



Coolamon shire  
council

*big enough to serve small enough to care*

# Asset Management Plan

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### **REVIEW**

This document may be reviewed at any time or as required in the event of legislative changes. Unless otherwise required the policy will be reviewed at least every two years.

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# Asset Management Plan

## 1. EXECUTIVE SUMMARY

### 1.1 The Purpose of the Plan

Coolamon Shire Council is custodian of an extensive range of assets that it provides to facilitate the delivery of its services to the community. These assets consist of Roads, Bridges, Culverts, Footpaths, Kerb & Gutter, Stormwater, Wastewater, Buildings and Open spaces (i.e. pools, shades, lighting, parks, equipment etc).

Council needs to ensure that there is an appropriate level of funding to enable assets to be maintained and renewed to an acceptable standard.

Council will use this Asset Management Plan to balance levels of service, community expectations and affordability of its assets and services. This plan defines services to be provided, how the services are provided and what funds are required to provide the services over a 10 year planning period in a sustainably approved manner.

### 1.2 Asset Description

A full list of Asset descriptions and replacements costs can be located in AssetFinda and in the Valuation folder.

Council's Road and transport network is recognised as Council's largest asset class across the shire, and is part of a larger network.

- The stormwater infrastructure protects both private and Council Assets.
- Footpaths and bike trails are used from a large age group across the community, which requires paths to be kept to a high standard to avoid hazards and risks.
- Open spaces and buildings require different levels of management and level of care as some assets are Council managed verse volunteer managed.
- The Wastewater networks allows for recycling effluent to be treated for reuse on the sporting fields, providing significant water and cost saving while maintaining sporting fields.

### 1.3 Levels of Service

Our present funding levels are sufficient to continue to provide existing services at current levels in the interm.

The main services consequences are:

- Affordability of repairs and upkeep, and sustainable maintenance of Assets.
- Failure to maintain asset data, particularly the condition and remaining life assets. This could potentially lead to poor decision making and lack of funding for maintenance and renewals.
- Insufficient resources including funding and staff to replace/renew assets in accordance with renewal forecasts maintenance standards.
- Poor Asset Quality, leading increases risks and hazards both to the Community through accidents/incidents that may occur and financially to Council creating an increase cost to bring the asset back to standard.
- Deterioration of service capability resulting in possible reduced service ability and higher costs of the Asset services and repairs.

- Deterioration of asset condition thereby increasing the likelihood of accidents, claims against Council and reputational damage.
- Resident/Consumer dissatisfaction resulting in consumer backlash.

### 1.4 Future Demand

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

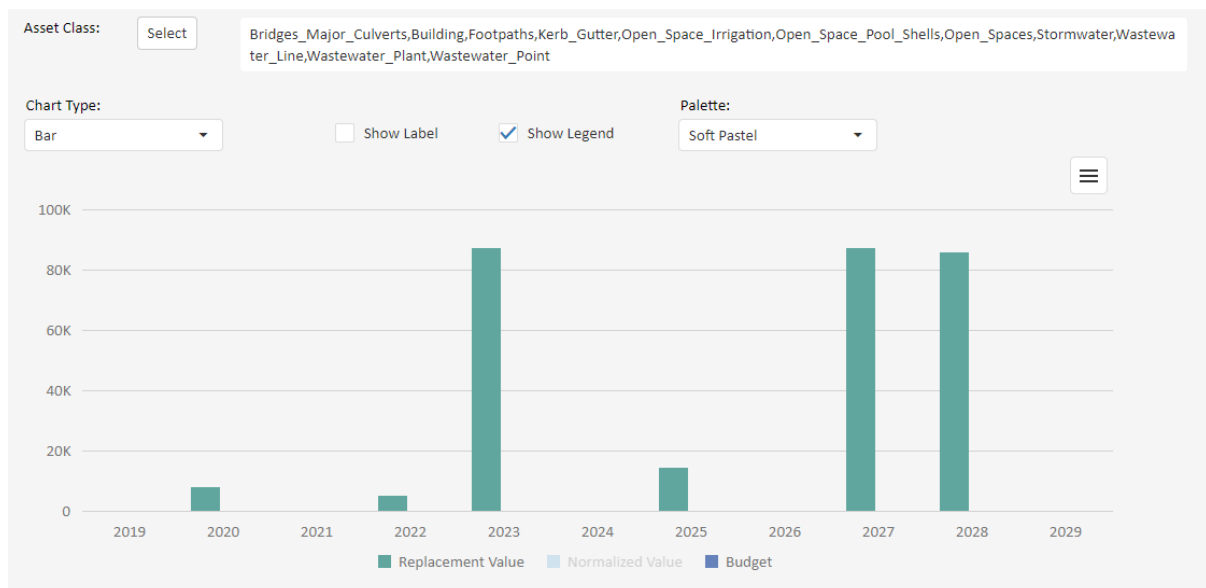
These will be managed through a combination of managing existing assets, disposing of unwanted assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

### 1.5 Lifecycle Management Plan

The budget for all assets are located in the Operational Plan and Delivery Program document. This document outlines Operational Programs including grants and Capital Programs.

The 5 year summaries of the asset classes are located in the Asset Management Procedures, service dashboards documents, and in AssetFinda.

The following graph shows what the cost of replacement to all assets excluding roads over a 10 year period if the Assets are not maintained at high condition rate.



The following is a potential list of assets to be upgraded or extended according to the Council's Strategic plan;

- Extension to footpath network – Coolamon & Ganmain
- Extension to Sewerage network - Coolamon & Ganmain
- Extension to Kerb & Gutter Network – Ardlethan, Coolamon & Ganmain
- Extension to Stormwater Assets – Ardlethan, Coolamon & Ganmain

## 1.6 Financial Summary

Council has a maintenance management system in place to identify and respond to defects to keep the network at a sustainable level. As continued maintenance and upgrades are provided at the time through our maintenance system, there is an increased risk to future funding being required, with the risk to increase in aging networks.

There is currently no shortfall for the allocated funding, the projected expenditure required to provide services in the AM Plan compared with planned expenditure currently are included in the Long Term Financial Plan.

We plan to provide Asset services for the following:

- Operation, maintenance, renewal and upgrade of all network to meet service levels set by annual budgets.
- Any areas of concern are outlined in the Delivery Program and Operational Plan.
- Future renewals and major projects are outlined in Councils strategic plan.
- Where identified by Community and Environmental needs.

### **Managing the Risks**

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

The main risk consequences are:

- Deterioration to Assets cause risk hazards to consumers resulting in Assets being used less or cause injury or harm to person/s.
- Maintenance of Assets becomes neglected.

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

- Maintaining Council's inspection procedure for assets and following through with repairs according to their allocated response time. All is outlined in AssetFinda and individual asset procedures.
- Develop maintenance procedures to ensure that activities meet the best cost effective for practice maintenance.
- Commence planning for changes in operations regimes based on initially deteriorating assets that will require intensive intervention to maintain service levels until such time as renewals eliminate the backlog.

## 1.7 Asset Management Systems

Our systems to manage assets include:

- Authority CRM System
- AssetFinda

## 1.8 Monitoring and Improvement Program

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

- Monitor and maintain new Asset management system, to improve capture of data.
- Inspections are outlined in the individual asset procedures.
- Monitor allocated budgets against asset maintenance expenditure
- Proactive approach to property managements

## 2. INTRODUCTION

### 2.1 Background

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

The asset management plan is to be read with the Coolamon Shire Council Asset Management planning documents. This should include the Asset Management Policy and Asset Management Strategy where these have been developed, along with other key planning documents:

- Delivery Program and Operational Plan
- Asset Service Dashboards

### 2.2 Goals and Objectives of Asset Ownership

Our goal in managing 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 asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a long-term financial plan which, identifies required, affordable expenditure and how it will be allocated.

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

- International Infrastructure Management Manual 2015
- ISO 550002
- IPWEA

### 2.3 Core and Advanced Asset Management

This asset management plan is prepared as an 'advanced' asset management plan over a 10 year planning period in accordance with the International Infrastructure Management Manual.

## 3. LEVELS OF SERVICE



The levels of service are the required performance standard for an asset. Levels of service determine an asset’s development, operation, maintenance, replacement and disposal. Factors that determine the level of service are primarily:

- Strategic and Corporate Goals - Council’s goals and values as stated in policies, strategies, and the Council Plan
- Community and User safety
- Economic development potential
- Community Strategic Plan
- Environmental Protection
- Community Use of Asset

### 3.1 Customer Research and Expectations

Community satisfaction information is used in developing the Strategic Plan and in the allocation of resources in the budget. Community satisfaction results are maintained in the Service dashboards;

[Groups\(\cssvr1\)\(G:>ASSETMANAGEMENT>ServiceDashboards](#)

All assets were satisfactory according to the previous community services. Council’s community satisfaction results show a continued trend of satisfactory level of Council Assets and the services they provide to the community. Council is currently preparing to conduct a new Community survey for 2021, these surveys are conducted every 4 years.

### 3.2 Strategic and Corporate Goals

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

Whilst leading the Community, council will ensure that it adopts a consultative role that allows all community needs to be identified and properly considered in Council’s Forward Planning Processes.

The Coolamon Shire Council will exercise its duty of care to ensure public safety in accordance with the Councils risk management plans.

### 3.3 Legislative Requirements

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

**Table 3.3: Legislative Requirements**

Legislation	Requirement
Local Government Act 1993	Sets out role, purpose, responsibilities and powers of local governments including the preparation of long term financial plan supported by asset management plans for sustainable service delivery.
Protection of the Environment Operations Act 1997	Council holds environmental protection licences for the operation of Coolamon, Ganmain and Ardlethan Sewage Systems
The Environmental Planning and Assessment Act 1979	An Act to provide for planning and regulate development in the State; to regulate the use and management of land and buildings, and the design and construction of buildings; to make provision for the maintenance and conservation of land and buildings where appropriate
Work, Health and Safety Act 2012	Council is required to comply with Work, Health and Safety in its sewerage service operations
Public Health Act 2010	Effluent disposal methods to protect public health, Prevention of the spread of disease

National Asset management Framework Legislation 2010	Focus on long term financial sustainability and provides a mandate to have long term strategy, financial statements and annual reporting mechanisms. Asset management plans are likely to be audited.
Dangerous Substances Act 1979	An Act to regulate the keeping, handling, transporting, conveyance, use and disposal, and the quality, of dangerous substances; and for other purposes.
Australian Accounting Standards	Sets out the financial reporting standards relating to infrastructure assets.
Disability Discrimination Act 1992	To eliminate as far as possible, discrimination against persons on the grounds of disability in the areas of the provision of goods, facilities, services and land
Civil Liability Act 2002 and Civil Liability Amendment (Personal Responsibility) Act 2002	Protects the Council from civil action by requiring the courts to take into account the financial resources, the general responsibilities of the authority and the compliance with general practices and applicable standards
Threatened Species Conservation Act 1995	An Act to conserve threatened species, populations and ecological communities of animals and plants.
Road Transport (Safety and Traffic Management) Act 1999	Facilitates the adoption of nationally consistent road rules in NSW, the Australian Road Rules. It also makes provision for safety and traffic management on roads and road related areas including alcohol and other drug use, speeding and other dangerous driving, traffic control devices and vehicle safety accidents.
Road Transport (General) Act 2005	Provides for the administration and enforcement of road transport legislation. It provides for the review of decisions made under road transport legislation. It makes provision for the use of vehicles on roads and road related areas and also with respect to written off and wrecked vehicles.
Roads Act 1993	Sets out rights of members of the public to pass along public roads, establishes procedures for opening and closing a public road, and provides for the classification of roads. It also provides for declaration of the RMS and other public authorities as roads authorities for both classified and unclassified roads, and confers certain functions (in particular, the function of carrying out roadwork) on the RMS and other roads authorities. Finally it provides for distribution of functions conferred by this Act between the RMS and other roads authorities, and regulates the carrying out of various activities on public roads
Native Vegetation Act 2003	This Act regulates the clearing of native vegetation on all land in NSW, except for excluded land listed in Schedule 1 of the Act. The Act outlines what landowners can and cannot do in clearing native vegetation.
AS 1742	Australian Standard 1742 which refers to a variety of road and traffic issues.
NSW Road Rules 2008	A provision of road rules that are based on the Australian Road Rules so as to ensure that the road rules applicable in this State are substantially uniform with road rules applicable elsewhere in Australia.
Road and Rail Transport (Dangerous Goods) 1997 No 113	The purpose of this Act is to regulate the transport of dangerous goods by road and rail in order to promote public safety and protect property and the environment.
NSW Government Flood Prone Land Policy – Floodplain Development Manual	Council’s obligations in relation to the management of flood liable land in accordance with Section 733 of the Local Government Act, 1993.
Development Act 1993	An Act to provide planning and regulate development in the state; to regulate the use and management of land and Stormwater, and the design and construction of Stormwater; to make provisions for the maintenance and conservation of land and Stormwater where appropriate.
Stormwater Code of Australia	A code to enable the achievement of nationally consistent, minimum necessary standards of relevant, health, safety (including structural

	safety and safety from fire), amenity and sustainability objectives efficiently.
Retirement Villages Act 1999	An Act to regulate retirement villages and the rights of residents of such villages; and for other purposes
Heritage Places Act 1993	An Act to make provision for the identification, recording and conservation of places and objects of non-Aboriginal heritage significance; to establish the South Australian Heritage Council; and for other purposes.
Residential Tenancies Act 1995	An Act to regulate the relationship of landlord and tenant under residential tenancy agreements; and for other purposes
Retail and Commercial Leases Act 1995	An Act regulating the leasing of retail shops; to amend the Landlord and Tenant Act 1936; and for other purposes.
Protection of the Environment Administration Act, 1993	This Plan has been prepared to comply with the requirements of a Notice issued to Coolamon Shire Council by the Environment Protection Authority (EPA) under Section 12
National Construction Code (Building Code of Australia)	A code to enable the achievement of nationally consistent, minimum necessary standards of relevant, health, safety (including structural safety and safety from fire), amenity and sustainability objectives efficiently.
Aged Care Act 1997	Is the main law that covers government-funded aged care. It sets out rules for things like funding, regulation, approval of providers, quality of care and the rights of people receiving care. Laws on diversity and discrimination also apply to aged care.

### 3.4 Customer Levels of Service

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

**Customer Levels of Service** measure how the customer receives the service and whether value to the customer is provided.

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

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

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

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

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

These Organisational measures provide a balance in comparison to the customer perception that may be more subjective.

Each Asset class's customer level of services are located in their procedure manuals.

### 3.5 Technical Levels of Service

**Technical Levels of Service** - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

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

- Operations – the regular activities to provide services (e.g. opening hours, cleaning, lock of facility, energy, inspections, etc.
- Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition (eg carpet repairs, wall patching, gutter cleaning, painting, Roads and structure repairs)

- Renewal – the activities that return the service capability of an asset up to that which it had originally (eg Roads component replacement)
- Upgrade/New – the activities to provide a higher level of service (eg clubroom extensions) or a new service that did not exist previously (eg a new library).
- Licensing – regulations that Council abide by to operate services

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

Each Asset class’s technical level of services are located in their procedure manuals.

## 4. FUTURE DEMAND

### 4.1 Demand Drivers

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

### 4.2 Demand Forecasts

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

### 4.3 Demand Impact on Assets

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

**Table 4.3: Demand Drivers, projections and impact on services**

Demand Drivers	Present position	Projection	Impact on Services
Climate Change	Climate change will see an increase risk of extreme weather events including storm events, flooding, sea level rise and fire events	It is expected that climate change will intensify in the medium to long term resulting in an increased number of extreme weather events	There will be an increase in structural damage caused by extreme events and an increase in deterioration rates of the network
Changes to Design Standard/Codes	Council currently constructs and maintains its infrastructure assets in accordance with all adopted standards.	It is expected that ongoing changes and developments in standards will result in higher construction and maintenance costs	As changes occur Council may need to re-appraise unit costs to ensure budgets are sufficient to meet adopted standards
Vehicle automation	There is currently little to no use of vehicle automation on the road network across the municipality	It is expected that by 2050 that automated vehicles may account for a significant proportion of the traffic across the network	This may require upgrades to existing infrastructure to accommodate autonomous vehicles

Changing Freight Needs	Currently many trucks on the road	Talk of changing to inland rail system	Less heavy vehicles on the roads, means less wear and tear of surfaces
Community Expectation	Increasing community expectation for improved services	Continued pressure from community for improved services	No current impact on services
Growing population and by the same token – a declining population will also affect this	New sub divisions being developed	Increased pressure from community for new services	Requirement for new services to be built
Legislative requirements	Assets constructed and maintained according to current legislation	Assets constructed and maintained according to current legislation	Unknown
Environmental Impacts	Assets are constructed to withstand today's known environmental conditions and to meet today's environmental standards	Greater requirement related to constructing of assets that are environmentally sustainable	Higher costs associated with constructing assets that are environmentally sustainable, eg water retention/recycling, solar energy etc.
Aging population	Increasing aging population consistent with nationwide trends	Percentage of people over the age of 65 expected to increase	Requirement for improved accessibility and mobility areas

#### 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 can include non-asset solutions, insuring against risks and managing failures, which may include the disposal of some assets.

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**

Demand Drivers	Present position	Projection
Climate Change	There will be an increase of structural damage caused by extreme events and an increase in deterioration rates of the network	Investigate the development of a Climate Change Adaptation Policy/Strategy

Changes to Design Standard/Codes	As changes occur Council may need to re-appraise unit costs to ensure budgets are sufficient to meet adopted standards.	Monitor and assess proposed changes for impacts on construction and maintenance costs.
Vehicle automation	This may require upgrades to existing infrastructure to accommodate autonomous vehicles	Monitor ongoing developments in this area and identify opportunities for Council to respond to changes as and where necessary
Changing Freight Needs	No current change	Inland rail will create less traffic on the roads, which will reduce wear and tear of roads and possible change in hierarchy.
Community Expectation	Increasing community expectation for improved services	No current impact on services. Constant review of services and infrastructure to ensure adequate community needs.
Growing population and by the same token – a declining population will also affect this	Require more assets as sub divisions develop	Spare funding will be obtained from develops as they happen, grant funding, community consultation will be held to discuss for further assets/services.
Legislative requirements	Assets constructed and maintained according to current legislation	Rise in cost when renewing/create new assets, funding will be sourced from develop of new sup divisions, grants, budgets for appropriate asset area
Environmental Impacts	Assets are constructed to withstand today's known environmental conditions and to meet today's environmental standards	Higher costs associated with constructing assets that are environmentally sustainable, to be allocated for in future budgets and development of new sub divisions.
Aging population	Require improved accessibility and mobility network	Improve assets during renewal and development

#### 4.5 Asset Programs to meet Demand

The new assets required to meet demand can be acquired, donated or constructed. These programs and plans are outlined in the Delivery & Operational Plans, the Coolamon Shire Strategic Plan and the Individual Asset Procedures/Plans.

## 5. LIFECYCLE MANAGEMENT PLAN

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

## 5.1 Background Data

### 5.1.1 Physical parameters

The assets covered by this asset management plan are shown in AssetFinda.

Age profile information is not currently available. An age profile will be developed in future revisions of the asset management plan.

### 5.1.2 Asset capacity and performance

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

### 5.1.3 Asset condition

Condition is monitored during routine inspections, and new condition ratings reviewed on a yearly basis, unless otherwise stated in individual Asset Management Procedures.

As AssetFinda uses a 0-100 grading system, the following table has been developed to show the comparison of the traditional 1 to 5 system commonly used by IPWEA to how we use the Condition grading in AssetFinda to show the 1 to 5 standard of condition grading.

Condition is detailed in Table 5.1.3.

**Table 5.1.3: Simple Condition Grading Model**

Condition Grading	Asset Finda Rating	Description of Condition
1	5	<b>Excellent:</b> only planned maintenance required
2	25	<b>Good:</b> minor maintenance required plus planned maintenance
3	45	<b>Average:</b> significant maintenance required
4	65	<b>Poor:</b> significant renewal/rehabilitation required
5	85	<b>Very Poor:</b> physically unsound and/or beyond rehabilitation

Condition is monitored through a rolling program of condition inspections. However not all asset types covered by this plan are included in this program. The condition profile of our assets are shown in AssetFinda.

Currently Councils Assets are generally in fair to good condition with the majority of assets ranked as either condition 1, 2 or 3, with a relatively smaller number of assets approaching end of life. Land, Road Formation and Kerb & Gutter Formation (earthworks) are not currently assessed for condition as this asset type is generally considered not to deteriorate significantly over time. It will be important to monitor the deterioration of the network asset condition as the assets in condition 3 continue to deteriorate. Those assets rated at condition 5 will need to be assessed for either renewal or disposal should they no longer be required.

## 5.2 Operations and Maintenance Plan

Operations include regular activities to provide services such as pest and vegetation control, public health, safety and amenity, e.g. cleaning, street sweeping, utilities costs.

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. 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 Councils maintenance management system, AssetFinda.

AssetFinda activities include inspection, assessing the record 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, servicing air conditioning units, etc. This work falls below the capital/maintenance threshold but may require a specific budget allocation.

Maintenance expenditure is outlined in detail in Council's Delivery Program and Operational Plan document.

### 5.3 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

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

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average network renewals plus defect repairs in the Renewal Plan and Defect Repair Plan worksheets on the 'Expenditure template'.

Method 2 and 3 have been used for this asset management plan. Council use Inspections and condition ratings instead of creation date to organize maintenance and renewals.

#### 5.3.1 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 bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. roughness of a road).

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 high use and subsequent impact on users would be greatest,
- Have the highest average age relative to their expected lives,
- Have high operational or maintenance costs, and



- Have replacement with a modern equivalent asset that would provide the equivalent service at a savings.

Weighted renewal and prioritisation criteria have been developed for upgrade projects i.e. sealing of rural roads however this methodology of ranking projects has not been extended to renewal at this stage.

### 5.3.2 Summary of future renewal and replacement expenditure

Projected future renewal and replacement expenditures are forecast to increase over time when the asset stock increases.

Council through updated Asset Management systems will be able to better observe and capture replacement expenditure and budget for renewal and replacements.

## 5.4 Creation/Acquisition/Upgrade Plan

New works are those that create a new asset that did not previously exist, or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs.

### 5.4.1 Selection criteria

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

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

Expenditure on new assets and services in the capital works program will be accommodated in the long term financial plan but only to the extent of the available funds. Council take a holistic view of new assets so maintenance can be marked. The Council and community should be determining in such a scenario that if we take on a new asset – how do we fund it, and what to do with old or unused assets - Sell/dispose of. This needs to be considered so Council do not have a massive infrastructure maintenance budget/backlog.

Council has considered the impact of the current budgeted Asset works and has identified that the current long term financial plan budget is able to cover the maintenance and renewal costs of assets over the next 10 years, this is continued to be reviewed annually.

### 5.4.3 Summary of asset expenditure requirements

The financial projections from assets are shown in the Budget (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Council's current long-term financial model is adequate for the capital improvements, renewals, maintenance and operational costs associated with the planned management of the Asset network.

Council should understand that past 2029, renewals will continue to ramp up as time goes by. In the next few asset management plans, Council will need to consider whether it would prefer to fund renewals in a manner that follows the peaks and troughs of the historical and condition based renewal requirements, or fund renewals in a consistent manner, smoothing out the costs associated with renewing this asset.

## 5.5 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Assets are only disposed of, in the case where an asset is considered to be no longer required.

## 6. Risk Management Plan

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines. Risk Management is defined in ISO 31000:2009 as: ‘coordinated activities to direct and control with regard to risk’.

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a ‘financial shock’. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

### 6.1 Critical Assets

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

By identifying critical assets and failures modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be, targeted at the critical areas. Council have identified the wastewater network in Coolamon as a critical Assets that needs to be addressed over the next 5 to 10 years.

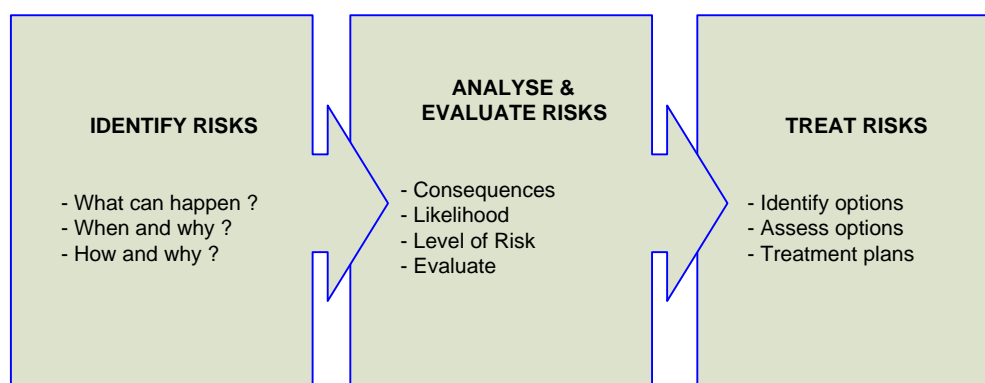
### 6.2 Risk Assessment

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

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

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

**Fig 6.2 Risk Management Process – Abridged**



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

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

Critical risks are those assessed with ‘Very High’ (requiring immediate corrective action) and ‘High’ (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan.

### 6.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service. Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our current measure of resilience is shown in Table 6.3, which includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

**Table 6.3: Resilience**

Threat / Hazard	Resilience (L, M or H)	Improvements / Interventions
Extreme Weather Event	Medium	Ensure Council’s Emergency Management Plan remains current and covers all reasonably foreseeable potential emergency situations.
Climate Change	Low	No specific strategic documents (Policy, Strategy or Plan) have been developed to address the effects of climate change on the Council’s.
Lack of capacity with the wastewater system to handle peak flows	System is approaching limit of capacity to handle peak loads in Coolamon	Larger transpiration bed allowed for in budget at Ganmain  Pump station allowed for in the budget for Coolamon industrial estate growth  New System being installed in Ardlethan

### 6.4 Service and Risk Trade-Offs

The decisions made in adopting this Asset Management Plan are based on the objective to achieve the optimum benefits from the available resources meeting the community strategic plan.

#### 6.4.1 What we cannot do

At this point in time Council see that there is no operations or maintenance activities and capital projects that are unable to be undertaken within the next 10 years.

#### 6.4.2 Service trade-off

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

- Unplanned increases in the Asset network
- Requirement of emergency work

#### 6.4.3 Risk trade-off

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

- Decline in the overall condition of the Assets.

These actions and expenditures are considered in the projected expenditures, and where developed are included in the Risk Management Plan.

## 7. 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.

### 7.1 Financial Statements and Projections

#### 7.1.1 Asset valuations

The accurate estimate of the value of assets included in this Asset Management Plan are located in AssetFinda.

#### 7.1.1 Sustainability of service delivery

Two 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, and
- medium term budgeted expenditures/projected expenditure (over 10 years of the planning period).

#### **Asset Renewal Funding Ratio**

Asset Renewal Funding Ratio 100%

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 10 years of the forecasting that we expect to have 100% of the funds required for the optimal renewal and replacement of assets.

#### **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.

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.

### 7.1.2 Projected expenditures for long term financial plan

Are available to view in the Delivery Program and Operational Plan, which is reviewed annually.

## 7.2 Funding Strategy

Funding for assets is provided from the budget and long term financial plan.

The financial strategy of the entity determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

### 7.3 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the service.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. Additional assets will also add to future depreciation forecasts.

### 7.4 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. 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 are:

**Table 7.4: Key Assumptions made in AM Plan and Risks of Change**

Key Assumptions	Risks of Change to Assumptions
Forecasted on “today’s” dollars, CPI is added in the financial budgeting cycle	If CPI is not added, forecast will be inaccurate
Staffing needs are resourced adequately	Unable to resource planned asset management activities
No significant changes in Legislation	Changes may demand unplanned/unbudgeted asset management activities
Growth as forecast	Forecasted growth may demand unplanned/unbudgeted asset management activities
Community Expectations remain consistent	Unable to resource required renewals to satisfy increase demands.
Experienced staff and Contractors	Lose of knowledge on assets and current standards or future plans

### 7.5 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.

**Table 7.5: Data Confidence Grading System**

<b>Confidence Grade</b>	<b>Description</b>
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
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 considered to be B – Reliable.

## **8. PLAN IMPROVEMENT AND MONITORING**

### **8.1 Status of Asset Management Practices**

#### **8.1.1 Accounting and financial data sources**

Council currently utilise Civica Authority to manage its finances

#### **8.1.2 Asset management data sources**

- Authority
- AssetFinda
- Council Delivery Program and Operational Plan
- CM9

### **8.2 Improvement Plan**

Council currently have no further future improvements in mind as AssetFinda is newly installed and utilised. Council will however continue to review/ monitor and test software for accuracy and future improvements or requirements. Council will continue to develop and improve on a link between financial systems Authority, Intramap and AssetFinda.

### 8.3 Monitoring and Review Procedures

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

The 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 long term financial plan. The AM Plan has a life of 4 years and is due for complete revision and updating within 1 year of each valuation. Assuming Valuations maintain on a 5 year rotation.

### 8.4 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 long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the 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 Strategic Plan and associated plans,
- The Asset Renewal Funding Ratio achieving the target of 1.0.
- Staff managing assets
- State of assets/records

## 9. REFERENCES

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/IIMM](http://www.ipwea.org/IIMM)
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/namsplus](http://www.ipwea.org/namsplus).
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/AIFMM](http://www.ipwea.org/AIFMM).
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, [www.ipwea.org/IIMM](http://www.ipwea.org/IIMM)
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- AssetFinda
- Delivery Program 2019/2023 and Operational Plan 2019/2020

### Appendix A Projected 10-year Capital Renewal and Replacement Works Program

The Asset database is held in the AssetFinda system.

**Appendix B Projected Upgrade/Exp/New 10-year Capital Works Program**

Is maintained in the Delivery Program 2019/2023 and Operational Plan 2019/2020

**Appendix C Budgeted Expenditures Accommodated in LTFP**

Is maintained in the Delivery Program 2019/2023 and Operational Plan 2019/2020