

The Corporation of the City of Whyalla





Irrigation Assets

**Asset Management Plan**



Revision 3

July 2015

Document Control		 			
Document ID: 59.299.120815 nams.plus2 amp template v2					
Rev No	Date	Revision Details	Author	Reviewer	Approver
1	May 2015	1 <sup>st</sup> Revision	PMA&P	Audit Committee	
2	11 June 2015	2 <sup>nd</sup> Draft – realigned to proposed LTFP (Scenario 2 V1)	PMAP		
3	6 July 2015	Council adoption	PMAP		Council

© Copyright 2012 – All rights reserved.  
 The Institute of Public Works Engineering Australia.  
[www.ipwea.org.au/namsplus](http://www.ipwea.org.au/namsplus)

## TABLE OF CONTENTS

1. EXECUTIVE SUMMARY .....	1
Context .....	1
Strategic Outlook .....	1
What is Covered? .....	1
What does it Cost? .....	1
Managing the Risks .....	2
Confidence Levels .....	2
The Next Steps .....	2
Questions you may have.....	3
What is this plan about? .....	3
What is an Asset Management Plan?.....	3
Why is there a funding shortfall? .....	3
What options do we have?.....	3
What happens if we don't manage the shortfall? .....	3
What can we do?.....	3
What can you do? .....	3
2. INTRODUCTION .....	4
2.1 Background.....	4
2.2 Key Stakeholders.....	4
2.3 Resourcing Strategy .....	5
2.4 Goals and Objectives of Asset Management.....	5
2.5 Plan Framework.....	6
2.6 Core and Advanced Asset Management .....	8
3. LEVELS OF SERVICE.....	8
3.1 Customer Research and Expectations .....	8
3.2 Strategic and Corporate Goals .....	9
3.3 Legislative Requirements .....	10

3.4	Current Levels of Service .....	11
3.5	Desired Levels of Service .....	11
4.	FUTURE DEMAND.....	11
4.1	Demand Drivers.....	11
4.2	Demand Forecast .....	11
4.3	Demand Impact on Assets.....	11
4.4	Demand Management Plan .....	11
4.5	Changes in Technology .....	11
4.5	Asset Programs to meet Demand.....	13
5.	LIFECYCLE MANAGEMENT PLAN .....	13
5.1	Background Data.....	14
5.2	Infrastructure Risk Management Plan .....	15
5.3	Routine Operations and Maintenance Plan .....	16
5.4	Renewal/Replacement Plan .....	18
5.5	Creation/Acquisition/Upgrade Plan.....	21
6.	FINANCIAL SUMMARY .....	22
6.1	Financial Statements and Projections .....	22
6.2	Funding Strategy .....	28
6.3	Valuation Forecasts .....	28
6.4	Key Assumptions made in Financial Forecasts .....	30
6.5	Forecast Reliability and Confidence .....	30
7.	PLAN IMPROVEMENT AND MONITORING.....	31
7.1	Status of Asset Management Practices.....	31
7.2	Improvement Program.....	33
7.3	Monitoring and Review Procedures.....	33
7.4	Performance Measures .....	34
8.	REFERENCES .....	34
9.	APPENDICES.....	35

Appendix A Budgeted Expenditures Accommodated in LTFP ..... 36

Appendix B Abbreviations ..... 37

Appendix C Glossary..... 38

## 1. EXECUTIVE SUMMARY

### Context

This Asset Management Plan is prepared to assist the council in improving the way it delivers services from Irrigation Assets. This asset category has a replacement value of \$9 Million.

The asset management plan is to enable council to show:

- How this asset portfolio will meet the service delivery needs of its community into the future.
- Enable council's Asset Management Policy to be achieved, and
- Ensure the integration of Council's Asset Management with its long term strategic and financial plans.

Adopting this asset management plan will assist council in meeting the requirements of National Sustainability Framework, State Local Government Act 1999 and Financial Audit and Management Act 2012 and providing services needed by the community in a financially sustainable manner.

### Strategic Outlook

1. Council is able to apply management plans and give appropriate maintenance procedures to its assets and keep them in the enjoyable conditions that the community needs.
2. Council is to consider strategies to fund the projected Irrigation Assets renewal expenditure over next 10 years.
3. Council's current asset management maturity is below 'core' level and investment is needed to data, systems and evaluation.
4. Optimise the life of assets at the most economic cost over time (lifecycle approach).
5. Reducing the demand for new assets through demand management techniques and consideration of alternative service delivery options;

### What is Covered?

The City of Whyalla is responsible for managing its Irrigation Assets at a level that ensures the desired standards of service are achieved and maintained in a

cost effective and timely manner. This asset management plan outlines the long-term management framework for Council to manage its assets and resources, with well-developed asset management programs, financial plans, funding decisions and strategic forward plans.

This asset management plan also provides the framework to deliver optimum operational performance of Council's Assets in the most cost effective manner based on a "Best Value" approach.

The assets covered by this Irrigation Asset Management Plan include:

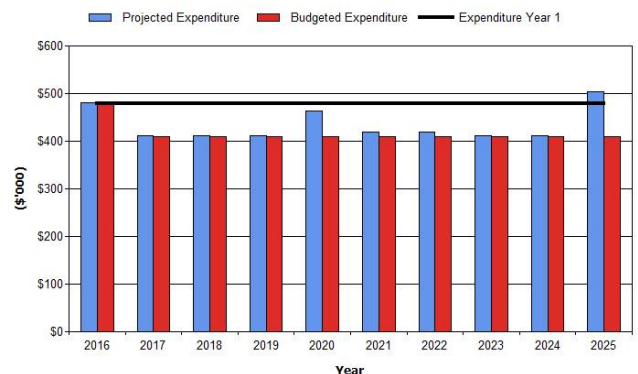
- Irrigation network
- Irrigation fittings
- Reclaimed water network

### What does it Cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is \$4,347,000 or \$435,000 on average per year.

Estimated available funding for this period is \$4,160,000 or \$416,000 on average per year which is 96% of the cost to provide the service. This is a funding shortfall of -\$19,000 on average per year. Projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph below.

**Whyalla CC - Projected and Budget Expenditure for (Irrigation\_2016\_S2\_V1)**



## **Managing the Risks**

The following have been identified as major risks:

- Responding to reactive maintenance through Council's Customer Request system to alleviate and manage risk of increased asset deterioration.
- Reliance on historical data and knowledge available for condition/age of assets.

The Engineering and Infrastructure Department will endeavour to manage these risks by:

- Develop and maintain a 10 year irrigation asset renewal program, with continued analysis prior to compiling annual works program.
- Continue planned and reactive maintenance through Council's maintenance programs.
- Record, inspect, repair and finalise specific concerns through the customer service system.
- Conduct 'lessoned learnt' on water proofing Whyalla project to ensure more efficient use of water resource.

## **Confidence Levels**

This AM Plan is based on Medium level of confidence in information using the best available data. Council's plan diagrams for irrigation systems are incomplete.

## **The Next Steps**

The actions resulting from this asset management plan are:

- Compile a 10 year forward works program.
- Implement the Asset Management Policy in line with national framework requirements.
- Enable an asset management improvement plan detailing a program of tasks to be completed and resources required to bring council to a minimum 'core' level of asset maturity and competence.
- Manage Irrigation data on GIS prior to upload into Conquest.

## Questions you may have

### What is this plan about?

This asset management plan covers the irrigation and reclaimed water assets that serve the City of Whyalla community's Recreation/Open Spaces needs. A well maintained and managed recreation spaces will provide aesthetic and functional spaces for the children, families and community in general.

### What is an Asset Management Plan?

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

An asset management plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

### Why is there a funding shortfall?

As assets have approached the later years of their life and require replacement, services from the assets are decreasing and maintenance costs are increasing.

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

### What options do we have?

Resolving the funding shortfall involves several steps:

Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels,

- Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs,
- Identifying and managing risks associated with providing services from infrastructure,

- Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure,
- Consulting with the community to ensure that Recreation/Open Spaces services and costs meet community needs and are affordable,
- Developing partnership with other bodies, where available to provide services,
- Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.

### What happens if we don't manage the shortfall?

It is likely that the council will have to reduce service levels in some areas, unless new sources of revenue are found. Strategies, including alternative treatment methods, may be required reducing maintenance costs or extending serviceable life to achieve sustainability.

### What can we do?

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

### What can you do?

We will be pleased to consider your thoughts on the issues raised in this asset management plan.



## 2. INTRODUCTION

### 2.1 Background

Assets deliver important services to communities. A key issue facing local governments throughout Australia is the management of ageing assets in the need of renewal and replacement.

The creation of new assets also present challenges in funding the ongoing operating and replacement costs necessary to provide the needed service over the assets full life cycle.

The national framework on asset planning and management and financial planning and reporting endorsed by Local Government and Planning Ministers Council (LGPMC) requires councils to adopt a longer term approach to service delivery and funding.

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual<sup>1</sup>.

The asset management plan is to be read with the Council's Asset Management Policy, Asset Management Strategy and the following associated documents:

- 10 year strategic Plan
- Long Term Financial Plan

### 2.2 Key Stakeholders

A range of stakeholders are interested and/or accountable in ensuring that sound asset management, operational practice and legislative compliance are in place. Key stakeholders in the preparation and implementation of this asset management plan are:

Key Stakeholder	Role in Asset Management Plan
Elected Members and Mayor	<ul style="list-style-type: none"><li>• Represent needs of community/shareholders,</li><li>• Ensure organisation is financial sustainable.</li></ul>
CEO	<ul style="list-style-type: none"><li>• Allocate resources to meet the organisation's objectives in providing services while managing risks,</li><li>• Ensure organisation is financial sustainable.</li></ul>
GM Engineering & Infrastructure Services	<ul style="list-style-type: none"><li>• Overall responsibility for Engineering and Infrastructure Department.</li><li>• Ensuring compliance of Strategic Plan Objective 5.0</li><li>• Guidance and leadership based on expertise within asset management category.</li></ul>
Executive Manager Engineering Services	<ul style="list-style-type: none"><li>• Responsibility for ensuring asset management tasks and improvement plan are undertaken in line with objectives set out in Asset Management Plan</li><li>• Guidance and leadership based on expertise within asset management category.</li><li>• Direct Responsibility of Technical Officer and Data Owners</li></ul>

<sup>1</sup> IPWEA, 2011, Sec 4.2.6, Example of an Asset Management Plan Structure, pp 4 | 24 – 27.

	<ul style="list-style-type: none"> <li>• Capital works projects</li> </ul>
Technical Officer/Data Owners	<ul style="list-style-type: none"> <li>• Responsible for Data integrity, storage and retrieval</li> <li>• Drafting of Asset Management related plans for approval</li> </ul>
Manager City Services, Supervisor and Work Team	<ul style="list-style-type: none"> <li>• Responsible for reactive and planned maintenance schedules</li> <li>• Completion of customer requests relating to asset maintenance issues</li> <li>• Report of any asset defects or deficiencies noted during inspections</li> </ul>
The Community (residents, businesses, property owners)	<ul style="list-style-type: none"> <li>• Provide feedback on Level of Service and the implications on revenue and budget expenditure</li> <li>• Reporting of any asset defects or deficiencies through Council's Customer Service System</li> </ul>
State and Federal Government	<ul style="list-style-type: none"> <li>• Liaise for funding opportunities through various Government Agencies</li> <li>• Reporting body for any issues or service deficiencies for DPTI infrastructure</li> </ul>

Table 2.1.1: Key Stakeholders in the AM Plan

### 2.3 Resourcing Strategy

Council's asset management strategy is aligned with the vision and objectives set in the ten years strategic plan. Central to this is forecasting the service delivery needs and the capacity to meet them on a short, medium and long term basis

Cost occurs in all phasis of an asset's life. It is important to attribute the costs to each phase of an asset's life cycle so that the total life cycle costs can be determined to enable better management decision making. There are four key phasis of the asset management lifecycle of a council's asset: acquisition, operation and maintenance, renewal and disposal. These phases are interrelated.

The cost of implementing the asset management plan has been incorporated within councils delivery program and financial estimates and LTFP. However it should be noted that this strategy reflects council's intention at the time of publication. As with any plan or budget the actual results may vary from that forecast.

### 2.4 Goals and Objectives of Asset Management

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

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

- Continuous improvement in asset management practices.
- Managing the impact of growth through demand management and infrastructure investment.
- Developing cost-effective management strategies for the long term.
- Providing a defined level of service and monitoring performance.
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service.
- Managing risks associated with asset failures.

- Sustainable use of physical resources.

## **2.5 Plan Framework**

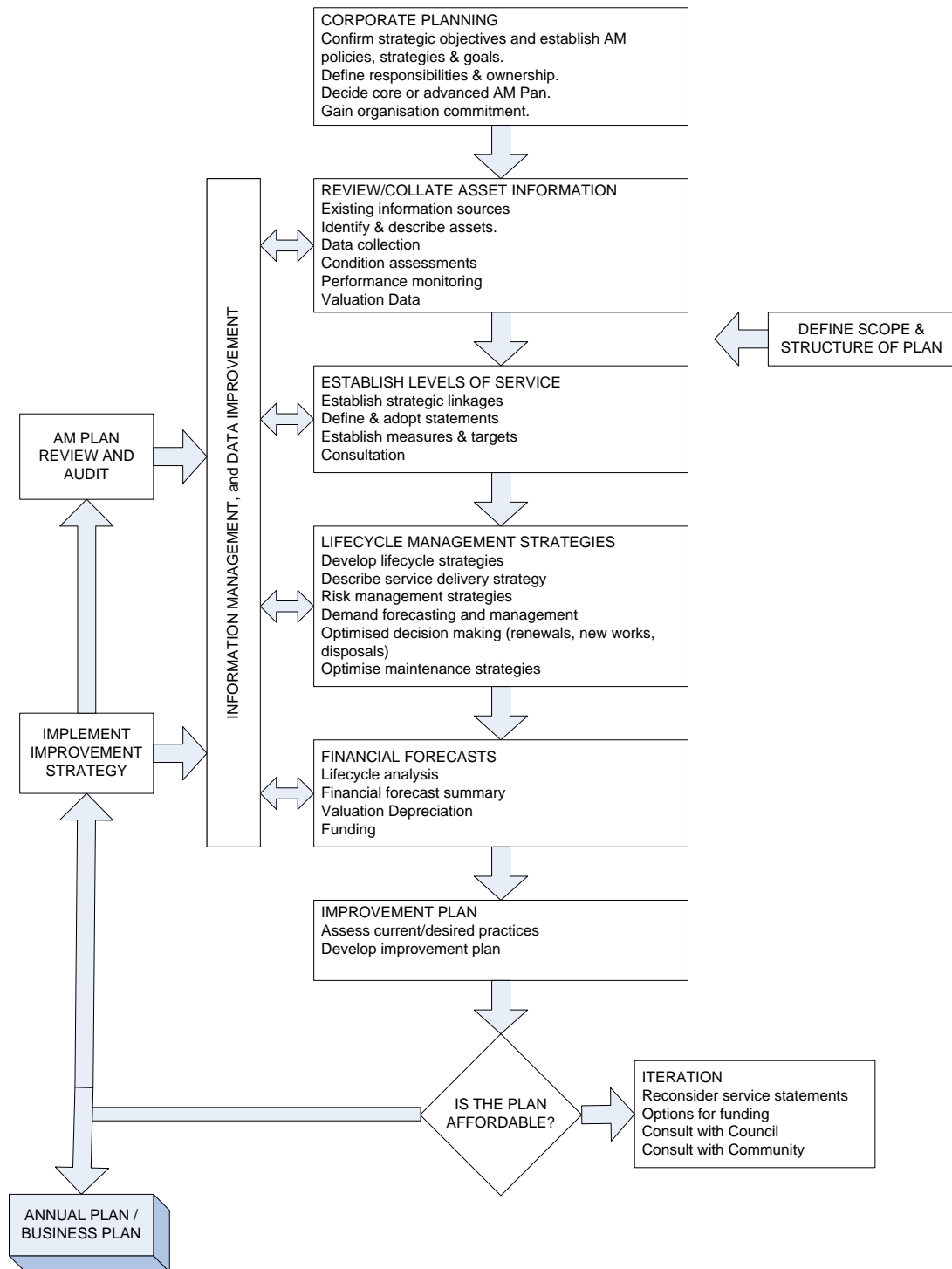
Key elements of the plan are:

- Levels of service – specifies the services and levels of service to be provided by Council,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Life cycle management – how the Council will 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,
- Monitoring – how the plan will be monitored to ensure it is meeting the organisation’s objectives,
- Asset management improvement plan.

A road map for preparing an asset management plan is shown on the next page.

**Road Map for preparing an Asset Management Plan**

Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11.



## **2.6 Core and Advanced Asset Management**

This asset management plan is prepared as a first cut 'core' asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual<sup>2</sup>. It is prepared to meet minimum legislative and organisational 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.

This asset management plan initially provides an approach to basic asset management based on:

- Best available current information
- Contrasting existing management strategies with opportunities for improvement.
- A long term financial plan for 20 years with an advanced approach, resulting from financial needs predictions through particular asset's economic life span then prioritise work for rolling three years program focusing in detail on capital, operational and maintenance requirements.
- A life cycle approach

This initial plan is based on the best information available at the time of preparation. The plan will be regularly reviewed and updated with the level of sophistication improving incrementally to an optimum level that is appropriate to the needs of council and the community.

Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels.

An advanced asset management approach contains optimisation of activities and programs to meet agreed service standards, through the development of management tactics based on the collection and analysis of key information on asset condition, performance, lifecycle costs, risk costs and treatment options.

## **3. LEVELS OF SERVICE**

### **3.1 Customer Research and Expectations**

There is limited information regarding defined levels of service for irrigation assets. Consideration need to be given the development of a robust irrigation asset inventory in order to progress both level of service definitions and customer satisfaction.

As a part of new Asset Management Policy the Council is determined to undertake customer satisfaction surveys on an annual basis so quantifiable information can be gathered, this will then be implemented in future iterations of this Asset Management Plan.

### **3.2 Strategic and Corporate Goals**

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

Our vision is:

---

<sup>2</sup> IPWEA, 2011, IIMM.

**Whyalla will be vibrant, attractive City offering our community a diverse range of sustainable economic, social, environmental and cultural opportunities.**

Our mission is:

**We will provide access to quality infrastructure, services and facilities, capitalising on and protecting our attractive coastal and outback landscapes.**

**We will be home to an energetic, harmonious, integrated community actively involved in shaping Whyalla for current and future generations.**

Relevant organisation goals and objectives and how these are addressed in this asset management plan are:

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

Goal	Objective	How Goal and Objectives are addressed in AM Plan
<p>Infrastructure is appropriately planned, maintained and managed.</p>	<p>Plan, Maintain and Enhance Council's infrastructure assets to meet, as far as practicable, the community's economic, social, environmental and financial needs.</p>	<p>Develop annual work programs and long-term projects to reflect maintenance and investment priorities, risk and available resources and be proactive and link them to Council's annual budgeting and long term financial plan.</p> <p>By ensuring that expenditure reflect both the current requirement to bring transport assets to a suitable standard in conjunction with a commitment to ensure capital renewal exceeding annual depreciation.</p> <p>Asset management plans will define outcomes, service standards, condition, performance, maintenance and investment requirements.</p> <p>Asset Management Plan and system will outline for optimised maintenance cost through next 3-5 years by looking at best mixture of reactive and planned maintenance, asset rehabilitation and renewal interventions.</p> <p>Asset management plan will outline the projected future funding requirements and funding gaps for the next 20 years.</p>
<p>Council will be recognised for being financially responsible.</p>	<p>Ensure the provision of appropriate services and maintenance of assets by:</p> <ul style="list-style-type: none"> <li>- Cost containment</li> <li>- Income generation</li> <li>- Rate setting policy review</li> <li>- Adopting a flexible and sustainable rating structure</li> <li>- Exploring cost recovery</li> </ul>	<p>Identify long term funding gaps, discuss strategies to minimise those gaps as ongoing.</p> <p>Prepare Long term financial plans and funding forecasts for long term sustainability of infrastructure assets.</p> <p>Continue to work in partnership with State and Federal Government organisations and funding bodies.</p> <p>Prepare maintenance and rehabilitation plans,</p>

	<p>mechanisms</p> <p>Use financial risk management strategies and take appropriate action to manage these risks across the organisation.</p>	<p>identify interventions to provide agreed service levels at a minimum life cycle cost.</p> <p>Maintain a collaborative and interactive relationship with Audit Committee.</p> <p>Assess the suitability of current Asset Management System to meet the current and future requirements of the council and community.</p> <p>Asset Management Plans for all assets evolve from core Asset Management Plans, i.e Generation 1 towards advance Asset Management Plans following current international Asset Management principals and guidelines.</p>
<p>Council is inclusive in its financial governance</p>	<p>Involve the Whyalla community early in the annual budget and rate-setting process.</p> <p>Proactively inform the Whyalla community on developments with Council's finances and communicate and explain the rate-setting and services-provision processes in as open and transparent way.</p>	<p>By linking ability to pay to level of service and setting the level of service to a price the community are willing to pay.</p> <p>As a part of new Asset Management Policy the Council undertake customer satisfaction surveys on an annual basis so quantifiable information can be gathered, this will then be implemented in future iterations of this Asset Management Plan.</p> <p>Continue engagement with community to ensure assets providing services are still required to be held by council, i.e. divest certain assets if deemed appropriate.</p> <p>The community understand what we are doing and how we are doing it.</p>

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

### 3.3 Legislative Requirements

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

**Table 3.3: Legislative Requirements**

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Work Health & Safety Act 2012	Set out roles and responsibilities to secure the health, safety and welfare of persons at work.

Native Vegetation Act	Sets out the requirements under the Act to protect and preserve native vegetation.
-----------------------	--

### 3.4 Current Levels of Service

Level of service can be defined based on two terms:

#### Community Levels of Service

Relate to how the community receives the service in terms of customer expectation for quality, utilisation, availability, safety, cost/efficiency and legislative compliance and whether the council is providing community value.

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

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

#### Technical Levels of Service –

Relates to the internal management of the service provided by the assets and how the physical assets themselves are designed, operated, and maintained. The technical service levels are related to the Community Levels of Service.

As previously mentioned, Council is defining a level of services deemed appropriate. This will be largely determined via customer feedback.

### 3.5 Desired Levels of Service

To be determined

## 4. FUTURE DEMAND

### 4.1 Demand Drivers

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

### 4.2 Demand Forecast

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

### 4.3 Demand Impact on Assets

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



**Table 4.3: Demand Users, Projections and Impact on Services**

Demand users	Present position	Projection	Impact on services
Population	22,088 (Census 2011)	26,950 (2031) 1% per annum	Gradual increase in recreation facility demands is expected
Demographics	0-4 Years 1,460 5-9 years 1,455 10-14 years 1,519 15-19 years 1,572 20-24 years 1,391 25-29 years 1,387 30-34 years 1,217 35-39 years 1,526 40-44 years 1,610 45-49 years 1,971 50-54 years 1,540 55-59 years 1,242 60-64 years 1,208 65-69 years 1,033 70-74 years 898 75-79 years 606 80-84 years 444 85 year and over 309	Increase across all demographic categories expected in line with population growth.	Increase in population will place greater demand on recreation/open spaces assets as a result of an increase in the number of users and location of spaces requiring irrigation services.

#### 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.

Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

**Table 4.4 Demand Management Plan Summary**

Summary Service Activity	Demand Management Plan
Property development	Defined contribution to Open Space reserve.

#### 4.5 Changes in Technology

Technology changes forecast to affect the delivery of services covered by this plan. The likely impacts are outlined in Table 4.5 below:

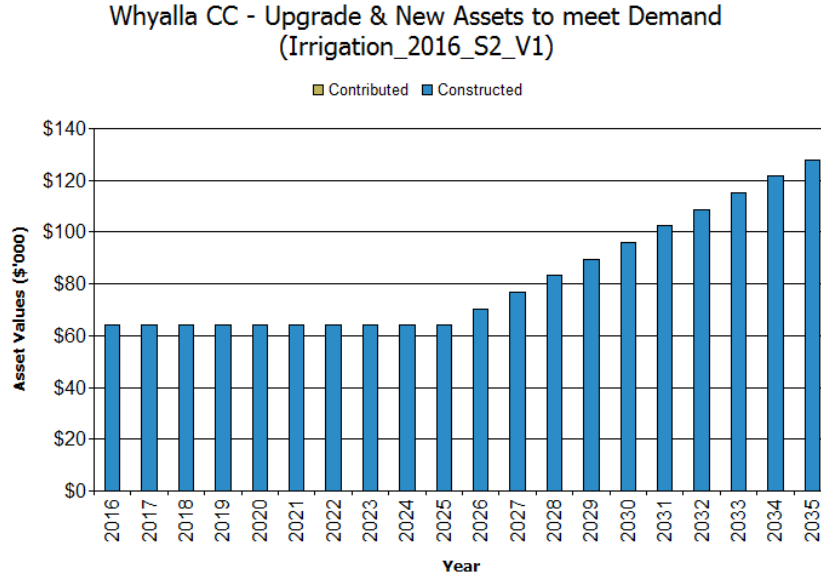
**Table 4.5: Changes in Technology and Forecast effect**

Technology Change	Effect on Service Delivery
Recycling and reuse of water and innovations in soil wetting	Maintenance of reserves during water restrictions, climate change and drought conditions.
Alternative surfaces for playing fields and reserves, such as synthetic or reduced water requirements	Reduced watering and maintenance (including mowing), reduced risk exposure and increased amenity.
Improved irrigation technology, e.g. subsurface	Reduced water requirements and decreased evaporation.

#### 4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by the council. New assets constructed/acquired by the council are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised in Figure 1.

**Figure 1: Upgrade and New Assets to meet Demand**



Acquiring these new assets will commit the council to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5.

#### 5. LIFECYCLE MANAGEMENT PLAN

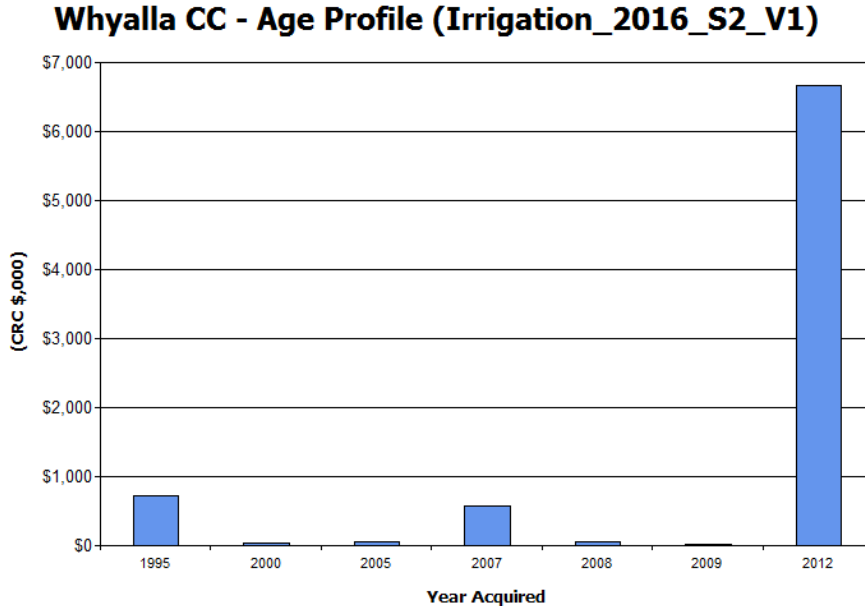
The lifecycle management plan details how the organisation plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

## 5.1 Background Data

### 5.1.1 Physical parameters

The assets covered by this asset management plan are shown in Table 2.1. The age profile of the assets included in this AM Plan is shown in Figure 2.

Figure 2: Asset Age Profile



### 5.1.2 Asset capacity and performance

The organisation’s services are generally provided to meet design standards where these are available.

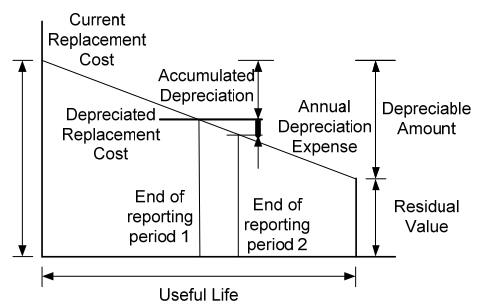
### 5.1.3 Asset condition

The condition profile of our assets is not available at this time in graph form, however, this is being review for future versions of the Asset Management Plan.

### 5.1.4 Asset valuations

The value of assets recorded in the asset register as at 30 June 2014 covered by this asset management plan is shown below. Assets are valued at current replacement costs

Current Replacement Cost	\$8,114,000
Depreciable Amount	\$8,114,000
Depreciated Replacement Cost <sup>3</sup>	\$7,076,000
Annual Depreciation Expense	\$191,000



<sup>3</sup> Also reported as Written Down Current Replacement Cost (WDCRC).

Key assumptions made in preparing the valuations were:

- Asset Data available at time of audit is accurate and based on sound methodology
- Depreciation being calculated using a straight line method
- Current depreciated value based on standard life
- Residual value of \$0 at expiry of asset

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 (Depreciation/Depreciable Amount)	2.4%
Rate of Annual Asset Renewal (Capital renewal exp/Depreciable amount)	0.9%
Rate of Annual Asset Upgrade/New (Capital upgrade exp/Depreciable amount)	0.8%
Rate of Annual Asset Upgrade/New (including contributed assets)	0.8%

In 2016 the organisation plans to renew assets at 36.7% of the rate they are being consumed and will be increasing its asset stock by 0.8% in the year.

## 5.2 Infrastructure Risk Management Plan

An assessment of risks<sup>4</sup> 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’ to the organisation. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as ‘Very High’ - requiring immediate corrective action and ‘High’ – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 5.2. These risks are reported to management and Council.

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
All Open Reserves	Vandalism of irrigation systems	H	Liaise with police, investigate vandal proof irrigation items

<sup>4</sup> Also reported as Written Down Current Replacement Cost (WDCRC).

### 5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services. Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

#### 5.3.1 Operations and Maintenance Plan

Operations activities affect service levels including quality and function through maintenance of parks and gardens, playgrounds' equipment maintenance frequency, intensity and spacing of lighting and cleaning frequency.

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. Spare parts replacement but excluding rehabilitation or renewal. Maintenance may be classified into reactive, planned and specific maintenance work activities.

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

Planned maintenance is repair work that is identified and managed 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 and replacing damaged mechanisms. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Actual past maintenance expenditure is shown in Table 5.3.1.

**Table 5.3.1: Maintenance Expenditure Trends**

Year	Maintenance Expenditure
	Planned, Specific & Unplanned
2012	\$120,099
2013	\$536,186

Maintenance expenditure levels are considered adequate in the short-term, however, further injection is needed for long-term sustainability. Future revision of this asset management plan will include linking required maintenance expenditures with required service levels.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience, judgement and feedback from the community through Council's Customer Service System.

#### 5.3.2 Operations and Maintenance Strategies

The organisation 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/Board,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

### Asset hierarchy

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

**Table 5.3.2: Asset Service Hierarchy**

Service Hierarchy (irrigation servicing)	Service Level Objective
Parks and gardens, trees	Medium to High Priority
Sporting facilities	High Priority

### 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, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenance 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 are detailed in Table 5.3.2.1.

**Table 5.3.2.1: Critical Assets and Service Level Objectives**

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Irrigated Sporting facilities	Unserviceable for use by community and/or sporting clubs.	Undertaken planned and reactive maintenance in line with Council's customer service charter and internal schedules and policies.

### Standards and specifications

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

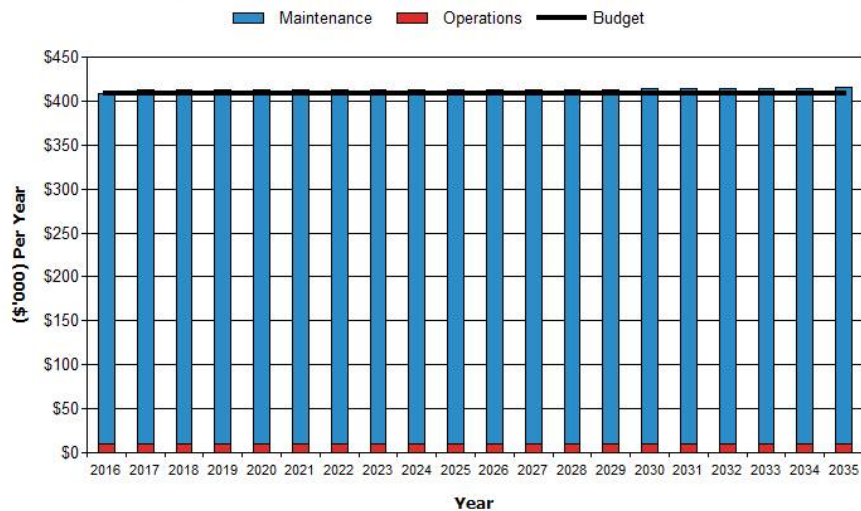
- Monthly audits of Sports Grounds using parameters such as Australian Football League, Australian Rugby League, and seasonal needs.
- Safe Operating Procedures under Occupational Health and Safety.

### 5.3.3 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 2013 dollar values (i.e. real values).

**Figure 4: Projected Operations and Maintenance Expenditure**

#### Whyalla CC - Projected Operations & Maintenance Expenditure (Irrigation\_2016\_S2\_V1)



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 6.2.

## 5.4 Renewal/Replacement Plan

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

### 5.4.1 Renewal plan

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

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems, 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 asset management plan.

### 5.4.2 Renewal and Replacement Strategies

The organisation 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 evaluation criteria adopted by Council, and
  - select the best option to be included in capital renewal programs,
- Using ‘low cost’ renewal methods (cost of renewal is less than replacement) wherever possible,
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required ,
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

### Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. replacing a playground attraction has load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. Materials used).

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

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.<sup>5</sup>

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 5.4.2.

**Table 5.4.2: Renewal and Replacement Priority Ranking Criteria**

Criteria	Weighting
On Attainment of Reaching End of Useful Life	30%
On Estimated Condition Rating	30%
Environmental Considerations	20%
Financial Considerations	20%
Total	100%

<sup>5</sup> Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.



### Renewal and replacement standards

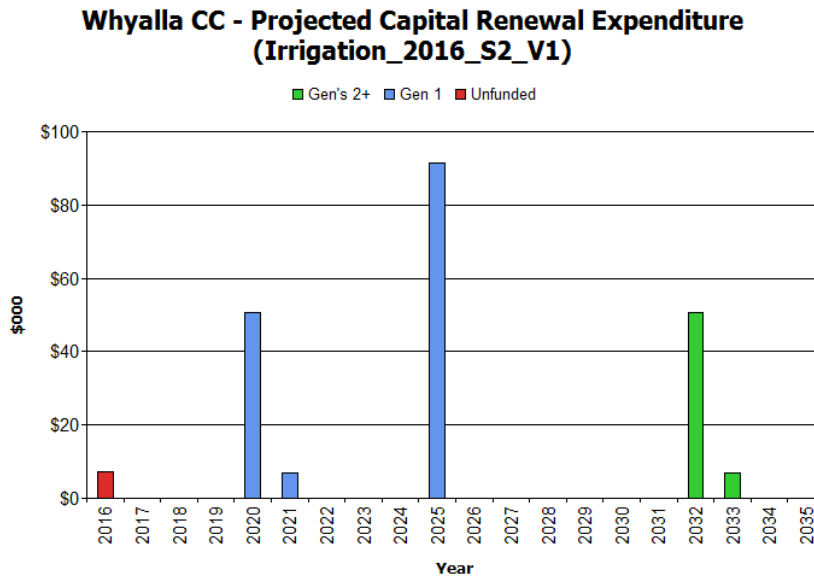
Renewal work is carried out in accordance with the following Standards and Specifications.

- Work Health and Safety Act and Regulations
- Compliance with current regulations

#### 5.4.3 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in Fig 5. Note that all amounts are shown in real values.

**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 the organisation's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

### 5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which 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 to the organisation from land development. These assets from growth are considered in Section 4.4.

#### 5.5.1 Selection criteria

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

**Table 5.5.1: New Assets Priority Ranking Criteria**

Criteria	Weighting
Community Need	25%
Asset utility currently provided	25%
Current Asset Condition	25%
Existence of viable alternative	25%
<b>Total</b>	<b>100%</b>

### 5.5.2 Capital Investment Strategies

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

- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
  - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,
  - the project objectives to rectify the deficiency including value management for major projects,
  - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
  - management of risks associated with alternative options,
  - and evaluate the options against evaluation criteria adopted by Council/Board, 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.

### 5.5.3 Summary of future upgrade/new assets expenditure

Any asset upgrade or Asset creation will require a project plan and to be tested against the LTFP.

## 6. FINANCIAL SUMMARY

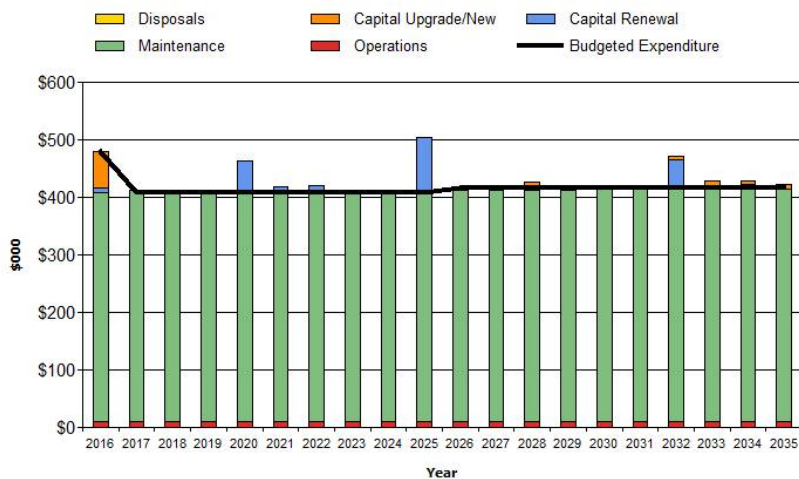
This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset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

## 6.1 Financial Statements and Projections

The financial projections are shown in Fig 7 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**

### Whyalla CC - Projected Operating and Capital Expenditure (Irrigation\_2016\_S2\_V1)



### 6.1.1 Sustainability of service delivery

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

#### Asset Renewal Funding Ratio

Asset Renewal Funding Ratio<sup>6</sup>                      55%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, the organisation is forecasting that it will have 55% of the funds required for the optimal renewal and replacement of its assets.

#### Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$603,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

<sup>6</sup> AIFMG, 2009, Financial Sustainability Indicator 8, Sec 2.6, p 2.18

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 \$416,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is -\$187,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 69% 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 organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

#### Medium term – 10 year financial planning period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

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

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is \$428,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$416,000 on average per year giving a 10 year funding shortfall of -\$12,000 per year. This indicates that Council expects to have 97% of the projected expenditures needed to provide the services documented in the asset management plan. A strategy will be implemented as part of the improvement plan to ensure projected expenditure needs meet budgeted expenditure.

#### Medium Term – 5 year financial planning period

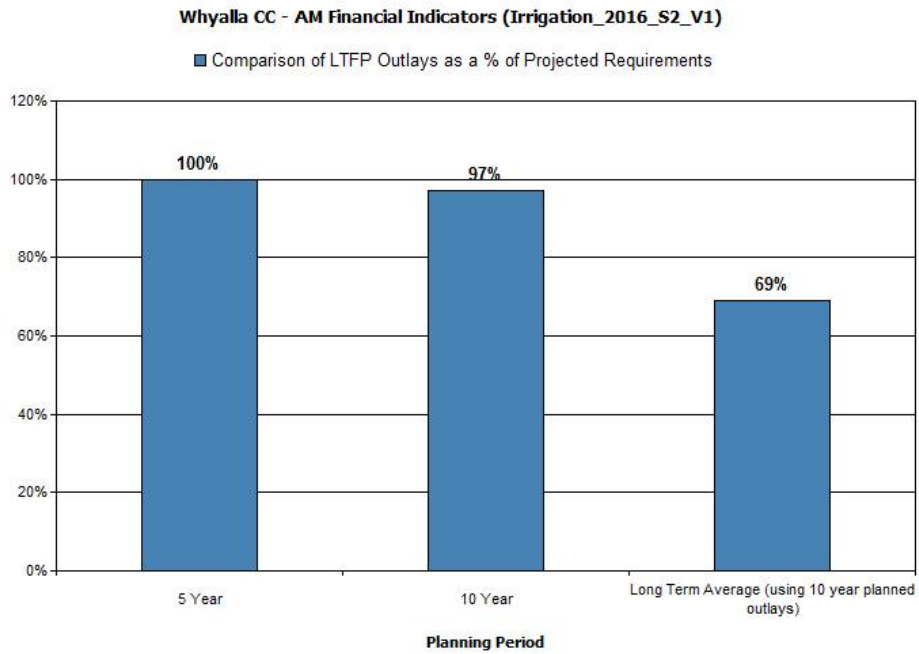
The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$423,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$423,000 on average per year giving a 5 year funding shortfall of \$0. This indicates that Council expects to have 100% of projected expenditures required to provide the services shown in this asset management plan. A strategy will be implemented as part of the improvement plan to ensure projected expenditure needs meet budgeted expenditure.

#### Asset management financial indicators

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

**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 asset management plan and ideally over the 10 year life of the Long Term Financial Plan.

Figure 8 shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the long term financial plan.

**Figure 8: Projected and LTFP Budgeted Renewal Expenditure**

**Whyalla CC - Projected & LTFP Budgeted Renewal Expenditure (Irrigation\_2016\_S2\_V1)**

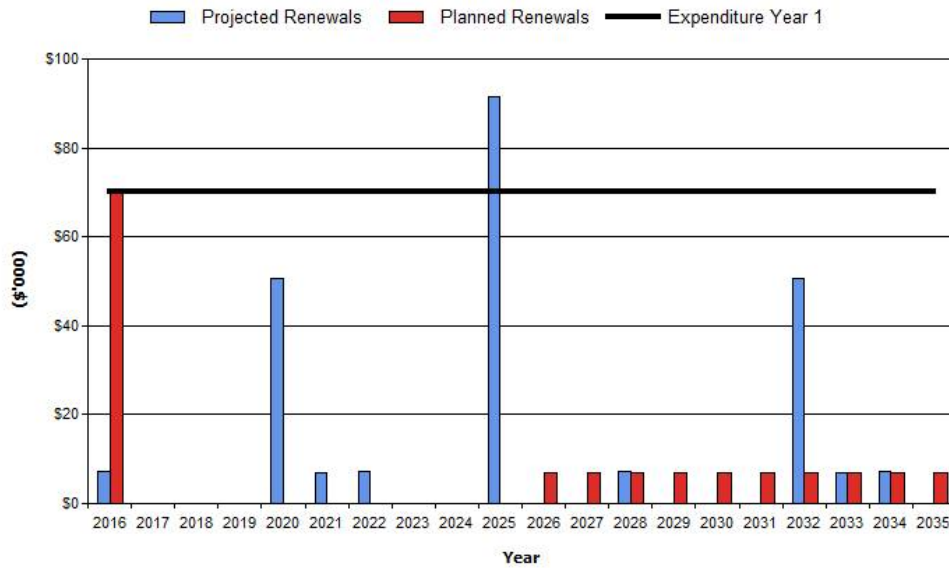


Table 6.1.1 shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in long term financial plan.

**Table 6.1.1: 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)
2016	\$7	\$70	\$63	\$63
2017	\$0	\$0	\$0	\$63
2018	\$0	\$0	\$0	\$63
2019	\$0	\$0	\$0	\$63
2020	\$51	\$0	\$-51	\$12
2021	\$7	\$0	\$-7	\$5
2022	\$7	\$0	\$-7	\$-2
2023	\$0	\$0	\$0	\$-2
2024	\$0	\$0	\$0	\$-2
2025	\$92	\$0	\$-92	\$-94
2026	\$0	\$7	\$7	\$-87
2027	\$0	\$7	\$7	\$-80
2028	\$7	\$7	\$-0	\$-80
2029	\$0	\$7	\$7	\$-73
2030	\$0	\$7	\$7	\$-66
2031	\$0	\$7	\$7	\$-59

2032	\$51	\$7	\$-44	\$-103
2033	\$7	\$7	\$0	\$-103
2034	\$7	\$7	\$-0	\$-103
2035	\$0	\$7	\$7	\$-96

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

### 6.1.2 Projected expenditures for long term financial plan

Table 6.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in 2015 real values.

**Table 6.1.2: Projected Expenditures for Long Term Financial Plan (\$000)**

Year	Operations (\$000)	Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)	Disposals (\$000)
2016	\$10	\$399	\$7	\$64	\$0
2017	\$10	\$402	\$0	\$0	\$0
2018	\$10	\$402	\$0	\$0	\$0
2019	\$10	\$402	\$0	\$0	\$0
2020	\$10	\$402	\$51	\$0	\$0
2021	\$10	\$402	\$7	\$0	\$0
2022	\$10	\$402	\$7	\$0	\$0
2023	\$10	\$402	\$0	\$0	\$0
2024	\$10	\$402	\$0	\$0	\$0
2025	\$10	\$402	\$92	\$0	\$0
2026	\$10	\$402	\$0	\$6	\$0
2027	\$10	\$402	\$0	\$6	\$0
2028	\$10	\$403	\$7	\$6	\$0
2029	\$10	\$403	\$0	\$6	\$0
2030	\$10	\$403	\$0	\$6	\$0
2031	\$10	\$404	\$0	\$6	\$0
2032	\$10	\$404	\$51	\$6	\$0
2033	\$10	\$404	\$7	\$6	\$0
2034	\$10	\$405	\$7	\$6	\$0
2035	\$10	\$405	\$0	\$6	\$0

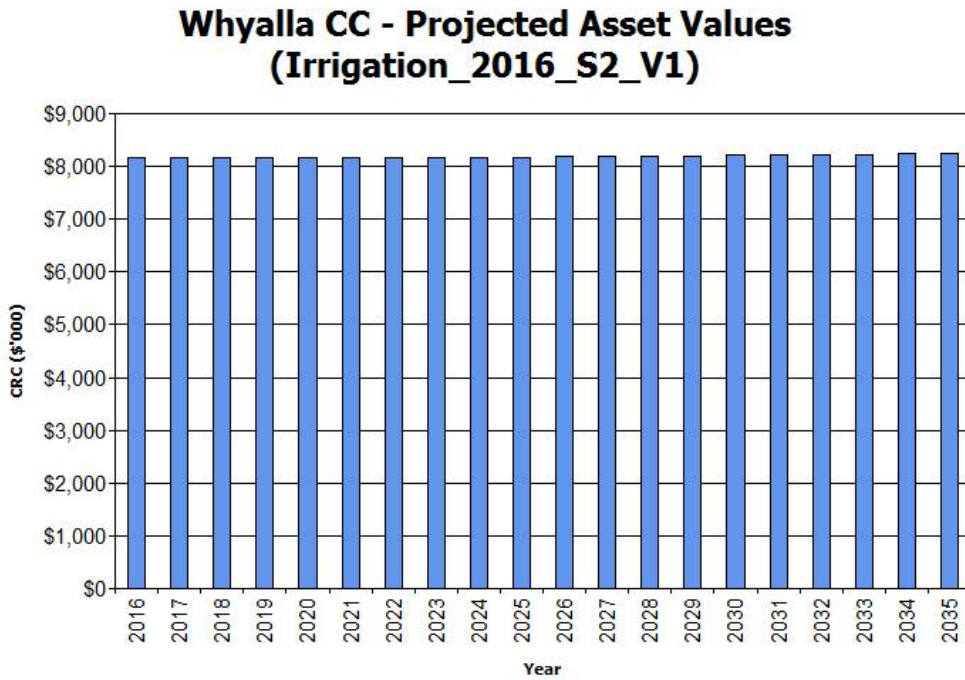
## 6.2 Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability projected expenditures identified in Section 6.1.2 will be accommodated in the organisation’s 10 year long term financial plan.

### 6.3 Valuation Forecasts

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

Figure 9: Projected Asset Values

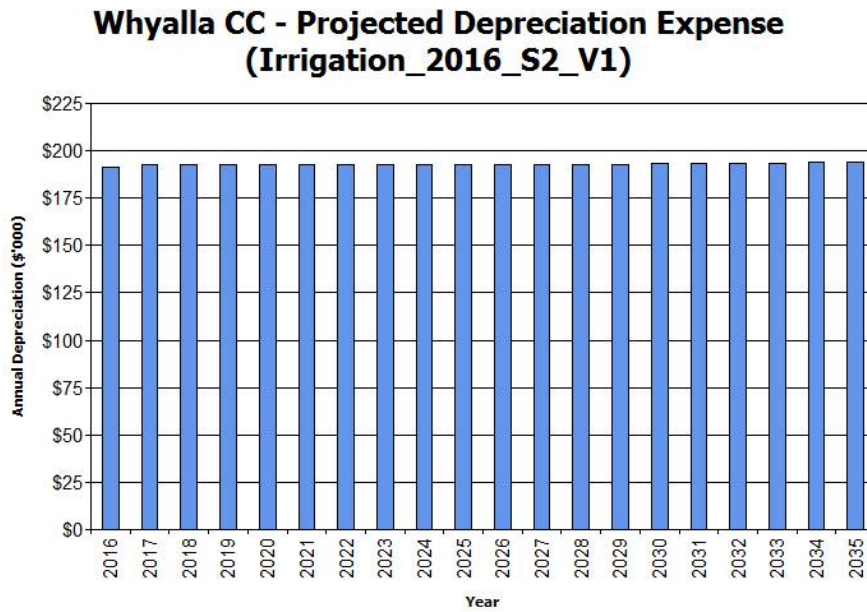


Depreciation expense

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

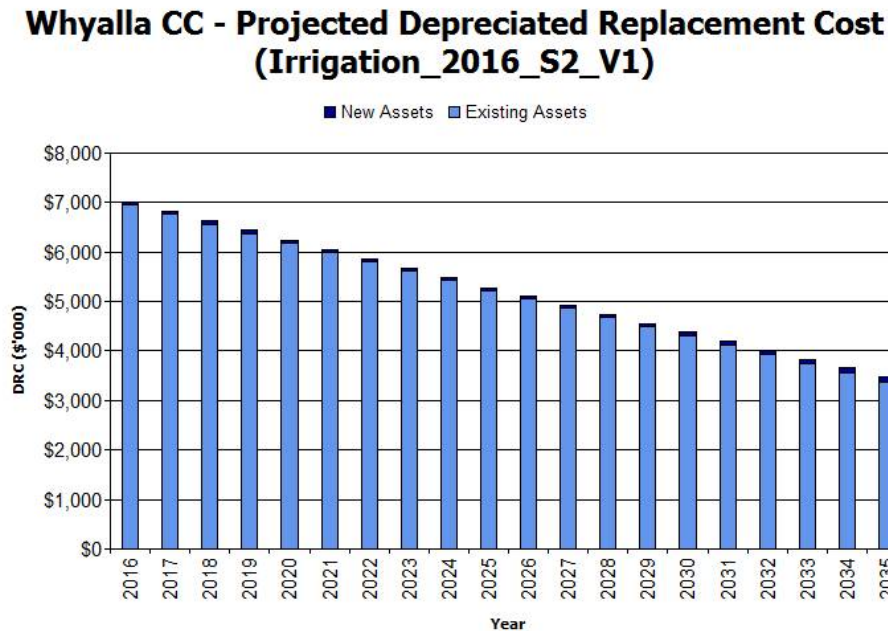


**Figure 10: Projected Depreciation Expense**



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**



## 6.4 Key Assumptions made in Financial Forecasts

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

Key assumptions made in this asset management plan and risks that these may change are shown in Table 6.4.

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

Key Assumptions	Risks of Change to Assumptions
Asset Data available at time of audit is accurate and based on sound methodology	Asset data is based on historical data that is incomplete. Further testing is required to confirm assumptions made from visual inspection.
Current depreciated value based on standard life	Actual service life may vary, resulting in reduced or increased life of assets.
Growth is estimated not to exceed 1% per year	Growth exceeding this estimation may result in unplanned/unbudgeted maintenance and renewal.

## 6.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan 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<sup>7</sup> in accordance with Table 6.5.

**Table 6.5: Data Confidence Grading System**

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

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

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

Data	Confidence Assessment	Comment
Demand drivers	B	Demand drivers are based on historical trends and are not expected to vary significantly.

<sup>7</sup> IPWEA, 2011, IIMM, Table 2.4.6, p 2|59.

Growth projections	C	Growth projections are based historical trends over the previous 20 year period and although population growth is generally steady, peaks of substantial infrastructure development are present and challenging to predict.
Operations expenditures	B	Are expected to remain steady
Maintenance expenditures	B	Are expected to remain steady
Projected Renewal exps. - Asset values	C	Values are based on latest contract values for correspondence asset subcategories to reflect current market
- Asset residual values	C	Asset residual values are based on straight line depreciation over standard life. Revised life is not considered.
- Asset useful lives	B	Asset useful lives are based on visual inspection applied to historical information to revise the expiry.
- Condition modelling	B	Conditions are based on visual inspections undertaken from time to time
- Network renewals	B	Network renewals are based analysed after a sample visual inspection methodology is expected to be accurate.
- Defect repairs	B	Treatments in line with Asset Audit Deliverables
Upgrade/New expenditures	A	Council control's this work through upgrades or contractor management.
Disposal expenditures	C	Written down value (accumulated depreciation) is based on standard life estimations. In reality actual residual value maybe greater if actual useful like exceeds standard useful life.

Over all data sources, the data confidence is assessed as Limited confidence level for data used in the preparation of this AM Plan. The inventory is not componentised adequately.

## 7. PLAN IMPROVEMENT AND MONITORING

### 7.1 Status of Asset Management Practices

#### 7.1.1 Accounting and financial systems

Financial records are maintained within the Synergy Soft system. This system provides links to Asset Maintenance, Records, Property Files and other services provided by Council.

Group Manager Finance and Corporate provides supervision for Finance staff in the regular up-dating and maintenance of the system. Technical support is provided by IT Vision.

Council maintains records and reports financial information in accordance with AASB standards, the Local Government Act 1999 and the Financial Regulations.

#### Accounting standards and regulations

IPWEA, 2011, "International Infrastructure Management Manual", Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au](http://www.ipwea.org.au)

IPWEA, August 2007, "A Guided Pathway to Asset Management Planning", Institute of Public Works Engineering Australia Limited.

IPWEA, December 2009, "Australian infrastructure Financial Management Guidelines", Institute of Public Works Engineering Australia Limited.

### 7.1.2 Asset management system

Council currently records asset details within the Main Accounting System. Records are maintained and updated as and when required by Finance and Infrastructure Staff.

Links within the system ensure timely flow through of information between the Asset Register and Accounting system.

Group Manager Finance and Corporate is responsible for the management of financial data, Group Manager for Engineering and Infrastructure is responsible for Asset Management, and Manager City Services is responsible for the Planned and reactive maintenance of Irrigation Assets.

The key information flows *into* this infrastructure and asset management plan are:

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

The key information flows *from* this infrastructure and asset management plan are:

- The assumed Works Program and trends;
- The resulting budget, valuation and depreciation projections;
- The useful life analysis.

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets. Annual Maintenance and renewal requirements are used for the purpose of budgeting for expenditure. New assets are recognised and recorded at the date on which they are available for use. This usually occurs on 30 June of each year. Assets are depreciated from the date of recognition.

## 7.2 Improvement Program

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

**Table 7.2: Improvement Plan**

Task No	Task	Responsibility	Resources Required	Timeline
1	Review Council's asset management policy	GM E&I	Staff Time	Annually
2	Asset Management System/Inventory controls	GM E&I	Staff time/consultant	June 2016
3	Community Satisfaction Survey and desired level of service identification	GM E&I	Staff time/consultant	annually
4	Asset Condition Surveys	GM E&I	Staff Time/Consultant	every five years
5	Programed and systematic inspection regime addressing maintenance Expenditure requirements v's operating expenditure	Manager City Services/Manager Strategic Planning and Projects	Staff time	September 2015
6	Risk management plans	Manager City Services/Manager Strategic Planning and Projects	Staff Time	Every Six months
7	GIS mapping and enhance Council's corporate asset register meeting both technical and financial reporting requirements	Assets Officer	Staff Time	December 2015/annually thereafter
8	Renewal/Replacement Plans and annual works programs (with specific reference to HMAS Whyalla)	Manager City Services/Manager Strategic Planning and Projects	Staff Time	march annually
9	Conduct association maturity Assessment in line with national framework	Project Manager Assets & Programming	Staff Time	December 2015

## 7.3 Monitoring and Review Procedures

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

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

The AM Plan has a life of 4 years (Council election cycle) and is due for complete revision and updating within 2 years of each Council election.

## 7.4 Performance Measures

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

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

## 8. REFERENCES

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/IIMM](http://www.ipwea.org.au/IIMM)

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/namsplus](http://www.ipwea.org.au/namsplus).

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/AIFMG](http://www.ipwea.org.au/AIFMG).

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, [www.ipwea.org.au/IIMM](http://www.ipwea.org.au/IIMM)

Organisation, 'Strategic Plan 2012/13 – 2016/17',

Organisation, 'Annual Plan and Budget'.

## **9. APPENDICES**

Appendix A Budgeted Expenditures Accommodated in LTFP

Appendix B Abbreviations

Appendix C Glossary

**Appendix A Budgeted Expenditures Accommodated in LTFP**

**Irrigation\_2016\_S2\_V1 Form 3 Data**

Created on 11/06/2015

Asset Values (\$000)	
CRC	8,114
Depreciable Amt	8,114
DRC	7,076
Annual Depreciation	191

Operations and Maintenance Costs from New Assets	
Additional Ops	0.12 %
Additional Maint	4.91 %
Additional Depreciation	2.35 %
Renewal Ratio	0.86 %

[Edit Growth Details](#)

[View, Edit or Add Register](#)

» Scroll right for more »

Financial Year ending 30 June	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Expenditure Outlays included in Long Term Financial Plan (in current \$ values)</b>										
<b>Operations</b>	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
Operations Budget	0	0	0	0	0	0	0	0	0	0
Management Budget	0	0	0	0	0	0	0	0	0	0
AM Systems Budget	10	10	10	10	10	10	10	10	10	10
<b>TOTAL OPERATIONS</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Maintenance</b>										
Reactive Maintenance Budget	319	319	319	319	319	319	319	319	319	319
Planned Maintenance Budget	80	80	80	80	80	80	80	80	80	80
Specific Maintenance Items Budget	0	0	0	0	0	0	0	0	0	0
<b>TOTAL MAINTENANCE</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>	<b>\$ 399</b>
<b>Capital</b>										
Planned Renewal Budget	70	0	0	0	0	0	0	0	0	0
Planned Upgrade/New Budget	0	0	0	0	0	0	0	0	0	0
<b>Non-growth contributed asset value</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Asset Disposals</b>										
Est. cost to dispose of assets	0	0	0	0	0	0	0	0	0	0
Carrying value (DRC) of disposed assets	0	0	0	0	0	0	0	0	0	0
<b>Additional Expenditure Outlays Requirements (e.g from Infrastructure Risk Management Plan)</b>										
Additional Expenditure Outlays required and not included above	2016 \$000	2017 \$000	2018 \$000	2019 \$000	2020 \$000	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000
Operations	0	0	0	0	0	0	0	0	0	0
Maintenance	0	0	0	0	0	0	0	0	0	0
Capital Renewal	to be incorporated into Register (where Method 1 is used) OR Defect Repairs (where Method 2 or 3 is used)									
Capital Upgrade	0	0	0	0	0	0	0	0	0	0
<b>Forecasts for Capital Renewal using Methods 2 &amp; 3 (Form 2A &amp; 2B) &amp; Capital Upgrade (Form 2C)</b>										
Forecast Capital Renewal from Form 2A & Form 2B	2016 \$000	2017 \$000	2018 \$000	2019 \$000	2020 \$000	2021 \$000	2022 \$000	2023 \$000	2024 \$000	2025 \$000
Forecast Capital Upgrade/New from Form 2C	64	0	0	0	0	0	0	0	0	0



## Appendix B Abbreviations

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

## Appendix C 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

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

### Average annual asset consumption (AAAC)\*

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

### Borrowings

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

### Capital expenditure

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

### Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is

discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

**Capital expenditure - new**

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

**Capital expenditure - renewal**

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. 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 organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

**Capital funding**

Funding to pay for capital expenditure.

**Capital grants**

Monies received generally tied to the specific projects for which they are granted, which are

often upgrade and/or expansion or new investment proposals.

**Capital investment expenditure**

See capital expenditure definition.

**Capitalisation threshold**

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

**Carrying amount**

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

**Class of assets**

See asset class definition

**Component**

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

**Core asset management**

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

**Cost of an asset**

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

**Critical assets**

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and

rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

**Current replacement cost (CRC)**

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

**Deferred maintenance**

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

**Depreciable amount**

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

**Depreciated replacement cost (DRC)**

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

**Depreciation / amortisation**

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

**Economic life**

See useful life definition.

**Expenditure**

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

**Fair value**

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

**Financing gap**

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and

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

**Heritage asset**

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

**Impairment Loss**

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

**Infrastructure assets**

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

**Investment property**

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business.

**Key performance indicator**

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset

performance, reliability, efficiency, environmental protection and customer satisfaction.

#### **Level of service**

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

#### **Life Cycle Cost \***

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

#### **Life Cycle Expenditure**

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

#### **Loans / borrowings**

See borrowings.

#### **Maintenance**

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

- **Reactive maintenance**

Unplanned repair work that is carried out in response to service requests and management/supervisory directions.

- **Specific maintenance**

Maintenance work to repair components or replace sub-components that 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

#### **Net present value (NPV)**

The value to the organisation 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 eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

**Non-revenue generating investments**

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

**Operations**

Regular activities to provide services such as public health, safety and amenity, eg 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, eg 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 (eg 5, 10 and 15 years).

**Operations, maintenance and renewal gap**

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

**Pavement management system (PMS)**

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

**PMS Score**

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

**Rate of annual asset consumption \***

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

**Rate of annual asset renewal \***

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

**Rate of annual asset upgrade/new \***

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

**Recoverable amount**

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

**Recurrent expenditure**

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

**Recurrent funding**

Funding to pay for recurrent expenditure.

**Rehabilitation**

See capital renewal expenditure definition above.

**Remaining useful life**

The time remaining until an asset ceases to provide the required service level or economic

usefulness. Age plus remaining useful life is useful life.

**Renewal**

See capital renewal expenditure definition above.

**Residual value**

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

**Revenue generating investments**

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

**Risk management**

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

**Section or segment**

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

**Service potential**

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

**Service potential remaining**

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

**Specific Maintenance**

Replacement of higher value components/sub-components of assets that is undertaken on a

regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

**Strategic Longer-Term Plan**

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

**Sub-component**

Smaller individual parts that make up a component part.

**Useful life**

Either:

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

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

**Value in Use**

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

Source: IPWEA, 2009, AIFMG Glossary

Additional and modified glossary items shown \*