Strategic Business Plan for Sewerage Services

June 2008

SHIRE COUNCIL
BLAYNEY



Acknowledgment

This Strategic Business Plan was prepared by Blayney Shire Council with the assistance of the Strategic Water Management Unit of NSW Water Solutions, NSW Department of Commerce.

The Plan is based on a workshop held on 23 - 24 October 2007 in which senior Council staff were represented.

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Blayney Shire Council
Strategic Business Plan for Sewerage
2007/08

Summary

Introduction

This Strategic Business Plan covers the development and operation of Blayney Shire Council's Sewerage Scheme. It provides supporting information for Council's Management Plan.

Corporate Vision

Council's corporate vision is to:

To ensure that Blayney Shire Council is an active participant in the growth of the Central NSW Region whilst developing Council's area as an innovative, inspirational and enjoyable environment for its current residents and those wanting to settle in the area

Corporate Mission

The corporate mission of the Council is:

Council actively engages all sectors of the community in the delivery of its vision through provision of cost effective services, investigation of innovative opportunities, development of efficient asset management principles and attracting retention of the next generation of residents.

Corporate Objective for Sewerage

Council has adopted the following objective for its sewerage services:

To provide sewerage services in an efficient manner to the agreed and currently recognised health, environmental and other community standards and needs with flexibility to promote and meet development demands within the Region

Council's corporate policies and objectives also place specific requirements on the sewerage scheme. These are detailed in Part C of this Business Plan under Operating Environment Review.

Scheme Outline

Council provides sewerage services to the township of Blayney and Millthorpe village. Other villages including Carcoar, Barry, Neville, Mandurama, Lyndhurst and Newbridge are serviced by septic tanks.

Blayney Sewerage Scheme

Blayney reticulation system consists of 51 Km of AC and uPVC mains and six pumping stations. The original reticulation system in Blayney was constructed in late 1960s with considerable augmentation in 1970's, 80's, 90's and in 2003.

The Blayney Sewage Treatment Works is located on the south eastern outskirts of town on the north side of Hobby Yards Road. The original works, constructed in 1966, consisted of a Biological filter (Trickling filter) with a capacity of 2100 E.P. The original treatment works was replaced by an Intermittently Decanted Extended Aeration (IDEA) activated sludge treatment plant with a design capacity of 7000 E.P.

The STP fully treats all predicted inflows and currently has excess capacity based on the future design load.

Cadia mine currently takes all treated effluent. Any effluent that may not be pumped to Cadia mine due to operational issues is released to the wetland, which then overflows to the Belubula River. Wetland has been provided as a supplementary structure to impart additional effluent polishing treatment. Flows to the wetland have been limited to wet weather events.

Sludge from sludge lagoons are dried at drying beds while supernatant is gravitated back to the IDEA plant.

Millthorpe Sewerage Scheme

Millthorpe sewerage services about 600 people in the village of Millthorpe. The sewer reticulation was commissioned in 2003. The system consists of 9.7 Km of uPVC gravity sewer mains and one pumping station. Collected sewage is pumped to the balancing tank of Blayney STP for treatment.

Descriptions and schematics of service areas of Blayney and Millthorpe sewerage schemes are presented in Part A of this Business Plan.

Operating Environment Review

This review explores the internal and external conditions under which Council delivers services now and those likely to prevail in the future. Details are provided in Part A of this Business Plan.

Principal Issues

Current services are generally satisfactory. There are however, some issues, which need to be addressed. These include:

- Meeting DWE Best Practice Management Guidelines
- Wet weather inflow including illegal connections
- Reducing sewer chokes and blockages
- Maintaining an up to date asset register including asset condition and rating

- Community education and awareness
- Risk assessment of issues identified by Overflows Investigation Report
- Managing and funding future replacement/ renewal of assets

Service Provision

Levels of Service

Council's primary objective with sewerage services is to meet the adopted Levels of Service, which cover the following areas:

- Service complaints
- System failures
- Response times
- Odour complaints
- Flow problems
- Discharge quality

Levels of Service with predicted improvements are summarised on the following page.

Summary of Levels of Service Improvements

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target (2012)
Availability of Service			
– Extent of area serviced	% Designated Service area	100% of designated service areas in Blayney and Millthorpe	100% of designated service areas in Blayney and Millthorpe
System Failures			
Category One:			
– Failure due to rainfall and deficient capacity (overflows)	No./year	0	0
Category Two:			
– Failures due to pump or other breakdown including power failure	No./ year	2	2
Category Three:			
– Failures due to main blockages and collapses	No./ year	25	10
Response Times for Complaints			
General Complaints and Inquiries:			
– Written complaints	Working days	1	1
– Personal/Oral complaints	Minutes	30	30
Note: Times apply for 95% of complaints			
Odour Complaints:			
– Treatment works (outside designated buffer zone)	No. /year	0	0
– Pumping Stations	No. /year	5	0
– Reticulation system	No./year	0	0
Effluent Discharge and Sludge Management			
Failure to meet licence limits and statutory requirements (100 percentile)	No. of samples/ year	0	0

For a full list of the Levels of Service see Part A, Levels of Service.

Objectives

Council has recognised five Key Result Areas that must be managed well to achieve success in the long-term provision of sewerage services to its customers. These are:

- Customer service,
- Environment,
- Asset management,
- Human resources, and
- Finance.

Objectives and Performance Targets have been set in these Key Result Areas. These are summarised on page vi, and given in detail in Part B of this Plan.

Actions

Strategies were identified for achieving the objectives, and then specific actions were listed for implementation of these strategies.

The notable actions and outcomes Council will take over the next 5 years include:

- Laboratory and amenities building at Blayney STP
- Septic tank wastes discharge bay at Blayney STP
- Millthorpe sewage transfer main augmentation
- Emergency storage capacity for main sewage pumping stations in Blayney and Millthorpe
- Lining/ replacement of sewer mains in Blayney

Objectives

Key Result Area	Objective	Performance Target
Customer Service 	Levels of services are in accordance with community expectations	Levels of service are documented and communicated to the community
	Maintain existing designated services and provide service to selected unserviced areas where economically feasible	Achieve 100% service population in the designated service area by 2010
	Minimise hydraulic load due to infiltration, inflow and illegal connections and manage any industrial and commercial biological load	Complete infiltration/ inflow analysis by July 2010 Develop Trade Waste Register by June 2008
	Ensure scheme achieves full cost recovery and reflects best practice guidelines	Review sewerage tariff by December 2007 Review developer charges by December 2007
	Ensure customer satisfaction	Customer feedback system implemented by June 2008 Customer survey conducted every 4 years Achieve at least 80% customer satisfaction level in customer surveys by 2012
	Engage the community in consultation in the delivery of sewerage services as appropriate	Community involvement on all significant capital works and policy decisions
Environment 	Minimise impact from sewerage operations on the local environment by ensuring compliance with environmental legislation	Prepare IWCM Concept Plan by June 2008 Develop and implement Biosolids Management Plan by December 2008 Carry our Energy Audit by June 2009

Key Result Area	Objective	Performance Target
Asset Management 	Operate the sewerage service to meet agreed levels of service at least life cycle cost	Develop Operations Plan by December 2008
	Scheme maintenance ensures facilities can deliver design quality, capacity and reliability requirements at least life-cycle cost	Develop Maintenance Plan by December 2008 Prepare Breakdown Contingency Plans by December 2008
	Ensure systems have adequate capacity to meet current and future levels of service at minimum life cycle costs	Funded projects carried out on time and to budget in accordance with capital works program
Human Resources 	Have a proactive, productive and skilled staff with appropriate areas of expertise	Review and update HR Plan by October each year
Finance 	Maintain a long-term financial plan to provide full cost recovery for scheme operation and asset replacement at an affordable level of cost to customers	Long-term financial plan in place by March 2008

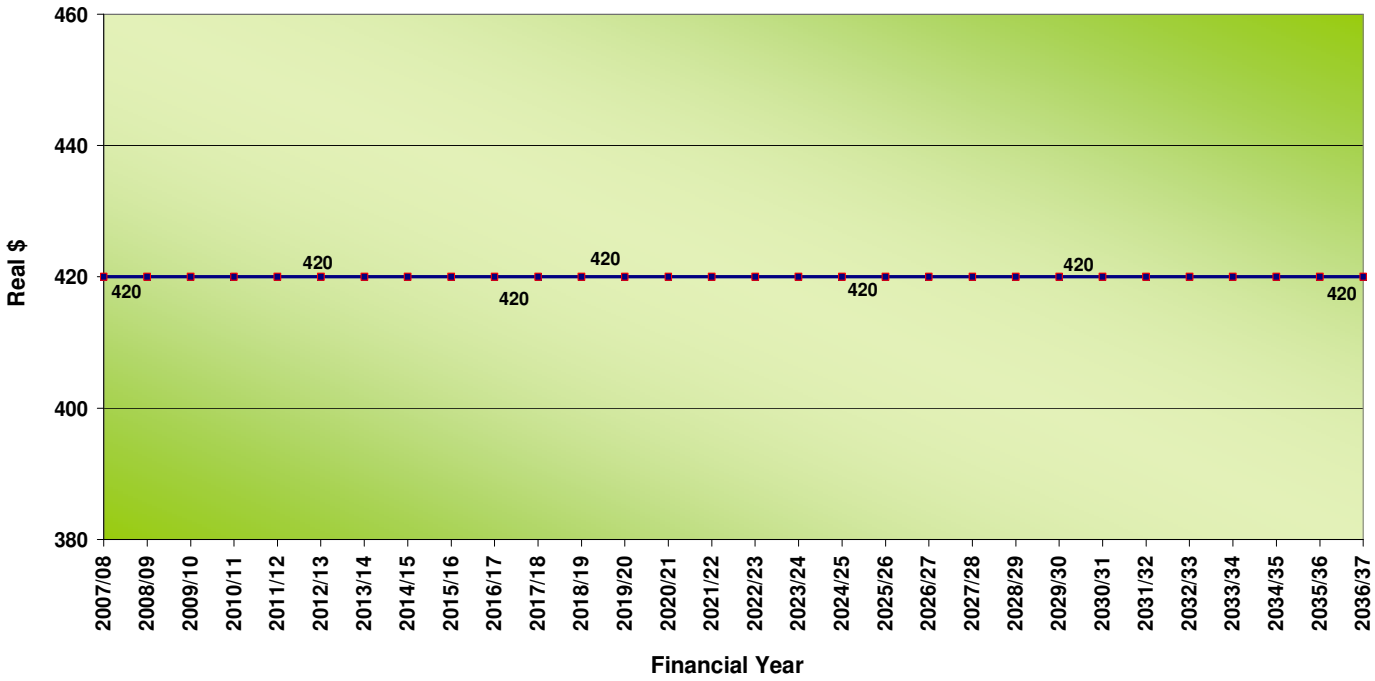
Summary of Projected Financial Position

Following Table presents the summary of projected financial position of Blayney Shire Council's sewer fund over the next 30 years at five-year intervals. The typical annual residential bill forecast for the same period is shown graphically below this Table. The values are all in 2007/08 dollars.

2007/08 $ (000)	2007/08	2011/12	2016/17	2021/22	2026/27	2031/32	2036/37
Estimated Total Revenue	1,101	1,122	1,247	1,352	1,376	1,426	1,492
Estimated Total Expenditure	921	942	1,269	1,364	1,517	1,431	1,363
Operating Surplus / (Deficit)	180	180	(22)	(11)	(141)	(4)	129
Acquisition of Assets	60	280	120	100	120	80	140
Principal Loan Payments	33	38	114	166	273	271	182
Borrowings Outstanding	1,141	894	2,821	2,752	3,929	2,274	917
Cash and Investments	3,094	3,126	1,240	891	506	847	1,853
Total Assets	17,275	17,006	20,704	20,843	20,779	18,543	17,549
Total Liabilities	1,141	894	2,821	2,752	3,929	2,274	917

Summary of Projected Financial Position

Typical Residential Sewerage Bills



Financial projections have been made considering that no subsidy will be available for the capital works during the forecast period.

Financial modelling has demonstrated that typical residential bills for Blayney, measured in today's (2007/08) dollar, can be maintained at the current level of $ 420 p.a. throughout the forecast period. This level of charges is sufficient to maintain liquidity with a minimum of $ 500 K of cash in hand over the period.

Note that residential customers of Millthorpe will be paying 1.62 times the projected typical residential bill for Blayney. This amounts to $ 680 p.a. for Millthorpe customers. This will be the level of annual sewerage charges also for the customers of the Carcoar, Mandurama and Lyndhurst villages if and when the planned sewerage schemes become operational.

This level of charges is sufficient to maintain liquidity with a minimum of $ 500 K of cash in hand over the period.

All the renewal and replacement capital works will be internally funded throughout the projection period. Capital works for all the village sewerage schemes and Blayney STP augmentation will involve external borrowings. All other planned capital works catering to growth will be fully funded internally, with the maximum utilisation of existing cash reserves and revenues.

The borrowing outstanding is expected to reach a peak of $ 5,436 K in 2022/23, but will be mostly paid out towards the end of the 30-year plan period.

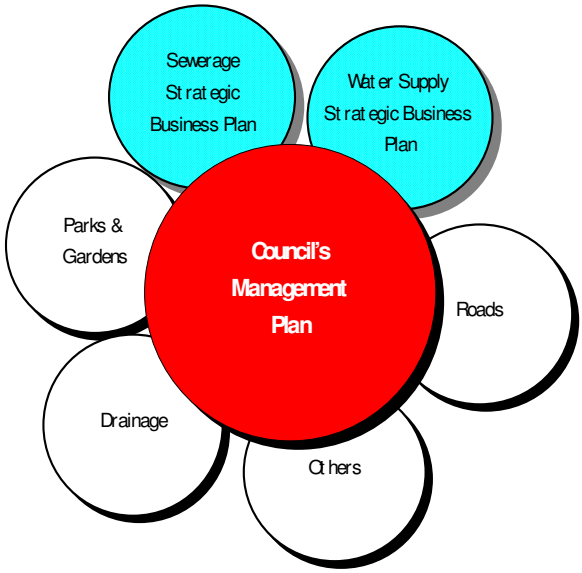
See Part C for more financial projection details.

Introduction

Why This Plan Has Been Developed

The Local Government Act 1993 requires Council to prepare **Management Plans** and **Annual Reports**. The **Management Plan** must cover each of Council's principal business activities and must include items such as:

- Proposed objectives and performance targets;
- Strategies for their achievement;
- Proposed capital works program;
- Financial information;
- Revenue policy;
- Human resource activities;
- Environment protection plan;
- Asset replacement programs;
- Other specific planning information considered relevant.



Strategic Business Plans address single business activities, in this case the **sewerage** services. The relationship between Council's Management Plan and the Strategic Business Plans for the various areas is shown on the right.

The difference between the plans is that the Strategic Business Plan has a long-term strategic approach focussing on a review of the whole of the operating environment for that particular service. Typically the Strategic Business Plan looks at a minimum of twenty years ahead while the Management Plan focuses on 3 to 5 years.

Strategic Planning Benefits

The strategic business plan aim to:

- Provide information for Council's Management Plan;
- Detail information of ratepayers and customers, elected representatives, management, staff, Government and relevant external bodies;
- Focus attention on the key issues affecting day to day operations;
- Explore how to share the limited resources available in an equitable manner;
- Demonstrate to stakeholders that the schemes are well managed;

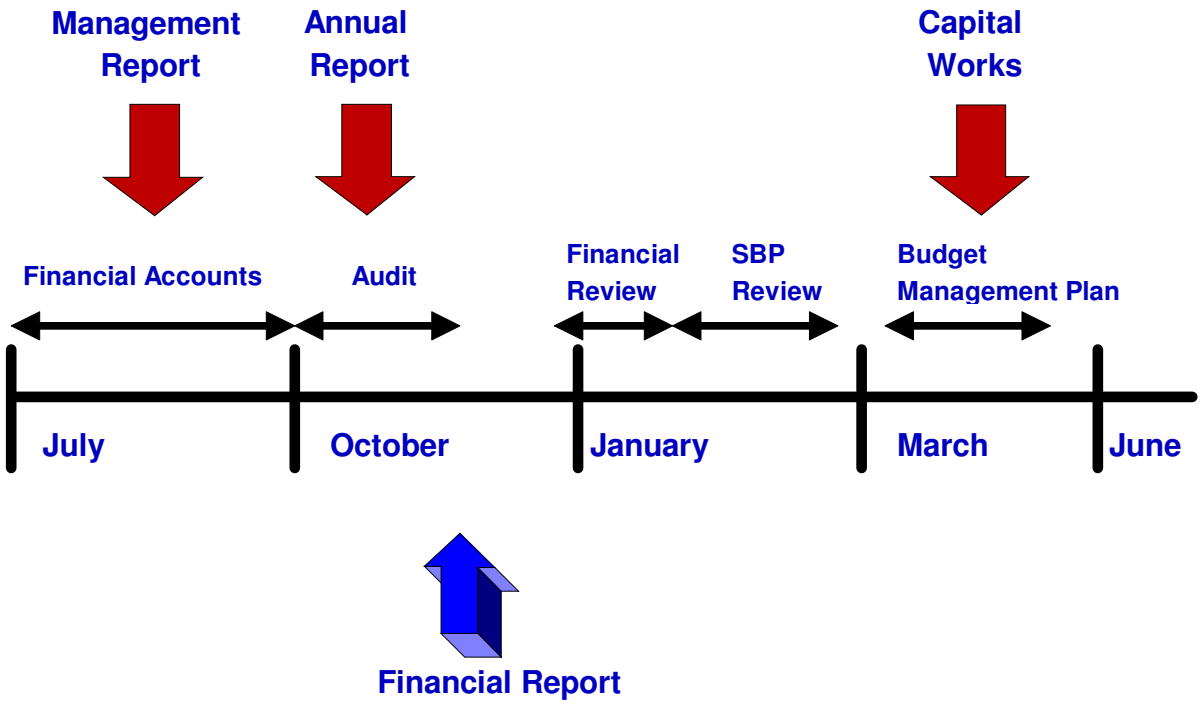
- Identify financial and other resources required to operate these services on a commercial basis;
- Provide a long term price path for each service;
- Assist in development of an affordable capital works program;
- Enable Council to model 'what-if' scenarios and see their rating impact; and
- Allow future financial performance indicators to be calculated, such as return on capital invested.

Strategic Business Plans are considered desirable for all councils but specifically DWE has now made them a prerequisite for the provision of financial assistance. Some other drivers for the production of strategic business plans include the need to meet requirements from:

- Department of Local Government (DLG) – Competitive neutrality;
- Council of Australian Governments (COAG) – National water Reform, National competition policy;
- Local Government and Shires Associations (LGSA) – Benchmarking; and
- Independent Pricing and Regulatory Tribunal (IPART) – Pricing Principles.

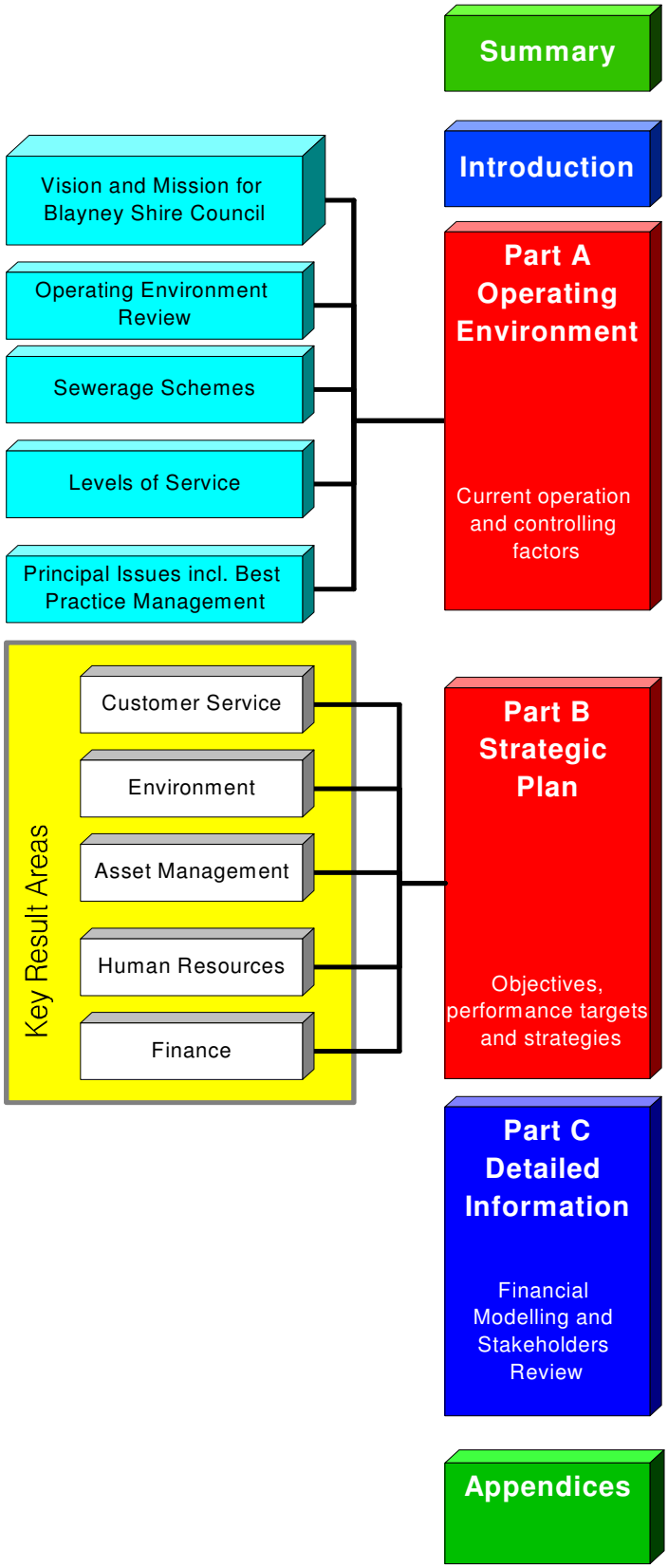
The Plan also communicates scheme information to stakeholders and demonstrates that the scheme is being well managed.

Planning Cycle



Structure of the Plan

The strategic business plan is presented in three parts. The elements of each part are shown on the diagram below.



PART A: OPERATING ENVIRONMENT

Part A of the Plan provides a review of the system and the operating environment prior to undertaking planning. Part A is the starting point of the planning process and comprises:

- Vision and Mission of Blayney Shire Council looking to a 30-year planning horizon
- Operating Environment
- Review of Existing Sewerage Scheme
- Levels of Service
- Principal Issues
- Best Practice Management.

Part B is the Strategic Plan for the sewerage schemes, and **Part C** is the Detailed Information for achieving the Business Plan's performance targets.

Council's Vision and Mission

This section contains Council's corporate vision and mission statements which indicate the future planning direction

Strategic planning aims to optimise service delivery in terms of long term cost effectiveness and sustainability and the prime driver is Council's vision of the future and definition of a mission statement.

Corporate Vision

Council's corporate vision is:

To ensure that Blayney Shire Council is an active participant in the growth of the Central NSW Region whilst developing Council's area as an innovative, inspirational and enjoyable environment for its current residents and those wanting to settle in the area

Corporate Mission

The corporate mission of the Council is:

Council actively engages all sectors of the community in the delivery of its vision through provision of cost effective services, investigation of innovative opportunities, development of efficient asset management principles and attracting retention of the next generation of residents.

Corporate Objective for Sewerage

Council has adopted the following objective for its sewerage services:

To provide sewerage services in an efficient manner to the agreed and currently recognised health, environmental and other community standards and needs with flexibility to promote and meet development demands within the Region

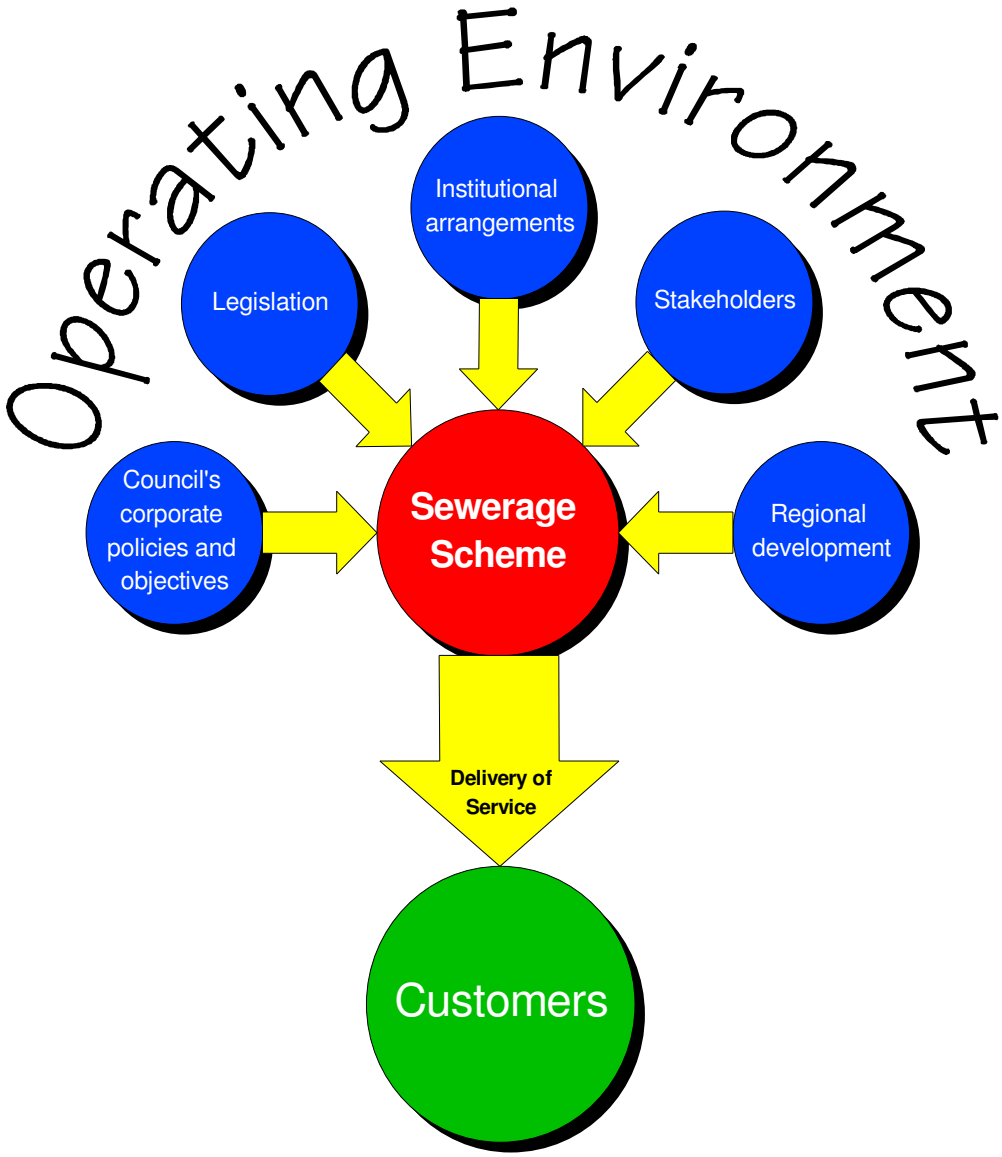
The implications of Council's vision and mission statements for the provision of the sewerage services are:

- To strive for excellence in customer service;
- To ensure a sustainable future;
- To have a strong economic base;
- To meet community expectations;
- To maintain suitably experienced staff;
- To provide necessary services efficiently;
- To be dynamic and responsive to change; and
- To be environmentally committed and responsible.

In order to continue effective service provision Council needs the support of the community. For this to occur, however, the general public needs to become more aware and knowledgeable about sewerage planning issues.

Operating Environment

The delivery of sewerage services to the schemes' customers is subject to a large number of constraints, requirements, guidelines and other factors, which collectively are referred to as the operating environment. The five major elements of the operating environment are shown in the chart below.



Council has adopted “Strategic 2025 Vision” with the view to ensuring that Council has a focus on forward thinking. This would expect to guarantee the Shire to adopt proactive measures and continue to be a single profitable entity in future.

In expanding Council’s vision for a 30-year planning horizon for sewerage services, changing service requirements due to the key factors influencing the operating environment. Factors that may affect the future sewerage service requirements are:

Growth

- Lower working age population – only about 38% of Council’s population is in the working age of 20 years to 50 years
- Lower occupational ratio following the State and National trend leading to growth in tenements
- Council is experiencing rural residential subdivisions
- A steady growth of population (approx. 0.6% p.a.) is expected to be maintained. Population growth is also due to migration from nearby cities of Orange and Bathurst to Blayney and Milthorpe due to availability of cheaper land.

Development

- Council expects possible growth and expansion in agro-processing industries and in mining and manufacturing sector. Cadia Gold mine is expanding and new mines are expected as mineral deposits are being discovered in the region
- A private regional sale yard has been developed near Carcoar

Public Health

- Blayney Shire is within reasonable distance to various major cities including Orange, Bathurst, Dubbo and Sydney in case of medical emergency
- Inadequacy of medical services is considered an impediment to growth in the region. Nearest major hospital for the Council is located in Orange. The hospital services a population of approximately 65,000.

Environment

- The Shire has good air quality and there is no need for extensive monitoring or air pollution control programs. However, increasing through traffic of heavy vehicles may contribute in the long-term to air pollution due to vehicular emissions
- Algal blooms are now commonplace in the regional waterways flows of almost all of which are regulated.

Transport and Tourism

- Blayney and Milthorpe are well connected to Orange, Bathurst, Dubbo and Sydney by road.
- An upgraded highway is expected to drive growth of industrial properties in and around the Shire.
- Blayney being the railhead for container terminal for export to Botany

- Council in collaboration with Wellington and Cabonne and the Regional Tourism Board is implementing programs to improve the presentation of tourist attractions

Technology and Information

- Advanced information management would provide better financial and operational analysis and lead to continual service improvement.
- Improvements in reliable mobile access and availability of high-speed (broadband) internet access in future will enhance opportunities for growth and development. This would also provide opportunities for tele-commuting

Government Legislation/ Policy

- More regulation, stringent enforcement and fewer subsidies from Government is imposing heavy burden on Council responsibilities

Sewerage Scheme

This section describes the main components of the existing sewerage schemes, and the plans for their future development.

Existing Sewerage Scheme

Council provides sewerage services to the township of Blayney and Millthorpe village. Other villages including Carcoar, Barry, Neville, Mandurama, Lyndhurst and Newbridge are serviced by septic tanks.

Blayney Sewerage Scheme

Blayney reticulation system consists of 51 Km of AC and uPVC mains and six pumping stations. The original reticulation system in Blayney was constructed in the late 1960s with considerable augmentation in 1970's, 80's, 90's and in 2003.

The sewerage reticulation which servicing the township of Blayney can be divided into three main catchment areas:

- *North of the main western railway* - Sewage from this catchment is collected at Pumping Station No. 2 and pumped across the railway line into the central town area gravity system.
- *Central town area* - Sewage from this catchment is collected at Pumping Station No. 1 and pumped directly to the sewage treatment facility.
- *Area south of Martha Street* - Sewage gravitates from this area back into the central town system. An exception to this is the development along Barry Road. Sewage from this area gravitates to Pumping Station No.3. This pumping Station pumps sewage directly to the Sewage treatment facility via an interconnection to the major rising main.

The Blayney Sewage Treatment Works is located on the south eastern outskirts of town on the north side of Hobbys Yards Road. The original works, constructed in 1966, consisted of a Biological filter (Trickling filter) with a capacity of 2100 E.P. The original treatment works was replaced by an Intermittently Decanted Extended Aeration (IDEA) activated sludge treatment plant with a design capacity of 7000 E.P. The STP and effluent management system consists of the following:

- A balance tank which restricts flow to the plant to 80 L/sec and includes a mechanical step screen and storm overflow weir and a flow divider (storm flow bypass leading to effluent ponds)
- A deodorization bed chamber (to address odour problems that may arise due to septic Milthorpe sewage)
- An intermittently decanted extended aeration (IDEA) reactor of 7,000 EP
- Alum dosing and storing facilities
- A catch pond
- Four sludge lagoons

- Sludge drying beds
- An under-drainage pumping station
- Effluent ponds
- Effluent pumping station and chlorination facility that transfers effluent to the Cadia Mine Ore concentration plant
- Constructed wetlands
- River discharge main from wetland to the Belubula River
- An amenities building and a laboratory

The STP will fully treat all predicted inflows and currently has excess capacity based on the future design load.

The balancing tank receives sewage pumped from Blayney and Millthorpe through the inlet works and to the intermittently decanted extended aeration (IDEA) plant. IDEA plant is chemically dosed with alum to remove phosphorus and improve settling characteristics. Effluent from this plant is discharged to the catch pond and then to the effluent ponds for maturation.

Effluent disinfection is achieved in effluent ponds and is pumped to Cadia Mines after chlorination. Cadia mine currently takes all treated effluent. Any effluent that may not be pumped to Cadia mine due to operational issues is released to the wetland, which then overflows to the Belubula River. Wetland has been provided as a supplementary structure to impart additional effluent polishing treatment. Flows to the wetland have been limited to wet weather events.

Sludge from sludge lagoons are dried at drying beds while supernatant is gravitated back to the IDEA plant.

Millthorpe Sewerage Scheme

Millthorpe sewerage services about 600 people in the village of Millthorpe. The sewer reticulation was commissioned in 2003. The system consists of 9.7 Km of uPVC gravity sewer mains and one pumping station. Collected sewage is pumped to the balancing tank of Blayney STP for treatment.

Assets Summary

Blayney Shire Council has prepared an Asset Register and the locations of all major assets have been recorded. Council is currently assessing asset management software to assist in managing the infrastructure.

No detailed condition audit of underground assets has been carried out as yet so Council does not really know the cost or timing of the real replacement needs. At this stage it must be assumed that there is a growing liability that will have to be met at some point in time and the level of cost is indicated by the accumulated depreciation less cumulative replacement expenditure.

The condition of Council's major sewerage assets is presented in the following Table.

Asset	No./ Capacity/ Length	Year of Construction	Condition 1 – Poor 10– Perfect
Gravity Reticulation Mains			
– Blayney	41.5 Km	1966 – 2003	6
– Millthorpe	9.7 Km	2003	9
Manholes			
– Blayney	702	1966 - 2003	8
– Millthorpe	147		9
Pumping Stations			
– Blayney	8	1966 – 2003	8
– Millthorpe	1	2003	9
Rising Mains			
– Blayney	8.51 Km	1966 – 2003	8
– Millthorpe	14.8 Km	2003	9
Blayney STP	7000 EP	1989	9

Figure 1 - Map of Blayney Shire Council

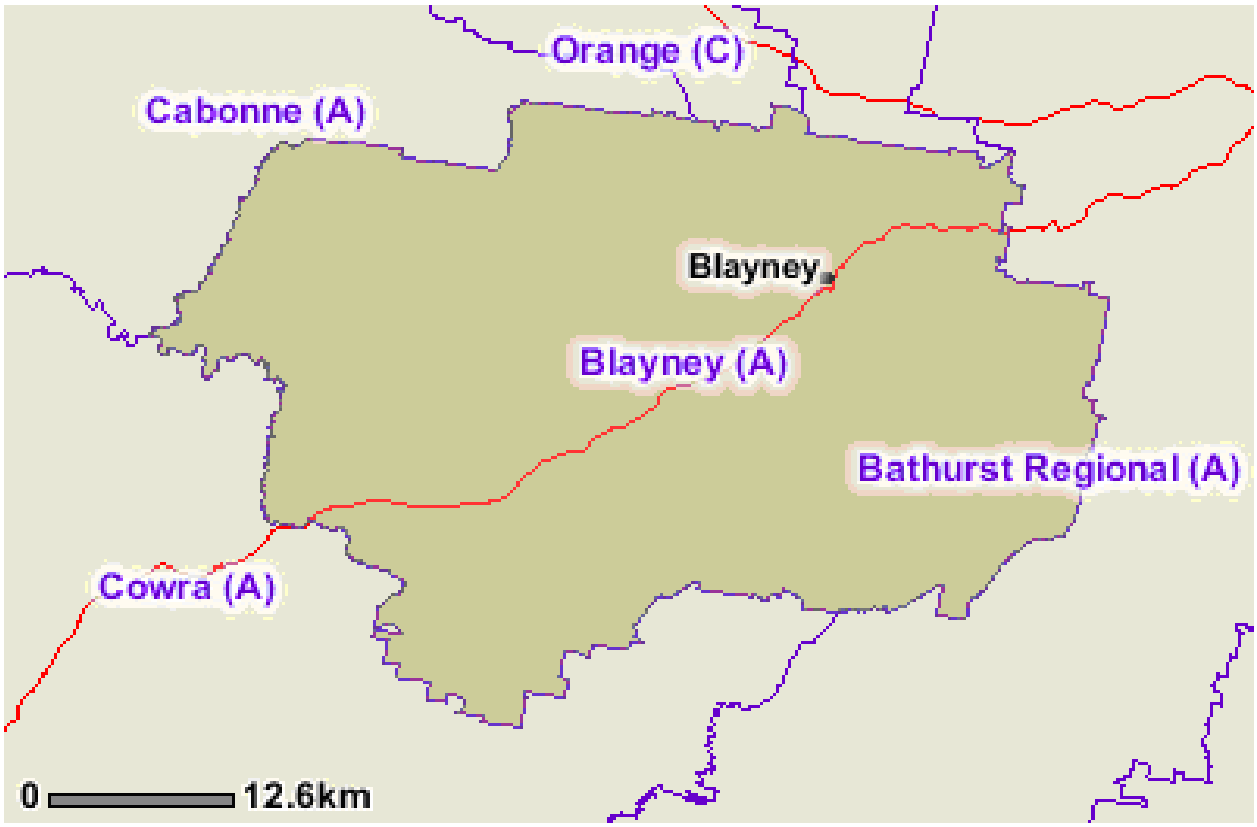


Figure 2 – Map of Blayney Town Sewerage Service Area

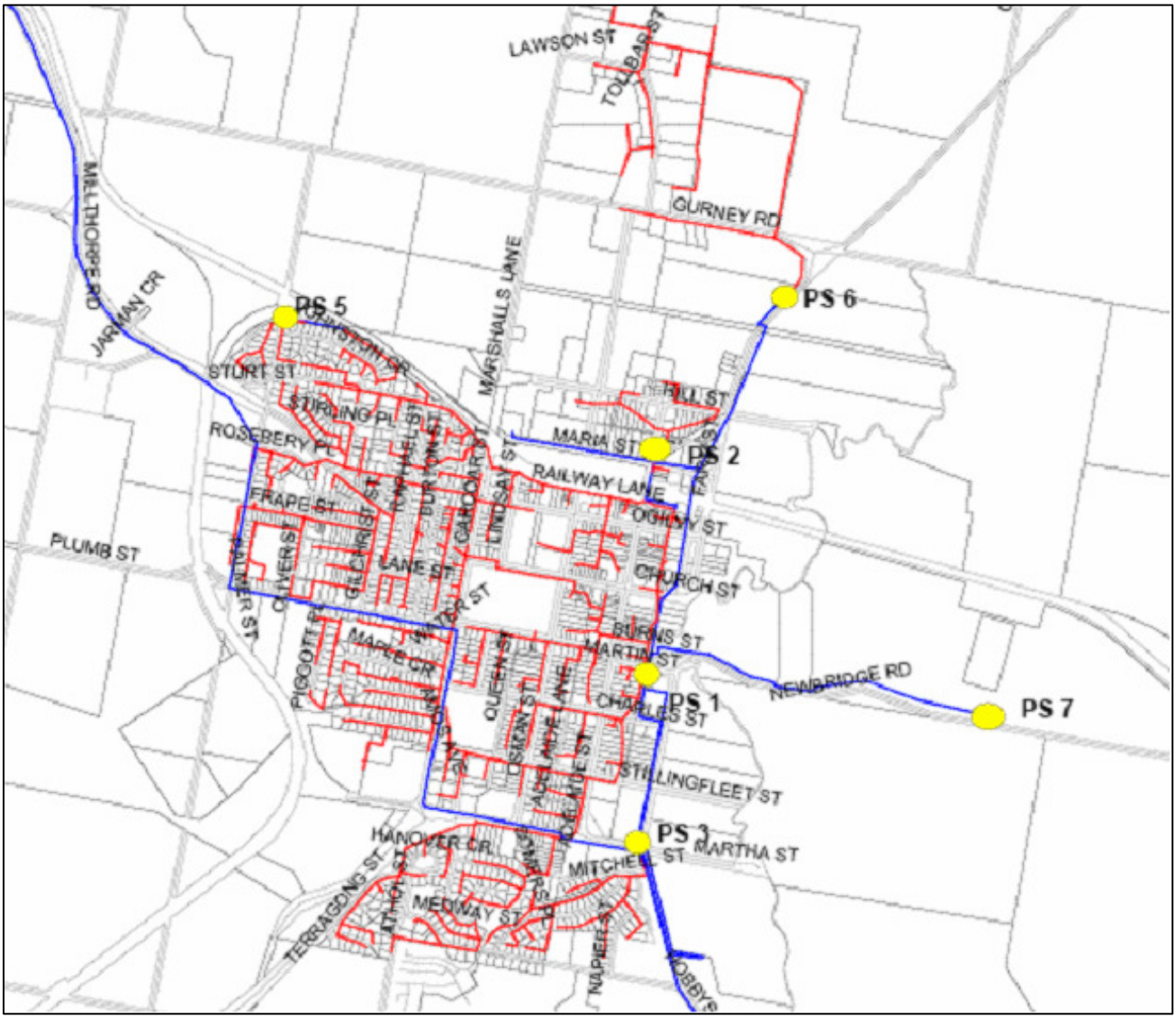
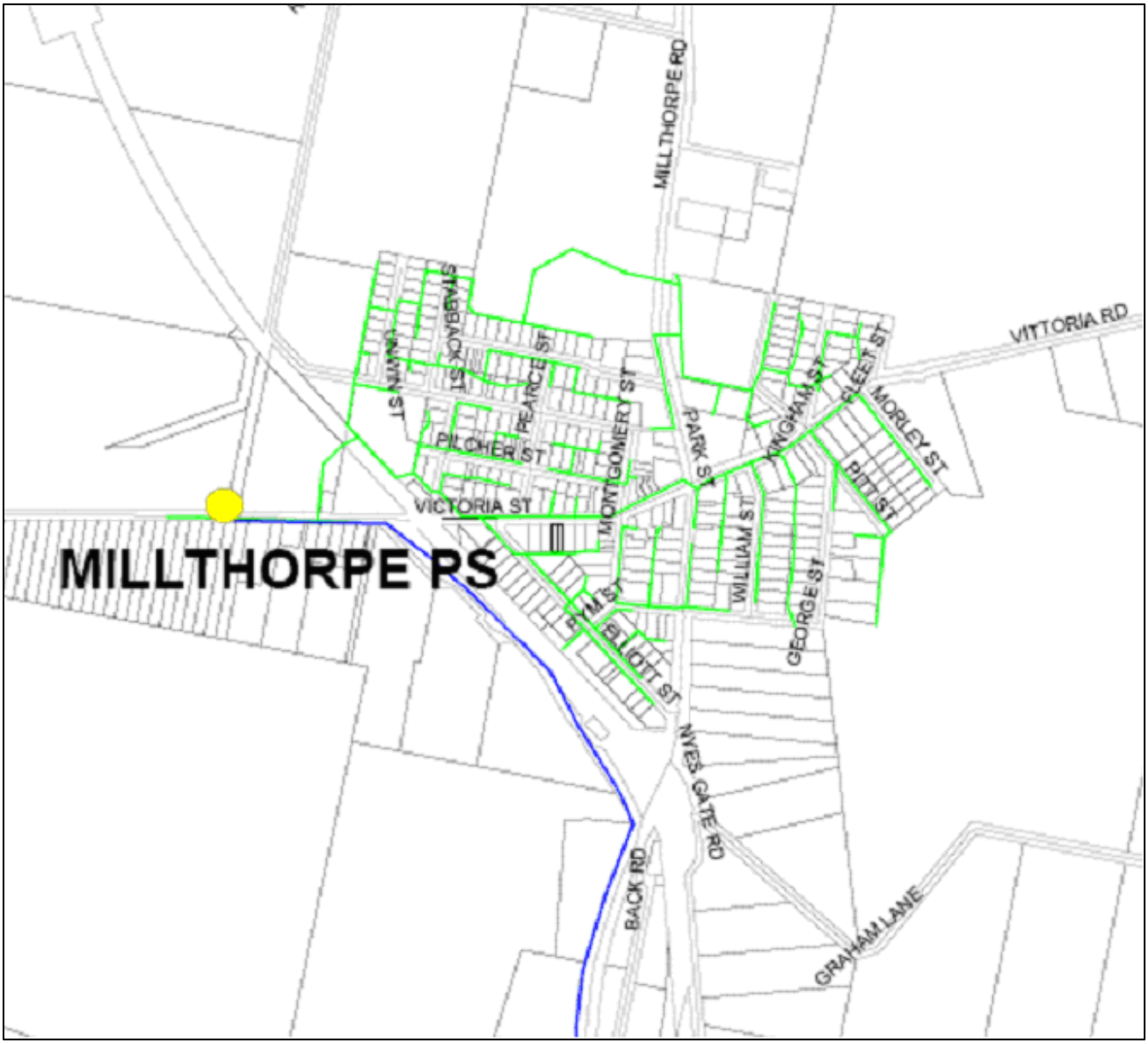


Figure 3 – Map of Millthorpe Sewerage Service Area



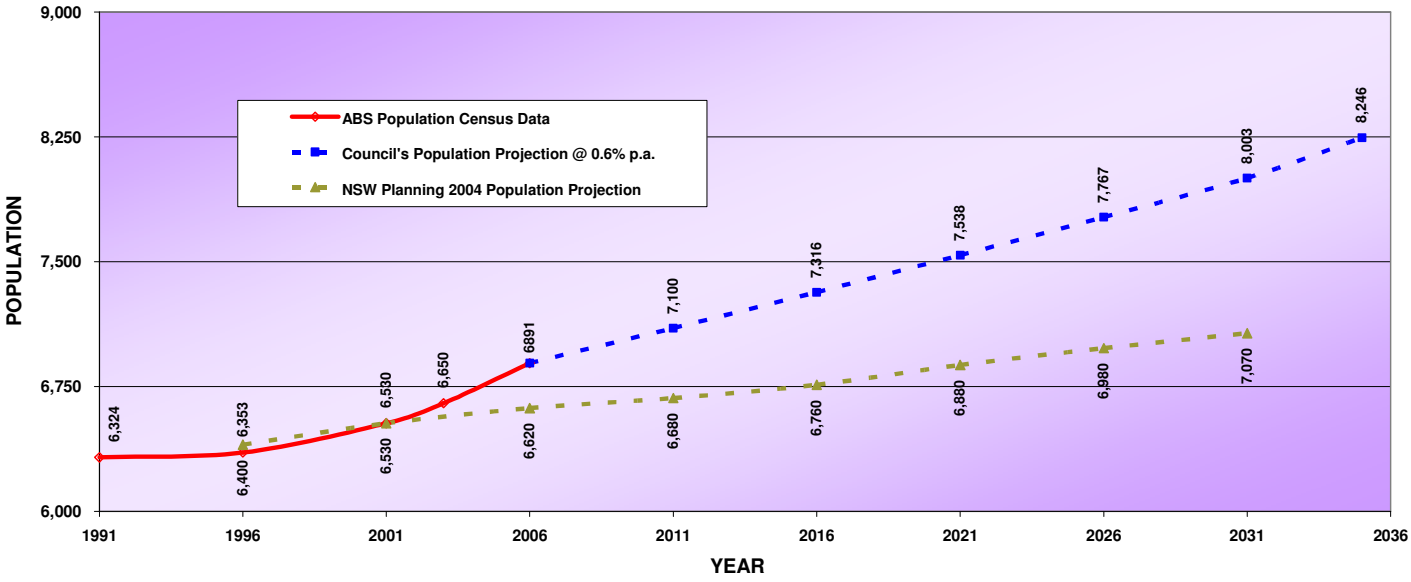
Future Development

Growth Projections

Blayney Shire Council has had compounding growth rate of 0.6% p.a. during the 15-year period between 1991 and 2006 (*Source:* ABS, *Estimated Residential Population Local Government Areas – NSW 1996 – 2006, ref 3218.0)*

The ABS Census data and the NSW Planning forecasts are shown graphically in the Figure below. Both these forecasts indicate increasing population growth for the Council. Council has adopted a 0.6% growth rate for future planning and is optimistic with its predictions believing that the economic development strategies it has in place should result in maintaining the present population over the next thirty years with a likely net increase. This growth rate has been adopted in this Strategic Business Plan and for financial modelling for the financial projections during the 30-year forecast period.

Figure 4 – Blayney Shire Council Population Growth Projections



The projected number of sewerage assessments for financial modelling purposes is based on the 1737 (Residential: 1500; Non-residential: 237) assessments in June 2007 *(Reference: Blayney Shire Council Special Schedule 5 for the year 2006/07)* and factored up on a pro-rata basis in line with the above forecasts.

Capital Works Program

The following is a summary of the major sewerage capital works planned for Blayney Shire over the next 10 years. The justification for why they have been planned is also shown below

Proposed Capital Work	Year	Justification
Laboratory and amenities building at Blayney STP	2009 -10	New work for improvement
Septic tank wastes discharge bay at Blayney STP	2008	New work for improvement
Millthorpe sewage transfer main augmentation	2010 - 11	New work for improvement
Emergency storage capacity for main pumping stations in Blayney and Millthorpe	2009 - 10	New work for improved level of service
Lining/ replacement of sewer mains in Blayney	2009 onwards	Renewal

Stakeholders

Stakeholders are parties within Blayney Shire who have an interest in the sewerage schemes and its operation. The expectations of the stakeholders have a significant impact on the development and operation of the schemes. Internal stakeholders include:

- Residents/Families
- Councillors
- Commercial and Industrial Consumers
- Technical Management Staff
- Government Agencies
- Property Owners/Ratepayers
- Pensioners
- Council Employees
- Tourists
- Special Interest Groups

A review of stakeholder satisfaction to identify any perceived service gaps is presented in Appendix C.

Levels of Service

Define explicitly the standards required from sewerage scheme and are an extension of Council's corporate objectives

The Levels of Service:

- define explicitly the standards required from the sewerage system;
- are an expansion of the mission statement; and
- will largely shape Council's detailed planning.

The Levels of Service define the deliverables and are the driving force for the sewerage schemes' management and development. Achieving the target Levels of Service is the PRIMARY GOAL.

While minimum standards in some areas such as effluent quality, noise, odour, effluent discharge and sludge management are covered by statutory and license requirements, the community may desire levels of service, which are more stringent than the regulatory requirements. These levels of service may be seen as reflecting local community aspirations. There are also operational levels of service relating to service reliability, responsiveness to complaints, etc, which are not covered by regulation.

The current and target levels of service, which the Council aims to achieve, are shown overleaf. As Council and customers are satisfied with the current Levels of Service provided, majority of the target levels of service remains unchanged.

It should be noted that while the current Levels of Service are the target, which Council aims to meet, they are not intended as a formal customer contract at this stage. Rather Council's responsibility is to achieve these levels and then to achieve them more cost effectively through a process of continual improvement.

Levels of Service – Sewerage

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target (2012)
Availability of Service			
– Extent of area serviced	% Designated Service area	100% of designated service areas in Blayney and Millthorpe	100% of designated service areas in Blayney and Millthorpe
System Failures			
Category One:			
– Failure due to rainfall and deficient capacity (overflows)	No./year	0	0
Category Two:			
– Failures due to pump or other breakdown including power failure	No./ year	2	2
Category Three:			
– Failures due to main blockages and collapses	No./ year	25	10
Response Times for System Failures			
(Defined as the maximum time to have staff on site to commence rectification after notification)			
Priority One:(Major spill, significant environmental or health impact, or affecting large number of consumers ie a major main)			
– During working hours:	Minutes	30	30
– During after hours:	Minutes	45	45
Priority Two:(Moderate spill, some environmental or health impact, or affecting small number of consumers ie other mains)			
– During working hours:	Minutes	30	30
– During after hours:	Minutes	45	45
Priority Three:(Minor spill, little environmental or health impact, or affecting a couple of consumers)			
– During working hours:	Minutes	30	30
– During after hours:	Minutes	45	45

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target (2012)
Response Times for Complaints			
General Complaints and Inquiries:			
– Written complaints	Working days	1	1
– Personal/Oral complaints	Minutes	30	30
Note: Times apply for 95% of complaints			
Odour Complaints:			
– Treatment works (outside designated buffer zone)	No. /year	0	0
– Pumping Stations	No. /year	5	0
– Reticulation system	No./year	0	0
Effluent Discharge and Sludge Management			
Failure to meet licence limits and statutory requirements (100 percentile)	No. of samples/ year	0	0
Discharge Licence Conditions			
Discharge Site		Community wetlands	Community wetlands
Quantity	ML/year	75	345
Effluent Reuse	%	75% (Reuse by Cadia Mines)	75%
Biochemical Oxygen Demand	mg/L	< 30	30
Total Suspended Solids	mg/L	< 30	30
Total Nitrogen	mg/L	<15	15
Oil and Grease	mg/L	<10	10
Total Phosphorus	mg/L	<1	1
Faecal coliforms	No./100mL (geometric mean)	<200	600

Note: The Levels of Service are the targets, which Council aims to meet; they are not intended as a formal customer contract.

Principal Issues

Looks at the key concerns facing Council in the future

A number of issues have been identified as important to the future operation of the sewerage schemes. Below is a list of these issues and where they have been addressed in this Strategic Business Plan.

Issue	Section where this is addressed
Meeting DWE Best Practice Management Guidelines	Objective 1 – Levels of Service Review
Wet weather inflow including from illegal connections	Objective 3 – Sewer Load Management Objective 10 – Capital Works
Reducing sewer chokes and blockages	Objective 3 – Sewer Load Management Objective 9 - Maintenance
Maintaining an up to date asset register including asset conditions and rating	Objective 8 – Operation
Community education/ awareness	Objective 5 – Customer Relations Objective 6 – Community Consultation
Risk assessment of issues identified by Overflow Investigation Report	Objective 8 – Operations Objective 9 - Maintenance
Managing and funding future replacement/ renewal of assets	Objective 10 – Capital Works Objective 12 – Finance

Best Practice Management

The Department of Water and Energy (DWE, formerly DEUS) has prepared *Guidelines for Best-Practice of Water Supply and Sewerage* pursuant to section 409(6) of the Local Government Act 1993. A summary of Blayney Shire Council's compliance status of the criteria is as follows:

Issue	Status
Strategic Business Plan (including Financial Plan)	This document represents the Strategic Business Plan and Financial Plan.
Sewerage and Trade Waste Pricing	Pricing with appropriate cost recovery, without significant cross subsidies has been addressed for the sewerage business since 2006/07 including appropriate residential sewerage tariffs; two-part non-residential tariff and liquid trade waste fees and charges has been adopted since 2006/07
Liquid Trade Waste Management	Liquid trade waste approvals have been issued to *each* liquid trade waste discharger connected to the sewerage system and the issues in the DWE *Trade Waste Check List* addressed since July 2003.
Developer Charges	*Development Servicing Plan* with commercial developer charges for Blayney and Millthorpe has been completed in 2003/04
Annual Performance Reporting	*Performance Reporting Forms* were completed prior to September 2007 and issues in the DWE *Performance Reporting Check List* have been addressed.
Asset Management*	A 30-year *Capital Works Plan*, listing the proposed projects for each of backlog, growth and renewals; will be developed by December 2007; an Asset Management Plan incorporating Operation and Maintenance Plans will be developed by December 2008
Environmental Management*	The *Protection of the Environment Operation Act, 1997 has been* complied with and all issues in the Environmental Management Checklist addressed since 2006.
Integrated Water Cycle Management	Substantial commencement of sound IWCM by June 2008.Integrated Water Cycle Management will be fully implemented and all of the issues in the IWCM Check List addressed by June 2009

* - Currently no specific requirements in the DWE Best Practice Guidelines

PART B: STRATEGIC PLAN

Part B of the Plan provides a detailed description of **Service Provision Objectives, Strategies, Performance Measures** and **Actions** in the key result areas in which Council must perform successfully to fulfil its corporate objective for sewerage.

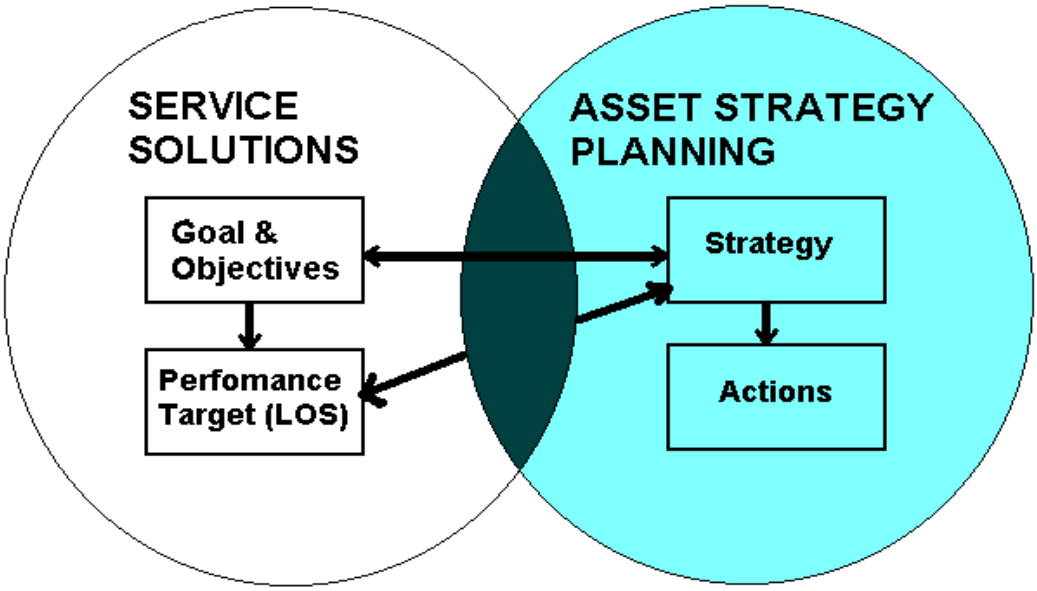
Council has developed five key result areas in Service Provision Strategies covering:

- Customer Service
- Environment
- Asset Management
- Human Resources
- Finance

Part C contains a more detailed examination of selected service provision areas.

Planning Strategy

The relationship between 'Service Solutions' and 'Asset Strategy Planning' can be represented as follows:



The progression from 'Identifying Service Goals' to 'Achieving Service Goals' is summarised as follows:

UMRVICE SOLUTIONS	Identifying Service Goals
Objective (Goal)	Defines how key result areas contribute to service goals
Performance Targets	Expected Outcomes

IMPLEMENTATION	Achieving Service Goals
Strategies	The plan for achieving the objective(s)
Actions	Specific tasks to implement strategies and achieve objective(s)
Responsibility	Person in charge of task completion
Cost	Implementation (Implement) – One off cost Ongoing – Cost incurred annually over a number of years or at regular intervals

Service Planning

There is a relationship between the Levels of Service (LOS) to be provided to consumers and the actions that will be undertaken by Council. The following table shows the relationship between each of the objectives and related Levels of Service. As such, it would be expected that any changes to current LOS would be addressed in the indicated objectives.

This table is a summary of how the Levels of Service map into the key result area action-planning framework.

OBJECTIVES	LEVEL OF SERVICE
Service Management	Sustainability
Area Serviced	Availability of Service
Sewer Load Management	Discharge – Trade Wastes Failures (Inflow/ Infiltration)
Pricing	Availability – user pays Rebates – pensioners
Customer Relations	Availability of Service Service requests Complaints/Enquiries
Community Consultation	Service pricing Environment
Environment	Overflows Sewage treatment Effluent disposal standards - compliance
Operations	Failure – blockages Response times
Maintenance	Failure - breakdowns
Capital Works	Availability – capacity Failure – design Failure – replacement program Effluent disposal – compliance
Human Resources	Complaints/ Enquiries Response Times
Financial	Affordability - model

Abbreviations Used

In addition to the general abbreviations listed in Appendix A, the following abbreviations have been used in the Action Plans presented in this section of the plan.

GM	General Manager
DE	Director of Engineering
DCS	Director of Corporate Services
DES	Director of Environmental Services
HRO	Human Resources Officer
UM	Utilities Manager
WM	Works Manager
NAE	No Additional Expenditure (above current levels)

Customer Service

This section details Blayney Shire Council's objectives relating to customer service, including Levels of Service, customer relations, community involvement, pricing and sewer load management.

The **Customer Service Plan** covers activities, which involve interaction between Council, its customers and the wider community.

This Section of the Plan covers the following areas:

- The Levels of Service provided to customers;
- Current and future sewerage service areas;
- Sewer load management;
- The pricing of services (including trade waste pricing and developer charges);
- Customer relations with Council; and
- Community consultation initiatives.

Levels of Service Review

The Levels of Service discussed in part A, are designed to reflect an optimisation of the desired service provision, what is affordable, and the system's capability. These considerations take into account legislative requirements, industry standards and customer demands.

This section reviews the services currently provided by the Council's sewerage scheme. In addition to identifying areas where improvement is necessary, the review also refers to aspects of the operation that are being performed well.

The Levels of Service objective should enable the community to be aware of, and endorse the Levels of Service provided. As a public document, this report provides the necessary background information.

To demonstrate continuous improvement, Council will seek to provide the target Levels of Service in the most efficient manner. A number of items are of particular importance and these will be addressed under the relevant key result areas.

Under the DWE Best Practice Management Guidelines, a performance review is required to demonstrate that Council is either achieving the Level of Service or improving towards achieving the target levels. Monitoring and benchmarking are needed to help Council determine if their methods are appropriate or more effective than other shires. Performance data is forwarded to DWE in September each year.

A benchmarking exercise needs to be conducted to ensure Levels of Service are comparable to others in the industry at present. The 2-page TBL report received back from DWE should be reviewed and an action plan to address areas of under performance needs to be prepared by the Council.

Council plans following service level improvements in the near future:

- Reducing number of main blockages and associated service requests
- Reducing number of odour complaints from pumping stations

Objective 1: Levels of Service Review
Levels of services are in accordance with community expectations
Performance Targets Levels of service are documented and communicated to the community
Strategy Comply with Best Practice Guidelines

Objective 1: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review current operations for annual report	Annually		UM		NAE
Review and update Strategic Business Plan	October 2007	5 yearly	UM		20 every 5year
Public display of SBP and adoption by Council	As required		UM		NAE
Implement and monitor SBP Action Plans	Ongoing		UM	As detailed in this report	
Best Practice Management Compliance Audit	July 2009	October 2009	UM	5	
Monitor and review LOS targets and report performance to DWE	Septemb er Annually		UM		NAE
Report key performance indicators and TBL reports to Council	August Annually		UM		NAE
Input and review of special schedules for Dept. of Local Govt. in the financial statements	Annually		UM/ MFS		NAE
DECC/EPA compliance reporting for licence renewal	March Annually		UM		NAE
SoE reporting	Nov Annually		DES		NAE
Fair valuation of assets		3 yearly	UM		NAE

Areas Serviced

This section of the Customer Service Plan addresses Council's intentions in the provision of services for the next thirty years.

The extension of sewerage services is dependent on a range of factors, the most important of which are:

- the growth in urban and rural settlements,
- the environmental impact of the works.
- Cost to ratepayers associated with extending services.

When extending services, Council will have to:

- Treat all residents as equal for the provision of services
- Consider residents expectation of service.
- Consult community when considering new development areas or backlog programs

Rural-smallholding and rural subdivisions (lot sizes greater than 1ha and 10ha respectively) do not require sewering under current planning requirements. Lot sizes are considered large enough for the proper operation of septic tanks or aerated treatment systems and are not considered to pose any health related problems.

Blayney Shire Council is responsible to a total of 6650 residents, including approximately 3100 urban residents in Blayney and 650 in Millthorpe. Council provides sewerage services to residents within the designated service area. At this time Council is planning to extend services to residents outside this boundary in Millthorpe.

Table next page summarises the details of current and future (30-years) sewerage service areas within the Region. As indicated by the table, Council plans to extend sewerage services to the villages of Carcoar and Mandurama depending on economic feasibility of these schemes.

Towns/ Villages	Current Service Provided		Future Service Provided (30 years)	
	Equivalent Tenements	Sewerage Service	Equivalent Tenements	Sewerage Service
Blayney	1300	Reticulated sewerage	1700	Reticulated sewerage
Millthorpe	370	Reticulated sewerage	500	Reticulated sewerage
Carcoar	112	Septic tanks	130	Reticulated sewerage
Lyndhurst (including Somers and Garland)	152	Septic tanks	175	Reticulated sewerage for Lyndhurst (Provisional)
Mandurama	95	Septic tanks	100	Reticulated sewerage
Barry, Neville and Newbridge villages	143	Septic tanks	160	Septic tanks

Objective 2: Areas Serviced
Maintain existing designated services and provide service to selected unserviced areas where economically feasible
Performance Targets Achieve 100% service population in the designated service area by 2010
Strategies Encourage ongoing infill urban development to maximise use of existing facilities

Objective 2: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Identify infill service areas in conjunction with Planning Section	Nov 2007	March 2008	UM/ DCS	NAE	
Review report on septic tanks by Environmental Services	July 2008	June 2009	UM	NAE	
Undertake feasibility studies for village sewerage schemes	July 2008	June 2009	UM	50	
Consultation with village communities on levels of service	July 2009	Sep 2009	DE/ DES/ UM	NAE	
Provide sewerage services to villages as needed	As needed		DE	4000 (provisional)	

Sewer Load Management

This section of the Plan outlines Council's intention in the management of loadings on the sewerage systems. While the impacts and management practices are of concern to the Customer Service Plan, the solutions must be an integrated part of the Asset Management Plan since they involve long-term system maintenance strategies.

Reducing hydraulic and biochemical loading on the system can:

- Effectively prolong the life of the existing assets;
- Defer new works programs;
- Make treatment processes more effective
- Reduce siltation in the system and reduce pump wear;
- Reduce operation costs; and
- Improve environmental performance.

Problems of load management may occur due to changing development patterns affecting design capacity, trade waste discharges, stormwater, or ground water.

Inflow and Infiltration Management

Although water demand management can reduce the hydraulic load on the treatment works, the major factor is usually the ingress of water into the system. The challenge is to control and reduce any significant inflow and infiltration (I/I).

Inflow, by definition, is due to direct ingress from illegal connections of roof drains, back yards and low gullies, manhole covers, surface water drain connections etc.

Infiltration, by definition, is a result of damage to the sewers themselves due to cracking, breakage, open joints and broken junctions etc. Infiltration can occur in dry weather as well as wet weather if the pipes are below the water table, or adjacent to a streambed (refer to Sewerage inflow and infiltration management study, June 1996 issued to all Councils by DWE).

Council plans to address the following main issues in this regard:

- Wet weather infiltration caused by combination of illegal connections, defective pipes and defective manholes/ access chambers
- Reducing inflow and infiltration for cost savings and environmental improvement
  - Diversion of inflows in excess of 80 L/sec to catch pond
  - Maximising system storage using telemetry to reduce peak flows
- Developing trade waste register to manage sewer overloading and reduce foaming/ odour problems at the pumping stations and the STP

Trade Waste Management

The treatment system functions can also be jeopardised by high biological shocks or toxic chemical loading exerted by liquid trade wastes. Therefore, the Council needs to assess the current levels of liquid trade waste discharges by non-residential customers into the town sewer system.

Council has already developed and implemented a trade waste policy to control commercial/ industrial discharges into the system since 2003. Council is planning to prepare a trade waste register and to review the trade waste pricing policy in line with the DWE recommendations from July 2008 onwards.

Further, as industry develops, trade waste policy will outline service expectations to developers, targeting in particular, chemicals, fuels, oils and hospital discharges and would start with a survey to determine the contributors.

Objective 3: Sewer Load Management
Minimise hydraulic load due to infiltration, inflow and illegal connections and manage any industrial and commercial biological load
Performance Target Complete infiltration/ inflow analysis by July 2010 Develop Trade Waste Register by June 2008
Strategies Implement Inflow/Infiltration program Implement Trade Waste Policy

Objective 3: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Undertake I/I analysis – Pump flow and sub-catchment analysis – Flow gauging	July 2008	June 2010	UM	NAE 50	
Smoke testing of critical sub-catchments	July 2008	June 2009	UM	15	
Send out notices and enforce removal of illegal connections/ cross connections with stormwater		Ongoing	UM		NAE
CCTV survey of critical sub-catchments	July 2008	June 2010	UM		25/year for 2 years
Prepare Analysis/ Defects Report and identify work program		Ongoing	UM		NAE
System rehabilitation – Manhole sealing/raising – Sewer lining – Risers and boundary traps	As planned	Ongoing	UM	Refer to Capital Works Plan	

Contd…/

Objective 3: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 2					
Develop trade waste register and report to DWE	Nov 2007	June 2008	UM	NAE	
Trade waste awareness campaign	March 2008	June 2008	UM	3	
Review and implement new liquid trade waste tariff and regulatory framework for trade waste dischargers		Ongoing	UM		NAE

Service Pricing

This section of the Plan outlines Council's intentions regarding the pricing of sewerage services.

Council's pricing policy should conform to the following general principles:

Equity - adoption of user pays principles in accordance with the DWE Best Practice Guidelines, August 2007. Residential tariff to be a fixed charge and non-residential revenue to be collected via a two-part tariff which reflects the level of water used and hence the load on the sewer system through discharge. (It is considered equitable that people pay for the cost of the services they use).

Financial - provision of adequate cash flows to meet operating costs and to fund future capital works (as determined in the financial plans).

Customers - provision of a service of desired quality and reliability at a fair and affordable price.

Cross subsidies - should be fully disclosed in Council's reporting.

Community service obligations - provision of services to pensioners, disadvantaged groups and general community amenities, to be recognised.

Other - simplicity of pricing structure for ease of understanding by customers and stability of income.

Sewerage Tariff structure

Council has removed the ad valorem sewerage tariff from 2006/07 and adopted fixed access charges independent of land value for both residential and non-residential customers.

Residential sewerage access charge for 2007/08 is $420 p.a. for Blayney and $680 p.a. for Millthorpe.

Council plans to review non-residential sewerage tariff structure in accordance with DWE Best Practice Guidelines by March 2008 and complete implementation of the same in a phased manner by 2009. This will allow Council to comply with the recommendations of IPART and DWE.

Council will be adopting a "user pays" system with features such as:

- Access / availability charge for non-residential assessment;
- Trade waste charges set for identified industries; and
- Percentage charge of water consumed reassessed for exceptional circumstances businesses e.g. a nursery, where most water is consumed on water plants.

Developer Charges

Developer Charges are up-front charges levied under Section 64 of the Local Government Act to recover part of the infrastructure costs incurred in servicing new developments or additions/changes to existing developments. Developer charges serve two related functions:

- They provide a source of funding for infrastructure required for new urban development.
- They impact on the costs of urban development and thus encourage less costly forms and areas of development.

In 2003/04, Council adopted Section 64 sewerage developer charge of $1,932/ET for Blayney and $ 5,074/ ET for Millthorpe.

In current (2007/08) dollar terms this will be $2,174 and $5,711/ET for Blayney and Millthorpe respectively. It would be desirable to adopt the calculated developer charges indexed for CPI to ensure full cost of service provision is collected from developers.

Objective 4: Service Pricing
Ensure scheme achieves full cost recovery and reflects best practice guidelines
Performance Target Review sewerage tariff by December 2007 Review developer charges by December 2007
Strategies Rates and charges reviewed annually to meet financial planning revenue goals

Objective 4: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review tariff at least once every 5 years and adjust for CPI annually	Dec 2007	Ongoing	MFS	10	NAE
Review developer charges calculation every 5 years and adjust for CPI annually	Dec 2007	Ongoing	UM/ MFS	10	NAE

Customer Relations

This section of the Plan outlines Council's intentions in customer relations to ensure its customers are satisfied with the sewerage service provided.

In the area of customer relations the aim is to maintain good customer relations through the provision of a quality service, keeping customers informed of Council's intentions, and responding to customer and community needs. Council believes it operates a service that is reliable, has good quality water and provides a quick response to problems with the system.

Customer satisfaction can be measured in a variety of ways to give a valid indication of the extent to which customers feel satisfied with the type, quality, cost and performance of service provided. Keeping customers informed is agreed by Council to be important for good customer relationship. Methods employed include:

- Quarterly media (newspaper, local radio) feature
- Public meetings (as required)
- Customer Surveys
- Customer contact – phone and front desk
- Councillors' feedback
- Management Plans /Annual Reports/ Business Plans on display
- Information brochures and flyers
- Progress Associations
- Council Website

Adherence to the published Levels of Service is important and advance notification of any planned failure to comply with the levels of service should be given wherever possible. Performance monitoring and reporting is very important for updating and review of the Strategic Business Plan.

In order to carry out Council's mission to focus on the community expectations, a level of communication is required so that the community is satisfied that the Council's decisions are responsive to their needs. A complaints record system does exist and Council intends to implement a customer focussed, socially responsive communications system for service provision issues. The Council will record problems and complaints and analyse them to identify where conditions are deteriorating. Actions will then be taken to improve these situations.

In a workshop session in which Councillors and senior technical staff of water supply and sewerage section were represented, following needs vis a vis customer relations were identified:

- Surveying for feedback on current levels of service
- Developing a complaints system to record problems and track progressive improvements
- Staff training on customer relations as part of Council-wide initiative
- Notifying customers of any changes in the levels of service

Objective 5: Customer Relations
Ensure customer satisfaction
Performance Targets Customer feedback system implemented by June 2008 Customer survey conducted every 4 years Achieve at least 80% customer satisfaction level in customer surveys by 2012
Strategies Keep the community informed of issues relating to the sewerage services and provide services in a professional and efficient manner

Objective 5: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Implement customer feedback system	Started	June 2008	DCS/ UM	NAE	
Analyse and monitor feedback reports		Ongoing	UM		NAE
Staff training on customer relations		Every 5 years	DCS		NAE
Conduct customer survey		Every 4 years	DCS		NAE
Notify customers of planned service interruptions		Ongoing	UM		NAE

Community Involvement

This section of the Plan outlines Council's intentions in involving the community in decision-making during the development of schemes. Community consultation is not only highly desirable in terms of major capital works, but there are requirements under the Environmental Planning and Assessment Act and the Local Government Act, which need to be satisfied. The aims of community consultation are to:

- Develop ownership of the service delivery issues by the community, and to gain agreement that action is required;
- Ensure that the concerns of the community, particularly social and environmental concerns, are taken into account;
- Allow the community to propose options it wants evaluated and ensure that the costs associated with decisions are acceptable; and
- Demonstrate to the community that Council is making the best decisions after proper evaluation of all the issues.

Methods used by Council to consult the community in the past include:

Project specific methods:

- Project specific advisory committees
- Community meetings
- Liaison committees
- Focus groups
- Public meetings and village tours (as required)
- Community opinion surveys
- Public forum at Council meetings
- Councillors' feedback
- Newsletters/ Media

Community education programs:

- School programs
- Open days
- Newsletters/ Media

Development of the Local Environmental Plan, major capital works program, extending services to villages all benefit from direct involvement of the community. Periods of public display, public comment and notices to ratepayers and business groups to advertise the opportunity to comment are typical.

The process of consultation can be started by the General Manager and utilise various methods for obtaining community views. These can then be analysed by officers so that Council can resolve to endorse or amend the project brief.

Proposed sewerage works that would benefit from community consultation include:

- Sewer main extensions and major replacement
- Sewerage service to villages of Mandurama, Carcoar and Lyndhurst
- Infill developments
- Implementation of liquid trade waste policy and pricing and IWCM strategies

Objective 6: Community Involvement
Engage the community in consultation in the delivery of sewerage services as appropriate
Performance Targets Community involvement on all significant capital works and policy decisions
Strategy Ensure community consultation and awareness

Objective 6: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Document procedures for community consultation and education	Dec 2007	June 2008	DCS/UM	NAE	
Prepare and adopt appropriate education and consultation plans	January 2008	Ongoing as needed	DCS/ UM		3
Review of prospective consultation program and report to Council	January Annually	Ongoing	DCS/ UM		NAE
Liaise with the community and carry out stakeholders consultation as required	As required		DCS/ UM	Included in the capital works	

Environment

This section details Blayney Shire Council's objective relating to environmental protection.

The Environment objective addresses Council's intentions in managing the sewerage schemes to minimise the impact on the environment, protect environmentally sensitive areas and promote ecological sustainability.

It is recognised by Council that a responsible, region-wide approach to environmental protection and sustainable development is needed. Council's programme will focus on identifying sensitive areas and undesirable outcomes. The driver is simply the need for the improvement of existing practices.

Council's vision is to conserve and enhance the natural environment through sustainable management practices. It also intends to develop, review or expand its environmental plan. As part of its development, the following will need to be considered:

- People want effluent quality suitable for a diverse range of reuses;
- Achieving environmental objectives should strengthen, not threaten the local economy; and
- Local knowledge and enthusiasm for sustainability should be harnessed

Some of the recent environmental achievements of the Council are:

- Council is using green power since year 2000
- Council has conducted energy audits to identify potential energy saving opportunities

Council effectively addresses following environment related issues of sewerage services in accordance with EPA/DECC and Health Department guidelines:

- Handling and disposal of treated effluents and biosolids from STPs
- Reuse of treated effluent
- Ensuring sewerage services are included in the State of the Environment Report

Council plans to address the following environmental issues in the near future:

- Odour problems near sewage treatment plants and sewage pumping stations
- Environmental impact due to discharge of septic tank effluents in unsewered areas
- Leaking of sewage due to aged and damaged infrastructure
- Sewer overflows

Description	Condition or "State" of the environment	Pressures the human activities have on the environment	Response of the Government, community etc
Land	Waste disposal sites	Disposal of detritus, screenings from STP Disposal of sludge	– Tipping – Tipping/ Application on land
		Effluent reuse on land	– Chlorination of treated effluent – Effluent quality monitoring protocols
Air	Pump stations Sewage Treatment Plant	Odour pollution	– Ongoing maintenance of pumping stations – Deodourisation beds – Monitoring and control of liquid trade waste contributors through trade waste approvals
Water	Water quality	Downstream pollution	– Minimising discharge to Belubula River by reuse – Minimising storm sewage overflow – Discharging only during wet weather

Integrated Water Cycle Management (IWCM)

Integrated Water Cycle Management is a framework to help identify water management problems and to determine appropriate management responses so that social, environmental and economic objectives are met.

IWCM involves the integration of the Council's three main water services – water supply, sewerage and stormwater **within a whole catchment strategic framework** so that water is used optimally.

It also involves the integration with other services for example roads and drainage, trade waste collection and with external requirements in particular the NSW Water Reforms.

The first stage of development of IWCM is a concept study. This defines the catchment, water resource and urban water issues faced by Council. Once the issues are broadly defined, studies are undertaken to better define issues and look at ways of managing them.

The second stage is to develop the strategy through undertaking detailed studies to better define the issues and look at cost-effective ways of managing them.

Council plans to develop and adopt IWCM Strategies in accordance with the DWE guideline document Integrated Water Cycle Management for NSW Water Utilities by June 2009.

Objective 7: Environment
Minimise impact from sewerage operations on the local environment by ensuring compliance with environmental legislation
Performance Targets Prepare IWCM Concept Plan by June 2008 Develop and implement Biosolids Management Plan by December 2008 Carry our Energy Audit by June 2009
Strategies Be proactive in environmental protection Implement due diligence plan to ensure compliance with regulatory requirements

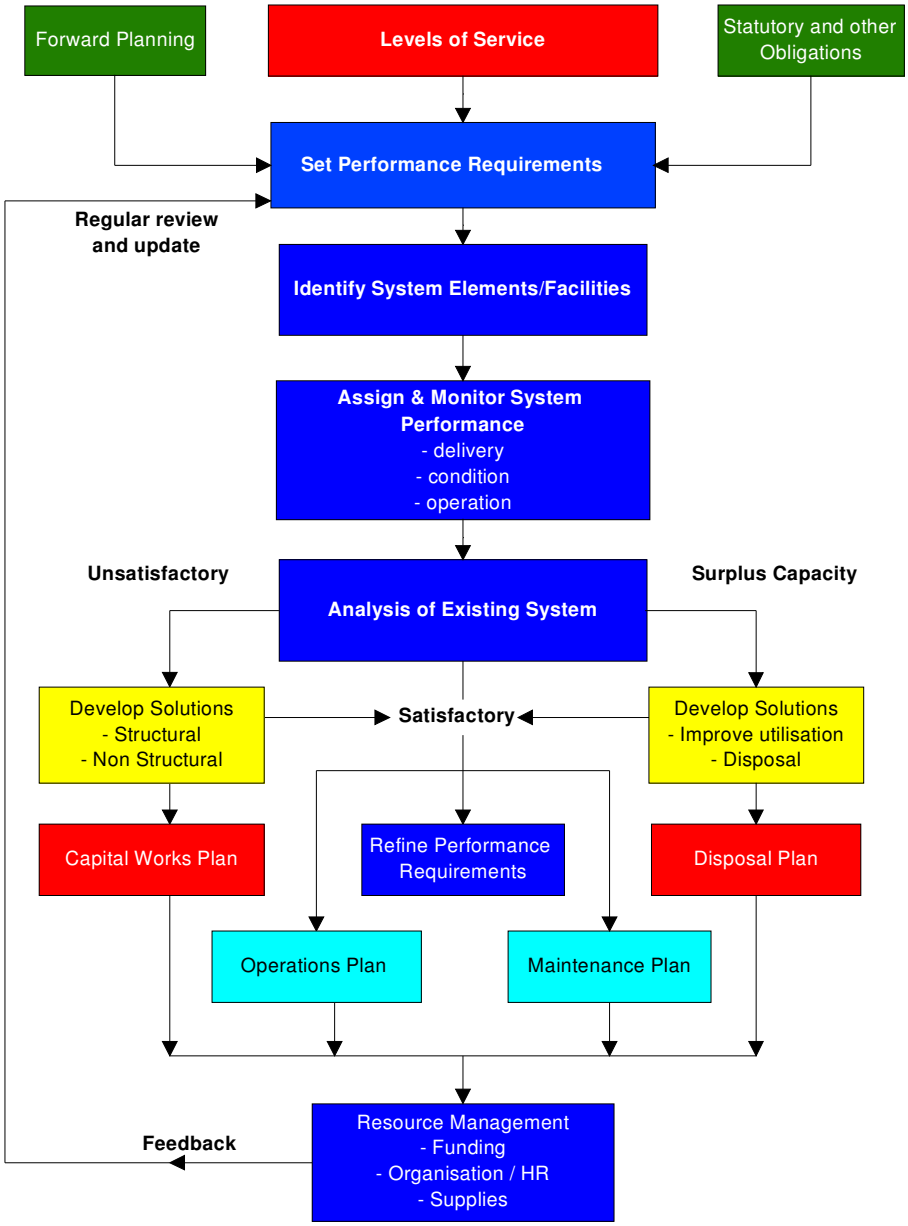
Objective 7: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Identify potential risks and areas of environmental improvement	July 2008	Dec 2008	UM	NAE	
Biosolids Management Plan – Regular testing – Identify options for beneficial use – Adopt selected option	March 2008	Dec 2008	UM	15	
Carry out Energy Audit and implement recommendations	July 2008	June 2009	UM	10	
Develop IWCM Strategies			UM		
– Concept Plan	January 2008	June 2008		20	
– Strategy Plan	July 2008	June 2009		40 (net)	
Strategy 2					
Formalise Due Diligence Plan	January 2009	June 2009	UM	NAE	
Meet EPA licence conditions		Ongoing	UM		NAE
Monitor implementation of trade waste policy		Ongoing	UM		NAE

Asset Management

This section details Council's objectives relating to the operation, maintenance and development of the physical assets that comprise the sewerage schemes

The Asset Management Plan contains information that Council will use in managing its sewerage assets throughout their whole life cycle. This includes asset creation, operation, maintenance, replacement and disposal.

Figure 1 - Best Practice Asset Management Approach



The business plan develops objectives and strategies for the management of:

- Operations;
- Maintenance; and
- Capital Works.

Each of these components of the Plan deals with separate issues relating to the Scheme, but since they are interlinked several combinations of structured and non-structured solutions could result in providing the same level of service. The Plan identifies both current and projected capital works to satisfy future demands in terms of growth, improved Levels of Service and replacement of existing assets. Appropriate operation and maintenance activities have also been identified, to suit the desired level of service delivery. This includes documentation of the rules and procedures at system and facility level.

Current Government policy is directed towards lifecycle asset management. Solutions in the past have often been capital intensive so there is potential generally to reduce capital works costs for councils over the long term. The 'best practice' flow chart describes a methodology for improving asset management planning. This model is not intended to reflect the structure of the Asset Management Plan but rather provides a guide for continuous improvement.

Some of the benefits of implementing this type of model are:

- Appropriate asset solutions;
- Optimal balance of capital works and maintenance;
- Maximisation of asset life and utility; and
- Cost effective and sustainable asset management.

This type of asset portfolio warrants significant investment of resources for its management. Council intends to adopt a total asset management approach for the scheme's management to ensure that assets are managed as effectively as possible i.e. optimisation of the whole of the asset lifecycle rather than a focusing on asset creation alone.

Anticipating the need for asset replacement is vital given the significant investment of resources involved and the need to ensure funds are available. Under the Total Asset Management approach a schedule of expected capital works is estimated into the future. This is used in the financial plan to ensure the required funds are available when needed.

Implementation of an asset management database will provide a vital repository for Council's asset related information such as: asset location, aerial photographs, financial and asset costs, construction and acquisition details and other asset attributes such dimensions. Key functions of such a system include:

- Maintenance history;
- Maintenance planning;
- Operations management;
- Condition rating;
- Capital works planning;
- Asset Values
- Asset disposals; and
- Customised reporting.

Asset Values

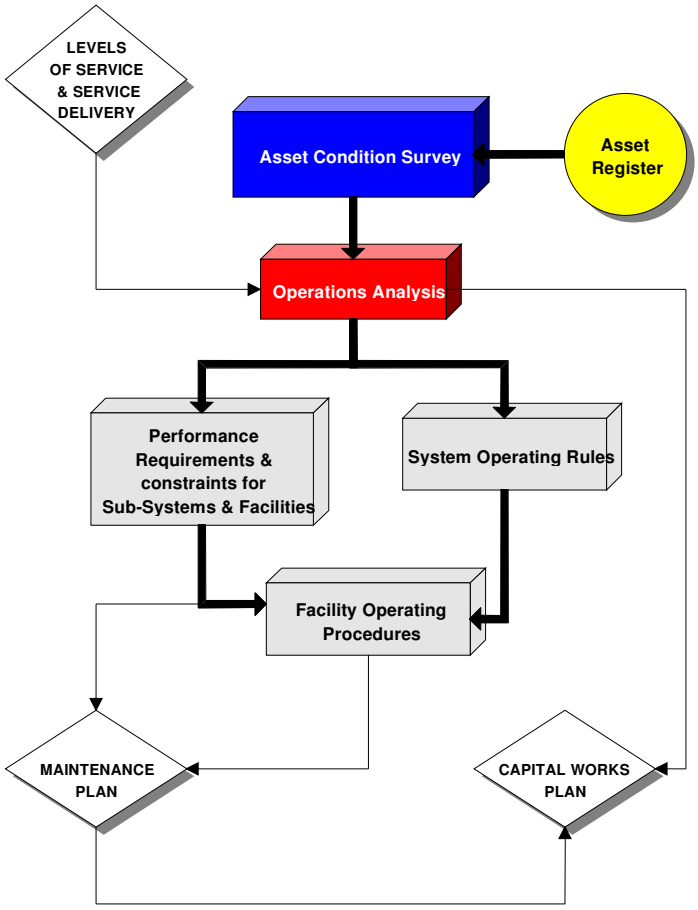
The following Table shows a break-up of asset values of sewerage scheme of the Blayney Shire Council.

Asset	No./ Capacity/ Length	Year of Construction	Current Written Down Value ($000) June 2006	Current Replacement Cost ($000) June 2006
Gravity Reticulation Mains				
– Blayney	41.5 Km	1966 – 2003	3,925	6,565
– Millthorpe	9.7 Km	2003	1,371	1,454
Manholes				
– Blayney	702	1966 - 2003	1,215	1,870
– Millthorpe	147		301	319
Pumping Stations				
– Blayney	8	1966 – 2003	832	1,229
– Millthorpe	1	2003	216	240
Rising Mains				
– Blayney	8.51 Km	1966 – 2003	964	1,193
– Millthorpe	14.8 Km	2003	1,952	2,070
Blayney STP	7000 EP	1989	3,325	4,900
TOTAL			**14,101**	**19,840**

Fair value assessment of assets is currently underway and is due for completion in July 2008.

Operations Plan

Figure 2 - Operations Flowchart



This section of the Plan outlines Council's strategy for operation of the sewerage schemes in the future. The function of an operations plan is to ensure that the service objectives are achieved at the least cost, with minimal interruptions to services.

Provision of the agreed Levels of Service to customers is dependent on the efficient and effective running of sewerage operations. An operations analysis will interface the operations and capital works plans by identifying what level of service the existing assets can provide and what additional works are needed to bridge any gap between existing and desired services.

The operations plan is based on knowledge of the system assets and as such there are ongoing requirements for maintaining an appropriate asset register and for investigating the condition of key elements of the systems that affect the ability to deliver the desired Levels of Service. Contingency plans (emergency response plans) should be developed where the impact of failure is significant. The existing inspection and maintenance procedures are appropriate, however the utilisation of improved technology need to be investigated.

Asset condition surveys required include CCTV and spot check inspections of sewer lines in the reticulation system. The Asset Register should be updated as an integral part of this recording process.

There are various documentation requirements for sewerage operations. Operating rules and procedures for both normal condition and breakdown contingencies need to be established. These should include system performance requirements and constraints, and cross reference to specific plant operations manuals.

Council recognises that a monitoring telemetry system leads to best operating efficiency and improves resource utilisation. Further operations planning requirements for the Council include:

- Updating system operating rules and performance requirements for all subsystems and facilities;
- Monitoring operational performance and
- Compliance with OHS requirements

Occupational health and safety hazards in the Council's sewerage operations include:

- Bacterial contamination
- Falling into storages/ lagoons
- Falling off structures
- Moving heavy mechanical parts
- Chemical exposures and handling
- Injuries due to sharps
- Electrical injuries
- Confined spaces

Council has developed an OH&S Policy outlining the roles and responsibilities of all employees within the Council. As part of Council's ongoing commitment to Occupational Health and Safety requirements, all staff are familiar with the amendments to the OH&S Act, Local Government Act 1993 and the Protection of the Environment (Operations) Act 1997. Following table summarises Council's OH&S performance during last 3 years.

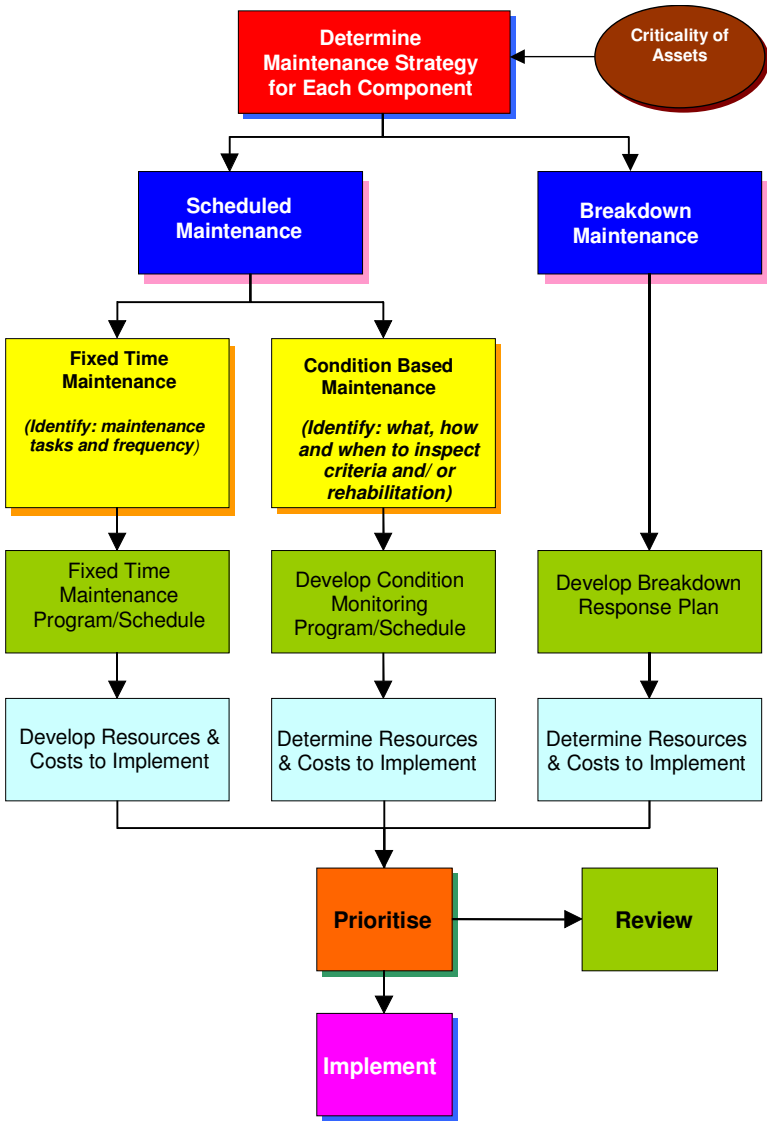
OHS performance indicator	2004/05	2005/06	2006/07
Lost time due to injury (Hrs)	0	0	0
No. of workers compensation claims	0	0	0

Objective 8: Operations
Operate the sewerage service to meet agreed levels of service at least life cycle cost
Performance Targets Develop Operations Plan by December 2008
Strategies Continually improve operational procedures Reduce operational risks

Objective 8: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Develop Operations Plan – Operations analysis – Updating procedures and practices manuals – Operating Rules	June 2008	Dec 2008	UM	NAE	
Annual review and implementation of recommended operational changes	January every year	Ongoing	UM		NAE
Strategy 2					
Maintain an up to date asset register	Annually	Ongoing	UM		NAE
Asset valuation	Annually	Ongoing	UM		NAE
Asset condition monitoring	Annually	Ongoing	UM		NAE
Review operational procedures for OHS risks	Annually	Ongoing	OH&S Committee		NAE

Maintenance Plan

Figure 3 - Maintenance Flowchart



The Maintenance Plan is to ensure that the Operations Plan's outputs, reliability and availability of the sub-systems, facilities and components are achieved in the most cost effective manner. The most important factor is identification of the risk to system performance from failure of each asset. This leads to a minimum performance standard for each asset.

Records should be kept of maintenance and operations requirements. The aim is to reduce delays or periods of reduced service. Determine the limit of acceptable substandard operation and determine the cost effective breakeven point.

The most cost effective strategy should be identified as either:

Scheduled maintenance - fixed time or condition based;

Reactive maintenance - failure basis.

The thrust of the Government's total asset management guidelines is to make the best use of existing assets by implementing systematic maintenance and rehabilitation plans. It could therefore be that increased maintenance costs will result from a critical review of the maintenance area. This in turn would be expected to be more than compensated for by a reduction in the need for capital works.

A complete assessment of the system is needed for the development of sound strategies to ensure the Levels of Service are not jeopardised by failure to address maintenance problems. A maintenance plan is needed to incorporate appropriate maintenance schedules and procedures. This should include references to specific plant maintenance manuals.

Maintenance Plan considers the following information and issues regarding the existing system:

- Need to update Maintenance manuals and an O&M plan;
- Criticality analysis of systems to identify components of high risk
- Need for spare parts inventory
- Need for refresher training of key staff on dealing with customers and on technical procedures and standards of mission critical functions.

Objective 9: Maintenance
Scheme maintenance ensures facilities can deliver design quality, capacity and reliability requirements at least life-cycle cost
Performance Targets Develop Maintenance Plan by December 2008 Prepare Breakdown Contingency Plans by December 2008
Strategies Continually improve maintenance procedures Strategic asset maintenance

Objective 9: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Develop Maintenance Plan – Predictive maintenance for critical assets – Scheduled maintenance for less critical assets – Breakdown maintenance strategy	June 2008	Dec 2008	UM	NAE	
Review and update maintenance manuals		Ongoing	STP Supervisor		NAE
Maintain appropriate spare parts and support equipment		Ongoing	STP Supervisor		NAE
Prepare Breakdown Contingency Plans	June 2008	Dec 2008	DE/ UM	NAE	
Strategy 2					
Develop asset maintenance program	Annually	Ongoing	UM		NAE
Maintain enquiry/ complaints/ actions register		Ongoing	UM		NAE
Update engineering records and incidence analysis and reporting		Ongoing	UM		NAE
Undertake maintenance cost analysis	Annually		MFS/ UM		NAE

Capital Works

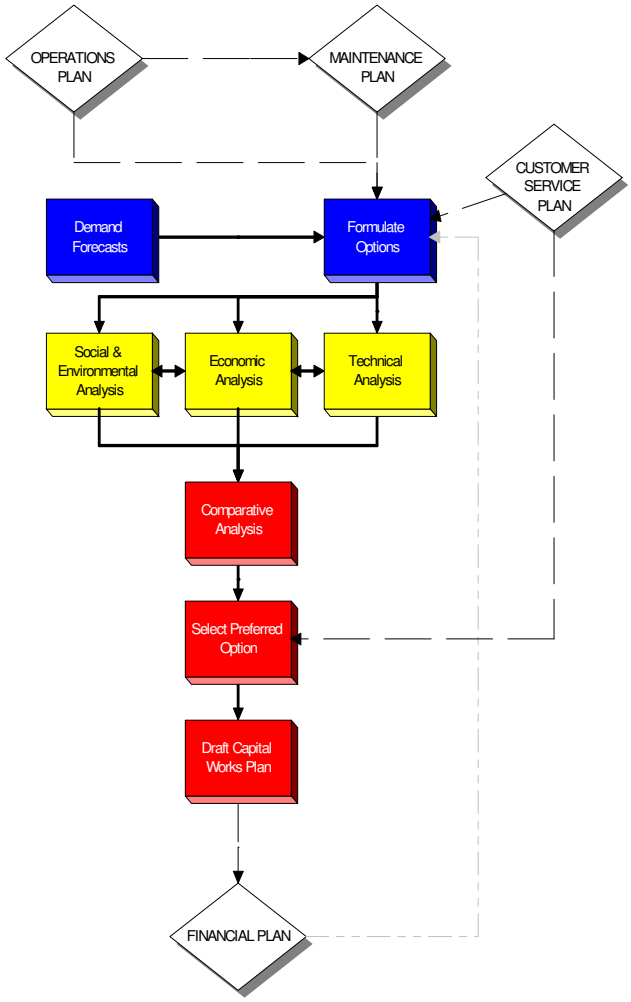
The capital works plan should make an assessment of scheduled work for growth, non-growth, and rehabilitation works over a 30-year period.

The Capital Works Plan is of crucial importance because sewerage infrastructure is capital intensive and the construction and renewal of facilities can have a significant impact on Council's overall finances.

In the process of preparing the Capital Works Plan, the following points have been considered:

- The development of sewerage schemes is a long-term investment, and must be integrated with Council planning policies.
- The capital works strategy needs to be regularly updated to take account of changing conditions.
- Consideration of the costs and benefits of alternative options.
- Acceptance by the community of the development proposals and costs.

Figure 4 - Capital Works Flowchart



A summary of the 30-year capital expenditure program is shown in Part C of this Plan.

On the forward budget for the sewerage scheme the following capital works have been included:

- Laboratory and amenities building at Blayney STP
- Septic tank wastes discharge bay at Blayney STP
- Millthorpe sewage transfer main augmentation
- Emergency storage capacity for main sewage pumping stations in Blayney and Millthorpe
- Lining/ replacement of sewer mains in Blayney

Objective 10: Capital Works
Ensure systems have adequate capacity to meet current and future levels of service at minimum life cycle costs
Performance Targets Funded projects carried out on time and to budget in accordance with capital works program
Strategy Develop and implement a 30-year capital works plan

Objective 10: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review and update long-term (30-years) capital works plan – For backlog areas – For growth – For renewal/ replacement	Started	March 2008	UM	Refer to Capital Works Plan in Part C – Detailed Information	
Council to adopt 30-year Capital Works Plan	March 2008	April 2008	DE/UM	NAE	
Implement Capital Works Plan	As planned		DE/ UM	Refer to Capital Works Plan in Part C – Detailed Information	

Human Resources

This section details Council's objectives relating to the development of human resources required for operating the sewerage service

The Human Resources Plan is to ensure that Council has the appropriate staff numbers with the necessary skills to meet current and future requirements. If these are in order, Council's Levels of Service can be met.

At Blayney Shire Council the General Manager delegates authority to the Director of Engineering to manage all the sewerage assets. Utilities Manager is responsible for the operation and performance of the sewerage schemes. Day-to-day operation of the scheme is the responsibility of the STP Supervisor. There are 2 operators (including STP Supervisor) that operate and maintain the sewerage scheme of Blayney and Millthorpe. The organisational structure is shown next page.

Important human resources issues being considered by the Council are as follows:

- There is the need to ensure operators are familiar with all current practices including OH&S requirements; and
- Need to ensure an up to date training program is in place for all staff (in particular training the treatment plant operators and tertiary training for engineering staff).
- Succession planning for senior technical staff
- Performance management and productivity (job appraisal)

Figure 5 – Blayney Shire Council Organisation Structure

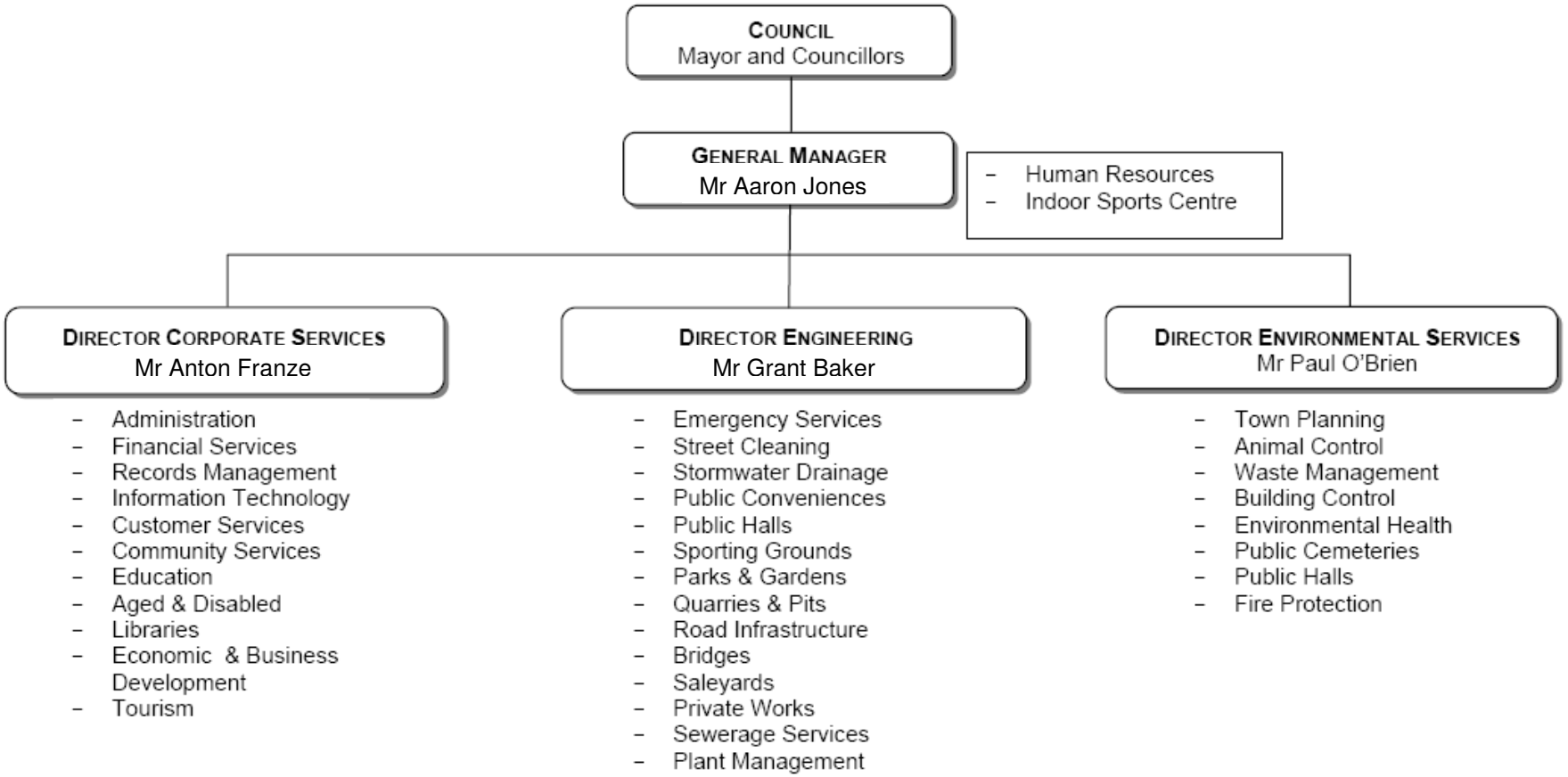
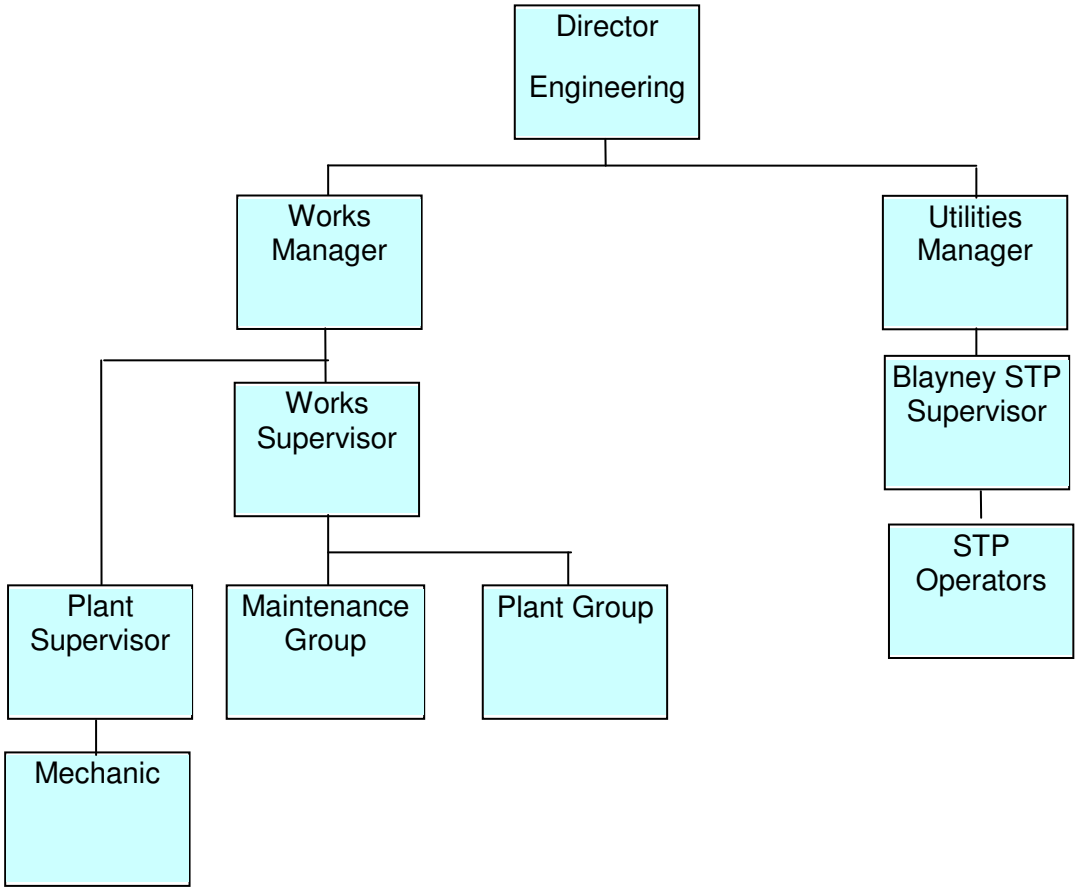


Figure 6 – Organisational Structure of Water and Sewerage Services Section



Objective 11: Human Resources
Have a proactive, productive and skilled staff with appropriate areas of expertise
Performance Targets
Review and update HR Plan by October each year
Strategy
Maintain and implement a HR Plan

Objective 11: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Carry out HR review – Position analysis – Needs analysis	Annually	Ongoing	HRO		NAE
Develop and implement succession training program		Ongoing	DE/ HRO		NAE
Staff performance review	Annually	Ongoing	DE/ HRO		NAE
Develop and implement training and retraining plans		Ongoing	DE/ HRO		NAE
Salary review	October every year		DE/ HRO		NAE
Recruitment of new staff – Operator	July 2009	Ongoing	GM/ DE/ HRO		80

Finance

This section details Blayney Shire Council's objectives relating to the business operation and financial management of the sewerage funds

The purpose of the Financial Plan is to enable Council to determine the revenues needed to meet the Levels of Service over the long term and effectively manage the cash flow.

Legislation requires separate accounting for sewerage services and elimination of cross subsidisation with other of Council's activities where possible. Any cross subsidy deemed necessary by Council should be explicitly noted.

Commitment by Council to provide the Levels of Service described in this document requires collection of revenues of the order shown in the detailed tables and graphs in Part C. Estimates of the cost of activities in the action plan have been modelled using the NSW Financial Model issued by the Department of Water and Energy and represent the best projection of future costs possible at this time. Actual billings will depend on the levels of developer charges and pricing structure adopted.

Generally, recurrent operating costs should be covered by the annual sewerage charges. Capital funds are drawn from the following four sources:

- Developer charges;
- Government grants; and
- Cash and borrowings.

There is pressure to provide a suitable financial plan because DWE requires that the existing financial plans be updated to evaluate the impacts of the proposed capital works on the sewerage charges.

In accordance with the DWE Financial Planning Guidelines, Council will develop its long-term financial models and establish a steady price path. This will be used to set the pricing structure in accordance with the Best Practice Management Guidelines.

Council will update its financial models annually as part of its ongoing planning review process.

Objective 12: Finance

Maintain a long-term financial plan to provide full cost recovery for scheme operation and asset replacement at an affordable level of cost to customers

Performance Targets

Long-term financial plan in place by March 2008

Strategies

Long-term, stable sewerage price path established through financial planning

Objective 12: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review cost projections for long-term Financial Plan		Ongoing	UM/ MFS		NAE
Review and update Financial Plan annually		Ongoing	UM/ MFS		NAE
Review Millthorpe Loan repayment strategy	Dec 2007	March 2008	MFS	NAE	
Establish a price path for setting sewerage tariff in accordance with the DWE guidelines.		Annually	UM/ MFS	Refer Objective 5 – Service Pricing	

PART C:
DETAILED INFORMATION

Part C of the plan provides more detailed information about select elements of the plan. Included in this section is information on:

- Financial Management
- Projected Cost Schedules
- Financial Model Outcomes
- Operating Environment Review

Financial Management

Contains a summary of the financial modelling process and the input data used.

Overview of Financial Planning

The objective of financial planning is to model the full life cycle costs for the preferred service planning option and to determine appropriate funding strategies and to ensure that the services remain affordable in the long term.

By taking a long-term view, financial peaks and troughs can be smoothed to provide the basis for a consistent charging policy and to highlight any current impact of future actions. The new *NSW Financial Planning Model (FINMOD Version 4.0)*, issued by the Department of Water and Energy (previously DEUS) in November 2003, has been used for this modelling. A 30-year planning horizon has been adopted as recommended in the Department of Energy, Utilities and Sustainability Guidelines.

To establish a financial plan various scenarios are explored in order to determine the best funding strategy.

It is important to identify a logical progression of asset creation, rehabilitation, and replacement over at least 20 years in order to develop a working perspective for the management of these infrastructure assets which have expected lives of up to one hundred years.

The preferred model presented here assumes that no government grants are available to Council, as they will have already received the entitlement. Where funding from revenue would require an unrealistic level of charging in the short term then borrowing will be undertaken.

The overall goals of financial modelling are to optimise a long term funding strategy to meet the demands of the capital works programme and day to day operations, while ensuring a minimum level of cash liquidity and a stable level of average residential charges.

AAS27 reporting for the financial statements requires that all funds be declared as assets under cash and investments in the statement of financial position. Also that assets are valued on the basis of current replacement cost and depreciated according to their remaining lives compared with their expected lives.

All capital works estimates in the text are quoted in real (2006) dollars unless specified otherwise. The output data is quoted in real and inflated dollars.

When assessing affordability, note that a $1 charge now will be equivalent to $1.80 in 20 years time, assuming a 3% annual inflation rate.

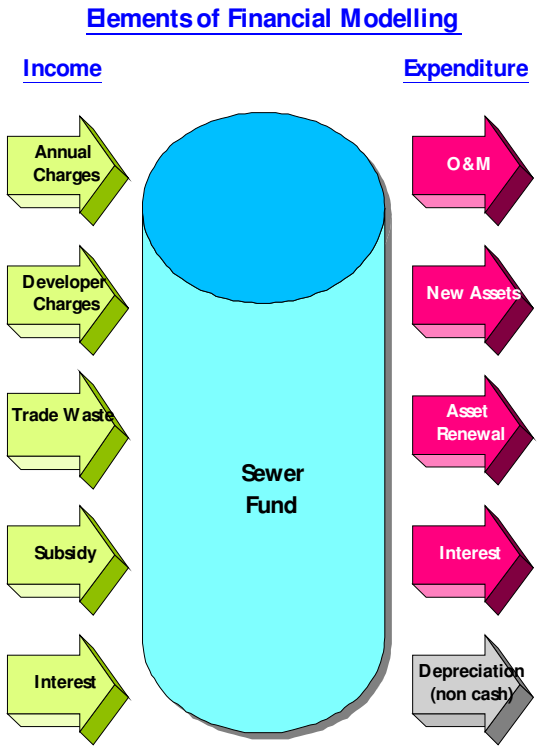
A summary of the financial modelling results is included on the following pages and detailed input and output data are available in the Appendices.

Model Description

The financial model forecasts income streams to match projected expenditure. The diagram on the right illustrates the main elements, which affect the financial plan.

The financial modelling undertaken in this plan aims to:

- optimise the long term funding strategy,
- meet the demands of the capital works program and other life cycle costs of the system assets,
- ensure a minimum level of cash liquidity, and
- provide a forecast of the typical residential annual charges over the long term.



Modelling Methodology

Input data for the model is sourced from three main areas:

- AAS27 special schedules for past financial performance of the water and sewerage funds
- Estimates for uncontrollable variables eg interest rates, growth, inflation
- Projected capital works, and operations and management expenses

All other criteria being met, the financial plan seeks, after an initial adjustment, to model, in real dollars, the lowest steady level of charging possible. Actual bills will depend on Council's pricing structure but this is indicative of the affordability of the services and shows the performance requirements for long-term stability.

A number of variables and assumptions have to be entered into the model and these are first agreed to by Council. They include:

Opening balances

Council's special accounting schedules are used to establish opening balances and baseline costs for the model. Financial statements for the last two years are compared to try to eliminate 'one off' occurrences from being incorporated as part of a normal trend.

Developer Charges

New assessments have to pay a developer charge for the benefits being received by connecting to the system. Council adopted Section 64 sewerage developer charge of $1,932/ET for Blayney and $ 5,074/ ET for Millthorpe in accordance with DWE guidelines since 2003/04. For modelling purpose, uniform developer charges revenue of $12K/year has been used.

Growth Projections

A long-term average connection growth rate of 0.6% p.a. has been used for sewerage services.

Inflation

Average long-term inflation has been assumed as 2.5% per annum.

Interest Rates

A borrowing rate of 6.5% and investment rate of 5.5% have been used in this analysis

Revenue from non-residential customers

The revenue split is the ratio of residential to non-residential revenues. This is determined from the special schedules. If a significant change is envisaged (eg increased income from trade waste charges) then the split can be adjusted to match. Residential charges currently account for 75% of sewerage revenues. Council has already adopted best practice tariff structure; hence the default revenue split of 75:25 for residential to non-residential revenue has been used for all the forecast years.

Performance Measures

Council's minimum service criteria will have an impact on the level of charges required eg. Minimum cash levels, which is generally assumed to be 10% of annual revenues (excluding restricted revenues). For the financial model, $ 500 K (real 2007$) has been considered as minimum cash level.

Expected lives of assets

The default average life of system assets is based on the weighted average of long-lived structures and shorter-lived mechanical plant. The average life of water and sewerage assets is currently estimated to be approximately 70 years. The life of assets controls the depreciation, which is a non-cash expense. It directly affects the need for future asset renewal works planned, which is part of the capital works program.

Grants and Subsidy for Capital Works

The State Government provides financial assistance to local government water supply and sewerage schemes through the Country Towns Water, Sewerage and Drainage Program. Councils can apply for funding of up to 50% of Improved Level of Service (ILOS) capital works if their average residential charge is more than $350 per annum. The financial model in this case has assumed zero subsidy for the ILOS works planned by the Council.

Ongoing recurrent costs: Management, Operations and Maintenance

By default, the model increases historical operation and maintenance expenses on a pro rata basis with respect to growth. This has been overridden where Council provided revised estimates i.e. where the action plan requires new initiatives or where new works require additional operating resources.

The capital works plan and projected operations and management expenses also form a significant component of the inputs. These are shown in the section 'Projected Cost Schedules'.

Assumptions and Limitations

The projections of the financial plans are based on past financial performance. Allowance is made for new initiatives, future rate forecasts, and maintenance of sustainable levels of service as identified in the strategic planning process.

The depreciation is shown in the operating statement but this is not a cash item. The financial planning model manages the cash flow but keeps a running tally of cumulative depreciation so that Council can appreciate the potential future liability for maintaining the

value in the system and levels of service. By planning ahead and making optimum use of existing assets, a more cost-effective and efficient service should result.

Typical annual residential charge is used as the performance measure representing overall revenue requirements from residential customers. This should not be confused with pricing. Pricing, i.e. distribution of the charges according to consumption or special customer groups, is the subject of a separate revenue planning exercise.

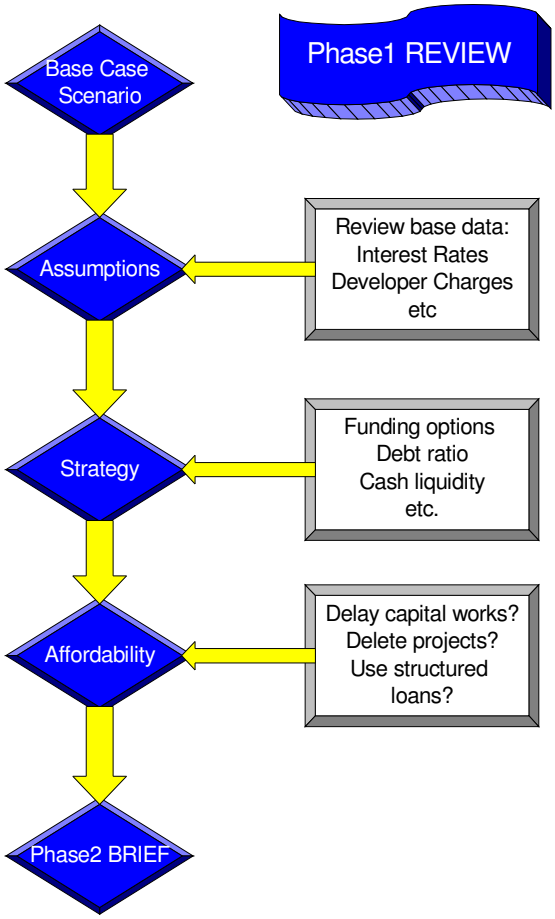
The financial model is not a substitute for normal budgeting (that is, short-term financial planning). The model assumes that all expenses and income occur at the beginning of the year and is therefore not appropriate to track cash flow throughout the year. It is important, however, that the budgeting process is carried out within the framework of the long-term financial plan.

The Capital Works Plan provides a guide for estimation of long-term operation and maintenance costs. It is accepted that the level of confidence in these projections reduces with time but it is important to identify as many future commitments and liabilities as possible.

The Modelling Process

Phase 1 – Initial runs

The objective of Phase 1 development is to present a first cut model of options for future service provision. Comparison of outcomes enables Council to make decisions as to the preferred model and the most beneficial and practical funding solution for the proposed asset management programs.



Funding

In considering funding for future options there are three basic options:

- Fund all capital works from revenues.
- Borrow to fund all capital works.
- Fund capital works from a mix of borrowing and revenue

Most councils would prefer to avoid borrowing to fund their capital works programs if possible. This strategy obviously avoids incurring interest charges. Where capital works costs are low and cash levels are high this may be possible but it may also suggest that current levels of charging are too high.

On the other hand deferring expenditure is consistent with the goal of inter-generational equity when considering long-term asset management. Longer period loans spread the cost of works over a longer period, eliminating early peaks in annual charges. Often councils will have no choice except to borrow for major projects because collecting sufficient cash in advance is impracticable and would require an unacceptably high level of charges.

In general most councils use a mix of revenue and borrowings to meet Council's financial performance policy criteria. Given that this is achieved, the latest DWE Guidelines recommend adoption of the lowest possible steady rate of long-term charges in real terms that is achievable. In the Phase 1 runs of the model the default loan period used was twenty years.

Phase 2 – Preferred model and sensitivity

After consideration of Phase1 issues a preferred option will be finally reviewed and updated to suit any last minute planning refinements and detailed cost estimating carried out.

While the preferred model reflects the expected performance of the systems, it does not give any indication of the sensitivity of the proposed solution should the basic assumptions used prove significantly different in practice.

It is recommended that a sensitivity analysis be carried out if it is perceived that a variable may change significantly in the future. The value of a sensitivity analysis is that it shows:

- the sensitivity of the results to assumptions (uncontrollable variables)
- the impact of changing controllable variables.

The guidelines suggest that a number of sensitivities be carried out to test the robustness of the plan. In regard to controllable variables such as type of loan structure, level of developer charges etc., the model enables Council to make decisions to establish the right management policies.

It is important to demonstrate the impact of the 'no subsidy' scenario, which shows the potential benefits of government assistance. Council's expectations for receiving subsidy are included in the final preferred model as being the most realistic future scenario.

With uncontrollable variables, Council is at the mercy of change. The downside risk of an increase in interest rates, or low growth rates, or rise in energy costs, may be considerable. Increasingly the impact of water demand management may be felt in the future and expected water savings although resulting in loss of revenues, should be more than compensated for by deferment of capital works and lower operational costs.

On-going Review

Over time, changes in model variables can have a significant impact on the model's accuracy and this has implications for Council's forward planning. It is recommended that the models be revisited regularly to ensure that they retain their currency. Where Council has an active capital works program requiring subsidy then annual updates are recommended.

Projected Cost Schedules

This section looks at the projected capital works and recurrent expenditure for the next 20 years.

CAPITAL WORKS

Growth works	-	Work required to increase the capacity of facilities, to service new subdivision.
Improved level of service works (backlog works)	-	Works to provide better public health and environmental standards, better service, higher reliability, or an extension of services to unserviced existing development. Works in this category may be eligible for Government grants.
Asset renewal works	-	Renewal/replacement of existing assets, which have aged and reached the end of their useful life.

RECURRENT COSTS

Management	-	Reflects true overheads associated with providing this service. Any cross subsidies with General Fund should be eliminated or explicitly disclosed in the Annual Accounts.
Operations and Maintenance	-	It is assumed that the current level of costs shown in the Financial Statements reflects a realistic level of expenditure for the current schemes. The projections assume costs increased in proportion to the growth.
Model cost overrides	-	Additional costs are included where specific activities have been identified in future years. This includes new initiatives plus additional costs associated with new Capital Works.

The expected capital and recurrent cost expenditures are presented in the following spreadsheets and shown graphically. Projections are in real (2007) dollars.

Figure 11 - Detailed Capital Works Schedule for Sewerage

SEWERAGE - CAPITAL WORKS PROGRAM (2007/08 $000)

	30 YEAR TOTAL	2007 2005/06	0 2006/07	1 2007/08	2 2008/09	3 2009/10	4 2010/11	5 2011/12	6 2012/13	7 2013/14	8 2014/15	9 2015/16	10 2016/17	11 2017/18	12 2018/19	13 2019/20	14 2020/21	15 2021/22	16 2022/23	17 2023/24	18 2024/25	19 2025/26	20 2026/27	21 2027/28	22 2028/29	23 2029/30	24 2030/31	25 2031/32	26 2032/33	27 2033/34	28 2034/35	29 2035/36	30 2036/37
Subsidised Scheme (for improved levels of service)																																
Augment Blayney STP for sensitive waters standards	3,000																	3,000														
Sewerage scheme for Carcoar and Mandurama (not included	5,250								50	200	3,000	2,000																				
Sewerage scheme for Lyndhurst (Provisional)	2,000															2,000																
	0																															
Total Subsidised Scheme	**10,250**	0	0	0	0	0	0	0	50	200	3,000	2,000	0	0	0	2,000	0	0	3,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other New System Assets																																
New Works - Growth																																
STP - Lab and Amenities Building	400				100	300																										
Minor New Works																																
Septic tank discharge bay	35			35																												
Raising/sealing manholes near river	15				15																											
Discretionary Capital Works	0																															
Emergency SPS storage capacity Millthrope	30					30																										
Emergency SPS storage capacity Blayney	30				30																											
Millthorpe Transfer Main Investigation and Augmentation	450				50		200	200																								
	0																															
Total Other New System Assets	**960**	164	0	35	195	330	200	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewals																																
Telemetry upgrade								30					30					30					30					30					30
Lining/ Replacement of sewer mains	1,400					50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Replacement of pumps in SPS	150						25					25					25					25					25					
P&E replacement	25			25																												
Electrical replacements	120												40										40									40
Millthorpe - Pump replacement	40																	20														20
	0																															
Total Renewals	**1,915**	0	0	25	0	50	75	80	50	50	50	75	120	50	50	50	75	100	50	50	50	75	120	50	50	50	75	80	50	50	50	75	140
TOTAL CAPITAL WORKS	**13,125**	164	0	60	195	380	275	280	100	250	3,050	2,075	120	50	50	2,050	75	100	3,050	50	50	75	120	50	50	50	75	80	50	50	50	75	140
Expected Grant For Acquisition of Assets																																
Total Grant for Acquisition of Assets	0	0	0	0	0	0	0	0																								

Figure 12 - Detailed Recurrent Cost Schedule for Sewerage

SEWERAGE - OPERATIONS, MAINT, ADMIN AND REVENUE OVERRIDES <INCREASES IN RECURRENT EXPENDITURE> (2007/08 $000)

	30 YEAR	2007	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	TOTAL	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37
Administration																																	
	0																																
Strategic Business Plan (net of grant)	120			20					20					20					20					20				20				
Best Practice Audit	5					5																										
Liquid Tradewaste Awareness Campaing	3			3																												
DC Calculation & Development Servicing Plan	10			10																												
Best Practice Pricing Review	10			10																												
Customer Education and Community Consultation Plan	90			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
IWCM Plan (net of grant)	60			20	40																											
Energy Audit and Implementing Recommendations	10				10																											
New staff recruitment - Operator	2,320				80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	0																															
	0																															
Total Adjustment	**2,628**			**66**	**133**	**88**	**83**	**83**	**103**	**83**	**83**	**83**	**83**	**103**	**83**	**83**	**83**	**83**	**103**	**83**	**83**	**83**	**83**	**103**	**83**	**83**	**83**	**83**	**103**	**83**	**83**	**83**	**83**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**11,140**	195	200	**273**	**342**	**299**	**295**	**297**	**320**	**301**	**303**	**304**	**354**	**381**	**358**	**360**	**385**	**387**	**417**	**392**	**394**	**397**	**399**	**429**	**404**	**406**	**409**	**411**	**443**	**416**	**419**	**421**	**424**
Engineering and Supervision																																	
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Operations Expenses																																	
	0																															
Operations Plan	0																															
Smoke Testing	15				15																											
Biosolids Management Plan	15				15																											
Flow Gauging	50					50																										
CCTV inspections	80				40	40																										
Desludging Aeration Tank (Blayney STP)	30				30																											
	0																															
	0																															
Total Adjustment	**190**			**0**	**100**	**90**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**9,370**	231	235	**242**	**345**	**337**	**247**	**248**	**250**	**252**	**253**	**255**	**296**	**298**	**299**	**301**	**322**	**324**	**326**	**328**	**330**	**332**	**334**	**336**	**338**	**340**	**342**	**344**	**346**	**348**	**350**	**352**	**355**
Maintenance Expenses																																	
Included in Operations Expenses	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Energy Costs																																	
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**1,211**	31	31	**32**	**32**	**32**	**33**	**33**	**33**	**33**	**33**	**34**	**39**	**39**	**40**	**40**	**42**	**43**	**43**	**43**	**44**	**44**	**44**	**44**	**45**	**45**	**45**	**45**	**46**	**46**	**46**	**46**	**47**
Chemical Costs																																	
	0																															
Included in Operations Expenses	0																															
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other Expenses																																	
Dividend payable to General Fund	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other Revenue																																	
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	1	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other Grants																																	
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	5	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Other Contributions																																	
	0																															
	0																															
Total Adjustment	**0**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Override (Inflated to 03/04$ and pro-rata adjustment for gro	**0**	0	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Figure 13 - Capital Works Plan for Sewerage

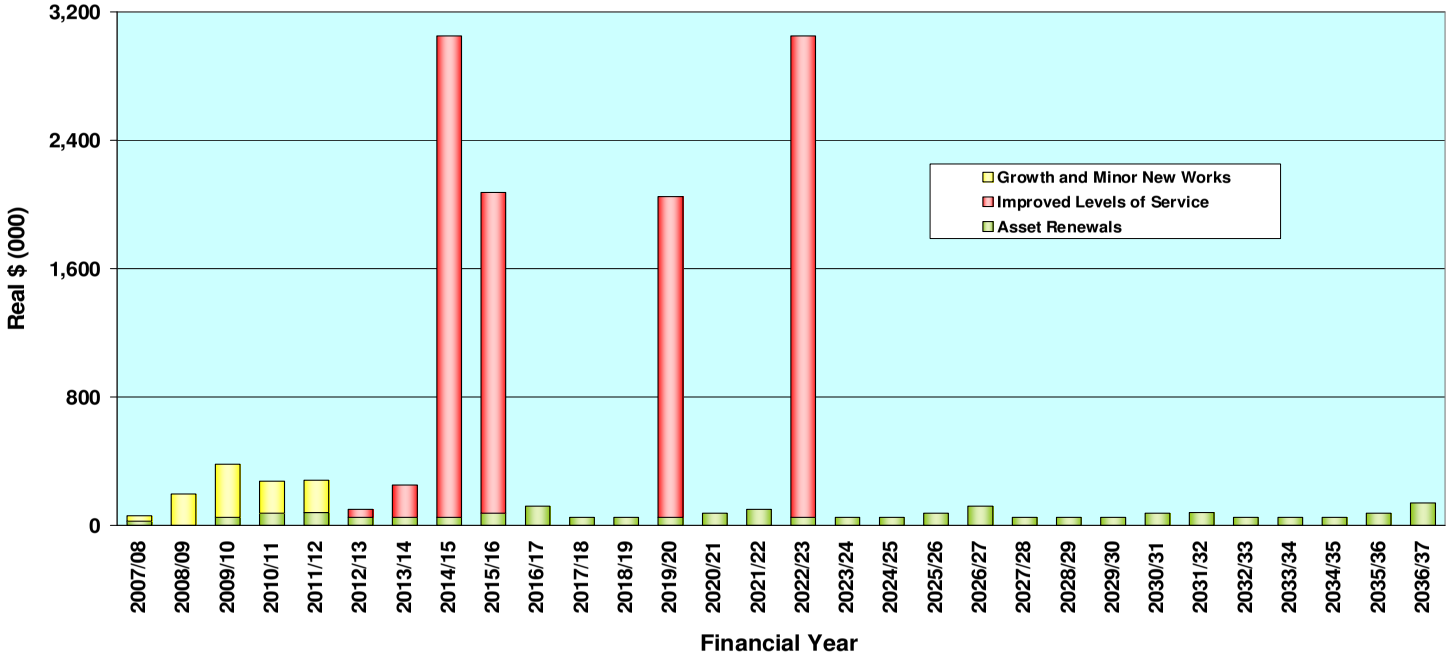
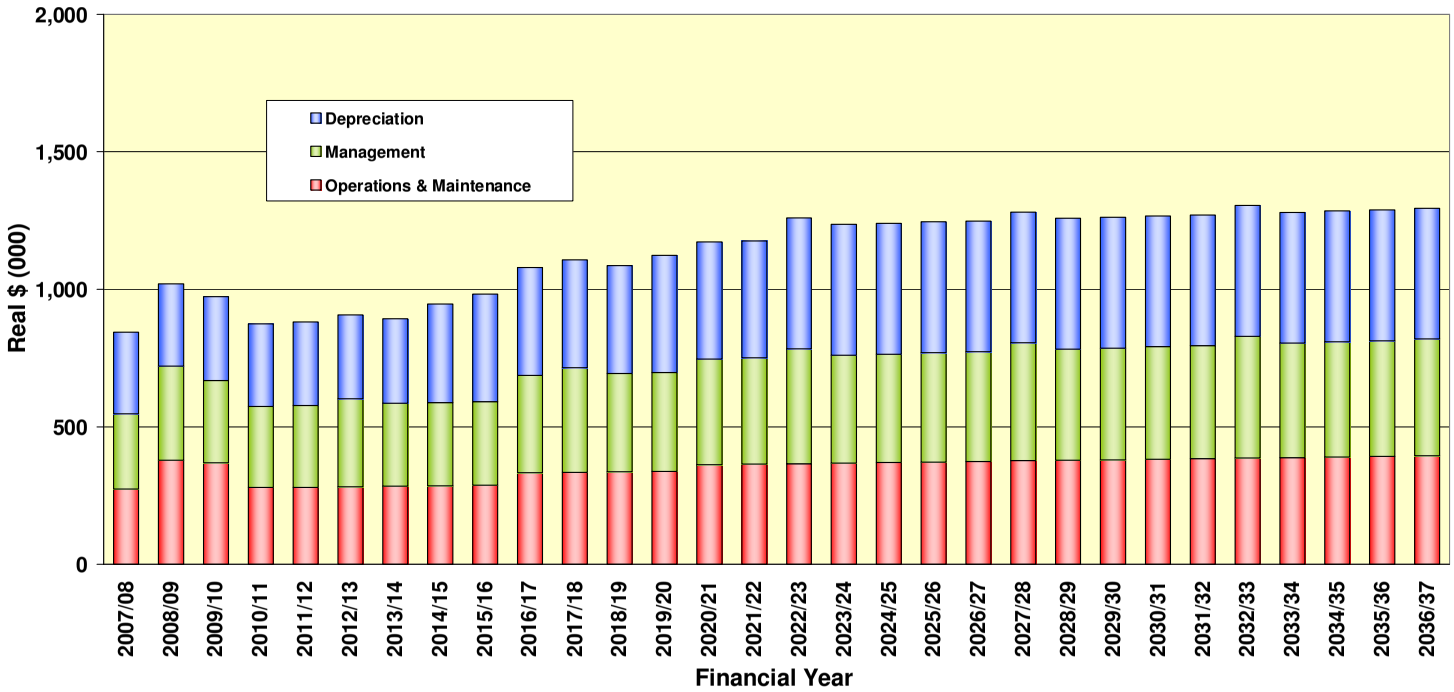


Figure 14 – Recurrent Cost Plan for Sewerage



2007/08 $ (000)	Growth and Minor Works	Improved Levels of Service	Asset Renewals	Total Capital Works	Expected Subsidy	Cost to Council
2007/08	35	0	25	60	0	60
2008/09	195	0	0	195	0	195
2009/10	330	0	50	380	0	380
2010/11	200	0	75	275	0	275
2011/12	200	0	80	280	0	280
2012/13	0	50	50	100	0	100
2013/14	0	200	50	250	0	250
2014/15	0	3,000	50	3,050	0	3,050
2015/16	0	2,000	75	2,075	0	2,075
2016/17	0	0	120	120	0	120
2017/18	0	0	50	50	0	50
2018/19	0	0	50	50	0	50
2019/20	0	2,000	50	2,050	0	2,050
2020/21	0	0	75	75	0	75
2021/22	0	0	100	100	0	100
2022/23	0	3,000	50	3,050	0	3,050
2023/24	0	0	50	50	0	50
2024/25	0	0	50	50	0	50
2025/26	0	0	75	75	0	75
2026/27	0	0	120	120	0	120
2027/28	0	0	50	50	0	50
2028/29	0	0	50	50	0	50
2029/30	0	0	50	50	0	50
2030/31	0	0	75	75	0	75
2031/32	0	0	80	80	0	80
2032/33	0	0	50	50	0	50
2033/34	0	0	50	50	0	50
2034/35	0	0	50	50	0	50
2035/36	0	0	75	75	0	75
2036/37	0	0	140	140	0	140
Total	**960**	**10,250**	**1,915**	**13,125**	**0**	**13,125**

Figure 15 - Sewerage Capital Works Summary

Financial Modelling Outcomes

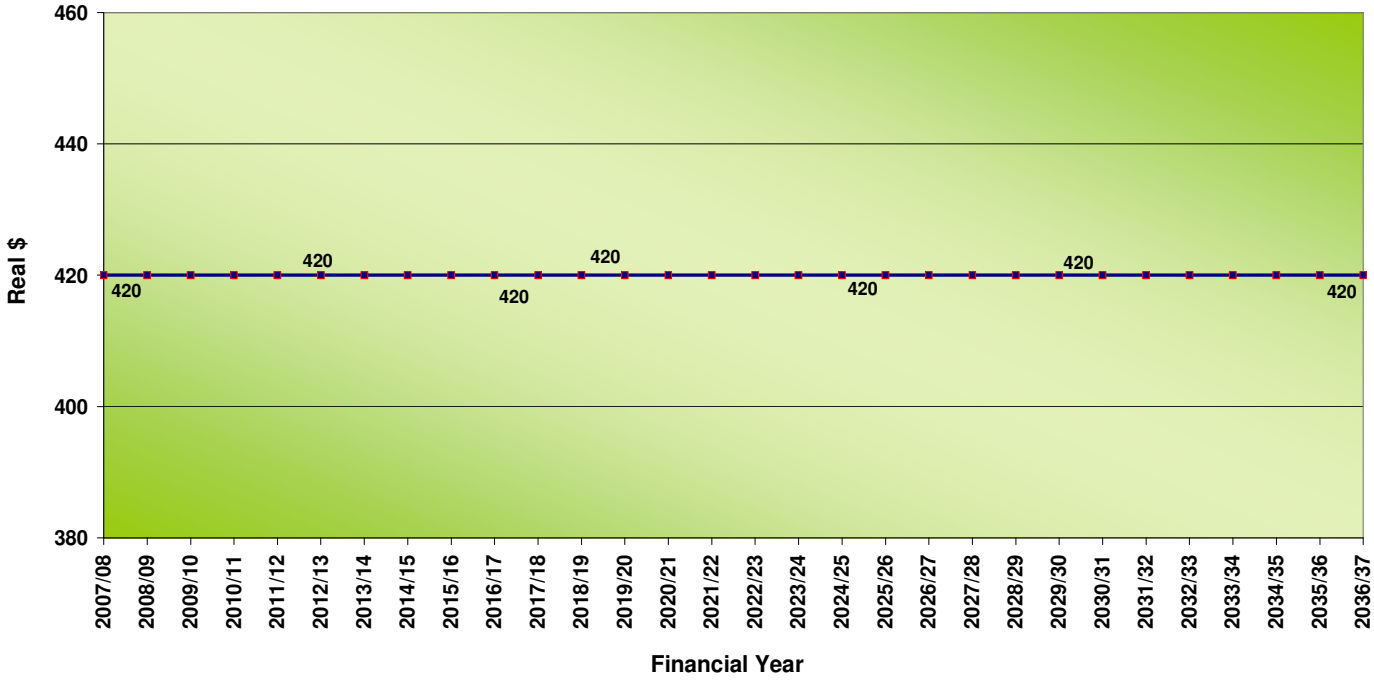
Contains a summary of the financial modelling assumptions and outcomes

Results of Modelling Process

In line with current DWE guidelines, the financial plan identifies the lowest stable typical residential bill required with maximum utilisation of existing cash reserves. Financial projections have been made considering that subsidy as expected by Council will be available for the capital works during the forecast period.

Financial modelling has demonstrated that typical residential bills for Blayney, measured in today's (2007/08) dollar, can be maintained at the current level of $ 420 p.a. throughout the forecast period. This level of charges is sufficient to maintain liquidity with a minimum of $ 500 K of cash in hand over the period. A graphical presentation of the typical bills forecast is shown below.

Figure 16 - Typical Residential Bill for Sewerage

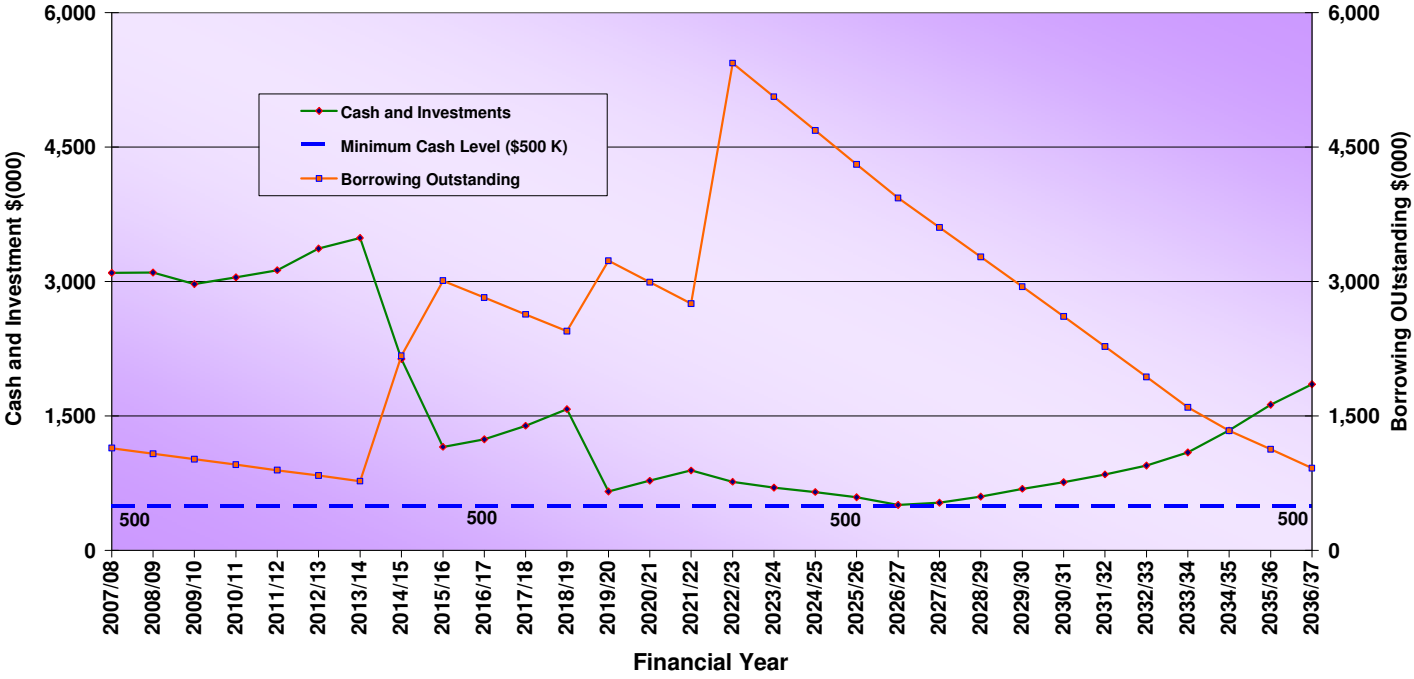


Note that residential customers of Millthorpe will be paying 1.62 times the projected typical residential bill for Blayney. This amounts to $ 680 p.a. for Millthorpe customers. This will be the level of annual sewerage charges also for the customers of the Carcoar, Mandurama and Lyndhurst villages if and when the planned sewerage schemes become operational.

All the renewal and replacement capital works will be internally funded throughout the projection period. Capital works for all the village sewerage schemes and Blayney STP augmentation will involve external borrowings. All other planned capital works catering to growth will be fully funded internally, with the maximum utilisation of existing cash reserves and revenues.

The borrowing outstanding is expected to reach a peak of $ 5,436 K in 2022/23, but will be mostly paid out towards the end of the 30-year plan period. The levels of cash and borrowing outstanding during the forecast period are depicted in the following Figure. A summary of projected financial results is presented in the Table next page.

Figure 17 - Cash and Borrowing Projection for Sewerage



2007/08 ($000)	Revenue and Expenses			Capital Transactions		Financial Position					System Assets			
Financial Year	Total Revenue	Total Expenses	Operating Result (Before Grants)	Acquisition of Assets	Principal Loan Payments	Cash and Investments	Borrowings	Total Assets	Total Liabilities	Net Assets Committed	Current Replacement Cost	Less: Accumulated Depreciation	Written Down Current Cost	Typical Residential Bills
2007/08	1,101	921	180	60	33	3,094	1,141	17,275	1,141	16,134	20,364	6,188	14,176	420
2008/09	1,116	1,093	23	195	34	3,099	1,079	17,121	1,079	16,042	20,571	6,480	14,091	420
2009/10	1,114	1,041	72	381	35	2,970	1,017	17,015	1,017	15,998	20,913	6,726	14,187	420
2010/11	1,114	940	175	275	37	3,047	956	17,009	956	16,053	21,125	6,952	14,172	420
2011/12	1,122	942	180	280	38	3,126	894	17,006	894	16,112	21,337	7,177	14,160	420
2012/13	1,132	963	169	101	40	3,368	833	16,986	833	16,153	21,400	7,431	13,968	420
2013/14	1,143	946	197	250	41	3,486	771	16,986	771	16,215	21,612	7,689	13,923	420
2014/15	1,110	1,092	19	3,050	81	2,134	2,171	19,667	2,171	17,496	24,624	7,998	16,626	420
2015/16	1,064	1,185	(121)	2,075	111	1,154	3,008	21,137	3,008	18,129	26,637	8,316	18,321	420
2016/17	1,247	1,269	(22)	120	114	1,240	2,821	20,704	2,821	17,883	26,648	8,588	18,060	420
2017/18	1,256	1,285	(29)	50	119	1,390	2,633	20,258	2,633	17,625	26,660	8,930	17,730	420
2018/19	1,268	1,251	18	50	124	1,576	2,445	20,015	2,445	17,570	26,672	9,271	17,401	420
2019/20	1,253	1,342	(89)	2,050	154	655	3,231	21,572	3,231	18,341	28,684	9,646	19,038	420
2020/21	1,341	1,375	(33)	75	161	776	2,992	21,200	2,992	18,208	28,696	9,996	18,700	420
2021/22	1,352	1,364	(11)	100	166	891	2,752	20,843	2,752	18,091	28,708	10,322	18,386	420
2022/23	1,357	1,624	(267)	3,050	249	765	5,436	23,149	5,436	17,713	31,720	10,748	20,972	420
2023/24	1,361	1,578	(216)	50	243	699	5,061	22,524	5,061	17,463	31,732	11,174	20,558	420
2024/25	1,368	1,558	(191)	50	252	651	4,685	21,919	4,685	17,234	31,744	11,600	20,144	420
2025/26	1,373	1,538	(165)	75	264	594	4,307	21,340	4,307	17,033	31,757	12,001	19,756	420
2026/27	1,376	1,517	(141)	120	273	506	3,929	20,779	3,929	16,850	31,769	12,356	19,413	420
2027/28	1,385	1,526	(141)	50	232	532	3,601	20,268	3,601	16,667	31,781	12,782	19,000	420
2028/29	1,394	1,484	(90)	50	241	599	3,272	19,804	3,272	16,532	31,793	13,207	18,586	420
2029/30	1,406	1,465	(59)	50	251	686	2,941	19,363	2,941	16,422	31,805	13,633	18,172	420
2030/31	1,414	1,449	(35)	75	261	760	2,609	18,943	2,609	16,334	31,817	14,034	17,783	420
2031/32	1,426	1,431	(4)	80	271	847	2,274	18,543	2,274	16,269	31,830	14,429	17,400	420
2032/33	1,436	1,444	(8)	50	283	947	1,935	18,136	1,935	16,201	31,841	14,855	16,986	420
2033/34	1,449	1,398	51	50	294	1,092	1,594	17,779	1,594	16,185	31,854	15,281	16,573	420
2034/35	1,463	1,383	81	50	221	1,337	1,334	17,613	1,334	16,279	31,865	15,707	16,158	420
2035/36	1,480	1,371	109	75	175	1,624	1,126	17,575	1,126	16,449	31,877	16,108	15,770	420
2036/37	1,492	1,363	129	140	182	1,853	917	17,549	917	16,632	31,890	16,443	15,446	420

Figure 18 - Projected Financial Results for Sewerage

Sensitivity Analysis

In accordance with the DWE Financial Guidelines, the following sensitivities have been modelled to determine the impact of various scenarios on typical residential bill for sewerage.

Criteria	Preferred Case	Sensitivity
Residential Growth Rate	0.60% p.a.	0.3% p.a.
Interest Rates	Borrow @ 6.5% p.a. and invest @ 5.5%p.a.	Borrow @ 9% p.a. and invest @ 8% p.a.

The results of modelling are presented in both graphic and tabular form. Note that the cash and borrowings are similar in most cases to facilitate comparability between cases.

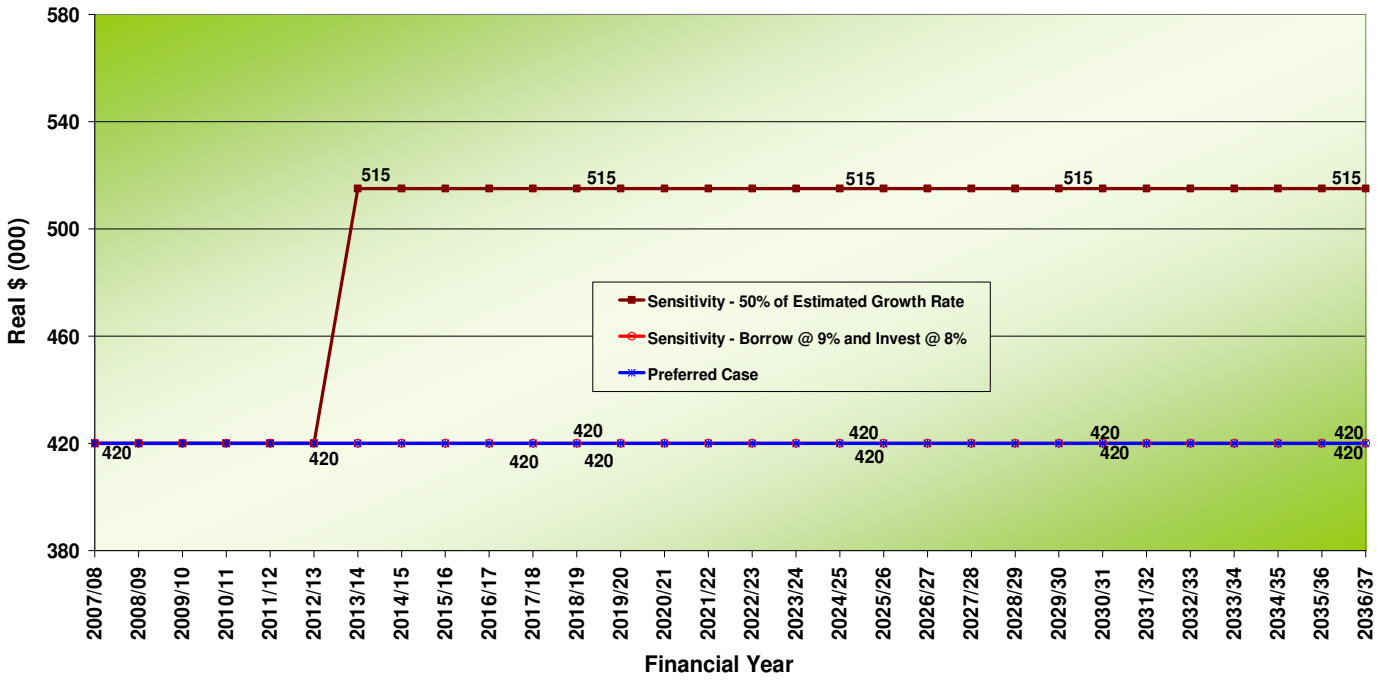
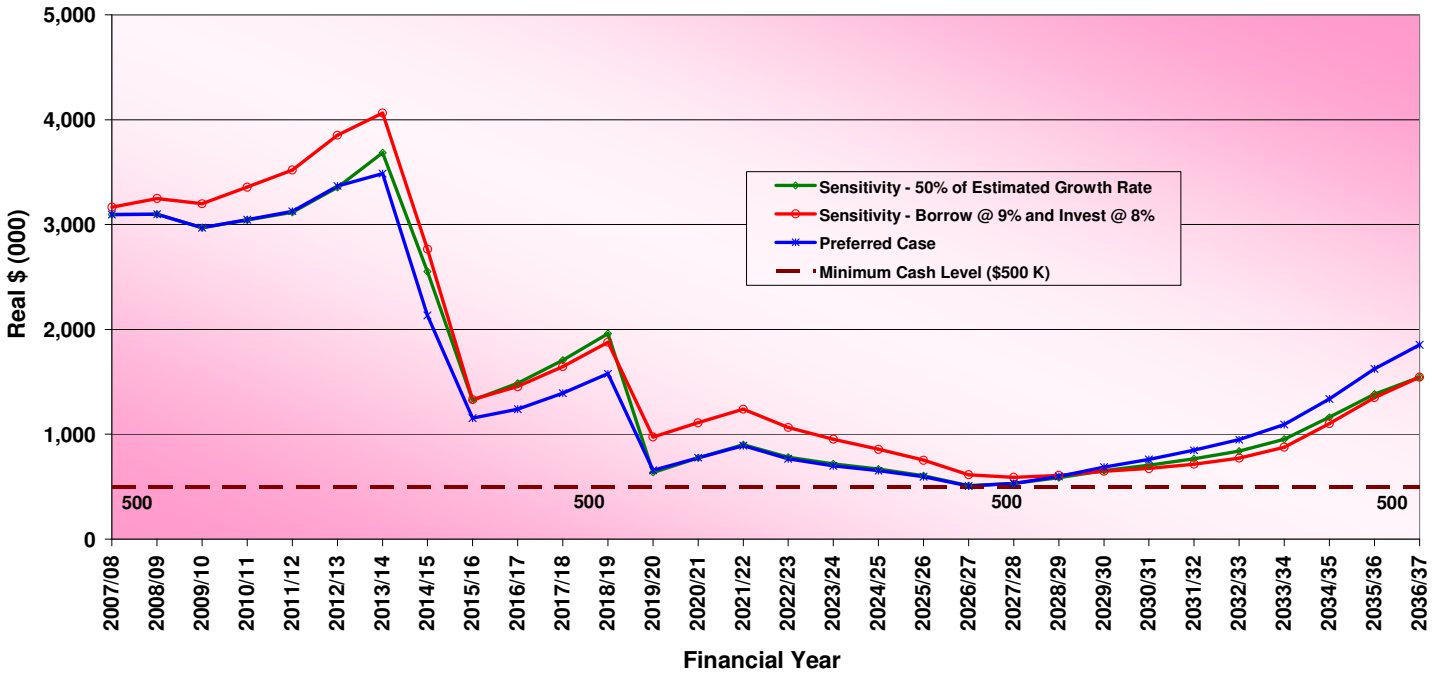


Figure 19 - Sensitivity of Typical Residential Bill for Sewerage

Figure 20 - Sensitivity of Cash Levels for Sewerage



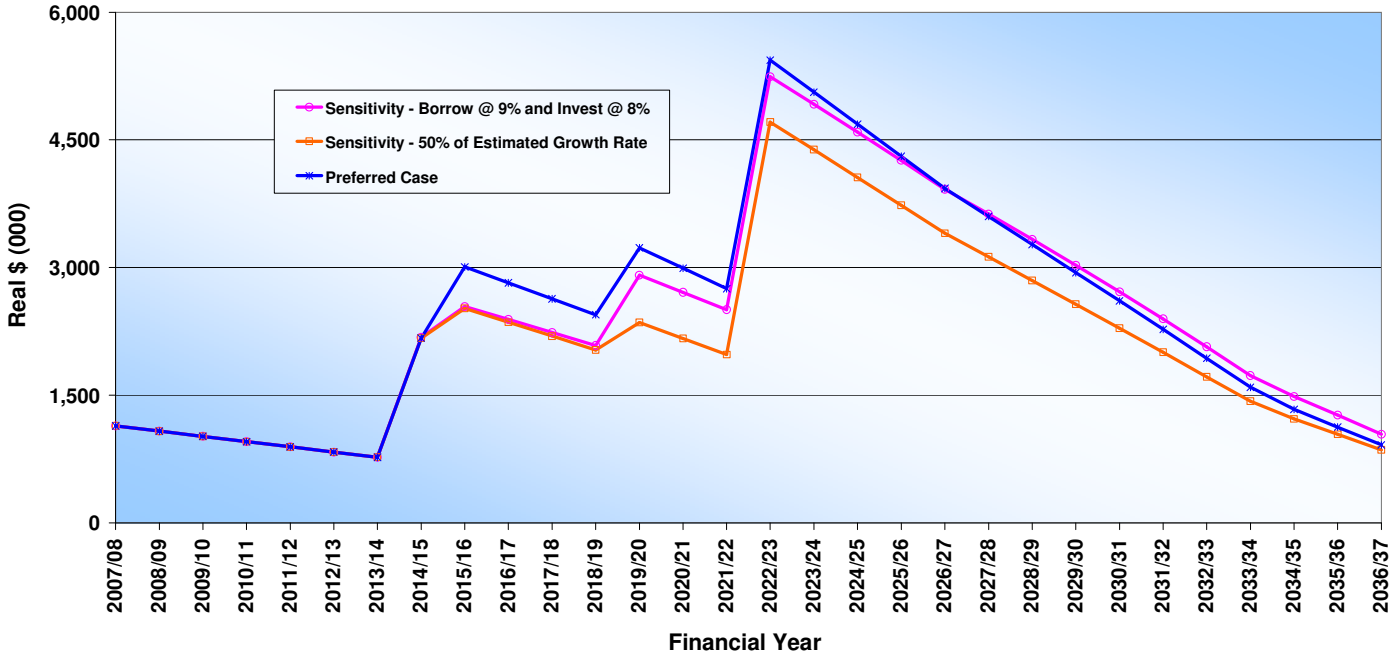
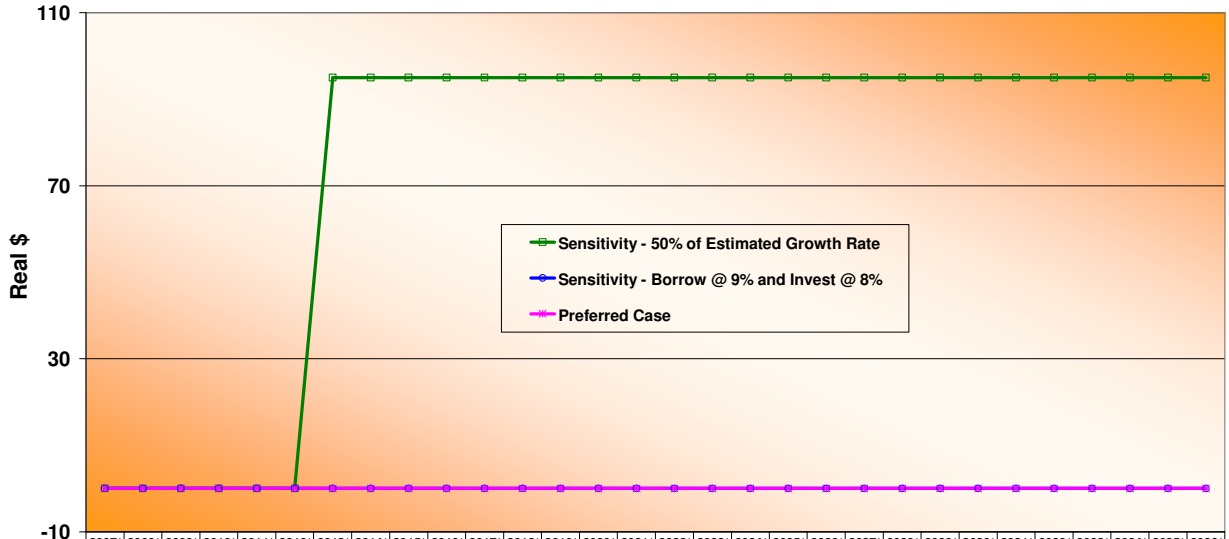


Figure 21 - Sensitivity on Borrowing Levels for Sewerage

Figure 22 - Effect of Sensitivities on the Typical Residential Bill



	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37
Sensitivity - 50% of Estimated Growth Rate	0	0	0	0	0	0	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Sensitivity - Borrow @ 9% and Invest @ 8%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Preferred Case	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

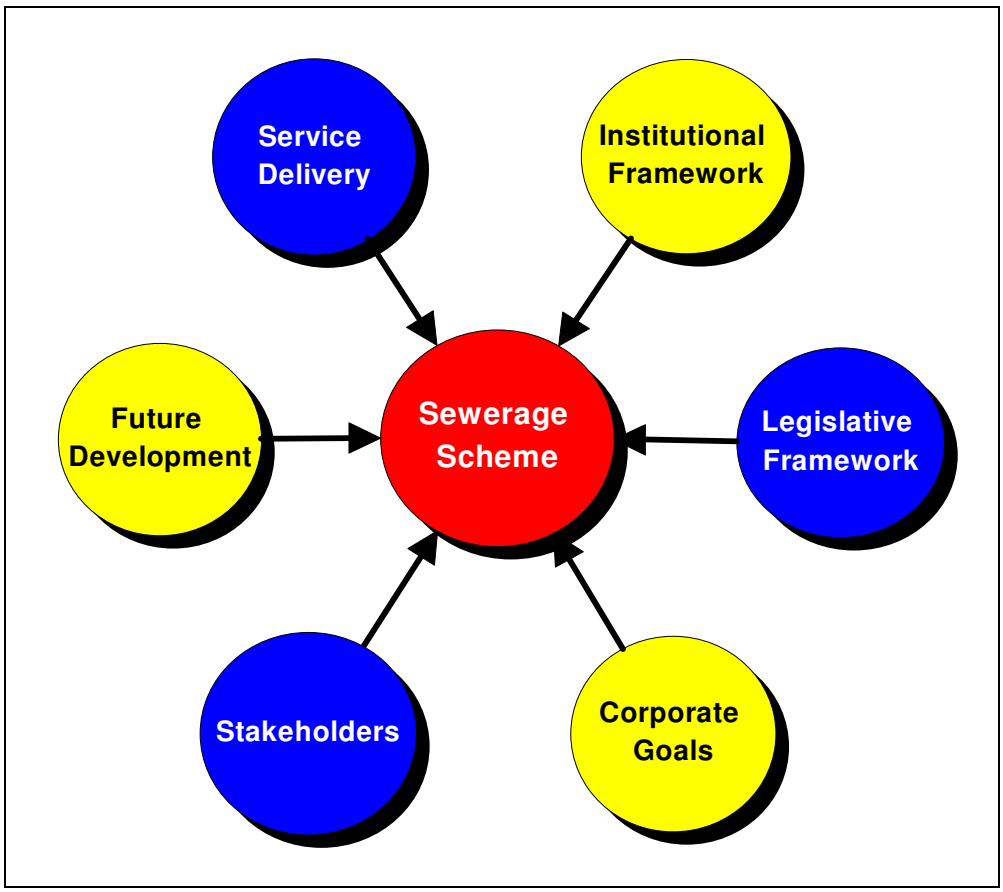
Sensitivity analysis indicates that the typical residential bill is not affected by higher borrowing interest rate.

Lower residential assessment growth rates (0.3% p.a. instead of estimated 0.6% p.a.) will not have an impact on the residential bill only for the next 5 years. If lower growth

continues beyond this period then the typical residential bill would need to be increased to $515 p.a. for Blayney and accordingly for Millthorpe and other villages.

Operating Environment Review

The delivery of sewerage services to the schemes' customers is subject to a large number of constraints, requirements, guidelines and other factors, which collectively are referred to as the operating environment. As part of the business planning process, a review was carried out to examine how the surrounding environment impacts on Council's operation of its sewerage schemes. The six major elements of the operating environment are shown in the chart below. Progressive review of these elements provides increasing definition of the operating environment.



Institutional Arrangements

There are several recognised options open to Council to structure its institutional arrangements. The purpose of this review is to anticipate change; to look ahead at possible future outcomes and ask what strengths should Council be developing so it can meet these challenges.

The Federal Industry Commission Report on the Australian Water Industry indicated that there should be an efficient use of resources in the water industry – natural, physical and financial. Their 1992 recommendations were wide-ranging and covered matters such as pricing and structural reforms. This has been followed-up by the NSW Government's Competition Policy and the Independent Pricing and Regulatory Tribunal's Pricing Principles for Local Water Authorities. In addition, the Local Government Association has issued a guideline of self-regulation, which suggests ways Council can improve its service delivery.

The following options exist:

Amalgamation: where Council would amalgamate its operations with those of surrounding Councils to form a single large organisation that would serve a wider regional area.

Advantages

- With the greater staff resources created as the result of amalgamation there would be more relief staff available and the opportunity for further staff developments
- The skills possessed by the larger staff resource would enable an improvement to other Council services
- With amalgamation the infrastructure for the provision of services is already in place.
- Potential reduction in the provision of the service due to operational efficiencies

Disadvantages

- Conflict involved with setup of an amalgamated organisation
- Continued sectional interests in the amalgamated organisation
- The resulting larger organisation with a greater asset base would be a bigger target for litigation
- The customer expectations from a larger organisation would be different

Blayney Shire Council is surrounded by 4 other Councils (Bathurst, Cabonne, Cowra and Orange City). Blayney Shire Council has developed an alternative co-operative institutional model in the form of **WBC Strategic Alliance** with the Shire Councils of Wellington and Cabonne. This institutional model is expected to yield similar benefits offered by the 'Amalgamation' model without incurring its perceived adverse consequence. See 'Service Delivery' for a description of the operational benefits of strategic alliance model..

County Council/ **Business Clusters**: where Council would amalgamate its water supply and/or sewerage services divisions with those of neighbouring Councils and set these divisions up as an independent organisation that would provide these services to a wider region.

Advantages

As for "Amalgamation"

- A regional county Council for the provision of services would provide access to greater financial power

Disadvantages

As for "Amalgamation"

- The formation of a County Council is an advanced option and as such the process involved in implementing the change would be complicated.

Council views that combining sewerage operations of Bathurst, Orange and Blayney catchment areas might provide operational and management advantage

Commercialisation: where Council would operate on a commercial basis, ie. each aspect of Council's operations would be self sustaining

Advantages

- Prices reflect costs
- User pays reduces consumption

Disadvantages

- Not necessarily consumer friendly
- Profit may be put before quality of service

Council favours this option as it is already running the sewerage services on a commercial basis. Council plans to achieve commercial viability of sewerage businesses in accordance with DWE Best Practice Guidelines.

Corporatisation: where Council would set up its operations and register as a company.

Advantages

- A corporation has the advantage of limited liability

Disadvantages

- Reduced government control of standards may occur due to a change of focus in the organisation from technical aspects to financial aspects

Council views this option to be a further progression from commercialisation; however, it is inappropriate because the size of their sewerage operation is too small and the revenues are below the $2 Million threshold for corporatisation as identified by the Competition Policy.

State-wide centralized management: where the State Government will take over water and sewerage businesses all over the State (a draft terms of reference for such a take over is being circulated for comments/ response by Councils).

Council views this arrangement will impact on many Council's financial viability. and is not favourable towards this option.

Privatisation: where Council would sell off its complete structure (assets, interests, etc) to a private individual or company who would then operate as they saw fit.

Advantages

- Reduced staffing levels can be achieved
- Access to financial power through private investors

Disadvantages

- Less motivation for community involvement and environment aspects
- Encouraging other industries to provide a competitive market would not be a priority

- Profits are put before quality
- Not in for the long haul

Council considers that this option is highly unlikely to be adopted due to the associated risks and difficulty in management.

The various institutional arrangements were rated on a scale of +1 (very possible) to –1 (very unlikely) with the following ranks:

Option	Ranking
Amalgamation	0
Strategic Alliance	+1
County Council	0
Commercialisation	+1
Corporatisation	0
State-wide Centralised Management	-1
Privatisation	-1

Council looks favourably on the commercialisation and strategic alliance models and is neutral towards amalgamation, county council and corporatisation arrangements.. Other options are either not preferred or considered irrelevant under the prevailing operating environment.

Legislative Framework

Numerous Acts influence the way in which Council can provide sewerage services to the community. Appendix B provides a discussion of the relevant legislation and the specific implications it has for Council's operations.

Stakeholder Analysis

The sewerage service must satisfy the needs of several stakeholder groups including customers, visitors, commerce and industry, and government. Appendix C examines these groups and evaluates Council's current performance. In general Council is performing well with the exception of perceived high tariff by customers.

The primary objective of Council is to provide a sustainable high level of service.

Future Demand

Blayney Shire Council's future growth projections indicate that currently available capacity is sufficient to meet any likely demand for sewerage services for the next 30-years. At this time Council is planning to extend services to residents outside this boundary in Millthorpe. Also, depending on outcomes of a proposed feasibility study, Council may provide sewerage services to the villages of Carcoar and Mandurama.

Table below summarises the major areas of future changes identified by the Council and how these will be addressed.

Changes	Council Actions
Customer Growth Rate Current growth rate is expected to be sustained	• Available sewerage capacity sufficient to meet future demand
Commercial Growth Council is actively promoting development in an effort to increase business growth.	• Enforce trade waste policy • Identify and develop new industrial areas
Environmental Changes Greater focus on environmental issues	• Maintain the focus on environmental issues in line with community expectations • Proactive long-term bio-solids management plan
Service Culture Council obligations to customers	• Continuously improve services and meet increasing customer expectations
Technology Changes Technological advancements in sewerage management	• Take advantage of new technologies such as telemetry, low-cost sewerage schemes, to achieve cost effective operations
Tourism Growth Current tourism growth trend is expected to be sustained	• Promote Blayney Shire as tourist destination
Government Policy Ongoing changes	• Keep abreast of changes in Government policy and Acts

Corporate Policies and Practices

Blayney Shire Council currently has the following corporate policies that have an impact on the operation of the sewerage scheme.

Corporate Policies	Impacts
Provide services to cover infill and subdivision within designated service area	– Economic systems fully utilising available capacity – Continued development
Support OH&S and EEO principles	– Socially responsible
Effluent reuse	– Regulatory compliance – Effluent reuse by Cadia mines – Optimal resource management and environmental benefits
Trade waste policy	– Identification and monitoring of liquid trade wastes according to DWE and DECC Guidelines
Septic waste policy	– Improved disposal of septic tank pump outs from villages
Developers contribution for sewerage	– Improved levels of service

Service Delivery

Institutional arrangements are being reviewed throughout the State and initiatives such as the National Competition Policy and Self Regulation are currently being reviewed. The National Competition Policy's impact on Blayney Shire Council's future service delivery is minimal. Classed as a Category 2 business, the operation of the water supply and sewerage section is not seen as distortionary on competition at a state or national level. The separation of Council's sewerage business from other activities is at the discretion of Council. The requirement of full cost attribution for sewerage service is already in place.

At Blayney Shire Council the General Manager delegates authority to the Director of Engineering to manage all the sewerage assets. Utilities Manager is responsible for the operation and performance of the sewerage schemes. Day-to-day operation of the scheme is the responsibility of the STP Supervisor. There are 2 operators (including STP Supervisor) that operate and maintain the sewerage scheme of Blayney and Millthorpe.

Council has considered various methods of service delivery including the following:

Full Service Contract

Advantages

- There is the possibility that the operation of the sewerage system would be lower under a full service contract due to the competitive aspect of letting a contract.
- There would be a reduction in the staff required by Council to manage the sewerage operations.
- There could possibly be a productivity improvement resulting from the competitive aspect of letting the full service contract.
- There would be a transfer of the risk associated with operating the sewerage system.
- Attractive for high-end technology operations.

Disadvantages

- As a result of having all operations under a full service contract Council would lose some of the control and flexibility it currently has over the operations of the sewerage services.
- By having the operations of the sewerage system on a full service contract there is the possibility of having profits put ahead of customers.
- There would be a different set of problems associated with the management of the full service contract.
- Requires a complete culture change.

Council thinks that this could be an option of last resort if trained staff become unavailable and other service delivery options become unviable.

Part Service Contract

Advantages

- Some degree of control over the sewerage operations can be retained.
- The part service contract is carried out in a specialist area therefore providing the best service.
- Ability to segment and assess current practices/ performance

Disadvantages

- There would be a loss of expertise in specialist areas
- Council would become reliant on the availability of specialists for work in these areas.
- Possibility that profit would be put before customer service.
- A comprehensive maintenance management system and information would be required.

Council carries out the majority of work in-house, particularly day-to-day operation and maintenance work. Some items of work which are contracted out include:

- Effluent quality testing and calibration;
- Operator training;
- Telemetry upgrade;
- CCTV
- Pipe relining
- Mechanical maintenance;
- Strategic advice such as EIA, EMP, Best Practice Plans, OH&S audit etc.;
- Specialist contract staff for specific purposes; and
- Major engineering design and capital works (traditionally done in conjunction with the State Authorities and by tendered contract).

Council will continue with the current areas where part service contract practice and will consider other possibilities of contracting work out where in-house expertise and resources are not available and where more economical solutions may be available.

B.O.O.T. (Build, Own, Operate and Transfer)

Advantages

- No large up front capital investment by the Council is required.
- The risk involved with the construction of new capital works is transferred.
- At the end of the B.O.O.T. period the Council is left with the asset.
- Has potential for cost effectiveness.

Disadvantages

- The political and operational implications may be severe if the operator fails to perform satisfactorily or fails completely.
- Ensuring appropriate processes and outcomes requires specialist expertise.
- Community acceptance of the BOOT scheme may be hard to achieve
- The developers profit and risk must be paid for as part of the overall project

Council considers that his option has very little to offer as the type and size of the sewerage scheme is not large enough to attract investors.

Resource/Service Sharing

Advantages

- There would be a reduction in the number of resources required by Council as these would be shared with the other organisations.
- By sharing the resources associated with the provision of the sewerage services with other organisations economies of scale would be achieved.
- May enables specialist expert team to be established and used on a regional basis.

Disadvantages

- The co-ordination and commitment of other organisations is hard to get.

Council has already adopted resource sharing under the WBC Strategic *Alliance of Council* as a means of reducing expenses for managing council assets including the sewerage schemes.

WBC Councils share services in the work areas of asset management, works co-ordination and fleet management, which has already shown tangible financial benefits.

Conclusion

The various service delivery arrangements were rated on a scale of +1 (very possible) to –1 (very unlikely) with the following ranks:

Option	Ranking
Full Service Contract (Purchaser-Provider Model)	0
Part-Service Contract	+1
BOOT	-1
Resource/ Service Sharing	+1

As can be seen from the discussion Council sees that only the part service contract and service share options will hold any real possibility or advantages to them.

Therefore the present strategy is to continue with its current service delivery arrangements, which is a combination of in-house delivery, part service contract and resource sharing under WBC Strategic Alliance.

Blayney Shire Council
Strategic Business Plan for Sewerage
2007/08

Summary

Introduction

This Strategic Business Plan covers the development and operation of Blayney Shire Council's Sewerage Scheme. It provides supporting information for Council's Management Plan.

Corporate Vision

Council's corporate vision is to:

To ensure that Blayney Shire Council is an active participant in the growth of the Central NSW Region whilst developing Council's area as an innovative, inspirational and enjoyable environment for its current residents and those wanting to settle in the area

Corporate Mission

The corporate mission of the Council is:

Council actively engages all sectors of the community in the delivery of its vision through provision of cost effective services, investigation of innovative opportunities, development of efficient asset management principles and attracting retention of the next generation of residents.

Corporate Objective for Sewerage

Council has adopted the following objective for its sewerage services:

To provide sewerage services in an efficient manner to the agreed and currently recognised health, environmental and other community standards and needs with flexibility to promote and meet development demands within the Region

Council's corporate policies and objectives also place specific requirements on the sewerage scheme. These are detailed in Part C of this Business Plan under Operating Environment Review.

Scheme Outline

Council provides sewerage services to the township of Blayney and Millthorpe village. Other villages including Carcoar, Barry, Neville, Mandurama, Lyndhurst and Newbridge are serviced by septic tanks.

Blayney Sewerage Scheme

Blayney reticulation system consists of 51 Km of AC and uPVC mains and six pumping stations. The original reticulation system in Blayney was constructed in late 1960s with considerable augmentation in 1970's, 80's, 90's and in 2003.

The Blayney Sewage Treatment Works is located on the south eastern outskirts of town on the north side of Hobby Yards Road. The original works, constructed in 1966, consisted of a Biological filter (Trickling filter) with a capacity of 2100 E.P. The original treatment works was replaced by an Intermittently Decanted Extended Aeration (IDEA) activated sludge treatment plant with a design capacity of 7000 E.P.

The STP fully treats all predicted inflows and currently has excess capacity based on the future design load.

Cadia mine currently takes all treated effluent. Any effluent that may not be pumped to Cadia mine due to operational issues is released to the wetland, which then overflows to the Belubula River. Wetland has been provided as a supplementary structure to impart additional effluent polishing treatment. Flows to the wetland have been limited to wet weather events.

Sludge from sludge lagoons are dried at drying beds while supernatant is gravitated back to the IDEA plant.

Millthorpe Sewerage Scheme

Millthorpe sewerage services about 600 people in the village of Millthorpe. The sewer reticulation was commissioned in 2003. The system consists of 9.7 Km of uPVC gravity sewer mains and one pumping station. Collected sewage is pumped to the balancing tank of Blayney STP for treatment.

Descriptions and schematics of service areas of Blayney and Millthorpe sewerage schemes are presented in Part A of this Business Plan.

Operating Environment Review

This review explores the internal and external conditions under which Council delivers services now and those likely to prevail in the future. Details are provided in Part A of this Business Plan.

Principal Issues

Current services are generally satisfactory. There are however, some issues, which need to be addressed. These include:

- Meeting DWE Best Practice Management Guidelines
- Wet weather inflow including illegal connections
- Reducing sewer chokes and blockages
- Maintaining an up to date asset register including asset condition and rating

- Community education and awareness
- Risk assessment of issues identified by Overflows Investigation Report
- Managing and funding future replacement/ renewal of assets

Service Provision

Levels of Service

Council's primary objective with sewerage services is to meet the adopted Levels of Service, which cover the following areas:

- Service complaints
- System failures
- Response times
- Odour complaints
- Flow problems
- Discharge quality

Levels of Service with predicted improvements are summarised on the following page.

Summary of Levels of Service Improvements

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target (2012)
Availability of Service			
– Extent of area serviced	% Designated Service area	100% of designated service areas in Blayney and Millthorpe	100% of designated service areas in Blayney and Millthorpe
System Failures			
Category One:			
– Failure due to rainfall and deficient capacity (overflows)	No./year	0	0
Category Two:			
– Failures due to pump or other breakdown including power failure	No./ year	2	2
Category Three:			
– Failures due to main blockages and collapses	No./ year	25	10
Response Times for Complaints			
General Complaints and Inquiries:			
– Written complaints	Working days	1	1
– Personal/Oral complaints	Minutes	30	30
Note: Times apply for 95% of complaints			
Odour Complaints:			
– Treatment works (outside designated buffer zone)	No. /year	0	0
– Pumping Stations	No. /year	5	0
– Reticulation system	No./year	0	0
Effluent Discharge and Sludge Management			
Failure to meet licence limits and statutory requirements (100 percentile)	No. of samples/ year	0	0

For a full list of the Levels of Service see Part A, Levels of Service.

Objectives

Council has recognised five Key Result Areas that must be managed well to achieve success in the long-term provision of sewerage services to its customers. These are:

- Customer service,
- Environment,
- Asset management,
- Human resources, and
- Finance.

Objectives and Performance Targets have been set in these Key Result Areas. These are summarised on page vi, and given in detail in Part B of this Plan.

Actions

Strategies were identified for achieving the objectives, and then specific actions were listed for implementation of these strategies.

The notable actions and outcomes Council will take over the next 5 years include:

- Laboratory and amenities building at Blayney STP
- Septic tank wastes discharge bay at Blayney STP
- Millthorpe sewage transfer main augmentation
- Emergency storage capacity for main sewage pumping stations in Blayney and Millthorpe
- Lining/ replacement of sewer mains in Blayney

Objectives

Key Result Area	Objective	Performance Target
Customer Service 	Levels of services are in accordance with community expectations	Levels of service are documented and communicated to the community
	Maintain existing designated services and provide service to selected unserviced areas where economically feasible	Achieve 100% service population in the designated service area by 2010
	Minimise hydraulic load due to infiltration, inflow and illegal connections and manage any industrial and commercial biological load	Complete infiltration/ inflow analysis by July 2010 Develop Trade Waste Register by June 2008
	Ensure scheme achieves full cost recovery and reflects best practice guidelines	Review sewerage tariff by December 2007 Review developer charges by December 2007
	Ensure customer satisfaction	Customer feedback system implemented by June 2008 Customer survey conducted every 4 years Achieve at least 80% customer satisfaction level in customer surveys by 2012
	Engage the community in consultation in the delivery of sewerage services as appropriate	Community involvement on all significant capital works and policy decisions
Environment 	Minimise impact from sewerage operations on the local environment by ensuring compliance with environmental legislation	Prepare IWCM Concept Plan by June 2008 Develop and implement Biosolids Management Plan by December 2008 Carry our Energy Audit by June 2009

Key Result Area	Objective	Performance Target
Asset Management 	Operate the sewerage service to meet agreed levels of service at least life cycle cost	Develop Operations Plan by December 2008
	Scheme maintenance ensures facilities can deliver design quality, capacity and reliability requirements at least life-cycle cost	Develop Maintenance Plan by December 2008 Prepare Breakdown Contingency Plans by December 2008
	Ensure systems have adequate capacity to meet current and future levels of service at minimum life cycle costs	Funded projects carried out on time and to budget in accordance with capital works program
Human Resources 	Have a proactive, productive and skilled staff with appropriate areas of expertise	Review and update HR Plan by October each year
Finance 	Maintain a long-term financial plan to provide full cost recovery for scheme operation and asset replacement at an affordable level of cost to customers	Long-term financial plan in place by March 2008

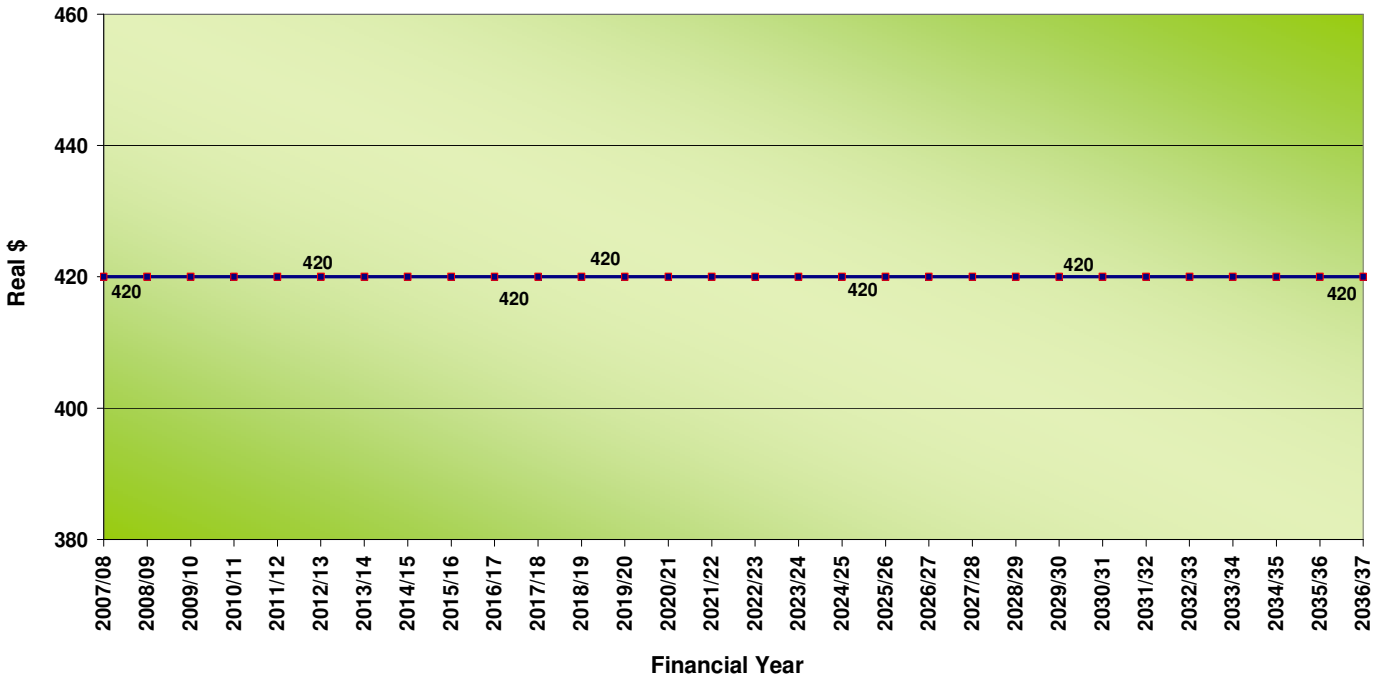
Summary of Projected Financial Position

Following Table presents the summary of projected financial position of Blayney Shire Council's sewer fund over the next 30 years at five-year intervals. The typical annual residential bill forecast for the same period is shown graphically below this Table. The values are all in 2007/08 dollars.

2007/08 $ (000)	2007/08	2011/12	2016/17	2021/22	2026/27	2031/32	2036/37
Estimated Total Revenue	1,101	1,122	1,247	1,352	1,376	1,426	1,492
Estimated Total Expenditure	921	942	1,269	1,364	1,517	1,431	1,363
Operating Surplus / (Deficit)	180	180	(22)	(11)	(141)	(4)	129
Acquisition of Assets	60	280	120	100	120	80	140
Principal Loan Payments	33	38	114	166	273	271	182
Borrowings Outstanding	1,141	894	2,821	2,752	3,929	2,274	917
Cash and Investments	3,094	3,126	1,240	891	506	847	1,853
Total Assets	17,275	17,006	20,704	20,843	20,779	18,543	17,549
Total Liabilities	1,141	894	2,821	2,752	3,929	2,274	917

Summary of Projected Financial Position

Typical Residential Sewerage Bills



Financial projections have been made considering that no subsidy will be available for the capital works during the forecast period.

Financial modelling has demonstrated that typical residential bills for Blayney, measured in today's (2007/08) dollar, can be maintained at the current level of $ 420 p.a. throughout the forecast period. This level of charges is sufficient to maintain liquidity with a minimum of $ 500 K of cash in hand over the period.

Note that residential customers of Millthorpe will be paying 1.62 times the projected typical residential bill for Blayney. This amounts to $ 680 p.a. for Millthorpe customers. This will be the level of annual sewerage charges also for the customers of the Carcoar, Mandurama and Lyndhurst villages if and when the planned sewerage schemes become operational.

This level of charges is sufficient to maintain liquidity with a minimum of $ 500 K of cash in hand over the period.

All the renewal and replacement capital works will be internally funded throughout the projection period. Capital works for all the village sewerage schemes and Blayney STP augmentation will involve external borrowings. All other planned capital works catering to growth will be fully funded internally, with the maximum utilisation of existing cash reserves and revenues.

The borrowing outstanding is expected to reach a peak of $ 5,436 K in 2022/23, but will be mostly paid out towards the end of the 30-year plan period.

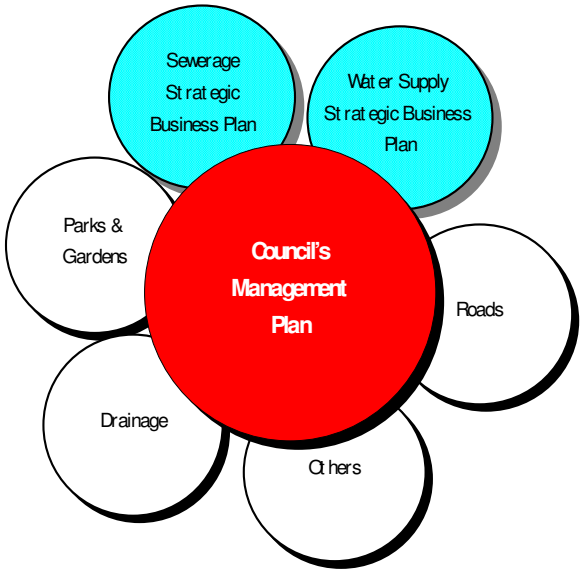
See Part C for more financial projection details.

Introduction

Why This Plan Has Been Developed

The Local Government Act 1993 requires Council to prepare **Management Plans** and **Annual Reports**. The **Management Plan** must cover each of Council's principal business activities and must include items such as:

- Proposed objectives and performance targets;
- Strategies for their achievement;
- Proposed capital works program;
- Financial information;
- Revenue policy;
- Human resource activities;
- Environment protection plan;
- Asset replacement programs;
- Other specific planning information considered relevant.



Strategic Business Plans address single business activities, in this case the **sewerage** services. The relationship between Council's Management Plan and the Strategic Business Plans for the various areas is shown on the right.

The difference between the plans is that the Strategic Business Plan has a long-term strategic approach focussing on a review of the whole of the operating environment for that particular service. Typically the Strategic Business Plan looks at a minimum of twenty years ahead while the Management Plan focuses on 3 to 5 years.

Strategic Planning Benefits

The strategic business plan aim to:

- Provide information for Council's Management Plan;
- Detail information of ratepayers and customers, elected representatives, management, staff, Government and relevant external bodies;
- Focus attention on the key issues affecting day to day operations;
- Explore how to share the limited resources available in an equitable manner;
- Demonstrate to stakeholders that the schemes are well managed;

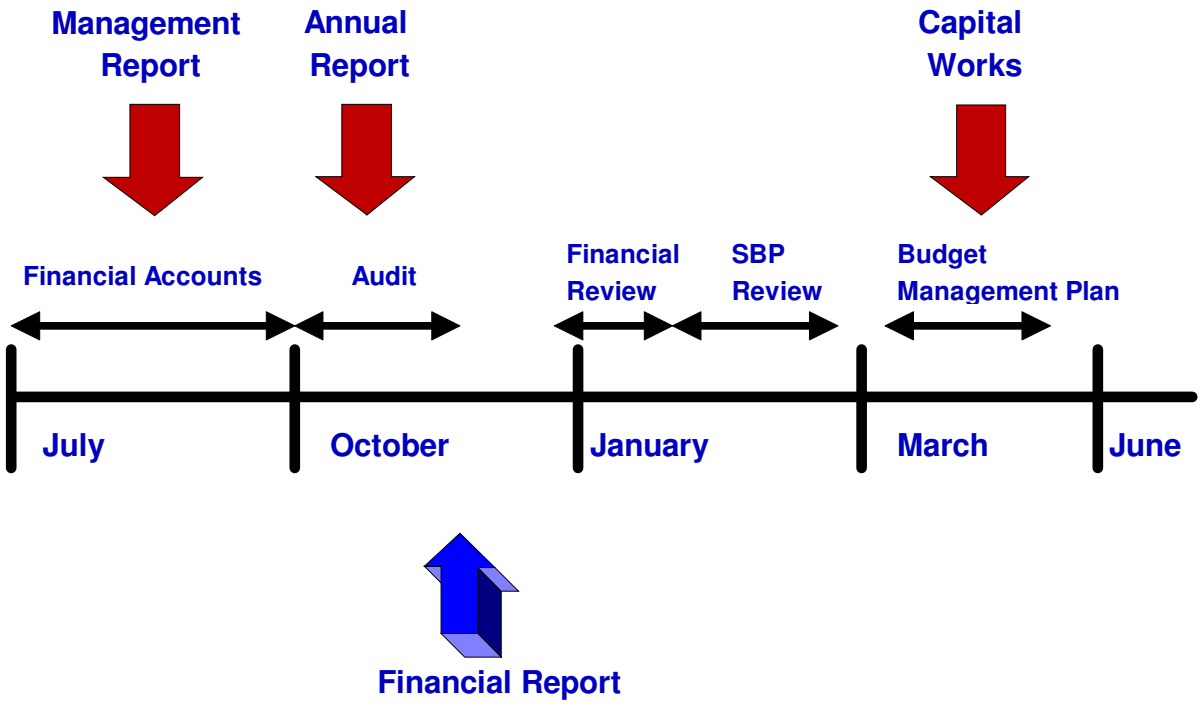
- Identify financial and other resources required to operate these services on a commercial basis;
- Provide a long term price path for each service;
- Assist in development of an affordable capital works program;
- Enable Council to model 'what-if' scenarios and see their rating impact; and
- Allow future financial performance indicators to be calculated, such as return on capital invested.

Strategic Business Plans are considered desirable for all councils but specifically DWE has now made them a prerequisite for the provision of financial assistance. Some other drivers for the production of strategic business plans include the need to meet requirements from:

- Department of Local Government (DLG) – Competitive neutrality;
- Council of Australian Governments (COAG) – National water Reform, National competition policy;
- Local Government and Shires Associations (LGSA) – Benchmarking; and
- Independent Pricing and Regulatory Tribunal (IPART) – Pricing Principles.

The Plan also communicates scheme information to stakeholders and demonstrates that the scheme is being well managed.

Planning Cycle



Structure of the Plan

The strategic business plan is presented in three parts. The elements of each part are shown on the diagram below.