Resource Strategy

Sewer Asset Management Plan

COBAR SHIRE
COUNCIL
outback nsw

Document Control					
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ABBREVIATIONS

AAAC	Average annual asset consumption
AMP	Asset management plan
ARI	Average recurrence interval
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DoH	Department of Health
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SS	Suspended solids
vph	Vehicles per hour

GLOSSARY

Annual service cost (ASC)
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 operating, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset class
Grouping of assets of a similar nature and use in an entity's operations (AASB 166.37).

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 management
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.

Assets
Future economic benefits controlled by the entity as a result of past transactions or other past events (AAS27.12).

Property, plant and equipment including infrastructure and other assets (such as furniture and fittings) with benefits expected to last more than 12 month.

Average annual asset consumption (AAAC)*
The amount of a local government's asset base consumed during a year. This may be calculated by dividing the Depreciable Amount (DA) by the Useful Life and totalled for each and every asset OR by dividing the Fair Value (Depreciated Replacement Cost) by the Remaining Life and totalled for each and every asset in an asset category or class.

Brownfield asset values**
Asset (re)valuation values based on the cost to replace the asset including demolition and restoration costs.

Capital expansion expenditure
Expenditure that extends an existing asset, at the same standard as is currently enjoyed by residents, to a new group of users. It is discretional expenditure, which increases future operating, and maintenance costs, because it increases council'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
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 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

Capital new expenditure
Expenditure which creates a new asset providing a new service to the community that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operating and maintenance expenditure.

Capital renewal expenditure
Expenditure on an existing asset, which returns the service potential or the life 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 has no impact on revenue, but may reduce future operating 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. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital upgrade expenditure
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 discretional and often does not result in additional revenue unless direct user charges apply. It will increase operating and maintenance expenditure in the future because of the increase in the council'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. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

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
An individual part of an asset which contributes to the composition of the whole and can be separated from or attached to an asset or a system.

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, plus any costs necessary to place the asset into service. This includes one-off design and project management costs.

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.

Current replacement cost "As New" (CRC)
The current cost of replacing the original service potential of an existing asset, with a similar modern equivalent asset, i.e. the total cost of replacing an existing asset with an as NEW or similar asset expressed in current dollar values.

Cyclic Maintenance**
Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, cycle, 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.

Depreciable amount
The cost of an asset, or other amount substituted for its cost, less its residual value (AASB 116.6)

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.

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

Greenfield asset values **
Asset (re)valuation values based on the cost to initially acquire the asset.

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 of the entity or of another entity that contribute to meeting the public's 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 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 (AASB 140.5)

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

Life Cycle Cost **
The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises annual maintenance and asset consumption expense, represented by depreciation expense. 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 actual or planned annual maintenance and capital renewal expenditure incurred in providing the service in a particular year. Life Cycle Expenditure may be compared to Life Cycle Expenditure to give an initial indicator of life cycle sustainability.

Loans / borrowings
Loans result in funds being received which are then repaid over a period of time with interest (an additional cost). Their primary benefit is in 'spreading the burden' of capital expenditure over time. Although loans enable works to be completed sooner, they are only ultimately cost effective where the capital works funded (generally renewals) result in operating and maintenance cost savings, which are greater than the cost of the loan (interest and charges).

Maintenance and renewal gap
Difference between estimated budgets and projected expenditures for maintenance and renewal of assets, totalled over a defined time (eg 5, 10 and 15 years).

Maintenance and renewal sustainability index
Ratio of estimated budget to projected expenditure for maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

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
An item is material is its omission or misstatement could influence the economic decisions of users taken on the basis of the financial report. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances.

Modern equivalent asset.
A structure similar to an existing structure and having the equivalent productive capacity, which could be built using modern materials, techniques and design. Replacement cost is the basis used to estimate the cost of constructing a modern equivalent asset.

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.

Operating expenditure
Recurrent expenditure, which is continuously required excluding maintenance and depreciation, eg power, fuel, staff, plant equipment, on-costs and overheads.

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

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.

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

Rate of annual asset consumption*
A measure of average annual consumption of assets (AAAC) expressed as a percentage of the depreciable amount (AAAC/DA). Depreciation may be used for AAAC.

Rate of annual asset renewal*
A measure of the rate at which assets are being renewed per annum expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

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

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

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 operating and maintenance expenditure.

Recurrent funding
Funding to pay for recurrent expenditure.

Rehabilitation
See capital renewal expenditure definition above.

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

Renewal
See capital renewal expenditure definition above.

Residual value
The net amount which an entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

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 capacity to provide goods and services in accordance with the entity's objectives, whether those objectives are the generation of net cash inflows or the provision of goods and services of a particular volume and quantity to the beneficiaries thereof.

Service potential remaining*
A measure of the remaining life of assets expressed as a percentage of economic life. 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 (DRC/DA).

Strategic Management Plan (SA)**
Documents Council objectives for a specified period (3-5 yrs), the principle activities to achieve the objectives, the means by which that will be carried out, estimated income and expenditure, measures to assess performance and how rating policy relates to the Council's objectives and activities.

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. It is the same as the economic life.

Value in Use

The present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. 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 new cash flows, where if deprived of the asset its future economic benefits would be replaced.

Source: DVC 2006, Glossary

Note: Items shown * modified to use DA instead of CRC
Additional glossary items shown **

1. EXECUTIVE SUMMARY

What Council Provides

Council provide a Sewerage System in Cobar

What does it Cost?

There are two key indicators of cost to provide the Sewerage service.

- The life cycle cost being the average cost over the life cycle of the asset, and
- The total maintenance and capital renewal expenditure required to deliver existing service levels in the next 10 years covered by Council's long term financial plan.

The life cycle cost to provide the Sewerage service is estimated at $434,000 per annum. Councils planned life cycle expenditure for year 1 of the asset management plan is $233,000 which gives a life cycle sustainability index of 0.54.

The total maintenance and capital renewal expenditure required to provide the Sewerage service in the next 10 years is estimated at $2,330,000. This is an average of $233,000 per annum..

Council's maintenance and capital renewal expenditure for year 1 of the asset management plan of $233,000 giving a 10 year sustainability index of 0.54.

Plans for the Future

Council plans to operate and maintain the Sewer network to achieve the following strategic objectives.

1. Ensure the Sewer network is maintained at a safe and functional standard as set out in this asset management plan.

Measuring our Performance

Quality
Sewer assets will be maintained in a reasonably usable condition. Defects found or reported that are outside our service standard will be repaired. See our maintenance response service levels for details of defect prioritisation and response time.

Function
Our intent is that an appropriate Sewer network is maintained in partnership with other levels of Government and stakeholders to remove, treat and dispose if Sewerage waste.

The Sewerage services asset attributes will be maintained at a safe level and associated signage and equipment be provided as needed to ensure public safety. We need to ensure key functional objectives are met:

- Efficient removal and treatment of sewerage;
- Production of high quality effluent;

The main functional consequence of the Sewerage Services delivery strategy:

- Removal and treatment of Sewerage and the production of high quality effluent as effectively as possible.

Safety
We inspect all Sewerage assets regularly and prioritise and repair defects in accordance with our inspection schedule to ensure they are safe.

The Next Steps

The actions resulting from this asset management plan are:

- Improve asset data;
- Undertake condition rating;
- Improve budgeting in accordance with service levels;

2. INTRODUCTION

2.1 Background

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

The asset management plan is to be read with the following associated planning documents:

- Financial Modeling for Sewerage – 2008/2009;
- Strategic Business Plan for Sewerage Services – 2009/2010 – January 2010;
- Cobar Shire Council Valuation of Water Supply and Sewerage Assets to 30 June 2007 – Alf Grigg and Associates.

This asset management plan covers the following infrastructure assets:

Cobar Sewerage Scheme

The reticulation consists of approximately 37.2km of 150 to 380mm diameter AC, PVC and reinforced concrete mains. These mains are generally in good condition although AC pipe is a medium not known for reliable service in gravity sewers. Three pumps stations transport sewerage from low points to the main pump station at Ward Oval which then pumps the sewerage to the treatment plant.

The treatment plant consists of an aeration tank and effluent ponds. The treated effluent is stored in ground tanks prior to reuse for irrigation on Ward Oval and the Cobar Golf Course.

Table 2.1. Assets covered by this Plan

Asset category	Dimension	Replacement Value
Reticulation	Total Length 37.2 kms of various sizes ranging from 150mm to 380mm in diameter	$7.6 Million
Pump Stations and Rising Main	Total Four (4)	$1.5 Million
Sewerage Treatment Works	Total One (1)	$2.8 Million
TOTAL		**$ 11.9 Million**

Key stakeholders in the preparation and implementation of this asset management plan are:

Ratepayers and Residents	Consumer
Business and Industry	Consumer
NSW Office of Water	Regulator
NSW Department of Health	Regulator
NSW Department of Environment Climate Change and Water	Regulator

2.2 Goals and Objectives of Asset Management

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

Council's goal in managing infrastructure assets is to meet the required level of service in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Taking a life cycle approach,
- Developing cost-effective management strategies for the long term,
- Providing a defined level of service and monitoring performance,
- Understanding and meeting the demands of growth through demand management and infrastructure investment,
- Managing risks associated with asset failures,
- Sustainable use of physical resources,
- Continuous improvement in asset management practices.[1]

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

OUR **VISION**

Our Vision is for Cobar Shire to be an attractive, healthy and caring environment in which to live, work and play, achieved in partnership with the community initiative, foresight and leadership.

OUR **MISSION**

Our Mission is to provide sound and sensible Government and ensure that works and services are delivered effectively and equitably to the Community of Cobar Shire.

OUR **VALUES**

Council has adopted the following Values that should be reflected in how the whole organization operates and interacts with others.

- Continually strive for improvement in every aspect of Council's activities and recognise initiative.
- All activities are to be customer focused and provide equity for all.
- Involve the community in decision making through open government and consultative processes.
- Foster and promote sustainable ecological and economic development, rural pursuits and industries that contribute to the wealth of the region and in keeping with the environment and residents lifestyle.
- Conserve and protect the natural beauty of the area.
- Promote a spirit of regional cooperation particularly in regard to planning, infrastructure, economic development, tourism and employment.

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

Table 2.2. Council Goals and how these are addressed in this Plan

Goal	Objective	How Goals and Objectives are addressed in AMP
Customer Service	To establish agreed Levels of Service and ensure compliance	Levels of Service updated by March 2012 Maintain an up to date Strategic Business Plan

	To provide services to existing areas at current levels and to all remaining unserviced urban and village areas where economically feasible	Council to be appraised of opportunities Economic feasibility of East Cobar Industrial Area scheme finalised by March 2012
	A pricing system for sewerage and trade waste that is equitable and reflects the actual cost of service provision and use, between classes of existing customers over time	Equitable pricing structure for residential and non-residential customers by June 2009 Revenue sufficient to cover requirements in line with Financial Plan
	Minimise hydraulic load and need for capital works Manage industrial / commercial biological load	Quanify and reduce discharge from storm water Prepare Trade Waste Register by December 2011
	To keep the Community informed of sewerage services and be responsive to its needs	Customer complaints management system developed by June 2012
	To consult communities and consider their views in all major expenditure decisions To raise community interest in sewerage service decisions	Community consultation undertaken prior to implementation of best practice pricing structure. Community consulted for extending the effluent reuse reticulation
Environment	To achieve minimal impact from operations on local environment to ensure ongoing sustainable development.	No contravention of EPA requirements Reuse of effluent / sludge to agreed program.
Asset Management	To develop an operations plan including procedures and guidelines to ensure a reliable safe and cost effective service	Document System Operating Rules and Performance by March 2012 Develop SCADA system by June 2012 Number of system breakdowns due to operations deficiencies reduced.
	To maintain and rehabilitate the existing system to meet agreed levels of service at least cost	Develop maintenance strategy / procedures and timetables by June 2011 Prepare Contingency Plan by June 2011 Annual maintenance program completed on time and within budget
	Develop a capital works program that supplies system needs at minimum long-term cost. Develop gradual asset replacement program	Establish an up to date 10-year capital works program by March 2011 Complete capital works as outlined in program within time and budget
Human Resources	To provide appropriate level of skilled staff to meet the service delivery objectives To ensure staff have relevant skills and training and receive the appropriate level of support	Training in line with skills audit/ training plan Implementation of succession training program
Finance	To prepare and implement long term financial plans to provide required services at an affordable level	Update Financial Plan by March 2011 Annual budget prepared based on Financial Plan

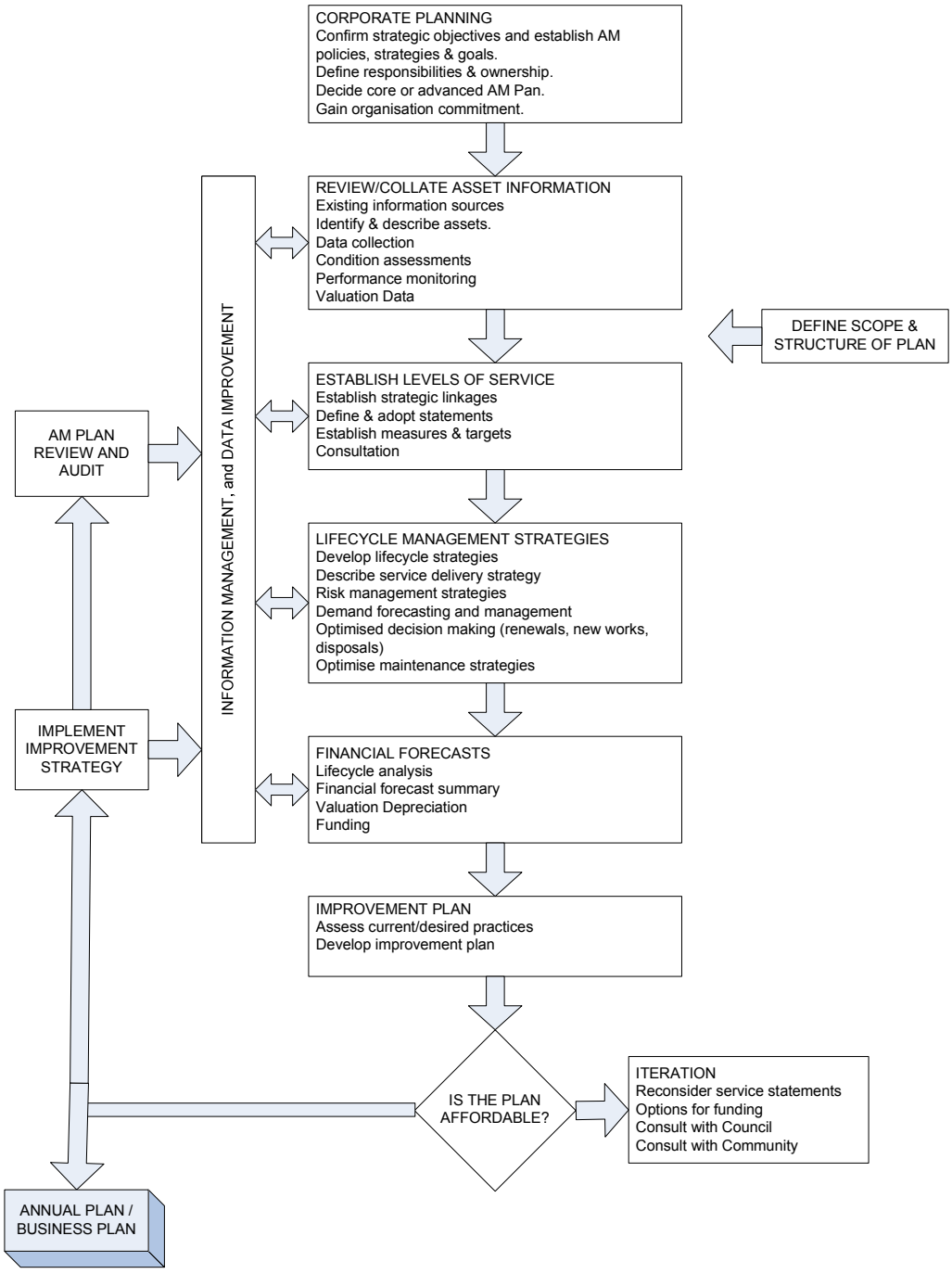
2.3 Plan Framework

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 Council will manage its existing and future assets to provide the required services.
- Financial summary – what funds are required to provide the required services.
- Asset management practices.
- Monitoring – how the plan will be monitored to ensure it is meeting Council's objectives.
- Asset management improvement plan.

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

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



2.4 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan in accordance with the International Infrastructure Management Manual. 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.

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.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council has carried out research on customer expectations during the production of the 2001, 2005 and 2010 Strategic Business Plans for Sewerage Services. This research has led to Target Levels of Service.

3.2 Legislative Requirements

Council has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.2. Legislative Requirements

Legislation	Requirement
1. Pricing	
Local Government Act 1993 Esp. Sections 64 and 428	Determining developer charges: − provide a source of funding for infrastructure required for new urban development − provide signals regarding costs of urban development and encourage less costly forms Need to be more accountable. Need for better asset management.
Environmental Planning and Assessment Act 1979	Determining developer charges. Requirement for LEP and DCPs. Council control of service approvals.
Water Management Act 2000 Progressively replaces the previous Water Act 1912, Water Authorities Act 1987 and 10 others including irrigation, rivers and foreshores Acts)	Determining developer charges. Water rights, licences, allocations.
Local Government Regulation 1993 (Savings and Transitional)	Determining developer charges.
Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
2. Environmental Protection	
Protection of the Environment Operations Act 1997 Brings together: - Clean Air Act 1961 - Clean Waters Act 1970 - Pollution Control Act 1970 - Noise Control Act 1975 - Environmental Offences and - Penalties (EOP) Act 1989	Regulating pollution activities and issue of licenses as well as the monitoring of and reporting on waste output. Council is required to be "duly diligent" in undertaking the scheme operations

Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Environmental Planning and Assessment Act 1979	Encourages the proper management of natural and man-made resources, the orderly use of land, the provision of services and protection of the environment.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. Council believes this Act has implications for the management of river quality and quantity. Requirement for ongoing management plan.
3. Health and Safety	
Public Health Act 1991	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality water.
Occupational Health and Safety Act 2000 (and Regulations 2001)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work. Likely be cost implications Impacts all operations. Note public safety – insurance.

3.3 Current Levels of Service

Council has defined service levels in two terms.

Community Levels of Service relate to how the community receives the service in terms of safety, quality, quantity, reliability, responsiveness, cost/efficiency and legislative compliance.

Supporting the community service levels are operational or technical measures of performance developed to ensure that the minimum community levels of service are met. These technical measures relate to service criteria such as:

Service Criteria	**Technical measures may relate to**
Quality	Quality of effluent.
Quantity	Capacity of pumping stations and sewerage treatment works.
Availability	Reliability of system to remove sewerage.
Safety	Number of injury accidents.

Council's current service levels are detailed in Table 3.3.

Table 3.3. Current Service Levels

Key Performance Measure	Level of Service	Performance Measure Process	Current Performance	Performance Target
COMMUNITY LEVELS OF SERVICE				
Quality	No smells	Customer complaints	5 per annum	0 per annum
Function	Effluent leaves the building	Customer complaints/staff reports	< 1 per annum	Less than 1 non-compliance event per annum
Safety	No overflows of reticulation/pump stations	Customer complaints/staff reports	< 1 per annum	0 per annum

TECHNICAL LEVELS OF SERVICE

Description	Unit	Levels of Service	
		Current Performance	Target Performance
AVAILABILITY OF SERVICE	Serviced	90%	100%
Extent of Area Serviced in Cobar urban and industrial area	Area		
FREQUENCY OF SYSTEM FAILURES			
Category 1			
Failures due to rainfall and deficient design capacity	No./Yr	1	0
Category 2			
Failures due to pump or other breakdown	No./Yr	0	0
Category 3			
Failures due to blockages	No./Yr	15	< 5
RESPONSE TIMES TO SYSTEM FAILURES			
(Defined as maximum time to have staff on site co commence reticulation after notification)			
Priority 1:			
(Major spill, significant environmental or health impact, or affecting large number of consumers ie. A major main)			
Response time during working hours	Minutes	30	30
Response time on after hours	Minutes	60	60
Priority 2:			
(Moderate spill, some environmental or health impact, or affecting small number of consumers ie other mains)			
Response time during working hours	Minutes	30	30
Response time after hours	Minutes	60	60
Priority 3:			
(Minor spill, little environmental or health impact, or affecting a couple of consumers)			
Response time during working hours	Minutes	30	30
Response time after hours	Minutes	60	60
RESPONSE TIMES TO GENERAL OR MINOR CUSTOMER COMPLAINTS AND INQUIRIES			
(For 95% of complaints)			
Written	Days	5	5
Oral	Days	5	5

IMPACT OF ODOUR			
Treatment Works (outside designated buffer zone)	No/Yr	5	0
Odour Complaints	No/Yr	2 (effluent on golf course)	<5
EFFLUENT			
Discharge Site		Golf Course, Sports Fields	Golf Course, Sports Fields
Discharge Licence Conditions:			
Quantity	KL/day	-	
Biochemical Oxygen Demand (BOD)	Mg/L	4-6	<5
Suspended Solids	Mg/L	16-18	<15
Oil and Grease			
Total Kjeldahl Nitrogen	Mg/L	<1.0	<1
Phosphorus	Mg/L	8-18	<10
	Mg/L	1-5	<5

3.4 Desired (Target) Levels of Service

At present, indications of desired (target) levels of service have been obtained from various sources including the 2001, 2005 and 2010 Strategic Business Plans for Sewerage Services, Customer research, residents' feedback to Councillors and staff, service requests and correspondence.

4. FUTURE DEMAND

4.1 Demand Forecast

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

Demand factor trends and impacts on service delivery are summarised in Table 4.1.

Table 4.1. Demand Factors, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	5,000	7,000	Need for sewerage treatment works argumentation
Demographics	2.6 persons per household	2.4 persons per household	Increased number of house services required, increase / improvement in efficiency of sewer reticulation
Industrial Activity	Activity relating to 3 mines operating at Cobar	Additional activity relating to 3 mines operating at Cobar, all with increased capacity and the following additional: 1 mine operating at Nymagee 1 mine operating at Wontawinta 1 mine operating at Mount Hope	Need for sewerage treatment works argumentation (increased storage)

4.2 Changes in Technology

Technology changes are forecast to affect the delivery of services covered by this plan in the following areas.

Table 4.2. Changes in Technology and Forecast effect on Service Delivery

Technology Change	Effect on Service Delivery
Increased use of telemetry monitoring systems	Decreased response times for service interruptions

4.3 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 4.3. Further opportunities will be developed in future revisions of this asset management plan.

Table 4.3. Demand Management Plan Summary

Service Activity	Demand Management Plan
Sewerage Reticulation	Extension of the sewerage reticulation network, and in particular the industrial area of Cobar using low cost pumping/reticulation network
Sewerage Quality	As demand dictates augment the sewerage treatment works with additional storage capacity

4.4 New Assets from Growth

Population growth is likely to result in infill housing being constructed rather than extension to the sewerage reticulation network in the residential area.

Increased industrial activity resulting from increased mine capacity and number may necessitate the required reticulation of the industrial area, which will be expected to be undertaken using non-gravity sewerage reticulation systems.

5. LIFECYCLE MANAGEMENT PLAN

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

5.1 Background Data

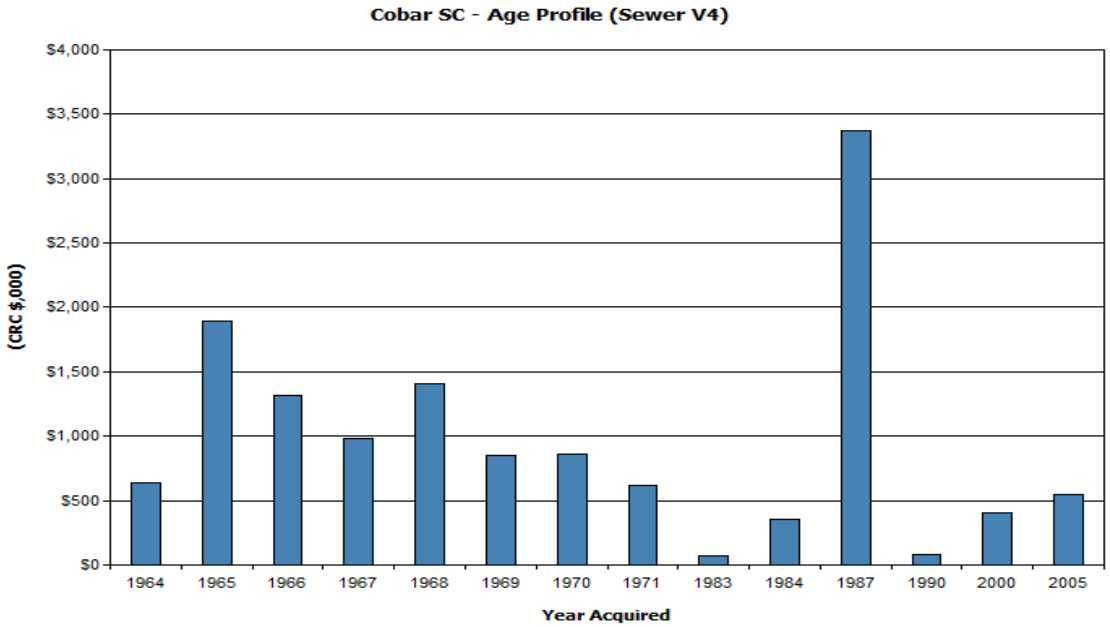
5.1.1 Physical parameters

The assets covered by this asset management plan are shown below.

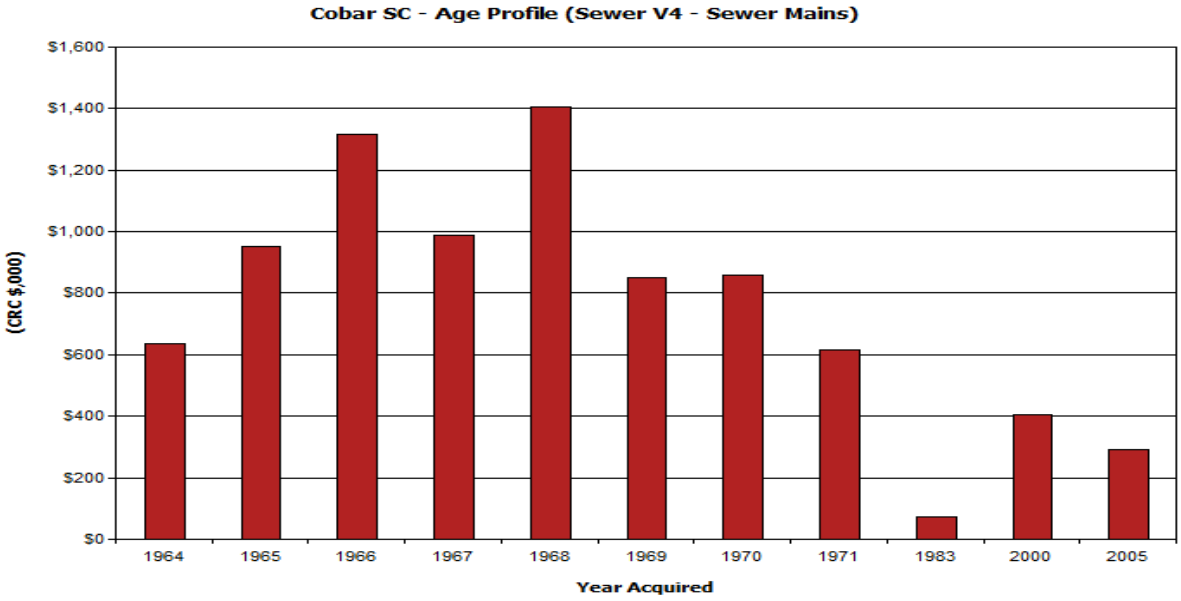
Asset category	Dimension
Reticulation	Total Length 37.2 kms of various sizes ranging from 150mm to 380mm in diameter
Pump Stations and Rising Main	Belagoy Street Ward Oval Nullamut Street Cowper Street
Sewerage Treatment Works	Design capacity of 140L/sec – Currently operates at 105L/sec

The age profile of Council's assets is shown below.

Fig 2. Asset Age Profile



The significant peak in 1987 relates to the construction of the 'new' treatment plant. The age profile for the reticulation network only is shown below;



5.1.2 Asset capacity and performance

Council's services are generally provided to meet design standards where these are available.

At the present time and population, there are minimal deficiencies in service performance.

5.1.3 Asset condition

The condition profile of Council's Sewer Assets has been based on age and has been found to be generally in good condition.

Over time further assessment will be undertaken where condition will be measured using a 1 – 5 rating system.[2]

Rating	Description of Condition
1	Excellent condition: Only planned maintenance required.
2	Very good: Minor maintenance required plus planned maintenance.
3	Good: Significant maintenance required.
4	Average: Significant renewal/upgrade required.
5	Poor: Unserviceable.

5.1.4 Asset valuations

The value of assets as at 30th June 2010 covered by this asset management plan is summarised below. Assets were last revalued at 30th June 2007. Assets are valued at brownfield rates.

Current Replacement Cost	$ 13,389,751
Depreciable Amount	$11,890,683
Depreciated Replacement Cost	$7,886,820
Annual Depreciation Expense	$201,454

Council's sustainability reporting reports the rate of annual asset consumption and compares this to asset renewal and asset upgrade and expansion.

Asset Consumption	1.50%
Asset renewal	0.00% till 2024, then 5.0%
Annual Upgrade/expansion	0.00%

5.2 Risk Management Plan

An assessment of risks associated with service delivery from infrastructure assets has identified critical risks to Council. The risk assessment process identifies credible risks, the likliehood 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 are summarised in Table 5.2.

Table 5.2. Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Pump Stations	Failure	H	Standby pumps and back up power supply
Effluent Quality	Reduction in quality of treated effluent	H	Effluent quality monitoring program and action plan

[2] IIMM 2006, Appendix B, p B:1-3 ('cyclic' modified to 'planned')

5.3 Routine Maintenance Plan

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 Maintenance plan

Maintenance includes reactive, planned and cyclic 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.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold.

Maintenance expenditure trends are shown in Table 5.3.1

Table 5.3.1. Maintenance Expenditure Trends

Year	Maintenance Expenditure		
	Reactive	Planned	Cyclic
2007/08	$264,000	$20,000	$0
2008/09	$218,000	$18,000	$0
2009/10	$175,000	$48,000	$0

These maintenance expenditure figures include operation costs.

Planned maintenance work averages 9% of total maintenance expenditure.

Maintenance expenditure levels are considered to be adequate to meet required service levels. 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 and judgement.

5.3.2 Standards and specifications

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

Australian standards covering sewerage practice

Materials DICL pipes and fittings

AS 1646 Elastometric Seals for Waterworks Purposes (1992)

AS 2280 Ductile Iron Pressure Pipes and Fittings (1995)

Materials PVC pipes

AS/NZS 1260 PVC Pipes and Fittings for Drain, Waste and Vent Applications (1996)

AS/NZS 1477 PVC Pipes and Fittings for Pressure Applications (1996)

AS/NZS 4441(Int) Oriented PVC (OPVC) Pipes for Pressure Applications (1996)

Materials PE pipes

AS/NZS 4130	Polyethylene (PE) Pipes, Pressure Applications (1997)

Materials VC pipes

AS 1741	Vitrified Clay Pipes and Fittings with Flexible Joints Sewer Quality (1991)

Materials steel pipes and specials

AS 1646	Elastometric Seals for Waterworks Purposes (1992)
AS 1830	Iron Castings Grey Cast Iron (1986)
AS 3996	Metal Access Covers, Road Grates and Frames (1992)
AS 4087	Metallic Flanges for Waterworks Purposes (1996)

Materials concrete pipes and specials

AS 4058	Precast Concrete Pipes (Pressure and Non-pressure) (1992)
AS 4198	Precast Concrete Access Chambers for Sewerage Applications (1994)

Materials pipes (specials)

AS 3518	Part 1 (AS 3518.1) Acrylonitrile Butadiene Styrene (ABS) Pipes and Fittings for Pressure Applications Pipes (1988)
AS 3571	Glass Filament Reinforced Thermosetting Plastics Pipes (GRP) Polyester Based Water Supply, Sewerage and Drainage Applications (1989)

Pipelaying and general construction

AS 1170	Minimum Design Loads on Structures, Part 1 (AS 1170.1) Dead and Live Loads and Load Combinations (1989), Part 2 (AS 1170.2) Wind Loads (1989), Part 3 (AS 1170.3) Snow Loads (1990), Part 4 (AS 1170.4) Earthquake Loads (1993)
AS 1289	Methods of Testing Soils for Engineering Purposes, Part 0 (AS 1289.0) to Part 7.1.3 (AS 1289.7.1.3) inclusive (various editions)
AS 1657	Fixed Platforms, Walkways, Stairways and Ladders Design, Construction and Installations (1992)
AS 2032	Code of Practice for Installation of UPVC Pipe Systems (1977)
AS 2200	Design Charts for Water Supply and Sewerage (1978)
AS/NZS 2566	Plastics Pipelaying Design (1982) (superseded by AS/NZS 2566.1 1998 but is still made available)
AS 2648	Part 1 (AS 2648.1) Underground Marking Tape Non-Detectable Tape (1995)
AS 2700	Colour Standards for General Purposes (1996)
AS/NZS 3500	National Plumbing and Drainage Code, Part 0 (AS/NZS 3500.0) to Part 4.2 (AS/NZS 3500.4.2) inclusive (various editions)
AS 3571	Glass Filament Reinforced Thermosetting Plastics Pipes (GRP) Polyester Based Water Supply, Sewerage and Drainage Applications (1989)
AS 3600	Concrete Structures (1994)

AS 3725	Loads on Buried Concrete Pipes (1989)
AS 3735	Concrete Structures for Retaining Liquids (1991)
AS 3855	Suitability of Plumbing and Water Distribution Systems Products for Contact with Potable Water (1994)
AS 3972	Portland and Blended Cements (1997)
AS 4060	Loads on Buried Vitrified Clay Pipes (1992)
AS HB72	Design Vehicles and Turning Path Templates (1995)

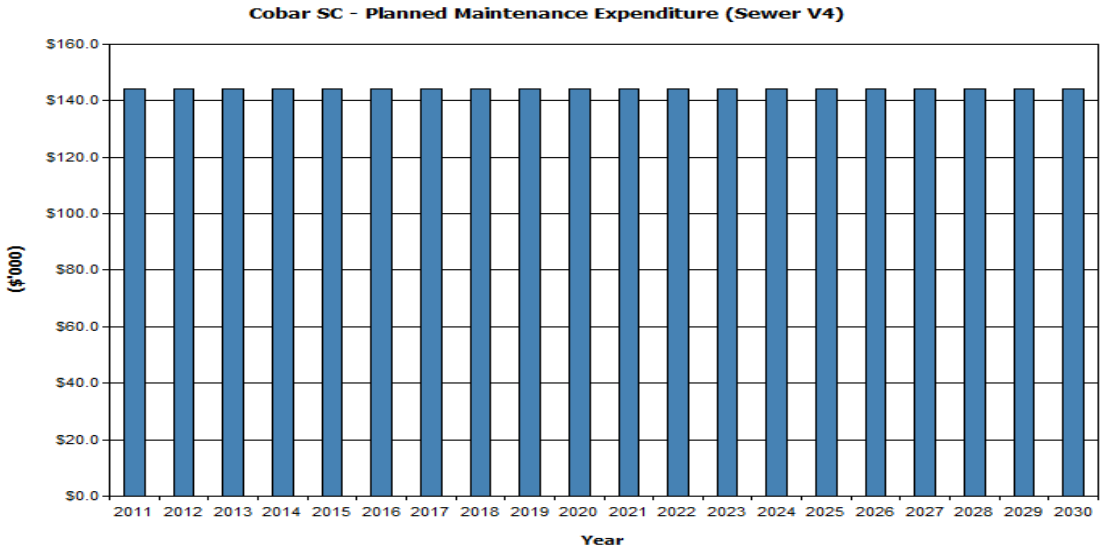
Australian standards covering approvals practice

AS 1100	Technical Drawing; Part 101 (AS 1100.101) — General Principles (1992), Part 201 (AS 1100.201) — Mechanical Engineering Drawing (1992), Part 301 (AS 1100.301) — Architectural Drawing (1985), Part 401 (AS 1100.401) — Engineering Survey and Engineering Survey Design Drawing (1984), Part 501 (AS 1100.501) — Structural Engineering Drawing (1985)
AS 1181	Method of Measurement of Civil Engineering Works and Associated Building Works (1982)
AS/NZS 3905	Quality System Guidelines, Part 2 (AS 3905.2) — Guide to Quality System Standards AS/NZS ISO 9001, AS/NZS ISO 9002 and AS/NZS ISO 9003 for Construction (1997)
AS 9002	Quality Systems - Model for Quality Assurance in Production, Installation and Servicing (1994)

5.3.3 Summary of future maintenance expenditures

Future maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Fig 4. Note that all costs are shown in current 2010/2011 dollar values.

Fig 4. Planned Maintenance Expenditure



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

Maintenance is funded from Council's operating budget and grants where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

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

5.4.1 Renewal plan

Assets requiring renewal are identified from estimates of remaining life obtained from the asset register worksheets on the *'Planned Expenditure template'*. Candidate proposals are inspected to verify accuracy of remaining life estimate and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

Based on the expected life / known and assumed condition of the existing asset no renewals are expected until the year 2024.

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost renewal include sewer main re-lining and pipe bursting techniques.

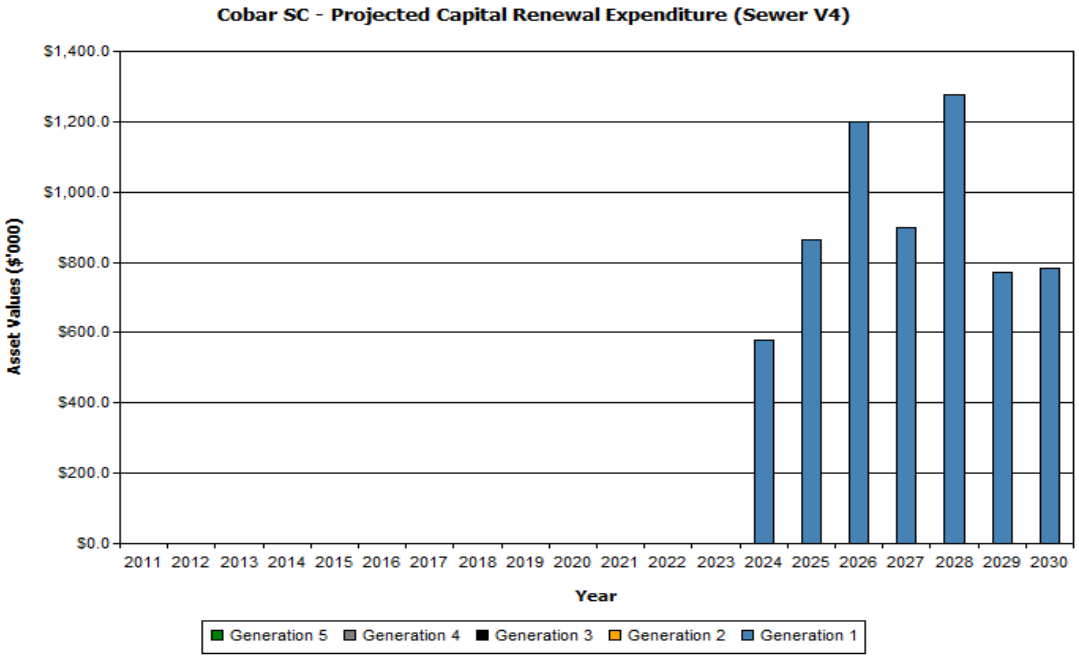
5.4.2 Renewal standards

Standards and specifications for renewals of existing assets are the same as those for maintenance shown in Section 5.3.2.

5.4.3 Summary of future renewal expenditure

Projected future renewal expenditures are forecast to increase over time as the asset stock ages. The costs are summarised in Fig 5. Note that all costs are shown in current 2010/2011 dollar values.

Fig 5. Projected Capital Renewal Expenditure



Deferred renewal, ie those assets identified for renewal and not scheduled for renewal in capital works programs are to be included in the risk assessment process in the risk management plan. At the present time there are no deferred renewals.

Renewals are to be funded from Council's capital works program and grants where available. 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 Council from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor or community requests, proposals identified by strategic plans or partnerships with other 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
Expansion of Infrastructure Assets are not currently being funded by Council (expansion of the reticulation system into East Cobar Industrial area would be expected to be funded by land owners)	Assessed on merit

5.5.2 Standards and specifications

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for maintenance shown in Section 5.3.2.

5.5.3 Summary of future upgrade/new assets expenditure

No new asset age profile proposed for funding during this plan however investigation work will be undertaken in relation to the possible extension of the sewer network into the East Cobar area.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation.

These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any.

At the present time there are no assets being disposed of.

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

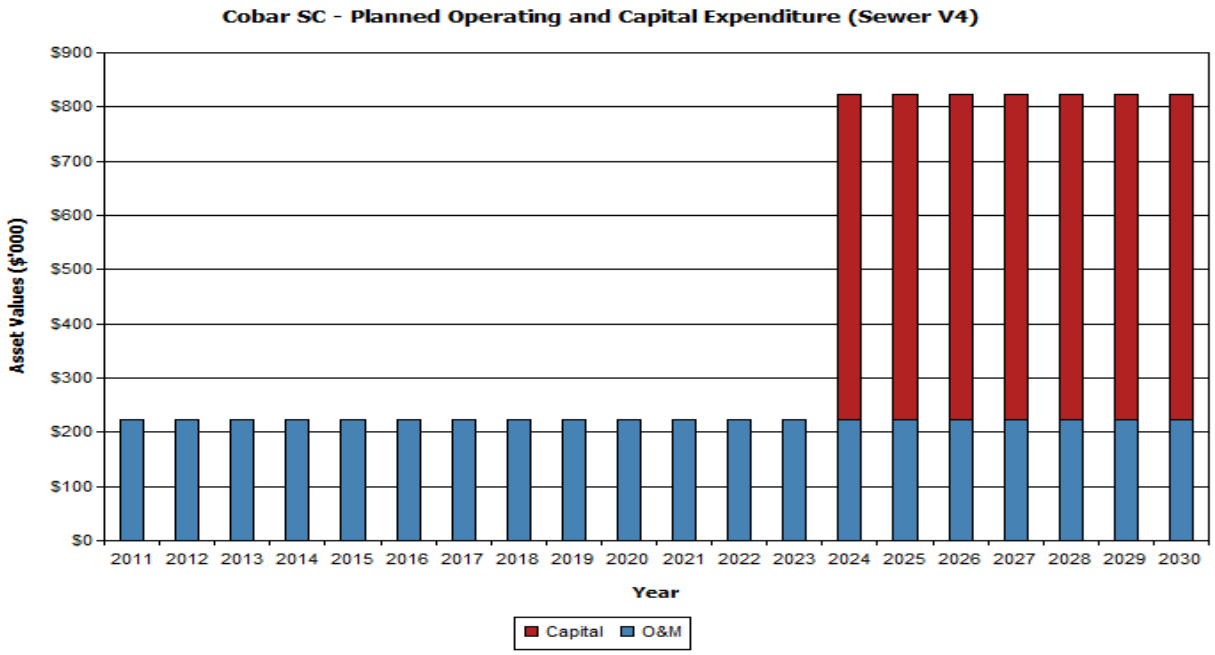
6. FINANCIAL SUMMARY

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 planned operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets).

Fig 7. Planned Operating and Capital Expenditure



Note that all costs are shown in current 2010/2011 dollar values.

6.1.1 Sustainability of service delivery

There are two key indicators for financial sustainability that have been considered in the analysis of the services provided by this asset category, these being long term life cycle costs and medium term costs over the 10 year financial planning period.

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 longest asset life. Life cycle costs include maintenance and asset consumption (depreciation expense). The annual average life cycle cost for the services covered in this asset management plan is $424,000.

Life cycle costs can be compared to life cycle expenditure to give an indicator of sustainability in service provision. Life cycle expenditure includes maintenance plus capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure at the start of the plan is $223,000.

A gap between life cycle costs and life cycle expenditure gives an indication as to whether present consumers are paying their share of the assets they are consuming each year. The purpose of this sewer asset management plan is to identify levels of service that the community needs and can afford and develop the necessary long term financial plans to provide the service in a sustainable manner.

At the present time there is no life cycle under funding covered by this asset management plan as major capital renewal works is expected not to commence until the year 2024. Expenditure after the year 2024 is expected to exceed current income.

Medium term – 10 year financial planning period

This asset management plan identifies the estimated maintenance and capital expenditures required to provide an agreed level of service to the community over a 20 year period for input into a 10 year financial plan and funding plan to provide the service in a sustainable manner.

This may be compared to existing or planned expenditures in the 20 year period to identify any gap. In a core asset management plan, a gap is generally due to increasing asset renewals.

Fig 8 shows the projected asset renewals in the 20 year planning period from the asset register. The projected asset renewals are compared to planned renewal expenditure in the capital works program and capital renewal expenditure in year 1 of the planning period as shown in Fig 8. Table 6.1.1 shows the annual and cumulative funding gap between projected and planned renewals.

Fig 8. Projected and Planned Renewals and Current Renewal Expenditure

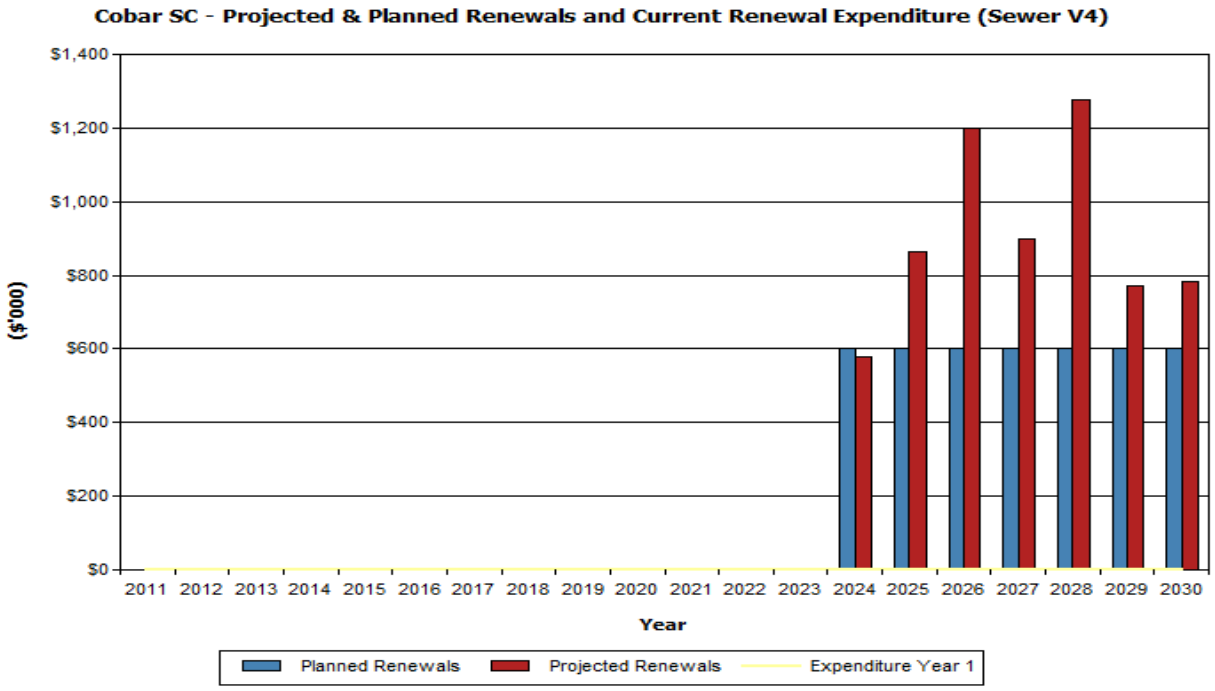


Table 6.1.1 shows the gap between projected and planned renewals.

Table 6.1.1 Projected and Planned Renewals and Expenditure Gap ($1,000)

Year	Projected Renewals	Planned Renewals	Renewal Funding Gap	Cumulative Gap
2011 – 23	Nil	Nil	0	0
2024	577.22	600	-22.78	-22.78
2025	865.82	600	265.82	243.04
2026	1198.18	600	598.18	841.22
2027	897.10	600	297.10	1,138.32
2028	1277.81	600	477.81	1,616.13
2029	771.74	600	171.74	1,787.87
2030	781.62	600	181.62	1,969.49

Providing services in a sustainable manner will require matching of projected asset renewals to meet agreed service levels with planned capital works programs and available revenue.

A gap between projected asset renewals, planned asset renewals and funding indicates that further work is required to manage required service levels and funding to eliminate any funding gap.

When 'gaps' do start to develop due to the required large expenditure for renewal work, Council will manage the 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services.

Council's long term financial plan covers the first 10 years of the 20 year planning period. The total maintenance and capital renewal expenditure required over the 10 years is $2,330,000.

This is an average expenditure of $233,000. Estimated maintenance and capital renewal expenditure in year 1 is $233,000. The 10 year sustainability index is 0.54.

6.2 Funding Strategy

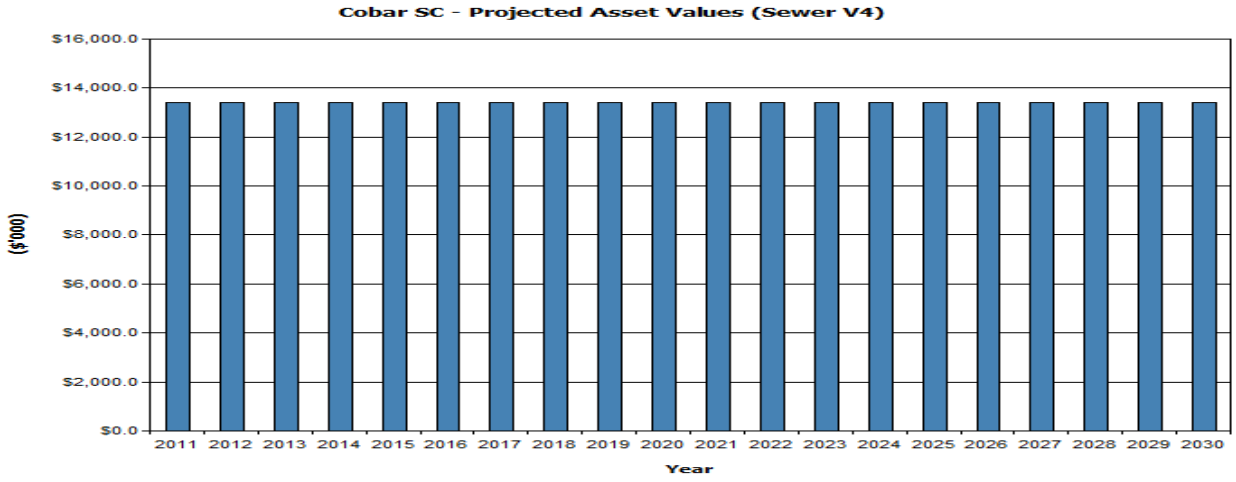
Projected expenditure identified in Section 6.1 is to be funded from Council's operating and capital budgets. The funding strategy is detailed in the Council's 10 year long term financial plan.

Achieving the financial strategy will require additional funding including subsidy from the Government both in Federal and State, Section 64 Developer Contribution Revenue and Landowner Revenue. It is expected that the Financial Strategy will ensure that there is no reduction in service levels.

6.3 Valuation Forecasts

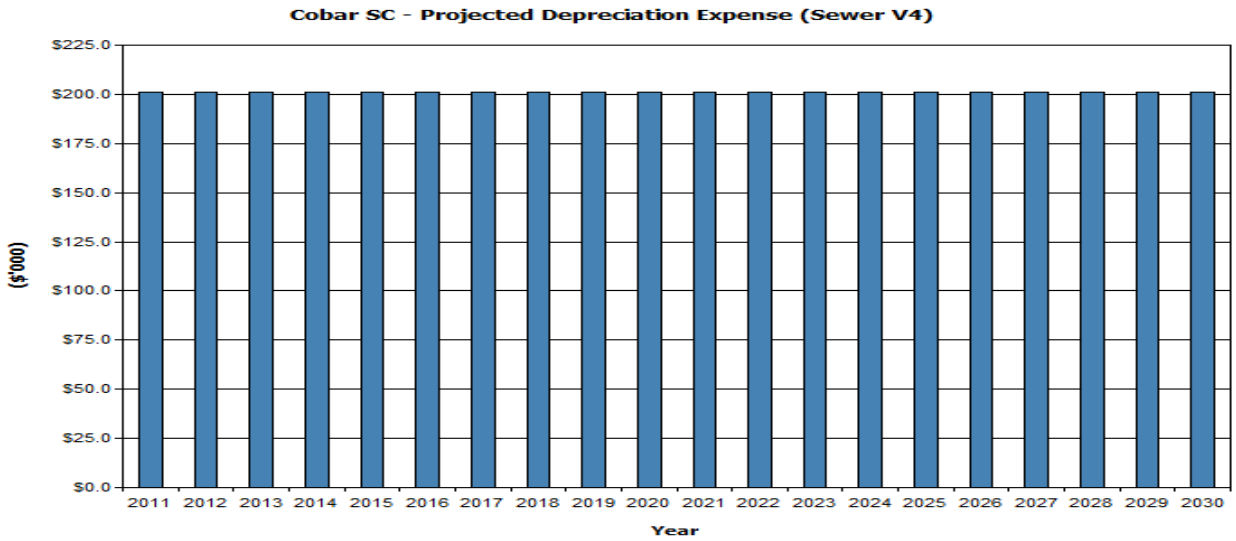
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Fig 9 shows the projected replacement cost asset values over the planning period in current 2010/2011 dollar values.

Fig 9. Projected Asset Values



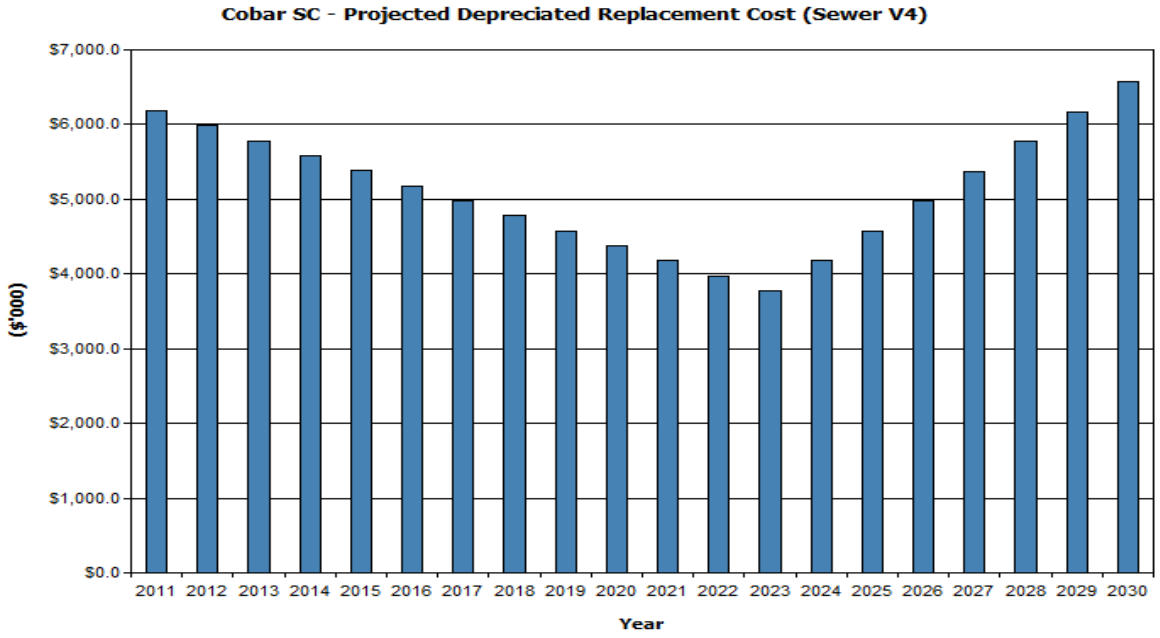
Depreciation expense values are forecast in line with asset values as shown in Fig 10.

Fig 10. Projected Depreciation Expense



The depreciated replacement cost (current replacement cost less accumulated depreciation) 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 Fig 11.

Fig 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 are:

- Use of existing inventory data.
- Use of existing valuation, useful lives and remaining lives determined from the financial data contained within Council's asset register for Sewerage.
- Condition of assets being determined to the level of "good".
- Replacement costs for reticulation based on local operating knowledge of the asset.

Accuracy of future financial forecasts may be improved in future revisions of this asset management plan by the following actions.

- Improving the inventory data contained within the asset register.
- Maintaining the asset register.
- Reviewing useful lives for assets in conjunction with better condition assessment and development of suitable hierarchy within the asset categories.

7. ASSET MANAGEMENT PRACTICES

7.1 Accounting/Financial Systems

Council uses the Civic View module for its financial management system.

The Director of Corporate and Community Services is responsible for the accounting and financial systems.

Council works under the Australian Accounting Standards Board Standards, State Legislation / Regulations and Directives issued by the Local Government Division of the Department of Premiers and Cabinet.

Council's capital threshold policy specifies a $5,000.00 limit for expenditure that is expensed. Expenditure of over $5,000.00 on an asset is to be classed as capital expenditure and capitalised against the asset.

Changes to accounting and financial systems identified as a result of preparation of this asset management plan are:

- Identification of capital expenditures as renewal and upgrade / new.
- Development of a single corporate asset register.
- Linking of the customer service system to the corporate asset register to link requests to asset records.
- Improved project cost accounting to record costs against the asset component and develop valuation unit rates.

7.2 Asset Management Systems

A number of systems relevant to asset management are used by Cobar Shire Council. These include:

The Geographical Information System (GIS) used is Mapinfo (Version 10.5). This system holds the spatial information on a number of asset groups including sewer, water and dedicated public roads.

Property and Rating System used is Civic View.

No Asset Modelling has been undertaken for Sewer Assets. Asset Management Plans are in accordance with the IPWEA National Asset Management Strategy System NAMSPlus.

The responsibility for operating and maintaining the core Asset Management Systems and processes for Sewer Assets is with Engineering Services Department of Council.

Due to the additional requirements to meet financial reporting standards for Fair Value and the likely requirements for a higher standard of reporting on infrastructure assets, it is likely that there will be need to consolidate asset management information into one core corporate system. The ongoing maintenance of this system should then become a core function within Council's operations.

7.3 Information Flow Requirements and Processes

The key information flows into this asset management plan are:

- The asset register data on size, age, value, remaining life of the network;
- The unit rates for categories of work/material;
- The adopted service levels;
- 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 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.

7.4 Standards and Guidelines

Standards and Guidelines referenced in this asset management plan are:

- Cobar Shire Council Asset Management Policy;
- Cobar shire Council Asset Management Strategy;

8. PLAN IMPROVEMENT AND MONITORING

8.1 Performance Measures

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

- The degree to which the required cashflows identified in this asset management plan are incorporated into council's long term financial plan and Strategic Management 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.

8.2 Improvement Plan

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

Table 8.2 Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1.	Improve data in data register	Services Manager	GPS	December 2011
2.	Undertake condition assessment	Services Manager	CCTV equipment	December 2012
3.	Improve Budgeting	Services Manager		July 2012

8.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 1 year of each Council election.

REFERENCES

Strategic Business Plan for Sewerage Services – 2009/2010 – January 2010

Cobar Shire Council, 'Management Plan and Budget.

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au

Cobar Shire Council Valuation of Water Supply and Sewerage Assets to 30 June 2007 – Alf Grigg and Associates

Financial Modeling for Sewerage – 2008/2009

APPENDICES

Appendix A - 5 Year Rolling Works Programs

For Operations and Maintenance and Capital/ Heavy Maintenance Works (major maintenance, minor capital and refurbishment works) for each Asset Sub Category – Reticulation, Sewerage Treatment Works and Pump Stations

Appendix A

Sewerage Services: 5 Year Rolling Works Program

	2011/12	2012/13	2013/14	2014/15	2015/16
Operations & Maintenance:					
Reticulation					
Mains Repairs and Maintenance	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000
Pest Control	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000
Sewer Treatment Plant					
Administration	$ 29,145	$ 29,145	$ 29,145	$ 29,145	$ 29,145
Maintenance	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000
Energy	$ 30,000	$ 30,000	$ 30,000	$ 30,000	$ 30,000
Pump Stations					
Ward Oval	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000
Belagoy St	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000
Nullamutt St	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
North Cobar	$ 7,000	$ 7,000	$ 7,000	$ 7,000	$ 7,000
Effluent Reuse					
Maintenance	$ 43,500	$ 43,500	$ 43,500	$ 43,500	$ 43,500
Capital/Heavy Maintenance Works:					
Reticulation					
CCTV inspections/mains cleaning	$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Smoke Testing	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000

Version Control

No.	Date Adopted	Minute No.	Date Commenced	Date notified in Local Paper
1	24 February 2011	25.2.2011	25/02/2011	No