Yorke Peninsula Council

Buildings and Other Structures

Asset Management Plan

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July 2019

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NAMS.PLUS Asset Management Plan Templates

NAMS.Plus offers two Asset Management Plan templates – "Concise" and "Comprehensive".

The Concise AMP template is appropriate for those entities who wish to present their data and information clearly and in as few words as possible whilst complying with the ISO 55000 Standards approach and guidance contained in the International Infrastructure Management Manual.

The Comprehensive template is appropriate for those entities who wish to present their asset management plan and information in a more detailed manner.

The entity can choose either template to write/update their plan regardless of their level of asset management maturity and in some cases may even choose to use only the Executive Summary.

This is the **Comprehensive** Asset Management Plan template.

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1 EXECUTIVE SUMMARY

1.1 The Purpose of the Plan

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

This AMP details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner while outlining associated risks. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services over a 20-year planning period.

This plan covers the infrastructure assets that provide **Buildings and Other Structures**.

1.2 Asset Description

The **Buildings and Other Structures** network includes:

- Caravan Parks
- Depots
- Museums
- Offices
- Playgrounds
- Shelters
- Toilet Blocks
- Town Halls

These infrastructure assets have a replacement value of **$96.6 million**.

1.3 Levels of Service

Our present funding levels are insufficient to continue to provide existing services at current levels in the medium term.

The main services consequences are:

- Deferral of asset renewal will be required.
- Increased maintenance and servicing costs.

Our present funding levels are insufficient to continue to manage risks in the medium term.

The main risk consequences are:

- Failure to maintain Buildings and Other Structures at a safe and serviceable standard.
- Failure to undertake regular inspections of Buildings and Other Structures.

1.4 Future Demand

The main demands for new services are created by:

- Community expectations.
- Tourism.
- Community age demographic.
- Regulatory changes to legislation and standards.

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

1.5 Lifecycle Management Plan

What does it Cost?

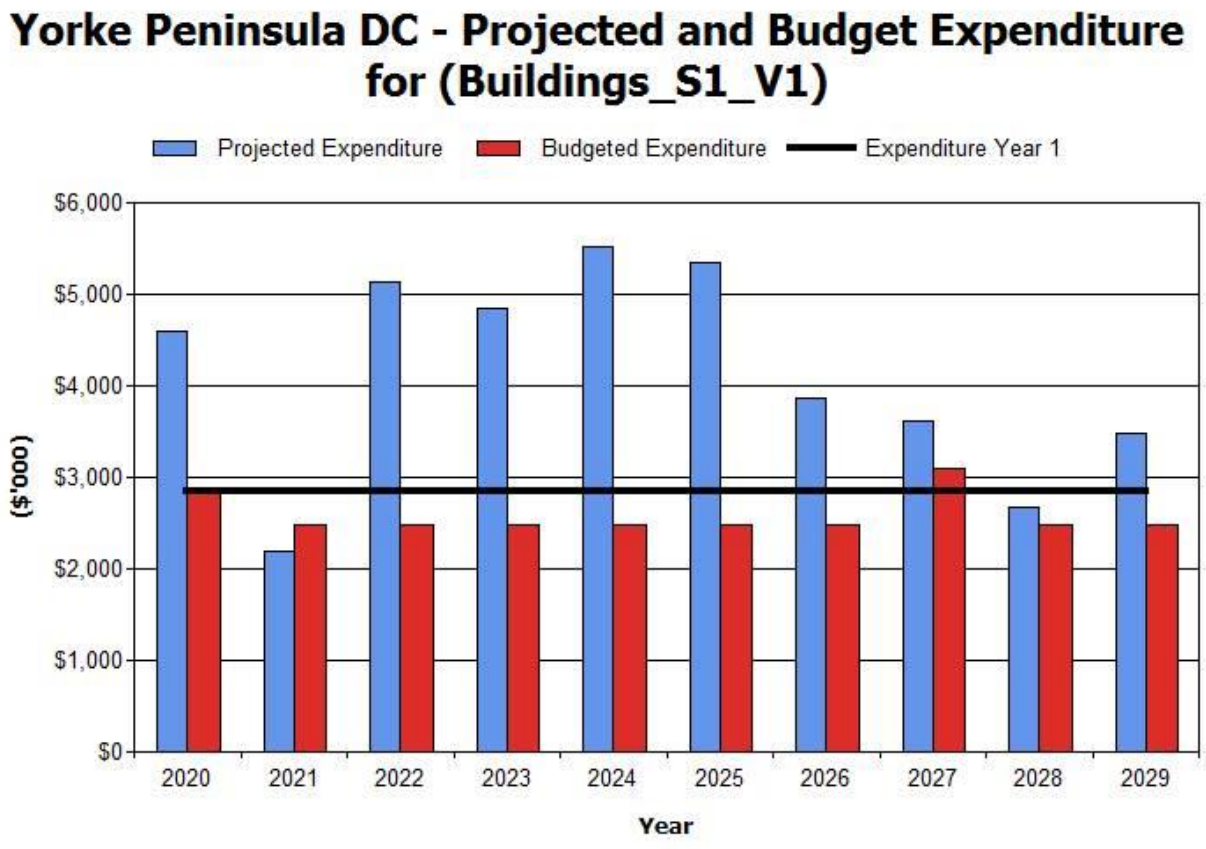
The projected outlays necessary to provide the services covered by this Asset Management Plan (AMP) includes operations, maintenance, renewal and upgrade of existing assets over the 10-year planning period is **$41.2 million** or **$4.1 million** on average per year.

1.6 Financial Summary

What we will do

Estimated available funding for this period is **$25.8 million** or **$2.6 million** on average per year which is **63%** of the cost to provide the service. This is a funding shortfall of **$1.5 million** on average per year. Projected expenditure required to provide services in the AMP compared with planned expenditure currently included in the Long Term Financial Plan (LTFP) are shown in the figure below.

Projected Operating and Capital Expenditure



We plan to provide Buildings and Other Structure services for the following:

- Operation, maintenance, renewal and upgrade of Buildings and Other Structures assets, as outlined in Table 2.1, to meet service levels set by Council in annual budgets.

What we cannot do

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

- Renewal and Upgrade all Buildings and Other Structures assets when required.

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:

- Failure to maintain Buildings and Other Structures at a safe and serviceable standard
- Failure to undertake regular inspections of Buildings and Other Structures
- Increased maintenance and servicing costs

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

- Ensuring sufficient funding to maintain the assets at an appropriate level.
- Prioritise all works required.
- Document all inspections and complaints.

1.7 Asset Management Practices

Our systems to manage assets include:

- Civica Authority
- Conquest

1.8 Monitoring and Improvement Program

The next steps resulting from this AMP to improve asset management practices are:

- Undertake the Improvement Plan as set out in Table 8.1.

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2. INTRODUCTION

2.1 Background

This AMP communicates the actions required for the responsive management of assets (and services provided from assets), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

This AMP follows the format recommended in Section 4 of the International Infrastructure Management Manual[1].

This AMP is to be read in conjunction with Council's Asset Management Policy, and the following associated planning documents (available on Council's website or upon request):

- Yorke Peninsula Council Strategic Management Plan 2016 – 2020
- Yorke Peninsula Council Long Term Financial Plan
- Yorke Peninsula Council Annual Business Plan and Budget
- Yorke Peninsula Council Land, Buildings and Structures Valuation – Financial Reporting

The infrastructure assets covered by this AMP are shown in Table 2.1. These assets are used to provide Buildings and Other Structures services to the community.

Table 2.1: Assets covered by this Plan

Asset Category	Dimension	Replacement Value
Building Asset Types	Building (no components) Building (with components) • External Structure • External Structure (Roof) • Internal Structure • External Finishes • Internal Finishes • Building Services	$85,706,724
Structure Asset Types	Structure (5 year life) Structure (10 year life) Structure (15 year life) Structure (20 year life) Structure (25 year life) Structure (30 year life) Structure (40 year life) Structure (50 year life) Structure (60 year life) Structure (80 year life) Structure (100 year life)	$10,979,128
TOTAL		**$96,685,852**

[1] IPWEA, 2015, Sec 4.2, Example of an Asset Management Plan Structure, pp 4|37 – 39.

Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.1.

Table 2.1.1: Key Stakeholders in the AMP

Key Stakeholder	Role in Asset Management Plan
Councillors	• Represent needs of community, • Allocate resources to meet the organisation's objectives in providing services while managing risks, • Ensure Council is financially sustainable.
Corporate Management Team	Endorse the development of AMPs and provide resources required to complete this task. Set high level priorities for asset management development in Council and raise the awareness of this function among Council staff and contractors. Support the implementation of actions resulting from this plan and be prepared to make changes to a better way of managing assets and delivering services. Support for an asset management driven budget and LTFP.
Staff	Manage the infrastructure with resources provided by Council within the allocated budget.

2.2 Goals and Objectives of Asset Ownership

Council exists to provide services. 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
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be financed.[2]

Key elements of the planning framework are

- Levels of service – specifies the services and levels of service to be provided,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Life cycle management – how to manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices – how we manage provision of the services,
- Monitoring – how the plan will be monitored to ensure objectives are met,
- Asset management improvement plan – how we increase asset management maturity.

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

- International Infrastructure Management Manual 2015[3]
- ISO 55000[4]

[2] Based on IPWEA 2015 IIMM, Sec 1.3, p 1| 8
[3] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[4] ISO 55000 Overview, principles and terminology

2.3 Core and Advanced Asset Management

This AMP is prepared as a 'core' AMP over a 20 year planning period in accordance with the International Infrastructure Management Manual[5]. It is prepared to meet minimum legislative and user 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 AMP will move towards 'advanced' asset management using a 'bottom up' approach for gathering detailed asset information for individual assets to support the provision of activities and programs to meet agreed service levels in a financially sustainable manner.

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[5] IPWEA, 2015, IIMM.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

The Council has not carried out any research on customer expectations. This will be investigated for future updates of the AMP.

3.2 Strategic and Corporate Goals

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

Our vision is:

We will foster opportunities to support and enhance Yorke Peninsula which is valued for its natural beauty, rich agriculture, spectacular coastline and unique blend of seaside and rural lifestyles.

Relevant goals and objectives and how these are addressed in this AMP are:

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

Goal	Objective	How Goal and Objectives are addressed in AMP
Community Connected through Infrastructure	Develop and deliver on AMPs for all asset classes	Buildings and Other Structures AMP developed and adopted by Council
Community Connected through Infrastructure	Explore Provision of new infrastructure	New infrastructure provided as per an adopted Buildings and Other Structures AMP

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 AMP. Management of infrastructure risks is covered in Section 6.

3.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a LTFP supported by AMPs for sustainable service delivery.
SA Public Health Act and Regulations	Promote and to provide for the protection of the health of the public of South Australia and to reduce the incidence of preventable illness, injury and disability.
Building Code of Australia	A uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia.
Development Act and Regulations	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate; and for other purposes
Environment Protection Act	Provides for the protection of the environment.
Work Health and Safety Act and Regulations	To provide for the health, safety and welfare of persons at work.

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3.4 Community Levels of Service

Service levels are defined in two terms, community levels of service and technical levels of service. These are supplemented by organisational measures.

Community Levels of Service measure how the community receives the service and whether value to the community is provided.

Community levels of service measures used in the AMP are:

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

Function Is it suitable for its intended purpose …. *Is it the right service?*

Capacity/Use Is the service over or under used … *do we need more or less of these assets?*

The Council's current and expected community service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the expected levels of service based on resource levels in the current long-term financial plan.

Organisational measures are measures of fact related to the service delivery outcome. e.g. number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very good.

These provide a balance compared to community perception that can be more subjective.

Table 3.4: Community Level of Service

	Expectation	Performance Measure Used	Current Performance	Expected Position in 10 Years based on the current budget.
Service Objective: Provide and maintain Buildings & Other Structures to fulfil community expectations.				
Quality	Provide Buildings & Other Structures of an appropriate standard and quality.	Customer Service Requests and other correspondence.	<150 per year	To be determined.
	Confidence level		Medium	Medium
Function	Provide Buildings & Other Structures that meet user requirements. Meets relevant legislative requirements.	Customer Service Requests and other correspondence. Complies with legislative requirements.	<150 per year Complies with legislative requirements.	To be determined. Continuing to comply with legislative requirements.
	Confidence level		Medium	Medium
Capacity and Use	Buildings & Other Structures meet required levels of capacity and usage.	Customer Service Requests and other correspondence.	Current capacity adequate. Many buildings are underutilised.	To be determined.
	Confidence level		Medium	Medium

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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 to best achieve the desired community outcomes and demonstrate effective performance.

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

- Operations – the regular activities to provide services (e.g. opening hours, cleaning, energy, inspections, etc.).
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. building and structure repairs),
- Renewal – the activities that return the service capability of an asset up to that which it had originally (e.g. building component replacement),
- Upgrade/New – the activities to provide a higher level of service or a new service that did not exist previously (e.g. a new library).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.[6]

Table 3.5 shows the technical levels of service expected to be provided under this AMP. The "Desired" position in the table documents the position being recommended in this AMP.

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

Table 3.5: Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
TECHNICAL LEVELS OF SERVICE				
Operations	Buildings & Other Structures meets user and regulatory requirements.	Inspections of Buildings & Other Structures.	Adhoc inspections of buildings and structures.	Annual condition and defect inspection of Buildings & Other Structures.
Operational Cost			Budget - Current	Budget – To be determined
Maintenance	Buildings & Other Structures maintained and meet regulatory requirements.	Regular maintenance program and Customer Service Requests completed in a reasonable time frame.	Planned maintenance is undertaken as and where required. Customer Service Requests are actioned in a time frame determined by their priority.	Maintenance is undertaken as planned and required.
Maintenance Cost			Budget - Current	Budget – To be determined
Renewal	Renewal of Buildings & Other Structures assets as required and at the optimum time frame.	Assets renewed as per current renewal program and budget.	Renewal work is planned or budgeted.	Identified renewal work funded each year as per adopted Capital Renewal Program.
Renewal Cost			Budget – To be reviewed	Budget – Annual Capital Renewal Program from AMP
Upgrade/ New	Upgrade of Buildings & Other Structures assets are identified through inspections, design, new technology and community consultation.	Assets are upgraded as per current upgrade program and budget.	Planned upgrade work is undertaken as per current upgrade program and budget.	Identified upgrade work funded each year as per adopted Capital Upgrade/New Program.
Upgrade/New Cost			Budget – Current (reviewed annually)	Budget – Current (reviewed annually)

Note: * Current activities and costs (currently funded).

** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded).

It is important to monitor the service levels provided regularly as these will change. The current performance is influenced by work efficiencies and technology, and community priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

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4. FUTURE DEMAND

4.1 Demand Drivers

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

4.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets 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 use 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	11278 (2016 Census)	No or minimal growth	No impact on services.
Demographics	High proportion of population aged 55-64 years (18.3%) and 65-74 years (18.2%)	Increased aging population	Changing nature of services delivered from facilities. Access/Mobility considerations.
Regulatory changes to Buildings & Other Structures standards and guidelines.	Regulatory standards are managed by Development Services staff.	Additional operational and reporting requirements.	Not identified.

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4.4 Demand Management Plan

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

Non-asset solutions focus on providing the required service without the need for asset ownership 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[7]. Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

Opportunities for demand management will be developed in future revisions of this AMP.

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments, donated or constructed by the Council. New assets are discussed in Section 5.5.

[7] IPWEA, 2015, IIMM, Table 3.4.1, p 3|89.

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 managing life cycle costs.

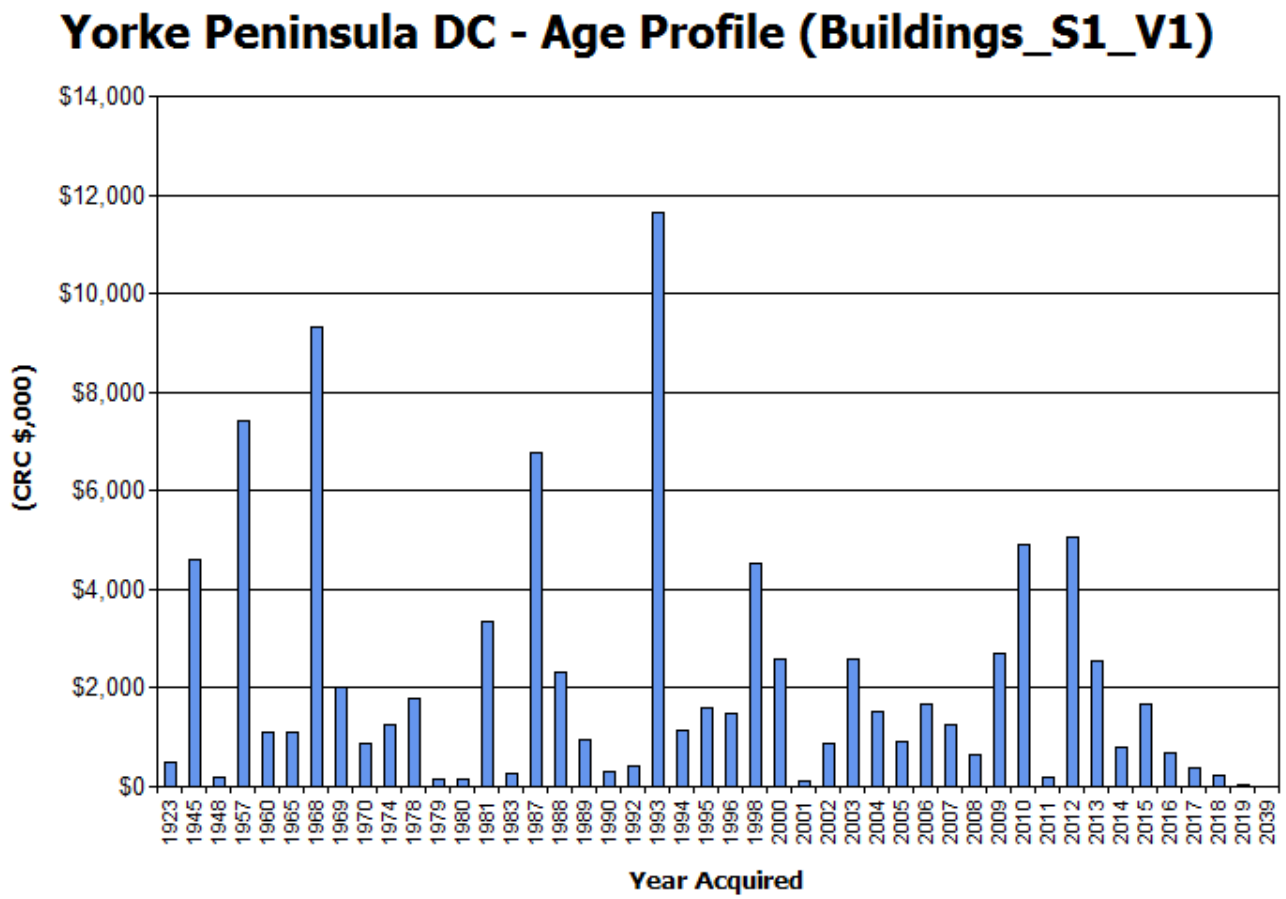
5.1 Background Data

5.1.1 Physical parameters

The assets covered by this AMP are shown in Table 2.1.

The age profile of the assets included in this AMP are shown in Figure 2. The age profile has been determined by taking the useful life from the expiry date which have been assigned to each asset through valuation, this will continue to be developed.

Figure 2: Asset Age Profile



Plans showing the Buildings and Other Structures assets are located in:

- Council's Record Management System

5.1.2 Asset capacity and performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Buildings (various locations)	Some buildings do not meet access and facility requirements for persons with a disability

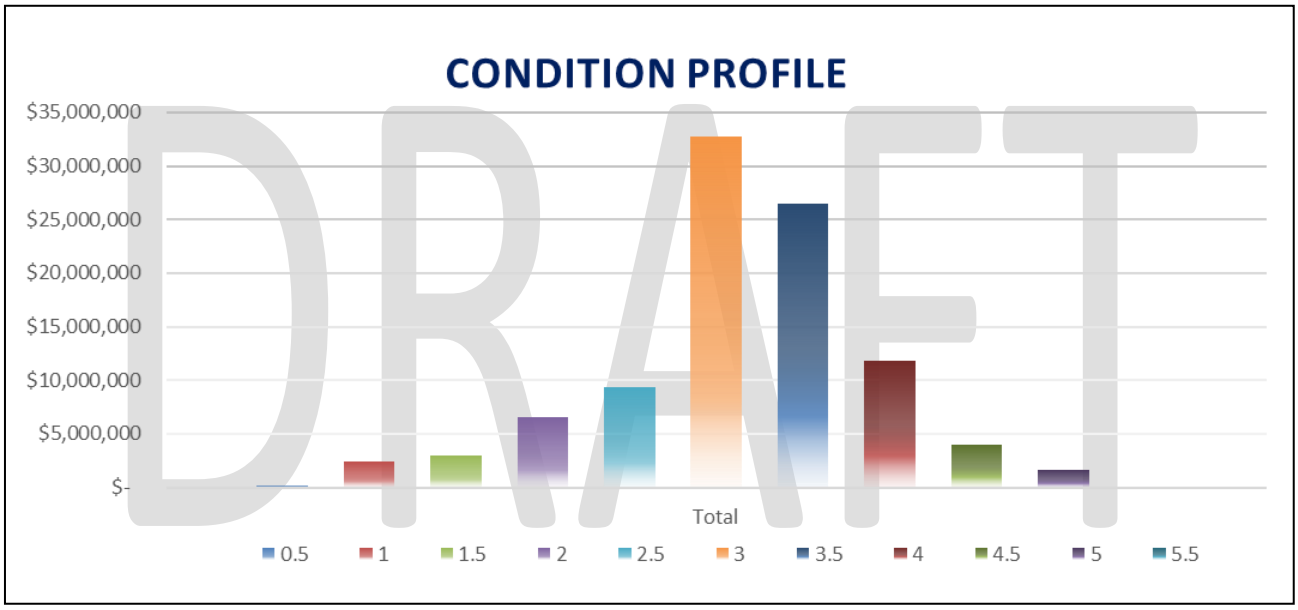
The above service deficiencies were identified from maintenance records and customer service requests.

5.1.3 Asset condition

Condition is not currently monitored in a formal way

The condition profile of our assets is shown in Figure 3. The condition data used for this profile was collected as part of the Yorke Peninsula Council Land, Buildings and Structures Valuation – Financial Reporting.

Fig 3: Asset Condition Profile



Condition has been measured using a 0.5 – 5.5 grading system[8] as detailed in Table 5.1.3.

Table 5.1.3: Condition Rating Model

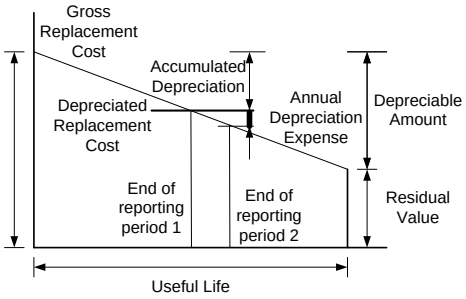
Condition Rating	Condition Description
0.5	A brand new asset still under construction or recently completed where depreciation has not yet accrued.
1	New or as new condition.
2	Very good condition / well maintained.
3	Minor maintenance required.
4	Substantial maintenance or restoration required.
5	Very poor – unserviceable.
5.5	An asset that has reached the end of its Total Useful Life and is no longer depreciating.

[8] Yorke Peninsula Council Land, Buildings and Structures Valuation – Financial Reporting.

5.1.4 Asset valuations

The value of assets recorded in the asset register as at **30th June 2019** covered by this AMP is shown below. Assets were last revalued at **1st July 2018**. Assets are valued at Current Replacement Cost (CRC) of an asset minus any accumulated depreciation and impairment losses.

Gross Replacement Cost	**$96,686,000**
Depreciable Amount	**$96,686,000**
Depreciated Replacement Cost[9]	**$43,236,000**
Annual Average Asset Consumption	**$2,672,000**



Useful lives were reviewed by Council staff and consultants as part of a revaluation process during the **2018/19 financial year**, and are also reviewed annually.

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 **2.8%**

(Depreciation/Depreciable Amount)

Rate of Annual Asset Renewal **0.2%**

(Capital renewal expenditure/Depreciable amount)

In **2019/20** Council will renew assets at **6%** of the rate they are being consumed and will be increasing its asset stock by **0.1%** in the year.

5.1.5 Historical Data

Historical data, on Council's Buildings & Other Structures can be located in Council's offices and records management system.

5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, e.g. cleaning and lighting.

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.

5.2.1 Operations and Maintenance Plan

Operations activities affect service levels including quality and function through the types and timing of activities, and the design of the infrastructure. Examples of these include the cleaning frequency and opening hours of building and other facilities.

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. building repairs but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

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

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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 through 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.

Specific maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past and budgeted operations and maintenance expenditure is shown in Table 5.2.1.

Table 5.2.1: Operations and Maintenance Expenditure Trends

Year	Maintenance Expenditure
2017/18	$2.1 million
2018/19	$2 million
2019/20	$2.6 million

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

Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

5.2.2 Operations and Maintenance Strategies

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 use to identify under used assets and appropriate remedies, and over used 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 best value for the 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 and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is Table 5.3.2.

Table 5.2.2: Asset Service Hierarchy

Service Hierarchy	Service Level Objective
Building Asset Types	Provision of "fit for purpose", and suitable buildings and other structures. Ensure buildings and other structures meet community expectations and required levels of capacity and usage. Ensure buildings and other structures are compliant and minimise risk to the community.
Structure Asset Types	As above

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, Council can target and refine investigative activities, maintenance plans and capital expenditure plans can be targeted at the appropriate time.

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc. Critical assets failure modes and required operations and maintenance activities will be developed in future versions of this AMP.

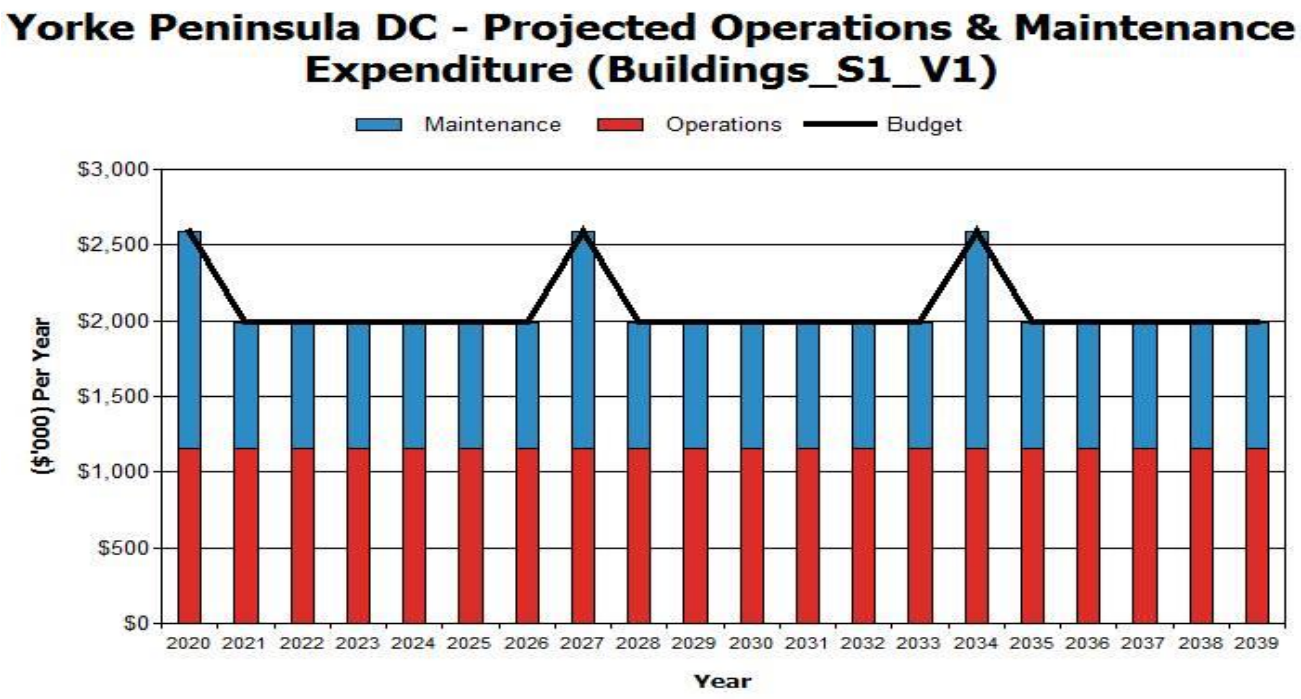
Standards and specifications

Maintenance work is carried out in accordance with relevant Legislation, Standards and Specifications.

5.2.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4. Note that all costs are shown in current **2019/20** dollar values (i.e. real values).

Figure 4: Projected Operations and Maintenance Expenditure



Deferred maintenance, i.e. works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the infrastructure risk management plan.

Maintenance is funded from the operating budget where available. This is further discussed in Section 7.

5.3 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 service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure resulting in additional future operations and maintenance costs.

5.3.1 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'.

Method 1 was used for this AMP.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.3.1. Asset useful lives were last reviewed as part of a revaluation process during the **2018/19 financial year**.[10]

Table 5.3.1: Useful Lives of Assets

Asset (Sub)Category	Useful life
Building (no components)	20 to 100 years
Building (with components)	10 to 100 years
Structure	5 to 100 years

5.3.2 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 options that could address the service deficiency,
  - and evaluate the options against adopted evaluation criteria, 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 Council,

[10] Yorke Peninsula Council Land, Buildings and Structures Valuation – Financial Reporting

- 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 best value for resources used is obtained.

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. maintain electrical infrastructure), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. air conditioning).[11]

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 use and subsequent impact on users would be greatest,
- The total value represents the greatest net value,
- Have the highest average age relative to their expected lives,
- Are identified in the AMP as key cost factors,
- Have high operational or maintenance costs, and
- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.[12]

A ranking criteria guide used to determine priority of identified renewal and replacement proposals will be developed in future versions of this AMP.

Renewal and replacement standards

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

- Compliance with legislation and regulations
- Relevant Australian standards

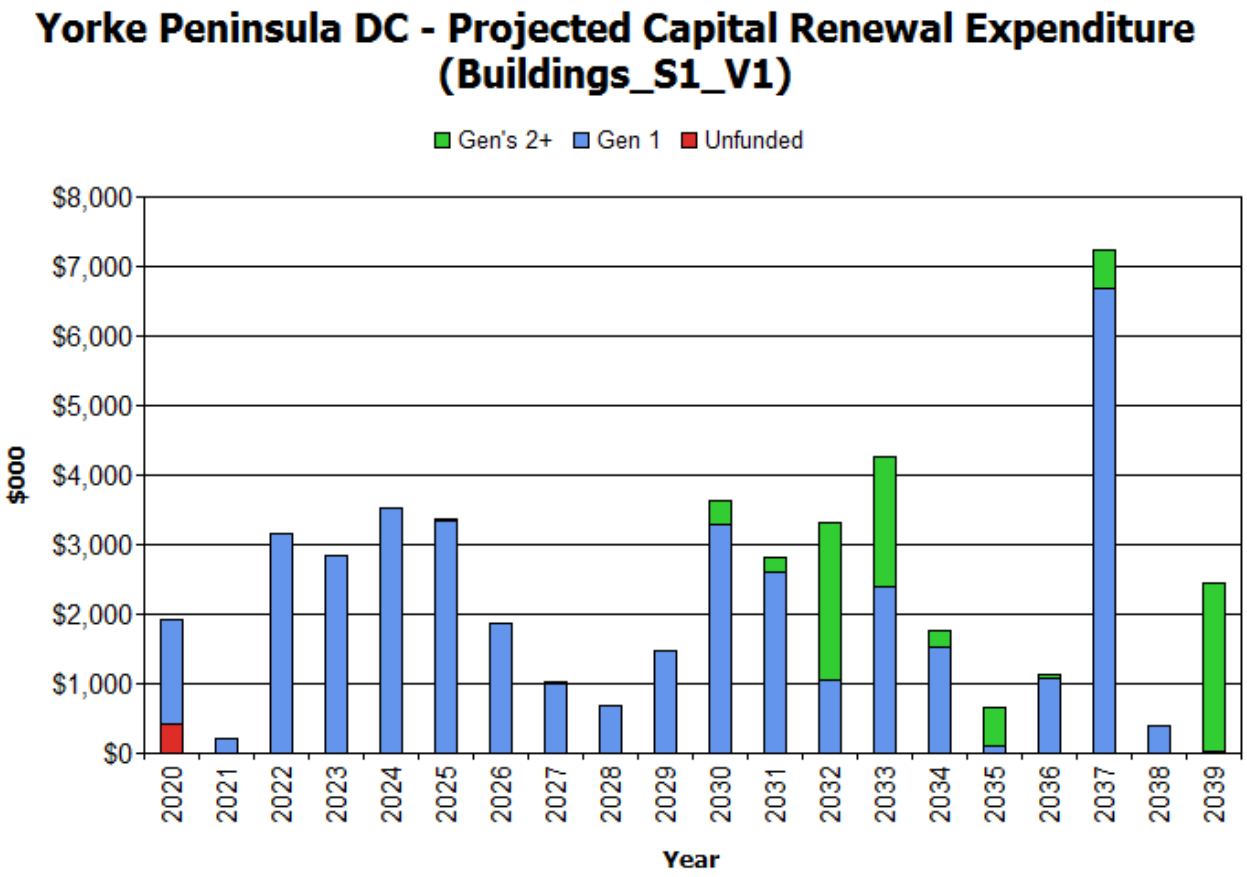
5.3.3 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditure is forecast to increase over time when the asset stock increases. The expenditure required is shown in Fig 5. Note that all amounts are shown in real values. Gen 2 assets shown in Figure 5 are assets with a useful life of less than 20 years, which means they will be replaced twice during the reporting period.

The projected capital renewal and replacement program is shown in Appendix B.

[11] IPWEA, 2015, IIMM, Sec 3.4.4, p 3|91.
[12] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

Fig 5: Projected Capital Renewal and Replacement Expenditure



Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in Council's capital works program will be accommodated in the LTFP. This is further discussed in Section 7.

5.4 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost. These additional assets are considered in Section 4.4.

5.4.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor, officer or community requests, proposals identified by strategic plans or partnerships with others. 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. A priority ranking criteria guide will be developed in future versions of this AMP.

5.4.2 Capital Investment Strategies

Capital upgrade and new projects will be planned 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,

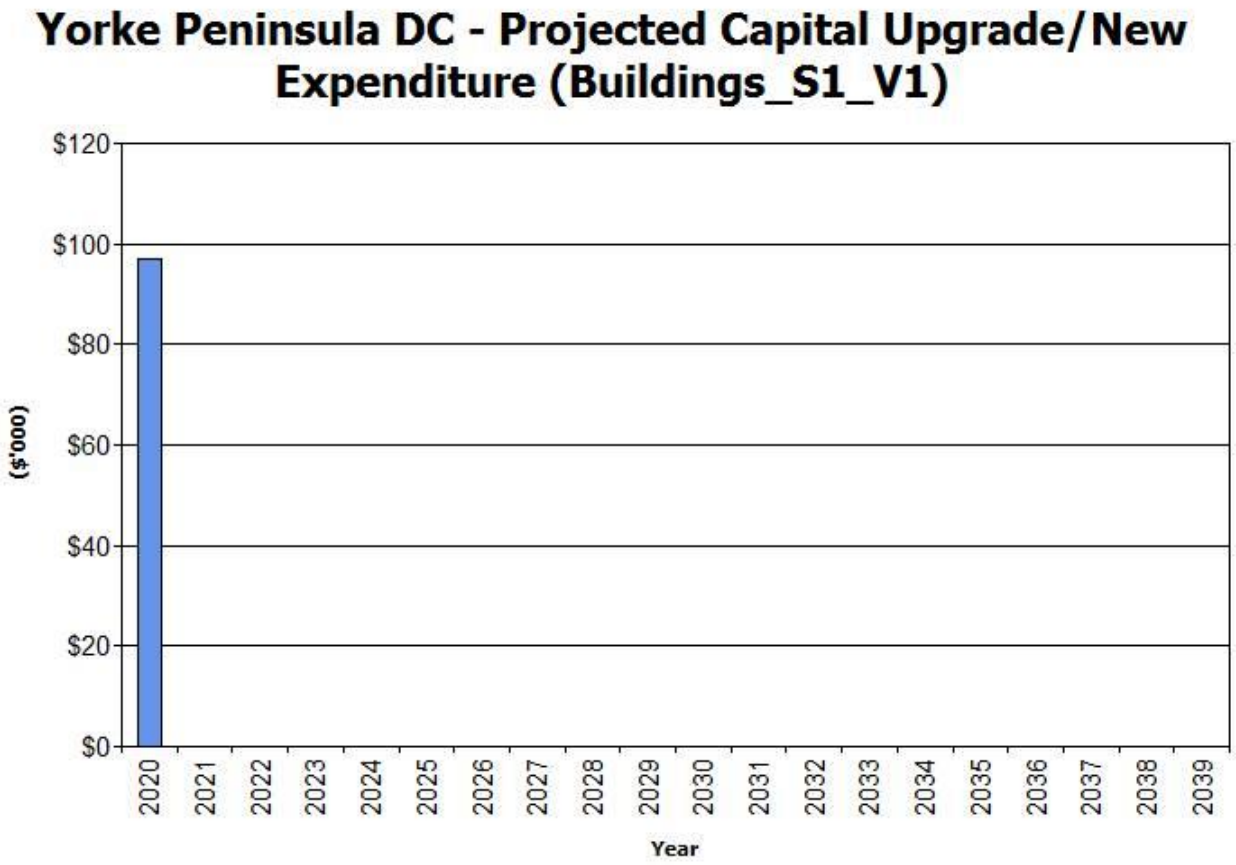
- Undertake project scoping for all capital upgrade/new projects to identify:
    - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
    - the project objectives to rectify the deficiency including value management for major projects,
    - 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 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.

5.4.3 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Fig 6. Newly identified upgrade/new projects will be presented to Council for consideration during the budget process each year. 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 LTFP. This is further discussed in Section 7.2.

5.5 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal, together with estimated annual savings from not having to fund operations and maintenance of the assets are not known at this stage. Any costs or revenue gained from asset disposals is accommodated in the LTFP.

Where cash flow projections from asset disposals are not available, these will be developed in future revisions of this AMP.

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6. RISK MANAGEMENT PLAN

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

Risk Management is defined in ISO 31000:2018 as: "coordinated activities to direct and control an organisation with regard to risk"[13].

An assessment of risks[14] 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 shock'. 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.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Similarly, critical failure modes are those which have the highest consequences.

Research on critical assets has not yet been undertaken. This will be investigated in future updates of the AMP.

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

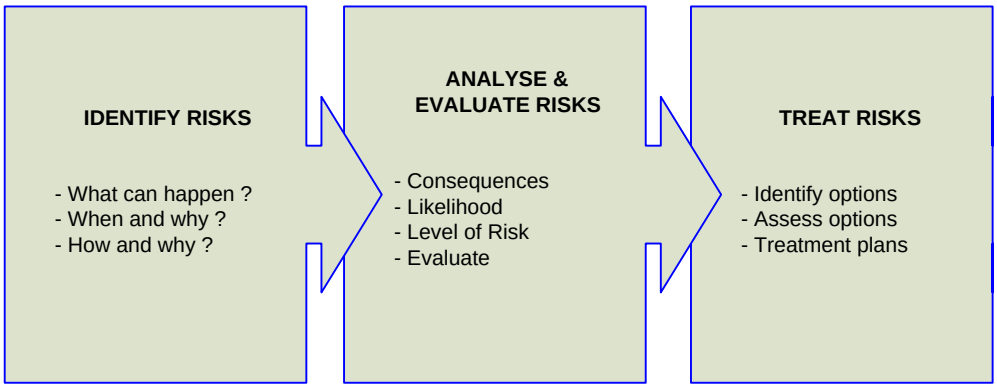
6.2 Risk Assessment

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

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

The process is based on the fundamentals of ISO risk assessment standard ISO 31000:2018.

Fig 6.2 Risk Management Process – Abridged



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.

[13] ISO 31000:2018, p 1

[14] Yorke Peninsula Council Risk Management Plan is currently being developed.

An assessment of risks[15] associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, 'financial shock' or a reduction in service.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) rating identified in the Infrastructure Risk Management Plan. The residual risk and treatment cost after the selected treatment plan is operational is shown in Table 6.2. These risks and costs are reported to management and Council.

Table 6.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Buildings & Other Structures	Exposure to asbestos		Annual inspection of buildings and other structures with asbestos. Removal of asbestos, if required, from buildings and other structures as per Asbestos Management Plan.		Current Budget / Annual Budget Consideration
Buildings & Other Structures	Legislative non-compliance		Inspection for fire and safety provisions and other legislative compliance		Current Budget

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

The risk assessment process compares the likelihood of a risk event occurring against the consequences of the event occurring. In the risk rating table below, a risk event with a likelihood of 'Possible' and a consequence of 'Major' has a risk rating of 'High' as shown in Table 6.3

Table 6.3: Yorke Peninsula Council Risk Rating Matrix

Risk Matrix Consequence and Reporting Action						
Likelihood		Insignificant	Minor	Moderate	Major	Catastrophic
	Almost Certain	Moderate	High	High	Extreme	Extreme
	Likely	Moderate	Moderate	High	Extreme	Extreme
	Possible	Low	Moderate	Moderate	Extreme	Extreme
	Unlikely	Low	Low	Moderate	High	Extreme
	Rare	Low	Low	Moderate	High	High

[15] Critical Risks and Treatment in Table 5.2 have been identified but not assessed.

Risk Level	**Residual Risk Appetite** (action required to be taken once the Risk Level is established)	**WHS Specific Residual Risk Appetite**
Extreme (E)	**To be avoided.** Where possible exposure to the risk should be discontinued or provided appropriate controls and treatment strategies are in place.	Operation of plant/ **activity should not be allowed to continue** until appropriate controls and treatment strategies are in place.
High (H)	**May be acceptable** provided, where possible, appropriate controls and treatment strategies are in place.	Operation of plant/ **activity should not be allowed to continue** until appropriate controls and treatment strategies are in place.
Moderate (M)	**Acceptable** provided, where possible, appropriate controls and treatment strategies are in place.	**May be acceptable** provided appropriate controls and treatment strategies are in place.
Low (L)	**Acceptable** with review	**Acceptable** provided appropriate controls and treatment strategies are in place.

Risk Level	Reporting Requirements
Extreme (E)	Line management – Live Intranet reports Department Director – Live Intranet reports CMT – Manager People and Culture to provide monthly reports WHS Committee - Manager People and Culture to provide reports at each meeting Audit Committee - Manager People and Culture to provide reports at each meeting
High (H)	Line management – Live Intranet reports Department Director – Live Intranet reports CMT – Manager People and Culture to provide monthly reports WHS Committee - Manager People and Culture to provide reports at each meeting
Moderate (M)	Line management – Live Intranet reports Department Director – Live Intranet reports WHS Committee - Manager People and Culture to provide reports at each meeting
Low (L)	Line management – Live Intranet reports Department Director – Live Intranet reports WHS Committee - Manager People and Culture to provide reports at each meeting

Ref: Yorke Peninsula Council Risk Management Policy (PO091).

6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

To enhance our capacity to manage unforeseen or unexpected risk to the continuity of operations we take an infrastructure resilience approach using an 'all hazards' methodology.

The 'all-hazards' approach involves:

- An initial assessment of critical assets;
- A resilience assessment for these assets; and

- Identification of related improvements or interventions

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our measure of resilience will be developed in future updates of this AMP.

6.4 Service and Risk Trade-Offs

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

Options were considered based on the development of 3 scenarios.

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 and risk consequences (i.e. what are the operations and maintenance and capital 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 AMP 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).

This AMP has been developed using **Scenario 1**.

6.4.1 What we cannot do

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

- Upgrade and renew all Buildings and Other Structures assets when required.

These actions and expenditures are considered in the projected expenditures.

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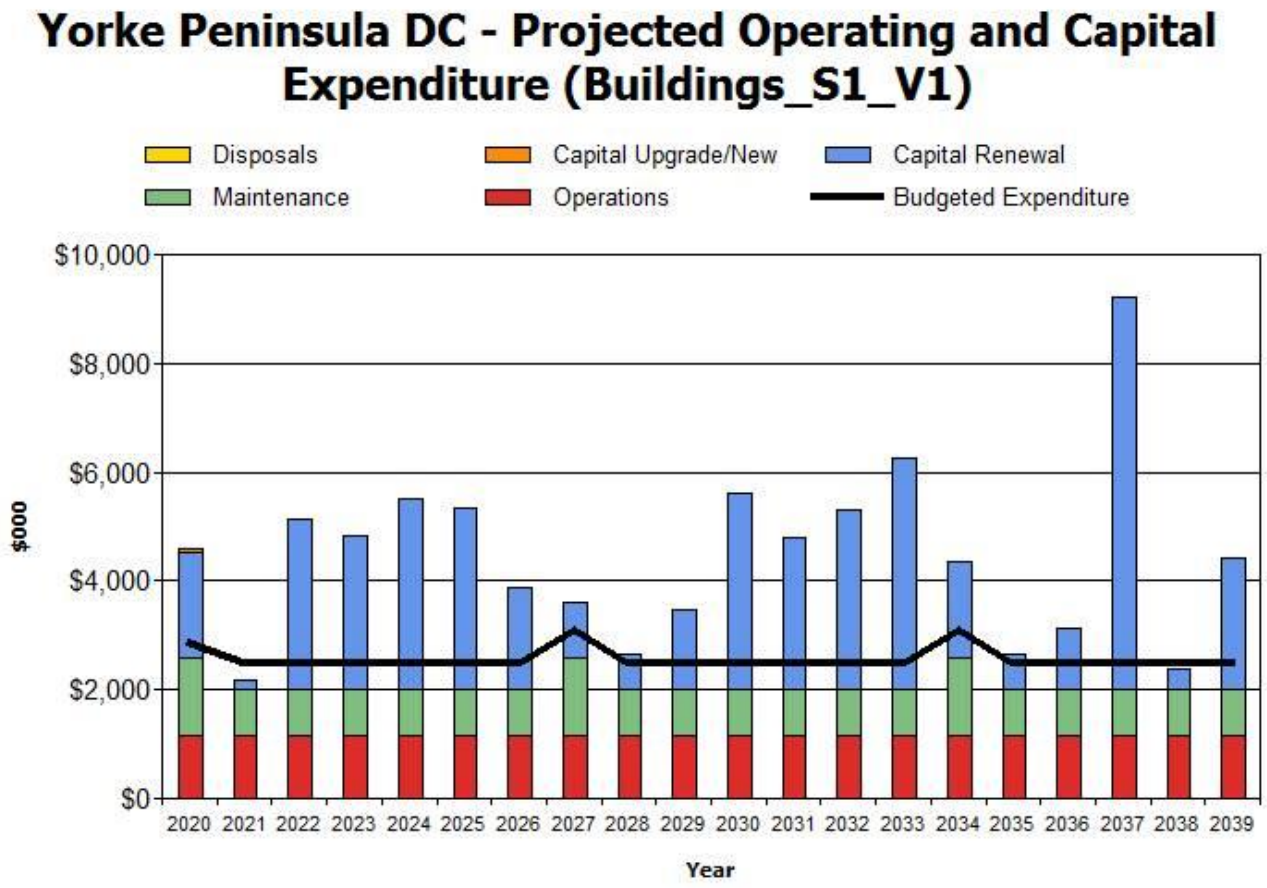
7. FINANCIAL SUMMARY

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

7.1 Financial Statements and Projections

The financial projections are shown in Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

Fig 7: Projected Operating and Capital Expenditure



7.1.1 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[16] **23%**

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years of the forecasting that we will have 23% of the funds required for the optimal renewal and replacement of assets.

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

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 AMP is **$4.7 million** 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 **$2.5 million** 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 AMP is **$2.2 million** per year.

Life cycle expenditure is **54%** 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 in providing services to their communities in a financially sustainable manner. This is the purpose of the AMPs and LTFP.

Medium term – 10 year financial planning period

This AMP 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 AMP, 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 **$4.1 million** on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is **$2.6 million** on average per year giving a 10 year funding shortfall of **$1.5 million** per year. This indicates **63%** of the projected expenditures needed to provide the services documented in the AMP.

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 **$4.4 million** on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is **$2.5 million** on average per year giving a 5 year funding shortfall of **$1.9 million** per year. This indicates that **57%** of projected expenditures required to provide the services shown in this AMP.

Asset management financial indicators

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

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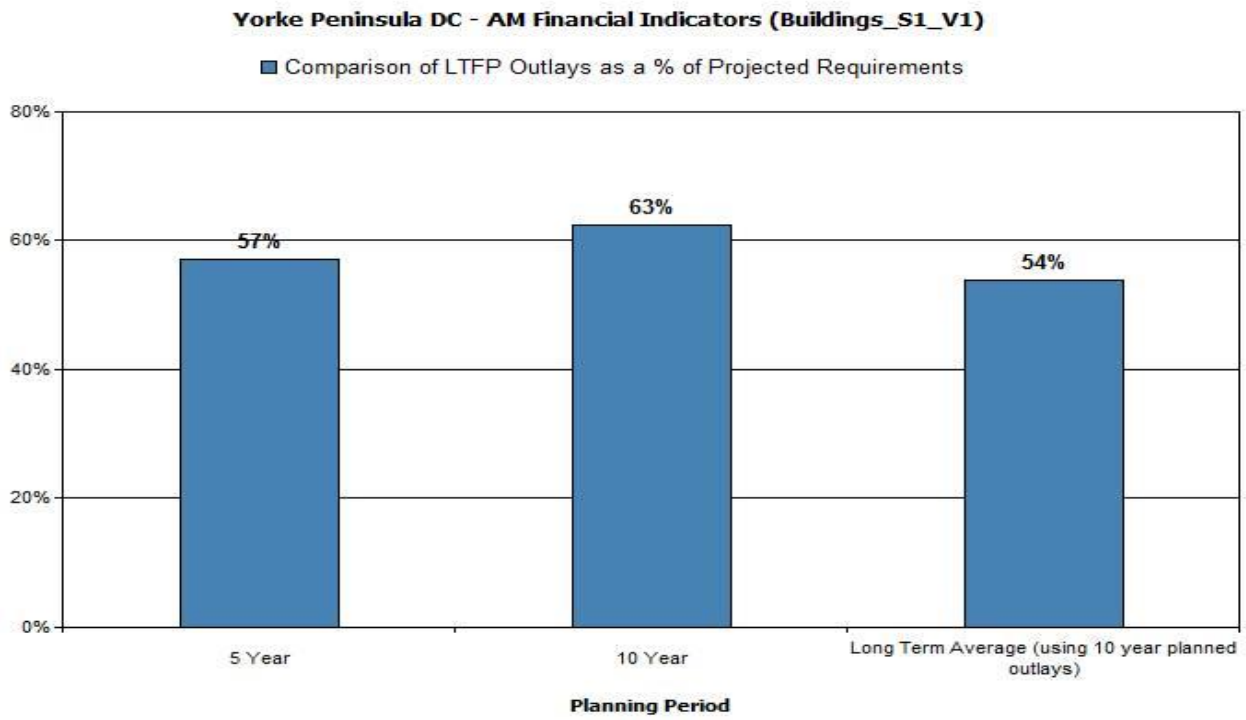
Figure 7A: Asset Management Financial Indicators



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 AMP and ideally over the 10-year life of the LTFP.

Figure 8 shows the projected asset renewal and replacement expenditure over the 20 years of the AMP. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the LTFP.

Figure 8: Projected and LTFP Budgeted Renewal Expenditure

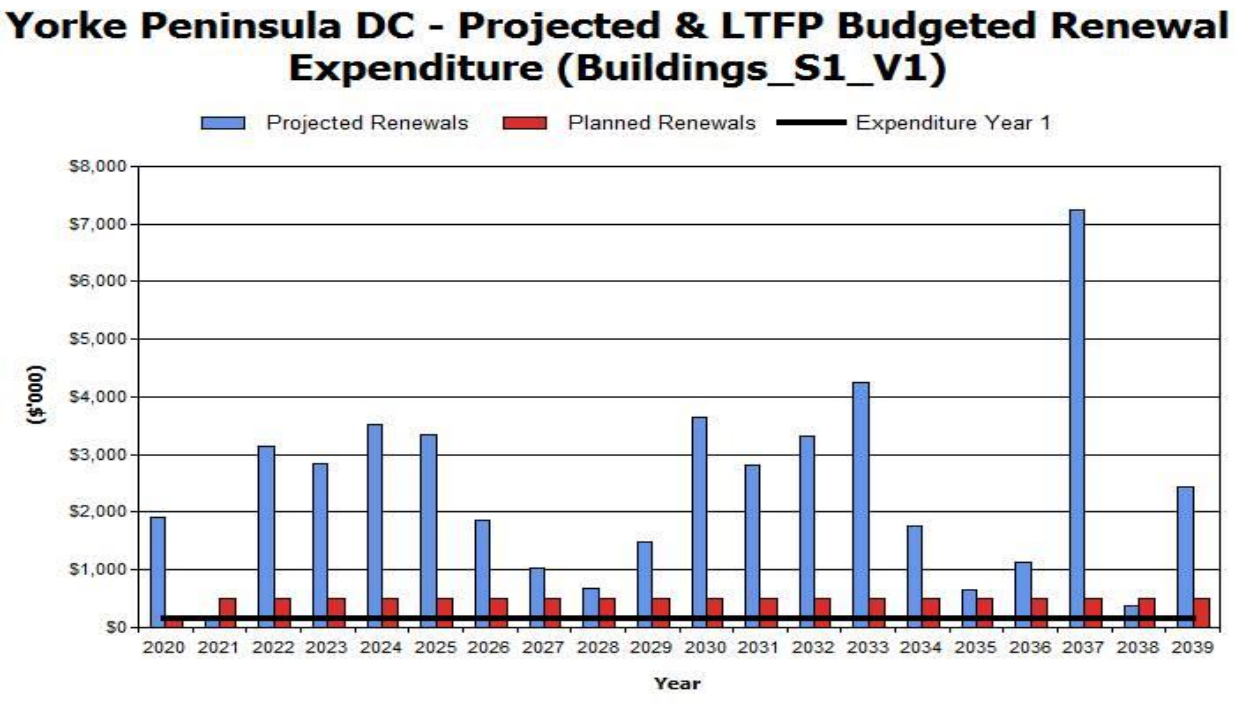


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Table 7.1.1 shows the shortfall between projected renewal and replacement expenditures and expenditure in the LTFP. Budget expenditures accommodated in the LTFP or extrapolated from current budgets are shown in Appendix D.

Table 7.1.1: Projected and LTFP Budgeted Renewals and Financing Shortfall

Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2020	$1,920	$160	$-1,760	$-1,760
2021	$203	$500	$297	$-1,463
2022	$3,153	$500	$-2,653	$-4,117
2023	$2,855	$500	$-2,355	$-6,472
2024	$3,531	$500	$-3,031	$-9,503
2025	$3,356	$500	$-2,856	$-12,359
2026	$1,873	$500	$-1,373	$-13,732
2027	$1,025	$500	$-525	$-14,257
2028	$674	$500	$-174	$-14,431
2029	$1,483	$500	$-983	$-15,414
2030	$3,637	$500	$-3,137	$-18,552
2031	$2,808	$500	$-2,308	$-20,860
2032	$3,327	$500	$-2,827	$-23,687
2033	$4,262	$500	$-3,762	$-27,449
2034	$1,772	$500	$-1,272	$-28,721
2035	$648	$500	$-148	$-28,868
2036	$1,125	$500	$-625	$-29,493
2037	$7,239	$500	$-6,739	$-36,232
2038	$385	$500	$115	$-36,117
2039	$2,447	$500	$-1,947	$-38,064

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with **the corresponding** capital works program accommodated in the LTFP.

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 AMP (including possibly revising the LTFP)** before adopting the AMP to manage required service levels and funding to eliminate any funding gap.

We will manage the 'gap' by developing this AMP 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.

7.1.2 Projected expenditures for long term financial plan

Table 7.1.2 shows the projected expenditures for the 10 year LTFP.

Expenditure projections are in **2019/20** real values.

Table 7.1.2: Projected Expenditures for LTFP ($000)

Year	Operations ($000)	Maintenance ($000)	Projected Capital Renewal ($000)	Capital Upgrade/ New ($000)	Disposals ($000)
2020	$1,157	$1,431	$1,920	$97	$0
2021	$1,158	$832	$203	$0	$0
2022	$1,158	$832	$3,153	$0	$0
2023	$1,158	$832	$2,855	$0	$0
2024	$1,158	$832	$3,531	$0	$0
2025	$1,158	$832	$3,356	$0	$0
2026	$1,158	$832	$1,873	$0	$0
2027	$1,158	$1,432	$1,025	$0	$0
2028	$1,158	$832	$674	$0	$0
2029	$1,158	$832	$1,483	$0	$0
2030	$1,158	$832	$3,637	$0	$0
2031	$1,158	$832	$2,808	$0	$0
2032	$1,158	$832	$3,327	$0	$0
2033	$1,158	$832	$4,262	$0	$0
2034	$1,158	$1,432	$1,772	$0	$0
2035	$1,158	$832	$648	$0	$0
2036	$1,158	$832	$1,125	$0	$0
2037	$1,158	$832	$7,239	$0	$0
2038	$1,158	$832	$385	$0	$0
2039	$1,158	$832	$2,447	$0	$0

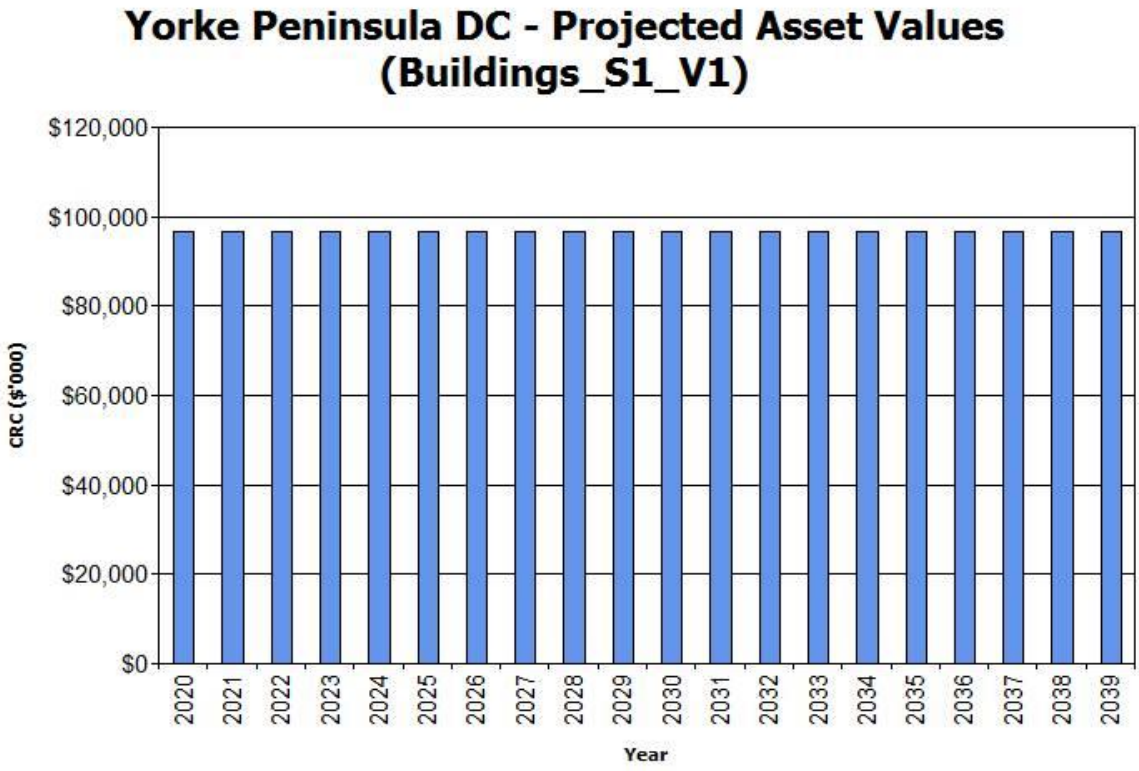
7.2 Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability projected expenditures identified in Section 7.1.2 will be accommodated in the 10 year LTFP.

7.3 Valuation Forecasts

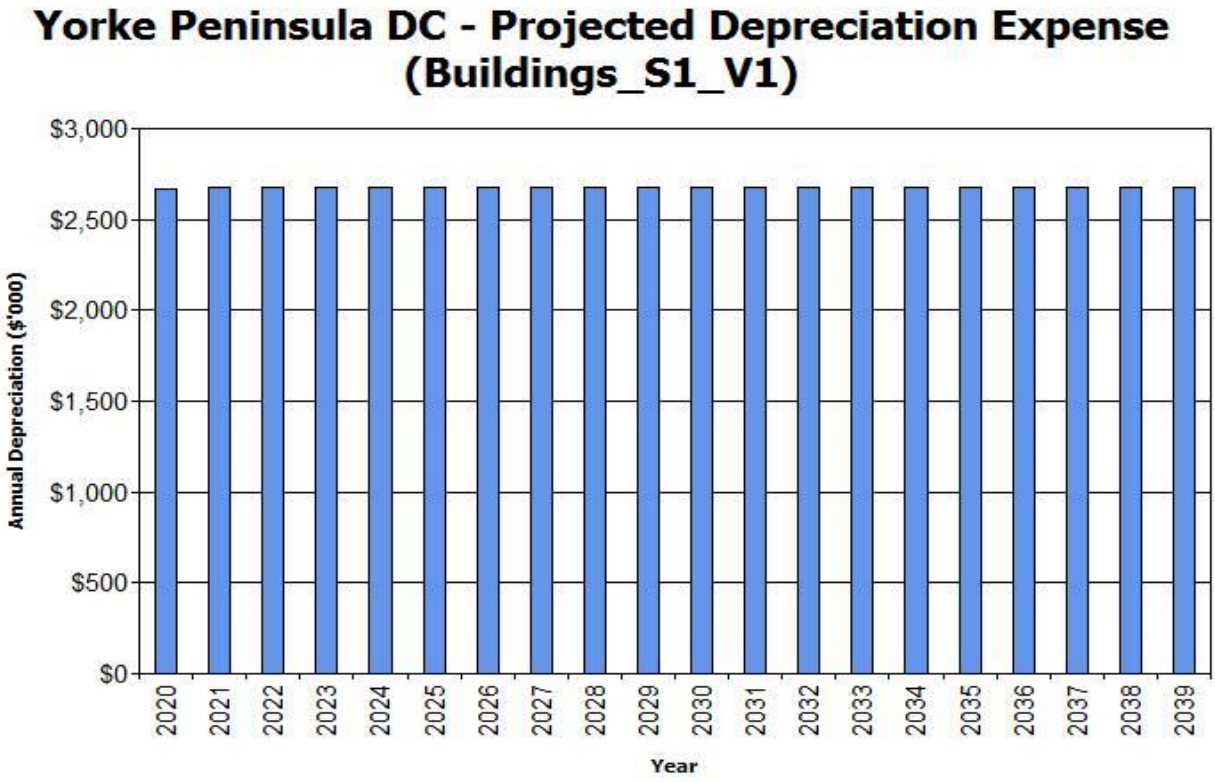
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition of assets. Figure 9 shows the projected gross replacement cost asset values over the planning period in real values.

Figure 9: Projected Asset Values



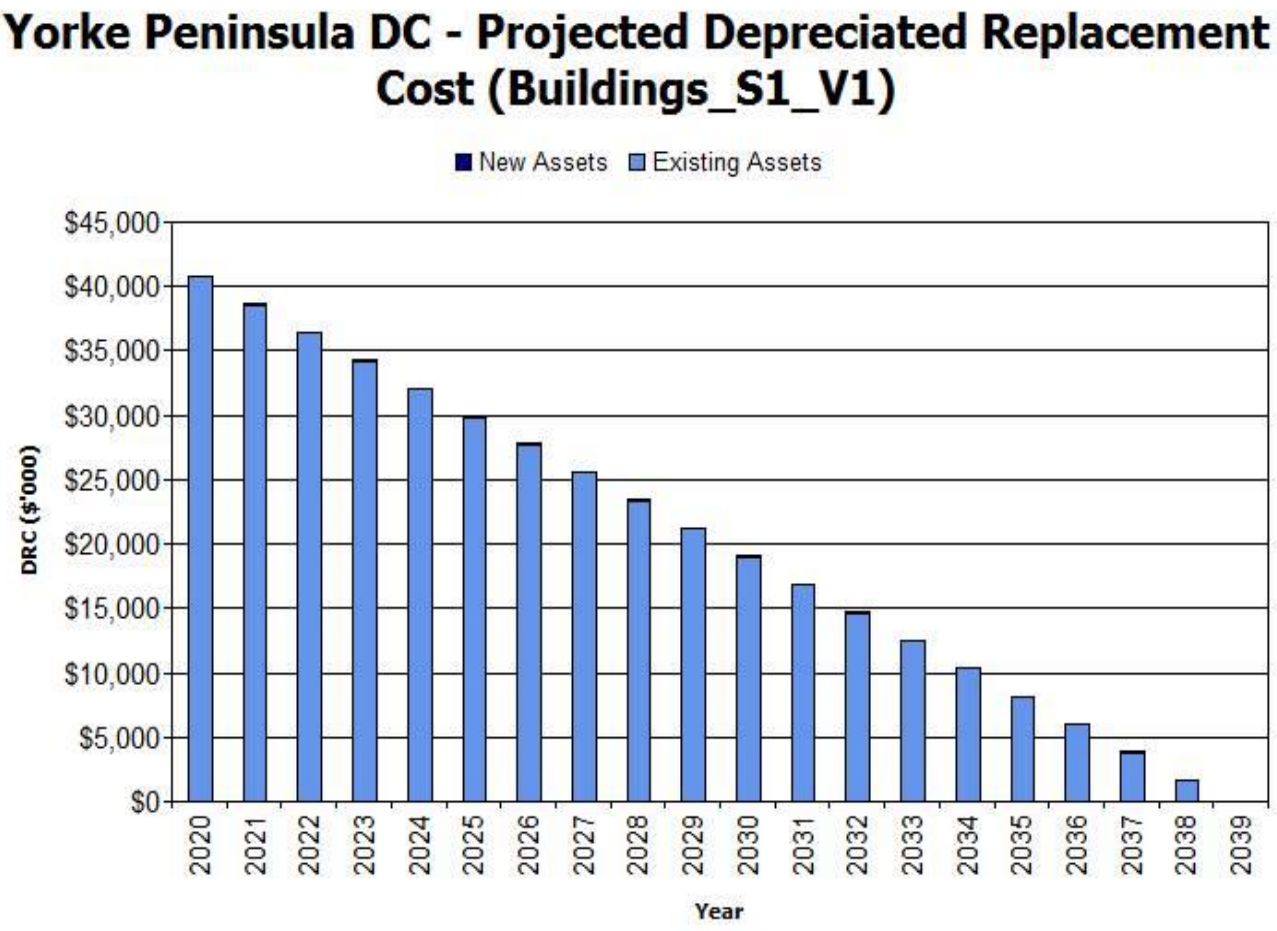
Depreciation expense values are forecast in line with asset values as shown in Figure 10.

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



7.4 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this AMP and in preparing forecasts of required operating and capital 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 AMP and risks that these may change are shown in Table 7.4.

Table 7.4: Key Assumptions made in AMP and Risks of Change

Key Assumptions	Risks of Change to Assumptions
Asset data is completed and reliable	Discovery of assets not recorded in the asset register will increase capital renewal expenditure and depreciation expense projections.
Legislative compliance will remain constant	Changes in legislation and regulation may increase operating and maintenance expenditure projections.
Average useful lives are based on current knowledge	A review of useful lives has the potential to vary future cost predictions.

7.5 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[17] in accordance with Table 7.5.

Table 7.5: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B 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. Accuracy ± 40%
E Unknown	None or very little data held.

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

Table 7.5.1: Data Confidence Assessment for Data used in AMP

Data	Confidence Assessment	Comment
Demand drivers	E	Not used / developed
Growth projections	E	Not used / developed
Operations expenditures	B	Current and previous budget information
Maintenance expenditures	B	Current and previous budget information
Projected Renewal expenditures. - Asset values	C	Generated from CONQUEST. Register developed from Buildings and Structures Valuation. Data reviewed prior to entry into CONQUEST. Continued review of the asset register and replacement costs required.
- Asset useful lives	C	Generated from CONQUEST. Register developed from Buildings and Structures Valuation. Data reviewed prior to entry into CONQUEST. Continued review of the asset register and useful lives required.
- Condition modelling	C	Generated from CONQUEST. Register developed from Buildings and Structures Valuation. Data reviewed prior to entry into CONQUEST. Continued review of the asset register and collection of condition data.
- Network renewals	C	Generated from 2019/20 budget. To be reviewed during the budget process each year.
- Defect repairs	E	Not used / developed
Upgrade/New expenditures	B	Generated from 2019/20 budget. To be reviewed during the budget process each year.
Disposal expenditures	E	Not used / developed

Over all data sources the data confidence is assessed as **Uncertain (C)** confidence level for data used in the preparation of this AMP.

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

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8. PLAN IMPROVEMENT AND MONITORING

8.1 Improvement Plan

The asset management improvement plan generated from this AMP is shown in Table 8.2.

Table 8.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Continual review of Asset Register	Asset Manager	In house	Ongoing
2	Continue development of Council's Asset Management System (Conquest) and Geospatial Information System (ArcGIS)	Asset Manager	In house	Ongoing
3	Continual review of Useful Lives, Replacement Costs, etc	Manager Development Services / Manager Financial Services / Asset Manager	In house	Ongoing
4	Collect condition data on Buildings & Other Structures assets to assist with development of maintenance and renewal budgets.	Manager Development Services / Asset Manager	Annual Budget Allocation	Ongoing
5	Develop a Buildings & Other Structures Hierarchy to reflect the importance of each building and structure.	CMT	In house	Ongoing
6	Review projected Capital Renewal budget to assist with developing future Capital Works program.	CMT	In house	Ongoing
7	Define Levels of Service	CMT	In house	Ongoing
8	Conduct a risk assessment workshop to further develop the critical risk and treatment plans	Governance Officer	In house	Ongoing
9	Review Future Demand and develop a Demand Management Plan if required.	CMT	In house	Ongoing
10	Develop Priority Ranking Criteria for *Renewal and Replacement* and *New/Upgrade* of assets	CMT	In house	Ongoing

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8.2 Monitoring and Review Procedures

This AMP will be reviewed during annual budget planning processes and amended to show 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 LTFP.

The AMP has a life of 4 years (Council election cycle) and is due for complete revision and updating within two years of each Council election.

8.3 Performance Measures

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

- The degree to which the required projected expenditures identified in this AMP are incorporated into the LTFP,
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the AMP,

- 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 Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0,
- The Asset Sustainability Ratio *(Per LGA 'Financial Sustainability' Information Paper No. 9: Financial Indicators - Revised May 2015)* is to achieve capital outlays on renewing/replacing assets at greater than 90% but less than 110% of the level proposed in the AMP.

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9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
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- Yorke Peninsula Council, 'Strategic Management Plan',
- Yorke Peninsula Council, 'Annual Business Plan and Budget',
- Yorke Peninsula Council, 'Long Term Financial Plan',
- Yorke Peninsula Council, 'Land, Buildings and Structures Valuation – Financial Reporting'.

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10. APPENDICES

Appendix A Maintenance Response Levels of Service

Appendix B Projected 10 year Capital Renewal and Replacement Works Program

Appendix C Abbreviations

Appendix D Glossary

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Appendix A Maintenance Response Levels of Service

The maintenance response levels of service will be developed in future revisions of this AMP.

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Appendix B Projected 10-year Capital Renewal and Replacement Works Program

The projected 10 year capital renewal and replacement works program will be developed in future revisions of this AMP.

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Appendix C Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
GRC	Gross replacement cost
DA	Depreciable amount
DRC	Depreciated replacement cost
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LTFP	Long term financial plan
MMS	Maintenance management system
RV	Residual value

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Appendix D 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, 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 (ARFR)

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

Average annual asset consumption (AAAC)*

The amount of the 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 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

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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 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
Revenue received generally tied to the specific projects or purposes, which are often for upgrade and/or expansion or new investment proposals.

Capital investment expenditure
Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months (See capital expenditure definition)

Capitalisation threshold
The value of expenditure on non-current assets above which the expenditure is recorded 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 in the balance sheet after deducting any accumulated depreciation / amortisation and accumulated impairment losses.

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, top-down condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and a long-term cash flow projection.

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
Those assets that are likely to result in a more significant financial, environment and social cost in terms of impact on organisational objectives.

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 gross replacement cost (GRC) 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

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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**.**

Gross replacement cost (GRC)
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.

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 for access to major economic and social facilities and services, e.g. roads, drainage, footpaths and cycle ways. 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.

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 parameters or combination of parameters that reflect social, political, economic and environmental outcomes that the organisation delivers.

Levels of service statements describe the outputs or objectives an organisation or activity intends to deliver to customers.

Life Cycle
The cycle of activities that an asset (or facility) goes through while it remains an identity as a particular asset i.e. from planning and design to decommissioning or disposal.

Life Cycle Cost (LCC)
Total LCC The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.

Average LCC The life cycle cost 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 (LCE)
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.

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

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expenditure required to ensure that the asset reaches its expected useful life.

Maintenance may be classified as:

- **Planned maintenance**

Falls into three categories:

a) Periodic – necessary to ensure the reliability or to sustain the design life of an asset.

b) Predictive – condition monitoring activities used to predict failure.

c) Preventive – maintenance that can be initiated without routine or continuous checking and is not condition based.

- **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 needs 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. The modern equivalent asset is evidenced by renewal strategies in asset management plans and financing in a long-term financial plan covering at least 10 years.

***Net present value (NPV)**
The value 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, 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

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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 expenditure - renewal.

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

Renewal
See capital expenditure - renewal.

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. Residual value reflects consideration receivable from an asset at the end of its useful life to the entity and accordingly would not include cost savings from the re-use of in-situ materials.

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 facilities, sporting and recreation facilities, tourist information facilities, 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 are still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Strategic Asset Management Plan
A plan that documents and specifies how the organizational objectives are to be converted into AM objectives, the approach for developing AMPs and the role of the AM system in supporting the achievement of AM objectives.

Strategic Plan
A plan containing the long-term goals and strategies of an organisation. Strategic plans have a strong external focus, cover major portions of the organisation and identify major targets, actions and resource

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allocations relating to the long-term survival, value and growth of the organisation.

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 entity.

Valuation
The process of determining the worth of an asset or liability. Assessed asset value which may depend on the purpose for which the valuation is required, i.e. replacement value for determining maintenance levels, market value for lifecycle costing and optimised deprival value for tariff setting.

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, IIMM & AIFMM 2015, Glossary

Additional and modified glossary items shown *

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