenance and replacement needs. Many of these assets are approaching the later years of their life and require replacement. In addition, services from the assets are decreasing and maintenance costs are increasing. Our present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

What options do we have?
Resolving the funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels
2. Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs
3. Identifying and managing risks associated with providing services from infrastructure
4. Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure
5. Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs
6. Consulting with the community to ensure that open space services and costs meet community needs and are affordable
7. Developing partnership with other bodies, where available to provide services
8. Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.

What happens if we don't manage the shortfall?
It is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found. For open space and other structure assets, the service level reduction may include:

- Reduction in asset maintenance.
- Removal of existing assets.
- Decrease in LoS for open space and other structure assets, examples below.


Out of service park fittings


Aging park furniture

Unfit for use, functionally obsolete

What can we do?

We can develop options, costs and priorities for future open space and other structure services, consult with the community to plan future services to match the community service needs with ability to pay for services and maximise community benefits against costs.

2. INTRODUCTION

2.1 Background

This asset management plan is required to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 10 year planning period.

The asset management plan follows the format for AMPs recommended in Section 4.2 of the International Infrastructure Management Manual[1]. The asset management plan is to be read with the Council's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- Cessnock 2027 – Cessnock Community Strategic Plan
- Cessnock City Council Delivery Plan 2017-2021
- Cessnock City Council Operational Plan 2017-2018
- Cessnock City Council Annual Reports
- 2015-2016 Infrastructure Asset Revaluation Manual
- Cessnock City Council, Recreation and Open Space Strategic Plan 2018
- Cessnock City Council: 2031: A Vision for the Future, Community Infrastructure Plan
- NSW OLG Integrated Planning Guidelines and manual 2013
- Cessnock City Council 2016 Resident Satisfaction Survey Results
- Cessnock City Council 2015 Asset Management Research Satisfaction Survey Results
- Cessnock City Council 2017 Asset Management Research

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide various community services, such as; sporting facilities, passive open space, and cemeteries.

Table 2.1: Assets covered by this Plan[2]

Assets Categories	**Area Hectare**
Local Parks	29.45
District Parks	56.15
Regional Parks	67.95
Passive Parks	50.36
Assets Categories	**Quantity (No or length)**
Fencing	63,918.72 klm
Irrigation	26 Each
Shelters	224 Each
BBQ's	24 Each
Picnic Tables	181 Each
Seats/bench	521 Each
Bins Enclosures	31 Each
Signs	539 Each
Cricket Wickets	22 Each
Goal Posts/hoops	122 Each
Pools	7 Each
Sports Lighting (Poles)	169 Each
Park Lighting (Poles)	153 Each
Skate parks	3 Each
Tennis Courts	39 Each
Netball Courts	25 Each
Basketball Courts	4 Each
Playgrounds	41 Each

[1] IPWEA, 2015, Sec 4.2. Example of an Asset Management Plan Structure, pp 4|21 – 33.
[2] Data/quantity accurate as at 30th June 2018

Council is not responsible for State/National Parks/Reserves, or railway land. Such Open Space is managed by the Office of Environment and Heritage, the RMS, Railways or other parties. Key stakeholders in the preparation and implementation of this asset management plan are Shown in Table 2.1.1.

Table 2.1.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Councillors	• Represent needs of community, • Allocate resources to meet the Council's objectives in providing services while managing risks, • Ensure Council is financially sustainable, • Provide stewardship by ensuring the protection of assets for current and future generations.
General Manager	• Ensure the development and implementation of Council's Asset Management Policy, Plans and Processes and for their integration with Council's Integrated Planning and Reporting Framework under the Local Government Act, • Report on the status and effectiveness of Asset Management within Council.
Council Staff	• Development and implementation of Council's Asset Management Plans and Processes, and for their integration with Council's Integrated Planning and Reporting Framework under the Local Government Act, • Ensure integration and compliance of the Asset Management Policy and Strategy with other policies and business processes of Council, • Ensure compliance with legal obligations, • Ensure sound business principles are reflected in the Asset Management strategies and plans that are developed, • Implementation of activities in the plans, • Engage up-to-date technologies, methodologies and continuous improvement processes, • Facilitate "Best Appropriate Practice in Asset Management".
Community	• Provides input into the services required and the cost the community is prepared to pay.

2.2 Goals and Objectives of Asset Management

The Council exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in 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
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed[3].

[3] Based on IPWEA, 2015, IIMM, Sec 1.2.2 p 1|7.

2.3 Plan Framework

Key elements of the plan are

- Section 3 - Levels of service – specifies the services and levels of service to be provided by the Council,
- Section 4 - Future demand – how this will impact on future service delivery and how this is to be met,
- Section 5 - Life cycle management – how we will manage our existing and future assets to provide defined levels of service,
- Section 6 - Financial summary – what funds are required to provide the defined services,
- Section 7 - Asset management practices,
- Section 8 - Monitoring – how the plan will be monitored to ensure it is meeting the Council's objectives,
- Section 9 - Asset management improvement plan.

A road map for preparing an asset management plan is shown below:

Figure 1: Road Map for preparing an Asset Management Plan

Source: IPWEA, 2015, IIMM, Fig 4.2.2, p 4l26.

2.4 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan over a 10 year planning period in accordance with the International Infrastructure Management Manual[4]. It is prepared to meet minimum legislative and Council requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level. Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

2.5 Community Consultation

In preparing this 'core' asset management plan, community consultation may be received through feedback of the AMP's once on public exhibition. Exhibition will occur prior to Council adoption of the plans. In 2017 Council undertook community consultation on service levels satisfaction specific to each asset class and possible scenarios to bridge the funding gaps. This assists the Council in matching the level of service desired by the community, it also identifies service gaps and the community's ability and willingness to pay for service level shifts (see TRIM Document DOC2017/027695).

[4] IPWEA, 2015, IIMM.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Cessnock Council engaged Micromex Research in 2017 to undertake community research. In the telephone survey conducted residents were contacted to discuss their expectations in the delivery of existing community infrastructure and Open Space Services, which identified the following satisfaction levels:

Table 3.1: Community Satisfaction Survey Levels

Performance Measure	Importance	Satisfaction	Performance Gap
Playgrounds and parks	4.26	3.16	1.10
Footpaths and cycleways[5]	4.14	2.71	1.43

Council also engaged Micromex Research in March of 2015 to undertake Community Consultation. This was to determine what the community finds as an acceptable condition state of the assets. The concluding evidence from this survey found: *"The majority of residents indicated that 'Condition 3 or better' was the acceptable condition for all assets*". This has therefore been incorporated into "scenario 2" modelling within this AMP.

3.2 Strategic and Corporate Goals

This asset management plan is prepared under the direction of the Council's vision, mission, goals and objectives.

Our vision is:

> ***"Cessnock will be a cohesive and welcoming community living in an attractive and sustainable rural environment with diversity of business and employment opportunities supported by accessible infrastructure and services which effectively meet community needs".***

In summary, the vision is:

> ***"Cessnock - thriving, attractive and welcoming".***

The 2017-21 Delivery Program has five Desired Outcomes as identified in the Community Strategic Plan, Cessnock 2027. They are:

1. **A connected, safe and creative community;**
2. **A sustainable and prosperous economy;**
3. **A sustainable and healthy environment;**
4. **Accessible infrastructure, services and facilities;**
5. **Civic leadership and effective governance.**

[5] There is a crossover of these assets into the Road Infrastructure Asset Management Plan

Relevant Council desired outcomes and strategic directions, and how these are addressed in this asset management plan are:

Table 3.2: Council Desired Outcomes and how these are addressed in this Plan

Desired Outcome	Strategic Direction	How Desired Outcomes and Strategic Directions are addressed in the Open Space Asset Management Plan
A Connected, Safe & Creative Community	**Promoting Social Connections**	
	Our Community is aware and has access to community services.	Promote better awareness of the available community facilities
	We have adequate multi-purpose sporting and recreation facilities.	Ensure upgrades increase the quality of the facility & are designed & constructed for multipurpose use. Maintain sports & recreational facilities through renewal works & maintenance.
	Our facilities are utilised by community groups.	Promote the utilisation of Open Space, with the provision of supporting infrastructure – shelters, BBQ's, playgrounds etc.
A Sustainable & Healthy Environment	**Better Utilisation of Existing Open Space**	
	Our Open Spaces are distributed where people live.	In alignment with the Recreational Strategic Plan.
	We have green corridors connecting our open space areas.	In alignment with the Recreational Strategic Plan, Master Plans, Cessnock CBD Master Plan, AND Regional Land Use Plans.
	Our open spaces have suitable amenities and plenty of shade	Provide advice to project committees & design advice, costing, project management & construction services.

The Council will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2.

3.3 Legislative Requirements

We have to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.3: Legislative Requirements

Legislation	Requirement
NSW Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by infrastructure asset management plans for sustainable service delivery. Council's core functions and the manner in which it must conduct its functions are detailed in the LG Act. Section 8 includes principles which summarise all of these functions and guide Council activities. Examples of these functions include the provision, management or operation of: • community services and facilities • sporting, recreational and entertainment services and facilities • environment conservation, protection, and improvement services and facilities • waste removal, treatment, and disposal services and facilities • stormwater drainage and flood prevention, protection and mitigation services and facilities • fire prevention, protection and mitigation services and facilities

Legislation	Requirement
	DLG Integrated Planning NSW – As part of the LG Act 1993 • Key requirement is integrated community plans with operational and delivery plans.
Work Health and Safety Regulations 2011	Implement the model Work Health & Safety Regulations & form part of a system of nationally harmonised occupational health & safety laws. They apply to the Commonwealth, public authorities and, for a period, non-Commonwealth licensees[6]. Some of the chapters covered include: Chapter 2 representation & participation. Chapter 3 general risks & workplace management. Chapter 4 hazardous work; including specific tasks such as manual handling, confined spaces, demolition, electrical work and diving. Chapter 5 plant and structures and Chapter 6 Construction work.
Work Health and Safety Act 2011	The main object of this Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces[7].
Disability Discrimination Act 1992, No. 135 and Disability Discrimination Regulations 1996, No.27	The objects of this Act are: (a) to eliminate discrimination against persons on the ground of disability in the areas of: (i) work, accommodation, education, access to premises, clubs and sport; (ii) the provision of goods, facilities, services and land; (iii) existing laws; and (iv) the administration of Commonwealth laws and programs; and (b) ensure persons with disabilities have the same rights before the law as all of the community; and (c) Promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.
National Parks And Wildlife Act 1974	The objects of this Act are: (a) the conservation of nature, including, but not limited to, the conservation of: (i) habitat, ecosystems and ecosystem processes, and (ii) biological diversity at the community, species and genetic levels, and (iii) landforms of significance, including geological features and processes, and (iv) landscapes and natural features of significance including wilderness and wild rivers, (b) The conservation of objects, places or features of cultural value within the landscape.
National Parks & Wildlife Amendment Order 2009	The object of this Order is to substitute Schedule 13 to the National Parks and Wildlife Act 1974 (the Act) (the Schedule that classifies certain plants as protected native plants).
Environmentally Hazardous Chemicals Act 1985 & Regulations	An Act which provides a mechanism for regulating chemicals of environmental concern throughout their entire life cycle.
Community Land Development Act 1989 No 201	The object of this Act is to facilitate the subdivision of land into parcels for separate development or disposition, including Community Land.

[6] http://www.comlaw.gov.au/Details/F2011L02664/Html/Text
[7] http://www.comlaw.gov.au/Details/C2011A00137/Html/Text#_Toc309986326

Legislation	Requirement
Electricity Supply Act 1995 No 94	Section 48 refers to Interference with electricity works by trees. This section applies if a network operator has cause to believe that a tree situated on any premises is in interference. This section applies despite the existence of a tree preservation order or environmental planning instrument (other than a State environmental planning policy), but does not apply to any tree within a protected area or to any tree that is the subject of or is within an area that is the subject of (a) an interim conservation order / permanent conservation order under the Heritage Act 1977, or (b) an order in force under section 130 or 136 of the Heritage Act 1977, or (c) an interim protection order under the National Parks and Wildlife Act 1974, or (d) A protection conferred by any similar law.
Sporting Bodies Codes of Practice	Set out size, quality and other requirements for sporting field preparation for different sports and grades of competition.
Civil Aviation Safety Authority (CASA) Manual of Standards	An advisory document that provides information and guidance to the aviation industry in support of Civil Aviation Regulations 1988.

In addition, where appropriate Council complies with the following specifications and Australian Standards:

Table 3.3.1: Specifications and Australian Standards

Standards / Specifications	Purpose
AS 2560.1-2002	Sports lighting – General Principles
AS 2560.2.1-2002	Sports lighting – specific applications – lighting for outdoor tennis
AS 2560.2.3-2002	Sports lighting – specific applications – lighting for football (all codes)
AS 3541.1-1988	Synthetic sporting surfaces – general principles
Sports Dimensions for Playing Areas	Sets minimum standards on sports playing areas for outdoor/indoor sports fields, courts and playing areas. Applicable to government and non-government bodies
AS 2555-1982	Supervised adventure playgrounds - Guide to establishment and administration
AS/NZS 4486.1:1997	Playgrounds and playground equipment - development, installation, inspection, maintenance and operation
AS 4422-1996/Amdt 1-1999	Playground surfacing specifications, requirements and test method
AS/NZS 4422:1996	Playground surfacing specifications, requirements and test method
AS/NZS 4486.1:1997	Playgrounds and playground equipment - development, installation, inspection, maintenance and operation
AS 4685.6-2004	Playground equipment - particular safety requirements and test methods for rocking equipment
Australian Standard 4360	Risk Management
AS/NZS 1158.3.1:1999	Road lighting - Pedestrian area lighting - performance & installation design requirements. Sets requirements for electric lighting for roads and other outdoor public areas.
HB 227-2003	Standard for portable soccer goal posts, manufacture, use and storage
AS 1418.10 - 1987	Elevated Work Platforms
AS 4685.1-2004	Playground equipment - general safety requirements and test methods
AS 4685.2-2004	Playground equipment - particular safety requirements and test methods for swings

Standards / Specifications	Purpose
AS 4685.3-2004	Playground equipment - particular safety requirements and test methods for slides
AS 4685.4-2004	Playground equipment - particular safety requirements and test methods for runways (flying foxes)
AS 4685.5-2004	Playground equipment - particular safety requirements and test methods for carousels

3.4 Current Levels of Service

Service levels are currently defined as either; “Community Levels of Service” or “Technical Levels of Service”.

3.4.1 Community Levels of Service

Community levels of service measures used in the asset management plan are:

- **Quality** How good is the service?
- **Function** Does it meet users’ needs?
- **Capacity/Utilisation** Is the service over or under used?

The Council’s current and expected community service levels are detailed in Tables 3.4.1 and 3.5. Table 3.4.1 shows the agreed expected community levels of service, which has been based on; Cessnock City Council 2027 Community Strategic Plan, resource levels in the current long-term financial plan, and community consultation/engagement undertaken to date. Community consultation is frequently undertaken and future survey results will be incorporated into table 3.4.1 at the time of updating this AMP.

Table 3.4.1: Community Levels of Service

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Desired Performance
COMMUNITY LEVELS OF SERVICE - PARKS				
Quality	Well maintained and suitable Open Spaces	Customer Survey	3.32 (2016)	Score >= 3
Function	Do Council’s open spaces meet the community needs?	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report and further community consultation	=>50%
COMMUNITY LEVELS OF SERVICE - PARKS				
Capacity	Percentage of Council’s open space network under utilised	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report	Less than 20% of asset stock underutilised.
COMMUNITY LEVELS OF SERVICE - CEMETERIES				
Quality	Well maintained &	Customer Survey	3.32 (2016)	Score >= 3

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Desired Performance
	suitable layout			
Quality	Response time to customer requests	Time taken to close customer requests	>80% (2016)	> 80% responded to within target
Capacity	Council's cemetery assets under capacity	Cemetery Master Plans	TBD on development of a master plan for cemeteries	To be reviewed
COMMUNITY LEVELS OF SERVICE - PLAYGROUNDS				
Quality	Provide playground equipment that is adventurous & entertaining.	Community Survey	3.22 (2016)	Score >= 3
Function	Do Council's playgrounds meet the community needs?	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report	=>50%
Capacity	Percentage of Council's playgrounds under utilised	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report and further community consultation	Less than 20% of asset stock underutilised.
COMMUNITY LEVELS OF SERVICE – PARK FURNITURE				
Quality	Provide quality park furniture	Community Survey	3.22 (2016)	Score >= 3
Quality	Response time to customer requests	Time taken to close customer requests	>80% (2016)	> 80% of all requests adequately responded to within target
COMMUNITY LEVELS OF SERVICE – PARK FURNITURE				
Function	Does Council's park furniture meet the community needs?	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report	=>50%
COMMUNITY LEVELS OF SERVICE – SPORTS FIELD LIGHTING				
Quality	Provide quality lighting infrastructure	Community Survey	3.67 (2016)	Score >= 3
Quality	Response time to customer requests	Time taken to close customer requests	>80% (2016)	> 80% of all requests adequately responded to within target

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Desired Performance
Function	Does Council's sport field lighting meet the community needs?	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report and further community consultation	=>50%
Capacity	Sports field lighting under capacity	Recreational needs analysis	TBD on adoption of Recreational Needs Analysis report	Less than 20% of asset stock under capacity.

3.5 Technical Levels of Service

Technical Levels of Service - Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the Council undertakes to best achieve the desired community outcomes and demonstrate effective Council performance. Technical service measures are linked to annual budgets covering:

- **Operations**[8] – the regular activities to provide services such as opening hours, cleaning frequency, mowing frequency, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition (e.g. Playground component/part replacement, filter replacement, patching of runways or taxiways),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally (e.g. replacing park furniture like-for-like, resealing the runway/taxiway),
- **Upgrade** – the activities to provide an higher level of service (e.g. Replacing an existing playground with one of greater capacity, widening or extending the length of the runway or taxiways) or a new service that did not exist previously (e.g. a new shelter, an additional cricket cage).

Both the works delivery and asset management team aim to; implement and control technical service levels to influence the customer service levels[9].

Table 3.5 shows the technical level of service expected to be provided under this Asset Management Plan.

Table 3.5: Technical Level of Service

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Desired Performance
TECHNICAL LEVELS OF SERVICE – OPEN SPACE AND OTHER STRUCTURES				

[8] It has been identified that some inaccuracies are reflected in Councils current make up of what is captured as planned or reactive maintenance, in comparison to operational maintenance across most asset classes. The process to better define and accurately report this will be incorporated into the improvement plan within this AMP.

[9] IPWEA, 2015, IIMM, p 2.23

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Desired Performance
Operations	To ensure all components are operational	Defect inspections Customer Requests Cleaning contract service performance.	Monitoring of defects through Authority. Team leaders and coordinators assessment of contractors.	90 day response to customer requests. Desired service standards to be reviewed after further community consultation and on adoption of the Recreation Needs Analysis.
Maintenance	To ensure all components achieve their expected useful life	Defect inspections Customer Requests	Monitoring of defects through Authority.	90 day response to customer requests. Desired service standards to be reviewed after further community consultation and on adoption of the Recreation Needs Analysis
Renewal	To ensure assets are renewed at the agreed intervention point	Community consultation results find the community desire condition 3 “average” or better.	Total open space assets in worse than condition 3 = 11.71%	All Open Space and Other Structure Assets in <= condition 3
TECHNICAL LEVELS OF SERVICE – OPEN SPACE AND OTHER STRUCTURES				
Upgrade	Upgrade is addressed where a need is assessed through needs studies or master plans.	Recreational needs analysis (once adopted), aquatic needs analysis, master plans and strategic plans.	Implementing where funding allows, including S94 contributions and grant funding.	To be reviewed on adoption of the recreational needs analysis.

4. FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

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

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Population	55,560 as at the 2016 Census.	The projected population for 2031 is 68,364[10](low scenario) and 101,987 (high scenario)	Population growth will increase traffic volumes, and increase demand on transport infrastructure, such as bus & transport facilities, footpaths & Cycleways, improved road network, etc.
Demographics	Approximately 9% of the residents are from non-English speaking backgrounds	More migrants from non-English speaking Backgrounds are expected to settle in the Cessnock LGA	Better Traffic Management Devices are required and Clearer Signage both as transportation signage and park and facility signage.
Demographics	Over 7% of the population need assistance in their day-to-day lives	Expect to see an increase in demand for services due to the ageing population	Increase in demand for DDA compliant Infrastructure, Services and Equitable Access
Climate Change	Scientific evidence supporting the notion of climate change.	Increase Severity of Weather events Temperature Rise Rise in Sea Level	Cessnock Infrastructure Assets will need to adapt to new climate risks to ensure appropriate infrastructure investment decisions are made to reduce long-term costs.

[10] *Source: Cessnock City Council, Community Planning Unit (current as at August 2015).*

Demand drivers	Present position	Projection	Impact on services
Changes in Land use	Changes in land use will result from rezoning and higher density developments	As part of State Government policy higher density developments will be encouraged in the Hunter Valley Area. The current levels of growth (although small) are anticipated to continue	Increased loading on existing infrastructure from development works (construction works can cause significant damage to existing infrastructure)
Section 94 Plans (S94)	• Residential S94 Contribution Plans • Unformed Roads Contribution Plans • Tourism S94 Contribution Plans • Car Parking in Cessnock CBD S94 Contribution Plan • Kitchener S94 Contributions Plan • Bellbird North S94 Contributions Plan • Government Rd Cessnock S94 Contributions Plan • Mount View Road Millfield S94 Contribution Plan • Avery's Village Heddon Greta S94 Contributions Plan • Nulkaba S94 Contribution Plan	Bellbird North Local Park $527,000 Bellbird North District Park $636,250 Bellbird North Sportsground $4,854,000 (deduction $2,000,000 for grandstand amenities) Bellbird North Tennis/Netball Courts $657,000 Bellbird North Open Space $3,428,000 Mount View Road Millfield Local Park $387,500 Averys Village $900,000 local park Averys Village $1,700,000 Local Sporting Venue Kitchener Local Park $740,000 Local Sporting field $1,014,167 (deduction $1,000,000 amenities) Kitchener Open Space $662,500	
Voluntary Planning Agreement's (VPA)	• Cliftleigh VPA • Anvil Creek VPA • Heddon Greta VPA • Avery's Village VPA • Cessnock Civic VPA • Rose Hill Millfield VPA • DRAFT Huntlee VPA	Cliftleigh testers hollow open space $937,000 Cliftliegh Hilltop park $293,000 Cliftleigh Open Space $350,000 Anvil Creek Heritage Park $2,000,000 (deduct $1,280,000 for building) Huntlee Local Sporting Fields $3,444,600 Huntlee Riparian Zones $2,253,800 Huntlee 2 x District Parks $5,179,125 Huntlee 8 x Local Parks $3,482,900 (with deduction for buildings)	

4.4 Demand Management

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and considering the provision of new assets, in order to meet demand and demand management. Demand management practices also include non-asset solutions, insuring against risks and managing failures. Non-asset solutions focus on providing the required service without the need for the Council to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures[11]. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another LGA or public toilets provided in commercial premises. Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.4: Demand Management Summary

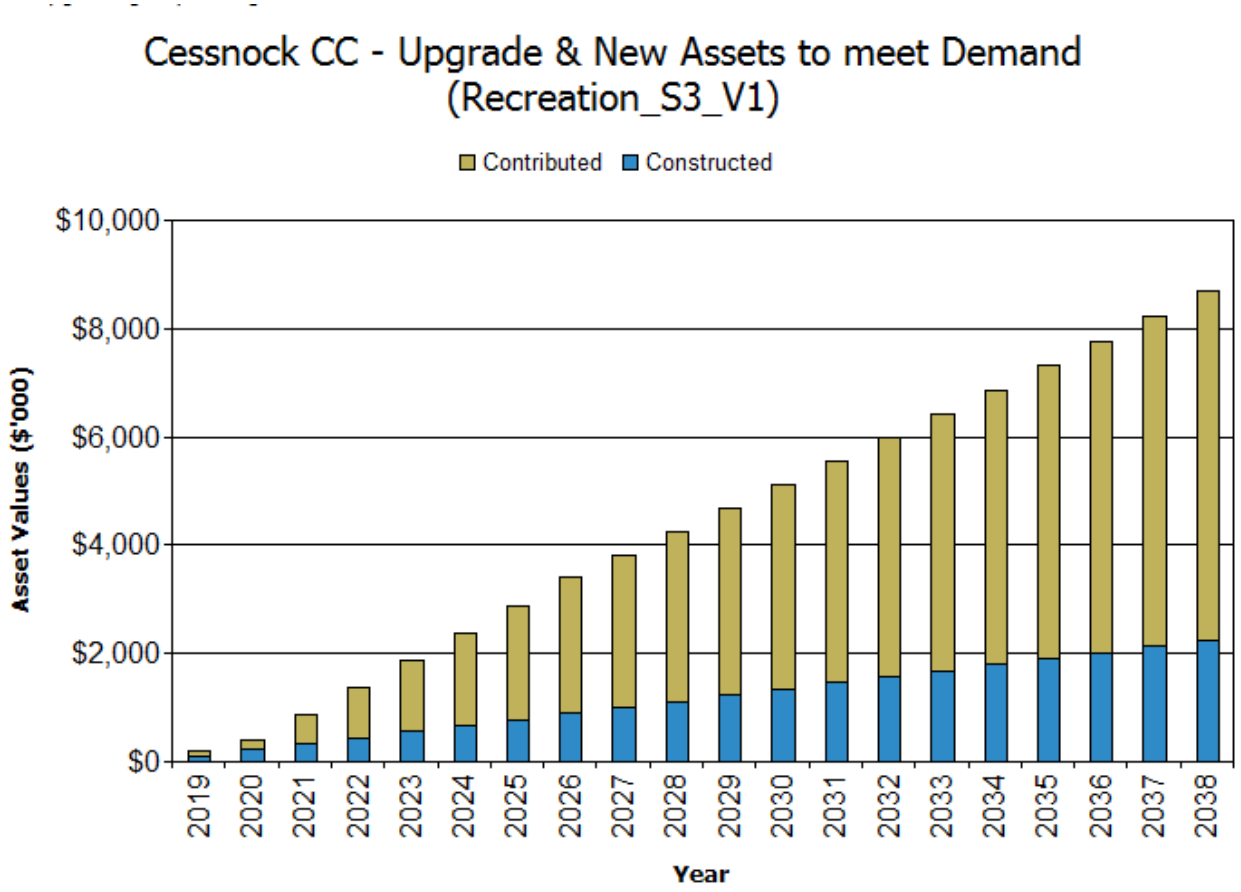
Demand Driver	Impact on Services	Demand Management Strategy
Community Engagement – Explore community demand for Open Space assets.	Community expectation may increase	Engage with the community to identify justifiable community needs from other expectations and consider only community needs consistent with Council's charter.
Optimised Delivery Program	Decrease maintenance and reduce the need for more expensive rehabilitation	Study condition rating from this plan and prioritise a list of Open Space assets to be included in the annual renewal program.
New land Divisions	Provision of new Open Space assets.	Implement enhanced quality control measures for donated assets. Promote multi-use/collocated facilities.
Planning	Oversupply of unfit for purpose Open Space assets	Revise planning controls to decrease the provision of unfit Open Space assets from Developers.
Capital Works	Potential decrease in maintenance	New projects will need to be assessed with a balance between competing demands for investment to renew existing assets, as well as providing expenditure for new/upgraded assets to meet growing demand. Design all new facilities to be multi-use in nature, collocate where possible.

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired either free of cost from land developments and constructed/acquired by the Council OR as a percentage contribution through Section 94 funding. New assets to be constructed/acquired by the Council are discussed in Section 5.5. Acquiring these new assets will commit the Council to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. The cumulative value of constructed asset values are summarised in Figure 1, including growth from contributed assets gained through development:

[11] IPWEA, 2015, IIMM, Table 3.4.1, p 3|58.

Figure 1: New Assets to meet Demand



5. LIFECYCLE MANAGEMENT PLAN

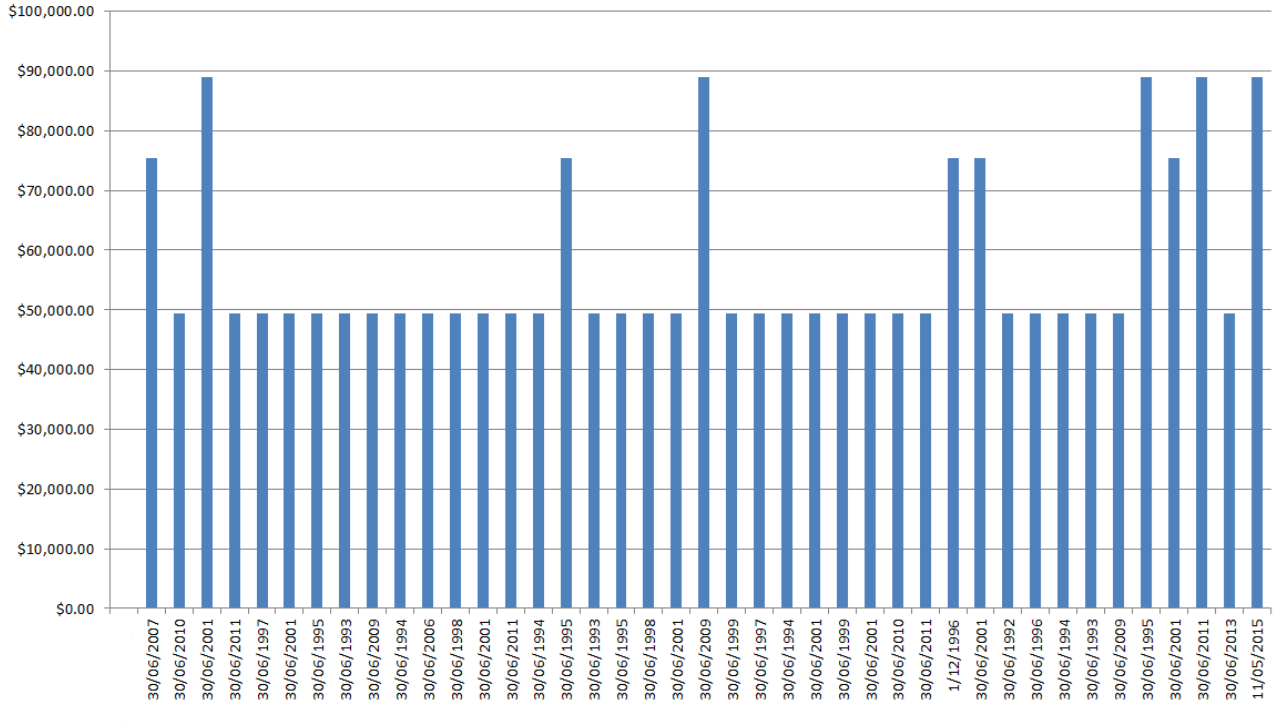
The lifecycle management plan details how the Council plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

5.1 Background Data

5.1.1 Physical parameters

Age profile information is often difficult to ascertain for open space assets, and is currently not available for all Open Space assets. An example of a profile for Councils Playgrounds is as follows:

Figure 2: Playgrounds Age Profile



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available. Locations where deficiencies in service performance are known are detailed in the table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Playgrounds, City Wide	Dilapidated, unfit for purpose play equipment has contributed to reduced use of playgrounds. Include sites such as Bridges Hill Cessnock, Veterans Memorial Park Aberdare and Jeffrey Park Abermain.
Park Furniture, City Wide	Dilapidated, unfit for purpose furniture has contributed to reduced useful life of the furniture. An extensive list has been developed from the 2015/16 inventory collection and can be provided on request.
Irrigation, City Wide	All manual systems should be converted to automated systems.
Sports fields	Condition of grounds due to overuse, adverse weather, lack of turf renewal.

The above service deficiencies were identified from internal staff knowledge and site inspections.

5.1.3 Asset condition

Council has a documented condition assessment manual to condition rate Open Space Assets. This manual assists staff and contractors to assess the condition of Council's Open Space Assets. This gives a basis for consistent assessment of Open Space Assets. This enables Council to determine the overall condition of its Open Space network as well as identify those assets that require repair or renewal in future years. Condition is measured using a 1 – 5 grading system[12] with the addition of condition state 0 to represent newly constructed assets, and end of life (EOL) for assets out of service/closed to the public, see table 5.1.3 below:

Table 5.1.3: Condition Rating Description

[12] IPWEA, 2015, IIMM, Table 3.4.1, p 3|58.

Condition Index	Age or Visual Condition	Remaining Life (%)	Condition Description
0	**Constructed**	**100**	Asset that is newly constructed and/or is less than 12 months in age.
1	**As New**	**99**	In an excellent condition with no visible signs of deterioration OR an asset that has been recently rehabilitated back to an “as new” condition
2	**Good**	**75**	In good condition with some early stages of deterioration evident. Functionality, performance and serviceability are minimally impaired, if at all.
3	**Fair**	**50**	Obvious condition deterioration. Functionality, performance, and serviceability would be affected and maintenance costs rising.
4	**Poor**	**25**	The condition deterioration would be severe and would be starting to limit serviceability. Maintenance costs would be high and pointing towards rehabilitation. Risk associated with deterioration would also be increasing.
5	**Very poor**	**5**	Severe serviceability problems & requiring rehabilitation immediately OR no longer serviceable & provides extreme risk leaving asset in service.
End of Life		**0**	Asset out of service.

Condition inspections were undertaken in 2015-16 and completed on site for 100% of the network [13]. Council employs a trained specialist in undertaking compliance audits for its playgrounds annually; therefore condition data for these assets is current[14]. The condition profile of our assets is shown in Figures; 3, 3.1, 3.2, 3.3 and 3.4. This data will be updated in line with the asset revaluation cycle which is specified in the NSW Code of Accounting Practice and Financial Reporting.

Fig 3: Asset Condition Profile of CCC Open Space Furniture

[13] Although every effort is made to ensure all assets are captured within the network and the data provided is assessed for accuracy, it is continually improving between revaluation years, which may result in an increase in assets in this timeframe.
[14] The compliance audit undertaken is converted to the above condition scale and is detailed in Council’s Business Process Manual for Open Space Assets.

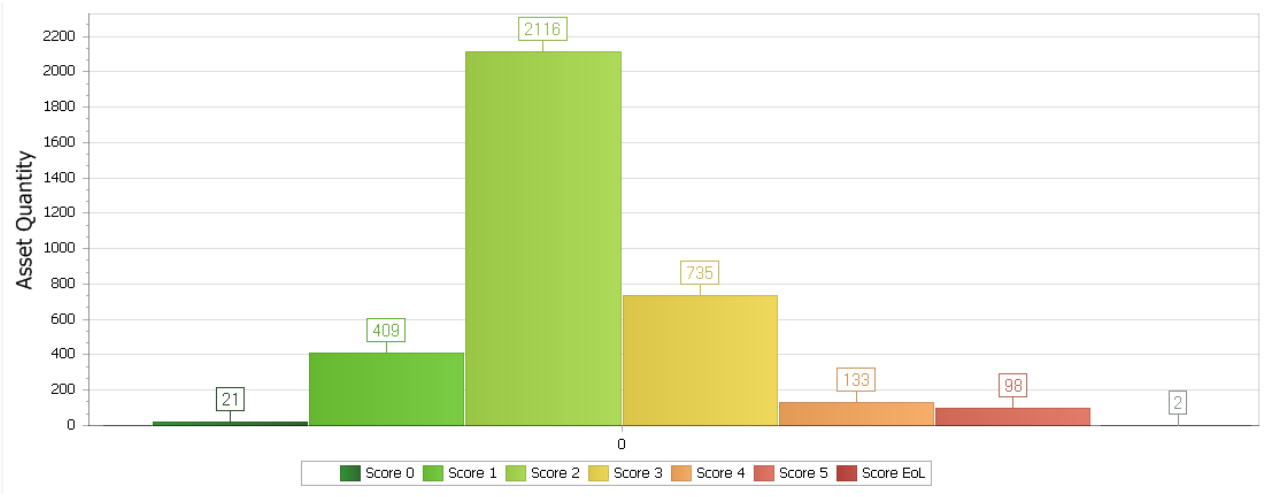


Fig 3.1: Asset Condition Profile of CCC Open Space Playgrounds

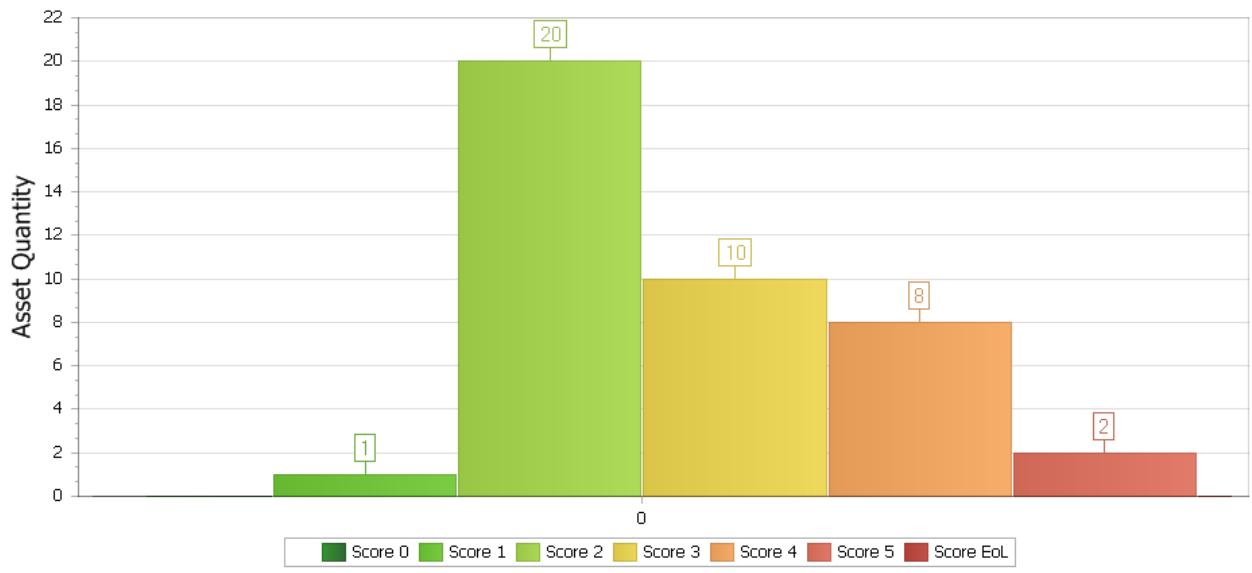
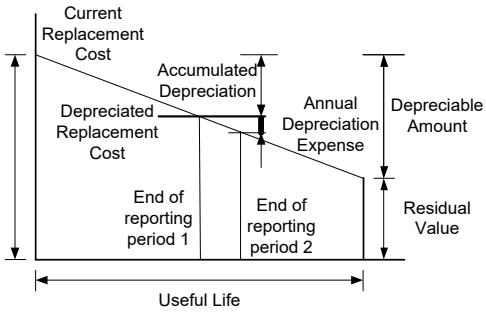


Fig 3.2: Asset Condition Profile of CCC Pool Structures

5.1.4 Asset valuations

The revaluation of Councils Open Space and Other Structures occurred in 2015/2016 FY. Assets are valued using replacement cost method (based on unit rates and quantity/dimensions). The replacement value of the assets as at 30th June 2018 was:

Current Replacement Cost	$23,226,000
Depreciable Amount	$23,226,000
Depreciated Replacement Cost[15]	$13,901,000
Annual Depreciation Expense	$567,000



Useful lives were reviewed in 2015/16 as part of the revaluation using benchmark figures and Staff Knowledge. Key assumptions made in preparing the valuations were:

- All predicted financial figures are based on 2015/16 rates and are not adjusted by the inflation rate for the particular year of works.

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time.

Rate of Annual Asset Consumption (Annual Depreciation Expense/Depreciable Amount)	2.4%
Rate of Annual Asset Renewal (Capital renewal exp/Depreciable amount)	1.2%
Rate of Annual Asset Upgrade/New (including contributed assets) (Capital upgrade exp/Depreciable amount)	6.9%

In 2019 the Council plans to renew assets at 49.2% of the rate they are being consumed and will be increasing its asset stock by 7.3% in the year.

5.1.5 Historical Data

5.1.5.1: Expenditure for Open Space Assets

Budget	2014	2015	2016	2017
Operations	$247,509	$264,000	$84,490	$1,790,773.51
Maintenance	$1,591,778	$1,396,379	$2,312,012	$762,658.42
Capital Renewal	$551,550	$191,000	$140,000	$68,735.24
Capital Upgrade	$264,419	$475,000	$122,000	$340,733.65

5.2 Infrastructure Risk Management Plan

An assessment of risks[16] associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial

[15] Also reported as Written Down Current Replacement Cost (WDCRC) or carrying value in Note 9a of the financial statements.
[16] CCC Infrastructure Risk Management Plan TRIM Reference DOC2015/012452

shock' to the Council. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks. Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 5.2. These risks are reported to management and Council.

Table 5.2: Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan	Residual Risk	Treatment Cost
Open Space Lighting	Structural Failure resulting in injury	High	Structural assessment required on deteriorated assets	Medium	Estimated at $40,000
Play Field Surfaces	Injury resulting from uneven/broken surface. Unfit for purpose.	Medium	Feedback from maintenance staff and user groups	Medium	Already in Budget
Playground	Risk of future economic burden or closure of playgrounds	High	Renewal budget required or closure of playgrounds.	High	Replacement of current backlog approx. cost of $240,000
Playground	Soft-fall and/or equipment not complying with Australian Standard, potentially causing injury	High	Routine inspections and maintenance work.	Medium	Risk mitigated in current budgets.
Playground	Structural Failure resulting in injury	Medium	Regular Inspections in line with Australian Standards	Medium	Risk mitigated in current budgets
Swimming Pool Structural Failure	Structural elements of pool failing i.e. wall breaking up, water seepage	Medium	Regular Maintenance and Renewal Program	Medium	Risk mitigated in current budgets.
Skate Park	Structural elements failing resulting in injury	High	Reactive maintenance only	Medium	$230,000[17] estimated cost to remediate. $56,000 in 19/20 budget

[17] When funding becomes available, current budgets do not support this task within the next 4 year delivery plan.

Asset at Risk	What can Happen	Risk Rating	Risk Treatment Plan	Residual Risk	Treatment Cost
BMX track	Ruts, uneven surfaces which would result in injury	Medium	Reactive maintenance only	Medium	Risk mitigated in current budgets. Recommend an inspection program.
Fencing/barricades	Fence collapse resulting in injury. Barricades failed allowed vehicle assess where not permitted	Medium	Ongoing maintenance	Medium	Risk mitigated in current budgets. Recommend an inspection program.
Goal post	Goal structural failure resulting in injury	Medium	Ongoing maintenance	Medium	Risk mitigated in current budgets. Recommend an inspection program.
Irrigation	Irrigation failure, resulting in water wastage OR deterioration of playing surface or garden beds	Medium	Ongoing maintenance	Medium	Risk mitigated in current budgets. Recommend an inspection program.
Columbarium Walls	Structural Failure resulting in injury	Medium	Reactive maintenance only	Medium	Risk mitigated in current budgets.
Water Tanks	Structural Failure resulting in injury, flooding or property damage	Medium	Reactive maintenance only	Medium	Risk mitigated in current budgets. Recommend an inspection program.
Park furniture - seats, benches, tables	Structural failure resulting in injury	High	Maintenance and renewal programs	Medium	Risk mitigated in current budgets.
Picnic Shelters	Structural failure resulting in injury	Medium	Maintenance and renewal program.	Medium	Risk mitigated in current budgets.
BBQs	Structural failure resulting in injury or power source failure	Medium	Maintenance and renewal program.	Medium	Risk mitigated in current budgets.

5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, e.g. grass mowing and rubbish pick up. Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Operations and Maintenance Plan

Operational[18] activities affect service levels including quality and function through frequency (e.g. cleaning of parks), intensity (e.g. spacing of sports field lighting) and opening hours.

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, e.g. staining of park benches and seats, but not renewing them. Maintenance may be classified into reactive, planned and specific maintenance work activities.

Reactive Maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned Maintenance is repair work that is identified and managed using the customer request system and/or a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance. Actual past maintenance expenditure is shown in Table 5.3.1.

Table 5.3.1: Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Planned	**Unplanned**
2015	$1,333,924	$62,455
2016	$2,133,911	$262,591
2017	$762,658.42	$96,094.96

Required Maintenance is considered to be the amount of funding originally budgeted for in the adopted Long Term Financial Plan, this is reviewed annually. Future iterations of this AMP will further define the required maintenance.

Maintenance expenditure levels are considered to be underfunded to meet projected service levels required in the medium to long term. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences have been identified and highlighted in this AMP.

Assessment and prioritisation of reactive maintenance is undertaken by the Council's staff using experience and judgement.

[18] It has been identified that some inaccuracies are reflected in Councils current make up of what is captured as planned or reactive maintenance, in comparison to operational maintenance across most asset classes. The process to better define and accurately report this will be incorporated into the improvement plan within this AMP.

5.3.2 Operations and Maintenance Strategies

The Council will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner,
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 – 70% planned desirable as measured by cost),
- Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure the Council is obtaining best value for resources used.

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. In some instances hierarchy is used to determine service level planning and delivery, however at this point, Council currently does not utilise hierarchy based service level. The Council's hierarchy applied to the open space assets shown in the following tables:

Table 5.3.2a: Asset Service Hierarchy Open Space and Parks

Hierarchy Level	Description
Regional	High profile areas that generally cater for a population over 15,000, & contain; formalised car park, large picnic shelters and BBQ facilities, drinking fountains, Rubbish bins, public toilets, lighting, footpaths, shade, and access to public transport & major roads. Regional Open Space/Parks can be mix use or specialised and can serve more than one LGA.
District	Medium profile parks that generally cater for a population between 2,000 and of 15,000, and usually contain; a car park, picnic shelters and a BBQ, drinking fountains, Rubbish bins, public toilets which have male, female and accessible cubicles, lighting, footpaths, shade. District Open Space/Parks can be mix use or occasionally specialised, they may attract visitors from surrounding suburbs and require medium quality facilities and maintenance standards.

Local	Low profile parks that generally cater for short visits by local community members, and usually contain; a picnic shelter or seating, a drinking fountain, a Rubbish bin, minimal footpaths, small amount of shade. Local Open Space/Parks are generally within 10 minutes walking distance from local residence and cannot cater for very large groups. They are maintained on a less frequent schedule.

Table 5.3.2.b: Asset Hierarchy for Cemeteries

Hierarchy Level	Description
District	High profile cemeteries, which include a combination of standard plaques placed at the head of the plot & the rest of the plot covered in lawn, Ash Interments in Garden – ashes interred in a garden setting, Columbarium Walls – ashes installed in a columbarium wall which has a standard plaque & bud vase, Monumental Burial – traditional covering of burial plot with monumental work (headstones & kerbing). District Cemeteries have internal roads, quality fencing, high quality signs, rubbish bins and water taps. They require high quality landscaping & maintenance standards.
Local	Low profile cemeteries, which include Columbarium Walls - ashes are installed in a columbarium wall which has a standard plaque & bud vase, or Monumental Burial – traditional covering of burial plot with monumental work (headstones & kerbing). Local Cemeteries have fencing, some signage, & a water tap. They have some landscaping & minimal maintenance standards. In some circumstance the community "Tidy Towns" committee will attend to garden beds/trees if installed.

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high probability of failure. They are building assets that have varying influences, including; a commercial lease, high occupation or use, and/or are a basis for Council operations. By identifying critical assets Council has been able to develop the following management plan for each (see table 5.3.2.1 below). The management plan aims to highlight the assets critical failure modes, and the required investigative activities and maintenance plans based on their appropriate timing. Where funding permits, operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. Examples of such activities may include; increased inspection frequency, higher maintenance intervention levels, etc.

Table 5.3.2.1: Critical Assets and Service Level Objectives

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Peace Park/Chinaman Hollow Playground	Failure of any component affecting the safety/use/standard/capacity/function of the facility	A critical assets management plan to be drafted as part of a future improvement task of this AMP.
Baddeley Park Sports Stadium	Failure of any component affecting the safety/use/standard/capacity/function of the facility	A critical assets management plan to be drafted as part of a future improvement task of this AMP.
Kurri Kurri Aquatic Facility	Failure of any component affecting the safety/use/standard/capacity/function of the facility	A critical assets management plan to be drafted as part of a future improvement task of this AMP.
Cessnock Airport Runway	Failure of any component affecting the safety/use/standard/capacity/function	A critical assets management plan to be drafted as part of a future

	of the facility	improvement task of this AMP.

Standards and specifications

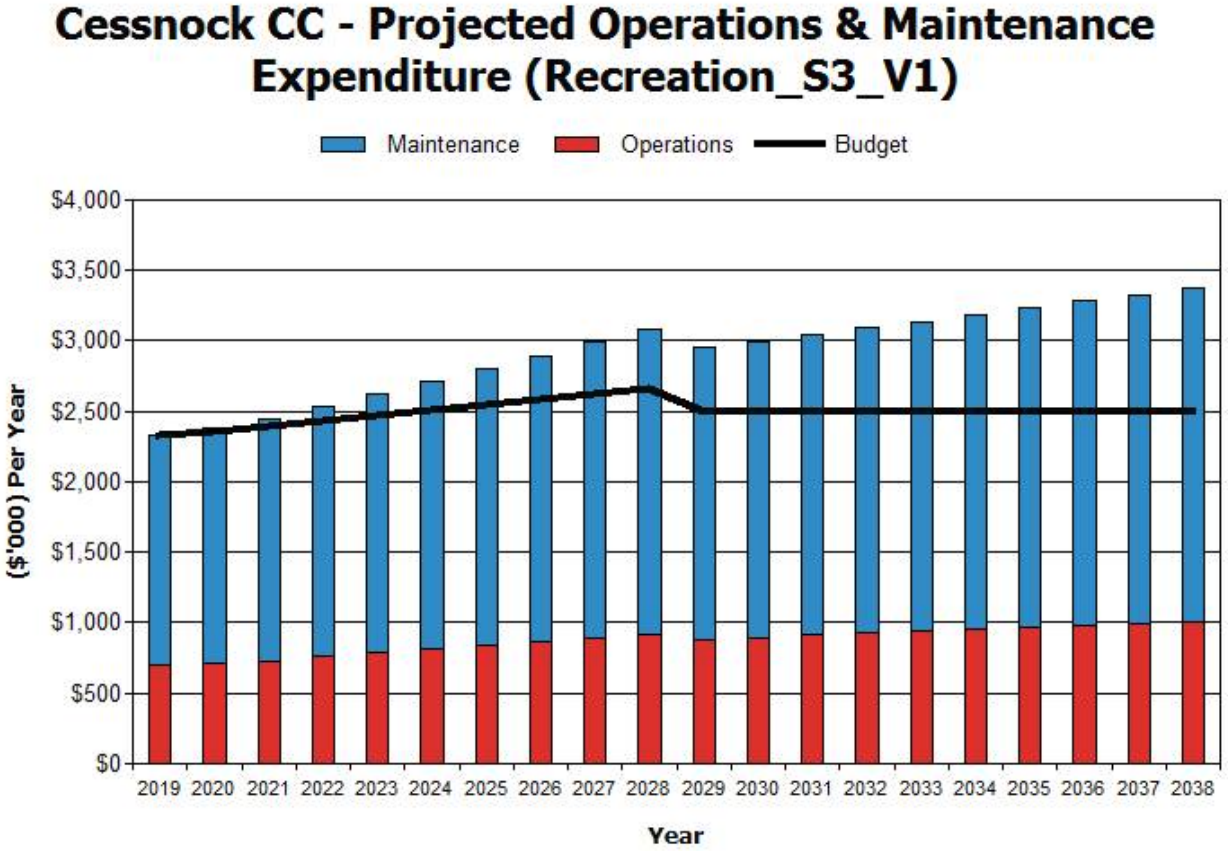
Maintenance work is carried out in accordance with the following Standards and Specifications:

- CCC Engineering Guidelines for Design
- BCA
- Australian Standards
- Civil Aviation Safety Authority (CASA) Manual of Standards

5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure generally trends in line with the value of the asset stock as shown in figure 4: Note that all costs are shown in 2016 dollar values (i.e. real values).

Figure 4: Projected Operations and Maintenance Expenditure



5.4 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

5.4.1 Renewal plan

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or

- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure template'.

Methods 2 & 3 are both used as part of this Asset Management Plan.

The useful lives of open-space and other structure assets used to develop projected asset renewal expenditures are shown in Table 5.4.1. Asset useful lives were last reviewed on 30th June 2016.[19] This data will be updated in line with the asset revaluation cycle which is specified in the NSW Code of Accounting Practice and Financial Reporting.

Table 5.4.1: Useful Lives of Assets

Asset Type	Expected Useful Life (yrs)
Metal Picnic Table Setting	39
Timber Picnic Table Setting	39
Metal Park Seat	40
Timber Park Seat	38
Metal Park Bench	40
Timber Park Bench	38
Picnic Shelter	54
Metal Bin Enclosure	32
BBQ's	62-74
Synthetic Cricket Pitch	22
Asphalt Netball/Basketball/Tennis Court	34
Netball/Basketball Hoop	38
Goal Posts	40
Scoreboard	11
Metal Park Name Signs	38
Metal Park Information Signs	38
Bronze Plaques	38
Bronze Lettering	38
Metal Fencing	32
Timber Fencing	30
Enclosure Cage	30
Stainless Balustrading	32
Metal Gates	32
Metal Bollards	32
Plastic Bollards	32
Cemetery Entrance/Memorial Gates	32
Columbarium	92
Concrete Plinths	120
Sport Field/Flood Lighting	26
Other Open Space/Flood Lighting	26
Street/Security Style Lighting	26
Bollard Lighting - carpark style	26

[19] CCC 2015/2016 Valuation Manual

Bollard Lighting - airport style	26
Solar Lighting	26
Shade Structures	49
RV Dump Points	20
War memorials/monuments	92
Concrete grandstand	120
Grandstand steel	36
Long Jump Track Wetpour Rubber	41
Long Jump Sandpit Concrete boarder	120
Irrigation System/sprinkler	15
Skate Park	120
Swimming Pool (50m)	91
Swimming Pool (25m)	91
Swimming Pool Lesiure freeform	91
Swimming Pool Toddler	91
District Playgrounds	23
Regional Playgrounds	23
Local Playgrounds	23
Synthetic Tennis Courts/Cricket Pitch	22
Brick Retaining Walls/Garden Edging	50
Timber Retaining Walls/Garden Edging	50
Stone Retaining Walls/Garden Edging	50
Concrete Retaining Walls/Garden Edging	50
Flagpole	40
Concrete Water Tank	120
Concrete Slabs and Pads	120
Brick Walls/Entrances	58
Brick Walls/Entrances W render	58

Asset Type	Expected Useful Life (yrs)
Concrete Columns	120
Brick Columns	58
Timber Pergolas	54
Timber Cover walkways	54
Outdoor Gym	20
Jetty	70

Renewal Standards

Renewal work is carried out in accordance with the following Standards and Specifications:

- CCC Engineering Guidelines for Design
- BCA
- Australian Standards
- Civil Aviation Safety Authority (CASA) Manual of Standards

In addition to these legislative standards and codes of practices, maintenance works and standards are intuitive to staff who have had a number of years undertaking this type of work. Council will however, endeavour to formally document these standards in future revisions of this Plan.

5.4.2 Renewal and Replacement Strategies

The Council will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
- Undertaking project scoping for all capital renewal and replacement projects to identify:
    - the service delivery 'deficiency', present risk and optimum time for renewal/replacement,
    - the project objectives to rectify the deficiency,
    - the range of options, estimated capital and life cycle costs for each option that could address the service deficiency,
    - and evaluate the options against evaluation criteria adopted by the Council, and
    - select the best option to be included in capital renewal programs,
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and the Council,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required,
- Review management of capital renewal and replacement activities to ensure the Council is obtaining best value for resources used.

Renewal ranking criteria

Asset renewal and replacement 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 BBQ top that burners no longer all function), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. legibility of monuments and memorials).[20]

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the Council,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.[21]

The ranking criteria which will be used to determine the priority of identified future renewal and replacement proposals are detailed in Table 5.4.2 and 5.4.3.

Table 5.4.3: Renewal and Replacement Priority Ranking Criteria Park Furniture, Playgrounds and Cemeteries

Criteria	Weighting
Potential for High Risk as determined in Risk Matrix	35%
Needs	25%
Functionality	15%
Condition	15%
External Funding	10%
Total	**100%**

Note: Should something of a higher priority be estimated with a project value more than the available funding left within the year it should be programmed, it will be programmed in the first year that has the available funding. Consequently, in this instance, something with a lower priority but lesser project value may take its place.

Renewal and replacement standards

All maintenance, renewal, and capital work is carried out in accordance with relevant Standards and Specifications, as per examples given below:

- Australian Standards for Playgrounds,
- AS1924 – Safety requirements and test methods,
- AS 4685 – Current safety requirements and test methods,
- ASNZ 4422:1996 – Impact attenuating surfaces,
- AS 2560.1-2002 Lighting of Sports Field
- The Code of Practice for Irrigated Public Open Space (IPOS) – This provides a template to be used by Open Space managers to ensure the planning, management and reporting of water consumption in the urban environment is based on sound principles applied consistently at all levels of management.

[20] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|60.
[21] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|66.

5.4.5 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. Figures 5 & 5.1 below summarise future projected expenditure, Fig.5 utilising scenario 2 financial outlays (based on community desired condition state) and Fig 5.1 scenario 3 (LTFP outputs). Note that all amounts are shown in real values. The projected capital renewal and replacement program for the next four (4) years is shown in Appendix B.

Fig 5: Projected Capital Renewal and Replacement Expenditure Scenario 2

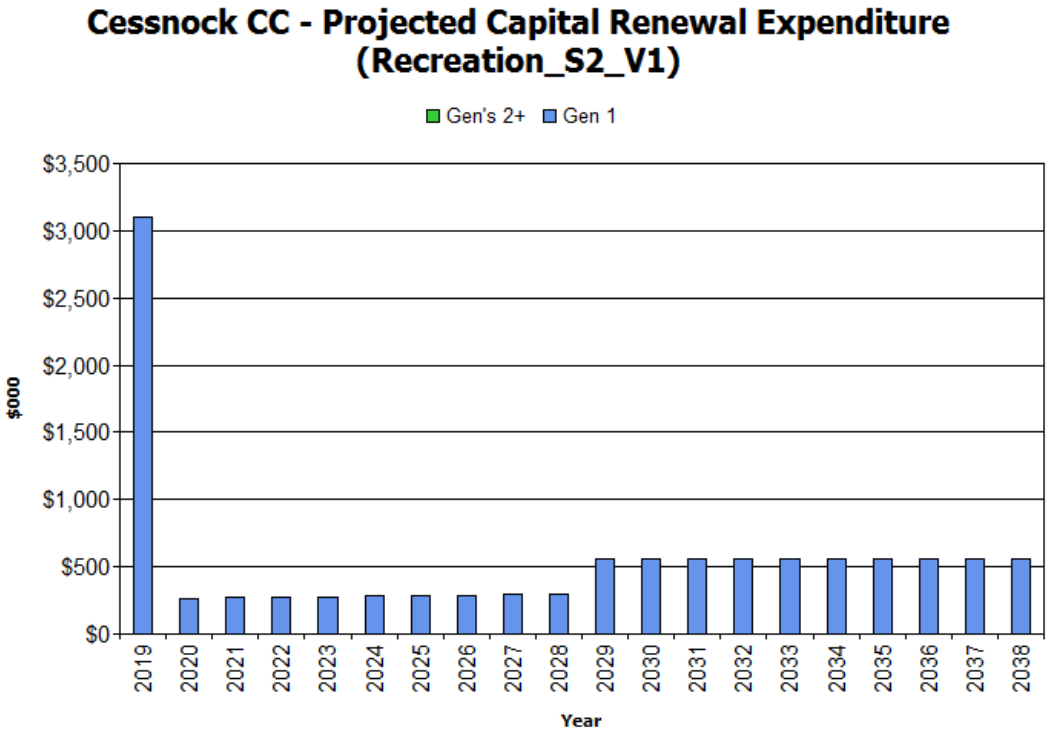
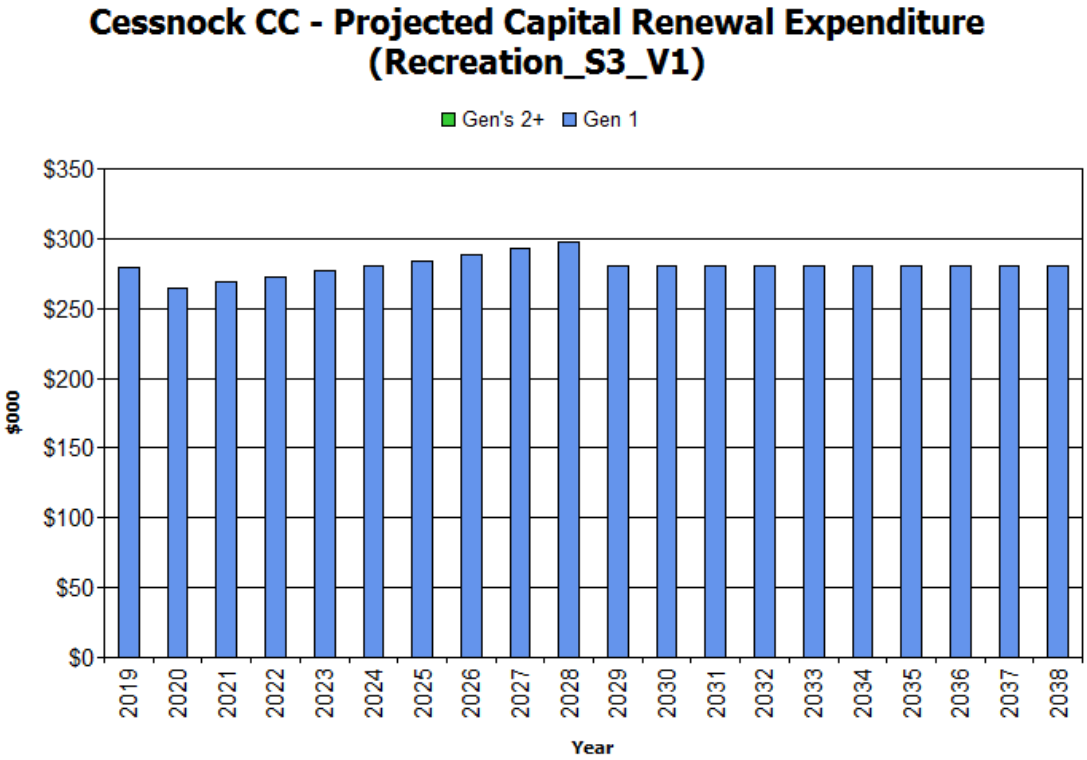


Fig 5.1: Projected Capital Renewal and Replacement Expenditure Scenario 3



Renewals and replacement expenditure in the Council's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which expand or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired through grant money, development contribution money or at no cost to the Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other Councils. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed below:

Table 5.5.1.a: New Assets Priority Ranking Criteria Park Furniture and Playgrounds

Criteria	Weighting
Potential for High Risk as determined in Risk Matrix	35%
Needs	25%
Functionality	15%
Condition	15%
External Funding	10%
Total	**100%**

Note: Should something of a higher priority be estimated with a project value more than the available funding left within the year it should be programmed, it will be programmed in the first year that has the available funding. Consequently, in this instance, something with a lower priority but lesser project value may take its place.

5.5.2 Capital Investment Strategies

The Council will plan capital upgrade and new projects to meet level of service objectives by:

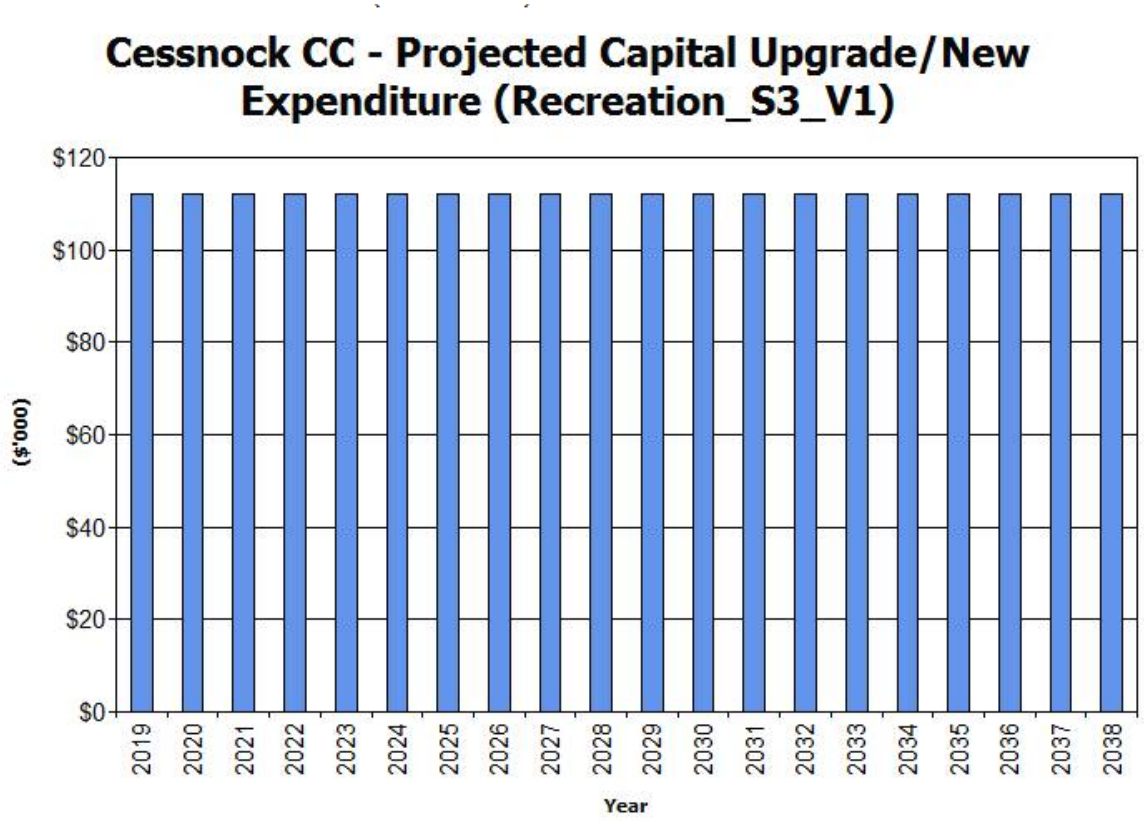
- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
    - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
    - the project objectives to rectify the deficiency including value management for major projects,
    - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
    - management of risks associated with alternative options,
    - and evaluate the options against evaluation criteria adopted by Council, and
    - select the best option to be included in capital upgrade/new programs.
- Review current and required skills base and implement training and development to meet required construction and project management needs,
- Review management of capital project management activities to ensure the Council is obtaining best value for resources used.

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

Fig 6: Projected Capital Upgrade/New Asset Expenditure



Expenditure on new assets and services in the Council's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. At this stage there are no open space or other structure assets identified for disposal, however Council's has developed a draft Service Property Review Plan (SPR) which will aim to determine the most appropriate use of open space assets and possible disposals.

5.7 Service Consequences and Risks

The Council has prioritised decisions made in adopting this AMP to obtain the optimum benefits from its available resources. Decisions have been made based on the development of 2 of the 3 possible scenarios, which are:

Scenario 1 - What we would like to do based on asset register data

Scenario 2 – What we should do with existing budgets and identifying level of service (including community service levels) and risk consequences (i.e. what are the operations, maintenance, and capital renewal projects we are unable to do, what is the service and risk consequences associated with this position). This may require several versions of the AMP.

Scenario 3 – What we can do and be financially sustainable with AMPs matching long-term financial plans.

The development of scenario 1 and scenario 2 AMPs provides the tools for discussion with the Council and community on trade-offs between what we would like to do (scenario 1) and what we should be doing with existing budgets (scenario 2) by balancing changes in services and service levels with affordability and acceptance of the service and risk consequences of the trade-off position (scenario 3).

Based on the data collected by Council, Scenarios 2 & 3 have been developed for this AMP.

5.7.1 What we cannot do

There are some operations and maintenance activities, and capital renewal projects that are unable to be undertaken within the next 10 years based on the current spend. This includes:

- 100% of the annual renewal required to keep assets in average/fair condition (3) or better
- Increase in the required maintenance for assets to achieve their useful life

5.7.2 Service consequences

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Potential for open space assets to become unfit for use: - i.e. park furniture dilapidating, insufficient fixtures to cater for the surrounding population

5.7.3 Risk consequences

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

- Potential for increase in risk to the community through structural failure of playground components of, park furniture
- Reduction in facilities available for sporting venues
- Negative public perception / political risk
- Increase in future funding required to renew/maintain Open Space assets as a result of insufficient ongoing maintenance expenditure

These risks have been included with the Infrastructure Risk Management Plan summarised in Section 5.2 and risk management plans actions and expenditures included within projected expenditures.

6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Financial Statements and Projections

The financial projections are shown in Fig 7 (scenario 2) and 7.1 (scenario 3) for projected operating, maintenance, and capital expenditure, including; renewal and upgrade/expansion/new assets. Note that all costs are shown in real values.

Fig 7: Projected Maintenance and Capital Expenditure Scenario 2

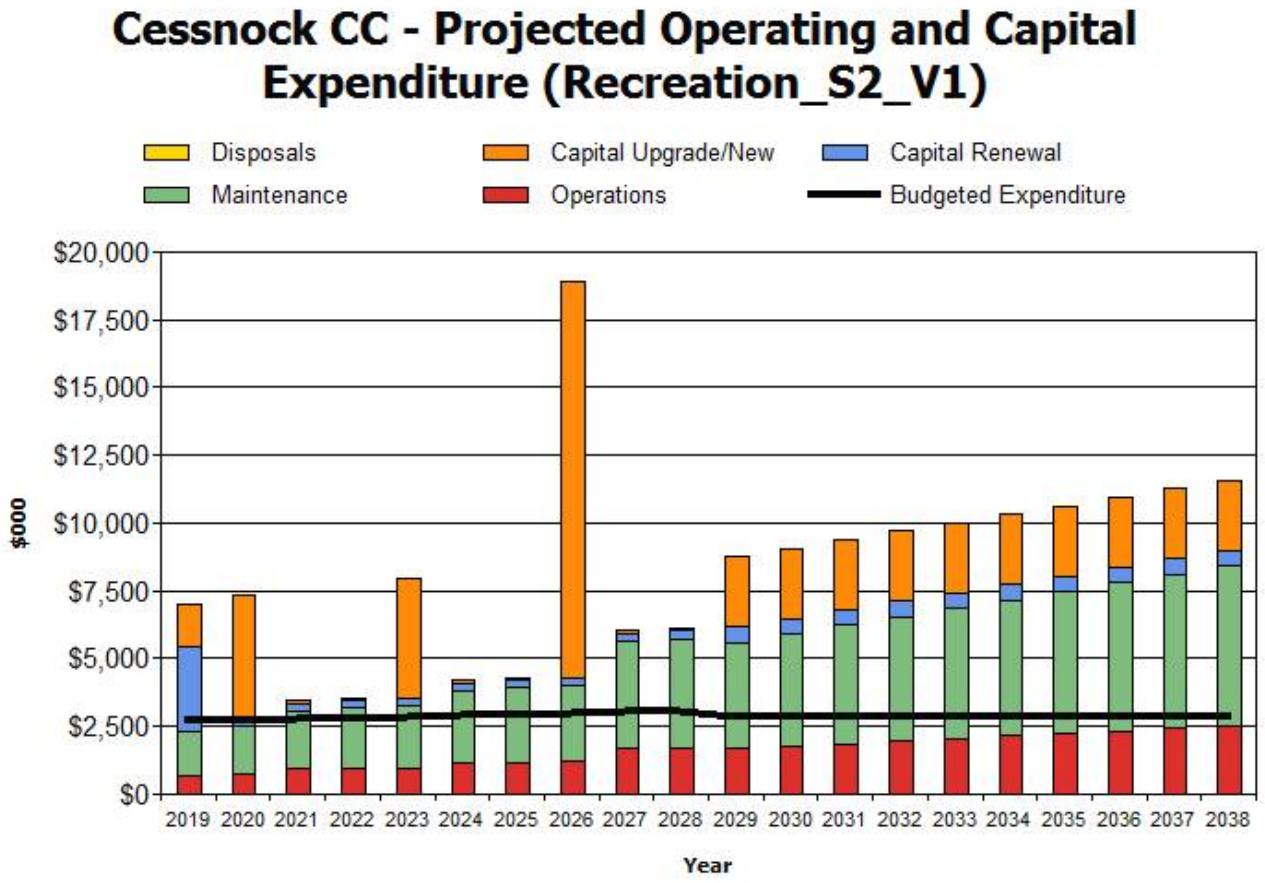
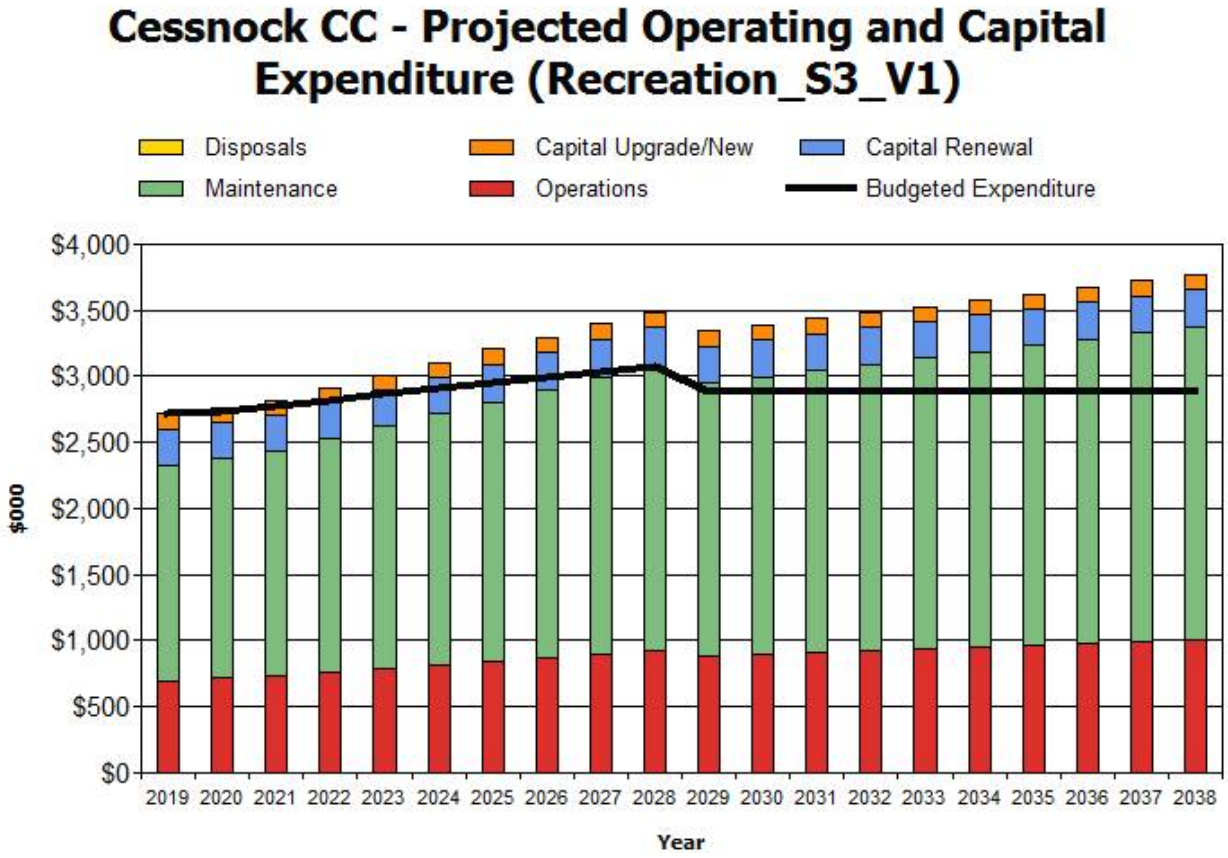


Fig 7.1: Projected Maintenance and Capital Expenditure Scenario 3



6.1.1 Sustainability of service delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%** (Scenario 3 – LTFP)

The Asset Renewal Funding Ratio, when considering the budget allocations set out in Councils' Long Term Financial Plan (scenario 3) and the current level of service is 100%. This ratio does not take into account any planned upgrade/new works, or impact of contributed assets, nor does it consider the associated operating and maintenance requirements for these assets as this is seen as a 'want' rather than a requirement. As a result this ratio differs to the 10 year AM financial indicator in the executive summary.

When considering the outcome of Councils' community consultation; all asset stock is to be in condition 3 'average' or better (scenario 2), the Asset Renewal Funding Ratio is 46%. The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, the Council is forecasting that it will need an additional 54% of renewal funds to keep assets performing at the desired level of service.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is $3,246,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is $2,776,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is -$471,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 86% of life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist Council in providing services to their communities in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

Medium term – 10 year financial planning period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures 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.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is $2,960,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $2,776,000 on average per year giving a 10 year funding shortfall of -$184,000 per year. This indicates that the Council expects to have 94% of the projected expenditures needed to provide the services documented in the asset management plan.

Medium Term – 5 year financial planning period

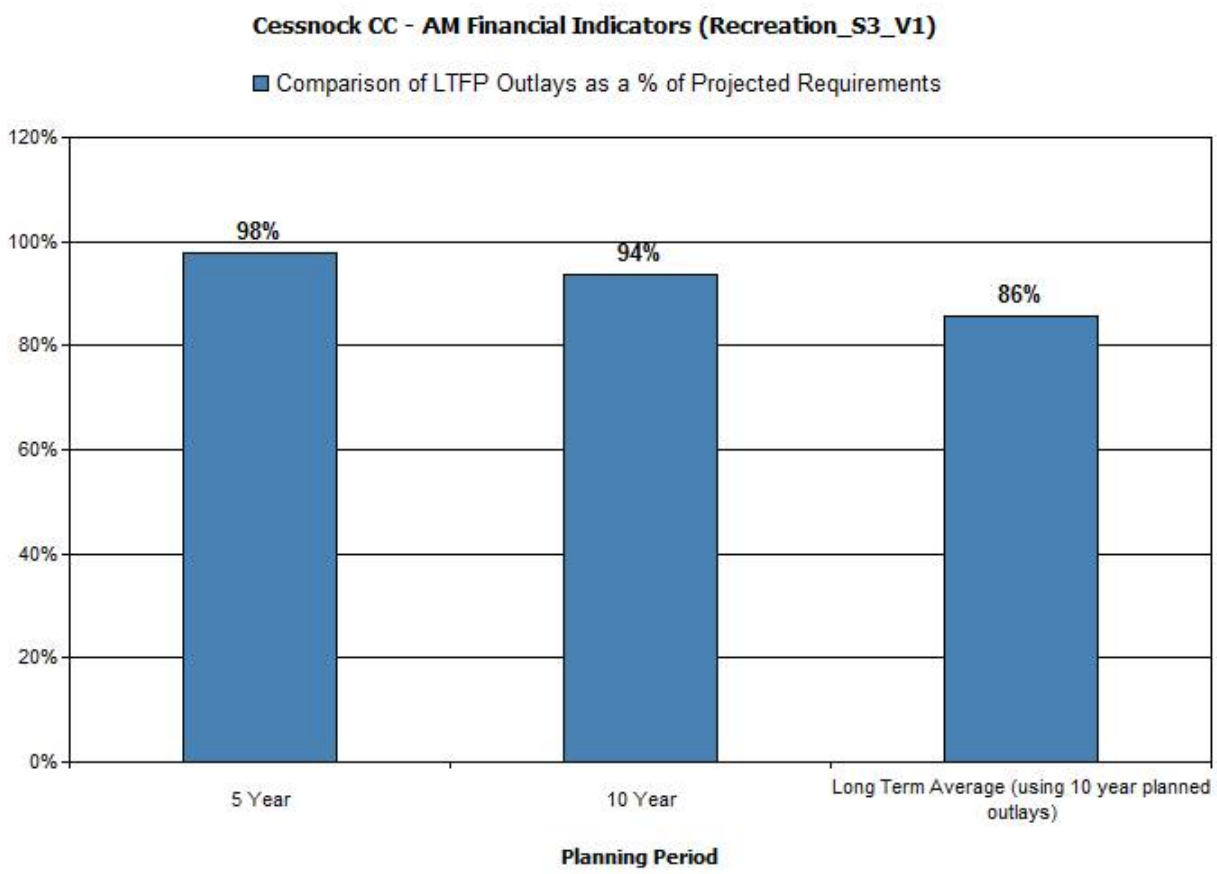
The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is $2,733,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $2,673,000 on average per year giving a 5 year funding shortfall of -$61,000. This indicates that the Council expects to have 98% of projected expenditures required to provide the services shown in this asset management plan.

Asset management financial indicators

Figure 7A shows the asset management financial indicators over the 10 year planning period and for the long term life cycle.

Fig 7A: Asset Management Financial Indicators



Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 10 year life of the Long Term Financial Plan.

Figure 8 shows the projected asset renewal and replacement expenditure required from Scenario 2 over a 20 year planning period. The projected asset renewal and replacement expenditure is compared to planned renewal and replacement expenditure in the capital works program, which is accommodated in the long term financial plan.

Fig 8: Projected Renewal Expenditure Scenario 2 against LTFP Budget

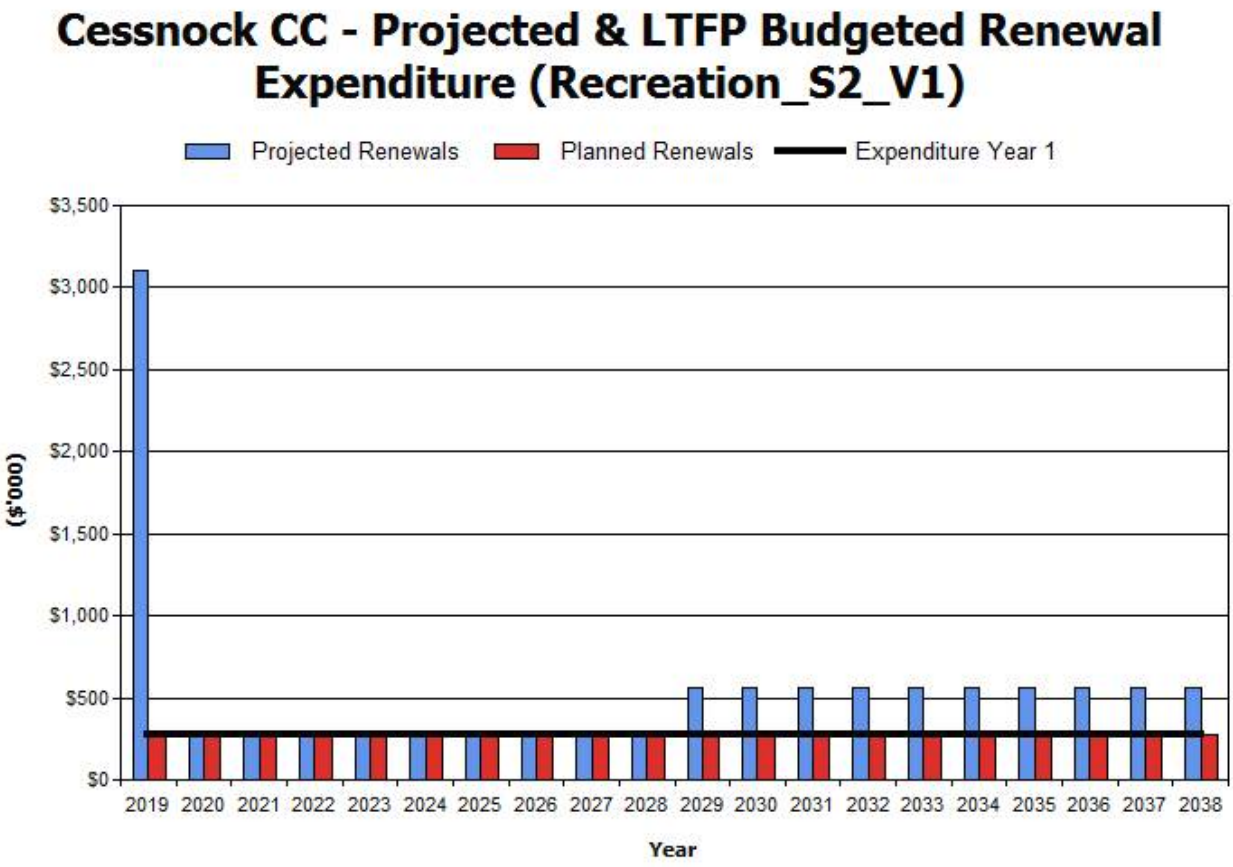


Table 6.1.1 shows the shortfall between projected renewal and replacement expenditures required from scenario 2 and expenditure accommodated in long term financial plan. Budget expenditures accommodated in the long term financial plan are shown in Appendix D.

Table 6.1.1: Projected and LTFP Budgeted Renewals and Financing Shortfall – Scenario 2

Year End June 30	Projected Renewals ($'000)	LTFP Renewal Budget ($'000)	Renewal Financing Shortfall (- gap, + surplus) ($'000)	Cumulative Shortfall (- gap, + surplus) ($'000)
2019	$3,099	$279	$-2,820	$-2,820
2020	$265	$265	$0	$-2,820
2021	$269	$269	$0	$-2,820
2022	$273	$273	$0	$-2,820
2023	$277	$277	$0	$-2,820
2024	$280	$280	$0	$-2,820
2025	$284	$284	$0	$-2,820
2026	$288	$288	$0	$-2,820
2027	$293	$293	$0	$-2,820
2028	$297	$297	$0	$-2,820
2029	$563	$281	$-282	$-3,102
2030	$563	$281	$-282	$-3,384
2031	$563	$281	$-282	$-3,666
2032	$563	$281	$-282	$-3,948
2033	$563	$281	$-282	$-4,230
2034	$563	$281	$-282	$-4,512
2035	$563	$281	$-282	$-4,794
2036	$563	$281	$-282	$-5,076

Year End June 30	Projected Renewals ($'000)	LTFP Renewal Budget ($'000)	Renewal Financing Shortfall (- gap, + surplus) ($'000)	Cumulative Shortfall (- gap, + surplus) ($'000)
2037	$563	$281	$-282	$-5,358
2038	$563	$281	$-282	$-5,640

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus.

Should the Council wish to meet the community demand for assets to improve to a minimum of condition 3, in order to be sustainable in meeting this service level, there will be a requirement to match projected asset renewal and replacement expenditure with the corresponding capital works program accommodated in the long term financial plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the LTFP indicates that further work is required on reviewing service levels in the AM Plan before finalising the asset management plan to manage required service levels and funding to eliminate any funding gap (including possibly revising the LTFP in future).

We will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community.

6.1.2 Projected expenditures for long term financial plan

Table 6.1.2 shows the projected expenditures for the 10 year long term financial plan.
Expenditure projections are in real values.

Table 6.1.2: Projected Expenditures for Long Term Financial Plan (in $'000)

Year	Operations	Maintenance	Projected Capital Renewal	Capital Upgrade/New	Disposals
2017	$648	$1,335	$257	$393	$0
2018	$678	$1,386	$259	$294	$0
2019	$697	$1,388	$262	$160	$0
2020	$715	$1,421	$265	$142	$0
2021	$732	$1,455	$268	$112	$0
2022	$750	$1,487	$272	$112	$0
2023	$774	$1,537	$275	$112	$0
2024	$798	$1,588	$278	$112	$0
2025	$825	$1,638	$282	$112	$0
2026	$851	$1,690	$285	$112	$0
2027	$816	$1,631	$270	$166	$0
2028	$833	$1,665	$270	$166	$0
2029	$847	$1,692	$270	$166	$0
2030	$861	$1,719	$270	$166	$0
2031	$874	$1,747	$270	$166	$0
2032	$888	$1,775	$270	$166	$0
2033	$893	$1,784	$270	$166	$0
2034	$897	$1,792	$270	$166	$0
2035	$901	$1,801	$270	$166	$0
2036	$906	$1,809	$270	$166	$0
All dollar values are in ($'000)'s					

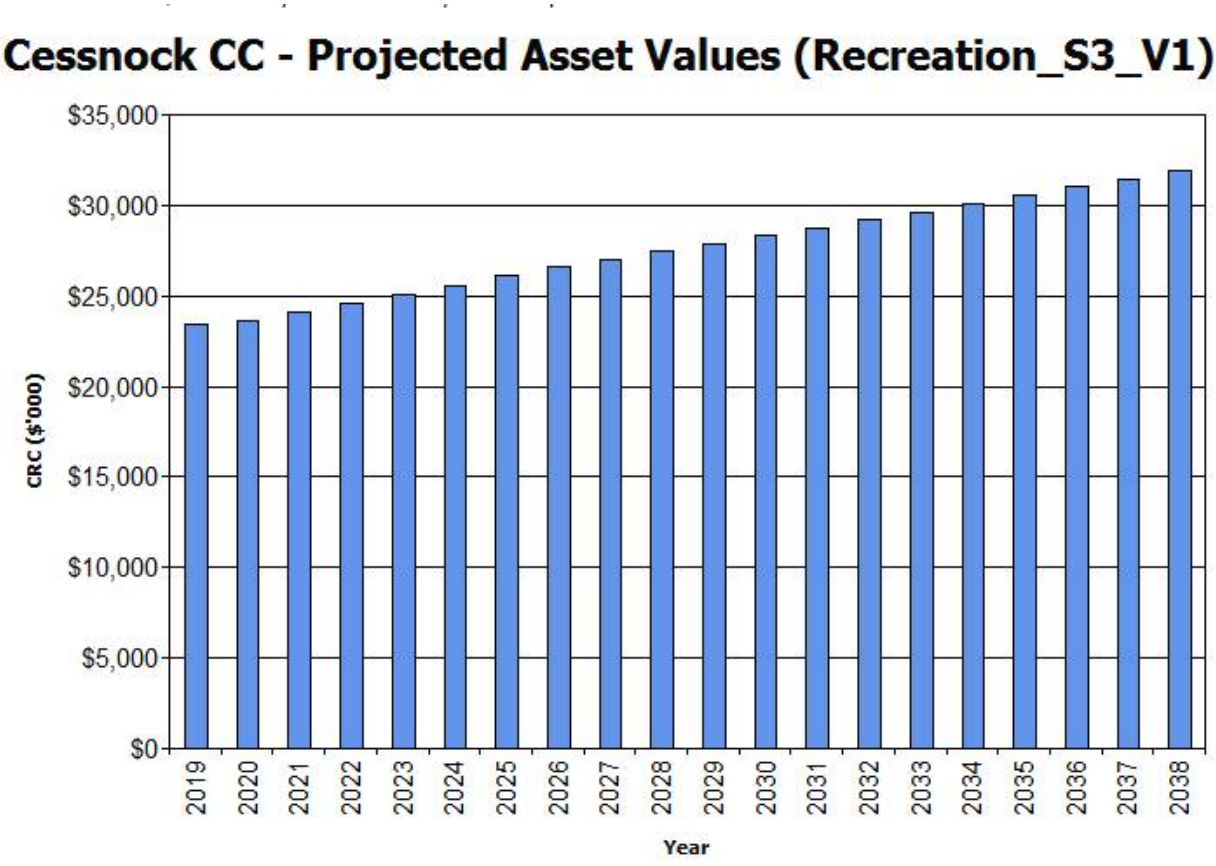
6.2 Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability, the projected expenditures identified in Section 6.1.2 will be accommodated in the Council's 10 year long term financial plan, and reviewed where necessary.

6.3 Valuation Forecasts

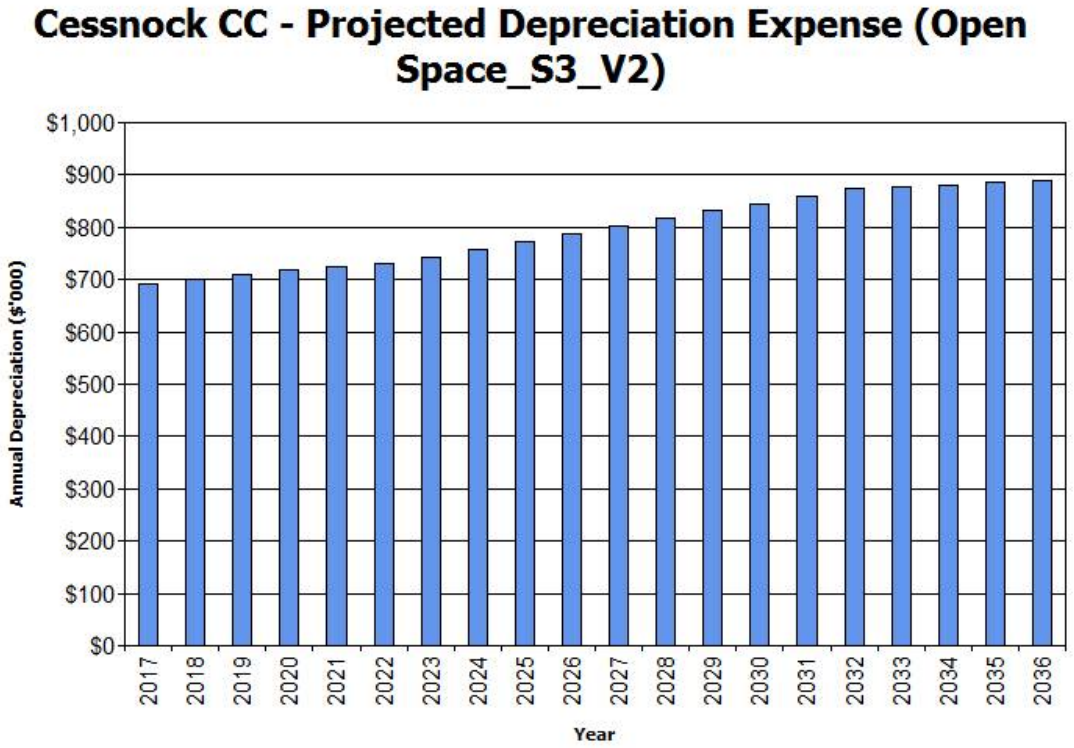
Asset values are forecast to increase as additional assets are added to the asset stock from; construction and acquisition by the Council, from assets constructed by land developers and others, and assets donated to the Council. Figure 9 shows the projected replacement cost of asset values over the planning period in real values.

Figure 9: Projected Asset Values



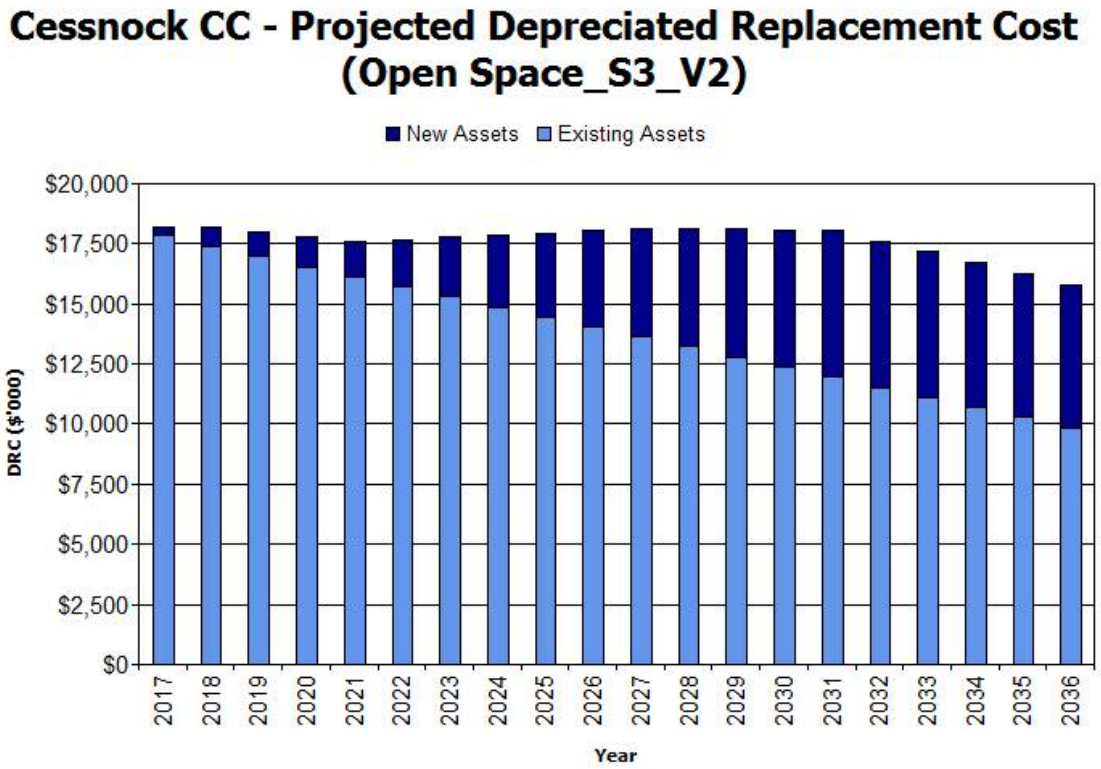
Depreciation expense values are forecast in line with asset values as shown in Figure 10.

Figure 10: Projected Depreciation Expense



The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Figure 11. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

Figure 11: Projected Depreciated Replacement Cost



6.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital renewal expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts. Key assumptions made in this asset management plan and risks that these may change are shown in Table 6.4.

Table 6.4: Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
Use of existing inventory and condition data as at 30 June 2016.	Condition data was last compiled during the revaluation exercise undertaken in 2015/16. This data will be updated in line with the asset revaluation cycle which is specified in the NSW Code of Accounting Practice and Financial Reporting
Use of 2015/16 Asset Revaluation Manual.	This asset management plan is based on asset revaluation undertaken in 2015/16. This data will be updated in line with the asset revaluation cycle which is specified in the NSW Code of Accounting Practice and Financial Reporting.
Planned expenditure values obtained from current budgets and Council's four year delivery program (2017-2021), and Council's updated LTFP 2017 – 2027.	The four year Delivery Program and LTFP may change in the future. Any changes in funding, planned capital and maintenance will be reflected in future asset management plans.
Contributed assets based on S94 and VPA's.	Development contribution amount that is allocated for existing assets used for capital upgrade rather than renewal. The exact handover date of contributed assets is difficult to predict and is subject to change.

6.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AMP are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale[22] in accordance with Table 6.5.

Table 6.5: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%.
B Reliable	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 Uncertain	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%.
D Very Uncertain	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.

[22] IPWEA, 2015, IIMM, Table 2.4.6, p 2|59.

	Accuracy ± 40%.
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.5.1.

Table 6.5.1: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	B	Based on demographic analysis undertaken in 2014 and State Government projections.
Growth projections	B	Based on demographic analysis undertaken in 2014 and State Government projections.
Operations expenditures	B	Council financial records, some inaccuracies identified to be reviewed.
Maintenance expenditures	B	Council financial records, some inaccuracies identified to be reviewed.
Projected Renewal exps. - Asset values	A	Assets revalued in 2015/2016.
- Asset residual values	A	Assets do not have residual values
- Asset useful lives	A	Useful lives based on industry standards at the time of 2015/2016 revaluation.
- Condition modelling	A	Condition assessment based on 2015/2016 revaluation exercise.
- Network renewals	B	To be based on Renewal and Replacement Priority Ranking Criteria Table 5.4.2 & 5.4.3.
- Defect repairs	B	Developed from customer requests and officer inspections.
Upgrade/New expenditures	B	To be based on selection ranking criteria Table 5.5.1a & b.
Disposal expenditures	A	No disposals currently identified.

Over all data sources, the data confidence is assessed as medium-high level confidence for data used in the preparation of this AM Plan.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Status of Asset Management Practices

7.1.1 Accounting and financial systems

Council's accounting and financial system is CIVICA/Authority.

Accountabilities for financial systems

The financial systems are primarily managed by Council's Finance section within the Corporate and Community Services Directorate.

Accounting standards and regulations

In accounting for Cessnock City Council assets the following statutory requirements shall be adhered to:

- Australian Accounting Standards AASB116.
- NSW Local Government Act 1993.
- NSW Code of Accounting Practice and Financial Reporting (updated annually).
- The Australian Infrastructure Financial Management Manual.

Capital renewal/maintenance threshold – Open Space Assets

Operations	Maintenance and Repair	Capital Renewal	Capital New
• Mowing • Rubbish removal	• Reactive maintenance (broken seat, vandalised play equipment) • Component replace/renew ≤ $2,000.	• Component renewal to original standard • Component replace/ renew >$2,000.	• New assets • Upgrade

Required changes to accounting financial systems arising from this AM Plan

In order to assist with future iterations of this AMP it is recommended that the accounting ledger be restructured to better reflect the different types of expenditure more accurately, i.e. operational, maintenance, capital renewal and capital upgrade. It is also recommended that the work order system is improved for more accurate job planning and control.

7.1.2 Asset management system

Cessnock City Council Asset Management Implementation Project included the deployment of MyData (Assetic Software Package) Asset Management System.

ASSETIC – MyData

MyData, is an 'Asset Management System' (AMS) designed to assist with the management of all infrastructure assets as well as the potential to expand to non-infrastructure assets such as fleet, plant, computer, etc.

The MyData register has the ability to:

- Assign global formulae for remaining life based on age and/or condition.
- Use predictive modelling as basis for defendable valuations (written down value and remaining life).
- Automatically update annual or monthly valuations.
- Add or remove assets but maintain an archived list.
- Perform audit trails for changes between two valuations.

- Import and export reports.
- Apply a range of unit replacement costs across asset categories.
- Classify each asset class into various sub-classes.

Asset registers

The key information flows into this asset management plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- Projects of various factors affecting future demand for services;
- Correlations between maintenance and renewal, including decay models;
- Data on new assets acquired by Council.

Linkage from asset management to financial system

The key information flows from this Asset Management Plan are:

- The assumed asset renewal profile and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

These will impact the long Term Financial Plan, Strategic Business Plan, annual budget and department business plans and budgets.

Accountabilities for asset management system and data maintenance

See Asset Management Strategy.

Required changes to asset management system arising from this AM Plan

Changes to the asset management system resulting from this Asset Management Plan may include:

- Improving the quality of specific data;
- Improving software systems and links to other systems (e.g. GIS) and;
- Adopting a more frequent reconciliation cycle between the financial and technical asset registers.

7.2 Improvement Program

The asset management improvement plan generated from this AMP is shown in the following table:

Table 7.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Undertake further community consultation and review and determine Community Agreed Level of Service for all Open Space and Other Structure Assets.	Works and Infrastructure/Assets	In-house	Prior to adoption 2018.
2	Review and refine technical levels of service	Works and Infrastructure/Assets	In-house	Prior to adoption 2018.

Task No	Task	Responsibility	Resources Required	Timeline
3	Review of asset disposal in line with the SPR	Works and Infrastructure/Assets/Planning and Environment	In-house	On adoption of the SPR
4	Develop prediction models	Works and Infrastructure/Assets	In-house	Prior to adoption 2018.
5	Develop a critical assets management plan	Works and Infrastructure/Assets	In-house	Prior to adoption 2018.

NOTE: In 2015, an independent assessment was undertaken by an external consultant on Councils' overall asset maturity TRIM reference number DOC2015/020878, which is now due for review. Once the review is undertaken, outcomes will be incorporated into the improvement plan in this AMP.

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget planning processes and amended to recognise any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

The AMP will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the Council's long term financial plan.

The AMP is to be reviewed annually in line with the budget, and a full revision undertaken during the year after the asset class is revalued.

7.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into Council's long term financial plan;
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan;
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Council's Strategic Plan and associated plans;
- The Asset Renewal Funding Ratio achieving the target of 1.0

8. REFERENCES

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Cessnock City Council 2017-21 Delivery Plan

Cessnock City Council 2017 – 2018 Operational Plan

NAMS.Plus Maturity Assessment Report Cessnock City Council 2015

9. APPENDICES

Appendix A Maintenance Response Levels of Service – To be developed

Appendix B 4 Year Capital Works Program

Appendix C Budgeted Expenditures Accommodated in LTFP

Appendix D Abbreviations

Appendix E Glossary

Appendix A Maintenance Response Levels of Service

To be developed.

Appendix B 4 Year Program: Excerpt CCC Delivery Program 2017-21

CEMETERIES FACILITIES CONSTRUCTION PROGRAM (CFC)		FUNDING YEAR							
LOCATION	PROJECT	2017/18		2018/19		2019/20		2020/21	
All Cemeteries (Cessnock, Millfield, Wollombi)	Fence Renewal	$10,000	CFC-2018-001	$20,000	CFC-2018-001	**$38,000**	CFC-2018-001	**$20,000**	CFC-2018-001
All Cemeteries (Aberdare, Cessnock, Kurri Kurri, Ellalong, Millfield)	Signage Renewal Ongoing	$10,000	CFC-2016-003	$10,000	CFC-2016-003	$10,000	CFC-2016-003	$10,000	CFC-2016-003
Branxton Cemetery	Replace timber trusses on pergola			$2,000	CFC-2019-002				
Ellalong Cemetery	Install bench seat	$3,000	CFC-2018-002						
Gordon Williams Memorial Lawn Cemetery	Construct new section of lawn cemetery Stage 2	$247,000	CFC-2015-001						
Kurri Kurri Lawn Cemetery	Construct new section of lawn cemetery Stage 2			**$150,000**	CFC-2017-001				
	TOTAL	**$270,000**		**$182,000**		**$48,000**		**$30,000**	
Funding Source:	Internal Loans	$250,000		$182,000		$48,000		$30,000	
	General Fund	$20,000		-		-		-	

POOLS FACILITIES RENEWAL PROGRAM (RFP)		FUNDING YEAR							
LOCATION	PROJECT	2017/18		2018/19		2019/20		2020/21	
Branxton Pool Renewal Program		$62,100	RFP-2018-001	$60,600	RFP-2019-001	$60,600	RFP-2020-001	$60,600	RFP-2021-001
Cessnock Pool Renewal Program		$59,900	RFP-2018-002	$60,600	RFP-2019-002	$60,600	RFP-2020-002	$60,600	RFP-2021-002
Kurri Kurri Aquatic & Fitness Centre Renewal Program		$81,200	RFP-2018-003	$82,000	RFP-2019-003	$82,000	RFP-2020-003	$82,000	RFP-2021-003
	TOTAL	**$203,200**		**$203,200**		**$203,200**		**$203,200**	
Funding Source:	General Fund	$203,200		$203,200		$203,200		$203,200	

NOTE: Pools funding covers assets outside of this AMP in addition to Open Space items, therefore the budget for modelling has been proportioned accordingly.

RECREATION FACILITIES CONSTRUCTION PROGRAM (CFR)		FUNDING YEAR							
LOCATION	PROJECT	2017/18		2018/19		2019/20		2020/21	
Branxton Oval	Construction of shelter and picnic setting	$11,176	CFR-2018-003						
East Cessnock Oval	Construction of Retaining Wall							$45,000	CFR-2021-001
Greta Central Oval (Grant Funding Dependent)	Installation of floodlighting					$0	CFR-2020-003		
Hunter River Reserve	Fencing Improvements			$15,000	CFR-2019-001				
Kurri Kurri Central Oval (Grant Funding Dependent)	Cricket Oval - Installation of floodlighting			$0	CFR-2019-002				
Margaret Johns Park Kurri Kurri	Extension to the concrete concourse					$10,000	CFR-2020-004	$10,000	CFR-2020-004
Miller Park Branxton	Installation of picnic shelter & seating			$20,000	CFR-2019-003				
Pokolbin Park	Installation of fencing							$33,800	CFR-2021-003
TAFE Park Cessnock	Installation of park seating			$5,000	CFR-2019-005				
Various - Veterans Memorial Park (Abermain), Jeffries Park (Abermain)	Playground Replacement Program	$90,000	CFR-2018-001	$71,800	CFR-2019-004	$80,000	CFR-2020-001		
Various - Peace Park (Weston), Abernethy Park, Whitburn Estate (Greta), Hedleigh Park (Heddon Greta), Kitchener Poppethead Park	Playground Shade Program	$21,800	CFR-2018-002			$21,800	CFR-2020-002	$23,000	CFR-2021-002
	TOTAL	**$122,976**		**$111,800**		**$111,800**		**$111,800**	
Funding Source:	Grants	$11,176		-		-		-	
	General Fund	$111,800		$111,800		$111,800		$111,800	

RECREATION FACILITIES RENEWAL PROGRAM (RFR)		FUNDING YEAR							
LOCATION	PROJECT	2017/18		2018/19		2019/20		2020/21	
Bimbadeen Lookout	Barrier fence replacement					$40,000	RFR-2020-003		
Bimbadeen Lookout	Picnic shelter and seating							$12,300	RFR-2021-003
Birralee Park Kurri Kurri	Fencing renewal			$40,000	RFR-2019-003				
Carmichael Park Bellbird	Re-purpose tennis courts to multi-sport hard court							$27,000	RFR-2021-004
Kurri Kurri Skate Park	Resurface the snake run upgrade/renewal - staged					$56,300	RFR-2017-001	$27,700	RFR-2017-001
Margaret Johns Park Kurri Kurri	Irrigation Renewal	$30,000	RFR-2018-004						
North Rothbury Multi-Purpose Court	Reseal asphalt multi-purpose court							$12,500	RFR-2021-005
Peace Park Weston	Remediation of the rock edging around pond - Stage 1	$30,000	RFR-2018-003	$30,000	RFR-2018-003				
Various	Long Jump Pits Renewal	$40,000	RFR-2018-001	$23,500	RFR-2018-001				
Various Parks & Reserves	Asset Renewal	$50,000	RFR-2018-002	$50,000	RFR-2019-002	$50,000	RFR-2020-002	$50,000	RFR-2021-002
Various Playgrounds	Install concrete plinths around playground			$20,000	RFR-2019-001	$20,000	RFR-2020-001	$40,000	RFR-2021-001
Veterans Memorial Park Aberdare	Footpath renewal - stage 2	$10,800	RFR-2017-009						
	TOTAL	**$160,800**		**$163,500**		**$166,300**		**$169,500**	
Funding Source:	General Fund	$160,800		$163,500		$166,300		$169,500	

Appendix C Budgeted Expenditures Accommodated in LTFP ($000)

Projected Expenditure	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Capital Expenditure on Renewal/Replacement of existing assets	$257	$259	$262	$265	$268	$272	$275	$278	$282	$285
Capital Expenditure on Upgrade/New assets	$393	$294	$160	$142	$112	$112	$112	$112	$112	$112
Operational cost of existing assets	$648	$668	$677	$688	$698	$710	$720	$730	$742	$753
Maintenance cost of existing assets	$1,335	$1,366	$1,347	$1,366	$1,387	$1,408	$1,429	$1,451	$1,472	$1,494
Operational cost of New assets	$0	$10	$20	$27	$34	$40	$54	$68	$83	$98
Maintenance cost of New assets	$0	$20	$41	$55	$68	$79	$108	$137	$166	$196
Disposal of Surplus assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Appendix D Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AM Plan/AMP	Asset management plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the Assets
SS	Suspended solids
vph	Vehicles per hour
WDCRD	Written down current replacement cost

Appendix E Glossary

Annual service cost (ASC)

1) Reporting actual cost
   The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
2) For investment analysis and budgeting
   An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, and finance / opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of Council's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings
A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure
Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital expenditure - expansion
Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the Council's asset base, but may be associated with additional revenue from the new user group, e.g. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new
Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal
Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, e.g. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade
Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the Council's asset base, e.g. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding
Funding to pay for capital expenditure.

Capital grants
Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure
See capital expenditure definition.

Capitalisation threshold
The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount
The amount at which an asset is recognised after deducting any accumulated depreciation/amortisation and accumulated impairment losses thereon.

Class of assets
See asset class definition.

Component
Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management
Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision-making).

Cost of an asset
The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

Critical assets
Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.

Current replacement cost (CRC)
The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance
The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount
The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)
The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation
The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life
See useful life definition.

Expenditure
The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Expenses
Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

Fair value
The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arm's length transaction.

Financing gap
A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset
An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss
The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets
Physical assets that contribute to meeting the needs of Councils or the need for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property
Property held to earn rentals or for capital appreciation or both, rather than for:
(a) Use in the production or supply of goods or services or for administrative purposes; or
(b) Sale in the ordinary course of business.

Key performance indicator
A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of service
The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

Life Cycle Cost *

1. **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
2. **Average LCC** The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings

See borrowings.

Maintenance

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, e.g. road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**
  Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- **Reactive maintenance**
  Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.
- **Specific maintenance**
  Maintenance work to repair components or replace sub-components that need to be identified as a specific maintenance item in the maintenance budget.
- **Unplanned maintenance**
  Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

Maintenance expenditure *

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques.

Net present value (NPV)
The value to the Council of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from e.g. the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, e.g. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations
Regular activities to provide services such as public health, safety and amenity, e.g. street sweeping, grass mowing and street lighting.

Operating expenditure
Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, e.g. power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

Operating expense
The gross outflow of economic benefits, being cash and non-cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses
Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio
Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (e.g. 5, 10 and 15 years).

Operations, maintenance and renewal gap
Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Pavement management system (PMS)
A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

PMS Score
A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption *
The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal *
The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new *
A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount
The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure
Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding
Funding to pay for recurrent expenditure.

Rehabilitation
See capital renewal expenditure definition above.

Remaining useful life
The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal
See capital renewal expenditure definition above.

Residual value
The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, e.g. public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management
The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment
A self-contained part or piece of an infrastructure asset.

Service potential
The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining
A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Specific Maintenance
Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic Longer-Term Plan
A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the asset management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component
Smaller individual parts that make up a component part.

Useful life
Either:
(a) The period over which an asset is expected to be available for use by an entity, or
(b) The number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Value in Use
The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, Glossary

*Additional and modified glossary items shown **