Mid-Western
REGIONAL COUNCIL

Strategic Business Plan for Sewerage Services

June 2008

Acknowledgment

This Strategic Business Plan was prepared by Mid-Western Regional Council with the assistance of the Strategic Water Management Unit of Sustainable Water Solutions, NSW Department of Commerce.

The Plan is based on a workshop held on 15 - 16 February 2007 in which senior Council staff were represented.

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Summary

Introduction

This Strategic Business Plan covers the development and operation of Mid-Western Regional Council's Sewerage Schemes. It provides supporting information for Council's Management Plan which is developed during February-November each year and updated annually.

Corporate Vision

Council's corporate vision is to:

A progressive and prosperous community that we proudly call home.

Corporate Mission

The corporate mission of the Council is:

To pursue a high standard of living for our citizens, preserving the diversity and character of the Council's region and natural environment

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

Mid-Western Regional Council has a sewerage area of 1860 Ha with a population of 13,100 covering the townships of Mudgee, Gulgong, Rylstone and Kandos.

Council operates and maintains 174 Km of reticulation network, 12 pumping stations and 10 Km of rising mains. The treatment system comprises four sewage treatment plants, one each for the townships serviced, with a total capacity of 16,750 EP.

Descriptions and schematics of service areas of Mudgee, Gulgong, Rylstone and Kandos 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 are:

- Meeting DWE Best Practice Management Guidelines and other government regulations
- Augmenting STPs to meet conditions of Load Reduction Agreement with DECC
- Establishing priorities for extension of services
- Equitable service pricing including developer charges across the Region
- Developing asset management system including maintaining real-time asset condition data/details
- Managing and funding long-term capital works

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% Urban areas of Mudgee, Gulgong, Rylstone and Kandos	100% of Urban areas of Mudgee, Gulgong, Rylstone, Kandos, Clandulla and Charbon
System Failures			
Category One:			
– Failure due to rainfall and deficient capacity (overflows)	No./year	10	4
Category Two:		6 due to maintenance	6 due to maintenance
– Failures due to pump or other breakdown including power failure	No./ year	12 due to power failure	12 due to power failure (standby pumps provided)
Category Three:			
– Failures due to main blockages and collapses	No./ year	300	250
Response Times for Complaints			
General Complaints and Inquiries:			
– Written complaints	Working days	10	10
– Personal/Oral complaints	Working days	1	1
Note: Times apply for 95% of occasions			
Odour Complaints:			
– Treatment works (outside designated buffer zone)	No. /year	2	0
– Pumping Stations	No. /year	0	0
– Reticulation system	No./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 v, 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 10 years include:

- Mudgee STP augmentation
- Mudgee trunk main construction (capacity issues)
- Combined Rylstone/Kandos STP
- Clandulla/Charbon sewerage scheme
- Gulgong STP augmentation
- Reticulation mains replacement
- Telemetry upgrade

Objectives

Key Result Area	Objective	Performance Target
Customer Service 	Provide services that meet the agreed LOS and are economically feasible and financially affordable and meet health and environmental requirements	Compliance with levels of service and action planning and meet performance targets
	To provide services to existing areas at current levels and extend to new residential and industrial areas on a user pays basis	Provide service in advance of demand where economically viable Review and update Development Servicing Plans (DSP) by June 2008
	Operate the sewerage system in an efficient and environmentally sound manner and reduce wet weather hydraulic sewerage loading to its economic limit and manage industrial and commercial biological load in accordance with DWE Trade Waste guidelines	Achieve peak wet weather flow of less than five times average dry weather flow by 2018 Adopt Trade Waste Policy by December 2008
	An equitable pricing policy that supports current and future service provision based on full cost recovery and user pays basis and maximise revenue from grants and other sources	Full implementation of developer charges from July 2008 Implementation of best practice pricing from July 2009
	Provide a high level of customer satisfaction with reduced level of substantiated complaints and keep the customers informed of significant issues	Implement new customer service request system by September 2008 Conduct annual customer satisfaction survey
	Seek community feedback with regard to service targets and prior to any major decisions regarding significant changes in service levels	Consultation for sewerage augmentation strategies

Key Result Area	Objective	Performance Target
Environment 	An ecologically sustainable scheme whose environmental impacts, especially in sensitive areas, are acceptable to the community	Prepare IWCM plan by December 2008 Update annual State of the Environment (SOE) Report to highlight Council's responsible management of the environment. Operate in accordance with Department of Environment and Climate Change (DECC) licences
Asset Management 	Develop operations plan and procedures to achieve levels of service with due diligence and effective use of technology so as to ensure a reliable and safe service at minimum operating costs	Undertake operations analysis by December 2008 No failures to deliver agreed Levels of Service due to operations related problems
	Increase the reliability of systems, reduce life cycle and ongoing costs, allow for appropriate financial planning and ensure levels of service are maintained	Review maintenance strategy by June 2009
	Capital works program provides agreed levels of service at optimal life-cycle costs to meet social, economic and environmental considerations	No failures to deliver agreed Levels of Service due to lack of infrastructure and sufficient infrastructure is in place to cater for the projected developments
Human Resources 	Maintain an appropriate staff structure and staff numbers with the necessary training and skills to effectively manage the sewerage schemes and provide agreed and required Levels of Service	Review and update HR Plan by June 2008
Finance 	Maintain sound financial management of the organisation by optimising long term (30-years) financial plans to provide required services at an affordable level and ensure full cost recovery	Quarterly review and annual updating of financial plan

Summary of Projected Financial Position

Following Table presents the summary of projected financial position of Mid-Western Regional 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 2006/07 dollars.

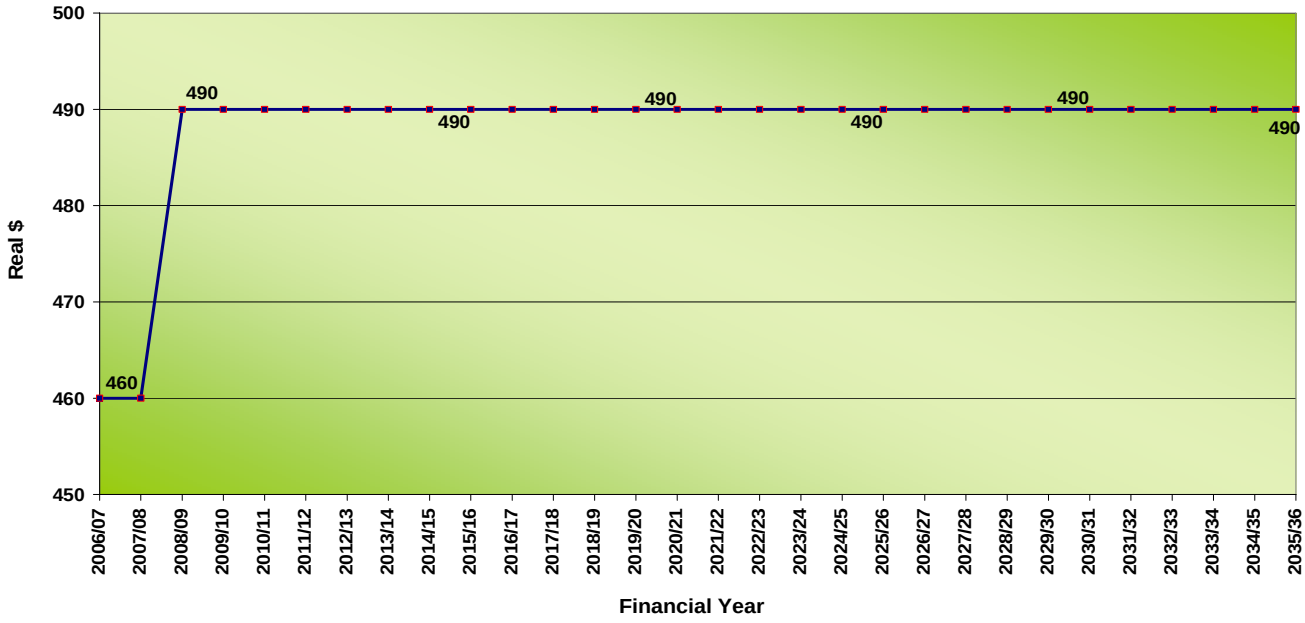
Summary of Projected Financial Position

2006/07 $ (000)	2006/07	2010/11	2015/16	2020/21	2025/26	2030/31	2035/36
Estimated Total Revenue	3,482	3,929	4,335	4,580	4,881	5,238	5,666
Estimated Total Expenditure	2,829	4,060	4,142	4,681	4,944	4,782	4,784
Operating Surplus / (Deficit)	653	(131)	193	(100)	(63)	456	883
Acquisition of Assets	814	6,484	345	2,645	3,345	345	345
Principal Loan Payments	53	376	474	662	923	457	486
Borrowings Outstanding	909	11,896	9,104	11,580	11,042	5,874	2,876
Cash and Investments	6,483	1,836	2,902	1,206	1,193	2,966	8,228
Total Assets	25,537	40,663	39,361	43,383	43,996	41,112	41,614
Total Liabilities	1,033	12,037	9,261	11,750	11,224	6,069	3,084

Financial modelling has demonstrated that typical residential bills, measured in 2006/07 dollars, have to be increased to $490 p.a. from the present (2007/08) level of $460 p.a. from year 2008/09 onwards throughout the plan period as major capital works are planned during the next five years. The financial model has considered that 25% of the total estimated cost of Mudgee STP augmentation work will be available as government subsidy.

This level of charges is sufficient to maintain liquidity with a minimum of $ 1000,000 of cash in hand over the period. A graphical presentation of the typical bills forecast is shown below.

Typical Residential Sewerage Bills



All the renewal capital works will be internally funded throughout the projection period. Capital expenditure for major growth works planned for the next 15 years will be through mix of internal funds, government subsidy and external borrowing with the maximum utilisation of existing cash reserves and revenues.

The borrowing outstanding is expected to reach a peak of $ 12,606 K in 2021/22, but can be fully retired, if so required by Council, towards the end of the 30-year plan period.

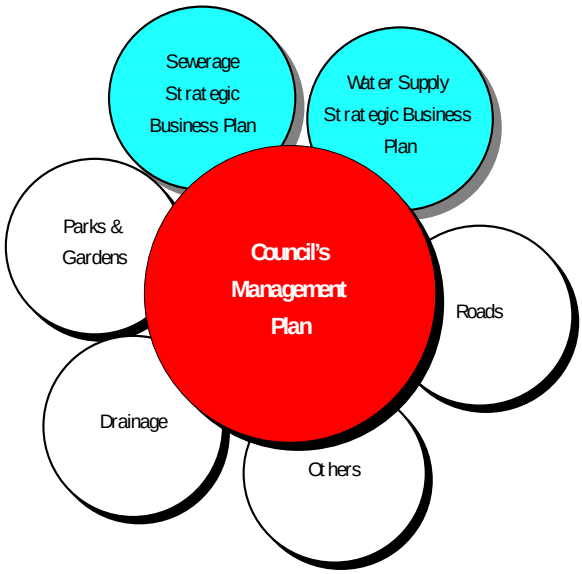
See Part C for more financial projection details.

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 for 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;

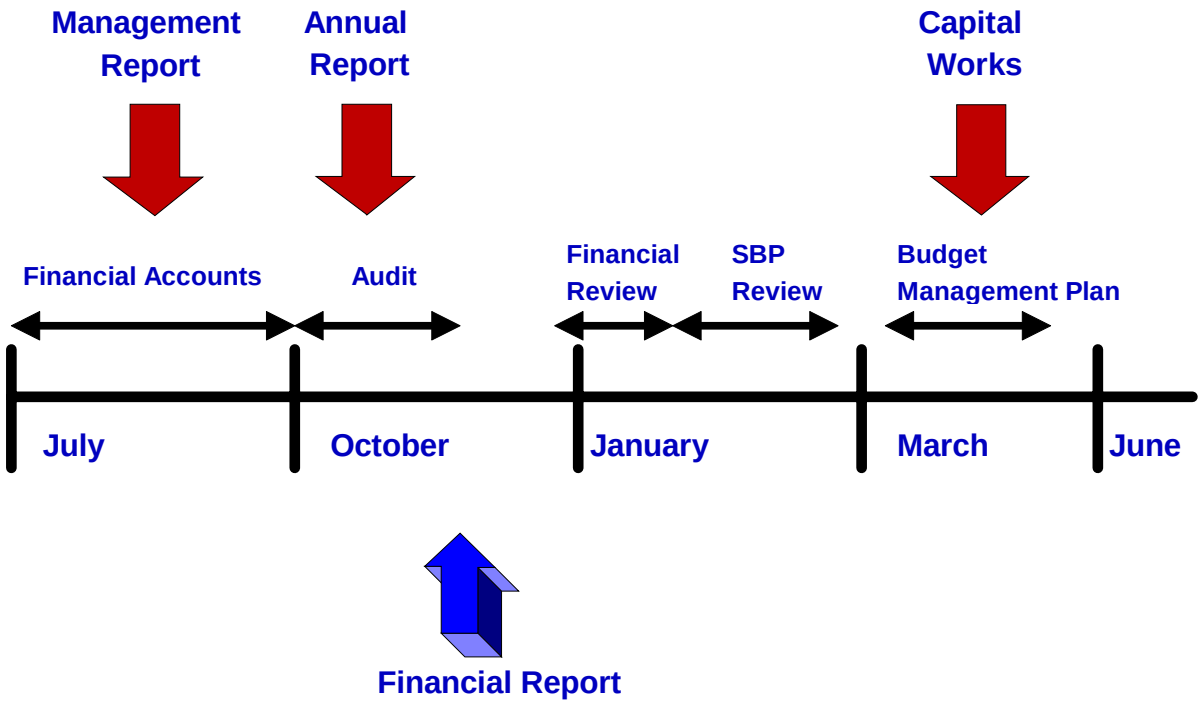
- Identify financial and other resources required to operate these services on a commercial basis;
- Provide a long term price path for each service;
- Assist in development of an affordable capital works program;
- Enable Council to model 'what-if' scenarios and see their rating impact; and
- Allow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

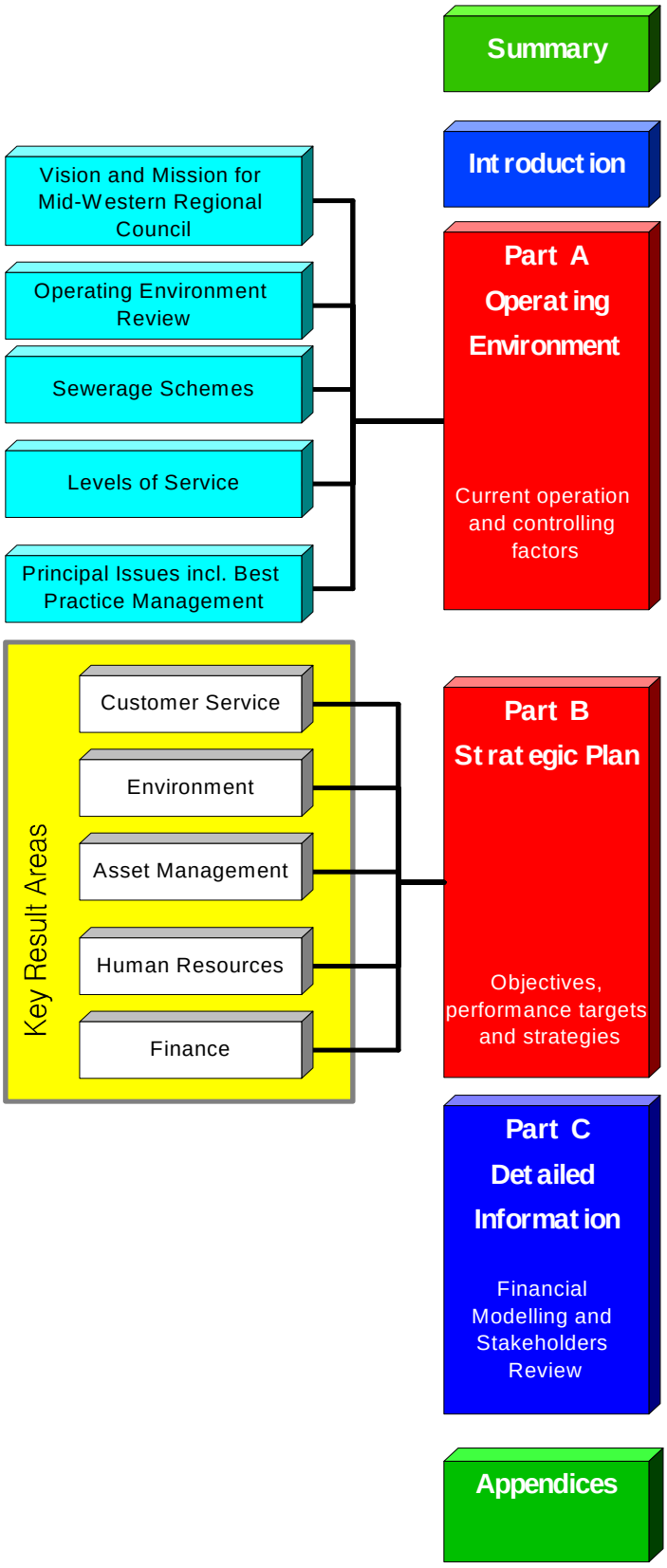
The Plan also communicates scheme information to stakeholders and demonstrates that the scheme is being well managed.

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 Mid-Western Regional 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:

A progressive and prosperous community that we proudly call home.

Corporate Mission

The corporate mission of the Council is:

To pursue a high standard of living for our citizens, preserving the diversity and character of the Council's region and natural environment

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

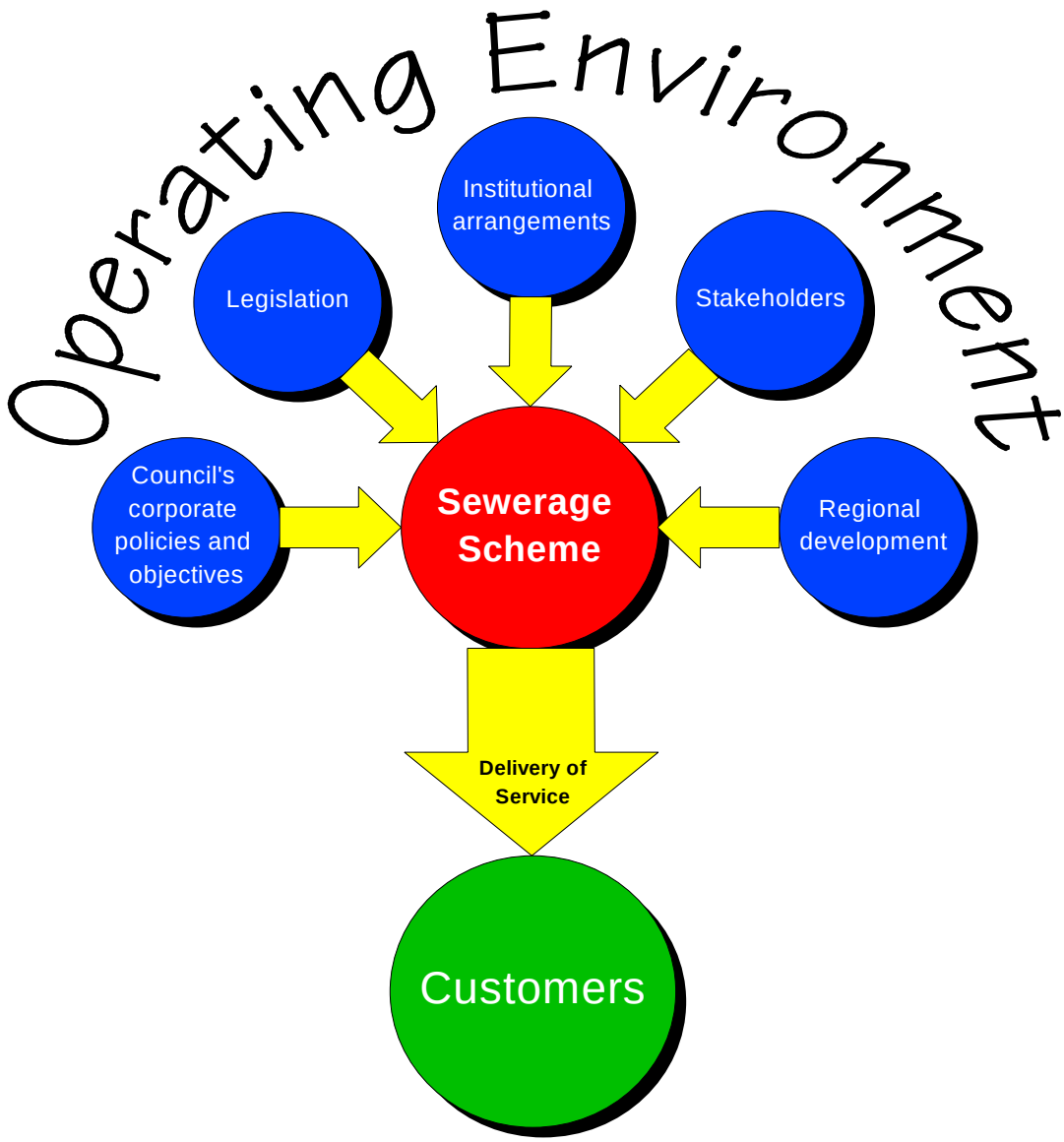
The implications of Council's vision and mission statements for the provision of the sewerage services are:

- 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.



In expanding Council's vision for a 30-year planning horizon for sewerage services, changing service requirements due to the following key factors influencing the operating environment are to be accounted for:

Growth and Development

- Age profile – the trend of aging population with higher middle-aged (40-64 years) and senior population (65-79 years) will continue
- Falling occupancy rate – expected to reach the natural minimum in line with the national trend away from large families, leading to more households with less people per ET.
- Strong commercial development is expected to continue resulting in more people migrating to the region generating greater demand for accommodation and water services
- Number of wineries and fruit/vegetable processing industries, cattle/sheep farms is increasing
- A new mine (Moolarben) and the expansion of an existing mine (Ulan) are expected to be operational within next 1-3 years

Public Health

- The Region provides good medical services with hospitals in the townships of Mudgee, Gulgong and Rylstone.
- Council has commissioned the NSW Rural Doctors Network to study the viability of increased access to general health practitioners and allied health professionals in the Region.

Environment

- Dry land salinity is a persistent problem in many locations in the Region
- The Shire has good air quality and there is no need for extensive monitoring or air pollution control programs
- All creeks and rivers in the Council LGA are classified as environmentally sensitive river systems. There is a continuing need for a well-planned ongoing water quality monitoring program in the region encompassing the upper Cudgegong River

Transport

- Reconstruction of Castlereagh Highway between Lithgow – Mudgee has provided faster access to and from the Region to Sydney and major centres around the region
- Mudgee has reliable twice daily air link with Sydney

Tourism

- As part of their Economic Development Strategy, Council has recently completed a 10-year Tourism Study, which indicated that the Region continues to show strong growth in tourism, and the trend is expected to continue in future. The study has identified programs and funding requirements to provide a major boost to the growth of tourism in the Region

Technology and Information

- Sophisticated information management would provide better financial and operational analysis and lead to continual service improvement.
- Power supply in the Region is unreliable due to frequent outages. Council has provided diesel pumps at critical pumping stations as a contingency measure in case of power outages. Reliable power supply will improve service quality in future
- Mobile coverage is improving. ADSL/ Broadband Internet is expanding covering all townships and 5 Km radius around them. Improvements will enhance opportunities for growth and development of the Region and improve quality of other services

Government Legislation/ Policy

- More regulation, stringent enforcement and fewer subsidies from Government is imposing heavy burden on Council responsibilities
- Council has entered into a strategic alliance with Lithgow and Oberon Councils in many areas including asset management, information technology and tourism

Sewerage Scheme

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

Existing Sewerage Scheme

Mid-Western Regional Council has a sewerage area of 1860 Ha with a population of 13,100 covering the townships of Mudgee, Gulgong, Rylstone and Kandos. Villages are serviced by septic tanks. Council is currently investigating feasibility of reticulated sewerage for the villages of Clandulla and Charbon.

Council operates and maintains 174 Km of reticulation network, 12 pumping stations and 10 Km of rising mains. The treatment system comprises four sewage treatment plants one each for the townships serviced with a total capacity of 16,750 EP.

Council has entered into a Load Reduction Agreement and associated Pollution Reduction Program with the Department of Environment and Climate Change (DECC).

Mudgee Scheme

Mudgee's reticulated sewerage comprises gravity collection system with 5 sewage pumping stations. The trickling filter based sewage treatment plant is of 8,000 EP capacity. Council is in the process of upgrading the Mudgee STP with continuous extended aeration and biological nutrient removal processes (IDEA process) in order to prevent nutrient rich treated effluent discharged to the Cudgegong River.

Gulgong Scheme

The gravity sewage collection system of Gulgong comprises 3 sewage pumping stations with continuous extended aeration and biological nutrient removal processes (IDEA plant) adopted for treatment of collected town sewage.

Treated effluent from the Gulgong treatment facility is fully reused for irrigation of lucerne and other agricultural crops around the site.

Rylstone Scheme

The Rylstone scheme comprises gravity sewage collection system with 2 sewage pumping stations. The STP comprises primary clarifier, secondary trickling filter and tertiary lagoon treatment before discharging to the Cudgegong River.

Kandos Scheme

Kandos town also has a gravity sewage collection system with 2 sewage pumping stations. Configuration of Kandos STP is same as that of Rylstone but with larger capacities. Council plans to decommission these STP's to replace with a single advanced STP that will service both these towns.

Assets Summary

Mid-Western Regional Council has prepared an Asset Register and the locations of all major assets have been recorded. Council is currently installing asset management software to assist in managing the infrastructure.

Council has commenced a program of (CCTV) auditing the condition of underground assets, but has considerable amount of asset yet to review. 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
Pump Stations			
– Mudgee	5	1971-2004	6
– Gulgong	3	1965-1969	7
– Rylstone	2	1971	8
– Kandos	2	1972	7
Gravity and Rising Mains			
– Mudgee	123 Km	1930-2008	6
– Gulgong	31 Km	1970-2008	6
– Rylstone	11 Km	1971-2005	5
– Kandos	28 Km	1971-2007	5
STPs			
– Mudgee	8000 EP	1930	4
– Gulgong	3000 EP	1997	8
– Rylstone	2000 EP	1971	5
– Kandos	2600 EP	1972	5

Figure 1 - Map of Mid-Western Regional Council

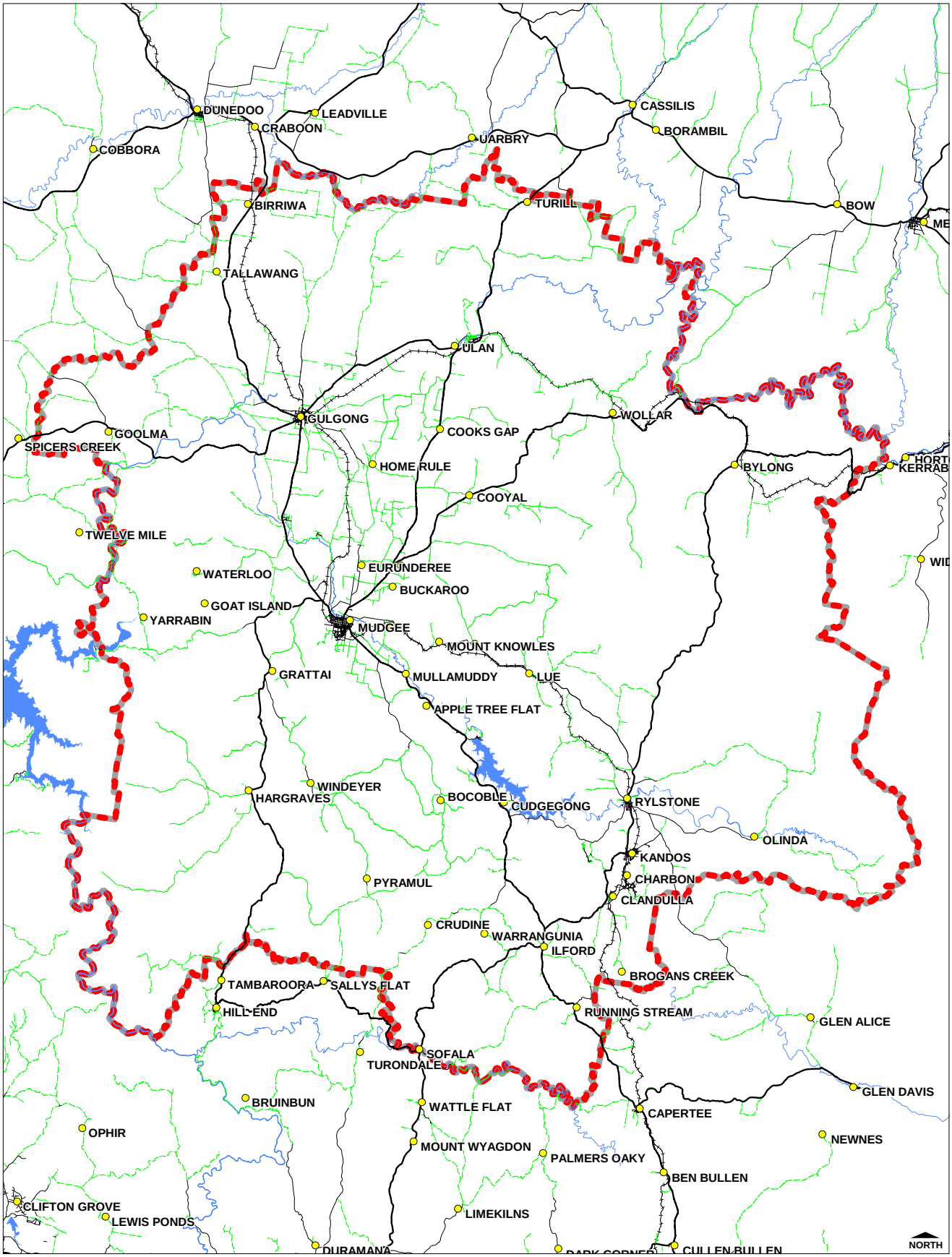


Figure 2 – Map of Mudgee Sewerage Service Area

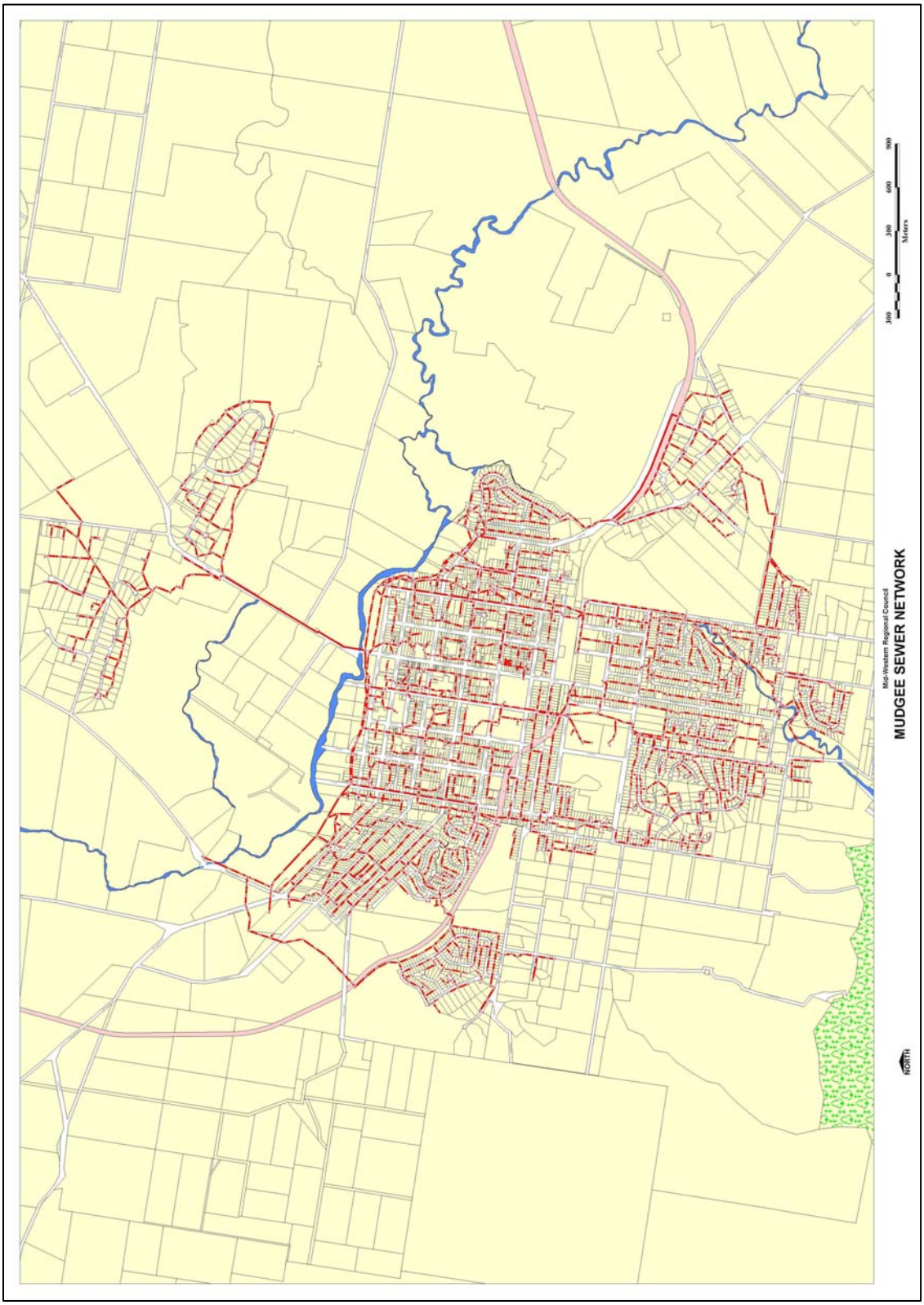


Figure 3 – Map of Gulgong Sewerage Service Area

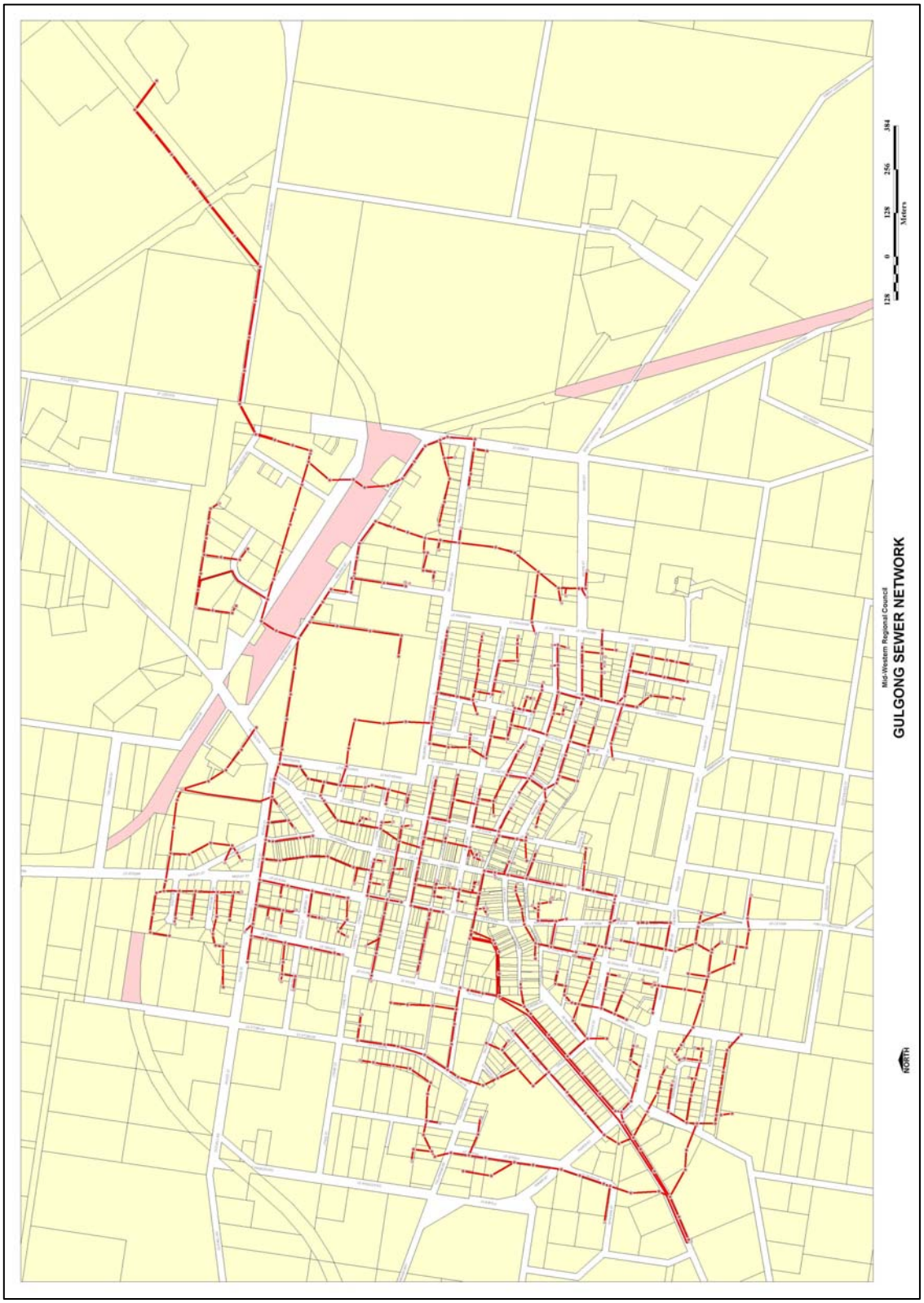


Figure 4 – Map of Rylstone Sewerage Service Area

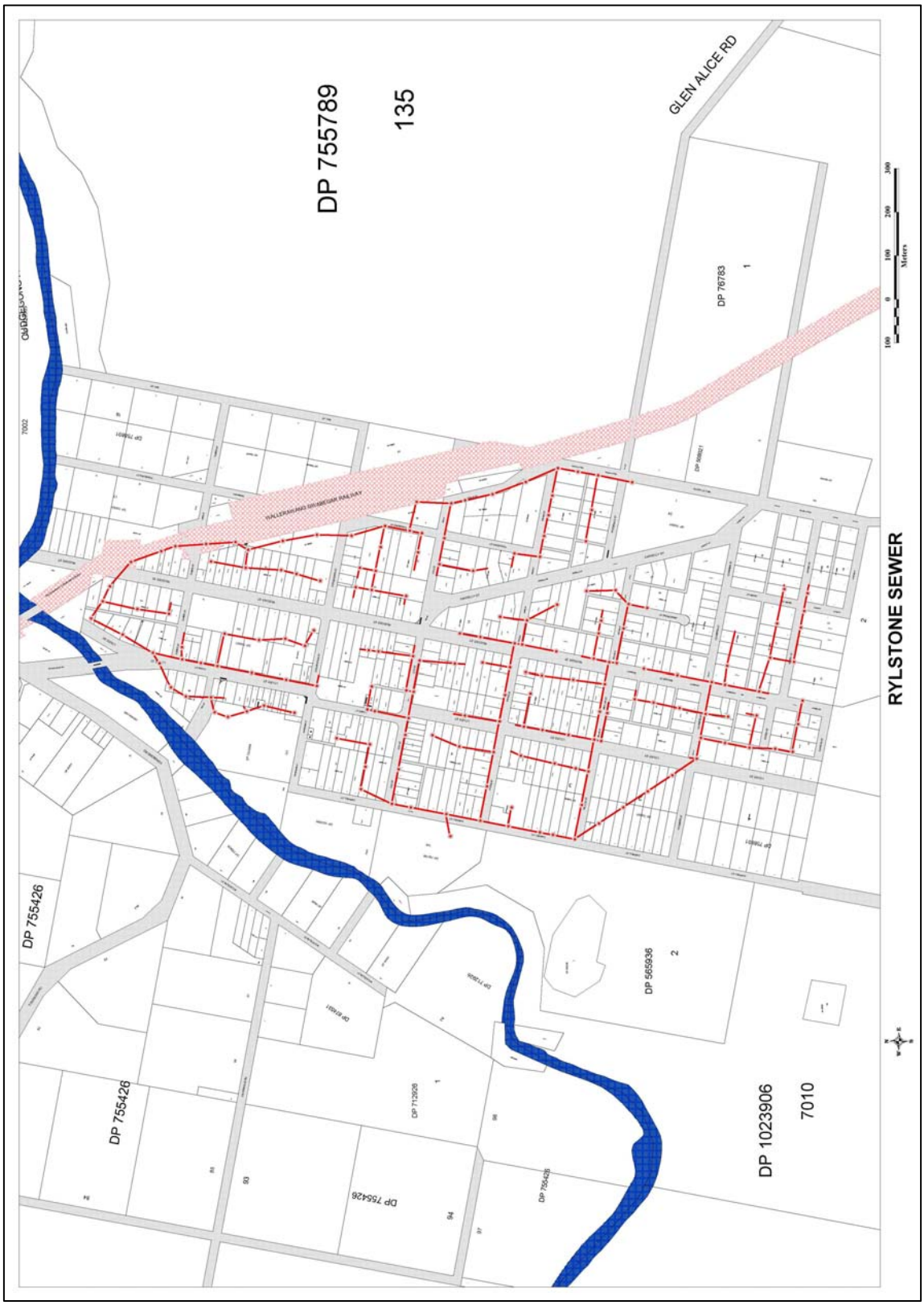


Figure 5 – Map of Kandos Sewerage Service Area

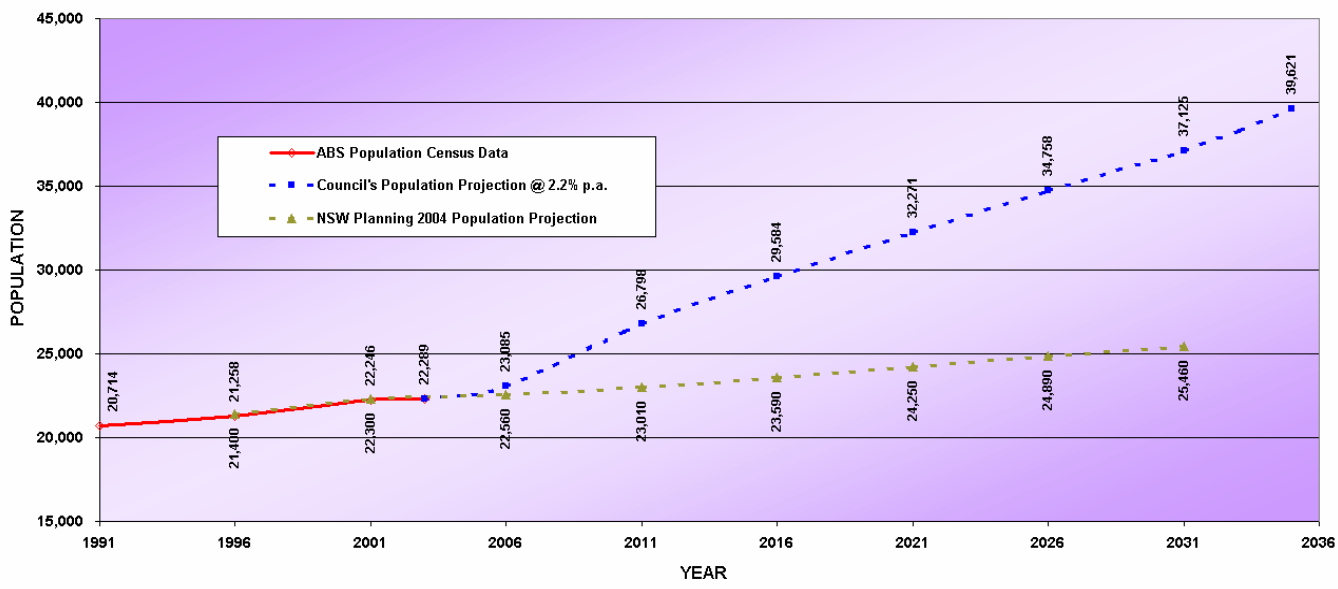
Future Development

Growth Projections

Mid-Western Regional Council area has had a robust growth in population for a major part of the 7-year period between 1996 and 2003 at a compounding growth rate of 0.6% p.a. (*Source:* ABS, *Estimated Residential Population Local Government Areas – NSW 1991 – 2001, 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 Shire. Council has undertaken a review of population projections (2005-2031) in 2005 and has adopted a long-term average growth rate of 2.2% p.a. for future planning. Council is optimistic with its predictions believing that the economic development strategies it has in place should result in expected growth in population over the next thirty years. 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 6 – Mid-Western Regional Council Population Growth Projections



The projected number of sewerage assessments for financial modelling purposes is based on the 6,127 (Residential: 5,573; Non-residential: 554) assessments in June 2006 *(Reference: Mid-Western Regional Council Audited Financial Statements, Special Schedule 5 for the year 2005/06)* 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 MWRC over the next 10 years. The justification for why they have been planned is also shown below

Proposed Capital Work	Year	Justification
Mudgee STP Augmentation	2009 -11	Growth related
Rylstone/Kandos STP	20010 -12	Improved environmental outcomes
Clandulla/Charbon Sewerage Scheme	2010-12	Improved environmental outcomes Improved levels of service
Gulgong STP Augmentation	2013	Improved levels of service
Reticulation mains replacement	2008 onwards	Renewal/ Replacement
Telemetry upgrade	2008 -13	Improved levels of service

Stakeholders

Stakeholders are parties within Mid-Western Region 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 that 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, the 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% Urban areas of Mudgee, Gulgong, Rylstone and Kandos	100% of Urban areas of Mudgee, Gulgong, Rylstone, Kandos, Clandulla and Charbon
System Failures			
Category One:			
– Failure due to rainfall and deficient capacity (overflows)	No./year	10	4
Category Two:		6 due to maintenance	6 due to maintenance
– Failures due to pump or other breakdown including power failure	No./ year	12 due to power failure	12 due to power failure (standby pumps provided)
Category Three:			
– Failures due to main blockages and collapses	No./ year	300	250
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:	Hours	0.5	0.5
– During after hours:	Hours	1	1
Priority Two:(Moderate spill, some environmental or health impact, or affecting small number of consumers ie other mains)			
– During working hours:	Hours	1	1
– During after hours:	Hours	1	1
Priority Three:(Minor spill, little environmental or health impact, or affecting a couple of consumers)	Working Day	1	1

DESCRIPTION	UNIT	LEVEL OF SERVICE	
		Current	Target (2012)
Response Times for Complaints			
General Complaints and Inquiries:			
– Written complaints	Working days	20	10
– Personal/Oral complaints	Working days	1	1
Note: Times apply for 95% of occasionss			
Odour Complaints:			
– Treatment works (outside designated buffer zone)	No. /year	2	0
– Pumping Stations	No. /year	0	0
– Reticulation system	No./year	0	0
Effluent Discharge and Sludge Management			
Failure to meet licence limits and statutory requirements (100 percentile)	%	75	0
Discharge Licence Conditions			
Discharge Site		River and Land	River and Land
Effluent Reuse	%	5	25
Biochemical Oxygen Demand	mg/L	30	10
Total Suspended Solids	mg/L	30	10
Total Nitrogen	mg/L	20	7
Oil and Grease	mg/L	10	2
Total Phosphorus	mg/L	2 (Mudgee)	0.3 (Mudgee)

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 and other government regulations	Objective 1 – Levels of Service Review Objective 4 – Service Pricing Objective 7 – Environment
Augmenting STPs to meet conditions of Load Reduction Agreement with DECC	Objective 3 – Sewer Load Management Objective 7 - Environment Objective 10 – Capital Works
Establishing priorities for extension of service areas	Objective 2 – Areas Serviced
Equitable service pricing including developer charges across the Region	Objective 4 – Service Pricing Objective 10 – Capital Works
Developing asset management system including maintaining real-time asset condition data/ details	Objective 8 – Operations Objective 9 - Maintenance
Managing and funding long-term capital works program	Objective 10 – Capital Works Objective 12 – Finance

The Department of Water and Energy (DWE) 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 Mid-Western Regional 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	Council has ad-valorem sewerage rates as well as minimum rates. Best Practice Pricing issues including two-part sewerage tariffs and liquid trade waste fees and charges for non-residential customers as in the DWE *Sewerage and Trade Waste Pricing Checklist* will be addressed by June 2009.
Liquid Trade Waste Management	Liquid trade waste approvals will be issued to *each* liquid trade waste discharger connected to the sewerage system and the issues in the DWE *Trade Waste Check List* addressed by December 2008.
Developer Charges	*Development Servicing Plan* with commercial developer charges will be reviewed and adopted in July 2008.
Annual Performance Reporting	*Performance Reporting Forms* are completed annually 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 in place by June 2009; the *Operations Plan* and *Maintenance Plan* will be reviewed and updated by June 2009.
Environmental Management*	The *Protection of the Environment Operation Act, 1997 has been* complied with and all issues in the Environmental Management Checklist addressed in December 2006.
Integrated Water Cycle Management	Substantial commencement of sound IWCM by March 2008. Integrated Water Cycle Management will be fully implemented and all of the issues in the IWCM Check List addressed by December 2008.

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

PART B: STRATEGIC PLAN

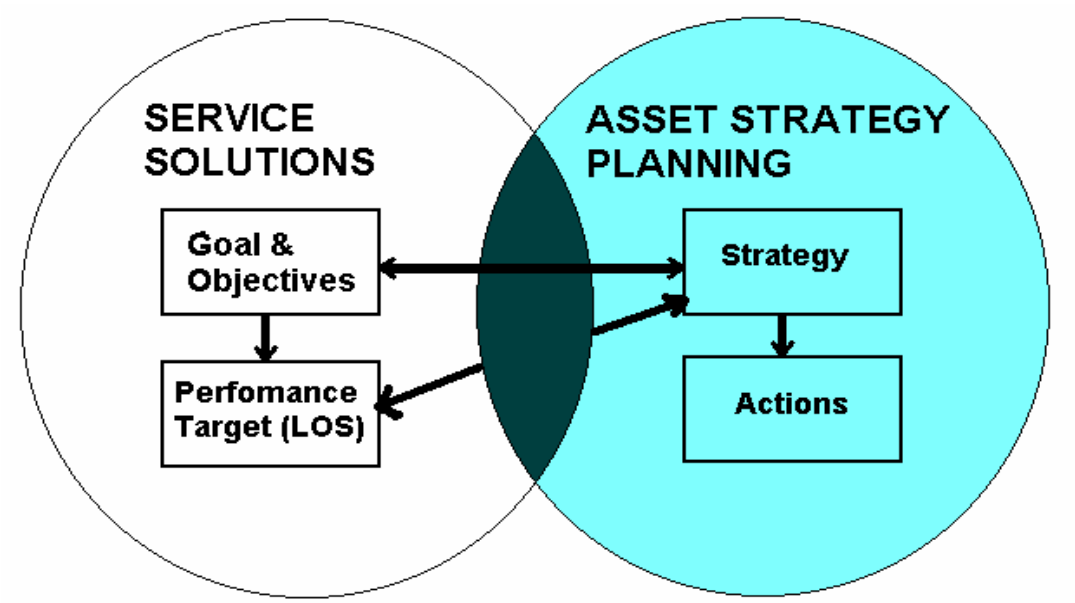
Part B of the Plan provides a detailed description of **Service Provision Objectives, Strategies, Performance Measures** and **Actions** in the key result areas in which Council must perform successfully to fulfil its corporate objective for sewerage.

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.

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:

SERVICE 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.

BMS	Business Manager Services
GM	General Manager
GMA	Group Manager Assets
GMO	Group Manager Operations
GMP	Group Manager Planning and Development
HRUM	Human Resources Unit Manager
MF	Manager Finance
HB	Team Leader Health and Building
MTS	Manager Technical Support
MWCW	Manager Water Cycle and Waste
NAE	No Additional Expense

Customer Service

This section details Mid-Western Regional 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 schemes. 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 local water utilities. Performance data is forwarded to DWE each year and a TBL report is received back the following year that should be communicated to Council by 31st August.

A benchmarking exercise needs to be conducted to ensure Levels of Service are comparable to others in the industry at present. Generally Council has been performing well in respect of the Levels of Service.

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 outside the designated buffer zone due to STPs

Objective 1: Levels of Service Review
Provide services that meet the agreed LOS and are economically feasible and financially affordable and meet health and environmental requirements
Performance Targets Compliance with levels of service and action planning and meet performance targets
Strategy Review current operations and documented levels of service and update the Strategic Business Plan (SBP)

Objective 1: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review current operations for annual report	Annually		MWCW		NAE
Review and update Strategic Business Plan	2010	5 yearly	GMA	20	15 every 5 years
Public display of SBP and adoption by Council	As required		MWCW		NAE
Implement and monitor SBP Action Plans	Ongoing		MWCW	As detailed in this report	
Best Practice Management Compliance Audit	July 2008	Jun 2009	MWCW	2	
Monitor and review LOS targets and report performance to DEUS	Sep Annually		MWCW		NAE
Report key performance indicators and TBL reports to Council	August Annually		GMA		NAE
Input and review of special schedules for Dept. of Local Govt. in the financial statements	August Annually		MF		NAE
SoE reporting	Nov Annually		GMP		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-small holdings 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.

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 Charbon and Clandulla in the near future.

With an expected long-term average annual growth rate of 1.7% p.a. in residential assessments in the service areas covered by existing sewerage schemes over the next 30 years, and considering capacities of the existing system, it is believed that augmentation of all the schemes will be required.

Towns	No. of Assessments/ETs		Service Type	
	Current (2007)	Future (2036)	Current	Future
Birriwa	17		Septic System	Septic System
Bylong	10		Septic System	Septic System
Charbon	73	130	Septic System	Reticulated Sewerage
Clandulla	121	215	Septic System	Reticulated Sewerage
Goolma	20		Septic System	Septic System
Gulgong	870	1100	Reticulated Sewerage	Reticulated Sewerage
Hargraves	62		Septic System	Septic System
Ilford	53		Septic System	Septic System
Kandos	680	700	Reticulated Sewerage	Reticulated Sewerage
Lue	45		Septic System	Septic System
Mudgee	3890	6220	Reticulated Sewerage	Reticulated Sewerage
Pyramul	35		Septic System	Septic System
Running Stream	3		Septic System	Septic System
Rylstone	330	440	Reticulated Sewerage	Reticulated Sewerage
Turill	10		Septic System	Septic System
Ulan	66		Septic System	Septic System
Windeyer	45		Septic System	Septic System
Wollar	103		Septic System	Septic System

Note: The number of assessments is the estimated number of available yield within the village/town only and not the total number of assessments within the locality, based upon best available information.

Objective 2: Areas Serviced
To provide services to existing areas at current levels and extend to new residential and industrial areas on a user pays basis
Performance Targets Provide service in advance of demand where economically viable Review and update Development Servicing Plans (DSP) by June 2008
Strategies Review need and identify works required to provide/extend services in accordance with LEP identified growth areas

Objective 2: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Development of comprehensive LEP to identify future growth areas	Jan 2007	June 2008	GMP	NAE	
Sewer Modelling	March 2008	Dec 2008	MWCW	Refer to Objective 10: Operations	
Prepare Development Servicing Plan	June 2007	June 2008	MWCW		
Review Section 64 charges for identified future growth areas	Dec 2007	June 2008	MWCW	5	

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
- Updating trade waste register and trade waste policy to manage sewer overloading and odour problems at 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 already follows the DWE concurrence guidelines for Trade waste approvals, but is yet to formally adopt a trade waste policy and implement charges as recommended by the guidelines. Council is planning to prepare a trade waste register and to implement the adopted trade waste pricing policy in line with the DWE recommendations from July 2009 onwards.

Objective 3: Sewer Load Management
Operate the sewerage system in an efficient and environmentally sound manner and reduce wet weather hydraulic sewerage loading to its economic limit and manage industrial and commercial biological load in accordance with DWE Trade Waste guidelines
Performance Target Achieve peak wet weather flow of less than five times average dry weather flow by 2018 Implement Trade Waste Policy from July 2009
Strategies Implement infiltration / inflow (I/I) strategies as identified in I/I Investigation report Develop and Implement Trade Waste Policy

Objective 3: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Complete sewer reticulation modelling	July 2008	Dec 2008	MWCW	80	
Develop Strategic Asset Management Plan	July 2008	June 2009	MWCW	Refer to Objective 11: Capital Works	
Flow monitoring analysis and inspections		Ongoing	MWCW		NAE
Smoke testing and rectification of defects		Ongoing	MWCW		10
Implement sewer/manhole maintenance program	July 2008	Ongoing	BMS		NAE
CCTV inspections		Ongoing	MWCW		40
Replacement / repairs to sewers		Ongoing	MWCW	Refer to Objective 10: Capital works	

Contd…/

Objective 3: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 2					
Establish register and scope of discharge	Started	July 2008	MWCW	NAE	
Public awareness program	July 2008	Dec 2008	MWCW	5	
Develop and adopt policy and system of trade waste charges in accordance with DEUS guidelines	July 2008	Dec 2008	MWCW	NAE	
Enter into agreements with trade waste dischargers	January 2009	July 2009	MWCW		NAE
Implement policy: – Reporting – Produce notices – Compliance monitoring	July 2009	Ongoing	MWCW		10

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 August 2007 DWE Guidelines. 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 still has ad valorem sewerage tariff based on land value and a minimum sewerage availability charge for both residential and non-residential customers. Annual minimum sewerage availability charges for 2006/07 was $433 p. a and the charges for 2007/08 was $447 p.a.

Council plans to review sewerage tariff structure in accordance with DWE Best Practice Guidelines by March 2009 and complete implementation of the same in a phased manner from July 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.

Council levies following rates of Section 64 developer charges:

Town	Section 64 Charges / ET (2008/09)
Mudgee	$ 3,198
Gulgong	$ 3,198
Rylstone	$ 3,198

Council has recently reviewed the developer contribution under Section 64 of the Local Government Act and will adopt commercial developer charges in accordance with DWE Best Practice Guidelines from July 2008 onwards.

Objective 4: Service Pricing	
An equitable pricing policy that supports current and future service provision based on full cost recovery and user pays basis and maximise revenue from grants and other sources	
Performance Target Full implementation of developer charges from July 2008 Phased implementation of best practice pricing from July 2009	
Strategies Sewerage charges reviewed every 3-5 years to meet financial planning revenue goals Review of developer contributions	

Objective 4: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review levels of revenue from charges	Annually		MF		NAE
Adjust and adopt tariffs to suit financial model projections and cross-subsidy policy	Annually	Ongoing	MF/GMA		NAE
Strategy 2					
Review and update developers contribution and DSP	Started	June 2008 (5 yearly)	MWCW	14	7 / 5years
Public display of DSP update		Every 5 years	MWCW		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:

- Council's Community Newspaper;
- Being responsive to customer needs;
- Town and village forums held throughout the Region;
- Public forums at Council meetings;
- Council website;
- Published levels of service; and
- Annually report on achievements, performance etc

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.

Council has identified the following issues vis a vis customer relations:

- Documenting customer relations procedure
- Annual customer satisfaction survey

Objective 5: Customer Relations
Provide a high level of customer satisfaction with reduced level of substantiated complaints and keep the customers informed of significant issues
Performance Targets Implement new customer service request system by September 2008 Conduct annual customer satisfaction survey
Strategies Continuous improvement of customer service mechanism Ensure levels of service are met

Objective 5: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Implement new customer request system	July 2007	Sep 2008	MTS	NAE	
Document procedures for receiving customer requests during working hours and after hours	July 2008	Sep 2008	MTS	NAE	
Customer education		Ongoing	MWCW		1
Monitor complaint reports		Ongoing	MWCW		NAE
Staff training		Ongoing	BMS	Refer to Objective 11: Human Resources	
Strategy 2					
Publish statistical information in Annual Report	Annually (Nov)		MWCW		NAE
Conduct customer satisfaction survey	Annually (August)		MWCW		3

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:

- Public meetings and village tours;
- Customer Surveys;
- Public forum at Council meetings;
- Public display of planning documents;

Development of the Local Environmental Plan, new water supplies and reservoirs and new sewage treatment works 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.

Following issues need to be considered when undertaking community consultation:

- Members of community who are not directly affected by a project may also have concerns;
- There must be a balance between due process and risks in order that a satisfactory level of progress can be maintained;
- While community consultation on projects is highly desirable, it can be a lengthy process and project lead times need to be programmed to take account of this.

While community consultation on projects is necessary and highly desirable, it can be a lengthy process and project lead times need to be programmed to take account of this.

In future, Council intends to maintain the existing methods of consultation for all major capital works or decisions. Proposed sewerage supply works that would benefit from community consultation include:

- New sewerage schemes to villages of Charbon and Clandulla
- Implementation of best practice sewerage pricing, liquid trade waste policy and pricing, developer charges and IWCM strategies

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.

Objective 6: Community Involvement
Seek community feedback with regard to service targets and prior to any major decisions regarding significant changes in service levels
Performance Targets Consultation for water supply augmentation strategies
Strategy Identify future projects/ major decisions requiring consultation Undertake consultation as required

Objective 6: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Identify projects that require community consultation	Annually (June)		MWCW		NAE
Plan and prepare a program for future projects and communicate with stakeholders	Annually (July)		MWCW		NAE
Strategy 2					
Implement consultation program		Ongoing	MWCW		2
Report to Council for project approval		Ongoing	GM / MWCW		NAE

Environment

This section details Mid-Western Regional 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

The current sewerage schemes have impacted the surrounding environment. Council intends to keep the impact level at a minimum level by augmenting the STPs.

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	– Land Burial – Application on land
		Effluent reuse on land	– Stringent environmental impact monitoring protocols
Air	Pump stations Sewage Treatment Plant	Odour pollution	– Ongoing maintenance of pumping stations – Monitoring and control of liquid trade waste contributors through trade waste policy
Water	Water quality	Effluent disposal into waterbodies Downstream pollution	– Advanced wastewater treatment – Stringent water quality monitoring protocols

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

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

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 DEUS guideline document Integrated Water Cycle Management for NSW Water Utilities by December 2008.

Objective 7: Environment
An ecologically sustainable scheme whose environmental impacts, especially in sensitive areas, are acceptable to the community
Performance Targets Prepare IWCM plan by December 2008 Update annual State of the Environment (SOE) Report to highlight Council's responsible management of the environment. Operate in accordance with Department of Environment and Conservation (DEC) licences
Strategies Assess the environmental impacts of existing schemes and any new capital works where significant environmental impact is likely

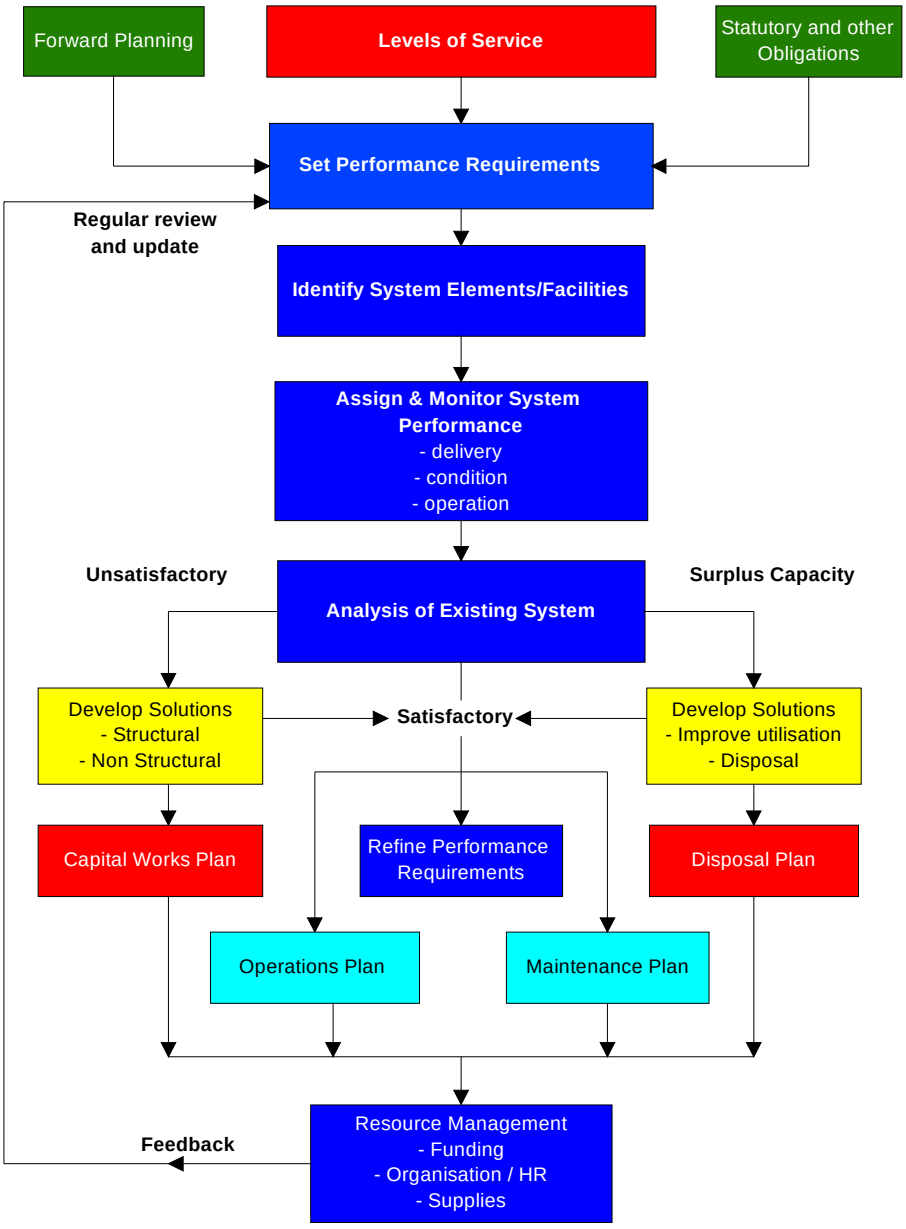
Objective 7: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Develop IWCM Plan	March 2008	Dec 2008	MWCW	40	
Comply with EPA licence requirements		Ongoing annually	BMS		NAE
Review and update SOE report	Nov Annually		GMP		NAE
Reduction in EPA load fees after completion of capital works at Mudgee STP	July 2010	Ongoing	MWCW		(80)
Mitigate environmental impact of sewerage system overflows	July 2008	June 2011	MWCW	Refer to Objective 10: Capital Works	
Formalise Due Diligence Plan – Contingency Plan – Environmental Management System – Maintenance Strategy	July 2008	Dec 2008	MWCW	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 7 - Best Practice Asset Management Approach



The Plan should identify 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 should also be identified, to suit the desired level of service delivery. This should include documentation of the rules and procedures at system and facility level.

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.

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.

Asset Values

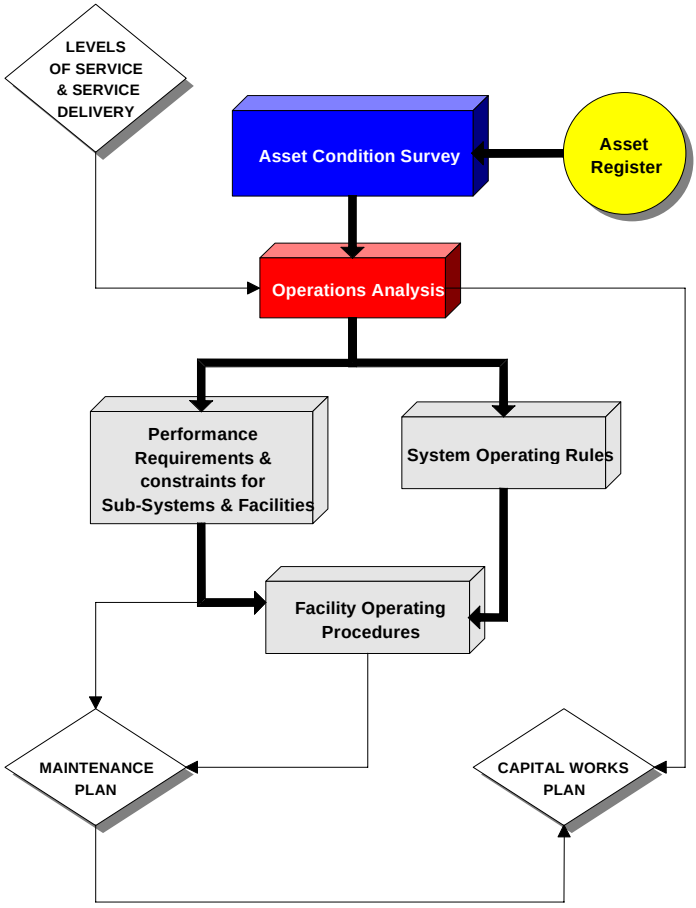
The following Table shows a break-up of asset values of sewerage schemes of the Mid-Western Regional Council.

Asset	No./ Capacity/ Length	Year of Construction	Current Written Down Value ($000) June 2006	Current Replacement Cost ($000) June 2006
Pump Stations				
– Mudgee	5	1971-2004	909	1,215
– Gulgong	3	1965-1969	369	385
– Rylstone	2	1971	316	260
– Kandos	2	1972	23	250
Gravity and Rising Mains				
– Mudgee	123 Km	1930-2008	2,790	16,925
– Gulgong	31 Km	1970-2008	1,584	4,168
– Rylstone	11 Km	1971-2007	} 2,374	1,402
– Kandos	28 Km	1971-2005		3,859
STPs				
– Mudgee	8000 EP	1930	5,241	10,000
– Gulgong	3000 EP	1997	3,609	4,000
– Rylstone	2000 EP	1971	} 809	3,000
– Kandos	2600 EP	1972		4,000
Total	-	-	**18,024**	**49,464**

Council has completed fair value assessment of assets in July 2007.

Operations Plan

Figure 8 - 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 are:

- Updating system operating rules and performance requirements for all subsystems and facilities;
- Implementing an effective Assets Management System that will enable identification of conditions of assets from assets register and maintenance reports; and
- Compliance with OHS requirements

Main operational issues include the following:

- Optimising operations to reduce costs
- Monitoring of operational performance
- Review and document operating procedures

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.

On an annual basis the sewerage schemes including the treatment plant, pumps, reticulation lines and other associated areas are reviewed to ensure all risks are assessed and minimised. For more information refer to the Council's Occupational Health & Safety Policy.

Objective 8: Operations

Develop operations plan and procedures to achieve levels of service with due diligence and effective use of technology so as to ensure a reliable and safe service at minimum operating costs

Performance Targets

Undertake operations analysis by December 2008

No failures to deliver agreed Levels of Service due to operations related problems

Strategies

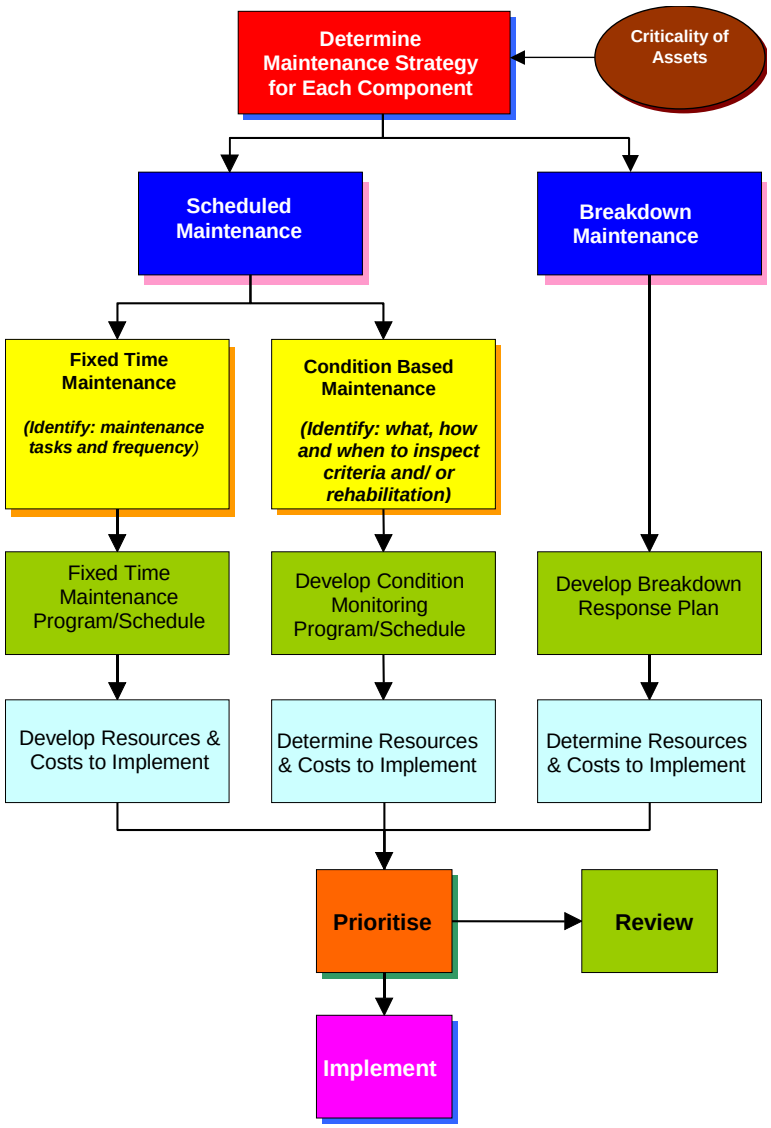
Develop an Operations Plan

Operate the scheme in accordance with documented operating procedures

Objective 8: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Develop electronic asset management system	Started	Sep 2008	MTS	50	5
Asset data transfer to electronic asset register		Ongoing	MTS		NAE
Update asset valuation	June 2007	Every 5 Years	MTS/MF	NAE	
Identify and assess condition of assets – Civil – Mech.& Elec.	July 2007	Ongoing	MWCW		50
Strategy 2					
Update Operations Plan – Operations analysis – Completion of documentation of procedures and practices	July 2008 July 2008	Dec 2008 Jun 2009	BMS/ MWCW	NAE	
Annual review and implementation of recommended operational changes		Annually	BMS/ MWCW		NAE

Maintenance Plan

Figure 9 - 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 needs to consider the following information and issues regarding the existing system:

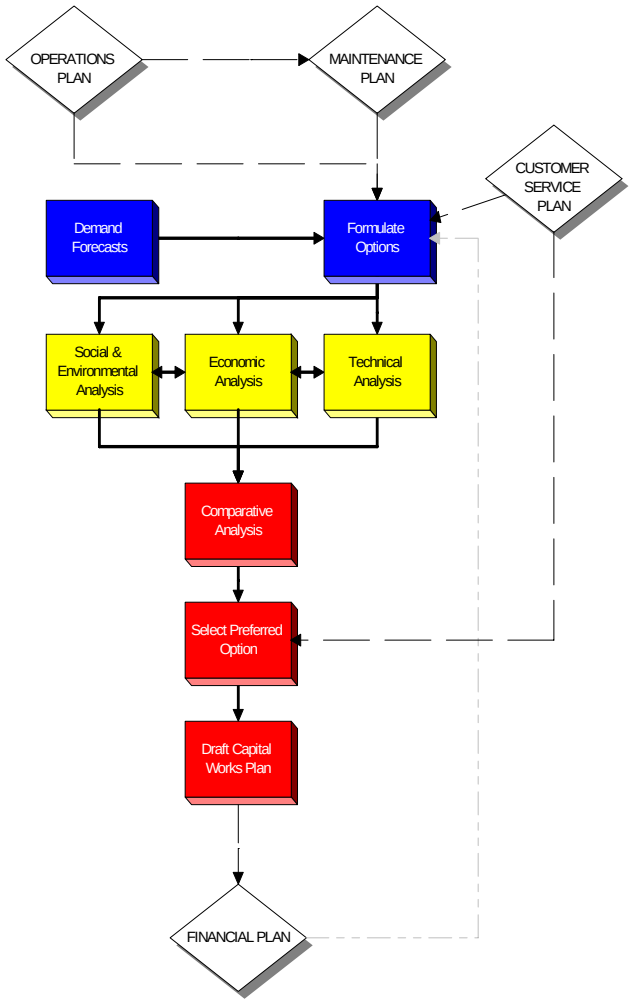
- Need to update Operation and Maintenance (O&M) manuals and an O&M plan;
- Criticality analysis of systems to identify components of high risk
- Need for spare parts inventory
- Need for refresher training of key staff dealing with customers and mission critical functions.

Objective 9: Maintenance
Increase the reliability of systems, reduce life cycle and ongoing costs, allow for appropriate financial planning and ensure levels of service are maintained
Performance Targets Review maintenance strategy by December 2009
Strategies Implement and review appropriate maintenance strategy to meet levels of service requirements

Objective 9: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Develop detailed Maintenance Plan – Asset criticality assessment – Predictive maintenance for critical assets – Scheduled maintenance for less critical assets – Breakdown maintenance strategy	January 2009	Jun 2009	MWCW	15	
Implement work order management system	Sept 2008	Ongoing	MTS		NAE
Undertake maintenance cost analysis for renewals	July 2009	Dec 2009	MWCW	NAE	
Review and document Contingency Plans – Sewage treatment plants and Pump stations	July 2009	Dec 2009	MWCW	NAE	

Capital Works

Figure 10 - Capital Works Flowchart



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.

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:

- Mudgee STP augmentation
- Rylstone/Kandos STP
- Charbon/Clandulla sewerage scheme
- Gulgong STP augmentation
- Reticulation main replacement
- Telemetry upgrade

Objective 10: Capital Works
Capital works program provides agreed levels of service at optimal life-cycle costs to meet social, economic and environmental considerations
Performance Targets No failures to deliver agreed Levels of Service due to lack of infrastructure and sufficient infrastructure is in place to cater for the projected developments
Strategy Plan and construct capital works within financial constraints

Objective 10: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Prepare a long-term (30-years) capital works plan – For backlog areas – For growth – For renewal/ replacement	Feb 2009 (biennially)	June 2009	GMA	Refer to Capital Works Plan in Part C – Detailed Information	
Review capital works plan as part of Management Plan	Annually (Nov)	Annually (Feb)	MWCW		NAE
Review economic analysis to determine preferred capital work options	As required		MF/MWCW	Included in project costs	
Engage consultants for design and preparation of tender documents	As required		MWCW	As per Capital Works Plan	

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.

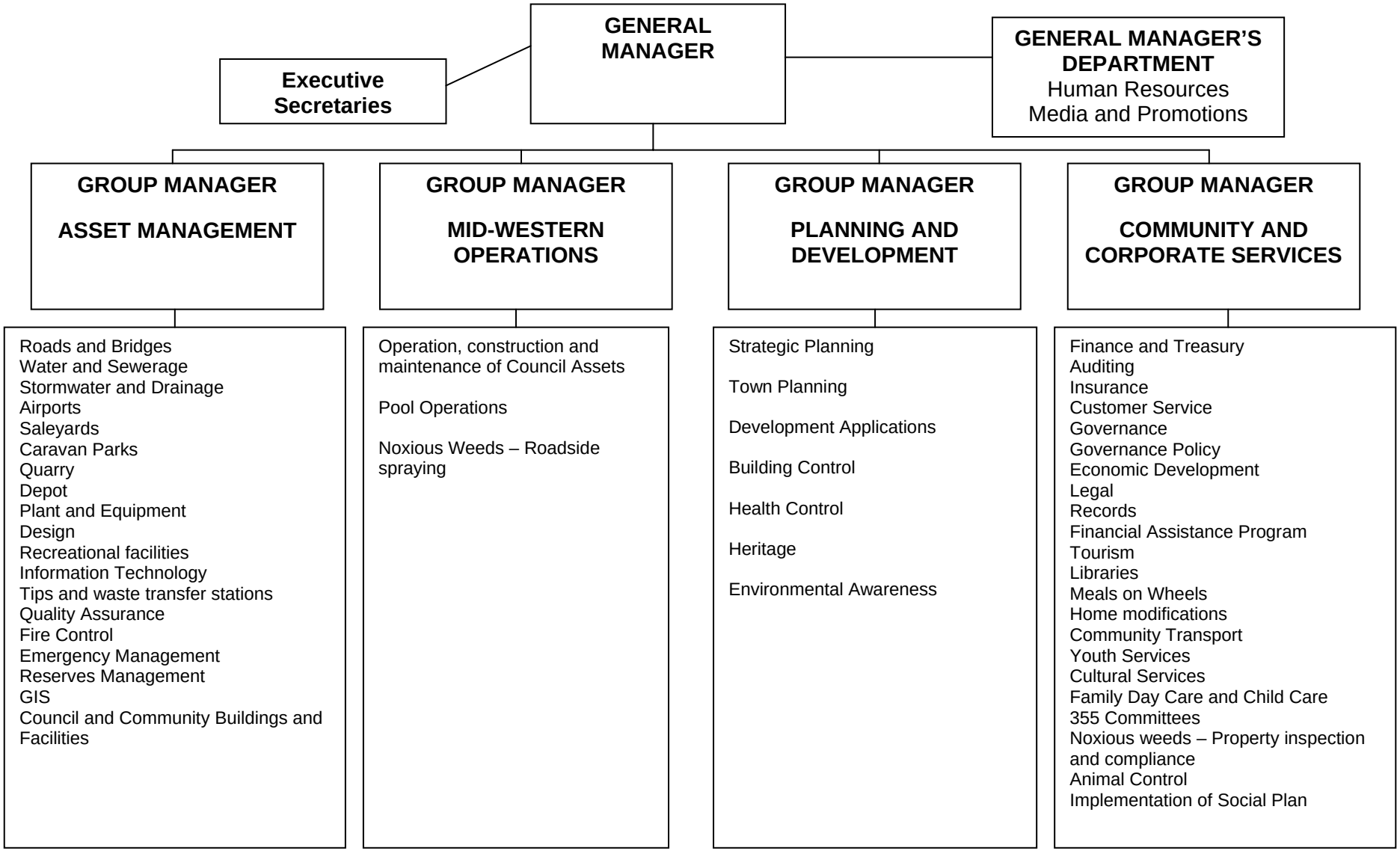
The General Manager delegates authority to the Group Manager – Assets who in turn delegates responsibility to the Manager Water Cycle and Waste to manage all the water supply assets.

The operation, maintenance and construction of assets are contracted to Mid-Western Operations, an internal service provider. Mid-Western Operations has 23 staff, who operate and maintain the water supply and sewerage schemes. 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

Figure 11 – Mid-Western Council Organisation Structure



Objective 11: Human Resources
Maintain an appropriate staff structure and staff numbers with the necessary training and skills to effectively manage the sewerage schemes and provide agreed and required Levels of Service
Performance Targets Review and update HR Plan by June 2008
Strategy Employ/ replace staff to meet needs and establish an ongoing staff training program

Objective 11: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Document HR Plan – Position analysis – Needs (resources/skills) analysis	March 2007	June 2008	BMS	NAE	
Document and implement training and retraining plans	Annually (Oct)		BMS		NAE
Annual performance review	Annually (Oct)	Ongoing	BMS		NAE

Finance

This section details Mid-Western Regional 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 Energy, Utilities and Sustainability 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 DEUS 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 DEUS 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 sound financial management of the organisation by optimising long term (30-years) financial plans to provide required services at an affordable level and ensure full cost recovery
Performance Targets Quarterly review and annual updating of financial plan
Strategies Maintain current Financial Plan

Objective 12: Actions	Start	End	Responsible	Cost $000	
				Implement	Ongoing
Strategy 1					
Review cost projections for long term Financial Plan, with the aim of reduction in the costs of operations and maintenance	Annually		MF/MWCW		NAE
Update Financial Plan	Annually		MF/ MWCW		NAE
Agree on price path for setting the tariff in accordance with the DEUS guidelines	Annually		MF/MWCW	Refer to 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 government grants are available to Council for the Mudgee STP augmentation work. 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 a fair value basis which is depreciated current replacement cost or market value depending on the type of asset.

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.

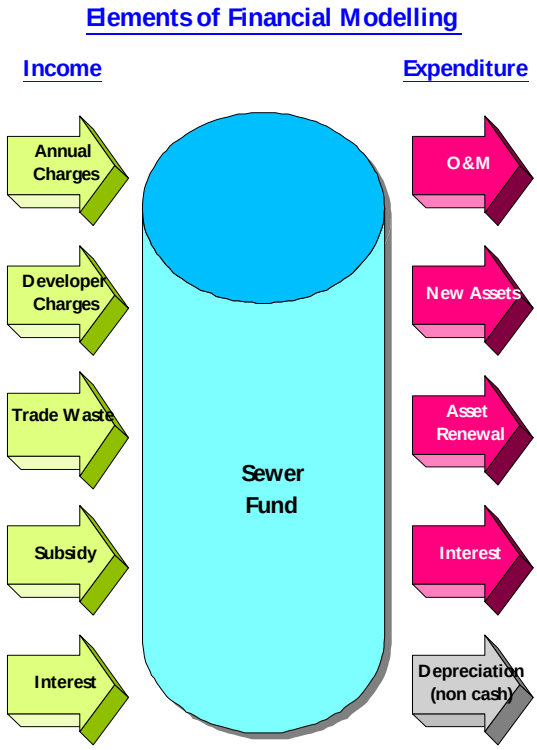
A summary of the financial modelling results is included on the following pages and detailed input and output data are available in the Appendices.

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. Currently Council is reviewing the developer charges calculation to introduce developer charges in accordance with DWE best practice management guidelines and has adopted $3,198/ET as developer charges for implementation from year 2008/09 onwards.

Growth Projections

A long-term average residential connection growth rate of 1.7% p.a. has been used for sewerage services. This rate of growth is based on Council's report on recent review of 25-year population growth projections for the Region.

Inflation

Average long-term inflation has been assumed as 3.0% 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 88% of sewerage revenues. Current revenue split is expected to continue also with the adoption of DWE best practice tariff structure from year 2008/09 onwards.

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 - 20% of annual revenues (excluding restricted revenues). For the financial model, $ 1000 K (2006$) 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 considered that 25% of the total estimated cost of Mudgee STP augmentation work will be available as government subsidy.

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.

Average 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.

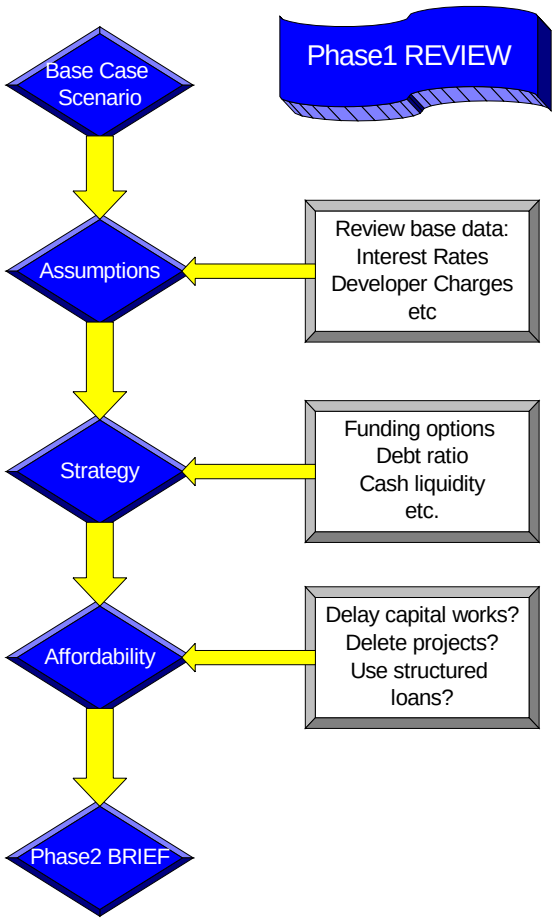
The financial model is not a substitute for normal budgeting (that is, short-term financial planning). The model assumes that all expenses and income occur at the beginning of the year and is therefore not appropriate to track cash flow throughout the year. It is important, however, that the budgeting 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 DEUS 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 (2006) dollars.

Figure 12 - Detailed Capital Works Schedule for Sewerage

SEWERAGE - CAPITAL WORKS PROGRAM (2006/07 $000)

	30 YEAR	Year		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	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36
Subsidised Scheme (for improved levels of service)																																	
STP Augmentation:																																	
Mudgee (25% subsidy to 2010/11)	24,650			350	3,000	11,000									300	3,500	3,500						3,000										
Gulgong	3,600									1,300								2,300															
Rylstone/ Kandos	7,200						2,000	3,000											2,200														
Backlog Schemes:																																	
Clandulla/ Charbon - Sewerage scheme	3,000							3,000																									
	0																																
	0																																
Total Subsidised Scheme	38,450	66	8	350	3,000	11,000	2,000	6,000	0	1,300	0	0	0	0	300	3,500	3,500	2,300	2,200	0	0	0	3,000	0	0	0	0	0	0	0	0	0	0
Other New System Assets																																	
New Works - Growth																																	
Gulgong - Pumping Station upgrade (Hospital)	150							150																									
Decommissioning of Rylstone/Kandos STPs	200									200																							
Sale of STP Land	-200										-200																						
Minor New Works																																	
Rylstone/Kandos Rising Main - Valves	24				6	6	6	6																									
Rylstone/Kandos STP - Safety work	5			5																													
Telemetry Upgrade (WAN System)	560			60	60					10	10	10	10	60	60	10	10	10	10	10	10	10	10	60	60	10	10	10	10	10	10	10	10
	0																																
Total Other New System Assets	739	482	346	65	66	6	6	156	0	210	-190	10	10	60	60	10	10	10	10	10	10	10	10	60	60	10	10	10	10	10	10	10	10
Renewals																																	
Mains Renewal/ Replacement:																																	
Mudgee/Gulgong	6,125			200	200	200	200	200	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205
Rylstone/Kandos	870			20	22	24	26	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Pumping Stations Refurbishments:																																	
Mudgee/Gulgong	1,049			34	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Rylstone and Kandos	620			40	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Replacements at STPs:																																	
Mudgee/Gulgong - Treatment works	1,410			105	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
	0																																
	0																																
Total Renewals	10,074	0	0	399	322	324	326	328	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
TOTAL CAPITAL WORKS	49,263	548	354	814	3,388	11,330	2,332	6,484	335	1,845	145	345	345	395	695	3,845	3,845	2,645	2,545	345	345	345	3,345	395	395	345	345	345	345	345	345	345	345
Expected Grant For Acquisition of Assets																																	
Total Grant for Acquisition of Assets	3,588	32	8	88	750	2,750																											

Figure 13 - Detailed Recurrent Cost Schedule for Sewerage

SEWERAGE - OPERATIONS, MAINT, ADMIN AND REVENUE OVERRIDES <INCREASES IN RECURRENT EXPENDITURE> (2006/07 $000)

	30 YEAR TOTAL	Year 04/05	05/06	1 06/07	2 07/08	3 08/09	4 09/10	5 10/11	6 11/12	7 12/13	8 13/14	9 14/15	10 15/16	11 16/17	12 17/18	13 18/19	14 19/20	15 20/21	16 21/22	17 22/23	18 23/24	19 24/25	20 25/26	21 26/27	22 27/28	23 28/29	24 29/30	25 30/31	26 31/32	27 32/33	28 33/34	29 34/35	30 35/36
Administration																																
	0																															
Strategic Business Plan (net of grant)	85			10					15					15					15					15					15				
Best Practice Audit	2					2																										
Reticulation Modelling	80				80																											
Review and Update of Developer Charges	49			14					7					7					7					7					7				
Review S64 charges for future growth areas	5				5																											
Trade Wastes - Public Awareness Program	5				5																											
Trade Waste Policy - Implementation	280					10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Customer Education	29				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Annual Customer Survey	87				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
Customer Consultation Program	58				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
IWCM Plan (net of grant)	40					40																										
Reduction in EPA Licence Fee	-2,160						-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																															
Total Adjustment	**-1,440**			**24**	**96**	**58**	**-64**	**-64**	**-42**	**-64**	**-64**	**-64**	**-64**	**-42**	**-64**	**-64**	**-64**	**-64**	**-42**	**-64**	**-64**	**-64**	**-64**	**-42**	**-64**	**-64**	**-64**	**-64**	**-42**	**-64**	**-64**	**-64**	**-64**
Override (Inflated to 06/07$ and pro-rata adjustment for gro	**26,435**	642	676	**726**	**809**	**780**	**669**	**715**	**756**	**746**	**762**	**777**	**792**	**836**	**823**	**839**	**853**	**867**	**912**	**895**	**908**	**922**	**935**	**981**	**961**	**973**	**986**	**998**	**1,046**	**1,023**	**1,036**	**1,048**	**1,061**
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**
Override (Inflated to 06/07$ 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**
Operations Expenses																																
	0																															
Operations Plan	0																															
Smoke Testing	300			10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Development of Electronic Asset Mgmt System	190				50	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Rylstone/Kandos STP sludge management	50						50																									
Chemicals	0																															
	0																															
Total Adjustment	**540**			**10**	**60**	**15**	**65**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**
Override (Inflated to 06/07$ and pro-rata adjustment for gro	**2,949**	102	53	**65**	**117**	**72**	**127**	**79**	**80**	**82**	**84**	**86**	**87**	**89**	**91**	**92**	**94**	**96**	**97**	**99**	**100**	**102**	**103**	**104**	**106**	**107**	**109**	**110**	**111**	**113**	**114**	**116**	**117**
Maintenance Expenses																																
CCTV inspections	900			30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Asset Condition Assesssmnet	580				20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Maintenance Plan	15				15																											
	0																															
Total Adjustment	**1,495**			**30**	**65**	**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**
Override (Inflated to 06/07$ and pro-rata adjustment for gro	**49,460**	950	1,123	**1,196**	**1,247**	**1,248**	**1,278**	**1,365**	**1,395**	**1,425**	**1,455**	**1,484**	**1,513**	**1,543**	**1,572**	**1,602**	**1,629**	**1,656**	**1,683**	**1,709**	**1,735**	**1,760**	**1,785**	**1,810**	**1,834**	**1,858**	**1,882**	**1,906**	**1,930**	**1,954**	**1,978**	**2,002**	**2,026**
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**
Override (Inflated to 06/07$ and pro-rata adjustment for gro	**1,602**	43	38	**39**	**40**	**40**	**41**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**55**	**56**	**57**	**58**	**59**	**59**	**60**	**61**	**62**	**63**	**63**	**64**	**65**	**66**
Chemical 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**
Override (Inflated to 06/07$ 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**
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																															
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**
Override (Inflated to 06/07$ 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**
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**
Override (Inflated to 06/07$ 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**
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**
Override (Inflated to 06/07$ 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**
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**
Override (Inflated to 06/07$ 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**

Figure 14 - Capital Works Plan for Sewerage

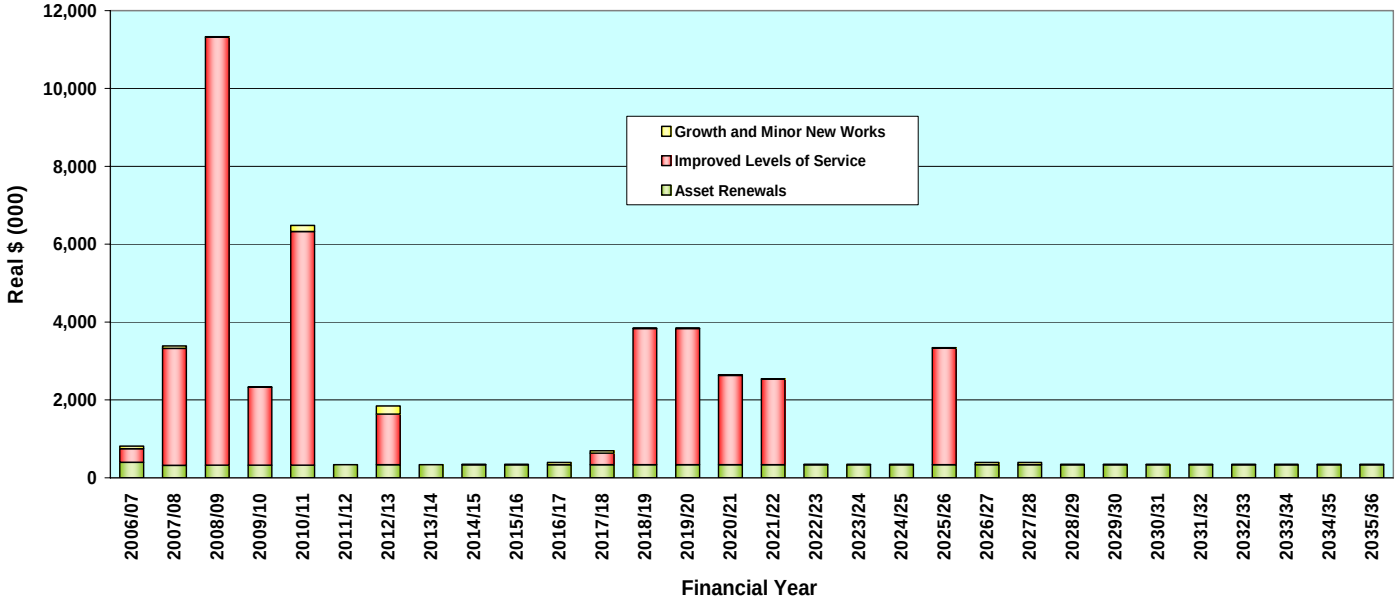


Figure 15 – Recurrent Cost Plan for Sewerage

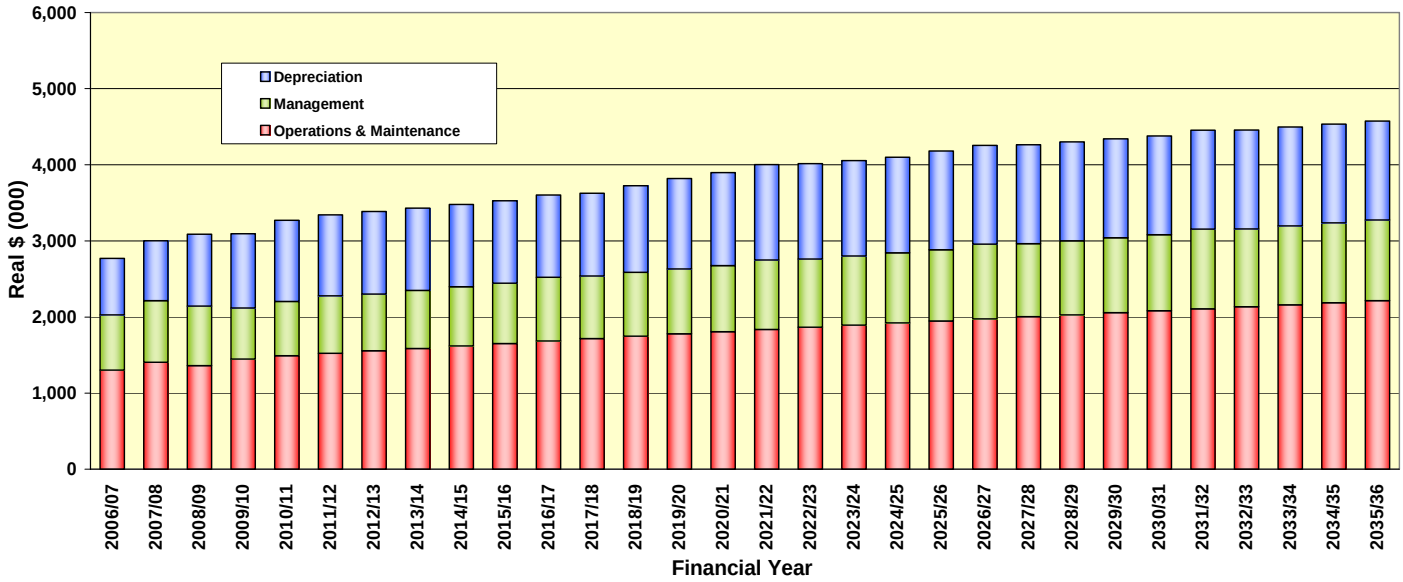


Figure 16 - Sewerage Capital Works Summary

2006/07 $ (000)	Growth and Minor Works	Improved Levels of Service	Asset Renewals	Total Capital Works	Expected Subsidy	Cost to Council
2006/07	65	350	399	814	88	726
2007/08	66	3,000	322	3,388	750	2,638
2008/09	6	11,000	324	11,330	2,750	8,580
2009/10	6	2,000	326	2,332	0	2,332
2010/11	156	6,000	328	6,484	0	6,484
2011/12	0	0	335	335	0	335
2012/13	210	1,300	335	1,845	0	1,845
2013/14	(190)	0	335	145	0	145
2014/15	10	0	335	345	0	345
2015/16	10	0	335	345	0	345
2016/17	60	0	335	395	0	395
2017/18	60	300	335	695	0	695
2018/19	10	3,500	335	3,845	0	3,845
2019/20	10	3,500	335	3,845	0	3,845
2020/21	10	2,300	335	2,645	0	2,645
2021/22	10	2,200	335	2,545	0	2,545
2022/23	10	0	335	345	0	345
2023/24	10	0	335	345	0	345
2024/25	10	0	335	345	0	345
2025/26	10	3,000	335	3,345	0	3,345
2026/27	60	0	335	395	0	395
2027/28	60	0	335	395	0	395
2028/29	10	0	335	345	0	345
2029/30	10	0	335	345	0	345
2030/31	10	0	335	345	0	345
2031/32	10	0	335	345	0	345
2032/33	10	0	335	345	0	345
2033/34	10	0	335	345	0	345
2034/35	10	0	335	345	0	345
2035/36	10	0	335	345	0	345
Total	**739**	**38,450**	**10,074**	**49,263**	**3,588**	**45,675**

Financial Modelling Outcomes

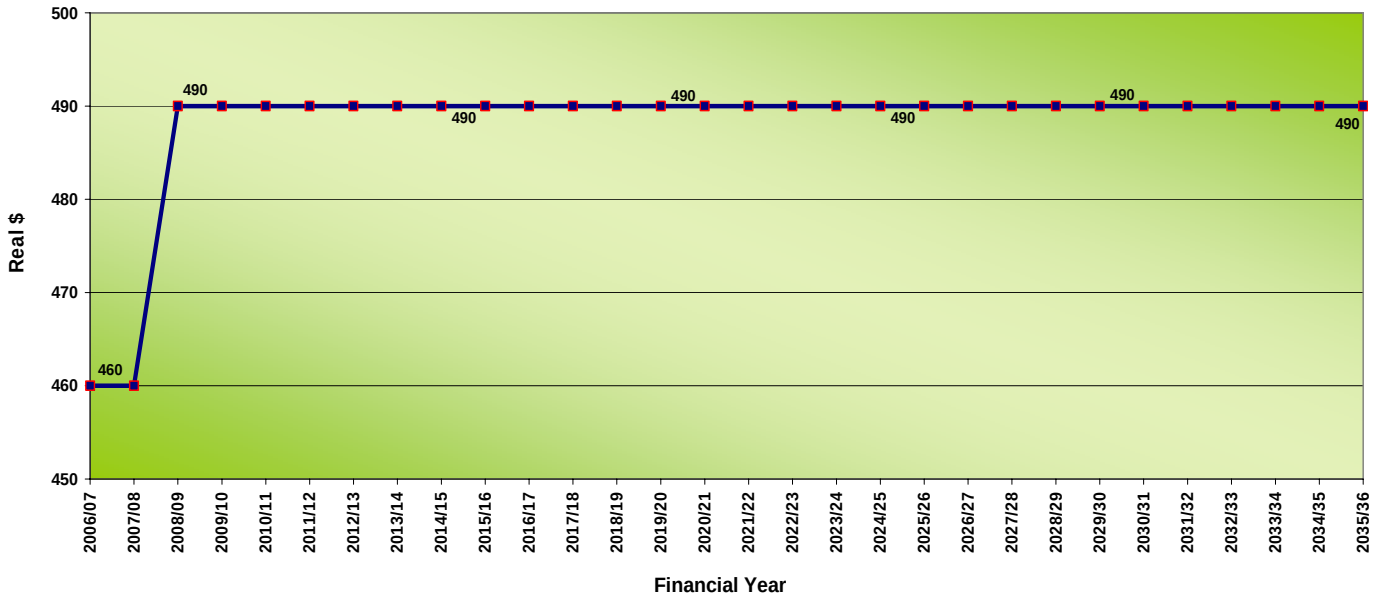
Contains a summary of the financial modelling assumptions and outcomes

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, measured in 2006 dollars, have to be increased to $490 p.a. from the present (2007/08) level of $460 p.a. from year 2008/09 onwards throughout the plan period as major capital works are planned during the next five years. This level of charges is sufficient to maintain liquidity with a minimum of $ 1000,000 of cash in hand over the period. A graphical presentation of the typical bills forecast is shown below.

Figure 17 - Typical Residential Bill for Sewerage



All the renewal capital works will be internally funded throughout the projection period. Capital expenditure for major growth works planned for the next 15 years will be through mix of internal funds, government subsidy and external borrowing with the maximum utilisation of existing cash reserves and revenues.

The borrowing outstanding is expected to reach a peak of $ 12,606 K in 2021/22. but can be fully retired, if so required by Council, 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 following Table.

Figure 18 - Cash and Borrowing Projection for Sewerage

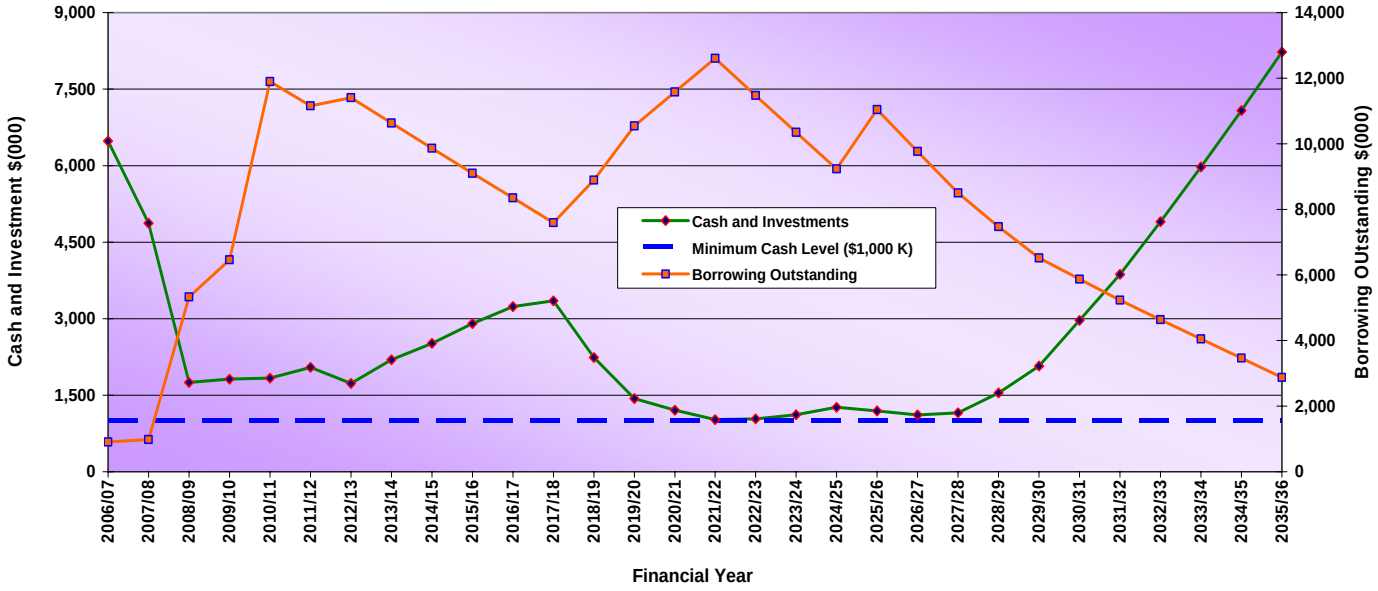


Figure 19 - Projected Financial Results for Sewerage

2006/07 ($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
2006/07	3,482	2,829	653	814	53	6,483	909	25,537	1,033	24,504	41,775	22,826	18,949	460
2007/08	4,150	3,069	1,082	3,388	53	4,873	979	26,528	1,105	25,423	44,841	23,292	21,549	460
2008/09	6,463	3,445	3,018	11,330	170	1,747	5,330	33,787	5,459	28,328	55,847	23,915	31,932	490
2009/10	3,712	3,524	188	2,332	215	1,814	6,460	35,213	6,592	28,621	57,853	24,564	33,288	490
2010/11	3,929	4,060	(131)	6,484	376	1,836	11,896	40,663	12,037	28,626	64,009	25,300	38,710	490
2011/12	4,006	4,084	(78)	335	388	2,045	11,161	40,147	11,305	28,842	64,009	26,028	37,981	490
2012/13	4,077	4,148	(71)	1,845	428	1,729	11,408	40,592	11,556	29,036	65,519	26,779	38,740	490
2013/14	4,161	4,142	20	145	442	2,195	10,634	40,123	10,784	29,339	65,329	27,526	37,803	490
2014/15	4,250	4,143	107	345	459	2,517	9,865	39,710	10,018	29,692	65,339	28,273	37,065	490
2015/16	4,335	4,142	193	345	474	2,902	9,104	39,361	9,261	30,100	65,349	29,020	36,328	490
2016/17	4,392	4,170	222	395	490	3,239	8,349	39,012	8,508	30,504	65,409	29,768	35,641	490
2017/18	4,462	4,143	319	695	509	3,349	7,597	38,731	7,759	30,972	65,769	30,521	35,248	490
2018/19	4,505	4,330	175	3,845	581	2,240	8,895	40,332	9,060	31,272	69,278	31,323	37,955	490
2019/20	4,534	4,534	0	3,845	587	1,433	10,549	42,184	10,717	31,467	72,788	32,176	40,612	490
2020/21	4,580	4,681	(100)	2,645	662	1,206	11,580	43,383	11,750	31,633	75,098	33,063	42,035	490
2021/22	4,634	4,856	(223)	2,546	737	1,021	12,606	44,492	12,779	31,713	77,309	33,981	43,328	490
2022/23	4,696	4,797	(102)	345	763	1,036	11,476	43,601	11,651	31,950	77,319	34,900	42,419	490
2023/24	4,761	4,768	(7)	345	790	1,119	10,352	42,778	10,530	32,248	77,329	35,819	41,510	490
2024/25	4,823	4,738	85	345	818	1,263	9,233	42,015	9,413	32,602	77,339	36,738	40,601	490
2025/26	4,881	4,944	(63)	3,345	923	1,193	11,042	43,996	11,224	32,772	80,349	37,700	42,649	490
2026/27	4,942	4,936	6	395	954	1,115	9,766	43,017	9,951	33,066	80,409	38,663	41,747	490
2027/28	5,007	4,863	144	395	979	1,153	8,502	42,153	8,690	33,463	80,470	39,627	40,843	490
2028/29	5,077	4,824	253	345	782	1,544	7,472	41,593	7,662	33,931	80,479	40,590	39,889	490
2029/30	5,152	4,800	352	345	735	2,071	6,520	41,169	6,713	34,456	80,490	41,554	38,936	490
2030/31	5,238	4,782	456	345	457	2,966	5,874	41,112	6,069	35,043	80,500	42,517	37,982	490
2031/32	5,322	4,815	507	345	472	3,869	5,230	41,063	5,428	35,635	80,509	43,481	37,028	490
2032/33	5,409	4,780	629	345	439	4,902	4,639	41,144	4,840	36,304	80,520	44,445	36,075	490
2033/34	5,492	4,781	712	345	454	5,973	4,050	41,262	4,253	37,009	80,529	45,409	35,120	490
2034/35	5,579	4,781	798	345	469	7,082	3,463	41,420	3,668	37,752	80,539	46,373	34,166	490
2035/36	5,666	4,784	883	345	486	8,228	2,876	41,614	3,084	38,530	80,549	47,337	33,213	490

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
Growth Rate	1.7% p.a.	0.9% p.a.
Interest Rates	Borrow @ 6.5% and invest @ 5.5%	Borrow @ 9% and invest @ 8%
Subsidy	As expected by Council	No Subsidy

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

Figure 20 - Sensitivity of Typical Residential Bill for Sewerage

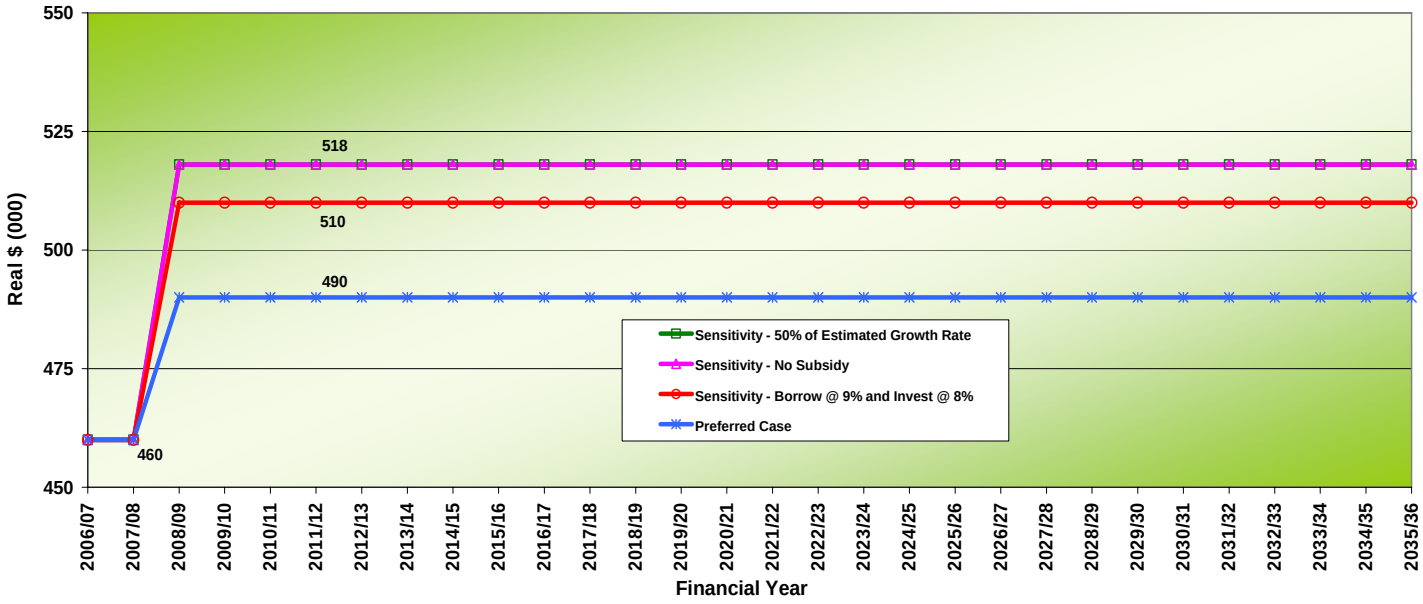


Figure 21 - Sensitivity of Cash Levels for Sewerage

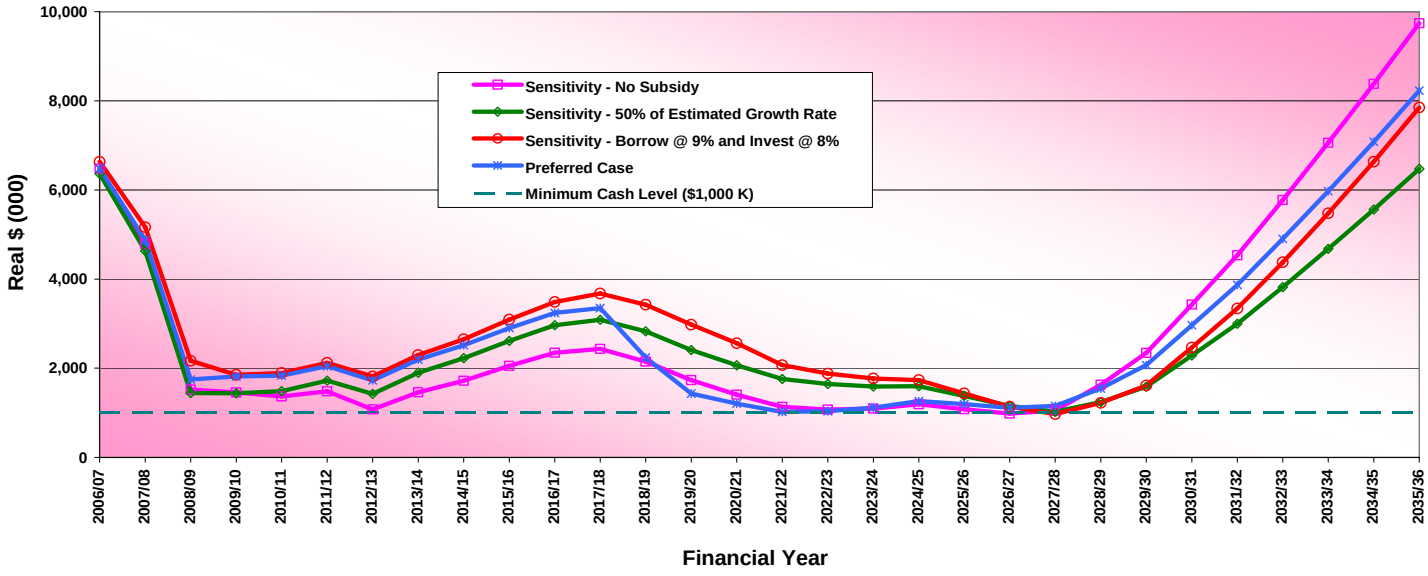


Figure 22 - Sensitivity on Borrowing Levels for Sewerage

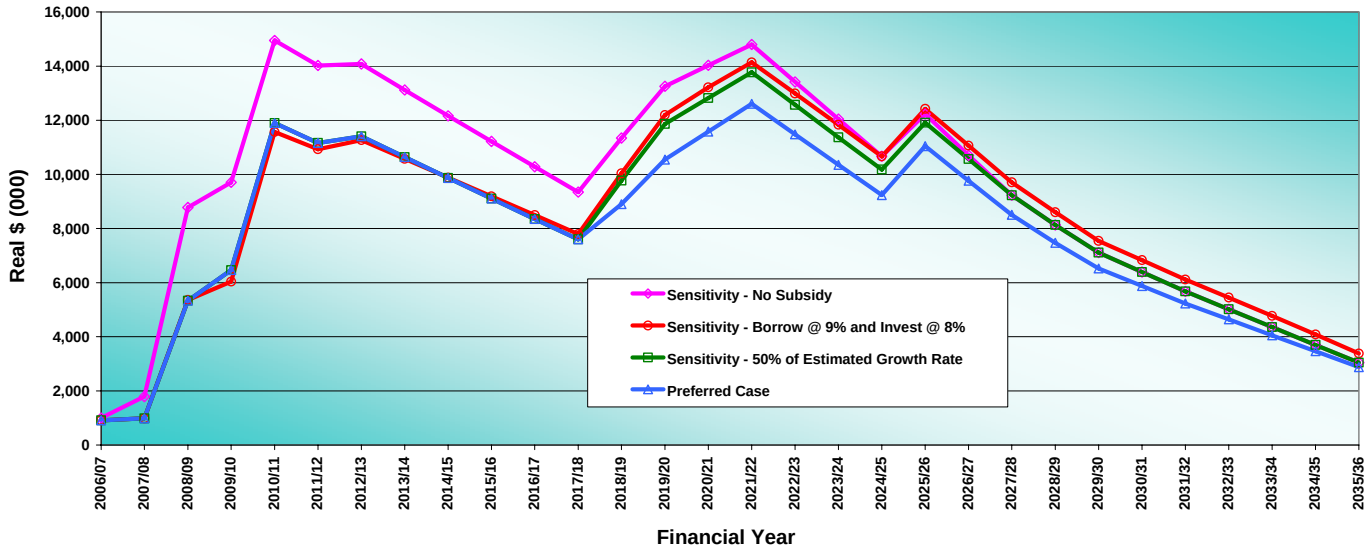
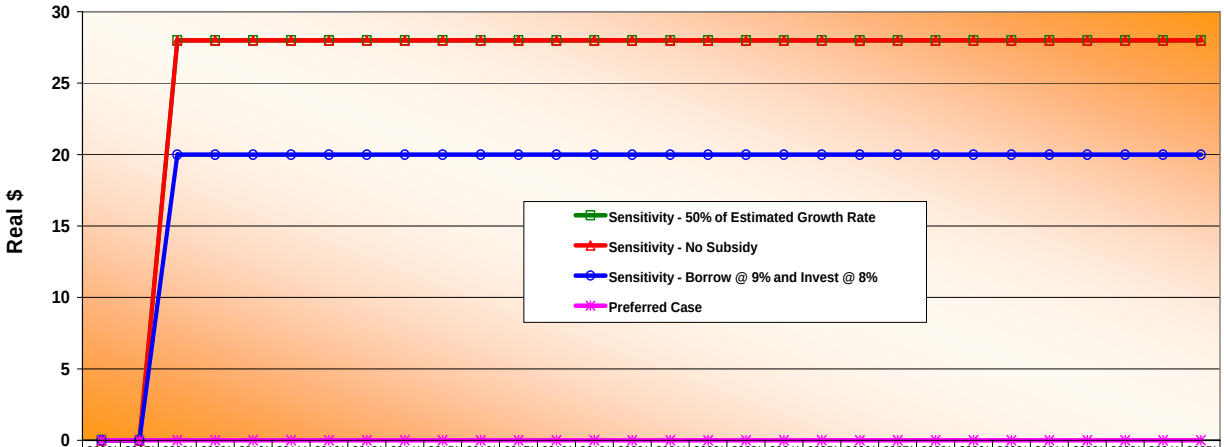


Figure 23 - Effect of Sensitivity on the Typical Residential Bill for Sewerage

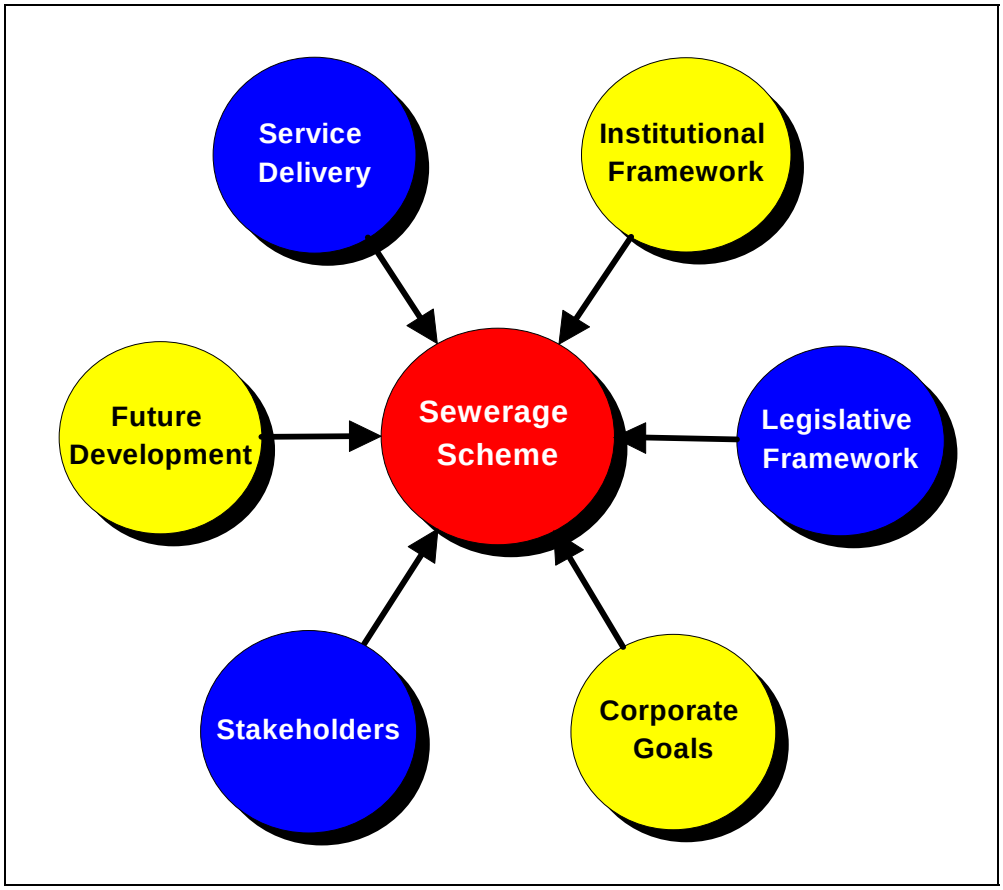


	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36
Sensitivity - 50% of Estimated Growth Rate	0	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Sensitivity - No Subsidy	0	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Sensitivity - Borrow @ 9% and Invest @ 8%	0	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
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 highly sensitive to all the considered parameters (growth rate, interest rate and subsidy). Note that growth rate and no subsidy scenarios have the same effect on the customer bills.

Operating Environment Review

The delivery of sewerage services to the scheme's 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

Mid-Western Regional Council is surrounded by 8 other Councils (Bathurst, Lithgow, Liverpool Plains, Muswellbrook, Upper Hunter, Warrumbungle and Wellington). MWRC has been formed recently with the amalgamation of former Mudgee Shire Council with Rylstone and parts of Merriwa. While this has generally benefitted the community and the Council, no further amalgamation with the surrounding Councils is expected in future.

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 does not see economies of scale and increased resource availability with this arrangement. The view is that it would offer no obvious benefits and may be more expensive and less effective in the long term than the existing scheme.

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

Water supply and Sewerage operation of the Council are currently operated as part of the Asset Management Division of the Council. These operations are already carried out on a commercial basis in accordance with DEUS Best Practice Management 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 is inappropriate because the size of their water supply and sewerage operations is too small and the revenues are below the $2 Million threshold for corporatisation as identified by the Competition Policy.

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	-1
County Council	-1
Commercialisation	+1
Corporatisation	-1
Privatisation	-1

Council looks favourably on the commercialisation model. 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.

Service Provision

The sewerage system will need to be augmented and maintained to cope with growth, aging assets and increasing usage. Currently Council is not planning to service any additional areas outside the current designated service areas in Mudgee, Gulgong, Rylstone and Kandos. Charbon and Clandulla villages are likely to be provided with sewerage services in future.

Corporate Policies and Practices

Mid-Western Regional Council currently has the following corporate policies that have an impact on the operation of the sewerage scheme.

Corporate Policies	Impacts
Ensure that services provided are in accordance with the requirements set by Council	– Reliable and consistent service – Customer consultation
Support OH&S and EEO principles	– Socially responsible
Construction over council assets not permitted	– Asset Management
Asset management policy	– Asset Management
Septic waste dipsosal policy (draft)	– Environmental Management
Trade waste policy (under development)	– Sewer Load Management
Developers contribution policy (detailed in DSPs) 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 Mid-Western Regional 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.

The General Manager delegates authority to the Group Manager – Assets who in turn delegates the responsibility to Water Cycle and Waste Engineer to manage all the water supply and sewerage assets.

The operation, maintenance and construction of assets are contracted to Mid-Western Operations, an internal service provider. Mid-Western Operations has 23 staff, who operate and maintain the water supply and sewerage schemes.

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 operates under a 'purchaser-provider' model whereby asset operations, maintenance and construction are undertaken by Mid-Western Operations, an internal service provider.

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 practises/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:

- Water and 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 practice and will monitor the situation with a view to assess the need for considering other options for contract services.

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 thinks that this option can be considered in future if subsidy or grants are not available for major capital works requiring huge capital investment. Currently there is no such capital work in the pipeline suitable for this type of service delivery.

Resource 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.

Currently there are no resources that Council share with other organisations or parties. Council is open to consider this option if need arises.

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)	+1
Part-Service Contract	+1
BOOT	0
Service Share	0

As can be seen from the discussion Council sees that the Purchaser – Provider model and part service contract hold advantages to them.

Therefore the present strategy is to continue with its current service delivery arrangements.

APPENDICES

Appendix A
Abbreviations

Appendix B
Legislative Framework

Appendix C
Stakeholder Review

Appendix D
Performance Indicators

Appendix E
Financial Input Data

Appendix F
Detailed Projected Financial Statements

Appendix A Abbreviations

The following list of abbreviations may be used in the Strategic Plan.

BOD	Biochemical oxygen demand, a measure of 'strength' of organic pollutants in wastewater/ sewage.
CBD	Central business district
CC	Construction certificate.
CRC	Current replacement cost. The cost to replace existing assets with new assets that will provide the same service function.
CSO	Community service obligation.
CWP	Capital works program.
DA	Development application.
DCP	Development control plan.
DEUS	Department of Energy, Utilities and Sustainability.
DoC	Department of Commerce.
DUAP	Department of Urban Affairs and Planning.
DWE	Department of Water and Energy.
EEO	Equal Employment Opportunity.
EIS	Environmental impact statement.
EP	Equivalent population.
EPA	Environment Protection Authority.
ET	Equivalent tenements.
LEP	Local environment plan.
NFR	Non-filtrable residue (also refers to as suspended solids), a measure of fine particle pollutants in wastewater.
NH&MRC/ AWRC	National Health and Medical Research Council / Australian Water Research Council.
OROC	Orana Regional Organisation of Councils
SEPP	State Environmental Planning Policy.
STP	Sewage treatment plant (also referred to as STW).
WTP	Water treatment plant (also referred to as WFP).
TCM	Total catchment management.
WDCC	Written down current cost. The current replacement cost less the accumulated depreciation to date.

Appendix B
Legislation Affecting Sewerage Services

Legislative Framework

Mid-Western Regional Council delivers water supply and sewerage services services for Mudgee, Gulgong, Rylstone and Kandos under the authority of the Local Government Act, 1993. Council has embraced the principles underlying this Act as being of benefit to the community it serves. Community consultation and involvement in decision-making has been increased in line with the Act in the last few years.

Several other acts also affect Council's scheme. These generally fall into three main categories as follows:

Act	General Implications for Council
1. Pricing	
Local Government Act 1993 Esp. Sections 64 and 428	Determining developer charges: – provide a source of funding for infrastructure required for new urban development – provide signals regarding costs of urban development and encourage less costly forms Need to be more accountable. Need for better asset management.
Environmental Planning and Assessment Act 1979	Determining developer charges. Requirement for LEP and DCP's. Council control of service approvals.
Water Management Act 2000 Progressively replaces the previous Water Act 1912, Water Authorities Act 1987 and 10 others including irrigation, rivers and foreshores Acts)	Determining developer charges. Water rights, licences, allocations.
Local Government Regulation 1993 (Savings and Transitional)	Determining developer charges.

Independent Pricing and Regulatory Tribunal Act 1992	Gives powers to the Independent Pricing and Regulatory Tribunal to inquire into and regulate prices. IPART has developed a set of consistent pricing principles to be adopted by local government authorities. Charging guidelines. Trend towards a user pay system in the industry.
2. Environmental Protection	
Protection of the Environment Operations Act 1997 Brings together: - Clean Air Act 1961 - Clean Waters Act 1970 - Pollution Control Act 1970 - Noise Control Act 1975 - Environmental Offences and Penalties (EOP) Act 1989	Regulating pollution activities and issue of licenses as well as the monitoring of and reporting on waste output. Council is required to be "duly diligent" in undertaking the scheme operations.
Soil Conservation Act 1938	Conserves soil resources and farm water resources and the mitigation of erosion and land degradation. Preservation of watercourse environments.
Environmental Planning and Assessment Act 1979	Encourages the proper management of natural and man-made resources, the orderly use of land, the provision of services and protection of the environment.
Catchment Management Act 1989	Promotes the coordination of activities within catchment areas. Council believes this Act has implications for the management of river water quality and quantity. Requirement for ongoing management plan. Requirement of Capital Works Plan under Sydney Catchment Authority Regulations.
Water Management Act 2000	The act provides for sustainable and integrated management of NSW's water sources. Water rights, licences, allocations.

3. Health and Safety	
Public Health Act 1991	Prevention of the spread of disease. Effluent disposal methods. Delivery of quality water.
Occupational Health and Safety Act 2000 (and Regulations 2001)	Council's responsibility to ensure health, safety and welfare of employees and others at places of work. Likely be cost implications Impacts all operations. Note public safety – insurance.

Local Government Act 1993

Council delivers sewerage services to its residents via authority delegated under the Local Government Act 1993. The Minister for Energy, Utilities and Sustainability administers the parts of this Act dealing with sewerage.

The Act confers service functions on councils. These include the provision, management and operation of sewerage works and facilities. The Act provides Councils with broad powers to carry out their functions, and a "Council may do all such things as are supplemented or incidental to, or consequential on, the exercise of its functions" (section 23 of the Act).

Some particular parts of the Act relating to sewerage are:

- Section 64 - developer chargers. (Under this section of the new Act, a Council may use the relevant provisions of the Water Supply Authorities Act to obtain water supply and sewerage developer charges. The provisions of Section 94 of the Environmental Planning and Assessment Act are no longer available to councils for obtaining sewerage developer contributions);
- Section 68 - Council approval of plumbing works;
- Sections 634-651 - water supply, sewerage and drainage offences; and
- Water, Sewerage and Drainage Regulations, which cover matters from the "old" ordinance 45 and 46.

The role of the Minister for Public Works in regard to water supply, sewerage and drainage as covered in Sections 56-66, has now passed to the Minister of Energy, Utilities and Sustainability. The Minister's role is generally along the lines of Part XIV of the 1919 Act, and it includes matters such as construction of works, hand over and vesting of work, approval of dams and treatment plants, directions to councils concerning dams and treatment plants, action during emergencies, and the appointment of an administrator.

Environmental Planning and Assessment Act 1979

This Act is the principal planning instrument in NSW, and it specifies the environmental considerations required in all development activities. It also governs the procedures of all proposals that have an effect on the environment. Its objectives are to encourage the proper management of natural and man-made resources, the orderly use of land, the provision of services, and the protection of the environment.

The Act is administered by the Minister for Planning.

The Act requires that all proposals, activities, and functions which are investigated, designed, planned, constructed, and operated by councils should be studied during all stages for their environmental impact on the basis of scale, location and performance.

Catchment Management Act 1989

The objectives of this Act are:

- To coordinate policies, programs and activities as they relate to total catchment management;
- To achieve active community participation in natural resource management;
- To identify and rectify natural resource degradation;
- To promote the sustainable use of natural resources; and
- To provide stable and productive soil, high quality water and protective and productive soil and vegetation cover within each of the State's water catchments.

The Act is administered by the Minister for Energy, Utilities and Sustainability.

Any works planned and undertaken by this Committee are subject to normal planning approval. It has no authority over Council.

Soil Conservation Act 1938

The objective of the Soil Conservation Act is the conservation of soil resources and farm water resources and the mitigation of erosion and land degradation.

The Act is administered by the Minister for Energy, Utilities and Sustainability.

Public Health Act 1991

The Public Health Act 1991 consolidates previous Acts relating to Public Health and provides for the prevention of the spread of disease.

The Act is administered by the Minister for Health.

Under Section 14 of the Act, the Director-General or any authorised officer of the Department of Health may inspect sewerage works where the Director-General deems it necessary in the interest of public health. The Director-General may report to the Minister for Energy, Utilities and Sustainability whenever any danger to public health could be removed or diminished. The Minister may then take appropriate action.

Public Works Act 1912

This Act provides the authority for the Department of Energy, Utilities and Sustainability to construct water supply and sewerage works within the Council's area.

The powers of the Minister for Public Works, particularly with respect to acquisition of land for water and sewerage works have been transferred to the Minister for Energy, Utilities and Sustainability.

Water Management Act 2000

Replaces the previous Water Act 1912, Water Authorities Act 1987 and 10 other Acts (including irrigation, rivers and foreshore acts).

This Act, administered by the Minister for Energy, Utilities and Sustainability, covers matters such as water rights licences, water allocation, water sharing as well as recognition of water for environmental health requirements.

Details have been set out in "Developer Charges Guidelines for Water Supply, Sewerage and Stormwater" pursuant to section 306 (3) of the Water Management Act 2000. Council should consider these guidelines previously issued by the Minister for Land and Water Conservation, who is now the Minister of Energy, Utilities and Sustainability.

Independent Pricing and Regulatory Tribunal Act 1992

The Independent Pricing and Regulatory Tribunal (IPART, previously Government Pricing Tribunal) was set up to determine and advise prices and pricing policies for government monopoly services.

The Tribunal currently has powers to set prices for Sydney Water, Hunter Water and Gosford and Wyong Councils. This includes service usage charges and developer contributions.

The Tribunal does not intend, in the near term, to regulate prices for water supply and sewerage services in country NSW. Instead it has recently released *Pricing Principles for Local Water Authorities* which sets out pricing recommendations for Council's to adopt in the pricing of their services.

Occupational Health and Safety Act 2000

This revised Act details Council's responsibilities to ensure health, safety and welfare of employees and others at places of work. All of the scheme's operational activities are impacted on by this Act. This act is administered by the WorkCover Authority.

Protection of the Environment Operations Act

This Act came into effect in July 1998 and consolidated existing legislation to eradicate the duplication of powers and overlapping use of resources.

The Act brought together what used to be five separate pieces of legislation:

- Clean Air Act 1961;
- Clean Waters Act 1970;
- Pollution Control Act 1970;
- Noise Control Act 1975; and
- Environmental Offences and Penalties Act 1989.

The legislation also incorporates major regulatory provisions of the Waste Minimisation and Management Act.

Other Government Initiatives

Efficient Operation	The Department of Local Government is concerned that councils generally are well managed.
Federal Government	The Federal Industry Commission Report on the Australian Water Industry is concerned to ensure efficient use of resources - natural, physical and financial. Its 1992 Report's recommendations were wide-ranging and covered matters such as pricing reforms and structural reforms (eg amalgamation of authorities).
Competition Policy	In 1995 the Council of Australian Governments (COAG) ratified the National Competition Policy. Of particular significance to the water and sewerage functions of Council is the application of competitive neutrality to operations. The purpose of this is tho have councils "*operate under similar competitive pressures to those experienced by the private sector".* The NSW Government has embraced these principles and set in motion a number of policies to increase the efficiency and the competitiveness of this type of business area. (Refer to the NSW Government Policy Statement on the Application of National Competition Policy to Local Government.)
Asset Management	The NSW Government, which has ultimate responsibility for water and sewerage in the State, is concerned to ensure that the $7 billion asset base in country towns water supply and sewerage schemes under the care of Local Government, is well managed.
Financial Assistance	The NSW Government has been providing grants for the development and improvement of water supply and sewerage schemes in country areas, under the Country Towns Water, Sewerage and Drainage Program which is now administered by the Department of Energy, Utilities and Sustainability. The Minister for Energy, Utilities and Sustainability has made changes to the subsidy provisions. The main changes are the requirement to implement best industry management practices and the withdrawal of subsidies for growth related capital works. These changes are outlined in the publication Country Towns Water Supply and Sewerage Program: Technical and Financial Assistance Available to Councils.
Pricing and Developer Charges	In July 1993, a new Local Government Act was enacted. Section 64 of the new act specifies that councils apply development contributions in accordance with the provisions of the Water Supply Authorities Act. Section 25 (formerly under Section 27 which no longer exists) of that act authorises the water authority to levy a charge on a developer towards the cost of works serving the development. These works may be existing, projected, or both. Guidelines are issued from time to time by the Minister for Energy, Utilities and Sustainability. These guidelines, which include a methodology for calculating development contributions, were issued in February 2003.

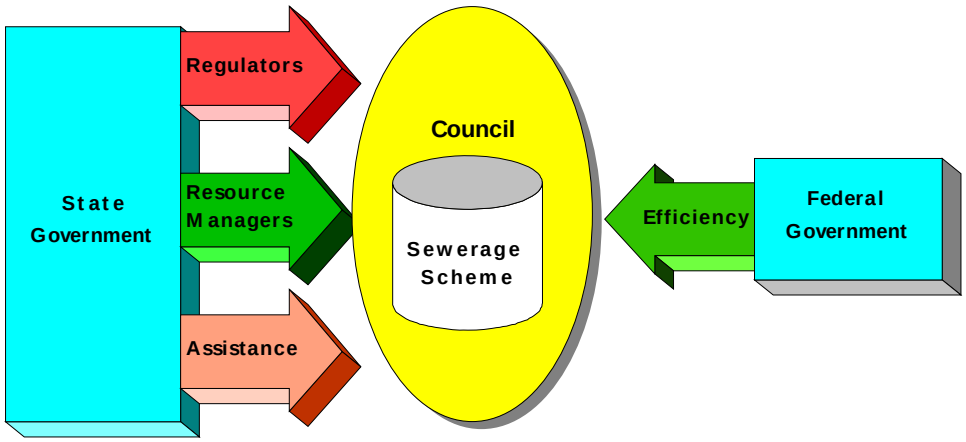
Best Practice Management	The NSW Government encourages best practice for all LWUs. The purpose of best practice management is: To encourage the effective and efficient delivery of water supply and sewerage services; and To promote sustainable water conservation practices and water demand management throughout NSW. From 1 July 2004, compliance with the six best practice criteria is mandatory for payment of a dividend from the surplus of an LWU's water supply and sewerage businesses and future financial assistance under the *Country Towns Water Supply & Sewerage (CTWS&S)* program.

Appendix C
Stakeholder Review

Stakeholders are individuals and organisations with an interest and/or equity in the sewerage services provided by Council. Stakeholders have different expectations, and the extent to which Council meets these expectations varies.

Institutional Stakeholders

A large number of government departments and agencies have interest in, and impact on, the management of the sewerage scheme, as shown in the chart below.



Local Government

The sewerage undertakings are an integral part of Council's operation. Council has the ultimate responsibility for the development, operations, maintenance and performance of the sewerage scheme. As the owner of the undertaking, Council is also responsible for any liability of the sewerage scheme.

State Government

The State Government has a significant impact on the sewerage scheme. Various government agencies fill a role in one or more of the following areas.

Regulators

These are the agencies who are largely responsible for administering the various acts listed in the preceding section. Of particular significance to the sewerage scheme are the Independent Pricing and Regulatory Tribunal (IPART), which is urging councils to adopt the pricing principles outlined in Pricing Principles for Local Water Authorities, and the Environment Protection Authority (EPA) who regulates environmental protection, issues licences to discharge effluent and administers the various pollution control acts. Council discharges effluent from sewage treatment plants under licence from the EPA.

The Department of Energy, Utilities and Sustainability, while nominally a resource manager, has a special role in the development of water supply and sewerage schemes, setting standards and guidelines and administering the Government grants program (refer below).

Resource Managers

These are the agencies responsible for managing the State's resources, such as water resources, forestry and land.

Assistance

The State Government has been providing financial and administrative assistance for improvements of water supply and sewerage schemes through the Country Towns Water, Sewerage and Drainage Program. Under the newly introduced guidelines, assistance is generally available for servicing backlog areas and improving standards, but not for augmentation works required to accommodate growth. This program is administered by the Department of Energy, Utilities and Sustainability.

Other assistance is in the form of services, such as the professional services provided by the Department of Commerce.

Federal Government

The Federal Government has no direct bearing on the sewerage schemes. Indirectly, the Federal Government is taking the initiative on reforming the way services are delivered to the community by Government agencies in order to improve efficiency.

Stakeholder Analysis

Stakeholders are individuals and organisations with an interest and/or equity in the sewerage services provided by Council. Stakeholders have different expectations, and the extent to which Council meets these expectations varies.

The Table next page lists the major stakeholders, their general expectations and the comments of Council's as to the standing of sewerage operations.

Stakeholder	How to judge success?	How does Council rate its service? 1 – Poor 10 - Excellent	How do stakeholders rate the service 1 – Poor 10 - Excellent
General Users			
Property Owners/ Ratepayers	– Rates/ value for money – Levels of Service	M/G - 8 R/K - 6	6 5
Residents/ Families	– Quality services – Public health standards met and maintained – Guaranteed service – Reasonable cost – Palatability of water	M/G - 8 R/K - 6	6 5
Pensioners	– Rebates – Quality services – Public health standards met and maintained – Guaranteed service – Reasonable cost – Palatability of water	M/G - 8 R/K - 6	6 5
Commercial and Industrial customers	– Quality – Sufficient supply – Guaranteed service – Reasonable cost	M/G - 8 R/K - 6	8 8
Other Users			
Downstream water users (Irrigators)	– Clean quality water – Continued supply – No future interference with their operations	6 (nutrients in effluent)	8
Environmental groups	– Environmental responsibility – Minimisation of wastage – Environmental sustainability	6 (nutrients in effluent)	8
Tourists	– Quality and quantity of service – Aesthetics	9	9

Stakeholder	How to judge success?	How does Council rate its service? 1 – Poor 10 - Excellent	How do stakeholders rate the service 1 – Poor 10 - Excellent
Council			
Councillors	– No complaints – Good public profile – Security of supply	M/G - 8 R/K - 6	6 5
	– Compliance – Continued availability – Price		
Council employees	– Recognition for work – Safe workplace – Competency/training – Security – Pride in workplace/ schemes – Support	8	6
Engineering Services Department	– Efficient service – Chargeable service – Working relationship – Timeliness – Innovation and technology – Informed advice	8	6
Government			
DLG	– Accountability – Financial stability	8	8
DEUS	– Efficient operations – Performance – Best practice management	7	7
DEC /EPA	– Environmental requirements – Sludge disposal	6	6
Others (Dept. of Health, Work Cover etc.)	– Water quality – Catchment management	8	8

Note: M – Mudgee; G – Gulgong; R – Rylstone; and K – Kandos

Appendix D
Performance Indicators

Mid-Western Regional Council has been submitting performance information about its sewerage scheme to the Department of Energy, Utilities and Sustainability for inclusion in its annual State-wide performance reports. This will allow Council to compare its system against equivalent councils and then undertake benchmarking to identify items and methods for future improvement. A Triple Bottom Line (TBL) approach has been adopted to collate the information.

Performance Indicators

Following comments can be made when comparing Council's sewerage scheme to the rest in the State:

☺ – New sewerage connections to Council's sewerage scheme is slightly above the 2005/06 State median level

😐 – Typical residential bill for sewerage has been slightly above the State median level

😐 – Council has low sewerage developer charges that is below State average

☺ – Number of odour complaints have reduced during the last two-years with no complaints being reported

☹ – While Council is fully compliant with BOD in DEC licence conditions, some level of non-compliance has been reported with regard to SS (suspended solids) in the discharges

☹ – Number of sewer main chokes and collapses shows an increasing trend, but remained slightly below State average in 2005/06

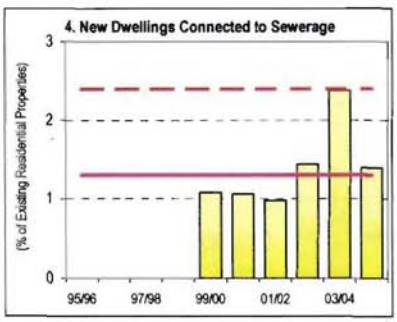
☹ – Operating and treatment costs show an increasing trend and are slightly above State average for the last two years

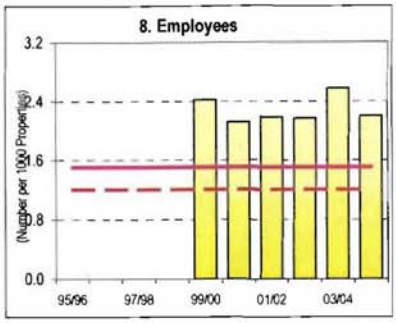
☺ – Council's management cost for sewerage scheme is at par with State average

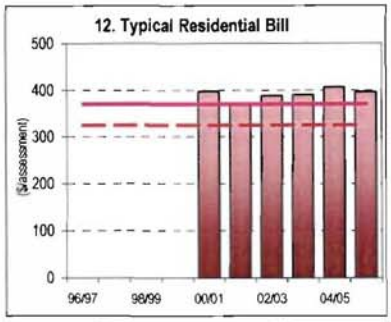
☺ – Council is among top 20% of councils with low pumping costs

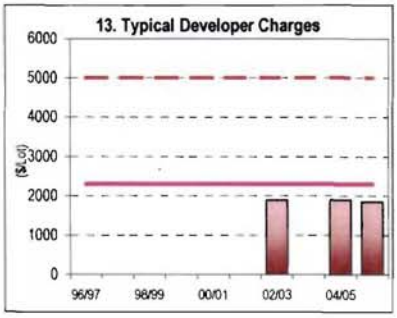
Mid-Western Regional Council — TBL Sewerage Performance (page 2) — 2004/05

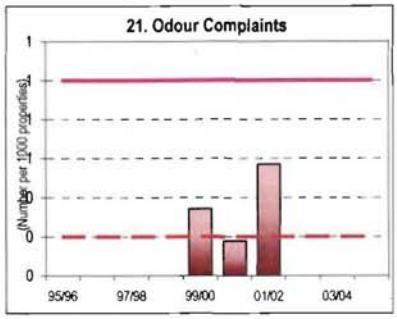
(Results shown for 10 years together with 2004/05 Statewide Median and Top 20%)

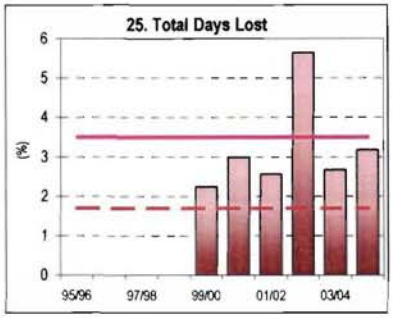


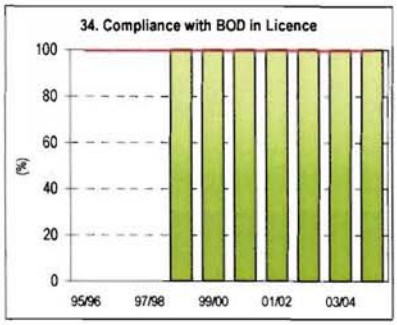


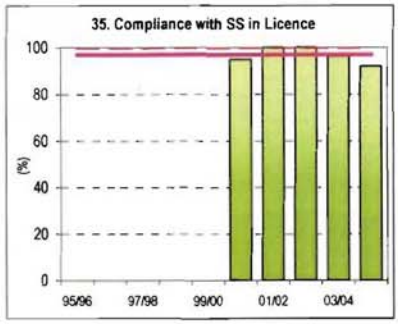


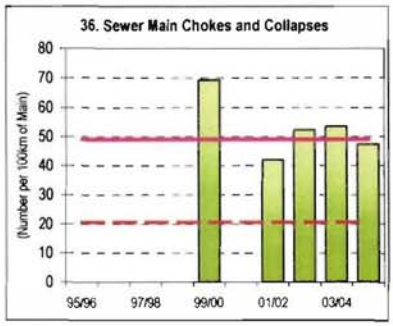


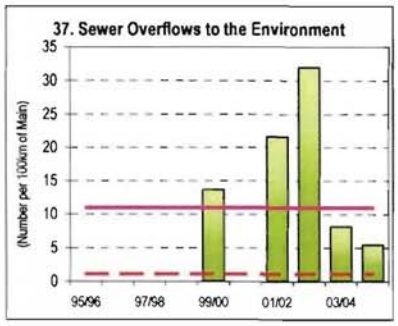


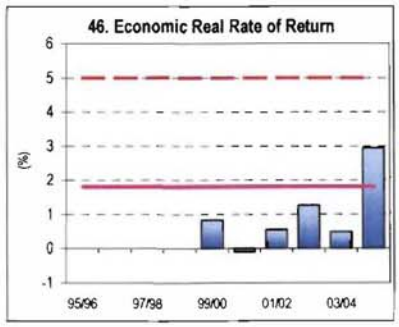


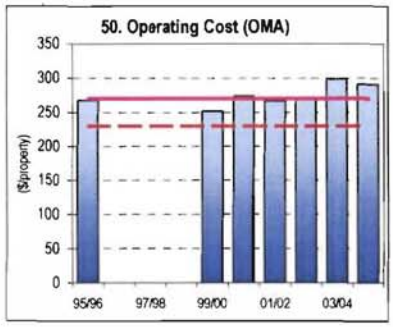


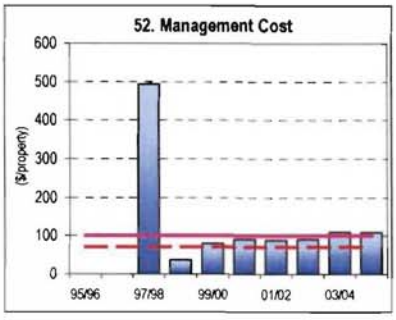


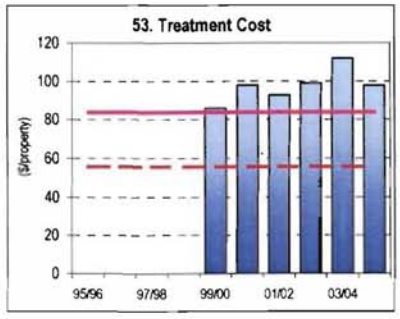


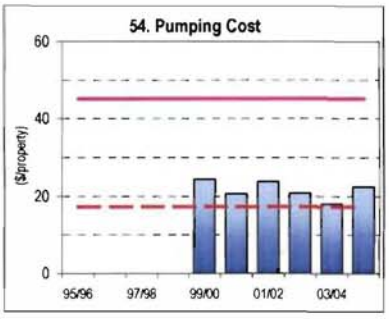












Note: Costs are in Jan 2005$.

LEGEND
2004/05 State Median
2004/05 Top 20%

Appendix E
Financial Input Data

Details of data input to the financial model are presented in the following pages.

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Historical Operating Statement

FINMOD
DEPARTMENT OF COMMERCE

	2004/05*	2005/06*
EXPENSES		
Management Expenses	*642*	*676*
Administration	642	676
Engineering and Supervision	0	0
Operation and Maintenance Expenses	*1095*	*1214*
Operation Expenses	102	53
Maintenance Expenses	950	1123
Energy Costs	43	38
Chemical Costs	0	0
Depreciation	*771*	*746*
System Assets	698	717
Plant & Equipment	73	29
Interest Expenses	0	0
Other Expenses	0	0
TOTAL EXPENSES	**2508**	**2636**
REVENUES		
Rates & Service Availability Charges	*2465*	*2751*
Residential	2365	2371
Non-Residential	100	380
Trade Waste Charges	116	0
Other Sales and Charges	0	0
Extra Charges	0	0
Interest Income	215	273
Other Revenues	0	0
Grants	*96*	*70*
Grants for Acquisition of Assets	32	8
Pensioner Rebate Subsidy	64	62
Other Grants	0	0
Contributions	*340*	*275*
Developer Charges	340	275
Developer Provided Assets	0	0
Other Contributions	0	0
TOTAL REVENUES	**3232**	**3369**
OPERATING RESULT	**724**	**733**
OPERATING RESULT (less Grants for Acq of Assets)	**692**	**725**

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Historical Statement of Financial Position

FINMOD
DEPARTMENT OF COMMERCE

	2004/05*	2005/06*
Cash and Investments		5934
Receivables		83
Inventories		17
Property, Plant & Equipment	*0*	*18330*
System Assets (1)		18330
Plant & Equipment		0
Other Assets		0
TOTAL ASSETS	**0**	**24364**
LIABILITIES		
Bank Overdraft		0
Creditors		13
Borrowings		945
Provisions		105
TOTAL LIABILITIES	**0**	**1063**
NET ASSETS COMMITTED	**0**	**23301**
EQUITY		
Accumulated Operating Result		23301
Asset Revaluation Reserve		0
TOTAL EQUITY	**0**	**23301**

(1) Notes to System Assets

Current Replacement Cost		40155
Less: Accumulated Depreciation	0	21825
Written Down Current Cost		18330

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Base Forecast Data

	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
Financial Data																									
Inflation Rate - General (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Inflation Rate - Capital Works (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Borrowing Interest Rate for New Loans (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Investment Interest Rate (%)	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Number of Assessments																									
Growth Rate (%)																									
Residential Assessments	1.18	1.17	1.16	2.43	7.29	2.21	2.16	2.11	2.03	1.99	1.95	1.91	1.87	1.81	1.75	1.70	1.64	1.59	1.54	1.50	1.45	1.40	1.36	1.34	1.33
Non-Residential Assessments	2.35	2.29	2.24	2.19	2.15	2.10	2.06	2.02	1.98	1.94	1.90	1.87	1.83	0.69	0.69	0.68	0.68	0.67	0.67	0.66	0.66	0.66	0.65	0.65	0.64
Total Assessments	1.29	1.27	1.26	2.40	6.81	2.20	2.15	2.11	2.02	1.98	1.94	1.91	1.87	1.71	1.66	1.61	1.56	1.51	1.47	1.43	1.38	1.34	1.30	1.29	1.27
Number of New Assessments																									
Residential	66	66	66	140	431	140	140	140	137	137	137	137	137	135	133	131	129	127	125	123	121	119	117	117	117
Non-Residential	13	13	13	13	13	13	13	13	13	13	13	13	13	5	5	5	5	5	5	5	5	5	5	5	5
Total New Assessments	79	79	79	153	444	153	153	153	150	150	150	150	150	140	138	136	134	132	130	128	126	124	122	122	122
Projected Number of Assessments																									
Residential	5639	5705	5771	5911	6342	6482	6622	6762	6899	7036	7173	7310	7447	7582	7715	7846	7975	8102	8227	8350	8471	8590	8707	8824	8941
Non-Residential	567	580	593	606	619	632	645	658	671	684	697	710	723	728	733	738	743	748	753	758	763	768	773	778	783
Total Projected Assessments	6206	6285	6364	6517	6961	7114	7267	7420	7570	7720	7870	8020	8170	8310	8448	8584	8718	8850	8980	9108	9234	9358	9480	9602	9724
Backlog Assessments																									
Residential	0	0	0	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residential	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 Backlog Assessments	0	0	0	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Charges / Vacant Assessments (Values in 2006/07 $)																									
Developer Charges $/Assessment																									
Residential	1300	1300	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649	2649
Non-Residential	1700	1700	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617	3617
Number of Vacant Residential Assessments	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
Average Charge of Vacant Assessments	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Occupied Assessments	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
Depreciation of Existing Plant and Equipment (Values in 2006/07 $'000)																									
Current Replacement Cost of System Assets	41360																								
Override																									
Written Down Current Cost of System Assets	18880																								
Override																									
Annual Depreciation of Existing System Assets	739																								
Override																									
Written Down Value of Plant and Equipment	0																								
Override																									
Annual Depreciation of Existing Plant and Equipment	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

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Base Forecast Data

	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
Existing Loan Payments (Values in Inflated $'000)																									
Existing Loan Payments : Principal (Total:945)	53	51	54	58	62	66	70	75	80	85	91	97	103	0	0	0	0	0	0	0	0	0	0	0	0
Existing Loan Payments : Interest (Total:462)	55	57	54	50	47	43	38	33	28	23	18	11	5	0	0	0	0	0	0	0	0	0	0	0	0
Capital Works Program (Values in 2006/07 $'000)																									
Subsidised Scheme (Total:38450)	350	3000	11000	2000	6000	0	1300	0	0	0	0	300	3500	3500	2300	2200	0	0	0	3000	0	0	0	0	0
Other New System Assets (Total:739)	65	66	6	6	156	0	210	-190	10	10	60	60	10	10	10	10	10	10	10	10	60	60	10	10	10
Renewals (Total:10074)	399	322	324	326	328	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
Total Capital Works (Total:49263)	814	3388	11330	2332	6484	335	1845	145	345	345	395	695	3845	3845	2645	2545	345	345	345	3345	395	395	345	345	345
Grant For Acquisition of Assets (% of Subsidised Scheme)	25.00	25.00	25.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grant For Acquisition of Assets ($) (Total:3588)	88	750	2750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Provided Assets (Total: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
Plant and Equipment Expenditure / Asset Disposal (Values in 2006/07 $'000)																									
Plant and Equipment Expenditure	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
Proceeds from Disposal of Plant and Equipment	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
Written Down Value of Plant and Equipment Disposed	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
Gain/Loss on Disposal of Plant and Equipment	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
Proceeds from Disposal of Assets	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
Written Down Value of Assets Disposed	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
Gain/Loss on Disposal of System Assets	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

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF COMMERCE

	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
OMA / Revenue Overrides (Values in 2006/07 $'000)																									
Administration	705	714	723	740	790	807	824	841	858	875	892	909	926	942	958	973	988	1003	1018	1033	1047	1061	1075	1089	1103
Override	726	809	780	669	715	756	746	762	777	792	836	823	839	853	867	912	895	908	922	935	981	961	973	986	998
Engineering and Supervision	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																									
Operating Expenses	55	56	57	58	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
Override	65	117	72	127	79	80	82	84	86	87	89	91	92	94	96	97	99	100	102	103	104	106	107	109	110
Maintenance Expenses	1172	1187	1202	1231	1315	1344	1373	1402	1430	1458	1486	1514	1542	1568	1594	1620	1645	1670	1695	1719	1743	1766	1789	1812	1835
Override	1196	1247	1248	1278	1365	1395	1425	1455	1484	1513	1543	1572	1602	1629	1656	1683	1709	1735	1760	1785	1810	1834	1858	1882	1906
Energy Costs	40	41	42	43	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Override																									
Chemical Costs	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																									
Other Expenses	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																									
Other Revenue	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																									
Other Grants	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																									
Other Contributions	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																									
Developer Charges Overrides (Values in 2006/07 $'000)																									
Calculated from Scheme Data	108	108	222	418	418	418	418	418	410	410	410	410	410	376	370	365	360	355	349	344	339	333	328	328	328
Override	204	204	418	418	418	410	410	410	410	410	376	370	365	360	355	349	344	339	333	328	328	328	328	328	328
Pensioner Rebate (Values in Inflated $)																									
Pensioner Rebate per Pensioner ($)	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50	87.50
Override																									
Pensioner Rebate Subsidy (%)	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00	55.00
Override																									
Number of Pensioner Assessments	1303	1318	1334	1366	1466	1498	1530	1563	1594	1626	1658	1689	1721	1752	1783	1813	1843	1872	1901	1930	1958	1985	2012	2039	2066
Override																									
Percentage of Pensioners (%)	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11	23.11
Override																									
Pensioner Rebate	114	115	117	120	128	131	134	137	139	142	145	148	151	153	156	159	161	164	166	169	171	174	176	178	181
Pensioner Rebate Subsidy	63	63	64	66	70	72	74	75	76	78	80	81	83	84	86	87	89	90	91	93	94	96	97	98	100
Revenue Split (%)																									
Residential Rates	88.73	88.64	88.55	88.57	88.97	88.98	88.98	88.99	88.99	89.00	89.00	89.01	89.01	89.10	89.18	89.25	89.32	89.39	89.46	89.52	89.58	89.63	89.68	89.73	89.78
Override																									
Non-Residential Rates	9.10	9.19	9.28	9.26	8.85	8.84	8.84	8.83	8.83	8.82	8.82	8.81	8.81	8.72	8.64	8.56	8.49	8.42	8.35	8.29	8.23	8.17	8.12	8.07	8.02
Override																									
Trade Waste Charges	2.17	2.17	2.17	2.17	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.18	2.19	2.19	2.19	2.19	2.19	2.19	2.20	2.20	2.20	2.20
Override																									
Other Sales and charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Override																									
Extra Charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Override																									
Total Non-Residential Revenue (%)	11.27	11.36	11.45	11.43	11.03	11.02	11.02	11.01	11.01	11.00	11.00	10.99	10.99	10.90	10.82	10.75	10.68	10.61	10.54	10.48	10.42	10.37	10.32	10.27	10.22
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total Residential Revenue (%)	88.73	88.64	88.55	88.57	88.97	88.98	88.98	88.99	88.99	89.00	89.00	89.01	89.01	89.10	89.18	89.25	89.32	89.39	89.46	89.52	89.58	89.63	89.68	89.73	89.78

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Revised/Additional Forecast Data

FINMOD
DEPARTMENT OF COMMERCE

	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
New Loan Payment Overrides (Values in Inflated $'000)																									
Standard Loan Payments: Principal	0	4	126	177	361	384	441	469	501	533	568	607	725	862	1001	1149	1224	1305	1392	1618	1723	1822	1499	1450	928
Standard Loan Payments: Interest	2	12	324	421	844	819	871	841	813	781	743	704	858	1050	1186	1330	1256	1175	1089	1337	1230	1117	1004	908	818
Structured Loan Payments: Principal	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
Structured Loan Payments: Interest	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
Capitalised Interest	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 New Loan Payments: Principal Override	0	4	126	177	361	384	441	469	501	533	568	607	725	862	1001	1149	1224	1305	1392	1618	1723	1822	1499	1450	928
Total New Loan Payments: Interest Override	2	12	324	421	844	819	871	841	813	781	743	704	858	1050	1186	1330	1256	1175	1089	1337	1230	1117	1004	908	818
Capitalised Interest Override	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

Appendix F
Detailed Projected Financial Statements

Details of financial projections made using FINMOD financial model are presented in the following pages.

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Operating Statement

FINMOD
DEPARTMENT OF COMMERCE

	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
EXPENSES																									
Management Expenses	*726*	*809*	*780*	*669*	*715*	*756*	*746*	*762*	*777*	*792*	*836*	*823*	*839*	*853*	*867*	*912*	*895*	*908*	*922*	*935*	*981*	*961*	*973*	*986*	*998*
Administration	726	809	780	669	715	756	746	762	777	792	836	823	839	853	867	912	895	908	922	935	981	961	973	986	998
Engineering and Supervision	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
Operation and Maintenance Expenses	*1301*	*1405*	*1362*	*1449*	*1490*	*1522*	*1555*	*1587*	*1620*	*1652*	*1685*	*1716*	*1748*	*1778*	*1808*	*1837*	*1866*	*1894*	*1922*	*1949*	*1976*	*2003*	*2029*	*2056*	*2082*
Operation Expenses	65	117	72	127	79	80	82	84	86	87	89	91	92	94	96	97	99	100	102	103	104	106	107	109	110
Maintenance Expenses	1196	1247	1248	1278	1365	1395	1425	1455	1484	1513	1543	1572	1602	1629	1656	1683	1709	1735	1760	1785	1810	1834	1858	1882	1906
Energy Costs	40	41	42	43	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
Chemical Costs	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
Depreciation	*745*	*788*	*946*	*976*	*1064*	*1064*	*1085*	*1082*	*1082*	*1082*	*1083*	*1088*	*1138*	*1188*	*1222*	*1254*	*1254*	*1254*	*1254*	*1297*	*1298*	*1299*	*1298*	*1299*	*1299*
System Assets	745	788	946	976	1064	1064	1085	1082	1082	1082	1083	1088	1138	1188	1222	1254	1254	1254	1254	1297	1298	1299	1298	1299	1299
Plant & Equipment	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
Interest Expenses	57	67	356	431	792	744	761	711	664	616	566	517	605	715	784	854	783	711	640	762	681	600	524	460	402
Other Expenses	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 EXPENSES	**2829**	**3069**	**3445**	**3524**	**4060**	**4084**	**4148**	**4142**	**4143**	**4142**	**4170**	**4143**	**4330**	**4534**	**4681**	**4856**	**4797**	**4768**	**4738**	**4944**	**4936**	**4863**	**4824**	**4800**	**4782**
REVENUES																									
Rates & Service Availability Charges	*2734*	*2775*	*3003*	*3076*	*3288*	*3368*	*3443*	*3522*	*3597*	*3667*	*3747*	*3817*	*3896*	*3967*	*4033*	*4100*	*4167*	*4236*	*4300*	*4364*	*4429*	*4493*	*4554*	*4613*	*4675*
Residential	2480	2515	2718	2785	2991	3063	3131	3204	3272	3337	3409	3473	3545	3613	3676	3741	3806	3872	3933	3994	4056	4118	4176	4233	4292
Non-Residential	254	260	285	291	298	305	312	318	324	330	338	344	351	353	356	359	361	365	367	370	373	375	378	381	383
Trade Waste Charges	61	61	67	69	73	75	77	79	81	82	83	85	87	89	90	92	93	95	96	98	99	101	102	104	105
Other Sales and Charges	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
Extra Charges	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
Interest Income	332	299	166	89	88	91	85	89	103	116	126	131	99	62	46	37	36	36	40	38	34	34	43	57	80
Other Revenues	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
Grants	*151*	*812*	*2810*	*60*	*62*	*62*	*62*	*61*	*60*	*60*	*60*	*59*	*58*	*57*	*57*	*56*	*55*	*54*	*53*	*53*	*52*	*52*	*51*	*50*	*49*
Grants for Acquisition of Assets	88	750	2750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pensioner Rebate Subsidy	63	61	60	60	62	62	62	61	60	60	60	59	58	57	57	56	55	54	53	53	52	52	51	50	49
Other Grants	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
Contributions	*204*	*204*	*418*	*418*	*418*	*410*	*410*	*410*	*410*	*410*	*376*	*370*	*365*	*360*	*355*	*349*	*344*	*339*	*333*	*328*	*328*	*328*	*328*	*328*	*328*
Developer Charges	204	204	418	418	418	410	410	410	410	410	376	370	365	360	355	349	344	339	333	328	328	328	328	328	328
Developer Provided Assets	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUES	**3482**	**4150**	**6463**	**3712**	**3929**	**4006**	**4077**	**4161**	**4250**	**4335**	**4392**	**4462**	**4505**	**4534**	**4580**	**4634**	**4696**	**4761**	**4823**	**4881**	**4942**	**5007**	**5077**	**5152**	**5238**
OPERATING RESULT	**653**	**1082**	**3018**	**188**	**-131**	**-78**	**-71**	**20**	**107**	**193**	**222**	**319**	**175**	**0**	**-100**	**-223**	**-102**	**-7**	**85**	**-63**	**6**	**144**	**253**	**352**	**456**
OPERATING RESULT (less Grants for Acq of Assets)	**565**	**331**	**269**	**188**	**-131**	**-78**	**-71**	**20**	**107**	**193**	**222**	**319**	**175**	**0**	**-100**	**-223**	**-102**	**-7**	**85**	**-63**	**6**	**144**	**253**	**352**	**456**

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Cashflow Statement

FINMOD
DEPARTMENT OF COMMERCE

	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
Cashflow From Operating Activities																									
Receipts																									
Rates and Charges	2795	2836	3070	3144	3361	3443	3520	3601	3677	3749	3831	3903	3983	4055	4123	4191	4261	4331	4396	4462	4528	4594	4656	4717	4780
Interest Income	332	299	166	89	88	91	85	89	103	116	126	131	99	62	46	37	36	36	40	38	34	34	43	57	80
Other Revenues	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
Grants	151	812	2810	60	62	62	62	61	60	60	60	59	58	57	57	56	55	54	53	53	52	52	51	50	49
Contributions	204	204	418	418	418	410	410	410	410	410	376	370	365	360	355	349	344	339	333	328	328	328	328	328	328
Total Receipts from Operations	**3482**	**4150**	**6463**	**3712**	**3929**	**4006**	**4077**	**4161**	**4250**	**4335**	**4392**	**4462**	**4505**	**4534**	**4580**	**4634**	**4696**	**4761**	**4823**	**4881**	**4942**	**5007**	**5077**	**5152**	**5238**
Payments																									
Management	726	809	780	669	715	756	746	762	777	792	836	823	839	853	867	912	895	908	922	935	981	961	973	986	998
Operations (plus WC Inc)	1300	1404	1361	1447	1487	1521	1554	1586	1619	1650	1683	1714	1746	1777	1807	1836	1865	1894	1921	1949	1974	2001	2028	2054	2081
Interest Expenses	57	67	356	431	792	744	761	711	664	616	566	517	605	715	784	854	783	711	640	762	681	600	524	460	402
Other Expenses	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 Payments from Operations	**2083**	**2280**	**2498**	**2547**	**2994**	**3020**	**3061**	**3058**	**3060**	**3058**	**3086**	**3054**	**3191**	**3345**	**3458**	**3601**	**3543**	**3513**	**3483**	**3646**	**3637**	**3563**	**3525**	**3500**	**3481**
Net Cash from Operations	**1399**	**1871**	**3966**	**1165**	**935**	**986**	**1016**	**1103**	**1190**	**1277**	**1307**	**1408**	**1314**	**1190**	**1122**	**1032**	**1153**	**1248**	**1340**	**1234**	**1306**	**1444**	**1553**	**1652**	**1756**
Cashflow from Capital Activities																									
Receipts																									
Proceeds from Disposal of Assets	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
Payments																									
Acquisition of Assets	814	3388	11330	2332	6484	335	1845	145	345	345	395	695	3845	3845	2645	2546	345	345	345	3345	395	395	345	345	345
Net Cash from Capital Activities	**-814**	**-3388**	**-11330**	**-2332**	**-6484**	**-335**	**-1845**	**-145**	**-345**	**-345**	**-395**	**-695**	**-3845**	**-3845**	**-2645**	**-2546**	**-345**	**-345**	**-345**	**-3345**	**-395**	**-395**	**-345**	**-345**	**-345**
CashFlow from Financing Activities																									
Receipts																									
New Loans Required	17	150	4550	1500	6000	0	1000	0	0	0	0	0	2100	2500	2000	2101	0	0	0	3000	0	0	0	0	0
Payments																									
Principal Loan Payments	53	53	170	215	376	388	428	442	459	474	490	509	581	587	662	737	763	790	818	923	954	979	782	735	457
Net Cash from Financing Activities	**-36**	**96**	**4380**	**1285**	**5624**	**-388**	**572**	**-442**	**-459**	**-474**	**-490**	**-509**	**1519**	**1913**	**1338**	**1363**	**-763**	**-790**	**-818**	**2078**	**-954**	**-979**	**-782**	**-735**	**-457**
TOTAL NET CASH	**549**	**-1421**	**-2984**	**118**	**75**	**263**	**-257**	**516**	**387**	**458**	**421**	**204**	**-1011**	**-742**	**-185**	**-150**	**45**	**113**	**177**	**-34**	**-43**	**70**	**425**	**572**	**955**
Current Year Cash	549	-1421	-2984	118	75	263	-257	516	387	458	421	204	-1011	-742	-185	-150	45	113	177	-34	-43	70	425	572	955
Cash & Investments @Year Start	5934	6294	4731	1696	1761	1782	1986	1678	2131	2444	2818	3145	3252	2175	1391	1171	991	1006	1086	1227	1158	1083	1119	1499	2011
Cash & Investments @Year End	**6483**	**4873**	**1747**	**1814**	**1836**	**2045**	**1729**	**2195**	**2517**	**2902**	**3239**	**3349**	**2240**	**1433**	**1206**	**1021**	**1036**	**1119**	**1263**	**1193**	**1115**	**1153**	**1544**	**2071**	**2966**
Capital Works Funding:																									
Internal Funding for New Works ($'000)	310	2166	3706	506	156	0	510	-190	10	10	60	360	1410	1010	310	110	10	10	10	10	60	60	10	10	10
Internal Funding for Renewals	399	322	324	326	328	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
New Loans	17	150	4550	1500	6000	0	1000	0	0	0	0	0	2100	2500	2000	2101	0	0	0	3000	0	0	0	0	0
Grants	88	750	2750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Works	**814**	**3388**	**11330**	**2332**	**6484**	**335**	**1845**	**145**	**345**	**345**	**395**	**695**	**3845**	**3845**	**2645**	**2546**	**345**	**345**	**345**	**3345**	**395**	**395**	**345**	**345**	**345**

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Statement of Financial Position

FINMOD
DEPARTMENT OF COMMERCE

	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
Cash and Investments	6483	4873	1747	1814	1836	2045	1729	2195	2517	2902	3239	3349	2240	1433	1206	1021	1036	1119	1263	1193	1115	1153	1544	2071	2966
Receivables	87	88	90	92	98	100	102	104	107	109	111	113	115	117	119	121	123	125	126	128	130	132	134	135	137
Inventories	18	18	19	19	20	21	21	21	21	21	22	22	22	22	22	23	24	24	25	25	25	26	26	26	27
Property, Plant & Equipment	*18949*	*21549*	*31932*	*33288*	*38710*	*37981*	*38740*	*37803*	*37065*	*36328*	*35641*	*35248*	*37955*	*40612*	*42035*	*43328*	*42419*	*41510*	*40601*	*42649*	*41747*	*40843*	*39889*	*38936*	*37982*
System Assets (1)	18949	21549	31932	33288	38710	37981	38740	37803	37065	36328	35641	35248	37955	40612	42035	43328	42419	41510	40601	42649	41747	40843	39889	38936	37982
Plant & Equipment	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 Assets	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 ASSETS	**25537**	**26528**	**33787**	**35213**	**40663**	**40147**	**40592**	**40123**	**39710**	**39361**	**39012**	**38731**	**40332**	**42184**	**43383**	**44492**	**43601**	**42778**	**42015**	**43996**	**43017**	**42153**	**41593**	**41169**	**41112**
LIABILITIES																									
Bank Overdraft	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
Creditors	14	15	15	16	17	17	18	18	18	18	19	19	19	19	19	19	19	19	19	19	20	20	21	21	22
Borrowings	909	979	5330	6460	11896	11161	11408	10634	9865	9104	8349	7597	8895	10549	11580	12606	11476	10352	9233	11042	9766	8502	7472	6520	5874
Provisions	110	112	113	116	124	127	130	133	135	138	141	143	146	148	151	153	156	158	160	163	165	167	169	171	174
TOTAL LIABILITIES	**1033**	**1105**	**5459**	**6592**	**12037**	**11305**	**11556**	**10784**	**10018**	**9261**	**8508**	**7759**	**9060**	**10717**	**11750**	**12779**	**11651**	**10530**	**9413**	**11224**	**9951**	**8690**	**7662**	**6713**	**6069**
NET ASSETS COMMITTED	**24504**	**25423**	**28329**	**28621**	**28626**	**28841**	**29036**	**29339**	**29692**	**30100**	**30504**	**30972**	**31272**	**31467**	**31633**	**31713**	**31950**	**32248**	**32602**	**32772**	**33066**	**33463**	**33931**	**34456**	**35043**
EQUITY																									
Accumulated Operating Result	23954	24338	26647	26059	25168	24357	23576	22909	22349	21891	21476	21169	20728	20124	19438	18649	18004	17473	17049	16489	16015	15692	15488	15389	15397
Asset Revaluation Reserve	550	1085	1682	2562	3458	4485	5460	6430	7343	8209	9028	9803	10545	11343	12195	13064	13946	14775	15554	16283	17052	17771	18443	19067	19646
TOTAL EQUITY	**24504**	**25423**	**28329**	**28621**	**28626**	**28841**	**29036**	**29339**	**29692**	**30100**	**30504**	**30972**	**31272**	**31467**	**31633**	**31713**	**31950**	**32248**	**32602**	**32772**	**33066**	**33463**	**33931**	**34456**	**35043**
(1) Notes to System Assets																									
Current Replacement Cost	41775	44841	55847	57853	64009	64009	65519	65329	65339	65349	65409	65769	69278	72788	75098	77309	77319	77329	77339	80349	80409	80470	80479	80490	80500
Less: Accumulated Depreciation	22826	23292	23915	24564	25300	26028	26779	27526	28273	29020	29768	30521	31323	32176	33063	33981	34900	35819	36738	37700	38663	39627	40590	41554	42517
Written Down Current Cost	18949	21549	31932	33288	38710	37981	38740	37803	37065	36328	35641	35248	37955	40612	42035	43328	42419	41510	40601	42649	41747	40843	39889	38936	37982

MWRC Sewer Fund Financial Model - 2006-07 : Preferred Case

Performance Indicators

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	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
Typical Residential Bills	460	460	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490
Average Residential Bills (2006/07$)	440	441	471	471	472	473	473	474	474	474	475	475	476	477	477	477	477	478	478	478	479	479	480	480	480
Mgmnt Cost / Assessment (2006/07$)	117	129	123	102	103	106	103	102	103	103	106	103	102	103	102	107	103	103	103	103	106	103	103	103	103
OMA Cost per Assessment (2006/07$)	327	352	337	325	317	320	317	316	317	317	320	316	316	317	317	320	317	316	317	317	320	317	317	317	317
Operating Sales Margin (%)	9.47	3.19	12.94	14.62	14.90	14.65	15.17	15.73	16.11	16.44	15.52	16.26	15.47	14.60	14.07	12.92	13.85	14.14	14.31	13.66	13.30	14.29	14.58	14.81	15.09
Economic Real Rate of Return (%)	1.53	0.46	1.44	1.59	1.48	1.51	1.56	1.69	1.80	1.91	1.86	2.00	1.80	1.61	1.52	1.37	1.52	1.61	1.69	1.55	1.56	1.74	1.84	1.94	2.05
Debt Service Ratio	0.03	0.04	0.14	0.17	0.30	0.28	0.29	0.28	0.26	0.25	0.24	0.23	0.26	0.29	0.32	0.34	0.33	0.32	0.30	0.35	0.33	0.32	0.26	0.23	0.16
Debt/Equity Ratio	0.04	0.04	0.19	0.23	0.42	0.39	0.39	0.36	0.33	0.30	0.27	0.25	0.28	0.34	0.37	0.40	0.36	0.32	0.28	0.34	0.30	0.25	0.22	0.19	0.17
Interest Cover	10.91	5.94	1.75	1.44	0.83	0.89	0.91	1.03	1.16	1.31	1.39	1.62	1.29	1.00	0.87	0.74	0.87	0.99	1.13	0.92	1.01	1.24	1.48	1.76	2.13
Return on capital (%)	2.44	1.58	2.32	1.76	1.62	1.66	1.70	1.82	1.94	2.06	2.02	2.16	1.94	1.69	1.58	1.42	1.56	1.65	1.72	1.59	1.60	1.77	1.87	1.97	2.09
Cash and Investments (2006/07$'000)	6483	4873	1747	1814	1836	2045	1729	2195	2517	2902	3239	3349	2240	1433	1206	1021	1036	1119	1263	1193	1115	1153	1544	2071	2966
Debt outstanding (2006/07$'000)	909	979	5330	6460	11896	11161	11408	10634	9865	9104	8349	7597	8895	10549	11580	12606	11476	10352	9233	11042	9766	8502	7472	6520	5874
Net Debt (2006/07$'000)	0	0	3583	4646	10060	9116	9679	8439	7348	6202	5110	4248	6655	9116	10374	11585	10440	9233	7970	9849	8651	7349	5928	4449	2908

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STANDARD LOAN PAYMENT SCHEDULE

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Drawdown		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
2006/07	Principal 17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	2	2	2	2	0	0	0	0	0
	Interest	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007/08	Principal 154		4	4	4	4	5	6	6	6	6	7	8	8	8	9	10	10	11	12	12	14	0	0	0	0
	Interest		10	10	10	10	8	8	8	8	8	7	6	6	6	5	4	4	3	2	2	0	0	0	0	0
2008/09	Principal 4827			122	131	140	149	159	169	181	193	205	219	233	248	265	282	301	321	342	364	388	415	0	0	0
	Interest			312	304	295	286	276	265	255	243	229	216	202	186	170	152	133	113	93	70	46	20	0	0	0
2009/10	Principal 1639				42	45	47	51	54	57	61	65	69	75	79	84	90	96	102	109	116	124	132	140	0	0
	Interest				106	103	100	97	93	91	87	83	78	73	69	63	58	52	46	38	32	24	16	7	0	0
2010/11	Principal 6753					172	183	195	208	222	236	252	269	287	305	326	348	370	395	421	449	478	510	544	580	0
	Interest					436	425	413	400	386	372	356	339	321	303	282	261	238	213	187	159	130	98	65	29	0
2012/13	Principal 1194							30	32	35	37	39	42	45	47	51	54	57	61	65	69	75	79	85	90	96
	Interest							77	75	73	71	68	65	63	60	57	53	49	47	42	37	33	28	23	17	11
2018/19	Principal 2994													77	81	87	92	98	105	112	120	128	136	144	154	164
	Interest													193	189	183	177	171	164	158	150	142	134	125	116	105
2019/20	Principal 3672														93	100	106	114	120	128	138	146	156	166	177	189
	Interest														237	231	224	218	210	202	194	184	175	165	153	141
2020/21	Principal 3025															77	82	87	93	100	106	113	120	128	137	146
	Interest															195	190	185	179	173	166	160	152	144	136	126
2021/22	Principal 3273																83	89	95	101	108	114	122	130	139	148
	Interest																211	206	200	194	187	180	172	164	156	146
2025/26	Principal 5261																				134	143	152	162	173	185
	Interest																				340	331	322	311	301	289
Total Principal	**32809**	0	4	126	177	361	384	441	469	501	533	568	607	725	862	1001	1149	1224	1305	1392	1618	1723	1822	1499	1450	928
Total Interest		2	12	324	421	844	819	871	841	813	781	743	704	858	1050	1186	1330	1256	1175	1089	1337	1230	1117	1004	908	818

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Summary Report of Assumptions and Results

FINMOD
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	2006/07	2010/11	2015/16	2020/21	2025/26	2030/31	2035/36
Inflation Rates - General (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Inflation Rates - Capital Works (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Borrowing Interest Rate (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Term of New Loans (years)	20	20	20	20	20	20	20
Investment Interest Rate (%)	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Growth Rate - Residential (%)	1.18	7.29	1.99	1.75	1.50	1.33	1.24
Developer Charges per Assessment - Residential (2006/07 $)	1300	2649	2649	2649	2649	2649	2649
Subsidised Scheme Capital Works ($m)	0.35	6.00	0.00	2.30	3.00	0.00	0.00
Grants on Acquisition of Assets ($m)	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Renewals ($m)	0.40	0.33	0.34	0.34	0.34	0.34	0.34
Renewals (%)	0.96	0.51	0.51	0.45	0.42	0.42	0.42
Borrowing Outstanding ($m)	0.91	11.90	9.10	11.58	11.04	5.87	2.88
Mgmnt Cost / Assessment	117	103	103	102	103	103	103
Debt Equity Ratio	0.04	0.37	0.23	0.24	0.19	0.08	0.03
OMA Cost Per Assessment	327	317	317	317	317	317	317
Economic Real Rate of Return (%)	1.53	1.48	1.91	1.52	1.55	2.05	2.70
Return on Capital (%)	2.44	1.62	2.06	1.58	1.59	2.09	2.63
Net Debt ($m)	0.00	10.06	6.20	10.37	9.85	2.91	0.00
Debt Service Ratio	0.03	0.30	0.25	0.32	0.35	0.16	0.12
Average Residential Bills	440	472	474	477	478	480	482
Typical Residential Bills	460	490	490	490	490	490	490